



Comune di TRAPANI

OGGETTO:

"EX MATTATOIO COMUNALE" DI TRAPANI CAMPUS del MEDITERRANEO

PROGETTO DI RECUPERO FUNZIONALE E RIUSO DI ALCUNI CAPANNONI DELL'EX MATTATOIO COMUNALE PER REALIZZARE LABORATORI ARTIGINALI E SPAZI FORMATIVI PER MIGRANTI REGOLARI - CUP: I98D20000050001

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TITOLO

TIPOLOGIA

ELABORATO

PROGETTAZIONE ESECUTIVA

STRUTTURE

STRALCIO 1

FASCICOLO DEI CALCOLI - EDIFICIO F e CAPRIATA

DISEGNO SCALA

-

TITOLO

TIPOLOGIA

ELABORATO

PE1

S03

005

CODICE DI RIFERIMENTO

07.10 OM 182

DATA PROGETTO

15.APR.2021

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DATA

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RELAZIONE DI CALCOLO

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15. VERIFICA A PRESSOFLESSIONE NEL PIANO (§7.8.2.2.1) [SLV] - C.Sic: 1.215 (Analisi Sismica Dinamica Modale)

16. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.215 (Analisi Sismica Dinamica Modale)

17. VERIFICA A TAGLIO PER SCORRIMENTO (§7.8.2.2.2) [SLV] - C.Sic: 1.757 (Analisi Sismica Dinamica Modale)

18. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.757 (Analisi Sismica Dinamica Modale)

19. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§C8.7.1.3.1) [SLV] - C.Sic: 1.394 (Analisi Sismica Dinamica Modale)

20. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§C8.7.1.3.1) [SLV] - C.Sic: 1.394 (Analisi Sismica Dinamica Modale)

21. VERIFICA A PRESSOFLESSIONE ORTOGONALE (§7.2.3, §7.8.1.5.2, §7.8.3.2.3) [SLV] - C.Sic: 4.699 (Analisi Sismica Dinamica Modale)

22. VERIFICHE PER STATO LIMITE ULTIMO DI TIPO GEOTECNICO (§6.4.2.1, §7.2.5) [SLV] - C.Sic: 1.143 (Analisi Sismica Dinamica Modale)

23. SPOSTAMENTI DI INTERPIANO [SLV]

24. CONTROLLO EFFETTI DEL SECONDO ORDINE [SLV] (§7.3.1, EC8-1: §4.4.2.2)

1. NORMATIVA DI RIFERIMENTO

D.M. 17.1.2018: "Aggiornamento delle "Norme tecniche per le costruzioni", Supplemento ordinario alla "Gazzetta Ufficiale", n.42 del 20 febbraio 2018.

Circolare 21.1.2019, n. 7 C.S.LL.PP.: Istruzioni per l'applicazione dell'«Aggiornamento delle "Norme tecniche per le costruzioni"» di cui al decreto ministeriale 17 gennaio 2018.

Edifici monumentali: Direttiva del Presidente del Consiglio dei Ministri del 9.2.2011: "Valutazione e riduzione del rischio sismico del patrimonio culturale con riferimento alle Norme tecniche per le costruzioni di cui al decreto del Ministero delle infrastrutture e dei trasporti del 14 gennaio 2008", di cui costituisce parte integrante la **Circ. 26 del 2.12.2010 del Ministero per i Beni e le Attività Culturali:** "Linee guida per la valutazione e riduzione del rischio sismico del patrimonio culturale".

FRP:

Istruzioni per la Progettazione, l'Esecuzione ed il Controllo di Interventi di Consolidamento Statico mediante l'utilizzo di Compositi Fibrorinforzati, CNR-DT 200 R1/2012.

Linee guida per la Progettazione, l'Esecuzione ed il Collaudo di Interventi di Rinforzo di strutture di c.a., c.a.p. e murarie mediante FRP, documento approvato il 24 luglio 2009 dall'assemblea Generale del Consiglio Superiore dei Lavori Pubblici.

Indirizzi per l'esecuzione degli interventi di cui all'Ordinanza del Presidente del Consiglio dei Ministri n.3790 del 17.7.2009 (Riparazione con miglioramento sismico di edifici danneggiati), a cura della Presidenza del Consiglio dei Ministri, Dipartimento della Protezione Civile, Commissario Delegato (Eventi sismici provincia di L'Aquila, 6 aprile 2009).

Riferimenti tecnici: EuroCodici

Per quanto non diversamente specificato nel D.M.14.1.2008, si intendono coerenti con i principi alla base del Decreto le indicazioni riportate nei documenti di riferimento elencati in §12; fra questi: gli EuroCodici strutturali, così organizzati:

Criteri generali di progettazione strutturale

UNI EN 1990:2006

Eurocodice 1 – Azioni sulle strutture

UNI EN 1991-1-1:2004 Parte 1-1: Azioni in generale - Pesì per unità di volume, pesì propri e sovraccarichi per gli edifici

UNI EN 1991-1-2:2004 Parte 1-2: Azioni in generale - Azioni sulle strutture esposte al fuoco

UNI EN 1991-1-3:2004 Parte 1-3: Azioni in generale - Carichi da neve

UNI EN 1991-1-4:2005 Parte 1-4: Azioni in generale - Azioni del vento

UNI EN 1991-1-5:2004 Parte 1-5: Azioni in generale - Azioni termiche

UNI EN 1991-1-6:2005 Parte 1-6: Azioni in generale - Azioni durante la costruzione

UNI EN 1991-1-7:2006 Parte 1-7: Azioni in generale - Azioni eccezionali

UNI EN 1991-2:2005 Parte 2: Carichi da traffico sui ponti

UNI EN 1991-3:2006 Parte 3: Azioni indotte da gru e da macchinari

UNI EN 1991-4:2006 Parte 4: Azioni su silos e serbatoi

Eurocodice 2 – Progettazione delle strutture in calcestruzzo

UNI EN 1992-1-1:2005 Parte 1-1: Regole generali e regole per gli edifici

UNI EN 1992-1-2:2005 Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio

UNI EN 1992-2:2006 Parte 2: Ponti di calcestruzzo - Progettazione e dettagli costruttivi

UNI EN 1992-3:2006 Parte 3: Strutture di contenimento liquidi

Eurocodice 3 – Progettazione delle strutture in acciaio

UNI EN 1993-1-1:2005 Parte 1-1: Regole generali e regole per gli edifici

UNI EN 1993-1-2:2005 Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio

UNI EN 1993-1-3:2007 Parte 1-3: Regole generali - Regole supplementari per l'impiego dei profilati e delle lamiere sottili piegati a freddo

UNI EN 1993-1-4:2007 Parte 1-4: Regole generali - Regole supplementari per acciai inossidabili

UNI EN 1993-1-5:2007 Parte 1-5: Elementi strutturali a lastra

UNI EN 1993-1-6:2007 Parte 1-6: Resistenza e stabilità delle strutture a guscio

UNI EN 1993-1-7:2007 Parte 1-7: Strutture a lastra ortotropa caricate al di fuori del piano

UNI EN 1993-1-8:2005 Parte 1-8: Progettazione dei collegamenti

UNI EN 1993-1-9:2005 Parte 1-9: Fatica

UNI EN 1993-1-10:2005 Parte 1-10: Resilienza del materiale e proprietà attraverso lo spessore

UNI EN 1993-1-11:2007 Parte 1-11: Progettazione di strutture con elementi tesi

UNI EN 1993-1-12:2007 Parte 1-12: Regole aggiuntive per l'estensione della EN 1993 fino agli acciai di grado S 700

UNI EN 1993-2:2007 Parte 2: Ponti di acciaio

UNI EN 1993-3-1:2007 Parte 3-1: Torri, pali e ciminiera - Torri e pali

UNI EN 1993-3-2:2007 Parte 3-2: Torri, pali e ciminiera - Ciminiera

UNI EN 1993-4-1:2007 Parte 4-1: Silos

UNI EN 1993-4-2:2007 Parte 4-2: Serbatoi

UNI EN 1993-4-3:2007 Parte 4-3: Condotte

UNI EN 1993-5:2007 Parte 5: Pali e palancole

UNI EN 1993-6:2007 Parte 6: Strutture per apparecchi di sollevamento

Eurocodice 4 – Progettazione delle strutture composte acciaio-calcestruzzo

UNI EN 1994-1-1:2005 Parte 1-1: Regole generali e regole per gli edifici

UNI EN 1994-1-2:2005 Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio

UNI EN 1994-2:2006 Parte 2: Regole generali e regole per i ponti

Eurocodice 5 – Progettazione delle strutture in legno

UNI EN 1995-1-1:2005 Parte 1-1: Regole generali - Regole comuni e regole per gli edifici

UNI EN 1995-1-2:2005 Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio

UNI EN 1995-2:2005 Parte 2: Ponti

Eurocodice 6 – Progettazione delle strutture in muratura

UNI EN 1996-1-1:2006 Parte 1-1: Regole generali per strutture di muratura armata e non armata

UNI EN 1996-1-2:2005 Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio

UNI EN 1996-2:2006 Parte 2: Considerazioni progettuali, selezione dei materiali ed esecuzione delle murature

UNI EN 1996-3:2006 Parte 3: Metodi di calcolo semplificato per strutture di muratura non armata

Eurocodice 7 – Progettazione geotecnica

UNI EN 1997-1:2005 Parte 1: Regole generali

UNI EN 1997-2:2007 Parte 2: Indagini e prove nel sottosuolo

Eurocodice 8 – Progettazione delle strutture per la resistenza sismica

UNI EN 1998-1:2005 Parte 1: Regole generali, azioni sismiche e regole per gli edifici
UNI EN 1998-2:2006 Parte 2: Ponti
UNI EN 1998-3:2005 Parte 3: Valutazione e adeguamento degli edifici
UNI EN 1998-4:2006 Parte 4: Silos, serbatoi e condotte
UNI EN 1998-5:2005 Parte 5: Fondazioni, strutture di contenimento ed aspetti geotecnici
UNI EN 1998-6:2005 Parte 6: Torri, pali e camini

Eurocodice 9 – Progettazione delle strutture in alluminio

UNI EN 1999-1-1:2007 Parte 1-1: Regole strutturali generali
UNI EN 1999-1-2:2007 Parte 1-2: Progettazione strutturale contro l'incendio
UNI EN 1999-1-3:2007 Parte 1-3: Strutture sottoposte a fatica
UNI EN 1999-1-4:2007 Parte 1-4: Lamiere sottili piegate a freddo
UNI EN 1999-1-5:2007 Parte 1-5: Strutture a guscio

Norme Italiane precedenti al D.M. 17.1.2018:

D.M. 14.1.2008: "Approvazione delle nuove norme tecniche per le costruzioni", Supplemento ordinario alla "Gazzetta Ufficiale", n.29 del 4 febbraio 2008.

Circolare 2.2.2009, n.617: "Istruzioni per l'applicazione delle "Nuove norme tecniche per le costruzioni" di cui al D.M. 14.1.2008.

Le norme elencate nel seguito sono in generale da considerarsi superate dal D.M.14.1.2008; esse possono costituire tuttavia utili fonti di riferimento per la comprensione dello sviluppo dei metodi di calcolo adottati dalle NTC.

D.M. 14.9.2005: "Norme Tecniche per le Costruzioni" (ex Testo Unico)

In campo antisismico, il D.M. 14.9.2005 definisce l'azione sismica [§3.2] e fissa i livelli di sicurezza. Nel rispetto di tali presupposti, il D.M.14.9.2005 può fare riferimento all'OPCM 3274 e s.m.i. [§5.7.1.1] per le indicazioni attuative sulle verifiche di sicurezza.

Sismica: Ordinanza P.C.M. n. 3274 del 20.3.2003: "Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica", e successive modifiche e integrazioni:

Ordinanza P.C.M. n. 3316 del 2.10.2003 e Ordinanza P.C.M. n. 3431 del 3.5.2005

Sismica: D. P.C.M. del 21.10.2003: "Disposizioni attuative dell'art.2, commi 2, 3 e 4, dell'Ordinanza del Presidente del Consiglio dei Ministri n.3274 del 20 marzo 2003".

Norme strutturali precedenti all'OPCM 3274 (per la Sismica) e al D.M. 14.9.2005:

Legge n.64 del 2.2.1974: "Provvedimenti per le costruzioni, con particolari prescrizioni per le zone sismiche."

Regione Autonoma Friuli Venezia Giulia - Legge Regionale n. 30 del 20.6.1977: "Documentazione tecnica per la progettazione e direzione delle opere di riparazione degli edifici - Documento Tecnico n. 2 - Raccomandazioni per la riparazione strutturale degli edifici in muratura."

Regione Umbria, Art.38 L.R. 1.7.1981, n.34: "Direttive tecniche ed esemplificazioni delle metodologie di intervento per la riparazione ed il consolidamento degli edifici danneggiati da eventi sismici."

D.M. 2.7.1981: "Normativa per le riparazioni ed il rafforzamento degli edifici danneggiati dal sisma nelle regioni Basilicata, Campania e Puglia."

Circolare Min.LL.PP. n.21745 del 30.7.1981: "Istruzioni relative alla normativa tecnica per la riparazione ed il rafforzamento degli edifici in muratura danneggiati dal sisma."

D.M. 16.1.1996: "Norme tecniche per le costruzioni in zone sismiche."

Circolare Min.LL.PP. n.65 del 10.4.1997: "Istruzioni per l'applicazione delle "Norme Tecniche per le costruzioni in zone sismiche" di cui al D.M. 16.1.1996."

Servizio Sismico Nazionale (S.S.N.) - Associazione Nazionale Italiana di Ingegneria Sismica (A.N.I.D.I.S.): "Commentario al D.M. 16.1.1996 ed alla Circ. n.65 del 10.4.1997 del Ministero LL.PP.", coord. F.Braga, 1998

D.G.R. Umbria n.5180 del 14.9.1998 e D.G.R. Marche n.2153 del 14.9.1998 in attuazione Legge 61/98: "Eventi sismici del 12 maggio, 26 settembre 1997 e successivi - Modalità e procedure per la concessione dei contributi previsti dall'art.4 della Legge 61/98 - Allegato B".

Provincia di Perugia, Servizio Sismico Nazionale: "Terremoto in Umbria e Marche del 1997. Criteri di calcolo per la progettazione degli interventi. Verifiche sismiche ed esempi per l'applicazione delle Direttive Tecniche D.G.R. Umbria 5180/98 e D.G.R. Marche 2153/98 in attuazione L.61/98", coord. A.De Sortis, G.Di Pasquale, U.Nasini, 1998.

Murature: D.M. 20.11.1987: "Norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento."

Circolare Min.LL.PP. n.30787 del 4.1.1989: "Istruzioni in merito alle norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento."

Carichi: D.M. 16.1.1996: "Norme tecniche relative ai criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi."

DATI

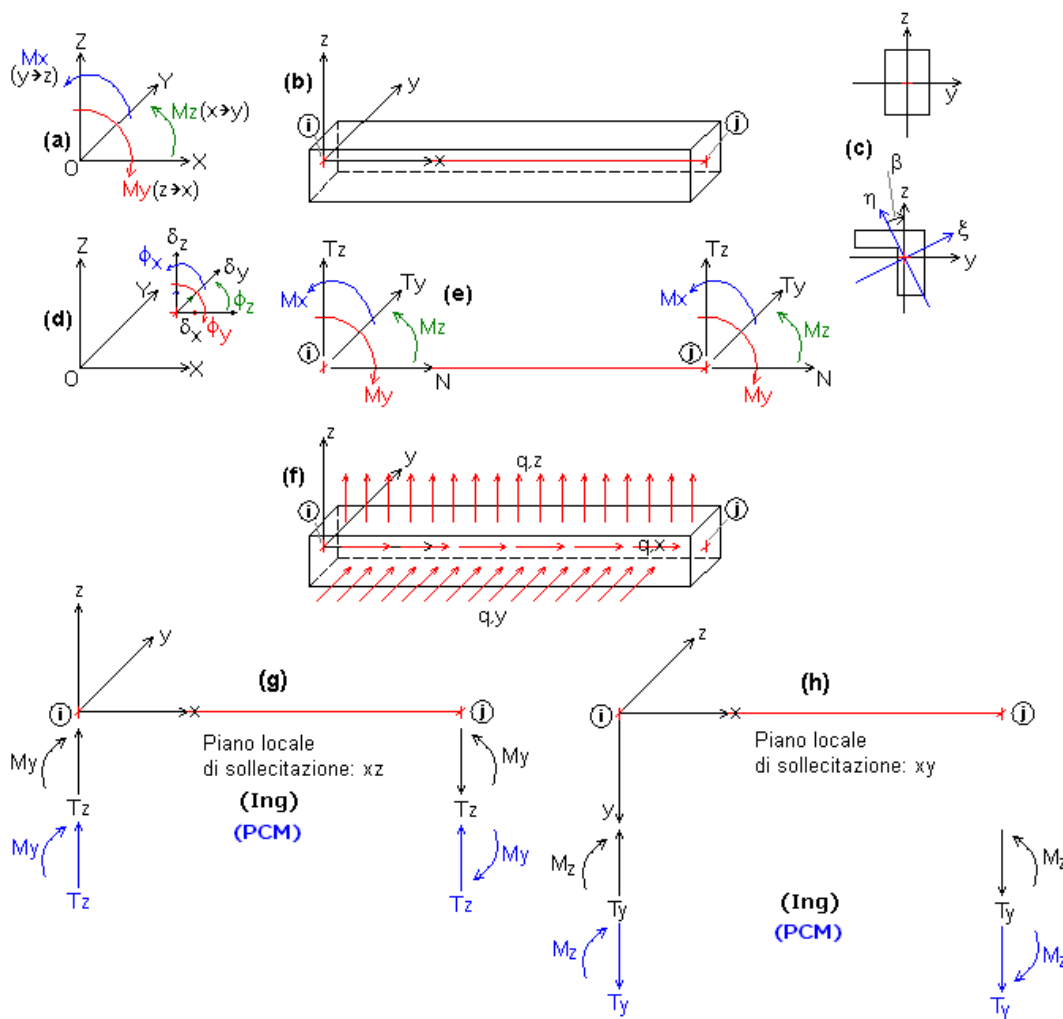
CARATTERISTICHE DEL SOFTWARE

Aedes.PCM, Progettazione di Costruzioni in Muratura © 1997-2020 AEDES Software

Risoluzione ad elementi finiti di strutture composte da aste rettilinee comunque vincolate, inclinate e caricate nello spazio (3D), applicata alle costruzioni in muratura attraverso la modellazione a "telaio equivalente", rappresentativo delle pareti murarie e degli elementi strutturali a loro collegati. Analisi: Modale, Statica lineare non sismica, Sismica: Statica, Dinamica modale, Statica non lineare (Pushover), in accordo con la Normativa vigente.

CONVENZIONI SUI SEGNI

Convenzioni su: Sistemi di riferimento, Carichi, Sollecitazioni (forze e momenti), Spostamenti (traslazioni e rotazioni), Pareti in Muratura.



1) Sistemi di riferimento utilizzati da PCM.

- **Sistema di riferimento globale X Y Z**, con origine in O (punto di coordinate nulle). E' una terna destrorsa, rappresentata in fig. (a). Il piano XY è orizzontale; i piani XZ e YZ sono verticali.

- **Sistema di riferimento locale x y z** per le aste: è una terna cartesiana destrorsa così definita: - origine nel nodo iniziale *i* dell'asta; - asse x coincidente con l'asse dell'asta e con verso dal nodo iniziale *i* al nodo finale *j*. La terna locale xyz si può immaginare derivante dalla globale XYZ dopo una serie di trasformazioni:

- una rotazione intorno all'asse Z che porti l'asse X a coincidere con la proiezione dell'asta sul piano orizzontale;
- una traslazione lungo il nuovo asse X così definito in modo da portare l'origine a coincidere con la proiezione del nodo iniziale dell'asta sul piano orizzontale;
- una traslazione lungo l'asse Z che porti l'origine a coincidere con il nodo iniziale dell'asta;
- una rotazione intorno all'asse Y così definito che porti l'asse X a coincidere con l'asse dell'asta;
- una rotazione intorno all'asse X così definito pari all'Angolo di Rotazione dell'asta, definito nei Dati Aste.

In pratica, con riferimento alla tipologia degli edifici (elementi orizzontali = travi, elementi verticali = pilastri):

- le travi con Angolo di Rotazione nullo hanno sempre l'asse z rivolto verso l'alto e l'asse y nel piano del solaio (piano orizzontale);
- i pilastri con Angolo di Rotazione nullo hanno l'asse y parallelo all'asse Y globale e l'asse z parallelo ma controvverso all'asse X globale.

In fig. (b) è rappresentato il caso di una trave appartenente ad un telaio orientato secondo X (posto cioè nel piano XZ): l'asse x è l'asse baricentrico dell'asta, con verso congiungente il nodo iniziale *i* con il nodo finale *j*; l'asse z è verticale, e l'asse y è parallelo all'asse Y globale (per l'osservatore: entrante nel piano xz).

- **Sistema di riferimento locale principale x ξ η**, che a causa di alcune tipologie di sezione non simmetriche o di rotazioni delle aste (per esempio, per pilastri aventi sezione rettangolare ma obliqui in pianta), può non coincidere con x y z : fig. (c). In tal caso, l'angolo β rappresenta la rotazione degli assi principali per fare in modo che il riferimento locale principale x ξ η si sovrapponga al riferimento locale x y z (parallelo alla terna globale nel caso delle travi). L'angolo è positivo se orario, visto dall'asta (osservatore che da +x guarda il nodo iniziale *i*). Le caratteristiche di sollecitazione sono calcolate nel sistema di riferimento locale principale (in generale, quindi, il momento My è da intendersi come Mξ, mentre Mz come Mη). Gli assi principali vengono definiti in modo tale che siano sovrapponibili per rotazione agli assi yz.

In PCM, per semplicità, gli assi locali yz sono considerati coincidenti con gli assi principali ξ η. Definendo ad esempio un pilastro con sezione a L e angolo β nullo, in pianta la sua sezione risulterà 'ruotata' rispetto ad assi di riferimento globali XY paralleli all'anima e all'ala della sezione a L; per riportare la sezione in posizione parallela agli assi globali è sufficiente ruotare l'asta cui appartiene di un angolo β pari all'angolo principale (mostrato nei Dati Sezioni).

2) Forze e Spostamenti.

PCM adotta una convenzione univoca sia per le azioni esterne (carichi e cedimenti applicati ai nodi, carichi e sulle aste), sia per le azioni interne (caratteristiche di sollecitazione e di deformazione).

Forze e spostamenti sono positivi se equiversi agli assi; coppie e rotazioni sono positive se antiorarie (x->y, y->z, z->x).

Per le azioni interne sull'asta *i-j*, la convenzione è invariata sia al nodo *i* iniziale, sia al nodo *j* finale.

2.1) Carichi.

Nodi. Possono essere applicati i seguenti carichi:

- Carichi Concentrati: $P_X, P_Y, P_Z, M_X, M_Y, M_Z$ (forze e coppie)
- Cedimenti Vincolari: $d_X, d_Y, d_Z, \phi_X, \phi_Y, \phi_Z$ (cedimenti traslazionali e rotazionali)
- Masse Concentrate: $m_X, m_Y, m_Z, I_X, I_Y, I_Z$ (masse traslazionali e inerzie rotazionali)

Le forze concentrate ed i cedimenti vincolari traslazionali sono **positivi se equiversi agli assi globali X, Y, Z** ; le coppie concentrate ed i cedimenti vincolari rotazionali sono **positivi se antiorari** (si tratta delle medesime convenzioni adottate in ogni parte di PCM, per esempio anche per gli spostamenti incogniti e per le reazioni vincolari).

Aste. Le tipologie di carico consentite sono le seguenti (fig. (f)):

- Carico Distribuito Uniforme: $Q_{duX}, Q_{duY}, Q_{duZ}$
- Carico Distribuito Lineare (max al vertice iniziale 'i'): $Q_{dlX}, Q_{dlY}, Q_{dlZ}$
- Carico Distribuito Lineare (max al vertice finale 'j'): $Q_{dljX}, Q_{dljY}, Q_{dljZ}$
- Carico Concentrato: $P_X, P_Y, P_Z, M_X, M_Y, M_Z, D_P$ [P, M = intensità delle componenti del carico concentrato: forze e coppie; D_P = distanza del carico concentrato dal vertice iniziale i]
- Carico Termico (nel piano locale xy): $\Delta T_{sup}, \Delta T_{inf}$.

I carichi agenti sulle aste (distribuiti e concentrati) sono forniti in coordinate globali (le componenti X, Y, Z sono parallele alle corrispondenti direzioni globali). Nel sistema di riferimento locale, le componenti di carico hanno il seguente significato: x : carico lungo l'asse dell'asta; y : carico ortogonale all'asta nel piano xy ; z : carico ortogonale all'asta nel piano xz .

I carichi (distribuiti e concentrati) sono positivi se equiversi agli assi globali o locali, a seconda del sistema di riferimento; le coppie sono positive se antiorarie.

Con questa convenzione, ad esempio per le travi di un impalcato, i carichi dovuti ai pesi sono di tipo Z , con segno negativo.

2.2) Caratteristiche di Sollecitazione.

In fig. (e) sono rappresentate le azioni interne.

Relazioni fra PCM e le consuete convenzioni ingegneristiche (Ing).

Le caratteristiche di sollecitazione (azioni interne derivanti dal calcolo) hanno segno concorde con gli assi locali, e la convenzione è invariata sia per il nodo iniziale i sia per il nodo finale j . Ciò può comportare alcune discordanze con i segni attribuiti dalla consueta convenzione ingegneristica.

Nel seguito, vengono specificate le convenzioni sulle singole caratteristiche di sollecitazione, indicando con (Ing) la convenzione ingegneristica (che in PCM determina il tracciamento dei diagrammi), e con (PCM) la convenzione adottata da PCM.

Momento Flettente M_y (piano locale di sollecitazione: xz):

(Ing) Il diagramma del Momento M_y viene rappresentato sempre dalla parte delle fibre tese. Si attribuisce segno + (fig. (g)) al Momento M_y rappresentato nel semipiano $z < 0$. Pertanto, $M_y +$ tende le fibre a $z < 0$.

(PCM) $M_y +$ se porta z su x . Pertanto: $M_y +$ al nodo i indica fibre tese per $z < 0$; $M_y +$ al nodo j indica fibre tese per $z > 0$.

Concordanza dei segni:

Nodo i (PCM) concorde con (Ing).

Nodo j (PCM) discorde con (Ing).

Taglio T_z (piano locale di sollecitazione: xz):

(Ing) Il Taglio $T_z +$ tende a far ruotare il concio elementare in senso orario. Il Taglio $T_z +$ è rappresentato nello stesso semipiano di $M_y +$, cioè nel semipiano $z < 0$.

(PCM) $T_z +$ se orientato lungo $+z$.

Concordanza dei segni:

Nodo i (PCM) concorde con (Ing).

Nodo j (PCM) discorde con (Ing).

Sforzo Normale N :

(Ing) Lo Sforzo Normale è + se genera trazione, - se compressione. In un'asta tesa, N è sempre +.

Il diagramma di N si rappresenta convenzionalmente nel piano di sollecitazione xz , con $N +$ posto nello stesso semipiano di $M_y +$, cioè nel semipiano $z < 0$.

(PCM) $N +$ se equiverso all'asse locale x . $N +$ al nodo i indica compressione; $N +$ al nodo j indica trazione. Pertanto, un'asta tesa ha $N -$ al nodo i e $N +$ al nodo j .

Concordanza dei segni:

Nodo i (PCM) discorde con (Ing).

Nodo j (PCM) concorde con (Ing).

Momento Flettente M_z (piano locale di sollecitazione: xy):

(Ing) Il diagramma del Momento M_z viene rappresentato sempre dalla parte delle fibre tese. Si attribuisce segno + (fig. (h)) al Momento M_z rappresentato nel semipiano $y > 0$. Pertanto, $M_z +$ tende le fibre a $y > 0$.

(PCM) $M_z +$ se porta x su y . Pertanto: $M_z +$ al nodo i indica fibre tese per $y > 0$; $M_z +$ al nodo j indica fibre tese per $y < 0$.

Concordanza dei segni:

Nodo i (PCM) concorde con (Ing).

Nodo j (PCM) discorde con (Ing).

Taglio T_y (piano locale di sollecitazione: xy):

(Ing) Il Taglio $T_y +$ tende a far ruotare il concio elementare in senso orario. Il Taglio $T_y +$ è rappresentato nello stesso semipiano di $M_z +$, cioè nel semipiano $y > 0$.

(PCM) $T_y +$ se orientato lungo $+y$.

Concordanza dei segni:

Nodo i (PCM) discorde con (Ing).

Nodo j (PCM) concorde con (Ing).

Momento Torcente M_x :

(Ing) + se genera rotazione torsionale positiva sulla faccia sinistra del concio elementare. In un'asta soggetta a coppia torcente positiva a sinistra e negativa a destra, M_x è sempre +.

Il diagramma di M_x si rappresenta convenzionalmente nel piano di sollecitazione xz , con $M_x +$ posto nello stesso semipiano di $M_y +$, cioè nel semipiano $z < 0$.

(PCM) + se porta y su z .

Concordanza dei segni:

Nodo i (PCM) concorde con (Ing).

Nodo j (PCM) discorde con (Ing).

2.3) Caratteristiche di Deformazione.

In fig. (d) sono rappresentate le 6 componenti di spostamento spaziale (traslazioni e rotazioni) di un nodo della struttura.

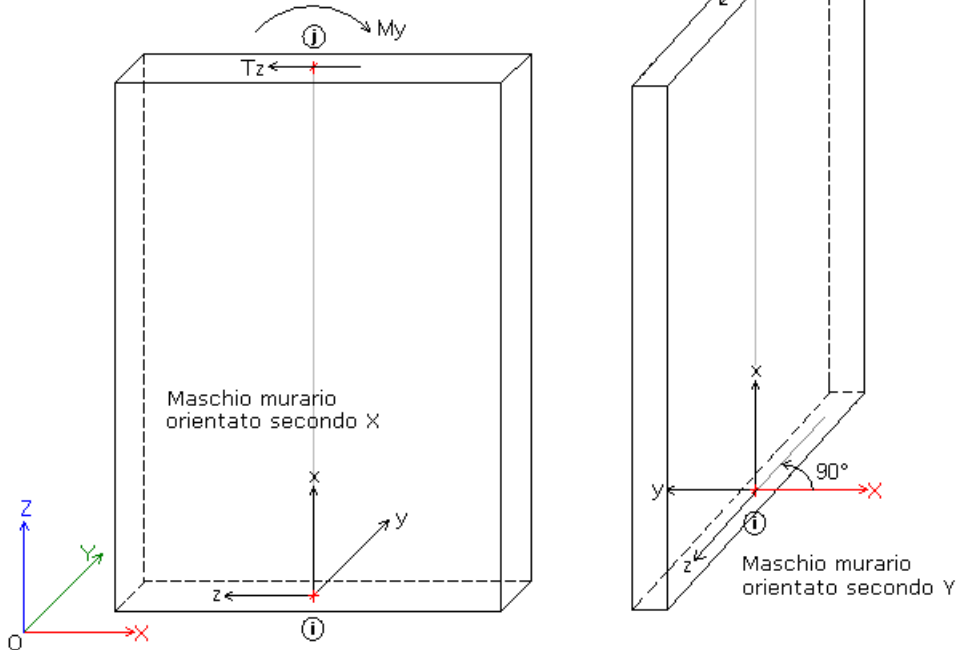
In PCM tutti gli spostamenti sono riferiti al sistema di assi globale, ed hanno segno positivo se equiversi agli assi; le rotazioni sono positive se antiorarie.

3) Pareti in Muratura.

In figura seguente sono rappresentati due maschi murari, uno orientato secondo X , l'altro secondo Y . L'orientamento viene definito dall'angolo in pianta, positivo se antiorario, misurato a partire dall'asse globale X . Il piano locale complanare è sempre il piano xz ; il piano locale ortogonale è sempre il piano xy .

Maschi murari: azioni complanari e azioni ortogonali

- piano locale complanare: xz - piano locale ortogonale: xy
- taglio complanare: T_z - taglio ortogonale: T_y
- momento complanare: M_y - momento ortogonale: M_z



Descrizione di AZIONE SISMICA e PARAMETRI DI CALCOLO

Il Sistema di Unità di Misura adottato è il Sistema Internazionale. In generale, le forze sono espresse in kN e le tensioni in N/mm^2 . In generale, i riferimenti normativi al D.M. 17.1.2018 (alias: NTC18) e alla Circ. 7 del 21.1.2019 sono evidenziati in colore blu indicando direttamente il paragrafo corrispondente; i riferimenti ad altre Normative sono preceduti dal titolo della Norma (EC = EuroCodici).

AZIONE SISMICA: Normativa Italiana: D.M. 17.1.2018

- Struttura

Vita Nominale (anni) (§2.4.1) Numero di anni nel quale la struttura, purché soggetta alla manutenzione ordinaria, deve poter essere usata per lo scopo al quale è destinata.

Classe d'uso §2.4.2 Utilizzando i valori della 'Vita Nominale' e del 'Coefficiente d'uso' corrispondente alla Classe d'uso, viene determinato il periodo di riferimento per l'azione sismica VR (§2.4.3).

- Pericolosità

Individuazione del sito: Longitudine e Latitudine ED50 (gradi sessadecimali)

Tipo di interpolazione

- media ponderata NTC08, §AII.A.[3]
- superficie rigata NTC08, §CA

Valori dei parametri ag (*g), F_0 , TC^* (sec) per i periodi di ritorno di riferimento:

NTC08, §AII.B: *Tabelle dei parametri che definiscono l'azione sismica*

Per il sito di ubicazione della struttura, vengono specificati i valori di ag , F_0 , TC^* per i periodi di riferimento: (30, 50, 72, 101, 140, 201, 475, 975, 2475 anni).

Per periodi di ritorno $TR < 30$ anni [cfr. DPC-Reluis, CNR-ITC]: $ag(TR) = K * TR^{1/4}$

- Stati Limite

P, VR (%) Probabilità di superamento nel periodo di riferimento VR §3.2.1

Per ognuno dei 4 stati limite di riferimento (SLO, SLD, SLV, SLC) le azioni sismiche dipendono dalla corrispondente probabilità P di superamento nel periodo di riferimento VR

Valori dei parametri ag , F_0 , TC^* e altri parametri di spettro per i periodi di ritorno TR associati a ciascuno Stato Limite §3.2

Per ognuno dei 4 stati limite di riferimento (SLO, SLD, SLV, SLC) vengono definiti TR (anni), ag (*g), F_0 , TC^* e S, TB, TC, TD (periodi in sec.)

- Suolo

Categoria di sottosuolo §3.2.2

Categoria topografica §3.2.2

Rapporto quota sito / altezza rilievo topografico §3.2.2

Coefficiente di amplificazione topografica ST §3.2.3.2.1

- Componenti

Spettro di risposta: componente orizzontale:

Spettro elastico: Smorzamento viscoso ξ (%) §3.2.3.2.1

Spettro di progetto - SLD: Fattore di comportamento

Spettro di progetto - SLV/SLC: Fattore di comportamento

Spettro di risposta: componente verticale

Definizione di PGA: la PGA (accelerazione orizzontale di picco al suolo), finalizzata a definire l'accelerazione sismica sostenibile dalla costruzione, può essere riferita al suolo rigido (roccia) oppure tenere conto degli effetti locali del sito attraverso il fattore di suolo S:

- accelerazione su roccia (analoga ad a_g)

- accelerazione al suolo (analoga ad: $a_g \cdot S$, dove: $S = S_S \cdot S_T$)

PARAMETRI DI CALCOLO

- Generale

Tipi di analisi

Analisi Modale. Non viene condotta l'analisi sismica della struttura. L'analisi si limita alla determinazione delle caratteristiche dinamiche, ossia al calcolo dei modi di vibrare della struttura, senza condurre ulteriori analisi di sollecitazioni e deformazioni. E' nell'Analisi Sismica Dinamica Modale che i risultati dell'analisi modale sono utilizzati per la generazione delle forze spettrali equivalenti ai vari modi di vibrare; nell'Analisi Sismica Statica Lineare le forze spettrali sono invece direttamente generate da un'approssimazione del primo modo di vibrare (per tale motivo questa analisi sismica statica è definita anche si dinamica semplificata, e coincide concettualmente con la tradizionale analisi sismica condotta con carichi staticamente equivalenti calcolati senza necessità di valutazione dei modi di vibrare).

Le masse considerate in Analisi Modale corrispondono alle masse sismicamente attive, cioè associate ai carichi gravitazionali secondo la (3.2.17), §3.2.4:

$$G_{1,1} + G_{2,2} + \sum (\psi_{2,j} \cdot Q_{k,j})$$

Analisi Statica NON Sismica. Calcolo di sollecitazioni e spostamenti, in dipendenza da carichi generici, cedimenti anelastici e variazioni termiche. Sono processate le combinazioni delle condizioni di carico elementari (CCC), così come specificate nei dati.

Analisi Sismiche Lineari:

Analisi Sismica Statica Lineare (§7.3.3.2, §7.8.1.5.2) In EC8 è denominata: analisi sismica modale semplificata con spettro di risposta; essa infatti equivale ad una analisi sismica dinamica limitata al primo modo di vibrare.

Analisi Sismica Dinamica Modale (§7.3.3.1, §7.8.1.5.3) In EC8 è denominata: Analisi sismica multimodale con spettro di risposta.

Nelle analisi sismiche lineari, la struttura viene risolta staticamente sotto l'azione delle forze sismiche, per due direzioni: α e $\alpha+90$ [vedi Angolo di ingresso del sisma]. Alle sollecitazioni determinate per effetto sismico, si "sommano" (in doppio segno, come sarà evidenziato nel seguito) le sollecitazioni corrispondenti alla somma delle condizioni di carico elementari sismicamente attive.

Analisi Sismica Statica NON Lineare Pushover (§7.8.1.5.4)

- Sismica

Direzione sismica e quote di riferimento

Angolo tra sistema di riferimento globale XY e direzioni sismiche X'Y'

Angolo (in gradi °) che la direzione sismica X' forma con l'asse X (+: corrisponde alla rotazione antioraria di X verso Y). Eseguita l'analisi modale, il calcolo dei coefficienti di partecipazione e quindi delle forze spettrali viene eseguito nella direzione specificata e nella direzione ortogonale (frequentemente: 0° e 90°, cioè lungo l'asse X e lungo l'asse Y del sistema di riferimento globale)

Altezza della costruzione a partire dal piano di fondazione H (m)

Quota di inizio degli effetti sismici H_S (m)

Quota di riferimento H_S per il calcolo delle forze sismiche (§7.3.3.2), rispetto alla coordinata Z=0.000 assunta nei Dati. Con $Q < 0$ si può tenere conto dell'altezza delle fondazioni; con $Q > 0$ si attribuisce alla corrispondente zona inferiore dell'edificio un moto rigido insieme al terreno (p.es. in caso di piani interrati o di scantinati in c.a. di edifici in muratura considerati come 'strutture di fondazione').

Le masse ubicate al di sotto della quota di inizio degli effetti sismici sono considerate inattive

In caso di sisma verticale considerare sempre il 100% degli effetti

Se il parametro non è selezionato, viene considerato il 30% (§7.3.5)

Analisi Sismiche Lineari

Direzioni di analisi: X, Y, Z

Le direzioni di analisi possono essere selezionate indipendentemente l'una dall'altra, al fine di eseguire analisi monodirezionali oppure in varia combinazione fra le tre direzioni di riferimento

Combinazione delle componenti

Con riferimento a §7.3.5, per un dato effetto (spostamento o sollecitazione) le componenti dell'azione sismica devono essere considerate simultaneamente. La combinazione delle componenti dell'azione sismica non viene eseguita in Analisi Sismica Statica Non Lineare (Pushover). In Analisi Sismica Lineare (Statica o Dinamica Modale), è possibile combinare gli effetti dell'analisi condotta in ciascuna delle due direzioni tra loro ortogonali di riferimento, secondo una delle seguenti modalità:

- Radice quadrata della somma dei quadrati: $E = \sqrt{E_{\alpha}^2 + E_{(\alpha+90)}^2}$

- Sommare ai massimi ottenuti per l'azione applicata in una direzione, il 30% dei massimi ottenuti per l'azione applicata nelle altre direzioni

Ignorare gli effetti dei momenti torcenti dovuti all'eccentricità accidentale

Con questo parametro è possibile ignorare gli effetti dei momenti torcenti aggiuntivi dovuti all'eccentricità accidentale (pari a +/-5% della dimensione dell'edificio perpendicolare alla direzione sismica) (§7.2.6)

Ignorare l'amplificazione degli spostamenti con fattore μ nel calcolo delle tensioni sul terreno

Il fattore moltiplicativo sismico per gli spostamenti: μ_d (§7.3.3.3 per SLV) può essere considerato solo ai fini degli spostamenti della sovrastruttura e non dei nodi di fondazione. Lo spostamento dei nodi di fondazione determina la tensione sul terreno, attraverso il coefficiente di Winkler. Pertanto, senza l'amplificazione sismica allo spostamento verticale dei nodi di fondazione si evita una sovrastima delle tensioni sul terreno

Eseguire le verifiche di sicurezza anche per combinazioni (Nmin, T/Mmax), (Nmax, T/Mmin)

Analisi Sismica Statica Lineare

Periodo principale T1 (sec) in direzione X e in direzione Y

Calcolo di T1 con relazione $T1 = C1 \cdot H^{(3/4)}$ (§7.3.3.2)

- C1 per il calcolo di T1 = 0.05

$\lambda=1.00$ nella definizione delle forze sismiche (§7.3.3.2)

Secondo §7.8.1.5.2, l'Analisi Sismica Statica Lineare per edifici in muratura è applicabile anche nel caso di edifici irregolari in altezza, purché si ponga $\lambda=1.00$ (§7.3.3.2)

Progettazione semplificata per zone a bassa sismicità'

Sd(T1) (g) è il valore semplificato dello spettro di risposta

- Modale

L'Analisi Modale viene condotta con il metodo di Lanczos.

Numero di modi da calcolare

Numero di modi da considerare

Possibili opzioni:

- tutti i modi calcolati
- un numero di modi specificato in input, con limite superiore pari al numero NC di modi calcolati
- tutti i modi, fra quelli calcolati, con massa partecipante superiore al 5% (occorre aver calcolato tutti i modi)
- un numero di modi la cui massa partecipante totale sia superiore all'85%. Il numero di modi calcolati potrebbe non essere sufficiente a soddisfare questa condizione: in tal caso, i modi considerati saranno tutti gli NC calcolati, e nei risultati dell'analisi modale si potrà osservare che la massa partecipante non supera l'85%
- tutti i modi con massa partecipante superiore al 5% e comunque un numero di modi la cui massa partecipante totale sia superiore all'85% (§7.3.3.1)

Metodo di combinazione dei modi

La modalità di combinazione dei modi al fine di calcolare sollecitazioni e spostamenti complessivi, può essere una delle due seguenti:

- SRSS (square root of sum of squares, radice quadrata della somma dei quadrati). Questo metodo viene applicato solo se ciascun modo differisce di almeno il 10% da tutti gli altri, come indicato in OPCM 3274/2003. SRSS è previsto come metodo di controllo in §7.3.3.1
- CQC (complete quadratic combination, combinazione quadratica completa) (§7.3.3.1)

- Muratura

Tipo di edificio

Muratura: Ordinaria, Armata, Armata con Progettazione in Capacità (§7.8.1.7)

Edificio: Nuovo, Esistente, con verifica di Robustezza (§3.1.1)

In caso di verifica di robustezza, per l'analisi statica (non sismica) di un edificio nuovo vengono imposte azioni nominali convenzionali, in aggiunta alle altre azioni esplicite (non sismiche e da vento) da applicarsi secondo due direzioni ortogonali e consistenti in una frazione dei carichi pari all'1%. PCM traduce questa prescrizione nelle verifiche di resistenza incrementando direttamente momento flettente e taglio di una quota pari all'1% dello sforzo normale

Coefficienti parziali di sicurezza

- γ_M in Analisi Statica

Il valore di riferimento del coefficiente parziale di sicurezza dei materiali è definito in Tab. 4.5.II, §4.5.6.1

- γ_M in Analisi Sismica

Il valore di riferimento del coefficiente parziale di sicurezza dei materiali per azioni sismiche è definito in §7.8.1.1

Maschi murari

Contributo rigidezza trasversale

In caso non affermativo, viene trascurata la rigidezza trasversale di una parete attribuendo alla sua asta rappresentativa il vincolamento a biella in direzione ortogonale al piano della parete stessa.

Assemblaggio rigidezza flessionale (EJ) per elementi contigui

In caso affermativo, valuta per ogni asta l'eventuale incremento di rigidezza flessionale (EJ complanare) dovuto all'assemblaggio di pareti contigue. L'assemblaggio riguarda gli elementi che rispettano i seguenti requisiti: sono elementi murari verticali (maschi in muratura ordinaria o armata) con la medesima tipologia; appartengono allo stesso piano; hanno identica sigla alfanumerica identificativa del gruppo di assemblaggio; hanno identico Vincolo flessionale complanare (con la condizione aggiuntiva che non devono essere bielle: l'assemblaggio viene effettuato solo su elementi di controvento).

Link orizzontali rigidi anche fuori piano

Se il parametro non è selezionato, i link orizzontali si deformano fuori piano assumendo una sezione trasversale pari a metà altezza della parete interessata.

Comportamento muratura

Diagramma di calcolo tensione-deformazione (§4.1.2.1.2.1)

Definisce il diagramma di comportamento della muratura secondo una delle due seguenti modalità:

- Stress-block, con: $\mu = (1^2 \cdot t \cdot \sigma_0 / 2) [1 - (\sigma_0 / 0.85 f_d)]$ (§7.8.2.2.1), o equivalentemente: $M' = N' / 2 \cdot (1 - N')$, $M' = M / (N \cdot I)$, $N' = N / N_u$, dove: $N_u = 0.85 f_d I t$
- Parabola-rettangolo, con μ da dominio di resistenza N-M. Questa opzione è automaticamente utilizzata per sezioni di muratura armata o consolidate con FRP / CAM / Reticolatus. Con questa opzione è possibile definire con esattezza la zona reagente, ai fini della verifica a Taglio per Scorrimento, assicurando coerenza fra Taglio e PressoFlessione (N, M e T agiscono contemporaneamente sulla sezione trasversale)

Muratura: $\epsilon m2$, ϵmu (per mille)

Per il modello parabolico-rettangolare, vengono specificate la deformazione di inizio tratto plastico ($\epsilon m2$) e la deformazione ultima (ϵmu)

- Valutazione

Stati limite

Stati limite da considerare: SLO, SLD, SLV

SLV è sempre considerato. E' possibile ignorare SLD e SLO se non richiesti dalla Normativa, secondo il prospetto [Tab.7.3.III in §7.3.6.](#) e secondo le indicazioni relative agli edifici esistenti (§8.3). Ad esempio, per un edificio esistente in classe d'uso II è obbligatorio solo SLV.

Valutazione della sicurezza per edifici esistenti

E' possibile identificare la struttura corrente in una delle due modalità seguenti:

- 1) Intervento di adeguamento (§8.4.3) o Stato attuale di un intervento di miglioramento (§8.4.2).

La verifica di sicurezza sismica richiede che l'indicatore di rischio ζ_E sia superiore ad una soglia richiesta (0.8 o 1.0 a seconda dei casi).

Per l'analisi cinematica e' possibile fare riferimento ad un altro modello di PCM.

- 2) Stato di progetto di un intervento di miglioramento (§8.4.2):

e' possibile scegliere il criterio di miglioramento:

- a) indicatore di rischio sismico ζ_E superiore ad una soglia richiesta (ad es. 0.6 per le costruzioni di classe III ad uso scolastico e di classe IV);
- b) incremento dell'indicatore di rischio $\Delta\zeta_E$, rispetto allo Stato attuale, superiore alla soglia richiesta (normalmente 0.1).

Viene specificato il file di riferimento per lo Stato Attuale e l'eventuale file distinto per l'analisi cinematica allo Stato di progetto.

ζ_E è l'indicatore di rischio sismico dato dal rapporto tra azione sismica massima sopportabile dalla struttura e l'azione sismica massima che si utilizzerebbe nel progetto di nuova costruzione sul medesimo suolo e con le medesime caratteristiche. L'azione sismica adottata come parametro di confronto per la definizione di ζ_E è l'accelerazione al suolo $PGA = ag S$.

- Verifiche

Per maschi murari

Verifica in sommità nelle Analisi Lineari

Le Verifiche vengono eseguite obbligatoriamente nelle sezioni di Base. Per quanto riguarda le sezioni di Sommità, le verifiche (in Analisi Statica e in Analisi Sismica lineare) possono essere eseguite secondo una delle tre seguenti modalità:

in nessun caso; a tutti i piani, tranne l'ultimo; in tutti i casi.

In analisi pushover le verifiche in sommità: per PressoFlessione vengono sempre eseguite; per il Taglio per scorrimento vengono sempre eseguite tranne che per l'ultimo piano (o per la sommità di pareti che non hanno continuità superiore).

PressoFlessione Complanare

Considerare la Flessione solo nei maschi snelli

è possibile limitare le verifiche a pressoflessione complanare ai soli maschi snelli. La snellezza della parete è definita dal rapporto (h/l) fra altezza e lunghezza di base della parete; l'altezza h è definita dalla luce deformabile (al netto quindi delle eventuali zone rigide di estremità)

- snellezza di riferimento

In caso di limitazione alle pareti snelle, è il valore di riferimento del rapporto (h/l): solo le pareti aventi snellezza superiore a tale valore vengono sottoposte a verifica a pressoflessione complanare

Taglio per Scorrimento

Modalità di calcolo della zona reagente

Possibili opzioni:

- la zona reagente viene determinata mediante una distribuzione triangolare delle tensioni [EC6, §4.5.3.(6)]
- la zona reagente a taglio coincide con la zona reagente a pressoflessione. Questa opzione è possibile nel caso in cui il diagramma di comportamento della muratura sia "parabola-rettangolo"

Maschi in muratura ordinaria: prescindere in ogni caso dalla parzializzazione

In caso affermativo, il taglio per scorrimento viene valutato sull'intera sezione, altrimenti solo sulla zona reagente

PressoFlessione Ortogonale

Analisi Statica (§4.5.6.2)

- Con azioni da modello di calcolo 3D

Verifiche di sicurezza per pressoflessione ortogonale con sollecitazioni derivanti dall'analisi spaziale del modello 3D dell'edificio.

Questa verifica richiede lo schema spaziale ed è influente per modellazioni piane. La verifica viene condotta con riferimento alla sezione più sfavorevole, considerando la parete soggetta ai momenti superiore e inferiore e, per pareti esposte al vento, l'effetto flessionale dovuto al carico orizzontale distribuito lungo l'altezza.

- Metodo semplificato (ipotesi di parete incernierata) (§4.5.5, §4.5.6.2)

Verifica a pressoflessione ortogonale condotta per ogni parete nelle sezioni di sommità, base e mezzeria, come da Normativa, con riferimento alla luce deformabile ortogonale: le cerniere si suppongono poste agli estremi della luce deformabile, coerentemente con la modellazione a telaio equivalente. Per la sommità si usano le azioni da calcolo derivanti dallo schema a telaio, depurate dagli effetti del vento; per la mezzeria, si considera il momento dovuto al vento (che produce l'eccentricità e_v) agente sullo schema di asta incernierata; per la base, non si considera il vento e il carico si suppone ricentrato (deve comunque essere considerata l'eccentricità accidentale).

- Eseguire le verifiche solo in mezzeria

E' possibile limitare le verifiche a pressoflessione ortogonale alle sole sezioni di mezzeria delle pareti

Analisi Sismiche lineari (§7.8.2.2.3)

- Con azioni da modello di calcolo 3D

Verifiche di sicurezza per pressoflessione ortogonale con sollecitazioni derivanti dall'analisi spaziale del modello 3D dell'edificio.

Questa verifica richiede lo schema spaziale ed è influente per modellazioni piane; se richiesta, viene eseguita in analisi lineare ed anche in analisi statica non lineare (se confermata nelle opzioni dell'analisi pushover). La verifica viene condotta nelle sezioni di base e di sommità, dove sono massimi gli effetti flessionali dovuti alla sollecitazione sismica (prodotta da masse concentrate poste agli estremi dell'asta).

- Con azioni convenzionali (forze equivalenti per elementi non strutturali)

Verifiche di sicurezza a pressoflessione ortogonale per azioni convenzionali, condotte secondo quanto prescritto da §7.2.3 (forze equivalenti, per elementi non strutturali; a tale punto riconduce §7.8.1.5.2). Queste verifiche possono essere eseguite sia per modelli spaziali che piani, ma limitatamente all'analisi lineare. In caso di analisi globale dell'edificio condotta con il metodo statico non lineare, eventuali richieste sulla capacità delle pareti per azioni ortogonali convenzionali richiedono necessariamente anche l'esecuzione dell'analisi lineare (il cui interesse sui risultati si focalizzerà ovviamente sulla sola pressoflessione ortogonale convenzionale). La verifica viene condotta con riferimento alla sezione di mezzeria, e per le sollecitazioni alle estremità (sforzo normale, momenti superiore e inferiore) viene considerato il solo valore statico, attribuendo gli effetti sismici solo al carico sismico orizzontale distribuito lungo l'altezza.

Analisi Pushover (§7.8.2.2.3)

- Con azioni da modello di calcolo 3D

Le verifiche di sicurezza per pressoflessione ortogonale vengono eseguite nel corso del procedimento incrementale, analogamente alle verifiche nel piano.

Per tutte le analisi:

- Riduzione della resistenza per gli effetti di instabilità

La verifica di stabilità è una verifica complessiva per l'asta, e viene svolta tenendo conto sia del carico assiale variabile (dovuto al peso proprio) sia delle azioni trasversali (vento, sisma).

- Considerare sempre eccentricità minima ($h/200$)

E' possibile considerare un'eccentricità minima ($h/200$) [(4.5.9) in §4.5.6.2] anche per verifiche con azioni da modello di calcolo (3D) e, in sismica, con azioni convenzionali

- Pushover (1)

Parametri caratteristici dell'Analisi Pushover per edifici in muratura (§7.3.4.1, §7.8.1.5.4)

Distribuzioni di forze

Le distribuzioni di forze sono suddivise nel modo seguente:

Gruppo 1: distribuzioni principali

Fisse (rapporti tra forze fissi nel corso del processo incrementale)

(A) **Lineare**: forze proporzionali a quelle da utilizzarsi per l'analisi statica lineare

(B) **Uni-modale**: forze modali, proporzionali al prodotto delle masse per la deformata corrispondente al primo modo di vibrazione

(C) **Dinamica**: forze corrispondenti alla distribuzione delle forze modali calcolate con analisi dinamica lineare, tenendo conto di tutti i modi considerati

Gruppo 2: distribuzioni secondarie

(D) **Multi-modale**: forze modali, proporzionali al prodotto delle masse per la deformata corrispondente ad una forma modale equivalente, tenendo conto di tutti i modi considerati

(E) **Uniforme**: forze proporzionali alle masse

Adattive (la distribuzione di forze viene aggiornata ad ogni evoluzione di rigidità, previa riesecuzione dell'analisi modale):

(F) **Uni-modale**

(G) **Dinamica**

(H) **Multi-modale**

Per edifici in muratura nuovi, con impalcati rigidi, si considereranno almeno una distribuzione del Gruppo 1 e almeno una del Gruppo 2, con le limitazioni previste: (A) e (B) sono applicabili solo se il modo di vibrare fondamentale nella direzione considerata ha massa partecipante non inferiore al 60% (§7.8.1.5.4); in tutti i casi si può applicare la (C).

Per edifici in muratura esistenti, potranno essere utilizzate le distribuzioni (A)(E) indipendentemente dalla massa partecipante del primo modo (§8.7.1.3.1). Nelle distribuzioni Dinamiche (C, G) è possibile considerare le forze da spettro elastico o da spettro di progetto.

Fattore di partecipazione modale

Masse per fattore part.modale

Metodo di valutazione delle masse per il calcolo del Fattore di partecipazione modale, che consente la trasformazione da M-GDL a 1-GDL: sono possibili le due seguenti opzioni:

- matrice di massa del sistema reale (con masse traslazionali m_X m_Y e inerzie torsionali J_Z),

- solo masse traslazionali nella direzione di analisi (solo per analisi secondo X o Y: $\alpha=0^\circ$).

Fattore di partecipazione modale $\Gamma = 1.00$ in distrib. uniforme (E)

Per la distribuzione uniforme (E) è possibile adottare il valore 1.000 per il fattore di partecipazione modale, il che equivale a considerare coincidenti i due

sistemi M-GDL e 1-GDL (un esempio di valore 1.000 per la distribuzione uniforme è riportato in: "The N2 method for simplified non-linear seismic analysis - overview and recent developments", P.Fajfar and M.Dolsek, in: L'Ingegneria Sismica in Italia, XI Convegno ANIDIS (Relazioni ad invito), 2004)

Incrementi di taglio. Direzione di analisi

Incremento di taglio alla base (kN)

Direzione e verso di analisi

+X' (+X per $\alpha=0^\circ$), +Y' (+Y per $\alpha=0^\circ$), -X' (-X per $\alpha=0^\circ$), -Y' (-Y per $\alpha=0^\circ$)

Eccentricità accidentale

Per analisi 3D è possibile considerare le azioni torcenti aggiuntive dovute all'eccentricità accidentale (§7.2.6)

Analisi bidirezionale

Secondo §7.3.5, la risposta alle diverse componenti dell'azione sismica si calcola unitariamente applicando la regola di combinazione [7.3.10].

Sisma verticale

E' possibile considerare l'effetto della componente sismica verticale

Punto di controllo

Il punto di controllo costituisce il punto di cui viene rilevato lo spostamento orizzontale nel corso dell'analisi pushover.

Sono possibili due opzioni:

- baricentro del piano indicato
- baricentro del piano con spostamento maggiore nel modo di vibrare principale nella direzione di analisi

All'opzione scelta possono aggiungersi altri nodi, in modo tale da rispettare quanto previsto in §7.3.4.2, dove si indicano ad esempio come punti di controllo alternativi le estremità della pianta dell'ultimo livello qualora sia significativo l'accoppiamento tra traslazioni e rotazioni

- Pushover (2)

Comportamento degli elementi strutturali

Verifiche di sicurezza in corso di analisi

Le opzioni indicate possono essere o meno selezionate.

Maschi murari

Il comportamento meccanico dei maschi è di tipo trilineare, con tratto elastico suddiviso in due parti: quella iniziale con rigidità elastica, e il secondo con rigidità fessurata. Se la rigidità fessurata non è stata specificata, ed è quindi assunta pari alla rigidità elastica, il comportamento è di tipo bilineare. Il terzo tratto, plastico, si attiva al raggiungimento del limite di resistenza, a pressoflessione o a taglio; in base al tipo di crisi resta definito lo spostamento ultimo della parete.

Opzioni disponibili:

- non eseguire verifiche a Sforzo Normale di Trazione
- ignorare la caduta di taglio per crisi a pressoflessione ortogonale

Fasce di piano (Strisce, Sottofinestra)

- comportamento bilineare
- comportamento multilineare

Fondazioni

- ignorare aste su suolo elastico in Analisi Pushover

Modalità di calcolo

Spostamento ultimo a SLU (=SLC per NTC18)

Per la definizione del punto corrispondente allo stato limite di collasso SLC, si definisce lo spostamento corrispondente ad un taglio alla base residuo. Per la muratura, il valore previsto dalla Normativa è pari all'80% (muratura nuova: §C8.7.1.5.4, esistente: §C8.7.1.3.1) che viene calcolato rispetto ad uno dei seguenti valori di riferimento:

- prima riduzione rispetto ad un massimo relativo
- prima riduzione rispetto al massimo assoluto
- ultima configurazione equilibrata corrispondente alla riduzione rispetto al massimo assoluto

Sistema bilineare equivalente

Modalità di determinazione del sistema bi-lineare equivalente (basata sull'uguaglianza delle aree sottese dalla curva di capacità 1-GDL e dal diagramma bi-lineare equivalente)

tratto elastico passante per il punto con Taglio (κ Tmax), dove κ è definito in input:

definizione della rigidità: il tratto elastico passa per il punto (κ Fbu) della curva di capacità del sistema equivalente (secondo Normativa: $\kappa=0.6$ in generale [§C7.3.4.2], 0.7 per la muratura [§7.8.1.6])

Tratto plastico della curva di capacità

Sono possibili le seguenti opzioni:

- calcolato analiticamente
- stimato sullo spostamento residuo di una parete
- stimato sullo spostamento residuo dei vari piani

Limitare la capacità di spostamento della struttura in funzione degli SL (stati limite) dei singoli elementi

In caso affermativo, la capacità di spostamento dell'edificio viene valutata considerando le possibili crisi locali. La curva viene elaborata sempre fino al raggiungimento dello stato limite ultimo, ma nel corso della sua costruzione vengono registrati i passi segnati da crisi locali per l'eventuale arretramento della capacità di spostamento. Una situazione tipica riguarda le verifiche di resistenza degli elementi in c.a.

- Muratura Armata

Acciaio

Acciaio: f_{yk} (N/mm²), ϵ_{ud} (per mille), E_s (N/mm²)

Parametri caratteristici dell'acciaio. Per l'acciaio si considera un diagramma di calcolo tensione-deformazione [§4.1.2.1.2.3] elastico-perfettamente plastico. Al tipo di acciaio scelto (ad es. B450C) [§11.3.2.1] corrispondono: f_{yk} (ad es. ≥ 450 N/mm²); la tensione di snervamento [§4.1.2.1.1.3]: $f_{yd} = f_{yk} / \gamma_s$ (ad es. $450 / 1.15 = 391$ N/mm²); ϵ_{ud} : limite in % per la deformazione ultima (ϵ_{ud}) (ad es. 10 per mille); E_s : modulo di elasticità; ϵ_{yd} : deformazione di snervamento (secondo §4.1.2.1.2.3: $\epsilon_{yd} = f_{yd} / E_s$)

Armatura:

verticale: ϕ_{min} barre: 5 mm.;

orizzontale (nei giunti): **tipo di traliccio:**

Indica il tipo di traliccio utilizzato per il rinforzo dei giunti orizzontali con armatura:

- 2 ϕ 4 (filo rotondo per giunti di malta) (sezione: 25 mm²)

- 2 ϕ 5 (filo rotondo per giunti di malta) (sezione: 39 mm²)

- 8x1.5 (filo piatto per giunti incollati) (sezione: 24 mm²)

- generica (sezione specificata nei dati).

- **sezione totale del traliccio A_{sw}** (mm²)

Sezione dell'armatura orizzontale effettivamente utilizzata nel calcolo

- **distanza verticale tra i livelli di armatura** (mm)

- **f_{yk} per l'armatura orizzontale** (N/mm²): tensione di snervamento caratteristica dell'acciaio. La tensione di snervamento di progetto è data da $f_{yd} = f_{yk} / \gamma_s$.

Opzioni per Verifiche di resistenza

PressoFlessione: contributo dell'armatura compressa

Taglio: Sono possibili due opzioni per il contributo dell'armatura orizzontale alla resistenza a taglio:

- ignorare il contributo

- contributo secondo §7.8.3.2.2

- Calcestruzzo Armato

Acciaio

Acciaio: f_y (N/mm²), ϵ_{ud} (per mille), E_s (N/mm²)

Parametri caratteristici dell'acciaio. Per l'acciaio si considera un diagramma di calcolo tensione-deformazione [§4.1.2.1.2.3] elastico-perfettamente plastico.

Per gli edifici nuovi: $f_y = f_{yk}$. Al tipo di acciaio scelto (ad es. B450C) [§11.3.2.1] corrispondono: f_{yk} (ad es. ≥ 450 N/mm²); la tensione di snervamento [§4.1.2.1.1.3]: $f_{yd} = f_{yk} / \gamma_s$ (ad es. $450 / 1.15 = 391$ N/mm²); ϵ_{ud} : limite in % per la deformazione ultima (ϵ_{ud}) (ad es. 10 per mille); E_s : modulo di elasticità; ϵ_{yd} : deformazione di snervamento (secondo §4.1.2.1.2.3: $\epsilon_{yd} = f_{yd} / E_s$).

Per gli edifici esistenti: $f_y = f_{ym}$, tensione media di snervamento. Viene inoltre definito il fattore di confidenza FC (cfr. Tab.C8.5.IV) per l'acciaio (parametro influente per gli edifici nuovi).

Nelle strutture in c.a. si considera sempre il contributo dell'armatura compressa

Calcestruzzo

Per il calcestruzzo viene adottato il diagramma di calcolo tensione-deformazione parabolico-rettangolare [§4.1.2.1.2.2], definito dalla deformazione di inizio tratto plastico ϵ_{cu2} e dalla deformazione ultima ϵ_{cu} .

Si definiscono inoltre: il coefficiente parziale di sicurezza γ_c , e per gli edifici esistenti il fattore di confidenza FC (cfr. Tab.C8.5.IV) per il calcestruzzo (distinto rispetto all'acciaio; il parametro è influente per gli edifici nuovi).

La resistenza a compressione del calcestruzzo viene definita nei dati sui materiali.

- Interventi

Rinforzi a Taglio

Armatura orizzontale (nei giunti) (il passo è una proprietà delle singole aste):

Sezione totale delle barre A_{sw} (mm²), f_{yd} (N/mm²)

FRP

I parametri descrittivi del rinforzo con FRP sono illustrati nei documenti normativi specifici: in particolare:

CNR DT200 R1/2013: Istruzioni per la Progettazione, l'Esecuzione ed il Controllo di Interventi di Consolidamento Statico mediante l'utilizzo di Compositi Fibrorinforzati;

Linee Guida per la Progettazione, l'Esecuzione ed il Collaudo di Interventi di Rinforzo di strutture di c.a., c.a.p. e murarie mediante FRP, documento approvato il 24 luglio 2009 dall'assemblea Generale Consiglio Superiore LL.PP.

Comportamento: per il composito FRP viene adottato il modello elastico-lineare fino a rottura.

Tipo di applicazione (LG 2009, §2.4.1): A o B

Coefficienti parziali (DT200, §3.4.1): SLU del materiale FRP: γ_f - distacco dal supporto: γ_{fd}

Modulo di elasticità normale nella direzione delle fibre E_f

Deformazione caratteristica a rottura per trazione ϵ_{fk}

Fattore conversione ambientale η_a (DT200, §3.5.1)

Deformazione di calcolo a rottura per trazione: ($\eta_a \epsilon_{fk} / \gamma_f$)

Sezione del singolo nastro (mm): spessore, larghezza

Angolo d'attrito dei corsi di malta ϕ (DT200, §5.4.1.2.2) (°)

CAM

I parametri descrittivi del sistema di rinforzo CAM sono illustrati nella documentazione originale (c) EdiCAM.

Acciaio: modello elastico-perfettamente plastico

Per i nastri, si considerano tre possibili **tipologie**:

- **standard**: unica tipologia di nastro sia orizzontale che verticale con possibilità di modulare in maniera diversificata il numero di nastri in sovrapposizione ed il passo della maglia tra nastri orizzontali e verticali
- **migliorato duttile**: per la sostituzione dei nastri orizzontali convenzionali con una tipologia a maggiori prestazioni (rinforzo a taglio)
- **ad alte prestazioni di resistenza elastico**: utilizzato come nastro verticale per il rafforzamento concentrato agli spigoli

Per ognuna delle tre tipologie sono forniti i seguenti parametri:

fyk, fyd, ϵ_{ud} , ϵ_{yd} , sezione singolo nastro (mm): spessore, larghezza, raggio curvatura spigoli

Per maschi murari rinforzati con sistema CAM:

è possibile considerare per effetto del confinamento l'incremento di deformazione ultima e/o l'incremento di resistenza ultima.

Reticolatus

Il sistema (c) Reticolatus prevede l'utilizzo di trefoli in acciaio ad alta resistenza. Il corrispondente modello è elastico-lineare fino a rottura. I parametri descrittivi del sistema sono i seguenti:

fyd, Es (modulo di elasticità), ϵ_{yd} , sezione del trefolo (mm^2).

Per poter considerare l'effetto del confinamento come incremento di deformazione ultima e/o di resistenza ultima, si definiscono inoltre la larghezza della fascia interessata e il raggio di curvatura.

Acciaio per rinforzo pilastri

Nel caso di pilastri murari, è possibile applicare rinforzi con acciaio strutturale consistenti in fasce (o calastrelli) per la cerchiatura con anelli orizzontali, e in rinforzi longitudinali con angolari agli spigoli.

Tensione di snervamento: caratteristica fyk

Limite per la deformazione ultima ϵ_{ud}

Modulo di elasticità Es

Deformazione di snervamento ϵ_{yd}

Per cerchiatura (fasce o calastrelli):

- Sezione della singola fascia: spessore, larghezza
- Eventuale raggio di curvatura degli spigoli [per angolari di lato l e spessore t: $\min(l, 5t)$]

Per rinforzo longitudinale (angolari agli spigoli):

- lunghezza dell'ala
- spessore

2. GENERALITA' - PARAMETRI DI CALCOLO - AZIONE SISMICA

Nome del file del Progetto : TP_F_Prog

Data e Ora di archiviazione: 26/04/2021 12:06:03

Dati PCM Versione 2020.3.2.0

Abilitazione USB: QSIKSSQ

AZIONE SISMICA

Struttura:

Vita Nominale VN (anni) = 50

Classe d'uso: II

Coefficiente d'uso CU = 1

Periodo di riferimento per l'azione sismica VR=VN*CU (anni) = 50

Pericolosità:

Ubicazione del sito:

Longitudine ED50 (gradi sessadecimali) = 12.527298

Latitudine ED50 (gradi sessadecimali) = 38.026001

Tipo di interpolazione: media ponderata ([3] in All.a)

ag(g) Fo Tc*(sec) per i periodi di ritorno di riferimento

30	0.015	2.507	0.147
50	0.02	2.521	0.164
72	0.024	2.465	0.2
101	0.028	2.445	0.211
140	0.033	2.459	0.231
201	0.037	2.487	0.267
475	0.051	2.467	0.32
975	0.064	2.541	0.34
2475	0.082	2.644	0.379

Per periodi di ritorno TR<30 anni [cfr. DPC-Reluis, CNR-ITC]:

ag(TR) = K * TR $^{\alpha}$, dove:

K = 0.002270210, α = 0.553690360

Stati Limite:

PVR (%) Probabilità di superamento nel periodo di riferimento VR (Tab.3.2.I)

SLE: SLO 81

SLE: SLD 63

SLU: SLV 10

SLU: SLC 5

ag(g) Fo Tc*(sec) e altri parametri di spettro per i periodi di ritorno TR associati a ciascun Stato Limite secondo Normativa [§3.2.3]

Stato limite	TR (anni)	a,g (*g)	Fo	TC* (sec)	S	TB (sec)	TC (sec)	TD (sec)	Fv
SLO	30	0.015	2.507	0.147	1.500	0.097	0.291	1.660	0.415
SLD	50	0.020	2.521	0.164	1.500	0.104	0.313	1.680	0.481
SLV	475	0.051	2.467	0.320	1.500	0.163	0.489	1.804	0.752

| SLC | 975 | 0.064 | 2.541 | 0.340 | 1.500 | 0.170 | 0.510 | 1.856 | 0.868 |

(parametri di spettro conformi al reticolo sismico secondo D.M. 14.1.2008)

Suolo:

Categoria di sottosuolo e Condizioni topografiche:

Categoria di sottosuolo: C

Categoria topografica: T1

Rapporto quota sito / altezza rilievo topografico = 0

Coefficiente di amplificazione topografica ST = 1

Componenti:

Spettro di risposta: componente orizzontale:

Spettro elastico: Smorzamento viscoso (ξ) (%) = 5

$\eta = [10 / (5 + \xi)] = 1$

Spettro di progetto - SLD: Fattore di Comportamento = 1.5

Spettro di progetto - SLV/SLC: Fattore di Comportamento = 3 $\Rightarrow \eta = 1/q = 0.333$

Spettro di risposta: componente verticale:

SS=1.000, S=1.000, TB=0.050 sec, TC=0.150 sec, TD=1.000 sec, $\xi=5\%$ ($\eta=1.000$), $q=1.500$ ($\eta=1/q=0.667$)

PGA:

Definizione di PGA: Accelerazione al suolo (analogia ad: $ag \cdot S$, dove: $S=SS \cdot ST$)

PARAMETRI DI CALCOLO: Sismica

Direzioni di analisi e quote di riferimento:

Angolo tra sistema di riferimento globale XY e direzioni sismiche X'Y' (+ se antiorario) (α°) = 0

(analisi nelle direzioni X e Y)

Altezza della costruzione a partire dal piano di fondazione H (m) = 8

Quota di inizio degli effetti sismici H,S (m) = 0

In caso di sisma verticale considerare sempre il 100% degli effetti: no

Analisi Sismiche Lineari:

Direzioni di analisi: X Y

Criterio di combinazione delle componenti orizzontali:

Sommare ai massimi ottenuti per l'azione applicata in una direzione il 30% dei massimi ottenuti per l'azione applicata nelle altre direzioni [§7.3.5]

Ignorare gli effetti dei momenti torcenti dovuti alle eccentricità accidentali [§7.2.6]: no

Ignorare l'amplificazione degli spostamenti con fattore μ nel calcolo delle tensioni sul terreno [§7.3.3.3]: no

Eseguire le verifiche di sicurezza anche per le combinazioni (Nmin, T/Mmax), (Nmax, T/Mmin): no

Analisi Sismica Statica Lineare:

Periodo principale T1 (sec): $T1 = C1 \cdot H^{(3/4)}$, $C1=0.05$, $T1 = 0.238$

$\lambda=1.00$ nella definizione delle forze sismiche [§7.3.3.2]: no

Progettazione semplificata per zone a bassa sismicità [§7]: no

PARAMETRI DI CALCOLO: Analisi Modale

Metodo di calcolo per Analisi Modale: Lanczos

Numero modi da calcolare: 50

Numero di modi da considerare: tutti i modi con massa part.>5% e comunque tali che massa part.tot.>85% [§7.3.3.1]

Metodo di combinazione dei modi: CQC (combinazione quadratica completa) [§7.3.3.1]

PARAMETRI DI CALCOLO: Muratura

Tipo di edificio: Muratura Ordinaria

Edificio Esistente

Coefficienti parziali di sicurezza: Edificio Esistente

- γ_M in Statica [§4.5.6.1] = 3

- γ_M in Sismica [§7.8.1.1] = 2.4

Per maschi murari:

Contributo rigidità trasversale: si

Assemblaggio rigidità flessionale (EJ) per elementi contigui: no

Link orizzontali rigidi anche fuori piano: si

Comportamento muratura:

Diagramma di calcolo tensione-deformazione [§4.1.2.1.2.2]: Stress-block

PARAMETRI DI CALCOLO: Valutazione

Stati Limite da considerare: SLO SLV

Valutazione della sicurezza sismica per edifici esistenti:

Intervento di Adeguamento [§8.4.3] o Stato Attuale di un Intervento di Miglioramento:

indicatore di rischio sismico $\zeta_E \geq 0.800$

PARAMETRI DI CALCOLO: Verifiche

Per maschi murari:

Sezioni di verifica. Alla base, e in sommità in pushover: obbligatoria; in sommità in an.lineare: in nessun caso

PressoFlessione Complanare:

Considerare la Flessione solo nei maschi snelli: si

- snelli se (h/l) superiore a: 1

Taglio per Scorrimento:

Modalità di calcolo della zona reagente: distribuzione triangolare delle tensioni [EC6, §4.5.3(6)]

Maschi in muratura ordinaria: prescindere in ogni caso dalla parzializzazione: no

PressoFlessione Ortogonale:

Analisi Statica [§4.5.6.2]:

- con azioni da modello di calcolo 3D: si

- metodo semplificato (ipotesi di parete incernierata a livello dei piani) [§4.5.5, §4.5.6.2]: no

eseguire le verifiche solo in mezz'opera: si

Analisi Sismiche Lineari [§7.8.2.2.3]:

- con azioni da modello di calcolo 3D: no

- con azioni convenzionali (forze equivalenti per elementi non strutturali) [§7.2.3]: si

Analisi Pushover [§7.8.2.2.3]:

- con azioni da modello di calcolo 3D: si

Opzioni varie:

- riduzione della resistenza per gli effetti di instabilità: no
- considerare sempre eccentricità minima ($h/200$): si

PARAMETRI DI CALCOLO: Pushover (1)

Distribuzioni di forze [cfr.§7.3.4.2]:

Gruppo 1: distribuzioni principali

(B) Uni-modale: forze corrispondenti al primo modo di vibrare

Gruppo 2: distribuzioni secondarie

(E) Uniforme: forze proporzionali alle masse

Fattore di partecipazione modale Γ [cfr.§C7.3.4.2]:

calcolato con le sole masse equiverse all'analisi

$\Gamma = 1.00$ nella distribuzione di forze Uniforme (E): si

Incremento di taglio (kN) = 50

Direzione e verso di analisi: +X'

Eccentricità accidentale: curve senza momento torcente aggiuntivo

Analisi bidirezionale: curve senza combinazione direzionale

Sisma verticale: curve senza componente sismica verticale

Punto di controllo:

baricentro del piano 2

E' possibile che in input siano stati definiti nodi aggiuntivi

per l'elaborazione delle curve di capacità [§7.3.4.2]:

in ogni caso, i risultati delle verifiche con confronto

tra capacità e domanda per i vari stati limite si riferiscono

alle curve che producono i risultati a maggior favore di sicurezza.

PARAMETRI DI CALCOLO: Pushover (2)

Comportamento degli elementi strutturali:

Maschi murari:

Non eseguire verifiche a Sforzo Normale di Trazione: no

Ignorare caduta di taglio per crisi a pressoflessione ortogonale: si

Deformazione angolare limite: controllo drift ultimo

Fasce di piano (Strisce, Sottofinestra): comportamento bilineare

Fondazioni:

Ignorare aste su suolo elastico in Analisi Pushover: si

Modalità di calcolo:

Spostamento ultimo a SLU:

Spostamento corrispondente ad un taglio alla base residuo pari a 80% rispetto al massimo assoluto, considerando l'ultima configurazione equilibrata

Sistema bilineare equivalente:

Tratto elastico passante per il punto con Taglio pari a 0.70 T_{max}

Tratto plastico della curva di capacità: calcolato analiticamente

Limitare la capacità di spostamento in funzione degli SL dei singoli elementi: si

PARAMETRI DI CALCOLO: Muratura Armata

Acciaio:

Diagramma di calcolo tensione - deformazione [§4.1.2.1.2.3]:

Modello: elastico perfettamente plastico (tensioni in N/mm^2 , deformazioni in per mille):

$f_{yk} = 450$ - a) in analisi lineare: $f_{yd} = f_{yk}/\gamma_s = 391.3$ b) in analisi non lineare: $f_{ym} = f_{yk}/0.93 = 483.9$

$\epsilon_{ud} = 10$ - $E_s = 210000$

ϵ_{yd} : a) in analisi lineare: $f_{yd}/E_s = 1.86$ b) in analisi non lineare: $f_{ym}/E_s = 2.3$

Armatura:

verticale: f_{min} barre: 5 mm.; orizzontale (nei giunti):

tipo di traliccio: 2

sezione totale del traliccio A_{sw} (mm^2) = 39

distanza verticale tra i livelli di armatura (mm) = 500

f_{yk} per l'armatura orizzontale = 450

Coefficiente parziale di sicurezza $\gamma_s = 1.15$

Opzioni per Verifiche di resistenza:

Pressoflessione: contributo dell'armatura compressa no

Taglio: $V_t = V_{tM} + V_{tS} = (d \cdot t \cdot f_{vd}) + (0.6 \cdot d \cdot A_{sw} \cdot f_{yd})/s$, con: $V_t \leq 0.3 \cdot f_d \cdot t \cdot d$ [§7.8.3.2.2]

PARAMETRI DI CALCOLO: Calcestruzzo Armato

Acciaio:

Diagramma di calcolo tensione - deformazione [§4.1.2.1.2.3]:

Modello: elastico perfettamente plastico (tensioni in N/mm^2 , deformazioni in per mille):

$f_{yk} = 450$

$\epsilon_{ud} = 10$ - $E_s = 210000$

Coefficiente parziale di sicurezza per acciaio $\gamma_s = 1.15$

Fattore di confidenza FC per acciaio in c.a. esistente [cfr. Tab.C8A.1.2] = 1.2

Calcestruzzo:

Diagramma di calcolo tensione - deformazione [§4.1.2.1.2.2]:

Modello: parabolico-rettangolare:

$\epsilon_{c2} = 2$ - $\epsilon_{cu} = 3.5$

Coefficiente parziale di sicurezza per calcestruzzo $\gamma_c = 1.5$

Varie:

Verifiche a Pressoflessione: si considera sempre il contributo dell'armatura compressa

Fattore di confidenza FC per strutture in c.a. [cfr. Tab.C8A.1.2] = 1.2

3. Dati PIANI

N°	Z:altezza da fondaz. (m)	Piano Rigido (master/slave)	Nodo master	>3D:Ecc.agg. dir. (a+90)° [Y] (m)	-ecc. agg. dir. (a)° [X] (m)	Piano di controllo in Pushover	Vento +X	Vento +Y	Vento -X	Vento -Y	Press.X (kN/m²)
----	-----------------------------	--------------------------------	----------------	--------------------------------------	---------------------------------	-----------------------------------	-------------	-------------	-------------	-------------	--------------------

1	5.000	X	375	0.421	2.055		X	X	X	X	0.50
2	5.300	X	376	0.421	2.055	X	X	X	X	X	0.50

N°	Depress. X	Press. Y	Depress. Y
1	0.50	0.50	0.50
2	0.50	0.50	0.50

Descrizione dei DATI MATERIALI

Tipologia materiale: sono previsti i seguenti tipi:
 1) Conglomerato Cementizio Armato, 2) Acciaio, 3) Muratura, 4) Legno, 5) Materiale generico

Descrizione: denominazione del materiale. Nei dati seguenti, i parametri meccanici (moduli di elasticità e resistenze) sono espressi in N/mm^2 (Sistema Internazionale).

Parametri specifici per muratura:
Mur. nuova: Materiale murario di nuova realizzazione, o muratura esistente

Tipologia muratura:
 Per muratura nuova: Pietra Non Squadrata, Listata, Pietra Squadrata, Laterizio Pieni, Laterizio Semipieni, Calcestruzzo Pieni, Calcestruzzo Semipieni.
 Per muratura esistente (§C8.5.I): Pietrame disordinata, Conci sbozzati, Pietre a spacco, buona tessitura, Irregolare di pietra tenera, Conci regolari di pietra tenera, Blocchi lapidei squadrate, Mattoni pieni e malta di calce, Mattoni semipieni con malta cementizia.

FC: fattore di confidenza, corrispondente al livello di conoscenza per materiale murario esistente

Parametri validi per qualsiasi materiale:
 Modulo di elasticità longitudinale (**E**) e tangenziale (**G**)

Parametri specifici per calcestruzzo:
 resistenze:
fc (nella colonna **fk**): per edifici esistenti: resistenza media a compressione; per edifici nuovi: resistenza caratteristica a compressione.

Altri parametri specifici per muratura:
 resistenze:
fm, fk (media e caratteristica, a compressione);
ftm (media a trazione);
fhm, fhk (media e caratteristica, a compressione in direzione orizzontale nel piano del muro);
tauo (media a taglio in assenza di carichi verticali, per muratura a tessitura irregolare);
fvko/fvmo (media e caratteristica, a taglio in assenza di carichi verticali, per muratura a tessitura regolare);
fb (a compressione normalizzata del blocco - muratura regolare)
μ (coefficiente di attrito locale del giunto - muratura regolare)
φ (coefficiente di ingranamento murario - muratura regolare)
fbk (a compressione dell'elemento), **f'bk** (dell'elemento in direzione orizzontale e nel piano del muro)
Malta: fm,m: resistenza a compressione della malta (§11.10.2.1). Sono previsti i seguenti valori (N/mm²): 2.5 (corrisponde a M4 del D.M.20.11.1987), 5 (M3), 10 (M2), 15 (M1)
Coefficienti correttivi: relativi alle proprietà meccaniche dei materiali (Tab. §C8.5.II)

4. Dati MATERIALI

N°	Descrizione	Tipo di	Tipologia	Muratura	FC	E	G	fk	fm	ftm
	[param.mecc. in N/mm^2]	materiale	muratura	nuova						

1	C28/35	1) Conglomerato Cementizio Armato				31000	13000	28.000	28.000	
2	Acciaio S235	2) Acciaio				210000	80769	235.000	0.000	
3	Pietra Calcareo esistente	3) Muratura	2) Conci sbozzati		1.200	4000	1600	1.750		
2.500	0.250									
4	Muratura nuova	3) Muratura	4) Laterizio Pieni	X		5300	2120	5.300		
7.571	0.757									
5	Legno	5) Materiale generico				10000	3500	0.000	0.000	

N°	fhk	fhm	tauo	fvko	fvm0	w (p.sp.) (kN/m^3)	Coeff.dilataz. termica (°^-1)	fb	coeff. attr.mi	coeff. ingr.phi	fbk	f'bk	Malta: fm,m	Coeff.corr.: Malta scadente	Malta buona
1						25.00	0.000010								
2						78.50	0.000012								
3	0.875	1.250	0.043	0.000	0.000	22.00	0.000010	0.000	0.000	0.000	0.00	0.00	0.0	0.70	1.40
4	2.650	3.786	0.000	0.300	0.429	18.00	0.000010	10.000	0.577	1.000	10.00	2.00	10.0	1.00	1.00
5						8.00	0.000004								

N°	Giunti sottili	Ricorsi o listature	Connessione trasversale	Nucleo scadente	Iniezioni di malta	Intonaco armato	Ristilatura armata	Max.coeff. compless.
1								
2								
3	1.00	1.20	1.50	0.80	1.70	2.00	1.50	3.00
4	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
5								

Descrizione dei DATI NODI

(Nella tabella Dati Nodi, alcuni dati che per il Progetto corrente non risultano significativi possono essere omissi)

N°: numero progressivo del nodo

Nome: stringa descrittiva del nodo

X,Y,Z: coordinate del nodo

Piano: piano (o impalcato) a cui il nodo appartiene. Nodi appartenenti all'impalcato 0 sono i nodi di fondazione.

Vinc. est. (1=lib., 0=blocc.): vincolamento esterno del nodo. Si devono tenere presenti le seguenti specifiche:

0 = indica movimento bloccato (=grado di libertà inattivo o nullo)

1 = indica movimento libero (=grado di libertà attivo)

(convenzione contraria rispetto a quella utilizzata nel codice SAP).

La sequenza dei 6 valori è: u - v - w - phi,X - phi,Y - phi,Z, con riferimento al sistema di assi globale X Y Z:

u = spostamento lungo X, **v** = spostamento lungo Y, **w** = spostamento lungo Z

phi,X = rotazione intorno all'asse X, **phi,Y** = rotazione intorno all'asse Y, **phi,Z** = rotazione intorno all'asse Z

Alcuni tipi di vincoli esterni notevoli sono i seguenti:

Incastro: 000000

Per **telai 3D:**

Nodo libero: 111111 (tali sono i nodi interni della struttura, non esternamente vincolati)

Cerniera sferica: 000111 (libere le tre rotazioni, ma non gli spostamenti)

Nodo slave nell'impalcato orizzontale: 001110

Nodo master nell'impalcato orizzontale: 110001

Per **telai 2D,** posti nel piano XZ:

Nodo libero: 101010 (liberi: u, w, phi,y) (tali sono i nodi interni della struttura, non esternamente vincolati)

Cerniera: 000010 (unico movimento libero: rotazione phi,y)

Carrello lungo X: 100010 (movimenti liberi: u, phi,y)

Carrello lungo Z: 001010 (liberi: w, phi,y)

Incastro scorrevole lungo X: 100000 (libero solo u)

Incastro scorrevole lungo Z: 001000 (libero solo w)

Nodo master: se il nodo *i* è riferito al nodo Master *j*, lo spostamento di *i* è rigidamente collegato allo spostamento di *j*; in altri termini, *i* è un nodo dipendente (slave). Le componenti di spostamento rigidamente dipendenti dal nodo master sono quelle che nel nodo *i* risultano bloccate (0) e corrispondentemente nel nodo *j* risultano libere (1).

La relazione master-slave viene utilizzata nel caso di analisi 3D con impalcati rigidi nel proprio piano sotto l'azione di forze orizzontali e momenti torcenti agenti a livello degli impalcati stessi (tali sono le analisi sismiche). Il nodo master, specificato nei Dati Piani, coincide con il baricentro di piano; la sua posizione è determinata dal baricentro delle masse che insistono nei nodi ad esso riferiti: è infatti possibile che in un dato piano alcuni nodi siano sede di massa indipendente e quindi non siano riferiti al nodo master.

Per un telaio spaziale con impalcati orizzontali infinitamente rigidi, i nodi slave sono nodi con bloccati i movimenti u (spostamento lungo X), v (spostamento lungo Y) e phi,z (rotazione attorno a Z):

001110

mentre i nodi master (uno per impalcato, generalmente baricentrico) sono del tipo:

110001

I nodi slave conservano gradi di libertà per movimenti verticali (lungo Z) e per le rotazioni phi,X e phi,Y.

Per nodi non riferiti a nodi master, la specifica di 'Nodo master' è 0, e così pure per i nodi master stessi.

Vinc.elast. Ku, Kv, Kw, KphiX, KphiY, KphiZ: vincoli elastici. Essi devono corrispondere a componenti di spostamento libere, altrimenti vengono ignorati. I vincoli elastici sono rappresentati dalle rigidezze delle 'molle': spostamenti lineari (traslazioni) in kN/m, e rotazioni (molle di torsione) in kN m/mrad

5. Dati NODI

Nome	X (m)	Y (m)	Z (m)	Piano	Vinc.est. (1=lib.,0=blocc.)	u (sX)	v (sX)	w (sX)	phiX	phiY	phiZ	Nodo master
1.	0.899	0.000	0.000	0	001110			X	X	X		0
2.	0.899	0.000	5.000	1	001110			X	X	X		375
3.	1.795	0.000	0.000	0	001110			X	X	X		0
4.	0.002	0.000	5.000	1	001110			X	X	X		375
5.	1.795	0.000	5.000	1	001110			X	X	X		375
6.	4.944	0.000	0.000	0	001110			X	X	X		0
7.	4.944	0.000	5.000	1	001110			X	X	X		375
8.	4.060	0.000	0.000	0	001110			X	X	X		0
9.	4.060	0.000	5.000	1	001110			X	X	X		375
10.	5.828	0.000	5.000	1	001110			X	X	X		375
11.	6.712	0.000	0.000	0	001110			X	X	X		0
12.	6.712	0.000	5.000	1	001110			X	X	X		375

13.	7.596	0.000	5.000	1	001110				X	X	X		375
14.	10.744	0.000	0.000	0	001110				X	X	X		0
15.	10.744	0.000	5.000	1	001110				X	X	X		375
16.	9.861	0.000	5.000	1	001110				X	X	X		375
17.	11.628	0.000	5.000	1	001110				X	X	X		375
18.	12.511	0.000	0.000	0	001110				X	X	X		0
19.	12.511	0.000	5.000	1	001110				X	X	X		375
20.	13.395	0.000	0.000	0	001110				X	X	X		0
21.	13.395	0.000	5.000	1	001110				X	X	X		375
22.	15.969	0.000	0.000	0	001110				X	X	X		0
23.	15.969	0.000	5.000	1	001110				X	X	X		375
24.	15.660	0.000	0.000	0	001110				X	X	X		0
25.	15.660	0.000	5.000	1	001110				X	X	X		375
26.	16.278	0.000	5.000	1	001110				X	X	X		375
27.	17.503	0.000	0.000	0	001110				X	X	X		0
28.	17.503	0.000	5.000	1	001110				X	X	X		375
29.	18.728	0.000	5.000	1	001110				X	X	X		375
30.	18.986	0.000	0.000	0	001110				X	X	X		0
31.	18.986	0.000	5.000	1	001110				X	X	X		375
32.	19.245	0.000	5.000	1	001110				X	X	X		375
33.	21.770	0.000	0.000	0	001110				X	X	X		0
34.	21.770	0.000	5.000	1	001110				X	X	X		375
35.	21.510	0.000	5.000	1	001110				X	X	X		375
36.	22.030	0.000	5.000	1	001110				X	X	X		375
37.	23.254	0.000	0.000	0	001110				X	X	X		0
38.	23.254	0.000	5.000	1	001110				X	X	X		375
39.	24.478	0.000	5.000	1	001110				X	X	X		375
40.	24.661	0.000	0.000	0	001110				X	X	X		0
41.	24.661	0.000	5.000	1	001110				X	X	X		375
42.	24.845	0.000	0.000	0	001110				X	X	X		0
43.	24.845	0.000	5.000	1	001110				X	X	X		375
44.	28.094	0.000	0.000	0	001110				X	X	X		0
45.	28.094	0.000	5.000	1	001110				X	X	X		375
46.	27.110	0.000	0.000	0	001110				X	X	X		0
47.	27.110	0.000	5.000	1	001110				X	X	X		375
48.	29.078	0.000	5.000	1	001110				X	X	X		375
49.	30.061	0.000	0.000	0	001110				X	X	X		0
50.	30.061	0.000	5.000	1	001110				X	X	X		375
51.	31.045	0.000	5.000	1	001110				X	X	X		375
52.	34.294	0.000	0.000	0	001110				X	X	X		0
53.	34.294	0.000	5.000	1	001110				X	X	X		375
54.	33.310	0.000	5.000	1	001110				X	X	X		375
55.	35.278	0.000	5.000	1	001110				X	X	X		375
56.	36.261	0.000	0.000	0	001110				X	X	X		0
57.	36.261	0.000	5.000	1	001110				X	X	X		375
58.	37.245	0.000	0.000	0	001110				X	X	X		0
59.	37.245	0.000	5.000	1	001110				X	X	X		375
60.	40.306	0.000	0.000	0	001110				X	X	X		0
61.	40.306	0.000	5.000	1	001110				X	X	X		375
62.	39.510	0.000	0.000	0	001110				X	X	X		0
63.	39.510	0.000	5.000	1	001110				X	X	X		375
64.	41.102	0.000	5.000	1	001110				X	X	X		375
65.	41.102	1.538	0.000	0	001110				X	X	X		0
66.	41.102	1.538	5.000	1	001110				X	X	X		375
67.	41.102	3.076	0.000	0	001110				X	X	X		0
68.	41.102	3.076	5.000	1	001110				X	X	X		375
69.	41.102	6.880	0.000	0	001110				X	X	X		0
70.	41.102	6.880	5.000	1	001110				X	X	X		375
71.	41.102	5.341	0.000	0	001110				X	X	X		0
72.	41.102	5.341	5.000	1	001110				X	X	X		375
73.	41.102	8.418	5.000	1	001110				X	X	X		375
74.	40.306	8.418	0.000	0	001110				X	X	X		0
75.	40.306	8.418	5.000	1	001110				X	X	X		375
76.	39.510	8.418	0.000	0	001110				X	X	X		0
77.	39.510	8.418	5.000	1	001110				X	X	X		375
78.	36.261	8.418	0.000	0	001110				X	X	X		0
79.	36.261	8.418	5.000	1	001110				X	X	X		375
80.	37.245	8.418	0.000	0	001110				X	X	X		0
81.	37.245	8.418	5.000	1	001110				X	X	X		375
82.	35.278	8.418	5.000	1	001110				X	X	X		375
83.	34.294	8.418	0.000	0	001110				X	X	X		0
84.	34.294	8.418	5.000	1	001110				X	X	X		375
85.	33.310	8.418	5.000	1	001110				X	X	X		375
86.	30.061	8.418	0.000	0	001110				X	X	X		0
87.	30.061	8.418	5.000	1	001110				X	X	X		375
88.	31.045	8.418	5.000	1	001110				X	X	X		375
89.	29.078	8.418	5.000	1	001110				X	X	X		375
90.	28.094	8.418	0.000	0	001110				X	X	X		0
91.	28.094	8.418	5.000	1	001110				X	X	X		375
92.	27.110	8.418	0.000	0	001110				X	X	X		0
93.	27.110	8.418	5.000	1	001110				X	X	X		375
94.	24.661	8.418	0.000	0	001110				X	X	X		0
95.	24.661	8.418	5.000	1	001110				X	X	X		375
96.	24.845	8.418	0.000	0	001110				X	X	X		0
97.	24.845	8.418	5.000	1	001110				X	X	X		375
98.	24.478	8.418	5.000	1	001110				X	X	X		375

99.	23.254	8.418	0.000	0	001110				X	X	X		0
100.	23.254	8.418	5.000	1	001110				X	X	X		375
101.	22.030	8.418	5.000	1	001110				X	X	X		375
102.	21.770	8.418	0.000	0	001110				X	X	X		0
103.	21.770	8.418	5.000	1	001110				X	X	X		375
104.	21.510	8.418	5.000	1	001110				X	X	X		375
105.	18.986	8.418	0.000	0	001110				X	X	X		0
106.	18.986	8.418	5.000	1	001110				X	X	X		375
107.	19.245	8.418	5.000	1	001110				X	X	X		375
108.	18.728	8.418	5.000	1	001110				X	X	X		375
109.	17.503	8.418	0.000	0	001110				X	X	X		0
110.	17.503	8.418	5.000	1	001110				X	X	X		375
111.	16.278	8.418	5.000	1	001110				X	X	X		375
112.	15.969	8.418	0.000	0	001110				X	X	X		0
113.	15.969	8.418	5.000	1	001110				X	X	X		375
114.	15.660	8.418	0.000	0	001110				X	X	X		0
115.	15.660	8.418	5.000	1	001110				X	X	X		375
116.	12.511	8.418	0.000	0	001110				X	X	X		0
117.	12.511	8.418	5.000	1	001110				X	X	X		375
118.	13.395	8.418	0.000	0	001110				X	X	X		0
119.	13.395	8.418	5.000	1	001110				X	X	X		375
120.	11.628	8.418	5.000	1	001110				X	X	X		375
121.	10.744	8.418	0.000	0	001110				X	X	X		0
122.	10.744	8.418	5.000	1	001110				X	X	X		375
123.	9.861	8.418	5.000	1	001110				X	X	X		375
124.	6.712	8.418	0.000	0	001110				X	X	X		0
125.	6.712	8.418	5.000	1	001110				X	X	X		375
126.	7.596	8.418	5.000	1	001110				X	X	X		375
127.	5.828	8.418	5.000	1	001110				X	X	X		375
128.	4.944	8.418	0.000	0	001110				X	X	X		0
129.	4.944	8.418	5.000	1	001110				X	X	X		375
130.	4.060	8.418	0.000	0	001110				X	X	X		0
131.	4.060	8.418	5.000	1	001110				X	X	X		375
132.	0.897	8.418	0.000	0	001110				X	X	X		0
133.	0.897	8.418	5.000	1	001110				X	X	X		375
134.	1.795	8.418	0.000	0	001110				X	X	X		0
135.	1.795	8.418	5.000	1	001110				X	X	X		375
136.	0.000	8.418	5.000	1	001110				X	X	X		375
137.	24.478	6.813	0.000	0	001110				X	X	X		0
138.	24.478	6.813	4.380	1	001110				X	X	X		375
139.	24.478	8.418	4.380	1	001110				X	X	X		375
140.	24.478	5.209	4.380	1	001110				X	X	X		375
141.	24.478	1.604	0.000	0	001110				X	X	X		0
142.	24.478	1.604	4.380	1	001110				X	X	X		375
143.	24.478	3.209	4.380	1	001110				X	X	X		375
144.	24.478	0.000	4.380	1	001110				X	X	X		375
145.	16.278	1.604	0.000	0	001110				X	X	X		0
146.	16.278	1.604	4.380	1	001110				X	X	X		375
147.	16.278	0.000	4.380	1	001110				X	X	X		375
148.	16.278	3.209	4.380	1	001110				X	X	X		375
149.	16.278	6.813	0.000	0	001110				X	X	X		0
150.	16.278	6.813	4.380	1	001110				X	X	X		375
151.	16.278	5.209	4.380	1	001110				X	X	X		375
152.	16.278	8.418	4.380	1	001110				X	X	X		375
153.	2.914	8.418	5.000	1	001110				X	X	X		375
154.	2.914	8.418	5.300	2	001110				X	X	X		376
155.	5.828	8.418	5.300	2	001110				X	X	X		376
156.	0.000	8.418	5.300	2	001110				X	X	X		376
157.	8.728	8.418	5.000	1	001110				X	X	X		375
158.	8.728	8.418	5.300	2	001110				X	X	X		376
159.	11.628	8.418	5.300	2	001110				X	X	X		376
160.	13.953	8.418	5.000	1	001110				X	X	X		375
161.	13.953	8.418	5.300	2	001110				X	X	X		376
162.	16.278	8.418	5.300	2	001110				X	X	X		376
163.	17.503	8.418	5.300	2	001110				X	X	X		376
164.	18.728	8.418	5.300	2	001110				X	X	X		376
165.	20.379	8.418	5.000	1	001110				X	X	X		375
166.	20.379	8.418	5.300	2	001110				X	X	X		376
167.	22.030	8.418	5.300	2	001110				X	X	X		376
168.	23.254	8.418	5.300	2	001110				X	X	X		376
169.	24.477	8.418	5.300	2	001110				X	X	X		376
170.	26.777	8.418	5.000	1	001110				X	X	X		375
171.	26.777	8.418	5.300	2	001110				X	X	X		376
172.	29.078	8.418	5.300	2	001110				X	X	X		376
173.	32.178	8.418	5.000	1	001110				X	X	X		375
174.	32.178	8.418	5.300	2	001110				X	X	X		376
175.	35.278	8.418	5.300	2	001110				X	X	X		376
176.	38.190	8.418	5.000	1	001110				X	X	X		375
177.	38.190	8.418	5.300	2	001110				X	X	X		376
178.	41.102	8.418	5.300	2	001110				X	X	X		376
179.	38.190	0.000	5.000	1	001110				X	X	X		375
180.	38.190	0.000	5.300	2	001110				X	X	X		376
181.	35.278	0.000	5.300	2	001110				X	X	X		376
182.	41.102	0.000	5.300	2	001110				X	X	X		376
183.	32.178	0.000	5.000	1	001110				X	X	X		375
184.	32.178	0.000	5.300	2	001110				X	X	X		376

185.	29.078	0.000	5.300	2	001110				X	X	X		376
186.	26.778	0.000	5.000	1	001110				X	X	X		375
187.	26.778	0.000	5.300	2	001110				X	X	X		376
188.	24.478	0.000	5.300	2	001110				X	X	X		376
189.	23.254	0.000	5.300	2	001110				X	X	X		376
190.	22.030	0.000	5.300	2	001110				X	X	X		376
191.	20.379	0.000	5.000	1	001110				X	X	X		375
192.	20.379	0.000	5.300	2	001110				X	X	X		376
193.	18.728	0.000	5.300	2	001110				X	X	X		376
194.	17.503	0.000	5.300	2	001110				X	X	X		376
195.	16.278	0.000	5.300	2	001110				X	X	X		376
196.	13.953	0.000	5.000	1	001110				X	X	X		375
197.	13.953	0.000	5.300	2	001110				X	X	X		376
198.	11.628	0.000	5.300	2	001110				X	X	X		376
199.	8.728	0.000	5.000	1	001110				X	X	X		375
200.	8.728	0.000	5.300	2	001110				X	X	X		376
201.	5.828	0.000	5.300	2	001110				X	X	X		376
202.	2.915	0.000	5.000	1	001110				X	X	X		375
203.	2.915	0.000	5.300	2	001110				X	X	X		376
204.	0.002	0.000	5.300	2	001110				X	X	X		376
205.	41.102	2.104	5.000	1	001110				X	X	X		375
206.	41.102	2.104	6.050	2	001110				X	X	X		376
207.	41.102	4.209	6.800	2	001110				X	X	X		376
208.	41.102	6.313	5.000	1	001110				X	X	X		375
209.	41.102	6.313	6.050	2	001110				X	X	X		376
210.	0.000	6.313	5.000	1	001110				X	X	X		375
211.	0.000	6.313	6.050	2	001110				X	X	X		376
212.	0.001	4.209	6.800	2	001110				X	X	X		376
213.	0.001	2.104	5.000	1	001110				X	X	X		375
214.	0.001	2.104	6.050	2	001110				X	X	X		376
215.	0.000	7.015	0.000	0	001110				X	X	X		0
216.	0.000	7.015	5.000	1	001110				X	X	X		375
217.	0.001	5.612	5.000	1	001110				X	X	X		375
218.	0.001	4.209	0.000	0	001110				X	X	X		0
219.	0.001	4.209	5.000	1	001110				X	X	X		375
220.	0.001	2.806	5.000	1	001110				X	X	X		375
221.	0.002	1.403	0.000	0	001110				X	X	X		0
222.	0.002	1.403	5.000	1	001110				X	X	X		375
223.	0.002	0.000	0.000	0	001110				X	X	X		0
224.	7.596	0.000	0.000	0	001110				X	X	X		0
225.	9.860	0.000	0.000	0	001110				X	X	X		0
226.	16.278	0.000	0.000	0	001110				X	X	X		0
227.	18.728	0.000	0.000	0	001110				X	X	X		0
228.	19.245	0.000	0.000	0	001110				X	X	X		0
229.	21.510	0.000	0.000	0	001110				X	X	X		0
230.	22.030	0.000	0.000	0	001110				X	X	X		0
231.	24.478	0.000	0.000	0	001110				X	X	X		0
232.	31.045	0.000	0.000	0	001110				X	X	X		0
233.	33.310	0.000	0.000	0	001110				X	X	X		0
234.	41.102	0.000	0.000	0	001110				X	X	X		0
235.	41.102	8.418	0.000	0	001110				X	X	X		0
236.	33.310	8.418	0.000	0	001110				X	X	X		0
237.	31.045	8.418	0.000	0	001110				X	X	X		0
238.	24.478	8.418	0.000	0	001110				X	X	X		0
239.	22.030	8.418	0.000	0	001110				X	X	X		0
240.	21.510	8.418	0.000	0	001110				X	X	X		0
241.	19.245	8.418	0.000	0	001110				X	X	X		0
242.	18.728	8.418	0.000	0	001110				X	X	X		0
243.	16.278	8.418	0.000	0	001110				X	X	X		0
244.	9.861	8.418	0.000	0	001110				X	X	X		0
245.	7.596	8.418	0.000	0	001110				X	X	X		0
246.	0.000	8.418	0.000	0	001110				X	X	X		0
247.	3.950	8.418	5.300	2	001110				X	X	X		376
248.	3.951	4.209	6.800	2	001110				X	X	X		376
249.	3.952	0.000	5.300	2	001110				X	X	X		376
250.	7.651	4.209	6.800	2	001110				X	X	X		376
251.	7.652	0.000	5.300	2	001110				X	X	X		376
252.	7.650	8.418	5.300	2	001110				X	X	X		376
253.	11.351	4.209	6.800	2	001110				X	X	X		376
254.	11.352	0.000	5.300	2	001110				X	X	X		376
255.	11.350	8.418	5.300	2	001110				X	X	X		376
256.	15.051	4.209	6.800	2	001110				X	X	X		376
257.	15.052	0.000	5.300	2	001110				X	X	X		376
258.	15.050	8.418	5.300	2	001110				X	X	X		376
259.	18.725	8.418	5.300	2	001110				X	X	X		376
260.	18.726	6.609	5.945	2	001110				X	X	X		376
261.	26.052	8.418	5.300	2	001110				X	X	X		376
262.	26.051	4.209	6.800	2	001110				X	X	X		376
263.	26.050	0.000	5.300	2	001110				X	X	X		376
264.	29.752	8.418	5.300	2	001110				X	X	X		376
265.	29.751	4.209	6.800	2	001110				X	X	X		376
266.	29.750	0.000	5.300	2	001110				X	X	X		376
267.	33.452	8.418	5.300	2	001110				X	X	X		376
268.	33.451	4.209	6.800	2	001110				X	X	X		376
269.	33.450	0.000	5.300	2	001110				X	X	X		376
270.	37.151	4.209	6.800	2	001110				X	X	X		376

271.	37.150	0.000	5.300	2	001110				X	X	X		376
272.	37.152	8.418	5.300	2	001110				X	X	X		376
273.	18.726	4.209	6.800	2	001110				X	X	X		376
274.	22.029	4.209	6.800	2	001110				X	X	X		376
275.	41.101	4.209	6.800	2	001110				X	X	X		376
276.	0.000	8.418	5.600	2	001110				X	X	X		376
277.	41.102	8.418	5.600	2	001110				X	X	X		376
278.	41.102	4.209	7.100	2	001110				X	X	X		376
279.	41.102	0.000	5.600	2	001110				X	X	X		376
280.	0.000	0.000	5.600	2	001110				X	X	X		376
281.	0.000	4.209	7.100	2	001110				X	X	X		376
282.	18.728	0.000	2.500	1	001110				X	X	X		375
283.	18.728	1.809	2.500	1	001110				X	X	X		375
284.	18.728	3.209	2.500	1	001110				X	X	X		375
285.	18.728	6.609	2.500	1	001110				X	X	X		375
286.	18.728	5.209	2.500	1	001110				X	X	X		375
287.	18.728	8.418	2.500	1	001110				X	X	X		375
288.	18.726	5.209	6.444	2	001110				X	X	X		376
289.	18.725	0.000	5.300	2	001110				X	X	X		376
290.	18.726	1.809	5.945	2	001110				X	X	X		376
291.	18.726	3.209	6.444	2	001110				X	X	X		376
292.	22.030	1.809	2.500	1	001110				X	X	X		375
293.	22.030	3.209	2.500	1	001110				X	X	X		375
294.	22.030	0.000	2.500	1	001110				X	X	X		375
295.	22.030	5.209	2.500	1	001110				X	X	X		375
296.	22.028	1.809	5.945	2	001110				X	X	X		376
297.	22.029	3.209	6.444	2	001110				X	X	X		376
298.	22.028	0.000	5.300	2	001110				X	X	X		376
299.	22.029	5.209	6.444	2	001110				X	X	X		376
300.	22.028	6.609	5.945	2	001110				X	X	X		376
301.	22.028	8.418	5.300	2	001110				X	X	X		376
302.	22.030	6.609	2.500	1	001110				X	X	X		375
303.	22.030	8.418	2.500	1	001110				X	X	X		375
304.	18.728	3.209	0.000	0	001110				X	X	X		0
305.	18.728	3.209	6.500	1	001110				X	X	X		375
306.	18.728	1.809	0.000	0	001110				X	X	X		0
307.	18.728	1.809	6.000	1	001110				X	X	X		375
308.	18.728	6.609	0.000	0	001110				X	X	X		0
309.	18.728	6.609	6.000	1	001110				X	X	X		375
310.	18.728	5.209	0.000	0	001110				X	X	X		0
311.	18.728	5.209	6.500	1	001110				X	X	X		375
312.	22.030	1.809	0.000	0	001110				X	X	X		0
313.	22.030	1.809	6.000	1	001110				X	X	X		375
314.	22.030	3.209	0.000	0	001110				X	X	X		0
315.	22.030	3.209	6.500	1	001110				X	X	X		375
316.	22.030	5.209	0.000	0	001110				X	X	X		0
317.	22.030	5.209	6.500	1	001110				X	X	X		375
318.	22.030	6.609	0.000	0	001110				X	X	X		0
319.	22.030	6.609	6.000	1	001110				X	X	X		375
320.	16.278	3.209	2.500	1	111111	X	X	X	X	X	X	X	0
321.	16.278	5.209	2.500	1	111111	X	X	X	X	X	X	X	0
322.	24.478	5.209	2.500	1	111111	X	X	X	X	X	X	X	0
323.	24.478	3.209	2.500	1	111111	X	X	X	X	X	X	X	0
324.	5.828	8.418	5.600	2	001110				X	X	X		376
325.	11.628	8.418	5.600	2	001110				X	X	X		376
326.	16.278	8.418	5.600	2	001110				X	X	X		376
327.	18.728	8.418	5.600	2	001110				X	X	X		376
328.	22.030	8.418	5.600	2	001110				X	X	X		376
329.	24.477	8.418	5.600	2	001110				X	X	X		376
330.	29.078	8.418	5.600	2	001110				X	X	X		376
331.	35.278	8.418	5.600	2	001110				X	X	X		376
332.	35.278	0.000	5.600	2	001110				X	X	X		376
333.	29.078	0.000	5.600	2	001110				X	X	X		376
334.	24.478	0.000	5.600	2	001110				X	X	X		376
335.	22.030	0.000	5.600	2	001110				X	X	X		376
336.	18.728	0.000	5.600	2	001110				X	X	X		376
337.	16.278	0.000	5.600	2	001110				X	X	X		376
338.	11.628	0.000	5.600	2	001110				X	X	X		376
339.	5.828	0.000	5.600	2	001110				X	X	X		376
340.	5.828	0.000	0.000	0	001110				X	X	X		0
341.	11.628	0.000	0.000	0	001110				X	X	X		0
342.	29.078	0.000	0.000	0	001110				X	X	X		0
343.	35.278	0.000	0.000	0	001110				X	X	X		0
344.	35.277	8.418	0.000	0	001110				X	X	X		0
345.	29.077	8.418	0.000	0	001110				X	X	X		0
346.	11.628	8.418	0.000	0	001110				X	X	X		0
347.	5.828	8.418	0.000	0	001110				X	X	X		0
348.	24.478	5.209	0.000	0	001110				X	X	X		0
349.	24.478	3.209	0.000	0	001110				X	X	X		0
350.	16.278	3.209	0.000	0	001110				X	X	X		0
351.	16.278	5.209	0.000	0	001110				X	X	X		0
352.	0.001	5.612	0.000	0	001110				X	X	X		0
353.	0.001	2.806	0.000	0	001110				X	X	X		0
354.	0.002	0.000	5.600	2	001110				X	X	X		376
355.	3.950	8.418	5.600	2	001110				X	X	X		376
356.	3.952	0.000	5.600	2	001110				X	X	X		376

357.	7.652	0.000	5.600	2	001110				X	X	X			376
358.	7.650	8.418	5.600	2	001110				X	X	X			376
359.	11.352	0.000	5.600	2	001110				X	X	X			376
360.	11.350	8.418	5.600	2	001110				X	X	X			376
361.	15.052	0.000	5.600	2	001110				X	X	X			376
362.	15.050	8.418	5.600	2	001110				X	X	X			376
363.	18.725	8.418	5.600	2	001110				X	X	X			376
364.	26.052	8.418	5.600	2	001110				X	X	X			376
365.	26.050	0.000	5.600	2	001110				X	X	X			376
366.	29.752	8.418	5.600	2	001110				X	X	X			376
367.	29.750	0.000	5.600	2	001110				X	X	X			376
368.	33.452	8.418	5.600	2	001110				X	X	X			376
369.	33.450	0.000	5.600	2	001110				X	X	X			376
370.	37.150	0.000	5.600	2	001110				X	X	X			376
371.	37.152	8.418	5.600	2	001110				X	X	X			376
372.	18.725	0.000	5.600	2	001110				X	X	X			376
373.	22.028	0.000	5.600	2	001110				X	X	X			376
374.	22.028	8.418	5.600	2	001110				X	X	X			376
G.1.	20.278	4.209	5.000	1	110001	X	X					X		0
G.2.	20.579	4.209	5.300	2	110001	X	X					X		0

Descrizione dei DATI SEZIONI

(Nella tabella Dati Sezioni, alcuni dati che per il Progetto corrente non risultano significativi possono essere omessi)

Descrizione: denominazione della sezione

Tipologia: la sezione viene definita anzitutto dalla propria tipologia, e poi dai parametri geometrici, espressi nel sistema di riferimento locale xyz. L'asse x è l'asse baricentrico dell'asta, con verso congiungente il nodo iniziale con il nodo finale; l'asse z è verticale e l'asse y è entrante nel piano xz. La terna xyz è destrorsa. Forze e spostamenti sono positivi se equivalgono agli assi; coppie e rotazioni sono positive se antiorarie (phi,z: x->y; phi,y: z->x; phi,x: y->z). La convenzione è invariata sia al nodo i iniziale, sia al nodo j finale.

Per tipologie notevoli, PCM calcola automaticamente i parametri statici e richiede, anziché tutti i parametri, solo i dati geometrici strettamente indispensabili.

Elenco dei possibili valori della Tipologia con i corrispondenti parametri:

0 = Qualsiasi. Vengono forniti tutti i parametri statici: *H sez. (cm)*, *A (cm²)*, *Jx,Jy,Jz (cm⁴)*, *Aty,Atz (cm²)*, *Alfa (°)*

H sez. è l'altezza della sezione ai fini del carico termico nel piano locale xz; *A* = area; *Jy,Jz* = momenti d'inerzia principali intorno agli assi locali principali *csi* e *eta*; *Jx* = momento d'inerzia torsionale (intorno a x); *Aty, Atz* = aree a taglio in direzione y e z locali; *Alfa* = angolo fra gli assi locali *csi* e y (*csi* ed *eta* coincidono con gli assi y e z quando Alfa=0°).

1 = Rettangolare (include la **Quadrata**). Parametri in input: *B,H (cm)*

B è la base della sezione, lato parallelo a y; *H* è l'altezza, lato parallelo a z.

2 = Rettangolare cava. Parametri in input: *B,H,Bi,Hi (cm)*

B,H = lati esterni, rispettivamente paralleli a y e a z; *b,h* = corrispondenti lati interni (=dimensioni della cavità).

3 = Circolare. Parametri in input: *R (cm)*

R è il raggio della sezione.

4 = Circolare cava. Parametri in input: *R,r (cm)*

R, r sono rispettivamente il raggio esterno ed il raggio interno della sezione.

5 = T rovescia (trave di fondazione). Parametri in input: *B,H,b,h (cm)*

B = base superiore (spessore anima); *b* = base inferiore (larghezza suola) (*B < b*);

H = altezza superiore (altezza anima); *h* = altezza inferiore (spessore suola).

6 = T. Parametri in input: *B,H,b,h (cm)*

B = base superiore (larghezza ala); *b* = base inferiore (spessore anima) (*B > b*);

H = altezza superiore (spessore ala); *h* = altezza inferiore (spessore anima).

7 = L, ala sup., anima dx.

8 = L, ala sup., anima sx.

9 = L, ala inf., anima dx.

10 = L, ala inf., anima sx. Parametri in input: *B,H,b,h (cm)*

B = base superiore; *b* = base inferiore; *H* = altezza superiore; *h* = altezza inferiore.

11 = I (doppio T). Parametri in input: *B,H,b,h (cm)*

B = base ala; *b* = spessore anima; *H* = altezza ala; *h* = altezza anima.

12 = Acciaio: profilato IPE, HEA, HEB, HEM, L, UPN. Parametri predeterminati. L'elenco delle sezioni disponibili è fornito nel file di testo *Acciaio.dat* installato in \PcmFiles. Sezioni di altri profilati potranno essere aggiunte come sezioni qualsiasi, specificandone i parametri statici.

13 = Acciaio: sezione composta generata dall'accoppiamento della sezione di un profilato secondo gli assi locali y e/o z.

6. Dati SEZIONI

N°	Tipologia	Descrizione	B / (m)	R / (m)	H / (m)	r / (m)	b / (m)	s / (m)	h / (m)	t / (m)	H sez. (m)	Area (m ²)	Jx (m ⁴)	Jy (m ⁴)	Jz (m ⁴)	Aty (m ²)	Atz (m ²)
1	0) Qualunque	Rigid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
2	1) Rettangolare	500x350	0.500	0.350	0.000	0.000	0.000	0.000	0.000	0.000	0.350	1.75E-01	3.97E-03	1.79E-03	3.65E-03	1.46E-01	1.46E-01
3	1) Rettangolare	600x1200	0.600	1.200	0.000	0.000	0.000	0.000	0.000	0.000	1.200	7.20E-01	5.83E-02	8.64E-02	2.16E-02	6.00E-01	6.00E-01
4	3) Circolare	d300	0.150	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.150	7.07E-02	7.95E-04	3.98E-04	3.98E-04	6.36E-02	6.36E-02
5	12) Profilato in Acciaio	HEA 100	0.100	0.096	0.005	0.008	0.000	0.000	0.000	0.000	0.096	2.12E-03	1.05E-07	3.49E-06	1.34E-06	7.52E-04	1.84E-03
6	13) Sez.composta in Acciaio	IPE 140 2y	0.073	0.140	0.005	0.007	0.000	0.000	0.000	0.000	0.140	3.28E-03	4.00E-08	1.08E-05	5.27E-06	2.23E-03	1.52E-03
7	1) Rettangolare	160x240	0.160	0.240	0.000	0.000	0.000	0.000	0.000	0.000	0.240	3.84E-02	1.88E-04	1.84E-04	8.19E-05	3.20E-02	3.20E-02
8	1) Rettangolare	160x200	0.160	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.200	3.20E-02	1.38E-04	1.07E-04	6.83E-05	2.67E-02	2.67E-02
9	1) Rettangolare	600x800	0.600	0.800	0.000	0.000	0.000	0.000	0.000	0.000	0.800	4.80E-01	3.05E-02	2.56E-02	1.44E-02	4.00E-01	4.00E-01
10	1) Rettangolare	A 500x1793	0.500	1.793	0.000	0.000	0.000	0.000	0.000	0.000	1.793	8.97E-01	6.22E-02	2.40E-01	1.87E-02	7.47E-01	7.47E-01
11	1) Rettangolare	A 500x1768	0.500	1.768	0.000	0.000	0.000	0.000	0.000	0.000	1.768	8.84E-01	6.11E-02	2.30E-01	1.84E-02	7.37E-01	7.37E-01

12	1) Rettangolare	A 500x3180	0.500	3.180	0.000	0.000	3.180	1.59E+00	1.22E-01	1.34E+00	3.31E-02	1.33E+00	1.33E+00
13	1) Rettangolare	A 500x1060	0.500	1.060	0.000	0.000	1.060	5.30E-01	3.06E-02	4.96E-02	1.10E-02	4.42E-01	4.42E-01
14	1) Rettangolare	A 500x1767	0.500	1.767	0.000	0.000	1.767	8.84E-01	6.11E-02	2.30E-01	1.84E-02	7.36E-01	7.36E-01
15	1) Rettangolare	A 500x618	0.500	0.618	0.000	0.000	0.618	3.09E-01	1.29E-02	9.83E-03	6.44E-03	2.58E-01	2.58E-01
16	1) Rettangolare	A 500x2450	0.500	2.450	0.000	0.000	2.450	1.23E+00	9.07E-02	6.13E-01	2.55E-02	1.02E+00	1.02E+00
17	1) Rettangolare	A 500x518	0.500	0.518	0.000	0.000	0.518	2.59E-01	9.40E-03	5.79E-03	5.40E-03	2.16E-01	2.16E-01
18	1) Rettangolare	A 500x520	0.500	0.520	0.000	0.000	0.520	2.60E-01	9.47E-03	5.86E-03	5.42E-03	2.17E-01	2.17E-01
19	1) Rettangolare	A 500x2447	0.500	2.447	0.000	0.000	2.447	1.22E+00	9.05E-02	6.11E-01	2.55E-02	1.02E+00	1.02E+00
20	1) Rettangolare	A 500x368	0.500	0.368	0.000	0.000	0.368	1.84E-01	4.46E-03	2.08E-03	3.83E-03	1.53E-01	1.53E-01
21	1) Rettangolare	A 500x1968	0.500	1.968	0.000	0.000	1.968	9.84E-01	6.98E-02	3.18E-01	2.05E-02	8.20E-01	8.20E-01
22	1) Rettangolare	A 500x1592	0.500	1.592	0.000	0.000	1.592	7.96E-01	5.35E-02	1.68E-01	1.66E-02	6.63E-01	6.63E-01
23	1) Rettangolare	A 500x3076	0.500	3.076	0.000	0.000	3.076	1.54E+00	1.18E-01	1.21E+00	3.20E-02	1.28E+00	1.28E+00
24	1) Rettangolare	A 500x1795	0.500	1.795	0.000	0.000	1.795	8.98E-01	6.23E-02	2.41E-01	1.87E-02	7.48E-01	7.48E-01
25	1) Rettangolare	A 300x3209	0.300	3.209	0.000	0.000	3.209	9.63E-01	2.78E-02	8.26E-01	7.22E-03	8.02E-01	8.02E-01
26	1) Rettangolare	A 300x1880	0.300	1.880	0.000	0.000	1.880	5.64E-01	1.56E-02	1.66E-01	4.23E-03	4.70E-01	4.70E-01
27	1) Rettangolare	A 500x5828	0.500	5.828	0.000	0.000	5.828	2.91E+00	2.35E-01	8.25E+00	6.07E-02	2.43E+00	2.43E+00
28	1) Rettangolare	A 500x5800	0.500	5.800	0.000	0.000	5.800	2.90E+00	2.34E-01	8.13E+00	6.04E-02	2.42E+00	2.42E+00
29	1) Rettangolare	A 500x4650	0.500	4.650	0.000	0.000	4.650	2.33E+00	1.85E-01	4.19E+00	4.84E-02	1.94E+00	1.94E+00
30	1) Rettangolare	A 500x3303	0.500	3.303	0.000	0.000	3.303	1.65E+00	1.27E-01	1.50E+00	3.44E-02	1.38E+00	1.38E+00
31	1) Rettangolare	A 500x4601	0.500	4.601	0.000	0.000	4.601	2.30E+00	1.83E-01	4.06E+00	4.79E-02	1.92E+00	1.92E+00
32	1) Rettangolare	A 500x6200	0.500	6.200	0.000	0.000	6.200	3.10E+00	2.50E-01	9.93E+00	6.46E-02	2.58E+00	2.58E+00
33	1) Rettangolare	A 500x5824	0.500	5.824	0.000	0.000	5.824	2.91E+00	2.35E-01	8.23E+00	6.07E-02	2.43E+00	2.43E+00
34	1) Rettangolare	A 500x4600	0.500	4.600	0.000	0.000	4.600	2.30E+00	1.83E-01	4.06E+00	4.79E-02	1.92E+00	1.92E+00
35	1) Rettangolare	A 500x5826	0.500	5.826	0.000	0.000	5.826	2.91E+00	2.35E-01	8.24E+00	6.07E-02	2.43E+00	2.43E+00
36	1) Rettangolare	A 500x4209	0.500	4.209	0.000	0.000	4.209	2.10E+00	1.66E-01	3.11E+00	4.38E-02	1.75E+00	1.75E+00
37	1) Rettangolare	A 500x2806	0.500	2.806	0.000	0.000	2.806	1.40E+00	1.06E-01	9.21E-01	2.92E-02	1.17E+00	1.17E+00
38	0) Qualunque	Sez. Rigida	0.000	0.000	0.000	0.000	1.000	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00

Descrizione dei DATI ASTE

(Nella tabella Dati Aste, alcuni dati che per il Progetto corrente non risultano significativi possono essere omissi)

N°: numero progressivo dell'asta

Tipologia: stringa descrittiva dell'asta. Nell'analisi di strutture in muratura, la stringa viene utilizzata per l'identificazione della tipologia dell'asta, adottando la seguente convenzione:

M = maschio murario (parete in muratura ordinaria): M.i.j indica il Maschio i del piano j

C = parete o pilastro in c.a.: C.i.j indica la parete i del piano j

T = trave. T.i.j indica la trave i del piano j

H = pilastro in acciaio

B = asta in acciaio

S = striscia muraria (fascia di piano superiore, cioè di soprafinestra). S.i.j indica la striscia i del piano j

A = parete in muratura armata; A.i.j: parete i del piano j

F = sottofinestra (fascia di piano inferiore). F.i.j indica il sottofinestra i del piano j

Z = elemento di fondazione

K = collegamenti rigidi

W = elementi di cerchiatura

X = bielle di controvento in acciaio

N, V = blocco (di arco)

J = giunto (di arco)

P = pilastro murario

Lungh.: lunghezza dell'asta (coincidente con la distanza fra i nodi i e j)

Lungh. def. xz: lunghezza di deformazione dell'asta nel piano locale xz, dipendente dalla lunghezza dell'asta e delle sue zone rigide

Rigidità i xz, j xz: lunghezza tratti estremi rigidi, iniziale (al nodo i) e finale (al nodo j) nel piano di flessione locale xz.

Lungh. def. xy: lunghezza di deformazione dell'asta nel piano locale xy, dipendente dalla lunghezza dell'asta e delle sue zone rigide

Rigidità i xy, j xy: lunghezza tratti estremi rigidi, iniziale (al nodo i) e finale (al nodo j) nel piano di flessione locale xy.

I tratti rigidi possono essere diversi nei due piani di flessione xy e xz. Questa distinzione è particolarmente utile nel calcolo di edifici in muratura, dove le zone rigide per flessione complanare sono generalmente diverse da quelle per flessione ortogonale al piano della parete

Inf.rig.: X indica che l'asta è considerata infinitamente rigida

N° Sez.: numero identificativo della sezione dell'asta, le cui caratteristiche sono descritte nei Dati Sezioni (le dimensioni B e H per la tipologia di sezione rettangolare, quadrata, circolare o circolare cava possono essere indicate nella tabella dati Aste a lato di N° Sez)

Ang. rot.: angolo in gradi che rappresenta la rotazione degli assi principali per fare in modo che il riferimento locale principale si sovrapponga al riferimento locale (parallelo alla terna globale nel caso delle travi). L'angolo è positivo se orario, visto dall'asta (osservatore che da +x guarda il nodo iniziale i). Per maggiori dettagli, consultare le figure allegate nella descrizione delle Convenzioni sui sistemi di riferimento

N° Mat.: numero identificativo del materiale dell'asta, le cui caratteristiche sono descritte nei Dati Materiali

Mur. nuova: X indica che l'asta è costituita da materiale murario nuovo

E, G, fm, fvm0, fhm: parametri meccanici e resistenze dell'asta. Coincidono con i corrispondenti parametri del materiale costituente l'asta, tranne i casi in cui siano applicati coefficienti correttivi o l'Utente abbia specificato direttamente i valori dei parametri meccanici corrispondenti ad un determinato intervento (p.es. reti in GFRP)

% K elast. (rig.fess.): percentuale di rigidezza elastica da utilizzare nel calcolo della struttura. Frequentemente questo valore è pari al 100%, ma in alcuni casi può essere richiesto un valore inferiore. Ad esempio, nell'analisi sismica di edifici in muratura può essere necessario fare riferimento a rigidezze fessurate (§7.8.1.5.2), spesso assunte pari alla metà di quelle elastiche (e quindi: %K elast = 50%). Ad eventuali elementi in altra tecnologia (c.a.) presenti nell'edificio murario (struttura mista) che siano considerati collaboranti ma sempre in regime elastico (rispetto alla muratura che invece determina il raggiungimento degli stati limite), può essere attribuita la rigidezza fessurata anche in analisi non lineare

Paramento: indica il paramento murario cui l'asta appartiene

Assemblaggio: stringa alfanumerica utilizzata per l'eventuale assemblaggio della rigidezza flessionale EJ per maschi contigui

Malta scadente, Malta buona, Giunti sottili, Ricorsi, Connessione (trasversale), **Nucleo scadente:** caratteristiche di materiale murario esistente che determinano fattori correttivi per i parametri meccanici e di resistenza (§C8.5.3.1, Tab.C8.5.II)

K Wink.: coefficiente di sottofondo di Winkler per il calcolo della trave su suolo elastico. Il valore 0 indica travi libere (non su suolo elastico)

App. su terr.: interfaccia struttura / terreno, ossia suola o larghezza di appoggio. Può essere direttamente la base della trave di fondazione, ma anche la larghezza del magrone. Questo parametro acquista significato solo in caso di trave su suolo elastico

q_{lim}: capacità limite del terreno in corrispondenza della trave di fondazione. Questo parametro viene utilizzato per le verifiche di capacità portante del terreno (stato limite GEO), eseguite con Approccio 2 (§6.4.2.1), statiche e sismiche

Nodo i, j: numeri identificativi del nodo iniziale (i) e del nodo finale (j)

Vinc. i, j: vincolamento interno dell'asta, rispettivamente al nodo iniziale ed al nodo finale, con riferimento al *sistema di assi locali xyz*.

Il vincolamento interno 000000 è indicato anche con *incastro*. Alcuni casi notevoli sono i seguenti:

Asta con nodi di continuità (travi e pilastri di telai a nodi continui) [beam]: 000000, 000000

Un'asta il cui nodo iniziale corrisponde ad un vincolo esterno a cerniera può innestarsi in tale nodo con il vincolo continuo 000000, in quanto è la cerniera stessa esterna che determinerà in tale nodo il momento nullo.

Asta incernierata [truss] 2D nel piano XZ: 000010 - 000010

La sequenza dei 6 valori è: u - v - w - ϕ_x - ϕ_y - ϕ_z , con riferimento al *sistema di assi locale x y z*.

Il valore 1 indica che lo spostamento è libero (in questo caso, la rotazione agli estremi dell'elemento biella).

Asta incernierata [truss] 3D: 000111 - 000011

non si possono usare cerniere sferiche ad entrambi gli estremi dell'asta, perché la si rende labile rotazionalmente attorno all'asse x.

Asta incastro - cerniera (2D): 000000 - 000010

Asta cerniera - incastro (2D): 000010 - 000000

G. Inc. ixy, jxy, ixz, jxz: gradi di incastro: i',xy (ϕ_z in i') - j',xy (ϕ_z in j') - i',xz (ϕ_z in i') - j',xz (ϕ_z in j'): consentono la definizione di vincoli di semincastro interni agli estremi della luce deformabile dell'asta, fornendo un valore compreso fra 0 (componente rotazionale svincolata) e 1 (incastro interno). I gradi di incastro possono essere utilizzati nella risoluzione di schemi sottoposti ad analisi lineare; nell'ambito dell'analisi non lineare, essi consentono la rappresentazione della degradazione della rigidità alla rotazione di aste che hanno raggiunto la plasticizzazione a pressoflessione ma ancora reagenti (cioè non ancora collassate).

Inter.irrigid.: distanza fra muri trasversali per la specchiatura entro cui si trova confinata la parete. Questo parametro ha effetto nelle verifiche sismiche a pressoflessione ortogonale secondo le azioni convenzionali (§7.2.3) e nelle verifiche statiche con il metodo dell'articolazione (§4.5.6.2). In tali verifiche, la parete viene considerata appoggiata agli estremi della luce deformabile nel piano ortogonale. Se l'interasse di irrigidimento 'a' è >0, viene considerato un comportamento a piastra (parete ben ammassata nei muri trasversali). Se $a=B$, con B =base (dimensione complanare) della parete, ciò equivale a considerare che la parete sia vincolata esattamente ai suoi bordi laterali; se $a>B$, la parete appartiene ad una specchiatura più ampia definita dai muri trasversali. $a=0$ equivale a considerare un comportamento a trave, con parete libera quindi da vincoli laterali

Cordolo e architrave:

- **Resist. traz. (kN)**: capacità dell'elemento resistente a trazione, specifico per fasce murarie

- **Res. traz. gammaM**: coefficiente parziale di sicurezza associato alla resistenza a trazione, specifico per fasce murarie

Drift PressoFl., Taglio: specifica il massimo drift di piano (= deformazione angolare = spostamento / altezza deformabile) a pressoflessione e a taglio complanari. I valori di riferimento proposti da NTC18 sono i seguenti: per muratura ordinaria: press. 1.0%H, taglio 0.5%H; per muratura armata: press. 1.6%H, taglio 0.8. Per H si intende l'altezza deformabile complanare alla parete, e gli spostamenti ultimi si valutano a meno di moti rigidi del pannello

Drift: Taglio limite: nel caso di fasce, il drift per Taglio è la prima deformazione angolare limite in caso di crisi per taglio. Il Taglio limite è la seconda deformazione angolare limite in caso di crisi per Taglio

%taglio residuo: definisce la posizione del taglio residuo (secondo tratto plastico) come % della resistenza corrispondente alla fine del tratto elastico (resistenza del primo tratto plastico), per fasce

Duttilità PressoFl., Taglio: specifica il moltiplicatore dello spostamento al limite elastico (corrisponde allo spostamento di prima plasticizzazione) che segna il raggiungimento dello spostamento ultimo (opzione alternativa o integrativa rispetto a Drift, secondo Parametri di Calcolo)

Da considerare per α_1 : indica se il maschio viene considerato per l'individuazione del taglio di prima plasticizzazione in analisi pushover

Arm.: Asxy, cxy, Asxz, cxz: armatura per pareti o fasce dotati di barre in acciaio. Per elementi verticali (pareti e pilastri, in muratura e in c.a.) l'armatura Asxy si riferisce al piano di sollecitazione locale xy, e Asxz al piano locale xz; tali armature sono simmetriche. Per elementi orizzontali (fasce murarie), Asxy indica l'armatura in estradosso e Asxz l'armatura in intradosso: la verifica di resistenza viene infatti eseguita solo nel piano complanare locale xz, e prevede la possibilità di un'armatura non simmetrica. Queste armature riguardano solo elementi di muratura armata

Verif.: X indica che l'asta viene sottoposta a verifiche di resistenza

PressoFl. Compl., Taglio, Sf. Norm. Traz., PressoFl. Ortog.: X indica che l'elemento murario è sottoposto alla corrispondente verifica

Interventi

Iniezioni, Intonaco armato, Diatoni artificiali, Ristilatura armata: interventi che determinano fattori correttivi per i parametri meccanici e di resistenza (§C8.5.3.1, Tab.C8.5.II)

Altri interventi: Rinforzo a taglio, Precompressione, FRP, CAM, Reticolatus, Reti FRP e altro

Per i parametri generali descrittivi dei vari tipi di intervento, validi per tutte le aste: si consultino i Parametri di Calcolo.

I seguenti parametri caratterizzano la singola asta:

Rinforzo a taglio: passo (mm): passo delle barre

Precompressione: Prec.vert.,or.: tensione di precompressione orizzontale e verticale

FRP:

- **larghezza nastri**

PressoFl. disposiz.: indica il tipo di disposizione dei nastri FRP a pressoflessione, con la seguente convenzione:

1=solo ai bordi, 2=in base al passo, 3=a partire dai bordi

- **n° strati**: numero di strati sovrapposti che caratterizzano il singolo nastro

- **dist. bordo**: distanza dal bordo della parete. La distanza è netta, quindi l'asse del primo nastro dista dal bordo una lunghezza pari alla distanza dal bordo + metà larghezza del nastro

- **passo**: interasse dei nastri a pressoflessione (verticali per i maschi, orizzontali per le fasce)

- **epsd.in,fin.**: deformazione di distacco della sezione iniziale o finale. Se questo valore non è specificato, si ipotizza che la deformazione ultima dipenda dalla crisi per trazione (rottura dei nastri). Per una stessa parete è possibile differenziare la deformazione ultima fra le sezioni iniziale e finale, ad esempio nel caso di un maschio murario con nastro ancorato alla base e non ancorato in sommità

Taglio: disposiz.: indica il tipo di disposizione dei nastri FRP a pressoflessione, con la seguente convenzione:

1=solo ai bordi, 2=in base al passo, 3=a partire dai bordi, 4=diagonali

- **layout**: indica la zona della parete dove vengono disposti i nastri a taglio, con la seguente convenzione:

0=su tutta la parete, 1=su luce deformabile

- **n° strati**: numero di strati sovrapposti che caratterizzano il singolo nastro

- **dist. bordo**: distanza dal bordo della parete

- **passo**: interasse dei nastri a taglio (in caso di nastri non diagonali: nastri orizzontali per i maschi, verticali per le fasce)

- **epsd.**: deformazione di distacco per i nastri diagonali. Se questo valore non è specificato, si ipotizza che la deformazione ultima dipenda dalla crisi per trazione (rottura dei nastri). Per i nastri a taglio orizzontali o verticali, la deformazione ultima dipende dai nastri a pressoflessione

CAM:

Per nastri verticali e orizzontali:

- **passo**: interasse dei nastri. Per predefinizione, la distanza dal bordo dei nastri CAM è posta pari a 150 mm

- **avvolgimenti**: numero di nastri in acciaio sovrapposti che costituiscono la singola 'armatura'

- **prentensionamento**: tensione a cui vengono tesi in opera i nastri, in modo da precomprimere la muratura

Per nastri verticali: **spigoli ad alte prestazioni**: è possibile rinforzare gli spigoli utilizzando il tipo di acciaio specificato nei Parametri di Calcolo

Per nastri orizzontali: **tipo migliorato**: è possibile utilizzare il tipo di acciaio specificato nei Parametri di Calcolo
- **foratura a quinconce**: caratterizza una particolare tecnica di collegamento dei nastri in acciaio fra le due facce della parete, ed ha effetto sul confinamento della muratura
Reticolatus:
- **passo trefoli verticali, orizzontali**: passo delle armature
Reti FRP e altro:
Queste tipologie di intervento (fra cui rientrano i rinforzi con intonaco armato con GRFP) vengono descritte dai valori dei parametri meccanici e di resistenza corrispondenti ad una 'muratura equivalente'

7. Dati ASTE

Legenda Tipologie:
M = Maschio in mur.ordinaria
T = Trave
S = Striscia
F = Sottofinestra
Z = Fondazione
K = Link rigido
= Asta generica
Ch. = cerchiatura: M=montante, A=architrave, T=traverso inferiore, Mr=mom.res.giunto: Mri=iniz.,Mrj=finale

N°	Tipologia	Lungh.	Lungh.def.	Rig.(m)	Rig.(m)	Lungh.def.	Rig.(m)	Rig.(m)	Inf.	N°	B	H	Ang.	N°	Mur.	E	G
		(m)	(m) xz	i,xz	j,xz	(m) xy	i,xy	j,xy	rig.	Sez.	(m)	(m)	rot.(°)	Mat.	nuova	(N/mm^2)	
1	M	5.000	2.880	1.837	0.283	5.000	0.000	0.000		10	0.500	1.793	0.00	3		4000	
1600																	
2	K	0.896	0.896	0.000	0.000	0.896	0.000	0.000	X	38	0.000	0.000	0.00	1			
31000	13000																
3	K	0.897	0.897	0.000	0.000	0.897	0.000	0.000	X	38	0.000	0.000	0.00	1			
31000	13000																
4	K	0.896	0.896	0.000	0.000	0.896	0.000	0.000	X	38	0.000	0.000	0.00	1			
31000	13000																
5	M	5.000	2.865	1.850	0.285	5.000	0.000	0.000		11	0.500	1.768	0.00	3		4000	
1600																	
6	K	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	38	0.000	0.000	0.00	1			
31000	13000																
7	K	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	38	0.000	0.000	0.00	1			
31000	13000																
8	K	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	38	0.000	0.000	0.00	1			
31000	13000																
9	F	2.265	2.265	0.000	0.000	2.265	0.000	0.000		12	0.500	3.180	0.00	3		4000	
1600																	
10	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		13	0.500	1.060	0.00	3		4000	
1600																	
11	M	5.000	4.643	0.000	0.357	5.000	0.000	0.000		11	0.500	1.768	0.00	3		4000	
1600																	
12	K	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	38	0.000	0.000	0.00	1			
31000	13000																
13	K	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	38	0.000	0.000	0.00	1			
31000	13000																
14	M	5.000	4.643	0.000	0.357	5.000	0.000	0.000		14	0.500	1.767	0.00	3		4000	
1600																	
15	K	0.883	0.883	0.000	0.000	0.883	0.000	0.000	X	38	0.000	0.000	0.00	1			
31000	13000																
16	K	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	38	0.000	0.000	0.00	1			
31000	13000																
17	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		13	0.500	1.060	0.00	3		4000	
1600																	
18	M	5.000	2.865	1.851	0.284	5.000	0.000	0.000		14	0.500	1.767	0.00	3		4000	
1600																	
19	K	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	38	0.000	0.000	0.00	1			
31000	13000																
20	K	0.883	0.883	0.000	0.000	0.883	0.000	0.000	X	38	0.000	0.000	0.00	1			
31000	13000																
21	K	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	38	0.000	0.000	0.00	1			
31000	13000																
22	M	5.000	1.909	2.546	0.545	5.000	0.000	0.000		15	0.500	0.618	0.00	3		4000	
1600																	
23	K	0.309	0.309	0.000	0.000	0.309	0.000	0.000	X	38	0.000	0.000	0.00	1			
31000	13000																
24	K	0.309	0.309	0.000	0.000	0.309	0.000	0.000	X	38	0.000	0.000	0.00	1			
31000	13000																
25	K	0.309	0.309	0.000	0.000	0.309	0.000	0.000	X	38	0.000	0.000	0.00	1			
31000	13000																
26	F	2.265	2.265	0.000	0.000	2.265	0.000	0.000		12	0.500	3.180	0.00	3		4000	
1600																	
27	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		13	0.500	1.060	0.00	3		4000	
1600																	

28	M	5.000	5.000	0.000	0.000	5.000	0.000	0.000		16 0.500 2.450	0.00	3		4000
1600														
29	K	1.225	1.225	0.000	0.000	1.225	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
30	K	1.225	1.225	0.000	0.000	1.225	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
31	M	5.000	4.356	0.000	0.644	5.000	0.000	0.000		17 0.500 0.518	0.00	3		4000
1600														
32	K	0.258	0.258	0.000	0.000	0.258	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
33	K	0.259	0.259	0.000	0.000	0.259	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
34	M	5.000	4.357	0.000	0.643	5.000	0.000	0.000		18 0.500 0.520	0.00	3		4000
1600														
35	K	0.260	0.260	0.000	0.000	0.260	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
36	K	0.260	0.260	0.000	0.000	0.260	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
37	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		13 0.500 1.060	0.00	3		4000
1600														
38	M	5.000	5.000	0.000	0.000	5.000	0.000	0.000		19 0.500 2.447	0.00	3		4000
1600														
39	K	1.224	1.224	0.000	0.000	1.224	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
40	K	1.224	1.224	0.000	0.000	1.224	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
41	M	5.000	1.595	2.763	0.642	5.000	0.000	0.000		20 0.500 0.368	0.00	3		4000
1600														
42	K	0.184	0.184	0.000	0.000	0.184	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
43	K	0.183	0.183	0.000	0.000	0.183	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
44	K	0.184	0.184	0.000	0.000	0.184	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
45	M	5.000	2.980	1.746	0.274	5.000	0.000	0.000		21 0.500 1.968	0.00	3		4000
1600														
46	K	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
47	K	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
48	K	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
49	F	2.265	2.265	0.000	0.000	2.265	0.000	0.000		12 0.500 3.180	0.00	3		4000
1600														
50	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		13 0.500 1.060	0.00	3		4000
1600														
51	M	5.000	4.649	0.000	0.351	5.000	0.000	0.000		21 0.500 1.968	0.00	3		4000
1600														
52	K	0.983	0.983	0.000	0.000	0.983	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
53	K	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
54	M	5.000	4.649	0.000	0.351	5.000	0.000	0.000		21 0.500 1.968	0.00	3		4000
1600														
55	K	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
56	K	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
57	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		13 0.500 1.060	0.00	3		4000
1600														
58	M	5.000	2.980	1.746	0.274	5.000	0.000	0.000		21 0.500 1.968	0.00	3		4000
1600														
59	K	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
60	K	0.983	0.983	0.000	0.000	0.983	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
61	K	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
62	M	5.000	2.758	1.948	0.294	5.000	0.000	0.000		22 0.500 1.592	0.00	3		4000
1600														
63	K	0.796	0.796	0.000	0.000	0.796	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
64	K	0.796	0.796	0.000	0.000	0.796	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
65	K	0.796	0.796	0.000	0.000	0.796	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
66	F	2.265	2.265	0.000	0.000	2.265	0.000	0.000		12 0.500 3.180	0.00	3		4000
1600														
67	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		13 0.500 1.060	0.00	3		4000
1600														
68	M	5.000	3.504	1.269	0.227	5.000	0.000	0.000		23 0.500 3.076	90.00	3		4000
1600														
69	K	1.538	1.538	0.000	0.000	1.538	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
70	K	1.538	1.538	0.000	0.000	1.538	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														

71	M	5.000	3.504	1.269	0.227	5.000	0.000	0.000		23 0.500 3.076	90.00	3		4000
1600														
72	K	1.539	1.539	0.000	0.000	1.539	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
73	K	1.538	1.538	0.000	0.000	1.538	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
74	F	2.265	2.265	0.000	0.000	2.265	0.000	0.000		12 0.500 3.180	0.00	3		4000
1600														
75	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		13 0.500 1.060	0.00	3		4000
1600														
76	M	5.000	2.758	1.948	0.294	5.000	0.000	0.000		22 0.500 1.592	0.00	3		4000
1600														
77	K	0.796	0.796	0.000	0.000	0.796	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
78	K	0.796	0.796	0.000	0.000	0.796	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
79	K	0.796	0.796	0.000	0.000	0.796	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
80	M	5.000	2.980	1.746	0.274	5.000	0.000	0.000		21 0.500 1.968	0.00	3		4000
1600														
81	K	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
82	K	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
83	K	0.983	0.983	0.000	0.000	0.983	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
84	F	2.265	2.265	0.000	0.000	2.265	0.000	0.000		12 0.500 3.180	0.00	3		4000
1600														
85	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		13 0.500 1.060	0.00	3		4000
1600														
86	M	5.000	4.649	0.000	0.351	5.000	0.000	0.000		21 0.500 1.968	0.00	3		4000
1600														
87	K	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
88	K	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
89	M	5.000	4.649	0.000	0.351	5.000	0.000	0.000		21 0.500 1.968	0.00	3		4000
1600														
90	K	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
91	K	0.983	0.983	0.000	0.000	0.983	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
92	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		13 0.500 1.060	0.00	3		4000
1600														
93	M	5.000	2.980	1.746	0.274	5.000	0.000	0.000		21 0.500 1.968	0.00	3		4000
1600														
94	K	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
95	K	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
96	K	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
97	M	5.000	1.595	2.763	0.642	5.000	0.000	0.000		20 0.500 0.368	0.00	3		4000
1600														
98	K	0.184	0.184	0.000	0.000	0.184	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
99	K	0.184	0.184	0.000	0.000	0.184	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
100	K	0.183	0.183	0.000	0.000	0.183	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
101	F	2.265	2.265	0.000	0.000	2.265	0.000	0.000		12 0.500 3.180	0.00	3		4000
1600														
102	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		13 0.500 1.060	0.00	3		4000
1600														
103	M	5.000	5.000	0.000	0.000	5.000	0.000	0.000		19 0.500 2.447	0.00	3		4000
1600														
104	K	1.224	1.224	0.000	0.000	1.224	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
105	K	1.224	1.224	0.000	0.000	1.224	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
106	M	5.000	4.357	0.000	0.643	5.000	0.000	0.000		18 0.500 0.520	0.00	3		4000
1600														
107	K	0.260	0.260	0.000	0.000	0.260	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
108	K	0.260	0.260	0.000	0.000	0.260	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
109	M	5.000	4.356	0.000	0.644	5.000	0.000	0.000		17 0.500 0.518	0.00	3		4000
1600														
110	K	0.259	0.259	0.000	0.000	0.259	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
111	K	0.258	0.258	0.000	0.000	0.258	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
112	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		13 0.500 1.060	0.00	3		4000
1600														
113	M	5.000	5.000	0.000	0.000	5.000	0.000	0.000		16 0.500 2.450	0.00	3		4000
1600														

114	K	1.225	1.225	0.000	0.000	1.225	0.000	0.000	X	38	0.000	0.000	0.00	1		
31000	13000															
115	K	1.225	1.225	0.000	0.000	1.225	0.000	0.000	X	38	0.000	0.000	0.00	1		
31000	13000															
116	M	5.000	1.909	2.546	0.545	5.000	0.000	0.000		15	0.500	0.618	0.00	3		4000
1600																
117	K	0.309	0.309	0.000	0.000	0.309	0.000	0.000	X	38	0.000	0.000	0.00	1		
31000	13000															
118	K	0.309	0.309	0.000	0.000	0.309	0.000	0.000	X	38	0.000	0.000	0.00	1		
31000	13000															
119	K	0.309	0.309	0.000	0.000	0.309	0.000	0.000	X	38	0.000	0.000	0.00	1		
31000	13000															
120	M	5.000	2.865	1.851	0.284	5.000	0.000	0.000		14	0.500	1.767	0.00	3		4000
1600																
121	K	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	38	0.000	0.000	0.00	1		
31000	13000															
122	K	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	38	0.000	0.000	0.00	1		
31000	13000															
123	K	0.883	0.883	0.000	0.000	0.883	0.000	0.000	X	38	0.000	0.000	0.00	1		
31000	13000															
124	F	2.265	2.265	0.000	0.000	2.265	0.000	0.000		12	0.500	3.180	0.00	3		4000
1600																
125	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		13	0.500	1.060	0.00	3		4000
1600																
126	M	5.000	4.643	0.000	0.357	5.000	0.000	0.000		14	0.500	1.767	0.00	3		4000
1600																
127	K	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	38	0.000	0.000	0.00	1		
31000	13000															
128	K	0.883	0.883	0.000	0.000	0.883	0.000	0.000	X	38	0.000	0.000	0.00	1		
31000	13000															
129	M	5.000	4.643	0.000	0.357	5.000	0.000	0.000		11	0.500	1.768	0.00	3		4000
1600																
130	K	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	38	0.000	0.000	0.00	1		
31000	13000															
131	K	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	38	0.000	0.000	0.00	1		
31000	13000															
132	S	2.265	2.265	0.000												

157	M	0.300	0.300	0.000	0.000	0.300	0.000	0.000		27 0.500 5.828	0.00	3		4000
1600														
158	K	2.914	2.914	0.000	0.000	2.914	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
159	M	0.300	0.300	0.000	0.000	0.300	0.000	0.000		28 0.500 5.800	0.00	3		4000
1600														
160	M	0.300	0.300	0.000	0.000	0.300	0.000	0.000		29 0.500 4.650	0.00	3		4000
1600														
161	K	2.325	2.325	0.000	0.000	2.325	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
162	M	0.300	0.300	0.000	0.000	0.300	0.000	0.000		16 0.500 2.450	0.00	3		4000
1600														
163	K	1.225	1.225	0.000	0.000	1.225	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
164	M	0.300	0.300	0.000	0.000	0.300	0.000	0.000		30 0.500 3.303	0.00	3		4000
1600														
165	K	1.651	1.651	0.000	0.000	1.651	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
166	M	0.300	0.300	0.000	0.000	0.300	0.000	0.000		19 0.500 2.447	0.00	3		4000
1600														
167	K	1.223	1.223	0.000	0.000	1.223	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
168	K	1.224	1.224	0.000	0.000	1.224	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
169	M	0.300	0.300	0.000	0.000	0.300	0.000	0.000		31 0.500 4.601	0.00	3		4000
1600														
170	K	2.301	2.301	0.000	0.000	2.301	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
171	M	0.300	0.300	0.000	0.000	0.300	0.000	0.000		32 0.500 6.200	0.00	3		4000
1600														
172	M	0.300	0.300	0.000	0.000	0.300	0.000	0.000		33 0.500 5.824	0.00	3		4000
1600														
173	K	2.912	2.912	0.000	0.000	2.912	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
174	M	0.300	0.300	0.000	0.000	0.300	0.000	0.000		33 0.500 5.824	0.00	3		4000
1600														
175	K	2.912	2.912	0.000	0.000	2.912	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
176	M	0.300	0.300	0.000	0.000	0.300	0.000	0.000		32 0.500 6.200	0.00	3		4000
1600														
177	M	0.300	0.300	0.000	0.000	0.300	0.000	0.000		34 0.500 4.600	0.00	3		4000
1600														
178	K	2.300	2.300	0.000	0.000	2.300	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
179	M	0.300	0.300	0.000	0.000	0.300	0.000	0.000		19 0.500 2.447	0.00	3		4000
1600														
180	K	1.224	1.224	0.000	0.000	1.224	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
181	K	1.224	1.224	0.000	0.000	1.224	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
182	M	0.300	0.300	0.000	0.000	0.300	0.000	0.000		30 0.500 3.303	0.00	3		4000
1600														
183	K	1.651	1.651	0.000	0.000	1.651	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
184	M	0.300	0.300	0.000	0.000	0.300	0.000	0.000		16 0.500 2.450	0.00	3		4000
1600														
185	K	1.225	1.225	0.000	0.000	1.225	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
186	M	0.300	0.300	0.000	0.000	0.300	0.000	0.000		29 0.500 4.650	0.00	3		4000
1600														
187	K	2.325	2.325	0.000	0.000	2.325	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
188	M	0.300	0.300	0.000	0.000	0.300	0.000	0.000		28 0.500 5.800	0.00	3		4000
1600														
189	M	0.300	0.300	0.000	0.000	0.300	0.000	0.000		35 0.500 5.826	0.00	3		4000
1600														
190	K	2.913	2.913	0.000	0.000	2.913	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
191	M	1.050	1.050	0.000	0.000	1.050	0.000	0.000		36 0.500 4.209	90.00	3		4000
1600														
192	K	2.234	2.234	0.000	0.000	2.234	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
193	K	2.235	2.235	0.000	0.000	2.235	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
194	M	1.050	1.050	0.000	0.000	1.050	0.000	0.000		36 0.500 4.209	90.00	3		4000
1600														
195	K	2.234	2.234	0.000	0.000	2.234	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
196	K	2.235	2.235	0.000	0.000	2.235	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
197	M	1.050	1.050	0.000	0.000	1.050	0.000	0.000		36 0.500 4.209	-89.98	3		4000
1600														
198	K	2.235	2.235	0.000	0.000	2.235	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														
199	K	2.234	2.234	0.000	0.000	2.234	0.000	0.000	X	38 0.000 0.000	0.00	1		
31000 13000														

200 1600	M	1.050	1.050	0.000	0.000	1.050	0.000	0.000		36 0.500 4.209	-89.98	3		4000
201 31000	K	2.235	2.235	0.000	0.000	2.235	0.000	0.000	X	38 0.000 0.000	0.00	1		
202 31000	K	2.234	2.234	0.000	0.000	2.234	0.000	0.000	X	38 0.000 0.000	0.00	1		
203 1600	M	5.000	5.000	0.000	0.000	5.000	0.000	0.000		37 0.500 2.806	-89.98	3		4000
204 31000	K	1.403	1.403	0.000	0.000	1.403	0.000	0.000	X	38 0.000 0.000	0.00	1		
205 1600	M	5.000	5.000	0.000	0.000	5.000	0.000	0.000		37 0.500 2.806	-89.98	3		4000
206 31000	K	1.403	1.403	0.000	0.000	1.403	0.000	0.000	X	38 0.000 0.000	0.00	1		
207 31000	K	1.403	1.403	0.000	0.000	1.403	0.000	0.000	X	38 0.000 0.000	0.00	1		
208 1600	M	5.000	5.000	0.000	0.000	5.000	0.000	0.000		37 0.500 2.806	-89.98	3		4000
209 31000	K	1.403	1.403	0.000	0.000	1.403	0.000	0.000	X	38 0.000 0.000	0.00	1		
210 1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000		3 0.600 1.200	0.00	3		4000
211 1600	Z	2.264	2.264	0.000	0.000	2.264	0.000	0.000		3 0.600 1.200	0.00	3		4000
212 1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000		3 0.600 1.200	0.00	3		4000
213 1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000		3 0.600 1.200	0.00	3		4000
214 1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000		3 0.600 1.200	0.00	3		4000
215 1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000		3 0.600 1.200	0.00	3		4000
216 1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000		3 0.600 1.200	0.00	3		4000
217 1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000		3 0.600 1.200	0.00	3		4000
218 1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000		3 0.600 1.200	0.00	3		4000
219 1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000		3 0.600 1.200	0.00	3		4000
220 1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000		3 0.600 1.200	0.00	3		4000
221 1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000		3 0.600 1.200	0.00	3		4000
222 1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000		3 0.600 1.200	0.00	3		4000
223 1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000		3 0.600 1.200	0.00	3		4000
224 3500	T	4.468	4.468	0.000	0.000	4.468	0.000	0.000		7 0.160 0.240	0.00	5		10000
225 3500	T	4.468	4.468	0.000	0.000	4.468	0.000	0.000		7 0.160 0.240	0.00	5		10000
226 3500	T	4.468	4.468	0.000	0.000	4.468	0.000	0.000		7 0.160 0.240	0.00	5		10000
227 3500	T	4.468	4.468	0.000	0.000	4.468	0.000	0.000		7 0.160 0.240	0.00	5		10000
228 3500	T	4.468	4.468	0.000	0.000	4.468	0.000	0.000		7 0.160 0.240	0.00	5		10000
229 3500	T	4.468	4.468	0.000	0.000	4.468	0.000	0.000		7 0.160 0.240	0.00	5		10000
230 3500	T	4.468	4.468	0.000	0.000	4.468	0.000	0.000		7 0.160 0.240	0.00	5		10000
231 3500	T	4.468	4.468	0.000	0.000	4.468	0.000	0.000		7 0.160 0.240	0.00	5		10000
232 3500	T	1.921	1.921	0.000	0.000	1.921	0.000	0.000		7 0.160 0.240	0.00	5		10000
233 3500	T	4.468	4.468	0.000	0.000	4.468	0.000	0.000		7 0.160 0.240	0.00	5		10000
234 3500	T	4.468	4.468	0.000	0.000	4.468	0.000	0.000		7 0.160 0.240	0.00	5		10000
235 3500	T	4.468	4.468	0.000	0.000	4.468	0.000	0.000		7 0.160 0.240	0.00	5		10000
236 3500	T	4.468	4.468	0.000	0.000	4.468	0.000	0.000		7 0.160 0.240	0.00	5		10000
237 3500	T	4.468	4.468	0.000	0.000	4.468	0.000	0.000		7 0.160 0.240	0.00	5		10000
238 3500	T	4.468	4.468	0.000	0.000	4.468	0.000	0.000		7 0.160 0.240	0.00	5		10000
239 3500	T	4.468	4.468	0.000	0.000	4.468	0.000	0.000		7 0.160 0.240	0.00	5		10000
240 3500	T	4.468	4.468	0.000	0.000	4.468	0.000	0.000		7 0.160 0.240	0.00	5		10000
241 3500	T	3.950	3.950	0.000	0.000	3.950	0.000	0.000		7 0.160 0.240	0.00	5		10000
242 3500	T	3.700	3.700	0.000	0.000	3.700	0.000	0.000		7 0.160 0.240	0.00	5		10000

243 3500	T	3.700	3.700	0.000	0.000	3.700	0.000	0.000		7 0.160 0.240	0.00	5		10000
244 3500	T	3.700	3.700	0.000	0.000	3.700	0.000	0.000		7 0.160 0.240	0.00	5		10000
245 3500	T	3.675	3.675	0.000	0.000	3.675	0.000	0.000		7 0.160 0.240	0.00	5		10000
246 3500	T	3.303	3.303	0.000	0.000	3.303	0.000	0.000		7 0.160 0.240	0.00	5		10000
247 3500	T	4.022	4.022	0.000	0.000	4.022	0.000	0.000		7 0.160 0.240	0.00	5		10000
248 3500	T	3.700	3.700	0.000	0.000	3.700	0.000	0.000		7 0.160 0.240	0.00	5		10000
249 3500	T	3.700	3.700	0.000	0.000	3.700	0.000	0.000		7 0.160 0.240	0.00	5		10000
250 3500	T	3.950	3.950	0.000	0.000	3.950	0.000	0.000		7 0.160 0.240	0.00	5		10000
251 3500	T	3.700	3.700	0.000	0.000	3.700	0.000	0.000		7 0.160 0.240	0.00	5		10000
252 31000	T	4.468	4.468	0.000	0.000	4.468	0.000	0.000		2 0.500 0.350	0.00	1		
253 31000	T	4.468	4.468	0.000	0.000	4.468	0.000	0.000		2 0.500 0.350	0.00	1		
254 31000	T	4.468	4.468	0.000	0.000	4.468	0.000	0.000		2 0.500 0.350	0.00	1		
255 31000	T	4.468	4.468	0.000	0.000	4.468	0.000	0.000		2 0.500 0.350	0.00	1		
256 3500	T	1.809	1.729	0.000	0.080	1.729	0.000	0.080		7 0.160 0.240	0.00	5		10000
257 3500	T	1.400	1.240	0.080	0.080	1.240	0.080	0.080		7 0.160 0.240	0.00	5		10000
258 3500	T	1.400	1.240	0.080	0.080	1.240	0.080	0.080		7 0.160 0.240	0.00	5		10000
259 3500	T	1.809	1.729	0.000	0.080	1.729	0.000	0.080		7 0.160 0.240	0.00	5		10000
260 3500	T	2.000	1.840	0.080	0.080	1.840	0.080	0.080		7 0.160 0.240	0.00	5		10000
261 3500	T	1.061	1.061	0.000	0.000	1.061	0.000	0.000		7 0.160 0.240	0.00	5		10000
262 3500	T	1.486	1.486	0.000	0.000	1.486	0.000	0.000		7 0.160 0.240	0.00	5		10000
263 3500	T	1.921	1.921	0.000	0.000	1.921	0.000	0.000		7 0.160 0.240	0.00	5		10000
264 3500	T	1.486	1.486	0.000	0.000	1.486	0.000	0.000		7 0.160 0.240	0.00	5		10000
265 3500	T	1.061	1.061	0.000	0.000	1.061	0.000	0.000		7 0.160 0.240	0.00	5		10000
266 3500	T	1.400	1.240	0.080	0.080	1.240	0.080	0.080		7 0.160 0.240	0.00	5		10000
267 3500	T	1.809	1.729	0.000	0.080	1.729	0.000	0.080		7 0.160 0.240	0.00	5		10000
268 3500	T	2.000	1.840	0.080	0.080	1.840	0.080	0.080		7 0.160 0.240	0.00	5		10000
269 3500	T	1.486	1.486	0.000	0.000	1.486	0.000	0.000		7 0.160 0.240	0.00	5		10000
270 3500	T	1.921	1.921	0.000	0.000	1.921	0.000	0.000		7 0.160 0.240	0.00	5		10000
271 3500	T	1.061	1.061	0.000	0.000	1.061	0.000	0.000		7 0.160 0.240	0.00	5		10000
272 3500	T	1.061	1.061	0.000	0.000	1.061	0.000	0.000		7 0.160 0.240	0.00	5		10000
273 3500	T	1.486	1.486	0.000	0.000	1.486	0.000	0.000		7 0.160 0.240	0.00	5		10000
274 3500	T	1.921	1.921	0.000	0.000	1.921	0.000	0.000		7 0.160 0.240	0.00	5		10000
275 3500	T	1.400	1.240	0.080	0.080	1.240	0.080	0.080		7 0.160 0.240	0.00	5		10000
276 3500	T	1.809	1.729	0.000	0.080	1.729	0.000	0.080		7 0.160 0.240	0.00	5		10000
277 3500		6.500	2.260	0.000	4.240	2.260	0.000	4.240		8 0.160 0.200	180.00	5		10000
278 3500		6.000	2.260	0.000	3.740	2.260	0.000	3.740		8 0.160 0.200	180.00	5		10000
279 3500		6.000	2.260	0.000	3.740	2.260	0.000	3.740		8 0.160 0.200	0.00	5		10000
280 3500		6.500	2.260	0.000	4.240	2.260	0.000	4.240		8 0.160 0.200	0.00	5		10000
281 3500		6.000	2.260	0.000	3.740	2.260	0.000	3.740		8 0.160 0.200	180.00	5		10000
282 3500		6.500	2.260	0.000	4.240	2.260	0.000	4.240		8 0.160 0.200	180.00	5		10000
283 3500		6.500	2.260	0.000	4.240	2.260	0.000	4.240		8 0.160 0.200	0.00	5		10000
284 3500		6.000	2.260	0.000	3.740	2.260	0.000	3.740		8 0.160 0.200	0.00	5		10000
285 31000	K	1.880	1.880	0.000	0.000	1.880	0.000	0.000	X	38 0.000 0.000	0.00	1		

329	K	1.932	1.932	0.000	0.000	1.932	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
330	K	1.132	1.132	0.000	0.000	1.132	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
331	K	1.133	1.133	0.000	0.000	1.133	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
332	K	1.320	1.320	0.000	0.000	1.320	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
333	K	0.945	0.945	0.000	0.000	0.945	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
334	K	0.945	0.945	0.000	0.000	0.945	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
335	K	1.320	1.320	0.000	0.000	1.320	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
336	K	1.133	1.133	0.000	0.000	1.133	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
337	K	1.132	1.132	0.000	0.000	1.132	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
338	K	1.933	1.933	0.000	0.000	1.933	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
339	K	0.332	0.332	0.000	0.000	0.332	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
340	K	1.134	1.134	0.000	0.000	1.134	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
341	K	1.131	1.131	0.000	0.000	1.131	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
342	K	0.558	0.558	0.000	0.000	0.558	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
343	K	1.707	1.707	0.000	0.000	1.707	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
344	K	1.132	1.132	0.000	0.000	1.132	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
345	K	1.133	1.133	0.000	0.000	1.133	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
346	K	1.120	1.120	0.000	0.000	1.120	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
347	K	1.145	1.145	0.000	0.000	1.145	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
348	K	0.566	0.566	0.000	0.000	0.566	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
349	K	0.972	0.972	0.000	0.000	0.972	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
350	K	0.972	0.972	0.000	0.000	0.972	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
351	K	0.567	0.567	0.000	0.000	0.567	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
352	K	0.702	0.702	0.000	0.000	0.702	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
353	K	0.701	0.701	0.000	0.000	0.701	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
354	K	0.702	0.702	0.000	0.000	0.702	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
355	K	0.701	0.701	0.000	0.000	0.701	0.000	0.000	X	38	0.000	0.000	0.00	1	
31000	13000														
356	Z	0.897	0.897	0.000	0.000	0.897	0.000	0.000	X	3	0.600	1.200	0.00	3	4000
1600															
357	Z	0.896	0.896	0.000	0.000	0.896	0.000	0.000	X	3	0.600	1.200	0.00	3	4000
1600															
358	Z	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	3	0.600	1.200	0.00	3	4000
1600															
359	Z	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	3	0.600	1.200	0.00	3	4000
1600															
360	Z	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	3	0.600	1.200	0.00	3	4000
1600															
361	Z	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	3	0.600	1.200	0.00	3	4000
1600															
362	Z	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	3	0.600	1.200	0.00	3	4000
1600															
363	Z	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	3	0.600	1.200	0.00	3	4000
1600															
364	Z	0.883	0.883	0.000	0.000	0.883	0.000	0.000	X	3	0.600	1.200	0.00	3	4000
1600															
365	Z	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	3	0.600	1.200	0.00	3	4000
1600															
366	Z	0.309	0.309	0.000	0.000	0.309	0.000	0.000	X	3	0.600	1.200	0.00	3	4000
1600															
367	Z	0.309	0.309	0.000	0.000	0.309	0.000	0.000	X	3	0.600	1.200	0.00	3	4000
1600															
368	Z	1.225	1.225	0.000	0.000	1.225	0.000	0.000	X	3	0.600	1.200	0.00	3	4000
1600															
369	Z	1.225	1.225	0.000	0.000	1.225	0.000	0.000	X	3	0.600	1.200	0.00	3	4000
1600															
370	Z	0.258	0.258	0.000	0.000	0.258	0.000	0.000	X	3	0.600	1.200	0.00	3	4000
1600															
371	Z	0.259	0.259	0.000	0.000	0.259	0.000	0.000	X	3	0.600	1.200	0.00	3	4000
1600															

372 1600	Z	0.260	0.260	0.000	0.000	0.260	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
373 1600	Z	0.260	0.260	0.000	0.000	0.260	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
374 1600	Z	1.224	1.224	0.000	0.000	1.224	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
375 1600	Z	1.224	1.224	0.000	0.000	1.224	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
376 1600	Z	0.183	0.183	0.000	0.000	0.183	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
377 1600	Z	0.184	0.184	0.000	0.000	0.184	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
378 1600	Z	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
379 1600	Z	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
380 1600	Z	0.983	0.983	0.000	0.000	0.983	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
381 1600	Z	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
382 1600	Z	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
383 1600	Z	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
384 1600	Z	0.983	0.983	0.000	0.000	0.983	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
385 1600	Z	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
386 1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000		3 0.600 1.200	0.00	3		4000
387 1600	Z	0.796	0.796	0.000	0.000	0.796	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
388 1600	Z	0.796	0.796	0.000	0.000	0.796	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
389 1600	Z	1.538	1.538	0.000	0.000	1.538	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
390 1600	Z	1.538	1.538	0.000	0.000	1.538	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
391 1600	Z	1.539	1.539	0.000	0.000	1.539	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
392 1600	Z	1.538	1.538	0.000	0.000	1.538	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
393 1600	Z	0.796	0.796	0.000	0.000	0.796	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
394 1600	Z	0.796	0.796	0.000	0.000	0.796	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
395 1600	Z	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
396 1600	Z	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
397 1600	Z	0.983	0.983	0.000	0.000	0.983	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
398 1600	Z	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
399 1600	Z	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
400 1600	Z	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
401 1600	Z	0.983	0.983	0.000	0.000	0.983	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
402 1600	Z	0.984	0.984	0.000	0.000	0.984	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
403 1600	Z	0.184	0.184	0.000	0.000	0.184	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
404 1600	Z	0.183	0.183	0.000	0.000	0.183	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
405 1600	Z	1.224	1.224	0.000	0.000	1.224	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
406 1600	Z	1.224	1.224	0.000	0.000	1.224	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
407 1600	Z	0.260	0.260	0.000	0.000	0.260	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
408 1600	Z	0.260	0.260	0.000	0.000	0.260	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
409 1600	Z	0.259	0.259	0.000	0.000	0.259	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
410 1600	Z	0.258	0.258	0.000	0.000	0.258	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
411 1600	Z	1.225	1.225	0.000	0.000	1.225	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
412 1600	Z	1.225	1.225	0.000	0.000	1.225	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
413 1600	Z	0.309	0.309	0.000	0.000	0.309	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
414 1600	Z	0.309	0.309	0.000	0.000	0.309	0.000	0.000	X	3 0.600 1.200	0.00	3		4000

415 1600	Z	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
416 1600	Z	0.883	0.883	0.000	0.000	0.883	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
417 1600	Z	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
418 1600	Z	0.883	0.883	0.000	0.000	0.883	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
419 1600	Z	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
420 1600	Z	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
421 1600	Z	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
422 1600	Z	0.884	0.884	0.000	0.000	0.884	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
423 1600	Z	0.898	0.898	0.000	0.000	0.898	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
424 1600	Z	0.897	0.897	0.000	0.000	0.897	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
425 31000	Z	1.604	1.604	0.000	0.000	1.604	0.000	0.000	X	9 0.600 0.800	0.00	1		
426 31000	Z	1.605	1.605	0.000	0.000	1.605	0.000	0.000	X	9 0.600 0.800	0.00	1		
427 31000	Z	1.604	1.604	0.000	0.000	1.604	0.000	0.000	X	9 0.600 0.800	0.00	1		
428 31000	Z	2.000	2.000	0.000	0.000	2.000	0.000	0.000		9 0.600 0.800	0.00	1		
429 31000	Z	1.605	1.605	0.000	0.000	1.605	0.000	0.000	X	9 0.600 0.800	0.00	1		
430 31000	Z	1.605	1.605	0.000	0.000	1.605	0.000	0.000	X	9 0.600 0.800	0.00	1		
431 31000	Z	1.604	1.604	0.000	0.000	1.604	0.000	0.000	X	9 0.600 0.800	0.00	1		
432 31000	Z	1.605	1.605	0.000	0.000	1.605	0.000	0.000	X	9 0.600 0.800	0.00	1		
433 31000	Z	2.000	2.000	0.000	0.000	2.000	0.000	0.000		9 0.600 0.800	0.00	1		
434 31000	Z	1.604	1.604	0.000	0.000	1.604	0.000	0.000	X	9 0.600 0.800	0.00	1		
435 1600	Z	1.403	1.403	0.000	0.000	1.403	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
436 1600	Z	1.403	1.403	0.000	0.000	1.403	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
437 1600	Z	1.403	1.403	0.000	0.000	1.403	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
438 1600	Z	1.403	1.403	0.000	0.000	1.403	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
439 1600	Z	1.403	1.403	0.000	0.000	1.403	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
440 1600	Z	1.403	1.403	0.000	0.000	1.403	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
441 31000	Z	1.809	1.809	0.000	0.000	1.809	0.000	0.000		9 0.600 0.800	0.00	1		
442 31000	Z	1.400	1.400	0.000	0.000	1.400	0.000	0.000		9 0.600 0.800	0.00	1		
443 31000	Z	1.809	1.809	0.000	0.000	1.809	0.000	0.000		9 0.600 0.800	0.00	1		
444 31000	Z	2.000	2.000	0.000	0.000	2.000	0.000	0.000		9 0.600 0.800	0.00	1		
445 31000	Z	1.400	1.400	0.000	0.000	1.400	0.000	0.000		9 0.600 0.800	0.00	1		
446 31000	Z	1.809	1.809	0.000	0.000	1.809	0.000	0.000		9 0.600 0.800	0.00	1		
447 31000	Z	1.400	1.400	0.000	0.000	1.400	0.000	0.000		9 0.600 0.800	0.00	1		
448 31000	Z	2.000	2.000	0.000	0.000	2.000	0.000	0.000		9 0.600 0.800	0.00	1		
449 31000	Z	1.809	1.809	0.000	0.000	1.809	0.000	0.000		9 0.600 0.800	0.00	1		
450 31000	Z	1.400	1.400	0.000	0.000	1.400	0.000	0.000		9 0.600 0.800	0.00	1		
451 31000	K	0.620	0.620	0.000	0.000	0.620	0.000	0.000	X	38 0.000 0.000	0.00	1		
452 31000	K	2.500	2.500	0.000	0.000	2.500	0.000	0.000	X	38 0.000 0.000	0.00	1		
453 31000	K	2.500	2.500	0.000	0.000	2.500	0.000	0.000	X	38 0.000 0.000	0.00	1		
454 31000	K	0.620	0.620	0.000	0.000	0.620	0.000	0.000	X	38 0.000 0.000	0.00	1		
455 31000	K	2.500	2.500	0.000	0.000	2.500	0.000	0.000	X	38 0.000 0.000	0.00	1		
456 31000	K	2.500	2.500	0.000	0.000	2.500	0.000	0.000	X	38 0.000 0.000	0.00	1		
457 31000	K	0.620	0.620	0.000	0.000	0.620	0.000	0.000	X	38 0.000 0.000	0.00	1		

31001	K	0.300	0.300	0.000	0.000	0.300	0.000	0.000	X	38	0.000	0.000	0.00	1
502	K	2.426	2.426	0.000	0.000	2.426	0.000	0.000	X	38	0.000	0.000	0.00	1
31003	K	0.674	0.674	0.000	0.000	0.674	0.000	0.000	X	38	0.000	0.000	0.00	1
504	T	3.700	3.700	0.000	0.000	3.700	0.000	0.000		2	0.500	0.350	0.00	1
31005	K	0.300	0.300	0.000	0.000	0.300	0.000	0.000	X	38	0.000	0.000	0.00	1
506	K	0.672	0.672	0.000	0.000	0.672	0.000	0.000	X	38	0.000	0.000	0.00	1
31007	K	2.428	2.428	0.000	0.000	2.428	0.000	0.000	X	38	0.000	0.000	0.00	1
508	T	3.700	3.700	0.000	0.000	3.700	0.000	0.000		2	0.500	0.350	0.00	1
31009	K	0.300	0.300	0.000	0.000	0.300	0.000	0.000	X	38	0.000	0.000	0.00	1
510	K	1.826	1.826	0.000	0.000	1.826	0.000	0.000	X	38	0.000	0.000	0.00	1
31011	K	1.274	1.274	0.000	0.000	1.274	0.000	0.000	X	38	0.000	0.000	0.00	1
512	T	3.700	3.700	0.000	0.000	3.700	0.000	0.000		2	0.500	0.350	0.00	1
31013	K	0.300	0.300	0.000	0.000	0.300	0.000	0.000	X	38	0.000	0.000	0.00	1
514	K	1.272	1.272	0.000	0.000	1.272	0.000	0.000	X	38	0.000	0.000	0.00	1
31015	K	1.828	1.828	0.000	0.000	1.828	0.000	0.000	X	38	0.000	0.000	0.00	1
516	T	3.700	3.700	0.000	0.000	3.700	0.000	0.000		2	0.500	0.350	0.00	1
31017	K	0.300	0.300	0.000	0.000	0.300	0.000	0.000	X	38	0.000	0.000	0.00	1
518	K	1.872	1.872	0.000	0.000	1.872	0.000	0.000	X	38	0.000	0.000	0.00	1
31019	K	1.040	1.040	0.000	0.000	1.040	0.000	0.000	X	38	0.000	0.000	0.00	1
520	T	3.700	3.700	0.000	0.000	3.700	0.000	0.000		2	0.500	0.350	0.00	1
31021	T	3.952	3.952	0.000	0.000	3.952	0.000	0.000		2	0.500	0.350	0.00	1
522	K	0.300	0.300	0.000	0.000	0.300	0.000	0.000	X	38	0.000	0.000	0.00	1
31023	K	1.038	1.038	0.000	0.000	1.038	0.000	0.000	X	38	0.000	0.000	0.00	1
524	K	1.874	1.874	0.000	0.000	1.874	0.000	0.000	X	38	0.000	0.000	0.00	1
31025	T	3.700	3.700	0.000	0.000	3.700	0.000	0.000		2	0.500	0.350	0.00	1
526	T	3.950	3.950	0.000	0.000	3.950	0.000	0.000		2	0.500	0.350	0.00	1
31027	K	0.300	0.300	0.000	0.000	0.300	0.000	0.000	X	38	0.000	0.000	0.00	1
528	K	1.222	1.222	0.000	0.000	1.222	0.000	0.000	X	38	0.000	0.000	0.00	1
31029	K	0.003	0.003	0.000	0.000	0.003	0.000	0.000	X	38	0.000	0.000	0.00	1
530	T	3.673	3.673	0.000	0.000	3.673	0.000	0.000		2	0.500	0.350	0.00	1
31031	K	0.300	0.300	0.000	0.000	0.300	0.000	0.000	X	38	0.000	0.000	0.00	1
532	K	1.649	1.649	0.000	0.000	1.649	0.000	0.000	X	38	0.000	0.000	0.00	1
31033	K	0.002	0.002	0.000	0.000	0.002	0.000	0.000	X	38	0.000	0.000	0.00	1
534	T	3.303	3.303	0.000	0.000	3.303	0.000	0.000		2	0.500	0.350	0.00	1
31035	T	4.022	4.022	0.000	0.000	4.022	0.000	0.000		2	0.500	0.350	0.00	1
536	K	0.300	0.300	0.000	0.000	0.300	0.000	0.000	X	38	0.000	0.000	0.00	1
31037	K	0.002	0.002	0.000	0.000	0.002	0.000	0.000	X	38	0.000	0.000	0.00	1
538	K	1.649	1.649	0.000	0.000	1.649	0.000	0.000	X	38	0.000	0.000	0.00	1
31039	T	3.303	3.303	0.000	0.000	3.303	0.000	0.000		2	0.500	0.350	0.00	1
540	T	4.024	4.024	0.000	0.000	4.024	0.000	0.000		2	0.500	0.350	0.00	1
31041	K	0.300	0.300	0.000	0.000	0.300	0.000	0.000	X	38	0.000	0.000	0.00	1
542	K	4.000	4.000	0.000	0.000	4.000	0.000	0.000	X	38	0.000	0.000	0.00	1
31043	K	3.500	3.500	0.000	0.000	3.500	0.000	0.000	X	38	0.000	0.000	0.00	1

498	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	261	364	inc	000000	0.00	0.00	0.00	0.00
499	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	188	263	inc	000000	0.00	1.00	0.00	0.00
500	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	263	187	inc	000000	0.00	1.00	0.00	0.00
501	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	263	365	inc	000000	0.00	0.00	0.00	0.00
502	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	174	264	inc	000000	0.00	1.00	0.00	0.00
503	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	264	172	inc	000000	0.00	1.00	0.00	0.00
504	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	364	366	inc	000000	0.00	0.00	0.00	0.00
505	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	264	366	inc	000000	0.00	0.00	0.00	0.00
506	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	185	266	inc	000000	0.00	1.00	0.00	0.00
507	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	266	184	inc	000000	0.00	1.00	0.00	0.00
508	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	365	367	inc	000000	0.00	0.00	0.00	0.00
509	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	266	367	inc	000000	0.00	0.00	0.00	0.00
510	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	175	267	inc	000000	0.00	1.00	0.00	0.00
511	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	267	174	inc	000000	0.00	1.00	0.00	0.00
512	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	366	368	inc	000000	0.00	0.00	0.00	0.00
513	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	267	368	inc	000000	0.00	0.00	0.00	0.00
514	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	184	269	inc	000000	0.00	1.00	0.00	0.00
515	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	269	181	inc	000000	0.00	1.00	0.00	0.00
516	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	367	369	inc	000000	0.00	0.00	0.00	0.00
517	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	269	369	inc	000000	0.00	0.00	0.00	0.00
518	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	181	271	inc	000000	0.00	1.00	0.00	0.00
519	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	271	180	inc	000000	0.00	1.00	0.00	0.00
520	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	369	370	inc	000000	0.00	0.00	0.00	0.00
521	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	370	279	inc	000000	0.00	0.00	0.00	0.00
522	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	271	370	inc	000000	0.00	0.00	0.00	0.00
523	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	177	272	inc	000000	0.00	1.00	0.00	0.00
524	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	272	175	inc	000000	0.00	1.00	0.00	0.00
525	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	368	371	inc	000000	0.00	0.00	0.00	0.00
526	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	371	277	inc	000000	0.00	0.00	0.00	0.00
527	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	272	371	inc	000000	0.00	0.00	0.00	0.00
528	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	194	289	inc	000000	0.00	1.00	0.00	0.00
529	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	289	193	inc	000000	0.00	1.00	0.00	0.00
530	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	361	372	inc	000000	0.00	0.00	0.00	0.00
531	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	289	372	inc	000000	0.00	0.00	0.00	0.00
532	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	192	298	inc	000000	0.00	1.00	0.00	0.00
533	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	298	190	inc	000000	0.00	1.00	0.00	0.00
534	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	372	373	inc	000000	0.00	0.00	0.00	0.00
535	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	373	365	inc	000000	0.00	0.00	0.00	0.00
536	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	298	373	inc	000000	0.00	0.00	0.00	0.00
537	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	167	301	inc	000000	0.00	1.00	0.00	0.00
538	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	301	166	inc	000000	0.00	1.00	0.00	0.00
539	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	363	374	inc	000000	0.00	0.00	0.00	0.00
540	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	374	364	inc	000000	0.00	0.00	0.00	0.00
541	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	301	374	inc	000000	0.00	0.00	0.00	0.00
542	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	305	284	inc	000000	0.00	0.00	0.00	0.00
543	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	307	283	inc	000000	0.00	0.00	0.00	0.00
544	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	309	285	inc	000000	0.00	0.00	0.00	0.00
545	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	311	286	inc	000000	0.00	0.00	0.00	0.00
546	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	313	292	inc	000000	0.00	0.00	0.00	0.00
547	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	315	293	inc	000000	0.00	0.00	0.00	0.00
548	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	317	295	inc	000000	0.00	0.00	0.00	0.00
549	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	319	302	inc	000000	0.00	0.00	0.00	0.00

N°	Tag.lim.	%taglio residuo	Dutt. press.	taglio	Per alfa,1	Verif.	PressoFl. Compl.	Taglio	Sf.Norm. Traz.	PressoFl. Ortog.
1	0.00	0	3.00	2.00	X	X	X	X	X	X
2	0.00	0	0.00	0.00	X					
3	0.00	0	0.00	0.00	X					
4	0.00	0	0.00	0.00	X					
5	0.00	0	3.00	2.00	X	X	X	X	X	X
6	0.00	0	0.00	0.00	X					
7	0.00	0	0.00	0.00	X					
8	0.00	0	0.00	0.00	X					
9	1.50	60	0.00	0.00	X		X	X		
10	1.50	60	0.00	0.00	X			X		
11	0.00	0	3.00	2.00	X	X	X	X	X	X
12	0.00	0	0.00	0.00	X					
13	0.00	0	0.00	0.00	X					
14	0.00	0	3.00	2.00	X	X	X	X	X	X
15	0.00	0	0.00	0.00	X					
16	0.00	0	0.00	0.00	X					
17	1.50	60	0.00	0.00	X			X		
18	0.00	0	3.00	2.00	X	X	X	X	X	X
19	0.00	0	0.00	0.00	X					
20	0.00	0	0.00	0.00	X					
21	0.00	0	0.00	0.00	X					
22	0.00	0	3.00	2.00	X		X	X	X	X
23	0.00	0	0.00	0.00	X					
24	0.00	0	0.00	0.00	X					
25	0.00	0	0.00	0.00	X					
26	1.50	60	0.00	0.00	X		X	X		
27	1.50	60	0.00	0.00	X			X		
28	0.00	0	3.00	2.00	X	X	X	X	X	X

29	0.00	0	0.00	0.00	X						
30	0.00	0	0.00	0.00	X						
31	0.00	0	3.00	2.00	X	X	X	X	X	X	
32	0.00	0	0.00	0.00	X						
33	0.00	0	0.00	0.00	X						
34	0.00	0	3.00	2.00	X	X	X	X	X	X	
35	0.00	0	0.00	0.00	X						
36	0.00	0	0.00	0.00	X						
37	1.50	60	0.00	0.00	X			X			
38	0.00	0	3.00	2.00	X	X	X	X	X	X	
39	0.00	0	0.00	0.00	X						
40	0.00	0	0.00	0.00	X						
41	0.00	0	3.00	2.00	X	X	X	X	X	X	
42	0.00	0	0.00	0.00	X						
43	0.00	0	0.00	0.00	X						
44	0.00	0	0.00	0.00	X						
45	0.00	0	3.00	2.00	X	X	X	X	X	X	
46	0.00	0	0.00	0.00	X						
47	0.00	0	0.00	0.00	X						
48	0.00	0	0.00	0.00	X						
49	1.50	60	0.00	0.00	X		X	X			
50	1.50	60	0.00	0.00	X			X			
51	0.00	0	3.00	2.00	X	X	X	X	X	X	
52	0.00	0	0.00	0.00	X						
53	0.00	0	0.00	0.00	X						
54	0.00	0	3.00	2.00	X	X	X	X	X	X	
55	0.00	0	0.00	0.00	X						
56	0.00	0	0.00	0.00	X						
57	1.50	60	0.00	0.00	X			X			
58	0.00	0	3.00	2.00	X	X	X	X	X	X	
59	0.00	0	0.00	0.00	X						
60	0.00	0	0.00	0.00	X						
61	0.00	0	0.00	0.00	X						
62	0.00	0	3.00	2.00	X	X	X	X	X	X	
63	0.00	0	0.00	0.00	X						
64	0.00	0	0.00	0.00	X						
65	0.00	0	0.00	0.00	X						
66	1.50	60	0.00	0.00	X		X	X			
67	1.50	60	0.00	0.00	X			X			
68	0.00	0	3.00	2.00	X	X	X	X	X	X	
69	0.00	0	0.00	0.00	X						
70	0.00	0	0.00	0.00	X						
71	0.00	0	3.00	2.00	X	X	X	X	X	X	
72	0.00	0	0.00	0.00	X						
73	0.00	0	0.00	0.00	X						
74	1.50	60	0.00	0.00	X		X	X			
75	1.50	60	0.00	0.00	X			X			
76	0.00	0	3.00	2.00	X	X	X	X	X	X	
77	0.00	0	0.00	0.00	X						
78	0.00	0	0.00	0.00	X						
79	0.00	0	0.00	0.00	X						
80	0.00	0	3.00	2.00	X	X	X	X	X	X	
81	0.00	0	0.00	0.00	X						
82	0.00	0	0.00	0.00	X						
83	0.00	0	0.00	0.00	X						
84	1.50	60	0.00	0.00	X		X	X			
85	1.50	60	0.00	0.00	X			X			
86	0.00	0	3.00	2.00	X	X	X	X	X	X	
87	0.00	0	0.00	0.00	X						
88	0.00	0	0.00	0.00	X						
89	0.00	0	3.00	2.00	X	X	X	X	X	X	
90	0.00	0	0.00	0.00	X						
91	0.00	0	0.00	0.00	X						
92	1.50	60	0.00	0.00	X			X			
93	0.00	0	3.00	2.00	X	X	X	X	X	X	
94	0.00	0	0.00	0.00	X						
95	0.00	0	0.00	0.00	X						
96	0.00	0	0.00	0.00	X						
97	0.00	0	3.00	2.00	X	X	X	X	X	X	
98	0.00	0	0.00	0.00	X						
99	0.00	0	0.00	0.00	X						
100	0.00	0	0.00	0.00	X						
101	1.50	60	0.00	0.00	X		X	X			
102	1.50	60	0.00	0.00	X			X			
103	0.00	0	3.00	2.00	X	X	X	X	X	X	
104	0.00	0	0.00	0.00	X						
105	0.00	0	0.00	0.00	X						
106	0.00	0	3.00	2.00	X	X	X	X	X	X	
107	0.00	0	0.00	0.00	X						
108	0.00	0	0.00	0.00	X						
109	0.00	0	3.00	2.00	X	X	X	X	X	X	
110	0.00	0	0.00	0.00	X						
111	0.00	0	0.00	0.00	X						
112	1.50	60	0.00	0.00	X			X			
113	0.00	0	3.00	2.00	X	X	X	X	X	X	
114	0.00	0	0.00	0.00	X						

115	0.00	0	0.00	0.00	X						
116	0.00	0	3.00	2.00	X		X	X	X	X	
117	0.00	0	0.00	0.00	X						
118	0.00	0	0.00	0.00	X						
119	0.00	0	0.00	0.00	X						
120	0.00	0	3.00	2.00	X	X	X	X	X	X	
121	0.00	0	0.00	0.00	X						
122	0.00	0	0.00	0.00	X						
123	0.00	0	0.00	0.00	X						
124	1.50	60	0.00	0.00	X		X	X			
125	1.50	60	0.00	0.00	X			X			
126	0.00	0	3.00	2.00	X	X	X	X	X	X	
127	0.00	0	0.00	0.00	X						
128	0.00	0	0.00	0.00	X						
129	0.00	0	3.00	2.00	X	X	X	X	X	X	
130	0.00	0	0.00	0.00	X						
131	0.00	0	0.00	0.00	X						
132	1.50	60	0.00	0.00	X			X			
133	0.00	0	3.00	2.00	X	X	X	X	X	X	
134	0.00	0	0.00	0.00	X						
135	0.00	0	0.00	0.00	X						
136	0.00	0	0.00	0.00	X						
137	0.00	0	3.00	2.00	X	X	X	X	X	X	
138	0.00	0	0.00	0.00	X						
139	0.00	0	0.00	0.00	X						
140	0.00	0	0.00	0.00	X						
141	1.50	60	0.00	0.00	X		X	X			
142	1.50	60	0.00	0.00	X			X			
143	0.00	0	3.00	2.00	X	X	X	X	X	X	
144	0.00	0	0.00	0.00	X						
145	0.00	0	0.00	0.00	X						
146	0.00	0	3.00	2.00	X	X	X	X	X	X	
147	0.00	0	0.00	0.00	X						
148	0.00	0	0.00	0.00	X						
149	1.50	60	0.00	0.00	X		X	X			
150	0.00	0	3.00	2.00	X	X	X	X	X	X	
151	0.00	0	0.00	0.00	X						
152	0.00	0	0.00	0.00	X						
153	0.00	0	3.00	2.00	X	X	X	X	X	X	
154	0.00	0	0.00	0.00	X						
155	0.00	0	0.00	0.00	X						
156	1.50	60	0.00	0.00	X		X	X			
157	0.00	0	3.00	2.00	X	X	X	X	X	X	
158	0.00	0	0.00	0.00	X						
159	0.00	0	3.00	2.00	X	X	X	X	X	X	
160	0.00	0	3.00	2.00	X	X	X	X	X	X	
161	0.00	0	0.00	0.00	X						
162	0.00	0	3.00	2.00	X	X	X	X	X	X	
163	0.00	0	0.00	0.00	X						
164	0.00	0	3.00	2.00	X	X	X	X	X	X	
165	0.00	0	0.00	0.00	X						
166	0.00	0	3.00	2.00	X	X	X	X	X	X	
167	0.00	0	0.00	0.00	X						
168	0.00	0	0.00	0.00	X						
169	0.00	0	3.00	2.00	X	X	X	X	X	X	
170	0.00	0	0.00	0.00	X						
171	0.00	0	3.00	2.00	X	X	X	X	X	X	
172	0.00	0	3.00	2.00	X	X	X	X	X	X	
173	0.00	0	0.00	0.00	X						
174	0.00	0	3.00	2.00	X	X	X	X	X	X	
175	0.00	0	0.00	0.00	X						
176	0.00	0	3.00	2.00	X	X	X	X	X	X	
177	0.00	0	3.00	2.00	X	X	X	X	X	X	
178	0.00	0	0.00	0.00	X						
179	0.00	0	3.00	2.00	X	X	X	X	X	X	
180	0.00	0	0.00	0.00	X						
181	0.00	0	0.00	0.00	X						
182	0.00	0	3.00	2.00	X	X	X	X	X	X	
183	0.00	0	0.00	0.00	X						
184	0.00	0	3.00	2.00	X	X	X	X	X	X	
185	0.00	0	0.00	0.00	X						
186	0.00	0	3.00	2.00	X	X	X	X	X	X	
187	0.00	0	0.00	0.00	X						
188	0.00	0	3.00	2.00	X	X	X	X	X	X	
189	0.00	0	3.00	2.00	X	X	X	X	X	X	
190	0.00	0	0.00	0.00	X						
191	0.00	0	3.00	2.00	X	X	X	X	X	X	
192	0.00	0	0.00	0.00	X						
193	0.00	0	0.00	0.00	X						
194	0.00	0	3.00	2.00	X	X	X	X	X	X	
195	0.00	0	0.00	0.00	X						
196	0.00	0	0.00	0.00	X						
197	0.00	0	3.00	2.00	X	X	X	X	X	X	
198	0.00	0	0.00	0.00	X						
199	0.00	0	0.00	0.00	X						
200	0.00	0	3.00	2.00	X	X	X	X	X	X	

201	0.00	0	0.00	0.00	X						
202	0.00	0	0.00	0.00	X						
203	0.00	0	3.00	2.00	X	X	X	X	X	X	
204	0.00	0	0.00	0.00	X						
205	0.00	0	3.00	2.00	X	X	X	X	X	X	
206	0.00	0	0.00	0.00	X						
207	0.00	0	0.00	0.00	X						
208	0.00	0	3.00	2.00	X	X	X	X	X	X	
209	0.00	0	0.00	0.00	X						
210	0.00	0	0.00	0.00	X		X	X			
211	0.00	0	0.00	0.00	X		X	X			
212	0.00	0	0.00	0.00	X		X	X			
213	0.00	0	0.00	0.00	X		X	X			
214	0.00	0	0.00	0.00	X		X	X			
215	0.00	0	0.00	0.00	X		X	X			
216	0.00	0	0.00	0.00	X		X	X			
217	0.00	0	0.00	0.00	X		X	X			
218	0.00	0	0.00	0.00	X		X	X			
219	0.00	0	0.00	0.00	X		X	X			
220	0.00	0	0.00	0.00	X		X	X			
221	0.00	0	0.00	0.00	X		X	X			
222	0.00	0	0.00	0.00	X		X	X			
223	0.00	0	0.00	0.00	X		X	X			
224	0.00	0	0.00	0.00	X		X	X			
225	0.00	0	0.00	0.00	X		X	X			
226	0.00	0	0.00	0.00	X		X	X			
227	0.00	0	0.00	0.00	X		X	X			
228	0.00	0	0.00	0.00	X		X	X			
229	0.00	0	0.00	0.00	X		X	X			
230	0.00	0	0.00	0.00	X		X	X			
231	0.00	0	0.00	0.00	X		X	X			
232	0.00	0	0.00	0.00	X		X	X			
233	0.00	0	0.00	0.00	X		X	X			
234	0.00	0	0.00	0.00	X		X	X			
235	0.00	0	0.00	0.00	X		X	X			
236	0.00	0	0.00	0.00	X		X	X			
237	0.00	0	0.00	0.00	X		X	X			
238	0.00	0	0.00	0.00	X		X	X			
239	0.00	0	0.00	0.00	X		X	X			
240	0.00	0	0.00	0.00	X		X	X			
241	0.00	0	0.00	0.00	X		X	X			
242	0.00	0	0.00	0.00	X		X	X			
243	0.00	0	0.00	0.00	X		X	X			
244	0.00	0	0.00	0.00	X		X	X			
245	0.00	0	0.00	0.00	X		X	X			
246	0.00	0	0.00	0.00	X		X	X			
247	0.00	0	0.00	0.00	X		X	X			
248	0.00	0	0.00	0.00	X		X	X			
249	0.00	0	0.00	0.00	X		X	X			
250	0.00	0	0.00	0.00	X		X	X			
251	0.00	0	0.00	0.00	X		X	X			
252	0.00	0	0.00	0.00	X	X	X	X			
253	0.00	0	0.00	0.00	X	X	X	X			
254	0.00	0	0.00	0.00	X	X	X	X			
255	0.00	0	0.00	0.00	X	X	X	X			
256	0.00	0	0.00	0.00	X		X	X			
257	0.00	0	0.00	0.00	X		X	X			
258	0.00	0	0.00	0.00	X		X	X			
259	0.00	0	0.00	0.00	X		X	X			
260	0.00	0	0.00	0.00	X		X	X			
261	0.00	0	0.00	0.00	X		X	X			
262	0.00	0	0.00	0.00	X		X	X			
263	0.00	0	0.00	0.00	X		X	X			
264	0.00	0	0.00	0.00	X		X	X			
265	0.00	0	0.00	0.00	X		X	X			
266	0.00	0	0.00	0.00	X		X	X			
267	0.00	0	0.00	0.00	X		X	X			
268	0.00	0	0.00	0.00	X		X	X			
269	0.00	0	0.00	0.00	X		X	X			
270	0.00	0	0.00	0.00	X		X	X			
271	0.00	0	0.00	0.00	X		X	X			
272	0.00	0	0.00	0.00	X		X	X			
273	0.00	0	0.00	0.00	X		X	X			
274	0.00	0	0.00	0.00	X		X	X			
275	0.00	0	0.00	0.00	X		X	X			
276	0.00	0	0.00	0.00	X		X	X			
277	0.00	0	0.00	0.00	X						
278	0.00	0	0.00	0.00	X						
279	0.00	0	0.00	0.00	X						
280	0.00	0	0.00	0.00	X						
281	0.00	0	0.00	0.00	X						
282	0.00	0	0.00	0.00	X						
283	0.00	0	0.00	0.00	X						
284	0.00	0	0.00	0.00	X						
285	0.00	0	0.00	0.00	X						
286	0.00	0	0.00	0.00	X						

287	0.00	0	0.00	0.00	X	X	X						
288	0.00	0	0.00	0.00	X								
289	0.00	0	0.00	0.00	X								
290	0.00	0	0.00	0.00	X	X	X						
291	0.00	0	0.00	0.00	X								
292	0.00	0	0.00	0.00	X								
293	0.00	0	0.00	0.00	X								
294	0.00	0	0.00	0.00	X								
295	0.00	0	0.00	0.00	X								
296	0.00	0	0.00	0.00	X								
297	0.00	0	0.00	0.00	X								
298	0.00	0	0.00	0.00	X								
299	0.00	0	0.00	0.00	X								
300	0.00	0	0.00	0.00	X								
301	0.00	0	0.00	0.00	X								
302	0.00	0	0.00	0.00	X								
303	0.00	0	0.00	0.00	X								
304	0.00	0	0.00	0.00	X								
305	0.00	0	0.00	0.00	X								
306	0.00	0	0.00	0.00	X								
307	0.00	0	0.00	0.00	X								
308	0.00	0	0.00	0.00	X								
309	0.00	0	0.00	0.00	X								
310	0.00	0	0.00	0.00	X								
311	0.00	0	0.00	0.00	X								
312	0.00	0	0.00	0.00	X								
313	0.00	0	0.00	0.00	X								
314	0.00	0	0.00	0.00	X								
315	0.00	0	0.00	0.00	X								
316	0.00	0	0.00	0.00	X								
317	0.00	0	0.00	0.00	X								
318	0.00	0	0.00	0.00	X								
319	0.00	0	0.00	0.00	X								
320	0.00	0	0.00	0.00	X								
321	0.00	0	0.00	0.00	X								
322	0.00	0	0.00	0.00	X								
323	0.00	0	0.00	0.00	X								
324	0.00	0	0.00	0.00	X								
325	0.00	0	0.00	0.00	X								
326	0.00	0	0.00	0.00	X								
327	0.00	0	0.00	0.00	X								
328	0.00	0	0.00	0.00	X								
329	0.00	0	0.00	0.00	X								
330	0.00	0	0.00	0.00	X								
331	0.00	0	0.00	0.00	X								
332	0.00	0	0.00	0.00	X								
333	0.00	0	0.00	0.00	X								
334	0.00	0	0.00	0.00	X								
335	0.00	0	0.00	0.00	X								
336	0.00	0	0.00	0.00	X								
337	0.00	0	0.00	0.00	X								
338	0.00	0	0.00	0.00	X								
339	0.00	0	0.00	0.00	X								
340	0.00	0	0.00	0.00	X								
341	0.00	0	0.00	0.00	X								
342	0.00	0	0.00	0.00	X								
343	0.00	0	0.00	0.00	X								
344	0.00	0	0.00	0.00	X								
345	0.00	0	0.00	0.00	X								
346	0.00	0	0.00	0.00	X								
347	0.00	0	0.00	0.00	X								
348	0.00	0	0.00	0.00	X								
349	0.00	0	0.00	0.00	X								
350	0.00	0	0.00	0.00	X								
351	0.00	0	0.00	0.00	X								
352	0.00	0	0.00	0.00	X								
353	0.00	0	0.00	0.00	X								
354	0.00	0	0.00	0.00	X								
355	0.00	0	0.00	0.00	X								
356	0.00	0	0.00	0.00	X		X	X					
357	0.00	0	0.00	0.00	X		X	X					
358	0.00	0	0.00	0.00	X		X	X					
359	0.00	0	0.00	0.00	X		X	X					
360	0.00	0	0.00	0.00	X		X	X					
361	0.00	0	0.00	0.00	X		X	X					
362	0.00	0	0.00	0.00	X		X	X					
363	0.00	0	0.00	0.00	X		X	X					
364	0.00	0	0.00	0.00	X		X	X					
365	0.00	0	0.00	0.00	X		X	X					
366	0.00	0	0.00	0.00	X		X	X					
367	0.00	0	0.00	0.00	X		X	X					
368	0.00	0	0.00	0.00	X		X	X					
369	0.00	0	0.00	0.00	X		X	X					
370	0.00	0	0.00	0.00	X		X	X					
371	0.00	0	0.00	0.00	X		X	X					
372	0.00	0	0.00	0.00	X		X	X					

373	0.00	0	0.00	0.00	X			X	X		
374	0.00	0	0.00	0.00	X			X	X		
375	0.00	0	0.00	0.00	X			X	X		
376	0.00	0	0.00	0.00	X			X	X		
377	0.00	0	0.00	0.00	X			X	X		
378	0.00	0	0.00	0.00	X			X	X		
379	0.00	0	0.00	0.00	X			X	X		
380	0.00	0	0.00	0.00	X			X	X		
381	0.00	0	0.00	0.00	X			X	X		
382	0.00	0	0.00	0.00	X			X	X		
383	0.00	0	0.00	0.00	X			X	X		
384	0.00	0	0.00	0.00	X			X	X		
385	0.00	0	0.00	0.00	X			X	X		
386	0.00	0	0.00	0.00	X			X	X		
387	0.00	0	0.00	0.00	X			X	X		
388	0.00	0	0.00	0.00	X			X	X		
389	0.00	0	0.00	0.00	X			X	X		
390	0.00	0	0.00	0.00	X			X	X		
391	0.00	0	0.00	0.00	X			X	X		
392	0.00	0	0.00	0.00	X			X	X		
393	0.00	0	0.00	0.00	X			X	X		
394	0.00	0	0.00	0.00	X			X	X		
395	0.00	0	0.00	0.00	X			X	X		
396	0.00	0	0.00	0.00	X			X	X		
397	0.00	0	0.00	0.00	X			X	X		
398	0.00	0	0.00	0.00	X			X	X		
399	0.00	0	0.00	0.00	X			X	X		
400	0.00	0	0.00	0.00	X			X	X		
401	0.00	0	0.00	0.00	X			X	X		
402	0.00	0	0.00	0.00	X			X	X		
403	0.00	0	0.00	0.00	X			X	X		
404	0.00	0	0.00	0.00	X			X	X		
405	0.00	0	0.00	0.00	X			X	X		
406	0.00	0	0.00	0.00	X			X	X		
407	0.00	0	0.00	0.00	X			X	X		
408	0.00	0	0.00	0.00	X			X	X		
409	0.00	0	0.00	0.00	X			X	X		
410	0.00	0	0.00	0.00	X			X	X		
411	0.00	0	0.00	0.00	X			X	X		
412	0.00	0	0.00	0.00	X			X	X		
413	0.00	0	0.00	0.00	X			X	X		
414	0.00	0	0.00	0.00	X			X	X		
415	0.00	0	0.00	0.00	X			X	X		
416	0.00	0	0.00	0.00	X			X	X		
417	0.00	0	0.00	0.00	X			X	X		
418	0.00	0	0.00	0.00	X			X	X		
419	0.00	0	0.00	0.00	X			X	X		
420	0.00	0	0.00	0.00	X			X	X		
421	0.00	0	0.00	0.00	X			X	X		
422	0.00	0	0.00	0.00	X			X	X		
423	0.00	0	0.00	0.00	X			X	X		
424	0.00	0	0.00	0.00	X			X	X		
425	0.00	0	0.00	0.00	X	X		X	X		
426	0.00	0	0.00	0.00	X	X		X	X		
427	0.00	0	0.00	0.00	X	X		X	X		
428	0.00	0	0.00	0.00	X	X		X	X		
429	0.00	0	0.00	0.00	X	X		X	X		
430	0.00	0	0.00	0.00	X	X		X	X		
431	0.00	0	0.00	0.00	X	X		X	X		
432	0.00	0	0.00	0.00	X	X		X	X		
433	0.00	0	0.00	0.00	X	X		X	X		
434	0.00	0	0.00	0.00	X	X		X	X		
435	0.00	0	0.00	0.00	X			X	X		
436	0.00	0	0.00	0.00	X			X	X		
437	0.00	0	0.00	0.00	X			X	X		
438	0.00	0	0.00	0.00	X			X	X		
439	0.00	0	0.00	0.00	X			X	X		
440	0.00	0	0.00	0.00	X			X	X		
441	0.00	0	0.00	0.00	X	X		X	X		
442	0.00	0	0.00	0.00	X	X		X	X		
443	0.00	0	0.00	0.00	X	X		X	X		
444	0.00	0	0.00	0.00	X	X		X	X		
445	0.00	0	0.00	0.00	X	X		X	X		
446	0.00	0	0.00	0.00	X	X		X	X		
447	0.00	0	0.00	0.00	X	X		X	X		
448	0.00	0	0.00	0.00	X	X		X	X		
449	0.00	0	0.00	0.00	X	X		X	X		
450	0.00	0	0.00	0.00	X	X		X	X		
451	0.00	0	0.00	0.00	X						
452	0.00	0	0.00	0.00	X						
453	0.00	0	0.00	0.00	X						
454	0.00	0	0.00	0.00	X						
455	0.00	0	0.00	0.00	X						
456	0.00	0	0.00	0.00	X						
457	0.00	0	0.00	0.00	X						
458	0.00	0	0.00	0.00	X	X		X	X		

459	0.00	0	0.00	0.00	X						
460	0.00	0	0.00	0.00	X						
461	0.00	0	0.00	0.00	X						
462	0.00	0	0.00	0.00	X	X	X	X			
463	0.00	0	0.00	0.00	X						
464	0.00	0	0.00	0.00	X						
465	0.00	0	0.00	0.00	X						
466	0.00	0	0.00	0.00	X	X	X	X			
467	0.00	0	0.00	0.00	X						
468	0.00	0	0.00	0.00	X						
469	0.00	0	0.00	0.00	X						
470	0.00	0	0.00	0.00	X	X	X	X			
471	0.00	0	0.00	0.00	X						
472	0.00	0	0.00	0.00	X						
473	0.00	0	0.00	0.00	X						
474	0.00	0	0.00	0.00	X	X	X	X			
475	0.00	0	0.00	0.00	X						
476	0.00	0	0.00	0.00	X						
477	0.00	0	0.00	0.00	X						
478	0.00	0	0.00	0.00	X	X	X	X			
479	0.00	0	0.00	0.00	X						
480	0.00	0	0.00	0.00	X						
481	0.00	0	0.00	0.00	X						
482	0.00	0	0.00	0.00	X	X	X	X			
483	0.00	0	0.00	0.00	X						
484	0.00	0	0.00	0.00	X						
485	0.00	0	0.00	0.00	X						
486	0.00	0	0.00	0.00	X	X	X	X			
487	0.00	0	0.00	0.00	X						
488	0.00	0	0.00	0.00	X						
489	0.00	0	0.00	0.00	X						
490	0.00	0	0.00	0.00	X	X	X	X			
491	0.00	0	0.00	0.00	X						
492	0.00	0	0.00	0.00	X						
493	0.00	0	0.00	0.00	X						
494	0.00	0	0.00	0.00	X	X	X	X			
495	0.00	0	0.00	0.00	X						
496	0.00	0	0.00	0.00	X						
497	0.00	0	0.00	0.00	X						
498	0.00	0	0.00	0.00	X						
499	0.00	0	0.00	0.00	X						
500	0.00	0	0.00	0.00	X						
501	0.00	0	0.00	0.00	X						
502	0.00	0	0.00	0.00	X						
503	0.00	0	0.00	0.00	X						
504	0.00	0	0.00	0.00	X	X	X	X			
505	0.00	0	0.00	0.00	X						
506	0.00	0	0.00	0.00	X						
507	0.00	0	0.00	0.00	X						
508	0.00	0	0.00	0.00	X	X	X	X			
509	0.00	0	0.00	0.00	X						
510	0.00	0	0.00	0.00	X						
511	0.00	0	0.00	0.00	X						
512	0.00	0	0.00	0.00	X	X	X	X			
513	0.00	0	0.00	0.00	X						
514	0.00	0	0.00	0.00	X						
515	0.00	0	0.00	0.00	X						
516	0.00	0	0.00	0.00	X	X	X	X			
517	0.00	0	0.00	0.00	X						
518	0.00	0	0.00	0.00	X						
519	0.00	0	0.00	0.00	X						
520	0.00	0	0.00	0.00	X	X	X	X			
521	0.00	0	0.00	0.00	X	X	X	X			
522	0.00	0	0.00	0.00	X						
523	0.00	0	0.00	0.00	X						
524	0.00	0	0.00	0.00	X						
525	0.00	0	0.00	0.00	X	X	X	X			
526	0.00	0	0.00	0.00	X	X	X	X			
527	0.00	0	0.00	0.00	X						
528	0.00	0	0.00	0.00	X						
529	0.00	0	0.00	0.00	X						
530	0.00	0	0.00	0.00	X	X	X	X			
531	0.00	0	0.00	0.00	X						
532	0.00	0	0.00	0.00	X						
533	0.00	0	0.00	0.00	X						
534	0.00	0	0.00	0.00	X	X	X	X			
535	0.00	0	0.00	0.00	X	X	X	X			
536	0.00	0	0.00	0.00	X						
537	0.00	0	0.00	0.00	X						
538	0.00	0	0.00	0.00	X						
539	0.00	0	0.00	0.00	X	X	X	X			
540	0.00	0	0.00	0.00	X	X	X	X			
541	0.00	0	0.00	0.00	X						
542	0.00	0	0.00	0.00	X						
543	0.00	0	0.00	0.00	X						
544	0.00	0	0.00	0.00	X						

545	0.00	0	0.00	0.00	X							
546	0.00	0	0.00	0.00	X							
547	0.00	0	0.00	0.00	X							
548	0.00	0	0.00	0.00	X							
549	0.00	0	0.00	0.00	X							

Descrizione dei DATI SOLAI

I solai sono elementi strutturali finalizzati alla generazione dei carichi sulle aste che ne definiscono il contorno. I carichi agenti sulla struttura utilizzati nell'analisi sono in ogni caso quelli definiti nelle CCE, e includono oltre ai carichi direttamente derivanti dai solai anche altri carichi definiti in input su singole aste.

N°: numero progressivo del solaio

Tipologia: solaio piano, falda, volta a botte o volta a padiglione

Piano: piano (o impalcato) a cui il solaio appartiene

Rigido: X indica che il solaio è considerato infinitamente rigido. Se l'impalcato (o piano) a cui appartiene il solaio è un piano rigido, questo parametro è influente. Qualora il piano sia flessibile, la qualifica di solaio rigido consente la generazione automatica di link rigidi di contorno in grado di assicurare l'indeforabilità della maglia nel piano orizzontale

G1, G2, Q: carichi di superficie, in kN/m^2 , di tipo G1 (peso proprio), G2 (permanente oltre peso proprio), Q (variabile) agenti sul solaio. I carichi di superficie sono sempre da considerarsi come componente verticale

Sup.: superficie del solaio in m^2 . Nel caso di falda (solaio con pendenza non nulla) la superficie è l'area effettiva del solaio, maggiore quindi della sua proiezione sul piano orizzontale

Direz. princ.: direzione principale (angolo di orditura del solaio)

Distr. trasv.: distribuzione trasversale. Rappresenta la quota parte del carico di un solaio che viene ripartita sulle aste orientate parallelamente alla direzione di orditura del solaio (aste scariche nei classici solai monodirezionali)

H volta: altezza della volta, data dalla distanza fra l'estradosso piano di calpestio realizzato sulla volta, e l'imposta della volta stessa. Permette il calcolo della spinta della volta

Pend.: pendenza del solaio a falda. Nel calcolo, la risultante del carico verticale è calcolata tenendo conto della superficie effettiva, di dimensioni maggiori della proiezione sul piano orizzontale

G1 tot., G2 tot., Q tot.: carichi complessivi di solaio (peso proprio, permanente oltre peso proprio, variabile), in kN, definiti dai carichi di superficie (verticali, cioè paralleli all'asse Z globale) moltiplicati per la superficie effettiva del solaio (nel caso di falda, tale superficie è maggiore della sua proiezione sul piano orizzontale)

8. Dati SOLAI

N°	Tipologia	Piano	G1 (kN/m^2)	G2 =	Q =	Superf. (m^2)	Direz. princ. (°)	Distr. trasv. (%)	Pend. (%)	G1 tot. (kN)	G2 tot. =	Q tot. =
1	Falda	2	0.50	1.00	2.00	14.04	0	0	35	7.02	14.04	28.08
2	Falda	2	0.50	1.00	2.00	14.04	0	0	35	7.02	14.04	28.08
3	Falda	2	0.50	1.00	2.00	13.73	0	0	35	6.87	13.73	27.46
4	Falda	2	0.50	1.00	2.00	13.73	0	0	35	6.87	13.73	27.46
5	Falda	2	0.50	1.00	2.00	13.73	0	0	35	6.87	13.73	27.46
6	Falda	2	0.50	1.00	2.00	13.73	0	0	35	6.87	13.73	27.46
7	Falda	2	0.50	1.00	2.00	13.64	0	0	35	6.82	13.64	27.27
8	Falda	2	0.50	1.00	2.00	13.73	0	0	35	6.87	13.73	27.46
9	Falda	2	0.50	1.00	2.00	13.73	0	0	35	6.87	13.73	27.46
10	Falda	2	0.50	1.00	2.00	13.63	0	0	35	6.82	13.63	27.26
11	Falda	2	0.50	1.00	2.00	14.04	0	0	35	7.02	14.04	28.09
12	Falda	2	0.50	1.00	2.00	14.05	0	0	35	7.02	14.05	28.10
13	Falda	2	0.50	1.00	2.00	13.73	0	0	35	6.87	13.73	27.46
14	Falda	2	0.50	1.00	2.00	13.73	0	0	35	6.87	13.73	27.46
15	Falda	2	0.50	1.00	2.00	13.73	0	0	35	6.87	13.73	27.46
16	Falda	2	0.50	1.00	2.00	14.98	0	0	35	7.49	14.98	29.96
17	Falda	2	0.50	1.00	2.00	14.98	0	0	35	7.49	14.98	29.97
18	Falda	2	0.50	1.00	2.00	13.73	0	0	35	6.87	13.73	27.46
19	Falda	2	0.50	1.00	2.00	13.73	0	0	35	6.87	13.73	27.46
20	Falda	2	0.50	1.00	2.00	13.73	0	0	35	6.87	13.73	27.46
21	Falda	2	0.75	0.00	2.00	12.19	0	0	35	9.14	0.00	24.38
22	Falda	2	0.75	0.00	2.00	12.19	0	0	35	9.14	0.00	24.38
23	Solaio piano	1	0.50	0.00	2.00	17.57	0	0	0	8.78	0.00	35.13
24	Solaio piano	1	0.50	0.00	2.00	17.55	0	0	0	8.77	0.00	35.09

Descrizione dei DATI CARICHI

CONDIZIONI DI CARICO ELEMENTARI

Ogni Condizione di Carico elementare (CCE) descrive un gruppo di dati omogenei, che possono essere cioè trattati con i medesimi coefficienti moltiplicativi sia nelle Combinazioni delle Condizioni di Carico (CCC) definite per analisi lineari statiche non sismiche (§2.3), sia nella combinazione sismica (§3.2.4). Le CCE vengono create da PCM in base alla popolazione dei diversi Tipi di Azioni previste dalla Normativa vigente (§2.5.3).

PARAMETRI GENERALI

Dopo una descrizione sintetica della CCE, sono riportati i seguenti parametri.

Tipologia: indica la tipologia dell'azione.

Tipo di Azione: specifica il tipo di azione in accordo con [Tab.2.5.1 \(§2.5.3\)](#).

Livelli di intensità dell'azione variabile: (psi),0 (valore raro), **(psi),1** (valore frequente), **(psi),2** (valore quasi-permanente).

I coefficienti di combinazione ψ ([§2.5.3](#), [Tab.2.5.1](#)) sono suddivisi in ψ_0 , ψ_1 e ψ_2 , ed assumono valori dipendenti dal tipo di ambiente (uso residenziale, uffici, ecc.) e dal tipo di azione. Ai fini dell'analisi sismica, gli unici coefficienti moltiplicativi delle azioni variabili sono gli ψ_2 ([\(2.5.5\)](#), [§2.5.3](#)); pertanto, le masse sismiche non dipendono dallo stato limite di riferimento (SLD o SLV).

Per l'Analisi Statica (non sismica) degli edifici in muratura, le combinazioni dei carichi utilizzano i coefficienti ψ_0 ([\(2.5.1\)](#), [§2.5.3](#)) e i coefficienti parziali di sicurezza γ (γ_G e γ_Q) ([§2.6.1](#), [Tab.2.6.1](#)).

Per i carichi permanenti G_k , ed i carichi di precompressione P_k , i coefficienti ψ_0 , ψ_1 e ψ_2 vengono tutti posti pari a 1.0.

Moltiplicatori per Generazione Masse

I 6 valori (una sequenza di caratteri 0 o 1) indicano i moltiplicatori dei carichi agenti sui nodi ai fini della generazione delle masse a partire dai carichi applicati, e più esattamente corrispondono a: m_X , m_Y , m_Z , I_X , I_Y , I_Z , dove (con riferimento agli assi globali XYZ):

m_X , m_Y , m_Z sono le masse traslazionali; I_X , I_Y , I_Z sono le inerzie rotazionali.

Normalmente, nelle analisi 3D le masse generate automaticamente sono masse traslazionali lungo gli assi orizzontali (m_X e m_Y) e inerzie rotazionali intorno all'asse verticale (I_Z), quindi i moltiplicatori sono definiti da: "110001".

Per analisi 2D, viene considerata la sola traslazione lungo l'asse orizzontale X: "100000".

Qualora si considerino anche effetti sismici verticali, si può avere: nel 3D: "111001"; nel 2D: "101000".

Nell'analisi modale verranno considerate, nelle Condizioni di Carico sismicamente attive:

- sia le masse concentrate direttamente specificate, in corrispondenza dei nodi;
- sia le masse generate automaticamente nei nodi a partire dai carichi applicati, secondo i 'moltiplicatori per generazione masse'. Qualora si desideri che nessun carico direttamente specificato nella Condizione di Carico si traduca in massa, è sufficiente specificare "000000": in tal caso, se la condizione è sismicamente attiva (cioè, non deve essere ignorata: si riconosce dai valori del coefficiente sismico ψ_2), verranno considerate solo le masse concentrate direttamente specificate.

Le Masse generate coincidono con le masse sismicamente attive, cioè associate ai carichi gravitazionali secondo la [\(3.2.17\)](#), [§3.2.4](#):

$$G,1 + G,2 + \sum(\psi_{2,j} * Q_{k,j})$$

NODI

I carichi sui Nodi sono organizzati in un elenco dove sono indicati i numeri dei nodi interessati dai carichi, ed i carichi stessi, espressi nelle coordinate globali (XYZ). Si tratta di carichi in senso generalizzato: oltre infatti ai veri e propri carichi, possono essere applicati anche cedimenti vincolari anelastici e masse concentrate.

Le **tipologie di carico** consentite dalla versione corrente di PCM sono le seguenti (per ogni carico sono elencati i dati corrispondenti):

- **Carichi Concentrati:** FX FY FZ, MX MY MZ (forze e coppie)
- **Cedimenti Vincolari:** uX uY uZ, ϕ_X ϕ_Y ϕ_Z (cedimenti traslazionali e rotazionali). L'unità di misura angolare *mrad* indica i millesimi di radiante. Per esempio: 1 mrad = 0.001 rad.
- **Masse Concentrate:** mX mY mZ, I_X I_Y I_Z (masse traslazionali e inerzie rotazionali)

Non è prevista l'applicazione ad uno stesso nodo, nella medesima Condizione di Carico Elementare, di un cedimento vincolare e di un'azione concentrata corrispondente. I cedimenti vincolari devono sempre corrispondere a componenti vincolate del nodo (per esempio, in caso di cedimento lungo Z, la componente *w* del nodo - specificata nei dati geometrici - deve essere 0). Le forze concentrate ed i cedimenti vincolari traslazionali sono **positivi se equiversi agli assi globali X Y Z**; le coppie concentrate ed i cedimenti vincolari rotazionali sono **positivi se antiorari** (si tratta delle medesime convenzioni adottate in ogni parte di PCM, per esempio anche per gli spostamenti incogniti e per le reazioni vincolari). Le aste ai cui nodi estremi sono applicati cedimenti vincolari devono necessariamente non presentare rigidità, e quindi devono avere luce deformabile coincidente con la lunghezza.

ASTE

I carichi sulle Aste sono organizzati in un elenco dove sono indicati i numeri delle aste interessate dai carichi, ed i carichi stessi espressi in coordinate globali (XYZ).

Le **tipologie di carico** consentite dalla versione corrente di PCM sono le seguenti (per ogni carico sono elencati i dati corrispondenti):

- **Carico Distribuito Uniforme:** n°asta, Sist.rif., Componenti X,Y,Z, Su luce deformabile, Generato da Solai
- **Carico Distribuito Lineare (max al vertice iniziale 'i'):** n°asta, Sist.rif., Componenti X,Y,Z, Su luce deformabile
- **Carico Distribuito Lineare (max al vertice finale 'j'):** n°asta, Sist.rif., Componenti X,Y,Z, Su luce deformabile
- **Carico Concentrato:** n°asta, Sist.rif., P_x, P_y, P_z, M_x, M_y, M_z, DPi, Generato da Solai
[P,M=intensità delle componenti del carico concentrato: forze e coppie; DPi = distanza del carico concentrato dal vertice iniziale i]
- **Carico Termico (nel piano locale xz):** n°asta, DeltaT estradosso, DeltaT intradosso.

Componenti X,Y,Z = i carichi agenti sulle aste (distribuiti e concentrati) sono forniti in coordinate globali: le componenti X, Y, Z sono parallele alle corrispondenti direzioni globali.

I carichi (distribuiti e concentrati) sono positivi se equiversi agli assi globali; le coppie sono positive se antiorarie. Con questa convenzione, ad esempio per le travi di un impalcato, i carichi dovuti ai pesi propri sono orientati secondo l'asse globale Z, con segno negativo.

COMBINAZIONI DI CONDIZIONI DI CARICO

Le CCC (Combinazioni di Condizioni di Carico elementari) consentono la generazione di caratteristiche di sollecitazione e di deformazione per le combinazioni delle condizioni di carico elementari ai fini delle analisi statiche (la combinazione di carico sismica viene generata automaticamente dal software, vd. oltre).

Ogni CCC è caratterizzata anzitutto da una descrizione sintetica, e poi dai parametri qui di seguito elencati.

Tipo di Combinazione Statica (§2.5.3): specifica la tipologia della singola Combinazione, secondo la convenzione qui di seguito riportata:

- 1) Generica
- 2) Fondamentale (SLU) [\(2.5.1\)](#),[§2.5.3](#)
- 3) Caratteristica (rara) (SLE) [\(2.5.2\)](#),[§2.5.3](#)
- 4) Frequente (SLE) [\(2.5.3\)](#),[§2.5.3](#)
- 5) Quasi permanente (SLE) [\(2.5.4\)](#),[§2.5.3](#)

In ogni CCC sono prese in considerazione tutte le CCE, e per ognuna delle CCE sono riportati i seguenti parametri:

Coefficiente γ (gamma), (moltiplicatore);

Variabile, dominante: se affermativo, indica che, nella CCC, la CCE assume il ruolo dominante svolto, nella combinazione, da un carico variabile. Il dato è influente per le CCE corrispondenti a carichi permanenti;

ψ (psi) = coefficiente di combinazione dell'azione variabile; il valore coincide con il corrispondente dato definito nelle CCE, e si riferisce a: ψ_0 per i carichi variabili (non dominanti) delle combinazioni di tipo fondamentale o caratteristica (rara) (per il variabile dominante: $\psi=1.0$); ψ_1 per il variabile dominante della combinazione di tipo frequente; ψ_2 per i variabili non dominanti della combinazione frequente e per tutti i variabili della combinazione quasi permanente.

Moltiplicatore di calcolo.

L'organizzazione dei dati permette le seguenti valutazioni:

(a) effetti di combinazioni delle CCE con moltiplicatori generici (senza diretti riferimenti a combinazioni di tipo statico o sismico, o alla tipologia della struttura, che può essere o meno in muratura). In tal caso:
la CCC è una combinazione Generica (tipo 1 nella convenzione di PCM); i coefficienti γ sono trattati come moltiplicatori generici (il molt. di calcolo di ogni singola CCE è direttamente uguale al γ (molt.) della CCE);

(b) combinazioni di CCE di tipo fondamentale per l'analisi statica e le corrispondenti verifiche di sicurezza di edifici in muratura a SLU, secondo (2.5.1), §2.5.3. In tal caso:
la CCC è una combinazione di tipo Fondamentale (tipo 2 nella convenzione di PCM). PCM esegue le verifiche statiche a SLU (per la muratura), secondo §4.5.6, in corrispondenza delle sole CCC Fondamentali; il coefficiente γ coincide con il coefficiente parziale per le azioni γ_G o γ_Q (§2.6.1, Tab.2.6.1); il moltiplicatore di calcolo di ogni CCE è pari a $\gamma \cdot \psi_0$. Si osservi che: per le CCE di tipo G1, G2 e P, ψ_0 è automaticamente posto pari a 1.0; per le CCC dove è dominante un tipo di azione variabile, per essa viene trascurata la riduzione dovuta a ψ_0 (il che equivale a porlo = 1.0).

(c) combinazioni di CCE di tipo raro, frequente o quasi permanente per l'analisi statica a SLE, secondo §2.5.3. In tal caso:
la CCC è una combinazione relativa ad uno Stato Limite di Esercizio (la combinazione è identificata da uno dei tipi 3, 4 o 5 nella convenzione di PCM). Per tali combinazioni viene eseguita l'analisi, e quindi sono forniti spostamenti e sollecitazioni, ma non vengono eseguite verifiche di sicurezza. Per gli edifici in muratura, secondo §4.5.6.3 non è generalmente necessario eseguire verifiche nei confronti degli SLE quando siano soddisfatte le verifiche nei confronti degli SLU. I risultati dell'analisi per SLE possono essere convenientemente utilizzati ad esempio per verifiche a parte di SLE riguardanti elementi in altra tecnologia (c.a., acciaio) presenti in una struttura in muratura mista.

Le combinazioni per SLE sono caratterizzate dai seguenti parametri:

- non sono considerati coefficienti parziali per le azioni γ_G o γ_Q , specifici per combinazioni SLU (in pratica: $\gamma_G = \gamma_Q = 1.0$);
- i coefficienti ψ di combinazione delle CCE corrispondenti ad azioni variabili dipendono dal tipo di combinazione.

Il moltiplicatore di calcolo di ogni CCE è pari a ψ . Si osservi che: per le CCE di tipo G1, G2 e P, ψ è sempre posto pari a 1.0; per le CCC rare (analogamente alle fondamentali) dove è dominante un tipo di azione variabile, per tale azione viene trascurata la riduzione dovuta a ψ_0 (il che equivale a porlo = 1.0).

In ogni caso, l'elenco delle CCC si riferisce alla risoluzione di combinazioni di tipo statico (non sismico), e vengono quindi processate solo se è stata selezionata l'Analisi Statica Lineare NON Sismica.

COMBINAZIONI DI CARICO per ANALISI STATICA: SLU per Verifiche di sicurezza di Edifici in Muratura

Per quanto sopra descritto, le combinazioni di carico processate da PCM in Analisi Statica non sismica, finalizzate alle Verifiche di sicurezza di Edifici in muratura, sono le combinazioni di tipo fondamentale, impiegate per gli stati limite ultimi SLU (2.5.1) §2.5.3, espresse dalla formulazione:

$$\gamma_{G1} \cdot G_1 + \gamma_{G2} \cdot G_2 + \gamma_P \cdot P + \gamma_{Q1} \cdot Q_{k,1} + \gamma_{Q2} \cdot \psi_{0,2} Q_{k,2} + \gamma_{Q3} \cdot \psi_{0,3} Q_{k,3} + \dots$$

La definizione delle azioni rispetta quanto formulato in §2.5.1.3 e §2.5.2; in particolare $Q_{k,1}$ è l'azione variabile dominante, mentre $Q_{k,2}, Q_{k,3}, \dots$, sono azioni variabili che possono agire contemporaneamente a quella dominante. Le azioni variabili $Q_{k,j}$ vengono combinate con i coefficienti di combinazione ψ i cui valori sono forniti in §2.5.3, Tab.2.5.1.

Come già osservato, in base a quanto espressamente indicato per gli edifici in muratura in §4.5.6.3: "Non è generalmente necessario eseguire verifiche nei confronti di stati limite di esercizio (SLE) di strutture in muratura, quando siano soddisfatte le verifiche nei confronti degli stati limite ultimi (SLU)", le combinazioni fondamentali (2.5.1) sono esaustive nei confronti delle verifiche in Analisi Statica non sismica.

COMBINAZIONI DI CARICO per ANALISI SISMICA

Per quanto riguarda le azioni competenti al calcolo sismico, la combinazione sismica (§3.2.4) viene creata automaticamente e quindi non richiede una sua identificazione specifica nell'elenco delle combinazioni di PCM. La combinazione sismica esaminata è quindi la seguente:

$$G_1 + G_2 + P + E + \Sigma(\psi_{2,j} \cdot Q_{k,j})$$

Conformemente a §2.5.3, la combinazione sismica viene impiegata per gli Stati Limite Ultimi connessi all'azione sismica E.

9. CARICHI: CONDIZIONI DI CARICO ELEMENTARI

Condizione di Carico Elementare n°1

PARAMETRI GENERALI

Permanente

Tipo di Azione [§2.5] = 1. Permanente strutturale (G1)

Livelli di intensità dell'azione variabile:

- (ψ_1),0 (valore raro) = 1.00
- (ψ_1),1 (valore frequente) = 1.00
- (ψ_1),2 (valore quasi-permanente) = 1.00

Moltiplicatori per Generazione Masse = 111001

NODI: Carichi Concentrati

N.nodo	Forze (kN)			Momenti (kNm)		
	PX	PY	PZ	MX	MY	MZ
3			-39.61			
5			-13.20			
8			-39.61			
9			-13.20			
13			-13.20			
16			-13.20			
20			-39.61			
21			-13.20			
24			-39.61			
25			-13.20			
32			-13.20			
35			-13.20			
42			-39.61			
43			-13.20			
46			-39.61			
47			-13.20			

51			-13.20		
54			-13.20		
58			-39.61		
59			-13.20		
62			-39.61		
63			-13.20		
67			-39.61		
68			-13.20		
71			-39.61		
72			-13.20		
76			-39.61		
77			-13.20		
80			-39.61		
81			-13.20		
85			-13.20		
88			-13.20		
92			-39.61		
93			-13.20		
96			-39.61		
97			-13.20		
104			-13.20		
107			-13.20		
114			-39.61		
115			-13.20		
118			-39.61		
119			-13.20		
123			-13.20		
126			-13.20		
130			-39.61		
131			-13.20		
134			-39.61		
135			-13.20		
140			-0.52		
140			-5.48		
143			-5.48		
143			-0.52		
148			-0.52		
148			-5.48		
151			-0.52		
151			-5.48		

ASTE: Carichi Distribuiti Uniformi

N.asta	Carichi (kN/m)	
	qX	qY
1		-19.72
5		-19.45
11		-19.45
14		-19.44
18		-19.44
22		-6.79
28		-26.95
31		-5.69
34		-5.72
38		-26.92
41		-4.04
45		-21.64
51		-21.64
54		-21.64
58		-21.64
62		-17.51
68		-33.84
71		-33.84
76		-17.51
80		-21.64
86		-21.64
89		-21.64
93		-21.64
97		-4.04
103		-26.92
106		-5.72
109		-5.69
113		-26.95
116		-6.79
120		-19.44
126		-19.44
129		-19.45
133		-19.45
137		-19.75
143		-17.33
144		-0.52
145		-0.52
146		-17.33
147		-0.52

148		-0.52
150		-17.33
151		-0.52
152		-0.52
153		-17.33
154		-0.52
155		-0.52
157		-64.11
159		-63.80
160		-51.15
162		-26.95
164		-36.33
166		-26.92
169		-50.61
171		-68.20
172		-64.07
174		-64.07
176		-68.20
177		-50.60
179		-26.92
182		-36.33
184		-26.95
186		-51.15
188		-63.80
189		-64.08
191		-46.30
192		-0.56
193		-0.56
194		-46.30
195		-0.56
196		-0.56
197		-46.30
198		-0.83
199		-0.83
200		-46.30
201		-0.83
202		-0.83
203		-30.86
205		-30.86
208		-30.86
210		-15.84
211		-15.84
212		-15.84
213		-15.84
214		-15.84
215		-15.84
216		-15.84
217		-15.84
218		-15.84
219		-15.84
220		-15.84
221		-15.84
222		-15.84
223		-15.84
224		-0.31
224		-0.83
224		-0.81
225		-0.31
225		-0.83
225		-0.81
226		-0.31
226		-0.81
226		-0.81
227		-0.31
227		-0.81
227		-0.81
228		-0.31
228		-0.81
228		-0.81
229		-0.31
229		-0.81
229		-0.81
230		-0.31
230		-0.81
230		-0.81
231		-0.31
231		-0.81
231		-0.81
232		-0.31
232		-0.81
232		-1.08
233		-0.31
233		-0.89
233		-0.81
234		-0.31
234		-0.81

234			-0.89
235			-0.31
235			-0.81
235			-0.81
236			-0.31
236			-0.81
236			-0.81
237			-0.31
237			-0.81
237			-0.81
238			-0.31
238			-0.81
238			-0.81
239			-0.31
239			-0.56
239			-0.81
240			-0.31
240			-0.56
240			-0.81
241			-0.31
242			-0.31
243			-0.31
244			-0.31
245			-0.31
246			-0.31
247			-0.31
248			-0.31
249			-0.31
250			-0.31
251			-0.31
252			-4.38
252			-0.56
253			-4.38
253			-0.56
254			-4.38
255			-4.38
256			-0.31
256			-0.52
257			-0.31
257			-0.52
258			-0.31
258			-0.52
259			-0.31
259			-0.52
260			-0.31
260			-0.52
261			-0.31
261			-0.81
261			-1.08
262			-0.31
262			-0.81
262			-1.08
263			-0.31
263			-0.81
263			-1.08
264			-0.31
264			-0.81
264			-1.08
265			-0.31
265			-0.81
265			-1.08
266			-0.31
266			-0.52
267			-0.31
267			-0.52
268			-0.31
268			-0.52
269			-0.31
269			-0.89
269			-1.08
270			-0.31
270			-0.89
270			-1.08
271			-0.31
271			-0.89
271			-1.08
272			-0.31
272			-0.89
272			-1.08
273			-0.31
273			-0.89
273			-1.08
274			-0.31
274			-0.89
274			-1.08
275			-0.31

275		-0.52
276		-0.31
276		-0.52
277		-0.26
278		-0.26
279		-0.26
280		-0.26
281		-0.26
282		-0.26
283		-0.26
284		-0.26
287		-0.26
287		-4.68
290		-0.26
290		-4.68
356		-15.84
357		-15.84
358		-15.84
359		-15.84
360		-15.84
361		-15.84
362		-15.84
363		-15.84
364		-15.84
365		-15.84
366		-15.84
367		-15.84
368		-15.84
369		-15.84
370		-15.84
371		-15.84
372		-15.84
373		-15.84
374		-15.84
375		-15.84
376		-15.84
377		-15.84
378		-15.84
379		-15.84
380		-15.84
381		-15.84
382		-15.84
383		-15.84
384		-15.84
385		-15.84
386		-15.84
387		-15.84
388		-15.84
389		-15.84
390		-15.84
391		-15.84
392		-15.84
393		-15.84
394		-15.84
395		-15.84
396		-15.84
397		-15.84
398		-15.84
399		-15.84
400		-15.84
401		-15.84
402		-15.84
403		-15.84
404		-15.84
405		-15.84
406		-15.84
407		-15.84
408		-15.84
409		-15.84
410		-15.84
411		-15.84
412		-15.84
413		-15.84
414		-15.84
415		-15.84
416		-15.84
417		-15.84
418		-15.84
419		-15.84
420		-15.84
421		-15.84
422		-15.84
423		-15.84
424		-15.84
425		-12.00
426		-12.00

427			-12.00
428			-12.00
429			-12.00
430			-12.00
431			-12.00
432			-12.00
433			-12.00
434			-12.00
435			-15.84
436			-15.84
437			-15.84
438			-15.84
439			-15.84
440			-15.84
441			-12.00
442			-12.00
443			-12.00
444			-12.00
445			-12.00
446			-12.00
447			-12.00
448			-12.00
449			-12.00
450			-12.00
458			-4.38
462			-4.38
466			-4.38
470			-4.38
474			-4.38
478			-4.38
482			-4.38
486			-4.38
490			-4.38
494			-4.38
504			-4.38
508			-4.38
512			-4.38
516			-4.38
520			-4.38
521			-4.38
525			-4.38
526			-4.38
530			-4.38
534			-4.38
535			-4.38
539			-4.38
540			-4.38

Condizione di Carico Elementare n°2

PARAMETRI GENERALI

Permanente non strutturale

Tipo di Azione [§2.5] = 2. Permanente non strutturale (G2)

Livelli di intensità dell'azione variabile:

- (psi),0 (valore raro) = 1.00

- (psi),1 (valore frequente) = 1.00

- (psi),2 (valore quasi-permanente) = 1.00

Moltiplicatori per Generazione Masse = 111001

ASTE: Carichi Distribuiti Uniformi

N.asta	Carichi (kN/m)		qZ
	qX	qY	
192			-1.11
193			-1.11
195			-1.11
196			-1.11
198			-1.66
199			-1.66
201			-1.66
202			-1.66
224			-1.66
224			-1.63
225			-1.66
225			-1.63
226			-1.63
226			-1.63
227			-1.63
227			-1.63
228			-1.63
228			-1.63
229			-1.63
229			-1.63
230			-1.63

230			-1.62
231			-1.63
231			-1.62
232			-1.62
233			-1.78
233			-1.63
234			-1.63
234			-1.78
235			-1.63
235			-1.63
236			-1.63
236			-1.63
237			-1.63
237			-1.63
238			-1.63
238			-1.63
239			-1.11
239			-1.63
240			-1.11
240			-1.63
252			-1.11
253			-1.11
261			-1.62
262			-1.62
263			-1.62
264			-1.62
265			-1.62
269			-1.78
270			-1.78
271			-1.78
272			-1.78
273			-1.78
274			-1.78

Condizione di Carico Elementare n°3

PARAMETRI GENERALI

Variabile Cat.A

Tipo di Azione [S2.5] = 4. Var.(Qk): Cat.A: Ambienti ad uso residenziale

Livelli di intensità dell'azione variabile:

- (psi),0 (valore raro) = 0.70

- (psi),1 (valore frequente) = 0.50

- (psi),2 (valore quasi-permanente) = 0.30

Moltiplicatori per Generazione Masse = 111001

NODI: Carichi Concentrati

N.nodo	Forze (kN)			Momenti (kNm)		
	PX	PY	PZ	MX	MY	MZ
140			-2.08			
143			-2.08			
148			-2.09			
151			-2.09			

ASTE: Carichi Distribuiti Uniformi

N.asta	Carichi (kN/m)		qZ
	qX	qY	
144			-2.08
145			-2.08
147			-2.08
148			-2.08
151			-2.09
152			-2.09
154			-2.09
155			-2.09
256			-2.09
257			-2.09
258			-2.09
259			-2.09
260			-2.09
266			-2.08
267			-2.08
268			-2.08
275			-2.08
276			-2.08

Condizione di Carico Elementare n°4

PARAMETRI GENERALI

Vento +X

Tipo di Azione [S2.5] = 12. Var.(Qk): Vento +X
 Livelli di intensità dell'azione variabile:
 - (psi),0 (valore raro) = 0.60
 - (psi),1 (valore frequente) = 0.20
 - (psi),2 (valore quasi-permanente) = 0.00
 Moltiplicatori per Generazione Masse = 111001

ASTE: Carichi Distribuiti Uniformi

N.asta	Carichi (kN/m)		qZ
	qX	qY	
68	2.10		
71	2.10		
191	2.10		
192			-0.52
193			-0.52
194	2.11		
195			-0.52
196			-0.52
197	2.10		
198			-0.79
199			-0.79
200	2.11		
201			-0.79
202			-0.79
203	1.40		
205	1.40		
208	1.40		
224			-0.79
224			-0.77
225			-0.79
225			-0.77
226			-0.77
226			-0.77
227			-0.77
227			-0.77
228			-0.77
228			-0.77
229			-0.77
229			-0.77
230			-0.77
230			-0.76
231			-0.77
231			-0.76
232			-0.76
232			-0.68
233			-0.84
233			-0.77
234			-0.77
234			-0.84
235			-0.77
235			-0.77
236			-0.77
236			-0.77
237			-0.77
237			-0.77
238			-0.77
238			-0.77
239			-0.52
239			-0.77
240			-0.52
240			-0.77
252			-0.52
253			-0.52
261			-0.76
261			-0.68
262			-0.76
262			-0.68
263			-0.76
263			-0.68
264			-0.76
264			-0.68
265			-0.76
265			-0.68
269			-0.84
269			-0.68
270			-0.84
270			-0.68
271			-0.84
271			-0.68
272			-0.84
272			-0.68
273			-0.84
273			-0.68
274			-0.84

	274				-0.68	
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Condizione di Carico Elementare n°5

PARAMETRI GENERALI

Vento +Y

Tipo di Azione [§2.5] = 13. Var.(Qk): Vento +Y

Livelli di intensità dell'azione variabile:

- (psi),0 (valore raro) = 0.60

- (psi),1 (valore frequente) = 0.20

- (psi),2 (valore quasi-permanente) = 0.00

Moltiplicatori per Generazione Masse = 111001

ASTE: Carichi Distribuiti Uniformi

N.asta	Carichi (kN/m)		
	qX	qY	qZ
1		1.46	
5		1.45	
11		1.45	
14		1.45	
18		1.45	
22		0.88	
28		1.23	
31		0.82	
34		0.82	
38		1.22	
41		0.75	
45		1.55	
51		1.55	
54		1.55	
58		1.55	
62		1.36	
76		1.36	
80		1.55	
86		1.55	
89		1.55	
93		1.55	
97		0.75	
103		1.22	
106		0.82	
109		0.82	
113		1.23	
116		0.88	
120		1.45	
126		1.45	
129		1.45	
133		1.45	
137		1.46	
157		2.92	
159		2.90	
160		2.33	
162		1.23	
164		1.68	
166		1.23	
169		2.30	
171		3.10	
172		2.92	
174		2.92	
176		3.10	
177		2.30	
179		1.23	
182		1.68	
184		1.23	
186		2.33	
188		2.90	
189		2.92	
192			-0.52
193			-0.52
195			-0.52
196			-0.52
198			-0.79
199			-0.79
201			-0.79
202			-0.79
224			-0.79
224			-0.77
225			-0.79
225			-0.77
226			-0.77
226			-0.77
227			-0.77
227			-0.77
228			-0.77

228			-0.77
229			-0.77
229			-0.77
230			-0.77
230			-0.76
231			-0.77
231			-0.76
232			-0.76
232			-0.68
233			-0.84
233			-0.77
234			-0.77
234			-0.84
235			-0.77
235			-0.77
236			-0.77
236			-0.77
237			-0.77
237			-0.77
238			-0.77
238			-0.77
239			-0.52
239			-0.77
240			-0.52
240			-0.77
252			-0.52
253			-0.52
261			-0.76
261			-0.68
262			-0.76
262			-0.68
263			-0.76
263			-0.68
264			-0.76
264			-0.68
265			-0.76
265			-0.68
269			-0.84
269			-0.68
270			-0.84
270			-0.68
271			-0.84
271			-0.68
272			-0.84
272			-0.68
273			-0.84
273			-0.68
274			-0.84
274			-0.68

Condizione di Carico Elementare n°6

PARAMETRI GENERALI

Vento -X

Tipo di Azione [§2.5] = 14. Var.(Qk): Vento -X

Livelli di intensità dell'azione variabile:

- (psi),0 (valore raro) = 0.60

- (psi),1 (valore frequente) = 0.20

- (psi),2 (valore quasi-permanente) = 0.00

Moltiplicatori per Generazione Masse = 111001

ASTE: Carichi Distribuiti Uniformi

N.asta	Carichi (kN/m)		
	qX	qY	qZ
68	-2.10		
71	-2.10		
191	-2.10		
192			-0.52
193			-0.52
194	-2.11		
195			-0.52
196			-0.52
197	-2.10		
198			-0.79
199			-0.79
200	-2.11		
201			-0.79
202			-0.79
203	-1.40		
205	-1.40		
208	-1.40		
224			-0.79
224			-0.77

225			-0.79
225			-0.77
226			-0.77
226			-0.77
227			-0.77
227			-0.77
228			-0.77
228			-0.77
229			-0.77
229			-0.77
230			-0.77
230			-0.76
231			-0.77
231			-0.76
232			-0.76
232			-0.68
233			-0.84
233			-0.77
234			-0.77
234			-0.84
235			-0.77
235			-0.77
236			-0.77
236			-0.77
237			-0.77
237			-0.77
238			-0.77
238			-0.77
239			-0.52
239			-0.77
240			-0.52
240			-0.77
252			-0.52
253			-0.52
261			-0.76
261			-0.68
262			-0.76
262			-0.68
263			-0.76
263			-0.68
264			-0.76
264			-0.68
265			-0.76
265			-0.68
269			-0.84
269			-0.68
270			-0.84
270			-0.68
271			-0.84
271			-0.68
272			-0.84
272			-0.68
273			-0.84
273			-0.68
274			-0.84
274			-0.68

Condizione di Carico Elementare n°7

PARAMETRI GENERALI

Vento -Y

Tipo di Azione [§2.5] = 15. Var.(Qk): Vento -Y

Livelli di intensità dell'azione variabile:

- (psi),0 (valore raro) = 0.60

- (psi),1 (valore frequente) = 0.20

- (psi),2 (valore quasi-permanente) = 0.00

Moltiplicatori per Generazione Masse = 111001

ASTE: Carichi Distribuiti Uniformi

N.asta	Carichi (kN/m)		
	qX	qY	qZ
1		-1.46	
5		-1.45	
11		-1.45	
14		-1.45	
18		-1.45	
22		-0.88	
28		-1.23	
31		-0.82	
34		-0.82	
38		-1.22	
41		-0.75	
45		-1.55	

51	-1.55	
54	-1.55	
58	-1.55	
62	-1.36	
76	-1.36	
80	-1.55	
86	-1.55	
89	-1.55	
93	-1.55	
97	-0.75	
103	-1.22	
106	-0.82	
109	-0.82	
113	-1.23	
116	-0.88	
120	-1.45	
126	-1.45	
129	-1.45	
133	-1.45	
137	-1.46	
157	-2.92	
159	-2.90	
160	-2.33	
162	-1.23	
164	-1.68	
166	-1.23	
169	-2.30	
171	-3.10	
172	-2.92	
174	-2.92	
176	-3.10	
177	-2.30	
179	-1.23	
182	-1.68	
184	-1.23	
186	-2.33	
188	-2.90	
189	-2.92	
192		-0.52
193		-0.52
195		-0.52
196		-0.52
198		-0.79
199		-0.79
201		-0.79
202		-0.79
224		-0.79
224		-0.77
225		-0.79
225		-0.77
226		-0.77
226		-0.77
227		-0.77
227		-0.77
228		-0.77
228		-0.77
229		-0.77
229		-0.77
230		-0.77
230		-0.76
231		-0.77
231		-0.76
232		-0.76
232		-0.68
233		-0.84
233		-0.77
234		-0.77
234		-0.84
235		-0.77
235		-0.77
236		-0.77
236		-0.77
237		-0.77
237		-0.77
238		-0.77
238		-0.77
239		-0.52
239		-0.77
240		-0.52
240		-0.77
252		-0.52
253		-0.52
261		-0.76
261		-0.68
262		-0.76
262		-0.68

263			-0.76
263			-0.68
264			-0.76
264			-0.68
265			-0.76
265			-0.68
269			-0.84
269			-0.68
270			-0.84
270			-0.68
271			-0.84
271			-0.68
272			-0.84
272			-0.68
273			-0.84
273			-0.68
274			-0.84
274			-0.68

Condizione di Carico Elementare n°8

Non risulta definito alcun carico su Nodi o Aste

10. CARICHI: COMBINAZIONI DI CONDIZIONI DI CARICO ELEMENTARI

Segue: elenco delle CCC (Combinazioni di Condizioni di Carico), utilizzate in Analisi Statica Lineare (non Sismica), in accordo con §2.5 D.M.14.1.2008.

Per quanto riguarda l'Analisi Sismica, PCM considera automaticamente l'unica combinazione di carichi prevista (§3.2.4): si intende che l'analisi sismica viene quindi svolta tenendo conto degli eventuali effetti torsionali aggiuntivi (§7.2.6) e combinando i risultati corrispondenti alle diverse direzioni di analisi (§7.3.5), secondo le opzioni scelte nei Parametri di Calcolo.

Elenco delle CCC. Per ogni CCC vengono indicati:

- la numerazione progressiva;

per CCC non generiche:

- lo Stato Limite di riferimento (SLU o SLE);

- il codice identificativo della CCC in ambiente software PCM;

- la Tipologia (Fondamentale, Frequente, QuasiPermanente) / l'Azione Dominante / l'eventuale altra azione che caratterizza la CCC;

- per CCC SLU (di tipo Fondamentale): i coefficienti gamma (moltiplicatori) per le CCE (coefficienti parziali di sicurezza, Tab. 2.6.I in §2.6.1);

- i coefficienti (psi) (coefficienti di combinazione, Tab. 2.5.I in §2.5.3):

per la tipologia Fondamentale: (psi) = (psi),0;

per la tipologia Frequente: (psi) = (psi),1 per l'Azione Dominante, e: (psi) = (psi),2 per le altre azioni variabili che possono agire contemporaneamente all'azione dominante;

per la tipologia QuasiPermanente: (psi) = (psi),2;

- per CCC SLU (di tipo Fondamentale): i moltiplicatori di calcolo per le CCE, pari a: (gamma) per l'Azione Dominante,

(gamma)*(psi),0 per le altre azioni variabili che possono agire contemporaneamente all'azione dominante;

per eventuali CCC generiche:

- i coefficienti gamma (moltiplicatori) per le CCE.

Combinazione di Condizioni di Carico n°1

SLU: Combinazione 1 (Fondamentale/Variabile Cat.A/Vento +X)

CCC fondamentale (SLU)

Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.30, 2) 1.50, 3) 1.50, 4) 1.50, 5) 0.00, 6) 0.00, 7) 0.00, 8) 1.00

(psi),0 per le CCE = 1) 1.00, 2) 1.00, 3) -, 4) 0.60, 5) 0.60, 6) 0.60, 7) 0.60, 8) 1.00

Moltiplicatori di calcolo per le CCE = 1) 1.30, 2) 1.50, 3) 1.50, 4) 0.90, 5) 0.00, 6) 0.00, 7) 0.00, 8) 1.00

Combinazione di Condizioni di Carico n°2

SLU: Combinazione 2 (Fondamentale/Variabile Cat.A/Vento +Y)

CCC fondamentale (SLU)

Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.30, 2) 1.50, 3) 1.50, 4) 0.00, 5) 1.50, 6) 0.00, 7) 0.00, 8) 1.00

(psi),0 per le CCE = 1) 1.00, 2) 1.00, 3) -, 4) 0.60, 5) 0.60, 6) 0.60, 7) 0.60, 8) 1.00

Moltiplicatori di calcolo per le CCE = 1) 1.30, 2) 1.50, 3) 1.50, 4) 0.00, 5) 0.90, 6) 0.00, 7) 0.00, 8) 1.00

Combinazione di Condizioni di Carico n°3

SLU: Combinazione 3 (Fondamentale/Variabile Cat.A/Vento -X)

CCC fondamentale (SLU)

Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.30, 2) 1.50, 3) 1.50, 4) 0.00, 5) 0.00, 6) 1.50, 7) 0.00, 8) 1.00

(psi),0 per le CCE = 1) 1.00, 2) 1.00, 3) -, 4) 0.60, 5) 0.60, 6) 0.60, 7) 0.60, 8) 1.00

Moltiplicatori di calcolo per le CCE = 1) 1.30, 2) 1.50, 3) 1.50, 4) 0.00, 5) 0.00, 6) 0.90, 7) 0.00, 8) 1.00

Combinazione di Condizioni di Carico n°4

SLU: Combinazione 4 (Fondamentale/Variabile Cat.A/Vento -Y)

CCC fondamentale (SLU)

Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.30, 2) 1.50, 3) 1.50, 4) 0.00, 5) 0.00, 6) 0.00, 7) 1.50, 8) 1.00

(psi),0 per le CCE = 1) 1.00, 2) 1.00, 3) -, 4) 0.60, 5) 0.60, 6) 0.60, 7) 0.60, 8) 1.00

Moltiplicatori di calcolo per le CCE = 1) 1.30, 2) 1.50, 3) 1.50, 4) 0.00, 5) 0.00, 6) 0.00, 7) 0.90, 8) 1.00

Combinazione di Condizioni di Carico n°5

SLU: Combinazione 41 (Fondamentale/Vento +X)

CCC fondamentale (SLU)

Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.30, 2) 1.50, 3) 1.50, 4) 1.50, 5) 0.00, 6) 0.00, 7) 0.00, 8) 1.00
(psi,0) per le CCE = 1) 1.00, 2) 1.00, 3) 0.70, 4) -, 5) 0.60, 6) 0.60, 7) 0.60, 8) 1.00

Moltiplicatori di calcolo per le CCE = 1) 1.30, 2) 1.50, 3) 1.05, 4) 1.50, 5) 0.00, 6) 0.00, 7) 0.00, 8) 1.00

Combinazione di Condizioni di Carico n°6

SLU: Combinazione 42 (Fondamentale/Vento +Y)

CCC fondamentale (SLU)

Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.30, 2) 1.50, 3) 1.50, 4) 0.00, 5) 1.50, 6) 0.00, 7) 0.00, 8) 1.00
(psi,0) per le CCE = 1) 1.00, 2) 1.00, 3) 0.70, 4) 0.60, 5) -, 6) 0.60, 7) 0.60, 8) 1.00

Moltiplicatori di calcolo per le CCE = 1) 1.30, 2) 1.50, 3) 1.05, 4) 0.00, 5) 1.50, 6) 0.00, 7) 0.00, 8) 1.00

Combinazione di Condizioni di Carico n°7

SLU: Combinazione 43 (Fondamentale/Vento -X)

CCC fondamentale (SLU)

Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.30, 2) 1.50, 3) 1.50, 4) 0.00, 5) 0.00, 6) 1.50, 7) 0.00, 8) 1.00
(psi,0) per le CCE = 1) 1.00, 2) 1.00, 3) 0.70, 4) 0.60, 5) 0.60, 6) -, 7) 0.60, 8) 1.00

Moltiplicatori di calcolo per le CCE = 1) 1.30, 2) 1.50, 3) 1.05, 4) 0.00, 5) 0.00, 6) 1.50, 7) 0.00, 8) 1.00

Combinazione di Condizioni di Carico n°8

SLU: Combinazione 44 (Fondamentale/Vento -Y)

CCC fondamentale (SLU)

Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.30, 2) 1.50, 3) 1.50, 4) 0.00, 5) 0.00, 6) 0.00, 7) 1.50, 8) 1.00
(psi,0) per le CCE = 1) 1.00, 2) 1.00, 3) 0.70, 4) 0.60, 5) 0.60, 6) 0.60, 7) -, 8) 1.00

Moltiplicatori di calcolo per le CCE = 1) 1.30, 2) 1.50, 3) 1.05, 4) 0.00, 5) 0.00, 6) 0.00, 7) 1.50, 8) 1.00

Combinazione di Condizioni di Carico n°9

SLU: Combinazione 45 (Fondamentale/Vento +X)

CCC fondamentale (SLU)

Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.00, 2) 1.00, 3) 0.00, 4) 1.50, 5) 0.00, 6) 0.00, 7) 0.00, 8) 1.00
(psi,0) per le CCE = 1) 1.00, 2) 1.00, 3) 0.70, 4) -, 5) 0.60, 6) 0.60, 7) 0.60, 8) 1.00

Moltiplicatori di calcolo per le CCE = 1) 1.00, 2) 1.00, 3) 0.00, 4) 1.50, 5) 0.00, 6) 0.00, 7) 0.00, 8) 1.00

Combinazione di Condizioni di Carico n°10

SLU: Combinazione 46 (Fondamentale/Vento +Y)

CCC fondamentale (SLU)

Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.00, 2) 1.00, 3) 0.00, 4) 0.00, 5) 1.50, 6) 0.00, 7) 0.00, 8) 1.00
(psi,0) per le CCE = 1) 1.00, 2) 1.00, 3) 0.70, 4) 0.60, 5) -, 6) 0.60, 7) 0.60, 8) 1.00

Moltiplicatori di calcolo per le CCE = 1) 1.00, 2) 1.00, 3) 0.00, 4) 0.00, 5) 1.50, 6) 0.00, 7) 0.00, 8) 1.00

Combinazione di Condizioni di Carico n°11

SLU: Combinazione 47 (Fondamentale/Vento -X)

CCC fondamentale (SLU)

Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.00, 2) 1.00, 3) 0.00, 4) 0.00, 5) 0.00, 6) 1.50, 7) 0.00, 8) 1.00
(psi,0) per le CCE = 1) 1.00, 2) 1.00, 3) 0.70, 4) 0.60, 5) 0.60, 6) -, 7) 0.60, 8) 1.00

Moltiplicatori di calcolo per le CCE = 1) 1.00, 2) 1.00, 3) 0.00, 4) 0.00, 5) 0.00, 6) 1.50, 7) 0.00, 8) 1.00

Combinazione di Condizioni di Carico n°12

SLU: Combinazione 48 (Fondamentale/Vento -Y)

CCC fondamentale (SLU)

Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.00, 2) 1.00, 3) 0.00, 4) 0.00, 5) 0.00, 6) 0.00, 7) 1.50, 8) 1.00
(psi,0) per le CCE = 1) 1.00, 2) 1.00, 3) 0.70, 4) 0.60, 5) 0.60, 6) 0.60, 7) -, 8) 1.00

Moltiplicatori di calcolo per le CCE = 1) 1.00, 2) 1.00, 3) 0.00, 4) 0.00, 5) 0.00, 6) 0.00, 7) 1.50, 8) 1.00

Combinazione di Condizioni di Carico n°13

CCC fondamentale (SLU)

Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.00, 2) 1.00, 3) 1.00, 4) 0.00, 5) 0.00, 6) 0.00, 7) 0.00, 8) 1.00
(psi,0) per le CCE = 1) 1.00, 2) 1.00, 3) -, 4) 0.60, 5) 0.60, 6) 0.60, 7) 0.60, 8) 1.00

Moltiplicatori di calcolo per le CCE = 1) 1.00, 2) 1.00, 3) 1.00, 4) 0.00, 5) 0.00, 6) 0.00, 7) 0.00, 8) 1.00

RISULTATI DELL'ELABORAZIONE

Per alcuni parametri utilizzati in analisi sismica, viene fatto diretto riferimento ai corrispondenti paragrafi del D.M.17.1.2018 (NTC18; riferimenti evidenziati in colore blu).

ANALISI STATICA LINEARE (NON sismica)

In analisi statica non sismica, per gli edifici in muratura viene sottoposto a verifiche di sicurezza il solo **Stato Limite Ultimo (SLU) di salvaguardia della Vita (SLV)** in base a quanto espressamente indicato in §4.5.6.3: "Non è generalmente necessario eseguire verifiche nei confronti di stati limite di esercizio di strutture in muratura, quando siano soddisfatte le verifiche nei confronti degli stati limite ultimi". L'analisi può comprendere tuttavia anche Combinazioni di Carico per Stati Limite di Esercizio (per le quali PCM non esegue verifiche di sicurezza).

Le **Combinazioni di Carico per Analisi Statica non sismica** sono le combinazioni di tipo fondamentale, impiegate per gli stati limite ultimi (2.5.1) §2.5.3, espresse dalla formulazione:

$$\gamma_{G1} * G_1 + \gamma_{G2} * G_2 + \gamma_P * P + \gamma_{Q1} * Q_{k,1} + \gamma_{Q2} * \psi_{0,2} Q_{k,2} + \gamma_{Q3} * \psi_{0,3} Q_{k,3} + \dots$$

La definizione delle azioni rispetta quanto formulato in §2.5.1.3 e §2.5.2; in particolare $Q_{k,1}$ è l'azione variabile dominante, mentre $Q_{k,2}$, $Q_{k,3}$, ..., sono azioni variabili che possono agire contemporaneamente a quella dominante. Le azioni variabili $Q_{k,j}$ vengono combinate con i coefficienti di combinazione ψ i cui valori sono forniti in §2.5.3, Tab.2.5.I.

E' inoltre possibile analizzare la Combinazione sismica (§3.2.4), definita da:

$$G_1 + G_2 + P + E + \Sigma(\psi_{2,j} * Q_{k,j})$$

le cui sollecitazioni coincidono quindi con la combinazione di carico prevista al passo iniziale dell'analisi pushover, e alla componente statica delle sollecitazioni sismiche nelle analisi sismiche lineari. Ai fini delle verifiche di sicurezza, vengono considerate le resistenze utilizzate in analisi sismica statica non lineare (pushover), in modo tale da rendere i risultati delle verifiche statiche della Combinazione Sismica coerenti con le verifiche condotte al passo iniziale dell'analisi pushover.

ANALISI SISMICA LINEARE (STATICA e DINAMICA MODALE)

Dal punto di vista sismico, l'edificio può essere schematizzato con un modello tridimensionale (modellazione 3D) oppure scomposto in più modelli piani (modellazione 2D) ognuno analizzato singolarmente. La scomposizione in modelli piani è prevista nel caso di edifici esistenti in muratura con impalcati flessibili (§8.7.1).

Nella **modellazione 3D**, il sisma è rappresentato da forze sismiche di nodo in coordinate globali: FX, FY, FZ, MX, MY, MZ [normalmente sono diverse da zero solo le componenti: FX, FY (forze orizzontali), FZ (forze verticali), MZ (momento torcente intorno all'asse verticale)]. Nel caso di piano rigido con ipotesi master/slave, FX e FY sono applicate nel solo nodo master. Gli effetti torcenti sull'edificio vengono interpretati dai momenti torcenti MZ, determinati dal prodotto: forza orizzontale per eccentricità aggiuntiva. Essi sono presenti nel caso di piano rigido, dove assume significato il centro delle rigidezze e quindi può essere considerata una sua eccentricità rispetto al baricentro.

Nella **modellazione 2D**: la forza sismica orizzontale viene in genere applicata al traverso orizzontale, spesso considerato rigido: in tal caso, l'unico grado di libertà dinamico per il traverso è la traslazione orizzontale ed i modi di vibrare sono pari al numero di piani (=numero dei traversi); l'unica forza sismica è FX, dal momento che il telaio piano risiede nel piano XZ. Gli effetti torcenti sull'edificio vengono rappresentati tramite il coefficiente di amplificazione δ da applicarsi direttamente alle forze sui traversi. Anche nella modellazione 2D si fa riferimento al nodo master di piano: generalmente, viene fatto coincidere con il nodo estremo sinistro del traverso posto alla quota del piano (nodo dove si considera concentrata l'azione sismica di origine modale).

Secondo Normativa, per gli edifici devono essere analizzati alcuni stati limite di riferimento. Per le costruzioni in muratura, questi sono:

- **Stati Limite di Esercizio (SLE)**: Stato Limite di Operatività (SLO) e Stato Limite di Danno (SLD)
- **Stati Limite Ultimi (SLU)**: Stato Limite di salvaguardia della Vita (SLV) e Stato Limite di Collasso (SLC).

Per tutti i **nuovi edifici** in **Classe I e II** si devono analizzare **SLV (con verifiche di resistenza) e SLD (con verifiche di rigidezza)**. Per gli edifici nuovi di **Classe III e IV**, per limitare i danneggiamenti strutturali, si devono eseguire verifiche di **resistenza per SLD** e verifiche di **rigidezza per SLO** (§7.3.6).

Per gli **edifici esistenti** è possibile, se non diversamente richiesto, fare riferimento a §8.3, secondo cui la valutazione della sicurezza e la progettazione degli interventi sulle costruzioni esistenti potranno essere eseguiti con riferimento ai soli SLU, salvo che per le costruzioni in classe d'uso IV per le quali viene richiesto il rispetto di requisiti prestazionali: in tali casi si eseguiranno quindi anche verifiche a **SLD e SLO**.

Per ogni Stato Limite, la Normativa definisce lo Spettro di Risposta elastico. Per **SLO** lo spettro di progetto è lo spettro elastico corrispondente (§3.2.3.4), mentre per gli altri Stati Limite ultimi lo spettro di progetto si ottiene dallo spettro elastico dividendo le ordinate per il fattore di comportamento q (§3.2.3.5, §7.3).

L'analisi sismica è organizzata secondo la seguente procedura:

- (A) generazione e risoluzione di apposite C.C. elementari sismiche;
- (B) determinazione degli effetti sismici risultanti dalla simultaneità delle componenti sismiche (per 'effetti' si intendono le caratteristiche di sollecitazione e di deformazione);
- (C) combinazione degli effetti sismici con gli effetti dovuti ad altre azioni non sismiche.

(A) Le Condizioni di Carico elementari sismiche vengono determinate in base alle seguenti considerazioni (il riferimento corrente è alla **modellazione 3D**: in rosso le caratteristiche della **modellazione 2D**. **Nota bene**: la modellazione 2D è consentita per edifici regolari in pianta da alcuni testi normativi (cfr. OPCM 3274/2003-3431/2005, §4.4), ma non dal D.M.14.1.2018: quest'ultimo prevede invece la possibilità di modellazioni 2D per edifici esistenti in muratura (§8.7.1) con impalcati flessibili):

- il sisma orizzontale è considerato agente in due direzioni ortogonali (§3.2.3), indicate con α e $\alpha+90$;

(2D: una sola direzione, la X, nel piano del telaio, piano XZ);

- per tenere conto della variabilità spaziale del moto sismico nonché di eventuali incertezze (§7.2.6) è possibile considerare un'eccentricità aggiuntiva, il cui effetto è quello di generare un momento torcente aggiuntivo $M_{t,agg}$ di piano applicato direttamente nel centro di massa in caso di impalcato rigido, o scomposto in un sistema di forze autoequilibrato corrispondenti alle masse di piano nel caso di impalcato flessibile (2D: viene considerato il Coefficiente Amplificativo δ definito in §7.3.3.2, direttamente applicato alla forza orizzontale).

Pertanto, in direzione α si avranno 2 C.C. elementari:

(1) $\alpha + M_{t,\alpha,agg}$

(2) $\alpha - M_{t,\alpha,agg}$

dove $M_{t,\alpha,agg}$ è calcolato in base all'Eccentricità Aggiuntiva lungo $\alpha+90$ (definita in §7.2.6) (ad ogni piano, il valore di $M_{t,\alpha,agg}$ può essere diverso, anche se NTC18 prevede un'eccentricità costante su tutti gli orizzontamenti).

(2D: 1 C.C. elementare: α)

e altrettante in direzione $\alpha+90$:

(3) $(\alpha + 90) + M_{t,\alpha+90,agg}$

(4) $(\alpha + 90) - M_{t,\alpha+90,agg}$

dove $M_{t,\alpha+90,agg}$ è calcolato in base all'Eccentricità Aggiuntiva lungo α (definita in §7.2.6) (ad ogni piano, il valore di $M_{t,\alpha+90,agg}$ può essere diverso).

In caso di **Analisi Sismica Statica Lineare**, frequentemente i piani sono considerati rigidi (l'applicazione di questa analisi è in genere lecita solo quando sono soddisfatte le condizioni di regolarità) ed in tal caso le 4 (2D: 1; la modellazione 2D con piani rigidi è consentita da alcune Norme: cfr. OPCM 3274/2003-3431/2005) C.C. elementari sono tutte da risolvere.

Queste Condizioni di Carico elementari di tipo sismico vengono prodotte automaticamente dal software.

Nel caso di piani rigidi, ognuna di queste Condizioni di Carico elementari è costituita da carichi concentrati nei nodi master (baricentri di piano), e più precisamente: forze orizzontali nelle direzioni globali X e Y, e momenti torcenti MZ dati dal prodotto forza orizzontale per l'eccentricità aggiuntiva (2D: c'è solo una forza orizzontale in direzione X, amplificata col coefficiente di amplificazione δ).

Il sisma verticale non viene considerato in Analisi Sismica Statica Lineare (§7.3.3.2), definita solo dal sistema di forze orizzontali distribuite lungo l'altezza dell'edificio. In caso di effetti sismici verticali rilevanti, si eseguirà l'Analisi Sismica Dinamica Modale; in alternativa, poiché gli effetti del sisma verticale possono essere limitati a modelli parziali comprendenti i soli elementi interessati (§7.2.1; p.es. sbalzi, strutture spingenti), all'Analisi Sismica Statica Lineare del modello globale per la valutazione degli effetti del sisma orizzontale, potranno essere associate valutazioni a parte riguardanti il sisma verticale effettuate appunto solo sugli elementi interessati.

In caso di **Analisi Sismica Dinamica Modale**, si devono considerare gli effetti dei singoli modi, che vanno combinati tra loro. In analisi sismica dinamica modale, più frequentemente che in analisi sismica statica lineare, è possibile che un impalcato sia non rigido e che quindi non esista un nodo master, ma le masse siano considerate vibranti indipendentemente l'una dall'altra.

Pertanto:

- se è considerata l'eccentricità accidentale (momenti torcenti aggiuntivi), sono da risolvere 4 (2D: 1; la modellazione 2D con piani rigidi è consentita da alcune Norme: cfr. OPCM 3274/2003-3431/2005) C.C. elementari per ogni modo;

- se si ignora l'eccentricità accidentale, le C.C. elementari si riducono a 2 per ogni modo: α , $+(\alpha+90)$ (2D: 1; la modellazione 2D con piani flessibili è consentita, per edifici esistenti in muratura (cfr. §8.7.1), dal D.M.14.1.2018).

Ognuna di queste Condizioni di Carico elementari è costituita da carichi concentrati corrispondenti ai gradi di libertà dinamici, applicati nei nodi sedi di masse indipendenti (anche nell'analisi dinamica, in caso di piano rigido le forze orizzontali agiscono nel nodo master, o baricentro di piano), e più precisamente: forze orizzontali nelle direzioni globali X e Y e forze verticali nella direzione globale Z; in corrispondenza di un piano rigido, sarà anche applicato - nel nodo master del piano - il momento torcente MZ dato dal prodotto forza orizzontale per l'eccentricità aggiuntiva, mentre nel caso di piano flessibile l'eventuale azione torcente si scompone in un sistema di forze autoequilibrato corrispondenti alle masse di piano (2D: c'è solo una forza orizzontale in direzione X, amplificata col coefficiente di amplificazione δ).

In caso di presenza di effetti di sisma verticale (ossia, qualora fra i gradi di libertà dinamici vi sia la traslazione di masse in direzione verticale Z), deve essere considerata una ulteriore Condizione di Carico elementare determinata da sisma Z. Pertanto: nel caso 3D: in presenza di almeno un piano rigido, le C.C. elementari da risolvere per ogni modo sono 5; in assenza di piani rigidi, sono 3. Nel 2D: sono 2 (sisma orizzontale e sisma verticale).

Considerando i risultati di tutti gli N modi di vibrare, gli effetti delle C.C. elementari - tra loro corrispondenti (cioè la (1) del 1° modo con la (1) del 2° modo, ecc.; la (2) del 1° modo con la (2) del 2° modo ecc. ecc. fino alla (4)) - vanno sovrapposti tra loro con la modalità di combinazione modi scelta (generalmente la CQC).

Ne derivano così gli effetti sismici complessivi competenti alle 4 (o alle 2) (2D: 1) C.C. elementari.

Questa procedura viene gestita automaticamente da PCM, che:

I) partendo dai risultati dell'analisi modale crea le Condizioni di Carico elementari con le forze spettrali di origine modale;

II) risolve le Condizioni di Carico elementari stesse,

III) combina con il metodo scelto (in genere: CQC) gli effetti dei singoli modi di vibrare.

(B) Ottenuti gli effetti sismici complessivi corrispondenti alle 4 (o 2) (2D: 1) Condizioni di Carico elementari sismiche, si devono ora determinare i massimi effetti:

(b1) per sisma in direzione α , i massimi effetti sono: per 4 Condizioni di Carico elementari sismiche, i valori massimi fra (1)(2); per 2 Condizioni di Carico direttamente i valori di (1) (2D: direttamente i valori di (1));

(b2) per sisma in direzione $(\alpha+90)$, analogamente: i massimi fra (3)(4), o direttamente i valori di (3).

Nei modelli tridimensionali, le varie componenti orizzontali dell'azione sismica (α , $\alpha+90$ ed eventualmente verticale) devono essere considerate agenti simultaneamente (§7.3.5). Per le due componenti orizzontali (α e $\alpha+90$), i valori massimi (b1) e (b2) vengono combinati (a seconda della scelta dell'Utente):

- o calcolando la radice quadrata della somma dei quadrati: $E = \sqrt{E_{\alpha}^2 + E_{(\alpha+90)}^2}$

- o sommando ai massimi ottenuti per l'azione applicata in una direzione, il 30% dei massimi ottenuti per l'azione applicata nell'altra direzione: $\text{Max} [(E_{\alpha} + "0.30 E_{(\alpha+90)}) ; (0.30 E_{\alpha} + "E_{(\alpha+90)})]$ (§7.3.15), §7.3.5).

Per quanto riguarda gli effetti del sisma verticale, questo deve essere considerato ove necessario (§7.2.1). Complessivamente, viene scelto il massimo valore fra le seguenti combinazioni (regola fissa, quindi non c'è un corrispondente parametro di impostazione scelto dall'Utente):

$0.30 E_{\alpha} + "0.30 E_{(\alpha+90)} + "E_{\text{vert}}$

$E_{\alpha} + "0.30 E_{(\alpha+90)} + "0.30 E_{\text{vert}}$

$0.30 E_{\alpha} + "E_{(\alpha+90)} + "0.30 E_{\text{vert}}$

Una considerazione importante riguarda il segno "+" nelle combinazioni degli effetti nelle direzioni orizzontali e verticale. Il segno indica che deve essere assunto + o -, al fine di ottenere il risultato più sfavorevole.

In caso di analisi sismica dinamica modale 3D (e analogamente nel 2D), gli effetti sono però tutti privi di segno (derivano dalla sovrapposizione modale) e quindi il "+" è un + effettivo. L'effetto finale della combinazione è ovviamente ancora privo di segno.

In caso di analisi sismica statica lineare 3D, gli effetti hanno invece un segno e quindi il "+" può essere interpretato come + o -. Il risultato della combinazione è quindi con il segno, usando la formula del 30%; è invece senza segno, se si utilizza la formula della radice quadrata della somma dei quadrati.

Si osservi che nel D.M. 16.1.1996 non si prescriveva la simultaneità del sisma nelle due direzioni orizzontali (per esse si consentiva in generale l'analisi sismica separata): pertanto, la perdita del segno poteva dipendere solo dalla sovrapposizione modale e interessava quindi la sola analisi dinamica.

Nell'analisi sismica statica lineare 2D, gli effetti sono invece sempre con il segno (non si devono eseguire combinazioni fra direzioni, perché l'orizzontale è unica ed il verticale è assente in quanto per considerarlo occorre necessariamente eseguire l'analisi sismica dinamica modale).

Nei confronti dei vari stati limite analizzati, gli effetti sismici Esism vengono valutati applicando, ove necessario, alcuni fattori correttivi, secondo il seguente schema:

- le **sollecitazioni in SLV** sono direttamente i valori risultanti dall'analisi svolta applicando forze sismiche determinate attraverso lo spettro di risposta di progetto allo stato limite SLV;

- gli **spostamenti in SLV** si ottengono amplificando i valori risultanti dall'analisi per il fattore μ_d (§7.3.3.3). Gli spostamenti in SLV vengono utilizzati per particolari valutazioni, quali ad esempio la distanza tra costruzioni contigue (§7.2.2), ma in SLV non sono previste verifiche specifiche agli spostamenti alle quali corrispondano coefficienti di sicurezza caratteristici dell'edificio;

- le **sollecitazioni in SLD** sono direttamente i valori risultanti dall'analisi svolta applicando forze sismiche determinate attraverso lo spettro di risposta di progetto allo stato limite SLD;

- gli **spostamenti in SLD** si ottengono amplificando i valori risultanti dall'analisi per il fattore di comportamento q. Gli spostamenti in SLD vengono utilizzati per le verifiche di spostamento degli interpiani (§7.3.6.1);

- le **sollecitazioni e gli spostamenti in SLO** sono direttamente i valori risultanti dall'analisi svolta applicando forze sismiche determinate attraverso lo spettro di risposta di progetto allo stato limite SLO.

(C) A questo punto, gli effetti sismici E_{sism} si combinano con le altre azioni (§3.2.4) per ottenere gli effetti finali da utilizzare nella verifica degli elementi strutturali.

Gli effetti delle altre azioni sono riconducibili alla sommatoria delle Condizioni di Carico elementari (NON sismiche), ognuna delle quali contribuisce con i coefficienti ψ_2 .

La **Combinazione di Carico per Analisi Sismica** esaminata è quindi la seguente:

$G_1 + G_2 + P + E + \Sigma(\psi_{2,j} \cdot Q_{k,j})$

I risultati complessivi sono sempre espressi nella forma $E_{stat} \pm E_{sism}$, per ottenere l'effetto massimo e l'effetto minimo.

Se il segno non è perduto (vedi casi precedenti), all'effetto statico viene prima sommato, quindi sottratto l'effetto sismico: in dipendenza dal segno di questo, si formeranno corrispondentemente l'effetto complessivo massimo (con la somma) e minimo (con la sottrazione), o minimo con la somma e massimo con la sottrazione (minimo e massimo si intendono in valore assoluto). La congruenza fra caratteristiche di sollecitazione diverse (ad esempio, M e N per la pressoflessione, o M e T per lo scorrimento che interessa la zona reagente) viene tuttavia mantenuta solo qualora non siano state effettuate le combinazioni con la formula del 30%, e più esattamente nei seguenti casi: analisi sismica statica lineare in assenza di sisma verticale, 2D o 3D in una sola direzione (X o Y). Negli altri casi, le caratteristiche di sollecitazione verranno accoppiate secondo le combinazioni possibili; ad esempio, nelle verifiche a pressoflessione, si possono considerare N_{max}, M_{max} e N_{min}, M_{min} oppure anche N_{max}, M_{min} e N_{min}, M_{max} .

Se il segno è perduto (analisi dinamiche modali), l'effetto complessivo massimo (sempre in valore assoluto) è dato dalla somma dell'effetto statico e dell'effetto sismico assunto con il segno dell'effetto statico; viceversa, per l'effetto complessivo minimo, si somma allo statico l'effetto sismico con il segno opposto dello statico; a causa della perdita di segno, la congruenza fra caratteristiche di sollecitazione diverse viene perduta.

11. RISULTATI Analisi Sismica Dinamica Modale

Risultati analisi strutturale eseguita con il software Aedes.PCM (c)Aedes

Denominazione del Progetto: TP_F_Prog

Tipo di Analisi: Analisi Sismica, Dinamica Modale

Fattore di Comportamento q = 3.000

Data e Ora di elaborazione: (26/04/21 - 11:44:48)

SLE di Operatività (SLO)

Piani: Pesì sismici, Forze e Taglianti (kN)

N.	Peso sismico (kN)		Forze sismiche (kN)		Taglianti (kN)	
	dir.X	dir.Y	dir.X	dir.Y	dir.X	dir.Y
1	2661.88	2661.88	90.93	110.19	130.98	160.88
2	1172.22	1172.22	40.05	50.68	40.05	50.68

Piani: Rigidezze (kN/m,kNm) - Spostamenti (mm) - Baricentro G, Centro delle rigidezze R ed Eccentricità GR (m)

N.	Rigidezze (trasl.:kN/m, tors.:kNm)			Spost. max (mm)				Baricentro G, Centro rigidezze R, Eccentricità e					
	trasl.X	trasl.Y	tors.	dir.X+	dir.X-	dir.Y+	dir.Y-	G.X	G.Y	R.X	R.Y	e.X	e.Y
1	4191804	2819271	687458688	0.088	-0.101	0.518	-0.518	20.527	4.459	22.708	4.459	-2.181	
2	186704688	173573472	30271870976	0.068	-0.075	0.779	-0.780	20.827	4.459	20.799	4.459	0.028	

SLE di Danno (SLD)

Piani: Pesì sismici, Forze e Taglianti (kN)

N.	Peso sismico (kN)		Forze sismiche (kN)		Taglianti (kN)	
	dir.X	dir.Y	dir.X	dir.Y	dir.X	dir.Y
1	2661.88	2661.88	86.97	99.49	125.26	145.13
2	1172.22	1172.22	38.28	45.63	38.28	45.63

Piani: Rigidezze (kN/m,kNm) - Spostamenti (mm) - Baricentro G, Centro delle rigidezze R ed Eccentricità GR (m)

N.	Rigidezze (trasl.:kN/m, tors.:kNm)			Spost. max (mm)				Baricentro G, Centro rigidezze R, Eccentricità e					
	trasl.X	trasl.Y	tors.	dir.X+	dir.X-	dir.Y+	dir.Y-	G.X	G.Y	R.X	R.Y	e.X	e.Y
1	4191804	2819271	687458688	0.115	-0.127	0.694	-0.694	20.527	4.459	22.708	4.459	-2.181	
2	186704688	173573472	30271870976	0.068	-0.075	0.779	-0.780	20.827	4.459	20.799	4.459	0.028	

2	186704688	173573472	30271870976	0.092	-0.099	0.940	-0.941	20.827	4.459	20.799	4.459	0.028
0.000												

SLU di salvaguardia della Vita (SLV)

Piani: Pesì sismici, Forze e Taglianti (kN)

N.	Peso sismico (kN)		Forze sismiche (kN)		Taglianti (kN)	
	dir.X	dir.Y	dir.X	dir.Y	dir.X	dir.Y
1	2661.88	2661.88	146.64	130.78	211.07	189.92
2	1172.22	1172.22	64.43	59.13	64.43	59.13

Piani: Rigidezze (kN/m,kNm) - Spostamenti (mm) - Baricentro G, Centro delle rigidezze R ed Eccentricità GR (m)

(m)	Rigidezze (trasl.:kN/m, tors.:kNm)			Spost. max (mm)				Baricentro G, Centro rigidezze R, Eccentricità e					
	trasl.X	trasl.Y	tors.	dir.X+	dir.X-	dir.Y+	dir.Y-	G.X	G.Y	R.X	R.Y	e.X	e.Y

Effetti Azioni NON Sismiche (per eseguire la combinazione secondo §2.5.3)

--> Spostamenti dei Nodi (u=sX, v=sY, w=sZ, fiX, fiY, fiZ) (XYZ=assi globali) [mm, mrad]

1,	0.000E+00,	0.000E+00,	-6.795E+00,	1.556E-05,	-6.877E-03,	0.000E+00
2,	-2.175E-03,	-9.421E-05,	-6.850E+00,	2.351E-05,	-3.855E-04,	1.645E-07
3,	0.000E+00,	0.000E+00,	-6.789E+00,	1.556E-05,	-6.877E-03,	0.000E+00
4,	-2.175E-03,	-9.435E-05,	-6.850E+00,	2.089E-05,	-3.856E-04,	1.645E-07
5,	-2.175E-03,	-9.406E-05,	-6.849E+00,	2.612E-05,	-3.852E-04,	1.645E-07
6,	0.000E+00,	0.000E+00,	-6.768E+00,	3.928E-03,	-9.268E-03,	0.000E+00
7,	-2.175E-03,	-9.354E-05,	-6.848E+00,	3.530E-05,	-3.825E-04,	1.645E-07
8,	0.000E+00,	0.000E+00,	-6.776E+00,	3.928E-03,	-9.268E-03,	0.000E+00
9,	-2.175E-03,	-9.369E-05,	-6.849E+00,	3.272E-05,	-3.837E-04,	1.645E-07
10,	-2.175E-03,	-9.340E-05,	-6.848E+00,	3.788E-05,	-3.809E-04,	1.645E-07
11,	0.000E+00,	0.000E+00,	-6.752E+00,	3.929E-03,	-9.304E-03,	0.000E+00
12,	-2.175E-03,	-9.325E-05,	-6.848E+00,	4.046E-05,	-3.791E-04,	1.645E-07
13,	-2.175E-03,	-9.311E-05,	-6.847E+00,	4.304E-05,	-3.769E-04,	1.645E-07
14,	0.000E+00,	0.000E+00,	-6.768E+00,	2.701E-02,	7.698E-03,	0.000E+00
15,	-2.175E-03,	-9.259E-05,	-6.846E+00,	5.223E-05,	-3.662E-04,	1.645E-07
16,	-2.175E-03,	-9.273E-05,	-6.846E+00,	4.965E-05,	-3.698E-04,	1.645E-07
17,	-2.175E-03,	-9.244E-05,	-6.846E+00,	5.481E-05,	-3.620E-04,	1.645E-07
18,	0.000E+00,	0.000E+00,	-6.782E+00,	2.702E-02,	7.635E-03,	0.000E+00
19,	-2.175E-03,	-9.230E-05,	-6.845E+00,	5.740E-05,	-3.572E-04,	1.645E-07
20,	0.000E+00,	0.000E+00,	-6.788E+00,	2.702E-02,	7.635E-03,	0.000E+00
21,	-2.175E-03,	-9.215E-05,	-6.845E+00,	5.999E-05,	-3.519E-04,	1.645E-07
22,	0.000E+00,	0.000E+00,	-6.741E+00,	5.891E-02,	-5.943E-02,	0.000E+00
23,	-2.175E-03,	-9.173E-05,	-6.844E+00,	6.753E-05,	-3.330E-04,	1.645E-07
24,	0.000E+00,	0.000E+00,	-6.760E+00,	5.891E-02,	-5.943E-02,	0.000E+00
25,	-2.175E-03,	-9.178E-05,	-6.844E+00,	6.662E-05,	-3.356E-04,	1.645E-07
26,	-2.175E-03,	-9.168E-05,	-6.844E+00,	6.844E-05,	-3.304E-04,	1.645E-07
27,	0.000E+00,	0.000E+00,	-6.650E+00,	5.922E-02,	-5.955E-02,	0.000E+00
28,	-2.175E-03,	-9.148E-05,	-6.844E+00,	6.934E-05,	-3.194E-04,	1.645E-07
29,	-2.175E-03,	-9.127E-05,	-6.843E+00,	7.027E-05,	-3.085E-04,	1.645E-07
30,	0.000E+00,	0.000E+00,	-6.562E+00,	5.953E-02,	-5.962E-02,	0.000E+00
31,	-2.175E-03,	-9.123E-05,	-6.843E+00,	7.046E-05,	-3.062E-04,	1.645E-07
32,	-2.175E-03,	-9.119E-05,	-6.843E+00,	7.065E-05,	-3.039E-04,	1.645E-07
33,	0.000E+00,	0.000E+00,	-6.544E+00,	7.318E-02,	8.223E-02,	0.000E+00
34,	-2.175E-03,	-9.077E-05,	-6.842E+00,	7.249E-05,	-2.818E-04,	1.645E-07
35,	-2.175E-03,	-9.082E-05,	-6.842E+00,	7.230E-05,	-2.841E-04,	1.645E-07
36,	-2.175E-03,	-9.073E-05,	-6.842E+00,	7.268E-05,	-2.796E-04,	1.645E-07
37,	0.000E+00,	0.000E+00,	-6.666E+00,	7.288E-02,	8.220E-02,	0.000E+00
38,	-2.175E-03,	-9.053E-05,	-6.842E+00,	7.353E-05,	-2.689E-04,	1.645E-07
39,	-2.175E-03,	-9.033E-05,	-6.842E+00,	7.441E-05,	-2.585E-04,	1.645E-07
40,	0.000E+00,	0.000E+00,	-6.776E+00,	6.241E-02,	1.929E-02,	0.000E+00
41,	-2.175E-03,	-9.030E-05,	-6.842E+00,	7.422E-05,	-2.570E-04,	1.645E-07
42,	0.000E+00,	0.000E+00,	-6.779E+00,	6.241E-02,	1.929E-02,	0.000E+00
43,	-2.175E-03,	-9.027E-05,	-6.842E+00,	7.403E-05,	-2.555E-04,	1.645E-07
44,	0.000E+00,	0.000E+00,	-6.771E+00,	2.761E-02,	-1.058E-02,	0.000E+00
45,	-2.175E-03,	-8.973E-05,	-6.841E+00,	7.069E-05,	-2.337E-04,	1.645E-07
46,	0.000E+00,	0.000E+00,	-6.781E+00,	2.761E-02,	-1.058E-02,	0.000E+00
47,	-2.175E-03,	-8.989E-05,	-6.841E+00,	7.170E-05,	-2.395E-04,	1.645E-07
48,	-2.175E-03,	-8.957E-05,	-6.841E+00,	6.968E-05,	-2.285E-04,	1.645E-07
49,	0.000E+00,	0.000E+00,	-6.750E+00,	2.760E-02,	-1.064E-02,	0.000E+00

50,	-2.175E-03,	-8.941E-05,	-6.840E+00,	6.867E-05,	-2.240E-04,	1.645E-07
51,	-2.175E-03,	-8.925E-05,	-6.840E+00,	6.767E-05,	-2.201E-04,	1.645E-07
52,	0.000E+00,	0.000E+00,	-6.742E+00,	5.995E-03,	1.008E-02,	0.000E+00
53,	-2.175E-03,	-8.871E-05,	-6.839E+00,	6.437E-05,	-2.112E-04,	1.645E-07
54,	-2.175E-03,	-8.887E-05,	-6.840E+00,	6.537E-05,	-2.134E-04,	1.645E-07
55,	-2.175E-03,	-8.855E-05,	-6.839E+00,	6.337E-05,	-2.092E-04,	1.645E-07
56,	0.000E+00,	0.000E+00,	-6.762E+00,	5.994E-03,	1.003E-02,	0.000E+00
57,	-2.175E-03,	-8.839E-05,	-6.839E+00,	6.238E-05,	-2.077E-04,	1.645E-07
58,	0.000E+00,	0.000E+00,	-6.772E+00,	5.994E-03,	1.003E-02,	0.000E+00
59,	-2.175E-03,	-8.823E-05,	-6.839E+00,	6.138E-05,	-2.065E-04,	1.645E-07
60,	0.000E+00,	0.000E+00,	-6.791E+00,	5.059E-03,	7.747E-03,	0.000E+00
61,	-2.175E-03,	-8.772E-05,	-6.838E+00,	5.828E-05,	-2.052E-04,	1.645E-07
62,	0.000E+00,	0.000E+00,	-6.785E+00,	5.059E-03,	7.747E-03,	0.000E+00
63,	-2.175E-03,	-8.785E-05,	-6.838E+00,	5.908E-05,	-2.053E-04,	1.645E-07
64,	-2.175E-03,	-8.759E-05,	-6.838E+00,	5.747E-05,	-2.051E-04,	1.645E-07
65,	0.000E+00,	0.000E+00,	-6.789E+00,	5.066E-03,	7.744E-03,	0.000E+00
66,	-2.175E-03,	-8.759E-05,	-6.838E+00,	5.703E-05,	-2.051E-04,	1.645E-07
67,	0.000E+00,	0.000E+00,	-6.781E+00,	5.066E-03,	7.744E-03,	0.000E+00
68,	-2.175E-03,	-8.759E-05,	-6.838E+00,	5.696E-05,	-2.051E-04,	1.645E-07
69,	0.000E+00,	0.000E+00,	-6.789E+00,	-5.033E-03,	7.742E-03,	0.000E+00
70,	-2.176E-03,	-8.759E-05,	-6.838E+00,	-2.277E-05,	-2.052E-04,	1.645E-07
71,	0.000E+00,	0.000E+00,	-6.781E+00,	-5.033E-03,	7.742E-03,	0.000E+00
72,	-2.176E-03,	-8.759E-05,	-6.838E+00,	-2.270E-05,	-2.052E-04,	1.645E-07
73,	-2.176E-03,	-8.759E-05,	-6.838E+00,	-2.321E-05,	-2.052E-04,	1.645E-07
74,	0.000E+00,	0.000E+00,	-6.791E+00,	-5.025E-03,	7.745E-03,	0.000E+00
75,	-2.176E-03,	-8.772E-05,	-6.838E+00,	-2.402E-05,	-2.052E-04,	1.645E-07
76,	0.000E+00,	0.000E+00,	-6.784E+00,	-5.025E-03,	7.745E-03,	0.000E+00
77,	-2.176E-03,	-8.785E-05,	-6.838E+00,	-2.483E-05,	-2.054E-04,	1.645E-07
78,	0.000E+00,	0.000E+00,	-6.762E+00,	-5.959E-03,	1.003E-02,	0.000E+00
79,	-2.176E-03,	-8.839E-05,	-6.839E+00,	-2.812E-05,	-2.077E-04,	1.645E-07
80,	0.000E+00,	0.000E+00,	-6.771E+00,	-5.959E-03,	1.003E-02,	0.000E+00
81,	-2.176E-03,	-8.823E-05,	-6.839E+00,	-2.712E-05,	-2.066E-04,	1.645E-07
82,	-2.176E-03,	-8.855E-05,	-6.839E+00,	-2.912E-05,	-2.093E-04,	1.645E-07
83,	0.000E+00,	0.000E+00,	-6.742E+00,	-5.960E-03,	1.008E-02,	0.000E+00
84,	-2.176E-03,	-8.871E-05,	-6.839E+00,	-3.012E-05,	-2.112E-04,	1.645E-07
85,	-2.176E-03,	-8.887E-05,	-6.839E+00,	-3.112E-05,	-2.135E-04,	1.645E-07
86,	0.000E+00,	0.000E+00,	-6.750E+00,	-2.756E-02,	-1.064E-02,	0.000E+00
87,	-2.176E-03,	-8.941E-05,	-6.840E+00,	-3.442E-05,	-2.240E-04,	1.645E-07
88,	-2.176E-03,	-8.925E-05,	-6.840E+00,	-3.342E-05,	-2.201E-04,	1.645E-07
89,	-2.176E-03,	-8.957E-05,	-6.840E+00,	-3.543E-05,	-2.286E-04,	1.645E-07
90,	0.000E+00,	0.000E+00,	-6.770E+00,	-2.757E-02,	-1.058E-02,	0.000E+00
91,	-2.176E-03,	-8.973E-05,	-6.841E+00,	-3.644E-05,	-2.337E-04,	1.645E-07
92,	0.000E+00,	0.000E+00,	-6.781E+00,	-2.757E-02,	-1.058E-02,	0.000E+00
93,	-2.176E-03,	-8.989E-05,	-6.841E+00,	-3.745E-05,	-2.395E-04,	1.645E-07
94,	0.000E+00,	0.000E+00,	-6.775E+00,	-6.236E-02,	1.929E-02,	0.000E+00
95,	-2.176E-03,	-9.030E-05,	-6.841E+00,	-3.998E-05,	-2.570E-04,	1.645E-07
96,	0.000E+00,	0.000E+00,	-6.779E+00,	-6.236E-02,	1.929E-02,	0.000E+00
97,	-2.176E-03,	-9.027E-05,	-6.841E+00,	-3.979E-05,	-2.555E-04,	1.645E-07
98,	-2.176E-03,	-9.033E-05,	-6.842E+00,	-4.017E-05,	-2.585E-04,	1.645E-07
99,	0.000E+00,	0.000E+00,	-6.666E+00,	-7.283E-02,	8.220E-02,	0.000E+00
100,	-2.176E-03,	-9.053E-05,	-6.842E+00,	-3.928E-05,	-2.690E-04,	1.645E-07
101,	-2.176E-03,	-9.073E-05,	-6.842E+00,	-3.843E-05,	-2.796E-04,	1.645E-07
102,	0.000E+00,	0.000E+00,	-6.544E+00,	-7.314E-02,	8.223E-02,	0.000E+00
103,	-2.176E-03,	-9.077E-05,	-6.842E+00,	-3.823E-05,	-2.819E-04,	1.645E-07
104,	-2.176E-03,	-9.082E-05,	-6.842E+00,	-3.804E-05,	-2.842E-04,	1.645E-07
105,	0.000E+00,	0.000E+00,	-6.562E+00,	-5.949E-02,	-5.962E-02,	0.000E+00
106,	-2.176E-03,	-9.123E-05,	-6.843E+00,	-3.620E-05,	-3.062E-04,	1.645E-07
107,	-2.176E-03,	-9.119E-05,	-6.843E+00,	-3.639E-05,	-3.039E-04,	1.645E-07
108,	-2.176E-03,	-9.127E-05,	-6.843E+00,	-3.601E-05,	-3.086E-04,	1.645E-07
109,	0.000E+00,	0.000E+00,	-6.650E+00,	-5.917E-02,	-5.955E-02,	0.000E+00
110,	-2.176E-03,	-9.148E-05,	-6.844E+00,	-3.508E-05,	-3.195E-04,	1.645E-07
111,	-2.176E-03,	-9.168E-05,	-6.844E+00,	-3.417E-05,	-3.304E-04,	1.645E-07
112,	0.000E+00,	0.000E+00,	-6.741E+00,	-5.886E-02,	-5.943E-02,	0.000E+00
113,	-2.176E-03,	-9.173E-05,	-6.844E+00,	-3.327E-05,	-3.331E-04,	1.645E-07
114,	0.000E+00,	0.000E+00,	-6.760E+00,	-5.886E-02,	-5.943E-02,	0.000E+00
115,	-2.176E-03,	-9.178E-05,	-6.844E+00,	-3.236E-05,	-3.357E-04,	1.645E-07
116,	0.000E+00,	0.000E+00,	-6.781E+00,	-2.698E-02,	7.628E-03,	0.000E+00
117,	-2.176E-03,	-9.230E-05,	-6.845E+00,	-2.312E-05,	-3.573E-04,	1.645E-07
118,	0.000E+00,	0.000E+00,	-6.788E+00,	-2.698E-02,	7.627E-03,	0.000E+00
119,	-2.176E-03,	-9.215E-05,	-6.845E+00,	-2.571E-05,	-3.520E-04,	1.645E-07
120,	-2.176E-03,	-9.244E-05,	-6.846E+00,	-2.053E-05,	-3.620E-04,	1.645E-07
121,	0.000E+00,	0.000E+00,	-6.768E+00,	-2.697E-02,	7.690E-03,	0.000E+00
122,	-2.176E-03,	-9.259E-05,	-6.846E+00,	-1.794E-05,	-3.662E-04,	1.645E-07
123,	-2.176E-03,	-9.273E-05,	-6.846E+00,	-1.536E-05,	-3.699E-04,	1.645E-07
124,	0.000E+00,	0.000E+00,	-6.752E+00,	-3.891E-03,	-9.307E-03,	0.000E+00
125,	-2.176E-03,	-9.325E-05,	-6.847E+00,	-6.158E-06,	-3.791E-04,	1.645E-07
126,	-2.176E-03,	-9.311E-05,	-6.847E+00,	-8.741E-06,	-3.770E-04,	1.645E-07
127,	-2.176E-03,	-9.340E-05,	-6.848E+00,	-3.575E-06,	-3.810E-04,	1.645E-07
128,	0.000E+00,	0.000E+00,	-6.768E+00,	-3.889E-03,	-9.271E-03,	0.000E+00
129,	-2.176E-03,	-9.354E-05,	-6.848E+00,	-9.920E-07,	-3.825E-04,	1.645E-07
130,	0.000E+00,	0.000E+00,	-6.776E+00,	-3.889E-03,	-9.271E-03,	0.000E+00
131,	-2.176E-03,	-9.369E-05,	-6.848E+00,	1.590E-06,	-3.837E-04,	1.645E-07
132,	0.000E+00,	0.000E+00,	-6.795E+00,	1.852E-05,	-6.877E-03,	0.000E+00
133,	-2.176E-03,	-9.421E-05,	-6.850E+00,	1.083E-05,	-3.855E-04,	1.645E-07
134,	0.000E+00,	0.000E+00,	-6.788E+00,	1.852E-05,	-6.877E-03,	0.000E+00
135,	-2.176E-03,	-9.406E-05,	-6.849E+00,	8.206E-06,	-3.853E-04,	1.645E-07

136,	-2.176E-03,	-9.435E-05,	-6.850E+00,	1.345E-05,	-3.856E-04,	1.645E-07
137,	0.000E+00,	0.000E+00,	-6.650E+00,	-7.250E-02,	8.216E-02,	0.000E+00
138,	-2.016E-03,	-1.157E-04,	-6.841E+00,	-4.090E-05,	-2.586E-04,	1.645E-07
139,	-2.016E-03,	-1.155E-04,	-6.842E+00,	-4.061E-05,	-2.585E-04,	1.645E-07
140,	-2.016E-03,	-1.157E-04,	-6.841E+00,	-4.086E-05,	-2.586E-04,	1.645E-07
141,	0.000E+00,	0.000E+00,	-6.650E+00,	7.255E-02,	8.216E-02,	0.000E+00
142,	-2.015E-03,	-4.374E-05,	-6.842E+00,	7.515E-05,	-2.585E-04,	1.645E-07
143,	-2.015E-03,	-4.376E-05,	-6.841E+00,	7.510E-05,	-2.585E-04,	1.645E-07
144,	-2.015E-03,	-4.392E-05,	-6.842E+00,	7.485E-05,	-2.585E-04,	1.645E-07
145,	0.000E+00,	0.000E+00,	-6.629E+00,	5.888E-02,	-5.946E-02,	0.000E+00
146,	-1.970E-03,	-4.865E-05,	-6.844E+00,	6.940E-05,	-3.304E-04,	1.645E-07
147,	-1.970E-03,	-4.891E-05,	-6.844E+00,	6.898E-05,	-3.304E-04,	1.645E-07
148,	-1.971E-03,	-4.867E-05,	-6.844E+00,	6.936E-05,	-3.304E-04,	1.645E-07
149,	0.000E+00,	0.000E+00,	-6.628E+00,	-5.884E-02,	-5.946E-02,	0.000E+00
150,	-1.971E-03,	-1.135E-04,	-6.844E+00,	-3.514E-05,	-3.304E-04,	1.645E-07
151,	-1.971E-03,	-1.134E-04,	-6.844E+00,	-3.510E-05,	-3.304E-04,	1.645E-07
152,	-1.972E-03,	-1.132E-04,	-6.844E+00,	-3.472E-05,	-3.304E-04,	1.645E-07
153,	-2.176E-03,	-9.388E-05,	-6.849E+00,	4.937E-06,	-3.847E-04,	1.645E-07
154,	-2.265E-03,	-9.905E-05,	-6.850E+00,	1.911E-05,	-3.182E-04,	1.648E-07
155,	-2.265E-03,	-9.857E-05,	-6.850E+00,	1.986E-05,	-3.166E-04,	1.648E-07
156,	-2.265E-03,	-9.953E-05,	-6.851E+00,	1.822E-05,	-3.189E-04,	1.648E-07
157,	-2.176E-03,	-9.292E-05,	-6.847E+00,	-1.205E-05,	-3.738E-04,	1.645E-07
158,	-2.265E-03,	-9.809E-05,	-6.849E+00,	2.047E-05,	-3.138E-04,	1.648E-07
159,	-2.265E-03,	-9.761E-05,	-6.848E+00,	2.094E-05,	-3.100E-04,	1.648E-07
160,	-2.176E-03,	-9.206E-05,	-6.845E+00,	-2.735E-05,	-3.484E-04,	1.645E-07
161,	-2.265E-03,	-9.723E-05,	-6.847E+00,	2.118E-05,	-3.063E-04,	1.648E-07
162,	-2.265E-03,	-9.684E-05,	-6.846E+00,	2.133E-05,	-3.022E-04,	1.648E-07
163,	-2.265E-03,	-9.664E-05,	-6.846E+00,	2.137E-05,	-2.999E-04,	1.648E-07
164,	-2.265E-03,	-9.644E-05,	-6.846E+00,	2.141E-05,	-2.975E-04,	1.648E-07
165,	-2.176E-03,	-9.100E-05,	-6.843E+00,	-3.722E-05,	-2.940E-04,	1.645E-07
166,	-2.265E-03,	-9.617E-05,	-6.845E+00,	2.142E-05,	-2.942E-04,	1.648E-07
167,	-2.265E-03,	-9.590E-05,	-6.845E+00,	2.142E-05,	-2.909E-04,	1.648E-07
168,	-2.265E-03,	-9.569E-05,	-6.844E+00,	2.138E-05,	-2.885E-04,	1.648E-07
169,	-2.265E-03,	-9.549E-05,	-6.844E+00,	2.135E-05,	-2.861E-04,	1.648E-07
170,	-2.176E-03,	-8.995E-05,	-6.841E+00,	-3.780E-05,	-2.416E-04,	1.645E-07
171,	-2.265E-03,	-9.511E-05,	-6.843E+00,	2.122E-05,	-2.820E-04,	1.648E-07
172,	-2.265E-03,	-9.473E-05,	-6.843E+00,	2.099E-05,	-2.782E-04,	1.648E-07
173,	-2.176E-03,	-8.906E-05,	-6.840E+00,	-3.227E-05,	-2.165E-04,	1.645E-07
174,	-2.265E-03,	-9.422E-05,	-6.842E+00,	2.051E-05,	-2.740E-04,	1.648E-07
175,	-2.265E-03,	-9.371E-05,	-6.841E+00,	1.987E-05,	-2.709E-04,	1.648E-07
176,	-2.176E-03,	-8.807E-05,	-6.838E+00,	-2.617E-05,	-2.059E-04,	1.645E-07
177,	-2.265E-03,	-9.323E-05,	-6.840E+00,	1.912E-05,	-2.692E-04,	1.648E-07
178,	-2.265E-03,	-9.275E-05,	-6.839E+00,	1.827E-05,	-2.685E-04,	1.648E-07
179,	-2.175E-03,	-8.807E-05,	-6.839E+00,	6.042E-05,	-2.059E-04,	1.645E-07
180,	-2.263E-03,	-9.323E-05,	-6.840E+00,	1.557E-05,	-2.692E-04,	1.648E-07
181,	-2.263E-03,	-9.371E-05,	-6.841E+00,	1.482E-05,	-2.709E-04,	1.648E-07
182,	-2.263E-03,	-9.275E-05,	-6.839E+00,	1.643E-05,	-2.685E-04,	1.648E-07
183,	-2.175E-03,	-8.906E-05,	-6.840E+00,	6.652E-05,	-2.165E-04,	1.645E-07
184,	-2.263E-03,	-9.422E-05,	-6.842E+00,	1.417E-05,	-2.740E-04,	1.648E-07
185,	-2.263E-03,	-9.473E-05,	-6.843E+00,	1.369E-05,	-2.782E-04,	1.648E-07
186,	-2.175E-03,	-8.995E-05,	-6.841E+00,	7.204E-05,	-2.416E-04,	1.645E-07
187,	-2.263E-03,	-9.511E-05,	-6.843E+00,	1.345E-05,	-2.820E-04,	1.648E-07
188,	-2.263E-03,	-9.549E-05,	-6.844E+00,	1.333E-05,	-2.861E-04,	1.648E-07
189,	-2.263E-03,	-9.569E-05,	-6.844E+00,	1.329E-05,	-2.885E-04,	1.648E-07
190,	-2.263E-03,	-9.590E-05,	-6.845E+00,	1.325E-05,	-2.909E-04,	1.648E-07
191,	-2.175E-03,	-9.100E-05,	-6.843E+00,	7.147E-05,	-2.939E-04,	1.645E-07
192,	-2.263E-03,	-9.617E-05,	-6.845E+00,	1.325E-05,	-2.942E-04,	1.648E-07
193,	-2.263E-03,	-9.644E-05,	-6.846E+00,	1.325E-05,	-2.975E-04,	1.648E-07
194,	-2.263E-03,	-9.664E-05,	-6.846E+00,	1.329E-05,	-2.999E-04,	1.648E-07
195,	-2.263E-03,	-9.684E-05,	-6.846E+00,	1.333E-05,	-3.022E-04,	1.648E-07
196,	-2.175E-03,	-9.206E-05,	-6.845E+00,	6.162E-05,	-3.483E-04,	1.645E-07
197,	-2.263E-03,	-9.723E-05,	-6.847E+00,	1.348E-05,	-3.063E-04,	1.648E-07
198,	-2.263E-03,	-9.761E-05,	-6.848E+00,	1.371E-05,	-3.100E-04,	1.648E-07
199,	-2.175E-03,	-9.292E-05,	-6.847E+00,	4.634E-05,	-3.737E-04,	1.645E-07
200,	-2.263E-03,	-9.809E-05,	-6.849E+00,	1.418E-05,	-3.138E-04,	1.648E-07
201,	-2.263E-03,	-9.857E-05,	-6.850E+00,	1.478E-05,	-3.166E-04,	1.648E-07
202,	-2.175E-03,	-9.388E-05,	-6.849E+00,	2.939E-05,	-3.847E-04,	1.645E-07
203,	-2.263E-03,	-9.905E-05,	-6.851E+00,	1.553E-05,	-3.182E-04,	1.648E-07
204,	-2.263E-03,	-9.953E-05,	-6.852E+00,	1.642E-05,	-3.189E-04,	1.648E-07
205,	-2.175E-03,	-8.759E-05,	-6.838E+00,	5.698E-05,	-2.051E-04,	1.645E-07
206,	-2.465E-03,	-1.054E-04,	-6.839E+00,	1.692E-05,	-2.685E-04,	1.648E-07
207,	-2.667E-03,	-1.188E-04,	-6.839E+00,	1.735E-05,	-2.685E-04,	1.648E-07
208,	-2.176E-03,	-8.759E-05,	-6.838E+00,	-2.272E-05,	-2.052E-04,	1.645E-07
209,	-2.466E-03,	-1.061E-04,	-6.839E+00,	1.778E-05,	-2.685E-04,	1.648E-07
210,	-2.176E-03,	-9.435E-05,	-6.850E+00,	1.555E-05,	-3.856E-04,	1.645E-07
211,	-2.503E-03,	-1.128E-04,	-6.851E+00,	1.774E-05,	-3.189E-04,	1.648E-07
212,	-2.742E-03,	-1.255E-04,	-6.851E+00,	1.732E-05,	-3.189E-04,	1.648E-07
213,	-2.175E-03,	-9.435E-05,	-6.850E+00,	1.879E-05,	-3.856E-04,	1.645E-07
214,	-2.503E-03,	-1.122E-04,	-6.852E+00,	1.690E-05,	-3.189E-04,	1.648E-07
215,	0.000E+00,	0.000E+00,	-6.801E+00,	1.534E-05,	-6.873E-03,	0.000E+00
216,	-2.176E-03,	-9.435E-05,	-6.850E+00,	1.495E-05,	-3.856E-04,	1.645E-07
217,	-2.176E-03,	-9.435E-05,	-6.850E+00,	1.611E-05,	-3.856E-04,	1.645E-07
218,	0.000E+00,	0.000E+00,	-6.801E+00,	1.704E-05,	-6.872E-03,	0.000E+00
219,	-2.176E-03,	-9.435E-05,	-6.850E+00,	1.717E-05,	-3.856E-04,	1.645E-07
220,	-2.175E-03,	-9.435E-05,	-6.850E+00,	1.823E-05,	-3.856E-04,	1.645E-07
221,	0.000E+00,	0.000E+00,	-6.801E+00,	1.875E-05,	-6.872E-03,	0.000E+00

222,	-2.175E-03,	-9.435E-05,	-6.850E+00,	1.939E-05,	-3.856E-04,	1.645E-07
223,	0.000E+00,	0.000E+00,	-6.801E+00,	1.508E-05,	-6.874E-03,	0.000E+00
224,	0.000E+00,	0.000E+00,	-6.744E+00,	3.930E-03,	-9.314E-03,	0.000E+00
225,	0.000E+00,	0.000E+00,	-6.761E+00,	2.701E-02,	7.713E-03,	0.000E+00
226,	0.000E+00,	0.000E+00,	-6.723E+00,	5.891E-02,	-5.946E-02,	0.000E+00
227,	0.000E+00,	0.000E+00,	-6.577E+00,	5.953E-02,	-5.962E-02,	0.000E+00
228,	0.000E+00,	0.000E+00,	-6.546E+00,	5.953E-02,	-5.962E-02,	0.000E+00
229,	0.000E+00,	0.000E+00,	-6.522E+00,	7.318E-02,	8.223E-02,	0.000E+00
230,	0.000E+00,	0.000E+00,	-6.565E+00,	7.318E-02,	8.223E-02,	0.000E+00
231,	0.000E+00,	0.000E+00,	-6.766E+00,	7.258E-02,	8.216E-02,	0.000E+00
232,	0.000E+00,	0.000E+00,	-6.739E+00,	2.760E-02,	-1.066E-02,	0.000E+00
233,	0.000E+00,	0.000E+00,	-6.732E+00,	5.996E-03,	1.009E-02,	0.000E+00
234,	0.000E+00,	0.000E+00,	-6.797E+00,	5.059E-03,	7.745E-03,	0.000E+00
235,	0.000E+00,	0.000E+00,	-6.797E+00,	-5.025E-03,	7.743E-03,	0.000E+00
236,	0.000E+00,	0.000E+00,	-6.732E+00,	-5.961E-03,	1.009E-02,	0.000E+00
237,	0.000E+00,	0.000E+00,	-6.739E+00,	-2.756E-02,	-1.066E-02,	0.000E+00
238,	0.000E+00,	0.000E+00,	-6.766E+00,	-7.253E-02,	8.216E-02,	0.000E+00
239,	0.000E+00,	0.000E+00,	-6.565E+00,	-7.314E-02,	8.223E-02,	0.000E+00
240,	0.000E+00,	0.000E+00,	-6.522E+00,	-7.314E-02,	8.223E-02,	0.000E+00
241,	0.000E+00,	0.000E+00,	-6.546E+00,	-5.949E-02,	-5.962E-02,	0.000E+00
242,	0.000E+00,	0.000E+00,	-6.577E+00,	-5.949E-02,	-5.962E-02,	0.000E+00
243,	0.000E+00,	0.000E+00,	-6.723E+00,	-5.887E-02,	-5.946E-02,	0.000E+00
244,	0.000E+00,	0.000E+00,	-6.761E+00,	-2.697E-02,	7.705E-03,	0.000E+00
245,	0.000E+00,	0.000E+00,	-6.743E+00,	-3.892E-03,	-9.317E-03,	0.000E+00
246,	0.000E+00,	0.000E+00,	-6.801E+00,	1.900E-05,	-6.874E-03,	0.000E+00
247,	-2.265E-03,	-9.888E-05,	-6.850E+00,	1.942E-05,	-3.177E-04,	1.648E-07
248,	1.346E-03,	-1.239E-04,	-8.071E+00,	1.667E-05,	2.407E-03,	1.648E-07
249,	-2.263E-03,	-9.888E-05,	-6.850E+00,	1.522E-05,	-3.177E-04,	1.648E-07
250,	4.839E-05,	-1.236E-04,	-8.077E+00,	1.688E-05,	1.542E-03,	1.648E-07
251,	-2.263E-03,	-9.827E-05,	-6.849E+00,	1.435E-05,	-3.150E-04,	1.648E-07
252,	-2.265E-03,	-9.827E-05,	-6.849E+00,	2.029E-05,	-3.150E-04,	1.648E-07
253,	-1.211E-03,	-1.233E-04,	-8.076E+00,	1.708E-05,	7.016E-04,	1.648E-07
254,	-2.263E-03,	-9.766E-05,	-6.848E+00,	1.374E-05,	-3.104E-04,	1.648E-07
255,	-2.265E-03,	-9.766E-05,	-6.848E+00,	2.092E-05,	-3.104E-04,	1.648E-07
256,	-2.392E-03,	-1.162E-04,	-8.068E+00,	1.274E-05,	-8.541E-05,	1.648E-07
257,	-2.263E-03,	-9.705E-05,	-6.847E+00,	1.337E-05,	-3.044E-04,	1.648E-07
258,	-2.265E-03,	-9.705E-05,	-6.847E+00,	2.129E-05,	-3.044E-04,	1.648E-07
259,	-2.265E-03,	-9.644E-05,	-6.846E+00,	2.141E-05,	-2.975E-04,	1.648E-07
260,	2.887E-04,	-2.894E-01,	-8.164E+00,	4.485E-01,	3.958E-03,	1.648E-07
261,	-2.265E-03,	-9.523E-05,	-6.843E+00,	2.130E-05,	-2.833E-04,	1.648E-07
262,	-3.940E-03,	-1.210E-04,	-8.121E+00,	1.714E-05,	-1.118E-03,	1.648E-07
263,	-2.263E-03,	-9.523E-05,	-6.844E+00,	1.338E-05,	-2.833E-04,	1.648E-07
264,	-2.265E-03,	-9.462E-05,	-6.842E+00,	2.092E-05,	-2.773E-04,	1.648E-07
265,	-5.571E-03,	-1.200E-04,	-8.072E+00,	1.689E-05,	-2.205E-03,	1.648E-07
266,	-2.263E-03,	-9.462E-05,	-6.843E+00,	1.376E-05,	-2.773E-04,	1.648E-07
267,	-2.265E-03,	-9.401E-05,	-6.841E+00,	2.030E-05,	-2.725E-04,	1.648E-07
268,	-7.009E-03,	-1.190E-04,	-8.066E+00,	1.666E-05,	-3.163E-03,	1.648E-07
269,	-2.263E-03,	-9.401E-05,	-6.842E+00,	1.439E-05,	-2.725E-04,	1.648E-07
270,	-7.593E-03,	-1.183E-04,	-7.881E+00,	1.657E-05,	-3.553E-03,	1.648E-07
271,	-2.263E-03,	-9.340E-05,	-6.841E+00,	1.526E-05,	-2.697E-04,	1.648E-07
272,	-2.265E-03,	-9.340E-05,	-6.840E+00,	1.942E-05,	-2.697E-04,	1.648E-07
273,	-2.657E-03,	-1.099E-04,	-7.906E+00,	8.964E-06,	-2.619E-04,	1.648E-07
274,	-2.228E-03,	-1.202E-04,	-7.966E+00,	1.621E-05,	2.422E-05,	1.648E-07
275,	-2.667E-03,	-1.188E-04,	-6.839E+00,	1.735E-05,	-2.685E-04,	1.648E-07
276,	-2.360E-03,	-1.050E-04,	-6.851E+00,	1.823E-05,	-3.189E-04,	1.648E-07
277,	-2.345E-03,	-9.824E-05,	-6.839E+00,	1.828E-05,	-2.685E-04,	1.648E-07
278,	-2.747E-03,	-1.240E-04,	-6.839E+00,	1.735E-05,	-2.685E-04,	1.648E-07
279,	-2.344E-03,	-9.768E-05,	-6.839E+00,	1.642E-05,	-2.685E-04,	1.648E-07
280,	-2.359E-03,	-1.044E-04,	-6.852E+00,	1.641E-05,	-3.189E-04,	1.648E-07
281,	-2.838E-03,	-1.307E-04,	-6.851E+00,	1.732E-05,	-3.189E-04,	1.648E-07
282,	-1.404E-03,	8.446E-05,	-6.843E+00,	7.029E-05,	-3.085E-04,	1.645E-07
283,	-2.725E-02,	4.625E-03,	-6.202E+00,	1.886E-03,	1.003E-02,	1.645E-07
284,	-3.114E-02,	2.738E-03,	-5.901E+00,	1.132E-03,	1.158E-02,	1.645E-07
285,	-2.725E-02,	-4.722E-03,	-6.202E+00,	-1.852E-03,	1.003E-02,	1.645E-07
286,	-3.114E-02,	-2.835E-03,	-5.901E+00,	-1.097E-03,	1.158E-02,	1.645E-07
287,	-1.405E-03,	-1.814E-04,	-6.843E+00,	-3.604E-05,	-3.085E-04,	1.645E-07
288,	-1.767E-03,	-1.642E-01,	-8.166E+00,	1.434E-01,	4.344E-04,	1.648E-07
289,	-2.263E-03,	-9.644E-05,	-6.846E+00,	1.325E-05,	-2.975E-04,	1.648E-07
290,	2.892E-04,	2.891E-01,	-8.164E+00,	-4.484E-01,	3.958E-03,	1.648E-07
291,	-1.767E-03,	1.640E-01,	-8.166E+00,	-1.434E-01,	4.343E-04,	1.648E-07
292,	3.520E-02,	4.767E-03,	-6.173E+00,	1.943E-03,	-1.495E-02,	1.645E-07
293,	4.072E-02,	2.816E-03,	-5.867E+00,	1.163E-03,	-1.716E-02,	1.645E-07
294,	-1.476E-03,	9.102E-05,	-6.842E+00,	7.270E-05,	-2.796E-04,	1.645E-07
295,	4.072E-02,	-2.912E-03,	-5.867E+00,	-1.129E-03,	-1.716E-02,	1.645E-07
296,	-4.941E-03,	3.069E-01,	-8.243E+00,	-4.759E-01,	-4.152E-03,	1.648E-07
297,	-1.434E-03,	1.739E-01,	-8.243E+00,	-1.521E-01,	7.254E-04,	1.648E-07
298,	-2.263E-03,	-9.590E-05,	-6.845E+00,	1.325E-05,	-2.909E-04,	1.648E-07
299,	-1.434E-03,	-1.742E-01,	-8.243E+00,	1.522E-01,	7.254E-04,	1.648E-07
300,	-4.942E-03,	-3.071E-01,	-8.243E+00,	4.759E-01,	-4.152E-03,	1.648E-07
301,	-2.265E-03,	-9.590E-05,	-6.845E+00,	2.142E-05,	-2.909E-04,	1.648E-07
302,	3.520E-02,	-4.863E-03,	-6.173E+00,	-1.909E-03,	-1.495E-02,	1.645E-07
303,	-1.477E-03,	-1.869E-04,	-6.842E+00,	-3.845E-05,	-2.796E-04,	1.645E-07
304,	0.000E+00,	0.000E+00,	-5.852E+00,	1.579E-01,	-5.886E-02,	0.000E+00
305,	1.520E-02,	-1.789E-03,	-5.901E+00,	1.132E-03,	1.158E-02,	1.645E-07
306,	0.000E+00,	0.000E+00,	-6.180E+00,	2.828E-01,	-5.906E-02,	0.000E+00
307,	7.853E-03,	-1.978E-03,	-6.202E+00,	1.886E-03,	1.003E-02,	1.645E-07

308,	0.000E+00,	0.000E+00,	-6.180E+00,	-2.828E-01,	-5.906E-02,	0.000E+00
309,	7.852E-03,	1.761E-03,	-6.202E+00,	-1.852E-03,	1.003E-02,	1.645E-07
310,	0.000E+00,	0.000E+00,	-5.852E+00,	-1.579E-01,	-5.886E-02,	0.000E+00
311,	1.520E-02,	1.555E-03,	-5.901E+00,	-1.097E-03,	1.158E-02,	1.645E-07
312,	0.000E+00,	0.000E+00,	-6.151E+00,	2.886E-01,	8.146E-02,	0.000E+00
313,	-1.713E-02,	-2.034E-03,	-6.173E+00,	1.943E-03,	-1.495E-02,	1.645E-07
314,	0.000E+00,	0.000E+00,	-5.818E+00,	1.599E-01,	8.118E-02,	0.000E+00
315,	-2.791E-02,	-1.835E-03,	-5.867E+00,	1.163E-03,	-1.716E-02,	1.645E-07
316,	0.000E+00,	0.000E+00,	-5.818E+00,	-1.599E-01,	8.118E-02,	0.000E+00
317,	-2.791E-02,	1.602E-03,	-5.867E+00,	-1.129E-03,	-1.716E-02,	1.645E-07
318,	0.000E+00,	0.000E+00,	-6.151E+00,	-2.885E-01,	8.146E-02,	0.000E+00
319,	-1.713E-02,	1.818E-03,	-6.173E+00,	-1.909E-03,	-1.495E-02,	1.645E-07
320,	-1.350E-03,	8.171E-05,	-6.844E+00,	6.935E-05,	-3.304E-04,	1.645E-07
321,	-1.350E-03,	-1.794E-04,	-6.844E+00,	-3.509E-05,	-3.304E-04,	1.645E-07
322,	-1.529E-03,	-1.925E-04,	-6.841E+00,	-4.085E-05,	-2.586E-04,	1.645E-07
323,	-1.529E-03,	9.742E-05,	-6.841E+00,	7.509E-05,	-2.585E-04,	1.645E-07
324,	-2.360E-03,	-1.045E-04,	-6.850E+00,	1.986E-05,	-3.166E-04,	1.648E-07
325,	-2.358E-03,	-1.039E-04,	-6.848E+00,	2.094E-05,	-3.100E-04,	1.648E-07
326,	-2.355E-03,	-1.032E-04,	-6.846E+00,	2.133E-05,	-3.022E-04,	1.648E-07
327,	-2.354E-03,	-1.029E-04,	-6.846E+00,	2.141E-05,	-2.975E-04,	1.648E-07
328,	-2.352E-03,	-1.023E-04,	-6.845E+00,	2.142E-05,	-2.909E-04,	1.648E-07
329,	-2.350E-03,	-1.019E-04,	-6.844E+00,	2.135E-05,	-2.861E-04,	1.648E-07
330,	-2.348E-03,	-1.010E-04,	-6.843E+00,	2.099E-05,	-2.782E-04,	1.648E-07
331,	-2.346E-03,	-9.967E-05,	-6.841E+00,	1.987E-05,	-2.709E-04,	1.648E-07
332,	-2.344E-03,	-9.816E-05,	-6.841E+00,	1.482E-05,	-2.709E-04,	1.648E-07
333,	-2.347E-03,	-9.884E-05,	-6.843E+00,	1.369E-05,	-2.782E-04,	1.648E-07
334,	-2.349E-03,	-9.949E-05,	-6.844E+00,	1.333E-05,	-2.861E-04,	1.648E-07
335,	-2.350E-03,	-9.987E-05,	-6.845E+00,	1.325E-05,	-2.909E-04,	1.648E-07
336,	-2.352E-03,	-1.004E-04,	-6.846E+00,	1.325E-05,	-2.975E-04,	1.648E-07
337,	-2.354E-03,	-1.008E-04,	-6.846E+00,	1.333E-05,	-3.022E-04,	1.648E-07
338,	-2.356E-03,	-1.017E-04,	-6.848E+00,	1.371E-05,	-3.100E-04,	1.648E-07
339,	-2.358E-03,	-1.030E-04,	-6.850E+00,	1.478E-05,	-3.166E-04,	1.648E-07
340,	0.000E+00,	0.000E+00,	-6.760E+00,	3.928E-03,	-9.288E-03,	0.000E+00
341,	0.000E+00,	0.000E+00,	-6.775E+00,	2.702E-02,	7.672E-03,	0.000E+00
342,	0.000E+00,	0.000E+00,	-6.760E+00,	2.761E-02,	-1.062E-02,	0.000E+00
343,	0.000E+00,	0.000E+00,	-6.752E+00,	5.995E-03,	1.006E-02,	0.000E+00
344,	0.000E+00,	0.000E+00,	-6.752E+00,	-5.959E-03,	1.006E-02,	0.000E+00
345,	0.000E+00,	0.000E+00,	-6.760E+00,	-2.757E-02,	-1.061E-02,	0.000E+00
346,	0.000E+00,	0.000E+00,	-6.775E+00,	-2.698E-02,	7.664E-03,	0.000E+00
347,	0.000E+00,	0.000E+00,	-6.760E+00,	-3.890E-03,	-9.291E-03,	0.000E+00
348,	0.000E+00,	0.000E+00,	-6.534E+00,	-7.251E-02,	8.216E-02,	0.000E+00
349,	0.000E+00,	0.000E+00,	-6.534E+00,	7.255E-02,	8.216E-02,	0.000E+00
350,	0.000E+00,	0.000E+00,	-6.534E+00,	5.889E-02,	-5.946E-02,	0.000E+00
351,	0.000E+00,	0.000E+00,	-6.534E+00,	-5.885E-02,	-5.946E-02,	0.000E+00
352,	0.000E+00,	0.000E+00,	-6.801E+00,	1.528E-05,	-6.872E-03,	0.000E+00
353,	0.000E+00,	0.000E+00,	-6.801E+00,	1.880E-05,	-6.872E-03,	0.000E+00
354,	-2.359E-03,	-1.045E-04,	-6.852E+00,	1.642E-05,	-3.189E-04,	1.648E-07
355,	-2.360E-03,	-1.047E-04,	-6.850E+00,	1.942E-05,	-3.177E-04,	1.648E-07
356,	-2.359E-03,	-1.034E-04,	-6.850E+00,	1.522E-05,	-3.177E-04,	1.648E-07
357,	-2.358E-03,	-1.026E-04,	-6.849E+00,	1.435E-05,	-3.150E-04,	1.648E-07
358,	-2.359E-03,	-1.044E-04,	-6.849E+00,	2.029E-05,	-3.150E-04,	1.648E-07
359,	-2.356E-03,	-1.018E-04,	-6.848E+00,	1.374E-05,	-3.104E-04,	1.648E-07
360,	-2.358E-03,	-1.039E-04,	-6.848E+00,	2.092E-05,	-3.104E-04,	1.648E-07
361,	-2.355E-03,	-1.011E-04,	-6.847E+00,	1.337E-05,	-3.044E-04,	1.648E-07
362,	-2.356E-03,	-1.034E-04,	-6.847E+00,	2.129E-05,	-3.044E-04,	1.648E-07
363,	-2.354E-03,	-1.029E-04,	-6.846E+00,	2.141E-05,	-2.975E-04,	1.648E-07
364,	-2.350E-03,	-1.016E-04,	-6.843E+00,	2.130E-05,	-2.833E-04,	1.648E-07
365,	-2.348E-03,	-9.925E-05,	-6.844E+00,	1.338E-05,	-2.833E-04,	1.648E-07
366,	-2.348E-03,	-1.009E-04,	-6.842E+00,	2.092E-05,	-2.773E-04,	1.648E-07
367,	-2.346E-03,	-9.875E-05,	-6.843E+00,	1.376E-05,	-2.773E-04,	1.648E-07
368,	-2.346E-03,	-1.001E-04,	-6.841E+00,	2.030E-05,	-2.725E-04,	1.648E-07
369,	-2.345E-03,	-9.833E-05,	-6.842E+00,	1.439E-05,	-2.725E-04,	1.648E-07
370,	-2.344E-03,	-9.798E-05,	-6.841E+00,	1.526E-05,	-2.697E-04,	1.648E-07
371,	-2.346E-03,	-9.923E-05,	-6.840E+00,	1.942E-05,	-2.697E-04,	1.648E-07
372,	-2.352E-03,	-1.004E-04,	-6.846E+00,	1.325E-05,	-2.975E-04,	1.648E-07
373,	-2.350E-03,	-9.987E-05,	-6.845E+00,	1.325E-05,	-2.909E-04,	1.648E-07
374,	-2.352E-03,	-1.023E-04,	-6.845E+00,	2.142E-05,	-2.909E-04,	1.648E-07
375,	-2.176E-03,	-9.102E-05,	0.000E+00,	0.000E+00,	0.000E+00,	1.645E-07
376,	-2.264E-03,	-9.614E-05,	0.000E+00,	0.000E+00,	0.000E+00,	1.648E-07

--> Sollecitazioni nelle Aste (N, Ty, Tz, Mx, My, Mz) [kN, kN m]

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1 (1-i'-j'-2) [l=500 cm] [Piano XZ: 184 rig.-288 def.-28 rig.] [in i' j': N=Nxy,Nxz] - M.
  1, 107.07, 0.00, 4.69, 0.00, -17.54, 0.00
  i', 107.07, 70.84, 0.00, 4.69, 0.00, -8.92, 0.00
  j', 8.45, 14.03, 0.00, 4.69, 0.00, 4.59, 0.00
  2, 8.45, 0.00, 4.69, 0.00, 5.92, 0.00
2 (1-3) [l=90 cm] - K.
  1, 0.00, 0.00, -22.08, -0.49, 39.14, 0.00
  3, 0.00, 0.00, -22.08, -0.49, 19.36, 0.00
3 (4-2) [l=90 cm] - K.
  4, 0.00, 0.00, -68.73, -379.14, -0.35, 0.00
  2, 0.00, 0.00, -68.73, -379.14, -62.00, 0.00
4 (2-5) [l=90 cm] - K.
  2, 0.00, 0.00, -60.28, -379.14, -56.08, 0.00
  5, 0.00, 0.00, -60.28, -379.14, -110.10, 0.00

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5 (6-i'-j'-7) [l=500 cm] [Piano XZ: 185 rig.-287 def.-29 rig.] [in i' j': N=Nxy,Nxz] - M.
6, 128.09, -0.07, 6.34, 0.00, -23.67, -0.23
i', 128.09, 92.12, -0.07, 6.34, 0.00, -11.94, -0.23
j', 30.86, 36.40, -0.07, 6.34, 0.00, 6.23, 0.11
7, 30.86, -0.07, 6.34, 0.00, 8.03, 0.11

6 (8-6) [l=88 cm] - K.
8, 0.00, 0.00, 31.72, -0.49, 37.28, 0.00
6, 0.00, 0.00, 31.72, -0.49, 65.32, 0.00

7 (9-7) [l=88 cm] - K.
9, 0.00, 0.00, -159.84, -379.16, -352.97, 0.00
7, 0.00, 0.00, -159.84, -379.16, -494.26, 0.00

8 (7-10) [l=88 cm] - K.
7, 0.00, 0.00, -128.97, -379.27, -486.23, 0.00
10, 0.00, 0.00, -128.97, -379.27, -600.24, 0.00

9 (3-8) [l=227 cm] - F.
3, 0.00, 0.00, 4.96, -0.34, 0.04, 0.00
8, 0.00, 0.00, 4.96, -0.34, 11.27, 0.00

10 (5-9) [l=227 cm] - S.
5, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
9, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00

11 (11-j'-12) [l=500 cm] [Piano XZ: 464 def.-36 rig.] [in j': N=Nxy,Nxz] - M.
11, 117.04, -0.07, 1.57, 0.00, -5.42, -0.23
j', 19.81, 26.76, -0.07, 1.57, 0.00, 1.88, 0.11
12, 19.81, -0.07, 1.57, 0.00, 2.44, 0.11

12 (10-12) [l=88 cm] - K.
10, 0.00, 0.00, -128.97, -379.27, -600.24, 0.00
12, 0.00, 0.00, -128.97, -379.27, -714.25, 0.00

13 (12-13) [l=88 cm] - K.
12, 0.00, 0.00, -109.16, -379.38, -711.81, 0.00
13, 0.00, 0.00, -109.16, -379.38, -808.31, 0.00

14 (14-j'-15) [l=500 cm] [Piano XZ: 464 def.-36 rig.] [in j': N=Nxy,Nxz] - M.
14, 104.06, -0.46, -1.47, 0.00, 5.00, -1.56
j', 6.86, 13.80, -0.46, -1.47, 0.00, -1.80, 0.76
15, 6.86, -0.46, -1.47, 0.00, -2.33, 0.76

15 (16-15) [l=88 cm] - K.
16, 0.00, 0.00, -222.93, -379.41, -1177.92, 0.00
15, 0.00, 0.00, -222.93, -379.41, -1374.77, 0.00

16 (15-17) [l=88 cm] - K.
15, 0.00, 0.00, -216.07, -380.17, -1377.10, 0.00
17, 0.00, 0.00, -216.07, -380.17, -1568.10, 0.00

17 (13-16) [l=227 cm] - S.
13, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
16, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00

18 (18-i'-j'-19) [l=500 cm] [Piano XZ: 185 rig.-287 def.-28 rig.] [in i' j': N=Nxy,Nxz] - M.
18, 113.58, -0.46, -5.84, 0.00, 21.73, -1.56
i', 113.58, 77.60, -0.46, -5.84, 0.00, 10.93, -1.56
j', 16.38, 21.90, -0.46, -5.84, 0.00, -5.80, 0.76
19, 16.38, -0.46, -5.84, 0.00, -7.45, 0.76

19 (18-20) [l=88 cm] - K.
18, 0.00, 0.00, -2.25, -4.03, 148.13, 0.00
20, 0.00, 0.00, -2.25, -4.03, 146.14, 0.00

20 (17-19) [l=88 cm] - K.
17, 0.00, 0.00, -216.07, -380.17, -1568.10, 0.00
19, 0.00, 0.00, -216.07, -380.17, -1758.89, 0.00

21 (19-21) [l=88 cm] - K.
19, 0.00, 0.00, -199.69, -380.94, -1766.34, 0.00
21, 0.00, 0.00, -199.69, -380.94, -1942.86, 0.00

22 (22-i'-j'-23) [l=500 cm] [Piano XZ: 255 rig.-191 def.-55 rig.] [in i' j': N=Nxy,Nxz] - M.
22, 57.17, -0.35, 10.65, 0.00, -38.51, -1.19
i', 57.17, 39.88, -0.35, 10.65, 0.00, -11.39, -1.19
j', 23.21, 26.91, -0.35, 10.65, 0.00, 8.95, 0.58
23, 23.21, -0.35, 10.65, 0.00, 14.76, 0.58

23 (24-22) [l=31 cm] - K.
24, 0.00, 0.00, 13.45, -4.03, 233.37, 0.00
22, 0.00, 0.00, 13.45, -4.03, 237.53, 0.00

24 (25-23) [l=31 cm] - K.
25, 0.00, 0.00, -304.83, -380.97, -2557.10, 0.00
23, 0.00, 0.00, -304.83, -380.97, -2651.29, 0.00

25 (23-26) [l=31 cm] - K.
23, 0.00, 0.00, -281.62, -381.56, -2636.53, 0.00
26, 0.00, 0.00, -281.62, -381.56, -2723.55, 0.00

26 (20-24) [l=227 cm] - F.
20, 0.00, 0.00, 24.08, -2.75, 131.42, 0.00
24, 0.00, 0.00, 24.08, -2.75, 185.98, 0.00

27 (21-25) [l=227 cm] - S.
21, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
25, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00

28 (27-28) [l=500 cm] - M.
27, 257.09, -1.41, 20.18, 0.00, -79.48, -4.73
28, 122.34, -1.41, 20.18, 0.00, 21.40, 2.32

29 (26-28) [l=123 cm] - K.
26, 0.00, 0.00, -66.37, -96.23, -2722.12, 0.00
28, 0.00, 0.00, -66.37, -96.23, -2803.41, 0.00

30 (28-29) [l=123 cm] - K.
28, 0.00, 0.00, 12.58, -98.57, -2781.85, 0.00
29, 0.00, 0.00, 12.58, -98.57, -2766.44, 0.00

31 (30-j'-31) [l=500 cm] [Piano XZ: 436 def.-64 rig.] [in j': N=Nxy,Nxz] - M.
30, 75.66, -0.30, 0.41, 0.00, -1.22, -1.01
j', 47.19, 50.86, -0.30, 0.41, 0.00, 0.59, 0.49
31, 47.19, -0.30, 0.41, 0.00, 0.85, 0.49
32 (29-31) [l=26 cm] - K.
29, 0.00, 0.00, 13.89, -94.19, -2766.32, 0.00
31, 0.00, 0.00, 13.89, -94.19, -2762.73, 0.00
33 (31-32) [l=26 cm] - K.
31, 0.00, 0.00, 61.08, -94.68, -2761.88, 0.00
32, 0.00, 0.00, 61.08, -94.68, -2746.06, 0.00
34 (33-j'-34) [l=500 cm] [Piano XZ: 436 def.-64 rig.] [in j': N=Nxy,Nxz] - M.
33, 79.77, -0.37, -0.59, 0.00, 1.73, -1.24
j', 51.17, 54.85, -0.37, -0.59, 0.00, -0.84, 0.61
34, 51.17, -0.37, -0.59, 0.00, -1.22, 0.61
35 (35-34) [l=26 cm] - K.
35, 0.00, 0.00, -24.42, -94.72, -2704.46, 0.00
34, 0.00, 0.00, -24.42, -94.72, -2710.81, 0.00
36 (34-36) [l=26 cm] - K.
34, 0.00, 0.00, 26.75, -95.33, -2712.03, 0.00
36, 0.00, 0.00, 26.75, -95.33, -2705.07, 0.00
37 (32-35) [l=227 cm] - S.
32, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
35, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
38 (37-38) [l=500 cm] - M.
37, 239.79, -1.73, -28.24, 0.00, 110.88, -5.82
38, 105.18, -1.73, -28.24, 0.00, -30.32, 2.85
39 (36-38) [l=122 cm] - K.
36, 0.00, 0.00, 28.17, -90.77, -2705.25, 0.00
38, 0.00, 0.00, 28.17, -90.77, -2670.77, 0.00
40 (38-39) [l=122 cm] - K.
38, 0.00, 0.00, 90.03, -93.65, -2701.25, 0.00
39, 0.00, 0.00, 90.03, -93.65, -2591.05, 0.00
41 (40-i'-j'-41) [l=500 cm] [Piano XZ: 276 rig.-160 def.-64 rig.] [in i' j': N=Nxy,Nxz] - M.
40, 26.98, -0.22, -1.49, 0.00, 5.42, -0.75
i', 26.98, 15.81, -0.22, -1.49, 0.00, 1.29, -0.75
j', 6.77, 9.36, -0.22, -1.49, 0.00, -1.09, 0.37
41, 6.77, -0.22, -1.49, 0.00, -2.05, 0.37
42 (40-42) [l=18 cm] - K.
40, 0.00, 0.00, -29.96, 4.43, 112.21, 0.00
42, 0.00, 0.00, -29.96, 4.43, 106.70, 0.00
43 (39-41) [l=18 cm] - K.
39, 0.00, 0.00, 275.24, 134.32, -2593.08, 0.00
41, 0.00, 0.00, 275.24, 134.32, -2542.71, 0.00
44 (41-43) [l=18 cm] - K.
41, 0.00, 0.00, 282.01, 133.96, -2544.76, 0.00
43, 0.00, 0.00, 282.01, 133.96, -2492.87, 0.00
45 (44-i'-j'-45) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.] [in i' j': N=Nxy,Nxz] - M.
44, 131.31, -0.53, 8.11, 0.00, -30.64, -1.77
i', 131.31, 93.53, -0.53, 8.11, 0.00, -16.49, -1.77
j', 23.10, 29.03, -0.53, 8.11, 0.00, 7.67, 0.87
45, 23.10, -0.53, 8.11, 0.00, 9.89, 0.87
46 (46-44) [l=98 cm] - K.
46, 0.00, 0.00, 23.19, 4.40, 84.62, 0.00
44, 0.00, 0.00, 23.19, 4.40, 107.44, 0.00
47 (47-45) [l=98 cm] - K.
47, 0.00, 0.00, 177.64, 133.91, -1912.11, 0.00
45, 0.00, 0.00, 177.64, 133.91, -1737.31, 0.00
48 (45-48) [l=98 cm] - K.
45, 0.00, 0.00, 200.74, 133.04, -1727.42, 0.00
48, 0.00, 0.00, 200.74, 133.04, -1529.89, 0.00
49 (42-46) [l=227 cm] - F.
42, 0.00, 0.00, -6.43, 3.00, 77.97, 0.00
46, 0.00, 0.00, -6.43, 3.00, 63.41, 0.00
50 (43-47) [l=227 cm] - S.
43, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
47, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
51 (49-j'-50) [l=500 cm] [Piano XZ: 465 def.-35 rig.] [in j': N=Nxy,Nxz] - M.
49, 126.14, -0.53, 2.29, 0.00, -8.16, -1.77
j', 17.93, 25.53, -0.53, 2.29, 0.00, 2.47, 0.87
50, 17.93, -0.53, 2.29, 0.00, 3.27, 0.87
52 (48-50) [l=98 cm] - K.
48, 0.00, 0.00, 200.74, 133.04, -1529.89, 0.00
50, 0.00, 0.00, 200.74, 133.04, -1332.56, 0.00
53 (50-51) [l=98 cm] - K.
50, 0.00, 0.00, 218.67, 132.17, -1329.29, 0.00
51, 0.00, 0.00, 218.67, 132.17, -1114.12, 0.00
54 (52-j'-53) [l=500 cm] [Piano XZ: 465 def.-35 rig.] [in j': N=Nxy,Nxz] - M.
52, 131.72, -0.12, -2.47, 0.00, 8.55, -0.39
j', 23.50, 31.10, -0.12, -2.47, 0.00, -2.93, 0.19
53, 23.50, -0.12, -2.47, 0.00, -3.80, 0.19
55 (54-53) [l=98 cm] - K.
54, 0.00, 0.00, 98.73, 132.11, -762.26, 0.00
53, 0.00, 0.00, 98.73, 132.11, -665.11, 0.00
56 (53-55) [l=98 cm] - K.
53, 0.00, 0.00, 122.24, 131.92, -668.90, 0.00
55, 0.00, 0.00, 122.24, 131.92, -548.62, 0.00

57 (51-54) [l=227 cm] - S.
 51, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 54, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 58 (56-i'-j'-57) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.] [in i' j': N=Nxy,Nxz] - M.
 56, 138.30, -0.12, -8.55, 0.00, 32.03, -0.38
 i', 138.30, 100.51, -0.12, -8.55, 0.00, 17.10, -0.38
 j', 30.08, 36.01, -0.12, -8.55, 0.00, -8.38, 0.19
 57, 30.08, -0.12, -8.55, 0.00, -10.72, 0.19
 59 (56-58) [l=98 cm] - K.
 56, 0.00, 0.00, -36.27, 0.12, 73.44, 0.00
 58, 0.00, 0.00, -36.27, 0.12, 37.76, 0.00
 60 (55-57) [l=98 cm] - K.
 55, 0.00, 0.00, 122.24, 131.92, -548.62, 0.00
 57, 0.00, 0.00, 122.24, 131.92, -428.47, 0.00
 61 (57-59) [l=98 cm] - K.
 57, 0.00, 0.00, 152.32, 131.73, -439.18, 0.00
 59, 0.00, 0.00, 152.32, 131.73, -289.31, 0.00
 62 (60-i'-j'-61) [l=500 cm] [Piano XZ: 195 rig.-276 def.-29 rig.] [in i' j': N=Nxy,Nxz] - M.
 60, 90.02, -0.08, -5.31, 0.00, 19.61, -0.26
 i', 90.02, 55.91, -0.08, -5.31, 0.00, 9.26, -0.26
 j', 2.46, 7.61, -0.08, -5.31, 0.00, -5.38, 0.13
 61, 2.46, -0.08, -5.31, 0.00, -6.95, 0.13
 63 (62-60) [l=80 cm] - K.
 62, 0.00, 0.00, 18.06, 0.12, 18.09, 0.00
 60, 0.00, 0.00, 18.06, 0.12, 32.47, 0.00
 64 (63-61) [l=80 cm] - K.
 63, 0.00, 0.00, 52.49, 131.68, -78.12, 0.00
 61, 0.00, 0.00, 52.49, 131.68, -36.34, 0.00
 65 (61-64) [l=80 cm] - K.
 61, 0.00, 0.00, 54.95, 131.55, -43.28, 0.00
 64, 0.00, 0.00, 54.95, 131.55, 0.46, 0.00
 66 (58-62) [l=227 cm] - F.
 58, 0.00, 0.00, -5.80, 0.08, 11.97, 0.00
 62, 0.00, 0.00, -5.80, 0.08, -1.17, 0.00
 67 (59-63) [l=227 cm] - S.
 59, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 63, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 68 (65-i'-j'-66) [l=500 cm] [Piano XZ: 127 rig.-350 def.-23 rig.] [in i' j': N=Nxy,Nxz] - M.
 65, 164.14, -0.25, 6.26, 0.00, -25.85, -0.83
 i', 164.14, 121.20, -0.25, 6.26, 0.00, -17.91, -0.83
 j', -5.06, 2.62, -0.25, 6.26, 0.00, 4.04, 0.42
 66, -5.06, -0.25, 6.26, 0.00, 5.46, 0.42
 69 (65-67) [l=154 cm] - K.
 65, 0.00, 0.00, -47.13, 0.00, 63.36, 0.00
 67, 0.00, 0.00, -47.13, 0.00, -9.12, 0.00
 70 (64-66) [l=154 cm] - K.
 64, 0.00, 0.00, 54.95, 0.46, -131.55, 0.00
 66, 0.00, 0.00, 54.95, 0.46, -47.04, 0.00
 71 (69-i'-j'-70) [l=500 cm] [Piano XZ: 127 rig.-350 def.-23 rig.] [in i' j': N=Nxy,Nxz] - M.
 69, 164.15, -0.25, -6.27, 0.00, 25.86, -0.83
 i', 164.15, 121.20, -0.25, -6.27, 0.00, 17.91, -0.83
 j', -5.06, 2.62, -0.25, -6.27, 0.00, -4.04, 0.42
 70, -5.06, -0.25, -6.27, 0.00, -5.46, 0.42
 72 (71-69) [l=154 cm] - K.
 71, 0.00, 0.00, 47.13, 0.00, -9.18, 0.00
 69, 0.00, 0.00, 47.13, 0.00, 63.35, 0.00
 73 (70-73) [l=154 cm] - K.
 70, 0.00, 0.00, -54.96, -0.46, -47.11, 0.00
 73, 0.00, 0.00, -54.96, -0.46, -131.64, 0.00
 74 (67-71) [l=227 cm] - F.
 67, 0.00, 0.00, -0.01, 0.00, -23.88, 0.00
 71, 0.00, 0.00, -0.01, 0.00, -23.91, 0.00
 75 (68-72) [l=227 cm] - S.
 68, 0.00, 0.00, 0.00, 0.00, -0.01, 0.00
 72, 0.00, 0.00, 0.00, 0.00, -0.01, 0.00
 76 (74-i'-j'-75) [l=500 cm] [Piano XZ: 195 rig.-276 def.-29 rig.] [in i' j': N=Nxy,Nxz] - M.
 74, 90.02, 0.08, -5.31, 0.00, 19.60, 0.26
 i', 90.02, 55.91, 0.08, -5.31, 0.00, 9.26, 0.26
 j', 2.47, 7.61, 0.08, -5.31, 0.00, -5.38, -0.13
 75, 2.47, 0.08, -5.31, 0.00, -6.94, -0.13
 77 (74-76) [l=80 cm] - K.
 74, 0.00, 0.00, -18.06, -0.12, 32.47, 0.00
 76, 0.00, 0.00, -18.06, -0.12, 18.09, 0.00
 78 (73-75) [l=80 cm] - K.
 73, 0.00, 0.00, -54.96, -131.64, 0.46, 0.00
 75, 0.00, 0.00, -54.96, -131.64, -43.29, 0.00
 79 (75-77) [l=80 cm] - K.
 75, 0.00, 0.00, -52.49, -131.77, -36.34, 0.00
 77, 0.00, 0.00, -52.49, -131.77, -78.13, 0.00
 80 (78-i'-j'-79) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.] [in i' j': N=Nxy,Nxz] - M.
 78, 138.29, 0.12, -8.55, 0.00, 32.03, 0.38
 i', 138.29, 100.50, 0.12, -8.55, 0.00, 17.10, 0.38
 j', 30.08, 36.01, 0.12, -8.55, 0.00, -8.38, -0.19
 79, 30.08, 0.12, -8.55, 0.00, -10.72, -0.19
 81 (80-78) [l=98 cm] - K.
 80, 0.00, 0.00, 36.27, -0.12, 37.76, 0.00

78, 0.00, 0.00, 36.27, -0.12, 73.44, 0.00
 82 (81-79) [l=98 cm] - K.
 81, 0.00, 0.00, -152.35, -131.81, -289.36, 0.00
 79, 0.00, 0.00, -152.35, -131.81, -439.27, 0.00
 83 (79-82) [l=98 cm] - K.
 79, 0.00, 0.00, -122.27, -132.00, -428.55, 0.00
 82, 0.00, 0.00, -122.27, -132.00, -548.74, 0.00
 84 (76-80) [l=227 cm] - F.
 76, 0.00, 0.00, 5.80, -0.08, -1.16, 0.00
 80, 0.00, 0.00, 5.80, -0.08, 11.97, 0.00
 85 (77-81) [l=227 cm] - S.
 77, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 81, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 86 (83-j'-84) [l=500 cm] [Piano XZ: 465 def.-35 rig.] [in j': N=Nxy,Nxz] - M.
 83, 131.71, 0.12, -2.47, 0.00, 8.55, 0.39
 j', 23.50, 31.09, 0.12, -2.47, 0.00, -2.93, -0.19
 84, 23.50, 0.12, -2.47, 0.00, -3.80, -0.19
 87 (82-84) [l=98 cm] - K.
 82, 0.00, 0.00, -122.27, -132.00, -548.74, 0.00
 84, 0.00, 0.00, -122.27, -132.00, -669.06, 0.00
 88 (84-85) [l=98 cm] - K.
 84, 0.00, 0.00, -98.77, -132.19, -665.26, 0.00
 85, 0.00, 0.00, -98.77, -132.19, -762.46, 0.00
 89 (86-j'-87) [l=500 cm] [Piano XZ: 465 def.-35 rig.] [in j': N=Nxy,Nxz] - M.
 86, 126.14, 0.53, 2.28, 0.00, -8.16, 1.77
 j', 17.93, 25.52, 0.53, 2.28, 0.00, 2.46, -0.87
 87, 17.93, 0.53, 2.28, 0.00, 3.27, -0.87
 90 (88-87) [l=98 cm] - K.
 88, 0.00, 0.00, -218.73, -132.25, -1114.43, 0.00
 87, 0.00, 0.00, -218.73, -132.25, -1329.66, 0.00
 91 (87-89) [l=98 cm] - K.
 87, 0.00, 0.00, -200.81, -133.12, -1332.93, 0.00
 89, 0.00, 0.00, -200.81, -133.12, -1530.32, 0.00
 92 (85-88) [l=227 cm] - S.
 85, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 88, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 93 (90-i'-j'-91) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.] [in i' j': N=Nxy,Nxz] - M.
 90, 131.31, 0.53, 8.10, 0.00, -30.64, 1.77
 i', 131.31, 93.53, 0.53, 8.10, 0.00, -16.49, 1.77
 j', 23.10, 29.03, 0.53, 8.10, 0.00, 7.66, -0.87
 91, 23.10, 0.53, 8.10, 0.00, 9.88, -0.87
 94 (90-92) [l=98 cm] - K.
 90, 0.00, 0.00, -23.19, -4.40, 107.45, 0.00
 92, 0.00, 0.00, -23.19, -4.40, 84.63, 0.00
 95 (89-91) [l=98 cm] - K.
 89, 0.00, 0.00, -200.81, -133.12, -1530.32, 0.00
 91, 0.00, 0.00, -200.81, -133.12, -1727.92, 0.00
 96 (91-93) [l=98 cm] - K.
 91, 0.00, 0.00, -177.71, -133.99, -1737.80, 0.00
 93, 0.00, 0.00, -177.71, -133.99, -1912.66, 0.00
 97 (94-i'-j'-95) [l=500 cm] [Piano XZ: 276 rig.-160 def.-64 rig.] [in i' j': N=Nxy,Nxz] - M.
 94, 26.98, 0.22, -1.49, 0.00, 5.42, 0.75
 i', 26.98, 15.81, 0.22, -1.49, 0.00, 1.29, 0.75
 j', 6.77, 9.36, 0.22, -1.49, 0.00, -1.09, -0.37
 95, 6.77, 0.22, -1.49, 0.00, -2.05, -0.37
 98 (96-94) [l=18 cm] - K.
 96, 0.00, 0.00, 29.95, -4.43, 106.69, 0.00
 94, 0.00, 0.00, 29.95, -4.43, 112.20, 0.00
 99 (97-95) [l=18 cm] - K.
 97, 0.00, 0.00, -282.09, -134.04, -2493.53, 0.00
 95, 0.00, 0.00, -282.09, -134.04, -2545.43, 0.00
 100 (95-98) [l=18 cm] - K.
 95, 0.00, 0.00, -275.32, -134.40, -2543.39, 0.00
 98, 0.00, 0.00, -275.32, -134.40, -2593.77, 0.00
 101 (92-96) [l=227 cm] - F.
 92, 0.00, 0.00, 6.43, -3.00, 63.42, 0.00
 96, 0.00, 0.00, 6.43, -3.00, 77.97, 0.00
 102 (93-97) [l=227 cm] - S.
 93, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 97, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 103 (99-100) [l=500 cm] - M.
 99, 239.78, 1.73, -28.24, 0.00, 110.87, 5.81
 100, 105.21, 1.73, -28.24, 0.00, -30.32, -2.85
 104 (98-100) [l=122 cm] - K.
 98, 0.00, 0.00, -90.04, 93.89, -2591.74, 0.00
 100, 0.00, 0.00, -90.04, 93.89, -2701.95, 0.00
 105 (100-101) [l=122 cm] - K.
 100, 0.00, 0.00, -28.15, 91.01, -2671.47, 0.00
 101, 0.00, 0.00, -28.15, 91.01, -2705.92, 0.00
 106 (102-j'-103) [l=500 cm] [Piano XZ: 436 def.-64 rig.] [in j': N=Nxy,Nxz] - M.
 102, 79.77, 0.37, -0.59, 0.00, 1.73, 1.24
 j', 51.17, 54.85, 0.37, -0.59, 0.00, -0.84, -0.61
 103, 51.17, 0.37, -0.59, 0.00, -1.22, -0.61
 107 (101-103) [l=26 cm] - K.
 101, 0.00, 0.00, -26.73, 95.56, -2705.75, 0.00
 103, 0.00, 0.00, -26.73, 95.56, -2712.69, 0.00

108 (103-104) [l=26 cm] - K.
 103, 0.00, 0.00, 24.44, 94.96, -2711.48, 0.00
 104, 0.00, 0.00, 24.44, 94.96, -2705.12, 0.00
 109 (105-j'-106) [l=500 cm] [Piano XZ: 436 def.-64 rig.] [in j': N=Nxy,Nxz] - M.
 105, 75.66, 0.30, 0.41, 0.00, -1.22, 1.01
 j', 47.20, 50.86, 0.30, 0.41, 0.00, 0.59, -0.49
 106, 47.20, 0.30, 0.41, 0.00, 0.85, -0.49
 110 (107-106) [l=26 cm] - K.
 107, 0.00, 0.00, -61.06, 94.92, -2746.67, 0.00
 106, 0.00, 0.00, -61.06, 94.92, -2762.49, 0.00
 111 (106-108) [l=26 cm] - K.
 106, 0.00, 0.00, -13.86, 94.43, -2763.34, 0.00
 108, 0.00, 0.00, -13.86, 94.43, -2766.92, 0.00
 112 (104-107) [l=227 cm] - S.
 104, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 107, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 113 (109-110) [l=500 cm] - M.
 109, 257.10, 1.41, 20.18, 0.00, -79.47, 4.73
 110, 122.35, 1.41, 20.18, 0.00, 21.40, -2.32
 114 (108-110) [l=123 cm] - K.
 108, 0.00, 0.00, -12.55, 98.81, -2767.04, 0.00
 110, 0.00, 0.00, -12.55, 98.81, -2782.42, 0.00
 115 (110-111) [l=123 cm] - K.
 110, 0.00, 0.00, 66.40, 96.47, -2803.99, 0.00
 111, 0.00, 0.00, 66.40, 96.47, -2722.64, 0.00
 116 (112-i'-j'-113) [l=500 cm] [Piano XZ: 255 rig.-191 def.-55 rig.] [in i' j': N=Nxy,Nxz] - M.
 112, 57.17, 0.35, 10.65, 0.00, -38.51, 1.19
 i', 57.17, 39.88, 0.35, 10.65, 0.00, -11.39, 1.19
 j', 23.21, 26.91, 0.35, 10.65, 0.00, 8.95, -0.58
 113, 23.21, 0.35, 10.65, 0.00, 14.76, -0.58
 117 (112-114) [l=31 cm] - K.
 112, 0.00, 0.00, -13.44, 4.03, 237.51, 0.00
 114, 0.00, 0.00, -13.44, 4.03, 233.35, 0.00
 118 (111-113) [l=31 cm] - K.
 111, 0.00, 0.00, 281.72, 382.12, -2724.08, 0.00
 113, 0.00, 0.00, 281.72, 382.12, -2637.03, 0.00
 119 (113-115) [l=31 cm] - K.
 113, 0.00, 0.00, 304.93, 381.54, -2651.78, 0.00
 115, 0.00, 0.00, 304.93, 381.54, -2557.56, 0.00
 120 (116-i'-j'-117) [l=500 cm] [Piano XZ: 185 rig.-287 def.-28 rig.] [in i' j': N=Nxy,Nxz] - M.
 116, 113.58, 0.46, -5.83, 0.00, 21.71, 1.56
 i', 113.58, 77.59, 0.46, -5.83, 0.00, 10.92, 1.56
 j', 16.38, 21.90, 0.46, -5.83, 0.00, -5.79, -0.76
 117, 16.38, 0.46, -5.83, 0.00, -7.45, -0.76
 121 (118-116) [l=88 cm] - K.
 118, 0.00, 0.00, 2.25, 4.03, 146.12, 0.00
 116, 0.00, 0.00, 2.25, 4.03, 148.11, 0.00
 122 (119-117) [l=88 cm] - K.
 119, 0.00, 0.00, 199.80, 381.50, -1943.09, 0.00
 117, 0.00, 0.00, 199.80, 381.50, -1766.47, 0.00
 123 (117-120) [l=88 cm] - K.
 117, 0.00, 0.00, 216.18, 380.73, -1759.02, 0.00
 120, 0.00, 0.00, 216.18, 380.73, -1568.14, 0.00
 124 (114-118) [l=227 cm] - F.
 114, 0.00, 0.00, -24.08, 2.75, 185.95, 0.00
 118, 0.00, 0.00, -24.08, 2.75, 131.41, 0.00
 125 (115-119) [l=227 cm] - S.
 115, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 119, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 126 (121-j'-122) [l=500 cm] [Piano XZ: 464 def.-36 rig.] [in j': N=Nxy,Nxz] - M.
 121, 104.04, 0.46, -1.46, 0.00, 4.99, 1.56
 j', 6.84, 13.78, 0.46, -1.46, 0.00, -1.80, -0.76
 122, 6.84, 0.46, -1.46, 0.00, -2.33, -0.76
 127 (120-122) [l=88 cm] - K.
 120, 0.00, 0.00, 216.18, 380.73, -1568.14, 0.00
 122, 0.00, 0.00, 216.18, 380.73, -1377.04, 0.00
 128 (122-123) [l=88 cm] - K.
 122, 0.00, 0.00, 223.02, 379.97, -1374.71, 0.00
 123, 0.00, 0.00, 223.02, 379.97, -1177.79, 0.00
 129 (124-j'-125) [l=500 cm] [Piano XZ: 464 def.-36 rig.] [in j': N=Nxy,Nxz] - M.
 124, 117.05, 0.07, 1.57, 0.00, -5.42, 0.23
 j', 19.82, 26.76, 0.07, 1.57, 0.00, 1.88, -0.11
 125, 19.82, 0.07, 1.57, 0.00, 2.44, -0.11
 130 (126-125) [l=88 cm] - K.
 126, 0.00, 0.00, 109.28, 379.94, -807.93, 0.00
 125, 0.00, 0.00, 109.28, 379.94, -711.32, 0.00
 131 (125-127) [l=88 cm] - K.
 125, 0.00, 0.00, 129.10, 379.83, -713.77, 0.00
 127, 0.00, 0.00, 129.10, 379.83, -599.64, 0.00
 132 (123-126) [l=227 cm] - S.
 123, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 126, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 133 (128-i'-j'-129) [l=500 cm] [Piano XZ: 185 rig.-287 def.-29 rig.] [in i' j': N=Nxy,Nxz] - M.
 128, 128.10, 0.07, 6.34, 0.00, -23.68, 0.23
 i', 128.10, 92.12, 0.07, 6.34, 0.00, -11.94, 0.23
 j', 30.87, 36.41, 0.07, 6.34, 0.00, 6.23, -0.11

129, 30.87, 0.07, 6.34, 0.00, 8.04, -0.11
 134 (128-130) [l=88 cm] - K.
 128, 0.00, 0.00, -31.72, 0.49, 65.33, 0.00
 130, 0.00, 0.00, -31.72, 0.49, 37.29, 0.00
 135 (127-129) [l=88 cm] - K.
 127, 0.00, 0.00, 129.10, 379.83, -599.64, 0.00
 129, 0.00, 0.00, 129.10, 379.83, -485.51, 0.00
 136 (129-131) [l=88 cm] - K.
 129, 0.00, 0.00, 159.97, 379.72, -493.55, 0.00
 131, 0.00, 0.00, 159.97, 379.72, -352.14, 0.00
 137 (132-i'-j'-133) [l=500 cm] [Piano XZ: 184 rig.-288 def.-28 rig.] [in i' j': N=Nxy,Nxz] - M.
 132, 107.17, 0.00, 4.70, 0.00, -17.56, 0.00
 i', 107.17, 70.91, 0.00, 4.70, 0.00, -8.94, 0.00
 j', 8.43, 14.00, 0.00, 4.70, 0.00, 4.59, 0.00
 133, 8.43, 0.00, 4.70, 0.00, 5.92, 0.00
 138 (134-132) [l=90 cm] - K.
 134, 0.00, 0.00, 22.14, 0.49, 19.35, 0.00
 132, 0.00, 0.00, 22.14, 0.49, 39.23, 0.00
 139 (135-133) [l=90 cm] - K.
 135, 0.00, 0.00, 60.44, 379.70, -108.89, 0.00
 133, 0.00, 0.00, 60.44, 379.70, -54.62, 0.00
 140 (133-136) [l=90 cm] - K.
 133, 0.00, 0.00, 68.86, 379.70, -60.54, 0.00
 136, 0.00, 0.00, 68.86, 379.70, 1.23, 0.00
 141 (130-134) [l=227 cm] - F.
 130, 0.00, 0.00, -4.96, 0.34, 11.28, 0.00
 134, 0.00, 0.00, -4.96, 0.34, 0.05, 0.00
 142 (131-135) [l=227 cm] - S.
 131, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 135, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 143 (137-j'-138) [l=438 cm] [Piano XZ: 372 def.-66 rig.] [in j': N=Nxy,Nxz] - M.
 137, 276.42, -0.98, -42.62, 0.00, 164.56, -2.86
 j', 200.52, 211.89, -0.98, -42.62, 0.00, 5.84, 1.42
 138, 200.52, -0.98, -42.62, 0.00, -22.12, 1.42
 144 (139-138) [l=161 cm] - K.
 139, -35.43, -0.85, -185.29, -1.50, 206.33, -0.68
 138, -35.43, -0.85, -187.13, -1.50, -92.54, 0.68
 145 (138-140) [l=160 cm] - K.
 138, 5.27, 0.00, 13.39, 0.00, -18.75, 0.00
 140, 5.27, 0.00, 11.56, 0.00, 1.26, 0.00
 146 (141-j'-142) [l=438 cm] [Piano XZ: 372 def.-66 rig.] [in j': N=Nxy,Nxz] - M.
 141, 276.34, -0.98, 42.63, 0.00, -164.58, -2.86
 j', 200.44, 211.81, -0.98, 42.63, 0.00, -5.84, 1.42
 142, 200.44, -0.98, 42.63, 0.00, 22.12, 1.42
 147 (143-142) [l=161 cm] - K.
 143, 5.27, 0.00, -11.55, 0.00, 1.26, 0.00
 142, 5.27, 0.00, -13.39, 0.00, -18.76, 0.00
 148 (142-144) [l=160 cm] - K.
 142, -35.35, 0.85, 187.05, 1.50, -92.50, 0.68
 144, -35.35, 0.85, 185.21, 1.50, 206.05, -0.68
 149 (140-143) [l=200 cm] - S.
 140, 0.11, 0.00, 0.00, 0.00, -0.05, 0.00
 143, 0.11, 0.00, 0.00, 0.00, -0.05, 0.00
 150 (145-j'-146) [l=438 cm] [Piano XZ: 372 def.-66 rig.] [in j': N=Nxy,Nxz] - M.
 145, 306.39, 0.70, 34.60, 0.00, -133.58, 2.04
 j', 230.50, 241.87, 0.70, 34.60, 0.00, -4.73, -1.01
 146, 230.50, 0.70, 34.60, 0.00, 17.97, -1.01
 151 (147-146) [l=160 cm] - K.
 147, -50.25, -0.60, -215.26, -1.06, 254.17, -0.48
 146, -50.25, -0.60, -217.10, -1.06, -92.58, 0.48
 152 (146-148) [l=161 cm] - K.
 146, 5.26, 0.00, 13.40, 0.00, -18.74, 0.00
 148, 5.26, 0.00, 11.56, 0.00, 1.29, 0.00
 153 (149-j'-150) [l=438 cm] [Piano XZ: 372 def.-66 rig.] [in j': N=Nxy,Nxz] - M.
 149, 306.46, 0.70, -34.60, 0.00, 133.56, 2.04
 j', 230.56, 241.93, 0.70, -34.60, 0.00, 4.72, -1.01
 150, 230.56, 0.70, -34.60, 0.00, -17.98, -1.01
 154 (151-150) [l=160 cm] - K.
 151, 5.26, 0.00, -11.56, 0.00, 1.28, 0.00
 150, 5.26, 0.00, -13.40, 0.00, -18.73, 0.00
 155 (150-152) [l=161 cm] - K.
 150, -50.32, 0.60, 217.16, 1.06, -92.62, 0.48
 152, -50.32, 0.60, 215.32, 1.06, 254.45, -0.48
 156 (148-151) [l=200 cm] - S.
 148, 0.10, 0.00, 0.00, 0.00, -0.05, 0.00
 151, 0.10, 0.00, 0.00, 0.00, -0.05, 0.00
 157 (153-154) [l=30 cm] - M.
 153, 73.12, 0.02, 0.22, 0.00, -7.35, 0.01
 154, 53.89, 0.02, 0.22, 0.00, -7.28, 0.01
 158 (154-156) [l=291 cm] - K.
 154, 0.00, 0.00, 52.55, -39.48, -146.48, 0.00
 156, 0.00, 0.00, 52.55, -39.48, 6.65, 0.00
 159 (157-158) [l=30 cm] - M.
 157, 87.33, 0.04, 0.19, 0.00, -6.52, 0.03
 158, 68.19, 0.04, 0.19, 0.00, -6.47, 0.02
 160 (160-161) [l=30 cm] - M.

160, 78.72, 0.06, 0.10, 0.00, -2.37, 0.04
 161, 63.38, 0.06, 0.10, 0.00, -2.33, 0.02
 161 (161-159) [l=233 cm] - K.
 161, 0.00, 0.00, 50.92, -13.11, -551.20, 0.00
 159, 0.00, 0.00, 50.92, -13.11, -432.82, 0.00
 162 (110-163) [l=30 cm] - M.
 110, 43.39, 0.04, 0.03, 0.00, -0.16, 0.02
 163, 35.31, 0.04, 0.03, 0.00, -0.16, 0.01
 163 (163-162) [l=123 cm] - K.
 163, 0.00, 0.00, 27.32, -4.40, -606.95, 0.00
 162, 0.00, 0.00, 27.32, -4.40, -573.48, 0.00
 164 (165-166) [l=30 cm] - M.
 165, 59.09, 0.05, 0.00, 0.00, 0.00, 0.03
 166, 48.19, 0.05, 0.00, 0.00, 0.00, 0.02
 165 (166-164) [l=165 cm] - K.
 166, 0.00, 0.00, 24.92, -0.29, -639.50, 0.00
 164, 0.00, 0.00, 24.92, -0.29, -598.37, 0.00
 166 (100-168) [l=30 cm] - M.
 100, 43.32, 0.04, -0.02, 0.00, 0.16, 0.03
 168, 35.24, 0.04, -0.02, 0.00, 0.16, 0.01
 167 (169-168) [l=122 cm] - K.
 169, 0.00, 0.00, -23.80, 4.05, -583.96, 0.00
 168, 0.00, 0.00, -23.80, 4.05, -613.07, 0.00
 168 (168-167) [l=122 cm] - K.
 168, 0.00, 0.00, 11.44, 4.06, -613.22, 0.00
 167, 0.00, 0.00, 11.44, 4.06, -599.22, 0.00
 169 (170-171) [l=30 cm] - M.
 170, 77.98, 0.07, -0.10, 0.00, 2.20, 0.05
 171, 62.80, 0.07, -0.10, 0.00, 2.17, 0.03
 170 (172-171) [l=230 cm] - K.
 172, 0.00, 0.00, -44.96, 13.16, -454.71, 0.00
 171, 0.00, 0.00, -44.96, 13.16, -558.15, 0.00
 171 (173-174) [l=30 cm] - M.
 173, 93.55, 0.09, -0.20, 0.00, 7.64, 0.06
 174, 73.09, 0.09, -0.20, 0.00, 7.58, 0.03
 172 (176-177) [l=30 cm] - M.
 176, 73.44, 0.07, -0.22, 0.00, 6.98, 0.05
 177, 54.22, 0.07, -0.22, 0.00, 6.91, 0.03
 173 (178-177) [l=291 cm] - K.
 178, 0.00, 0.00, -55.50, 38.10, 6.54, 0.00
 177, 0.00, 0.00, -55.50, 38.10, -155.07, 0.00
 174 (179-180) [l=30 cm] - M.
 179, 73.42, -0.07, -0.22, 0.00, 6.98, -0.05
 180, 54.20, -0.07, -0.22, 0.00, 6.92, -0.03
 175 (180-182) [l=291 cm] - K.
 180, 0.00, 0.00, 55.47, -38.28, -154.99, 0.00
 182, 0.00, 0.00, 55.47, -38.28, 6.52, 0.00
 176 (183-184) [l=30 cm] - M.
 183, 93.53, -0.09, -0.20, 0.00, 7.65, -0.06
 184, 73.07, -0.09, -0.20, 0.00, 7.59, -0.03
 177 (186-187) [l=30 cm] - M.
 186, 77.95, -0.07, -0.10, 0.00, 2.20, -0.05
 187, 62.77, -0.07, -0.10, 0.00, 2.17, -0.03
 178 (187-185) [l=230 cm] - K.
 187, 0.00, 0.00, 44.97, -13.35, -557.91, 0.00
 185, 0.00, 0.00, 44.97, -13.35, -454.47, 0.00
 179 (188-189) [l=30 cm] - M.
 188, 43.32, -0.04, -0.02, 0.00, 0.16, -0.03
 189, 35.24, -0.04, -0.02, 0.00, 0.16, -0.01
 180 (190-189) [l=122 cm] - K.
 190, 0.00, 0.00, -11.40, -4.24, -599.06, 0.00
 189, 0.00, 0.00, -11.40, -4.24, -613.01, 0.00
 181 (189-188) [l=122 cm] - K.
 189, 0.00, 0.00, 23.84, -4.23, -612.86, 0.00
 188, 0.00, 0.00, 23.84, -4.23, -583.68, 0.00
 182 (191-192) [l=30 cm] - M.
 191, 59.09, -0.05, 0.00, 0.00, 0.01, -0.03
 192, 48.19, -0.05, 0.00, 0.00, 0.00, -0.02
 183 (193-192) [l=165 cm] - K.
 193, 0.00, 0.00, -24.88, 0.11, -598.31, 0.00
 192, 0.00, 0.00, -24.88, 0.11, -639.39, 0.00
 184 (194-193) [l=30 cm] - M.
 194, 43.40, -0.04, 0.03, 0.00, -0.16, -0.02
 193, 35.31, -0.04, 0.03, 0.00, -0.16, -0.01
 185 (195-194) [l=123 cm] - K.
 195, 0.00, 0.00, -27.30, 4.21, -573.49, 0.00
 194, 0.00, 0.00, -27.30, 4.21, -606.93, 0.00
 186 (196-197) [l=30 cm] - M.
 196, 78.73, -0.06, 0.10, 0.00, -2.36, -0.04
 197, 63.39, -0.06, 0.10, 0.00, -2.33, -0.02
 187 (198-197) [l=233 cm] - K.
 198, 0.00, 0.00, -50.91, 12.93, -432.95, 0.00
 197, 0.00, 0.00, -50.91, 12.93, -551.32, 0.00
 188 (199-200) [l=30 cm] - M.
 199, 87.36, -0.04, 0.19, 0.00, -6.52, -0.03
 200, 68.22, -0.04, 0.19, 0.00, -6.46, -0.02

189 (202-203) [l=30 cm] - M.
 202, 73.14, -0.02, 0.22, 0.00, -7.33, -0.01
 203, 53.92, -0.02, 0.22, 0.00, -7.27, -0.01
 190 (204-203) [l=291 cm] - K.
 204, 0.00, 0.00, -52.60, 39.30, 6.51, 0.00
 203, 0.00, 0.00, -52.60, 39.30, -146.72, 0.00
 191 (205-206) [l=105 cm] - M.
 205, 36.68, -0.04, 0.05, 0.00, -0.50, -0.03
 206, -11.93, -0.04, 0.05, 0.00, -0.45, 0.01
 192 (182-206) [l=223 cm] - K.
 182, 45.18, -0.21, 19.28, 0.61, 47.75, -0.75
 206, 43.93, -0.21, 15.77, 0.61, 86.89, -0.29
 193 (206-207) [l=223 cm] - K.
 206, 65.51, -0.36, -4.58, 0.36, 66.03, -0.71
 207, 64.26, -0.36, -8.08, 0.36, 51.89, 0.10
 194 (208-209) [l=105 cm] - M.
 208, 36.70, -0.04, -0.06, 0.00, 0.51, -0.03
 209, -11.92, -0.04, -0.06, 0.00, 0.45, 0.01
 195 (207-209) [l=223 cm] - K.
 207, 64.26, 0.37, 8.04, -0.37, 51.91, 0.10
 209, 65.51, 0.37, 4.54, -0.37, 65.96, -0.73
 196 (209-178) [l=223 cm] - K.
 209, 43.92, 0.21, -15.82, -0.63, 86.83, -0.30
 178, 45.17, 0.21, -19.32, -0.63, 47.56, -0.77
 197 (210-211) [l=105 cm] - M.
 210, 35.90, -0.05, 0.00, 0.00, -0.03, -0.04
 211, -12.71, -0.05, 0.00, 0.00, -0.02, 0.01
 198 (156-211) [l=223 cm] - K.
 156, 45.08, -0.24, 20.17, 0.71, 46.34, -0.87
 211, 43.21, -0.24, 14.92, 0.71, 85.54, -0.33
 199 (211-212) [l=223 cm] - K.
 211, 62.68, -0.44, -5.52, 0.44, 66.62, -0.87
 212, 60.80, -0.44, -10.77, 0.44, 48.43, 0.13
 200 (213-214) [l=105 cm] - M.
 213, 35.91, -0.05, 0.00, 0.00, 0.02, -0.04
 214, -12.70, -0.05, 0.00, 0.00, 0.02, 0.01
 201 (212-214) [l=223 cm] - K.
 212, 60.81, 0.38, 10.71, -0.37, 48.44, 0.11
 214, 62.68, 0.38, 5.46, -0.37, 66.51, -0.73
 202 (214-204) [l=223 cm] - K.
 214, 43.21, 0.20, -14.96, -0.59, 85.44, -0.28
 204, 45.08, 0.20, -20.22, -0.59, 46.15, -0.73
 203 (215-216) [l=500 cm] - M.
 215, 132.39, -0.17, 0.00, 0.00, -0.01, -0.59
 216, -21.94, -0.17, 0.00, 0.00, 0.01, 0.28
 204 (136-216) [l=140 cm] - K.
 136, 0.00, 0.00, 68.86, 1.23, -379.70, 0.00
 216, 0.00, 0.00, 68.86, 1.23, -283.09, 0.00
 205 (218-219) [l=500 cm] - M.
 218, 132.40, -0.17, 0.00, 0.00, 0.00, -0.59
 219, -21.93, -0.17, 0.00, 0.00, 0.00, 0.28
 206 (217-219) [l=140 cm] - K.
 217, 0.00, 0.00, 11.02, 0.90, -242.38, 0.00
 219, 0.00, 0.00, 11.02, 0.90, -226.92, 0.00
 207 (219-220) [l=140 cm] - K.
 219, 0.00, 0.00, -10.90, 0.62, -226.91, 0.00
 220, 0.00, 0.00, -10.90, 0.62, -242.21, 0.00
 208 (221-222) [l=500 cm] - M.
 221, 132.40, -0.17, 0.00, 0.00, 0.00, -0.59
 222, -21.92, -0.17, 0.00, 0.00, 0.00, 0.28
 209 (222-4) [l=140 cm] - K.
 222, 0.00, 0.00, -68.73, 0.35, -282.71, 0.00
 4, 0.00, 0.00, -68.73, 0.35, -379.14, 0.00
 210 (3-8) [l=227 cm] - Z.
 3, 0.00, 0.00, -53.56, -0.16, 18.91, 0.00
 8, 0.00, 0.00, 57.94, -0.16, 23.90, 0.00
 211 (224-225) [l=226 cm] - Z.
 224, 0.00, 0.00, -48.39, -0.95, 10.44, 0.00
 225, 0.00, 0.00, 62.32, -0.95, 26.12, 0.00
 212 (20-24) [l=227 cm] - Z.
 20, 0.00, 0.00, -45.10, -1.31, 19.15, 0.00
 24, 0.00, 0.00, 66.48, -1.31, 43.45, 0.00
 213 (228-229) [l=227 cm] - Z.
 228, 0.00, 0.00, -70.50, -0.56, 18.27, 0.00
 229, 0.00, 0.00, 35.01, -0.56, -21.78, 0.00
 214 (42-46) [l=227 cm] - Z.
 42, 0.00, 0.00, -58.64, 1.43, 28.86, 0.00
 46, 0.00, 0.00, 52.91, 1.43, 22.37, 0.00
 215 (232-233) [l=227 cm] - Z.
 232, 0.00, 0.00, -57.55, 0.89, 20.31, 0.00
 233, 0.00, 0.00, 52.84, 0.89, 15.01, 0.00
 216 (67-71) [l=227 cm] - Z.
 67, 0.00, 0.00, -55.72, 0.00, 19.49, 0.00
 71, 0.00, 0.00, 55.70, 0.00, 19.48, 0.00
 217 (76-80) [l=227 cm] - Z.
 76, 0.00, 0.00, -53.14, -0.04, 18.45, 0.00

80, 0.00, 0.00, 58.26, -0.04, 24.29, 0.00
 218 (236-237) [l=227 cm] - Z.
 236, 0.00, 0.00, -52.84, -0.89, 15.01, 0.00
 237, 0.00, 0.00, 57.55, -0.89, 20.31, 0.00
 219 (92-96) [l=227 cm] - Z.
 92, 0.00, 0.00, -52.91, -1.43, 22.37, 0.00
 96, 0.00, 0.00, 58.64, -1.43, 28.86, 0.00
 220 (240-241) [l=227 cm] - Z.
 240, 0.00, 0.00, -35.01, 0.56, -21.78, 0.00
 241, 0.00, 0.00, 70.50, 0.56, 18.27, 0.00
 221 (114-118) [l=227 cm] - Z.
 114, 0.00, 0.00, -66.48, 1.31, 43.45, 0.00
 118, 0.00, 0.00, 45.10, 1.31, 19.15, 0.00
 222 (244-245) [l=227 cm] - Z.
 244, 0.00, 0.00, -62.36, 0.95, 26.16, 0.00
 245, 0.00, 0.00, 48.40, 0.95, 10.44, 0.00
 223 (130-134) [l=227 cm] - Z.
 130, 0.00, 0.00, -57.94, 0.16, 23.90, 0.00
 134, 0.00, 0.00, 53.56, 0.16, 18.90, 0.00
 224 (247-248) [l=447 cm] - T.
 247, 39.16, 0.00, 11.32, 0.00, -8.85, 0.00
 248, 31.29, 0.00, -10.76, 0.00, -7.59, 0.00
 225 (248-249) [l=447 cm] - T.
 248, 31.29, 0.00, 10.76, 0.00, -7.59, 0.00
 249, 39.16, 0.00, -11.32, 0.00, -8.85, 0.00
 226 (250-251) [l=447 cm] - T.
 250, 31.55, 0.00, 10.64, 0.00, -7.50, 0.00
 251, 39.33, 0.00, -11.21, 0.00, -8.77, 0.00
 227 (252-250) [l=447 cm] - T.
 252, 39.33, 0.00, 11.21, 0.00, -8.77, 0.00
 250, 31.55, 0.00, -10.64, 0.00, -7.50, 0.00
 228 (253-254) [l=447 cm] - T.
 253, 31.55, 0.00, 10.64, 0.00, -7.50, 0.00
 254, 39.33, 0.00, -11.21, 0.00, -8.77, 0.00
 229 (255-253) [l=447 cm] - T.
 255, 39.33, 0.00, 11.21, 0.00, -8.77, 0.00
 253, 31.55, 0.00, -10.64, 0.00, -7.50, 0.00
 230 (256-257) [l=447 cm] - T.
 256, 31.35, 0.00, 10.60, 0.00, -7.48, 0.00
 257, 39.10, 0.00, -11.17, 0.00, -8.74, 0.00
 231 (258-256) [l=447 cm] - T.
 258, 39.11, 0.00, 11.17, 0.00, -8.74, 0.00
 256, 31.35, 0.00, -10.61, 0.00, -7.48, 0.00
 232 (259-260) [l=192 cm] - T.
 259, 35.29, 0.00, 6.14, 0.00, -4.12, 0.00
 260, 32.83, 0.00, -0.76, 0.00, 1.05, 0.00
 233 (261-262) [l=447 cm] - T.
 261, 40.92, 0.00, 11.69, 0.00, -9.14, 0.00
 262, 32.80, 0.00, -11.10, 0.00, -7.82, 0.00
 234 (262-263) [l=447 cm] - T.
 262, 32.80, 0.00, 11.10, 0.00, -7.82, 0.00
 263, 40.92, 0.00, -11.69, 0.00, -9.14, 0.00
 235 (264-265) [l=447 cm] - T.
 264, 39.36, 0.00, 11.21, 0.00, -8.77, 0.00
 265, 31.58, 0.00, -10.64, 0.00, -7.50, 0.00
 236 (265-266) [l=447 cm] - T.
 265, 31.58, 0.00, 10.64, 0.00, -7.50, 0.00
 266, 39.36, 0.00, -11.21, 0.00, -8.77, 0.00
 237 (267-268) [l=447 cm] - T.
 267, 39.22, 0.00, 11.21, 0.00, -8.77, 0.00
 268, 31.44, 0.00, -10.64, 0.00, -7.50, 0.00
 238 (268-269) [l=447 cm] - T.
 268, 31.44, 0.00, 10.64, 0.00, -7.50, 0.00
 269, 39.22, 0.00, -11.21, 0.00, -8.77, 0.00
 239 (270-271) [l=447 cm] - T.
 270, 26.70, 0.00, 9.05, 0.00, -6.38, 0.00
 271, 33.33, 0.00, -9.53, 0.00, -7.46, 0.00
 240 (272-270) [l=447 cm] - T.
 272, 33.33, 0.00, 9.53, 0.00, -7.46, 0.00
 270, 26.70, 0.00, -9.05, 0.00, -6.38, 0.00
 241 (212-248) [l=395 cm] - T.
 212, -0.40, 0.00, 1.04, 0.00, -1.25, 0.00
 248, -0.40, 0.00, -0.18, 0.00, 0.45, 0.00
 242 (248-250) [l=370 cm] - T.
 248, 0.13, 0.00, 0.57, 0.00, -0.35, 0.00
 250, 0.13, 0.00, -0.57, 0.00, -0.35, 0.00
 243 (250-253) [l=370 cm] - T.
 250, 0.13, 0.00, 0.57, 0.00, -0.35, 0.00
 253, 0.13, 0.00, -0.57, 0.00, -0.35, 0.00
 244 (253-256) [l=370 cm] - T.
 253, 0.12, 0.00, 0.56, 0.00, -0.34, 0.00
 256, 0.12, 0.00, -0.57, 0.00, -0.36, 0.00
 245 (256-273) [l=368 cm] - T.
 256, 0.03, 0.00, 0.49, 0.00, -0.22, 0.00
 273, 0.03, 0.00, -0.63, 0.00, -0.48, 0.00
 246 (273-274) [l=330 cm] - T.

273, -0.05, 0.00, 0.54, 0.00, -0.34, 0.00
 274, -0.05, 0.00, -0.47, 0.00, -0.22, 0.00
 247 (274-262) [l=402 cm] - T.
 274, 0.16, 0.00, 0.67, 0.00, -0.52, 0.00
 262, 0.16, 0.00, -0.56, 0.00, -0.31, 0.00
 248 (265-262) [l=370 cm] - T.
 265, 0.17, 0.00, 0.59, 0.00, -0.38, 0.00
 262, 0.17, 0.00, -0.55, 0.00, -0.32, 0.00
 249 (268-265) [l=370 cm] - T.
 268, 0.15, 0.00, 0.57, 0.00, -0.35, 0.00
 265, 0.15, 0.00, -0.57, 0.00, -0.35, 0.00
 250 (275-270) [l=395 cm] - T.
 275, -0.48, 0.00, 0.97, 0.00, -1.12, 0.00
 270, -0.48, 0.00, -0.24, 0.00, 0.32, 0.00
 251 (270-268) [l=370 cm] - T.
 270, 0.06, 0.00, 0.64, 0.00, -0.49, 0.00
 268, 0.06, 0.00, -0.49, 0.00, -0.21, 0.00
 252 (277-278) [l=447 cm] - T.
 277, 4.53, 0.00, 12.71, 0.00, -9.47, 0.00
 278, -4.53, 0.00, -12.71, 0.00, -9.47, 0.00
 253 (279-278) [l=447 cm] - T.
 279, 4.53, 0.00, 12.71, 0.00, -9.47, 0.00
 278, -4.53, 0.00, -12.71, 0.00, -9.47, 0.00
 254 (280-281) [l=447 cm] - T.
 280, 3.28, 0.00, 9.21, 0.00, -6.86, 0.00
 281, -3.28, 0.00, -9.21, 0.00, -6.86, 0.00
 255 (276-281) [l=447 cm] - T.
 276, 3.28, 0.00, 9.21, 0.00, -6.86, 0.00
 281, -3.28, 0.00, -9.21, 0.00, -6.86, 0.00
 256 (282-j'-283) [l=181 cm][173 def.-8 rig.] [in j': N=Nxy,Nxz] - T.
 282, -1.01, -0.05, -1.31, 0.00, 1.86, -0.04
 j', -1.01, -1.01, -0.05, -3.83, 0.00, -2.58, 0.04
 283, -1.01, -0.05, -3.94, 0.00, -2.89, 0.05
 257 (283-i'-j'-284) [l=140 cm][8 rig.-124 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 283, 0.58, -0.02, -2.06, 0.00, 1.89, -0.01
 i', 0.58, 0.58, -0.02, -2.17, 0.00, 1.72, -0.01
 j', 0.58, 0.58, -0.02, -3.98, 0.00, -2.09, 0.01
 284, 0.58, -0.02, -4.09, 0.00, -2.42, 0.01
 258 (285-i'-j'-286) [l=140 cm][8 rig.-124 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 285, 0.58, 0.02, -2.06, 0.00, 1.89, 0.01
 i', 0.58, 0.58, 0.02, -2.17, 0.00, 1.72, 0.01
 j', 0.58, 0.58, 0.02, -3.98, 0.00, -2.09, -0.01
 286, 0.58, 0.02, -4.09, 0.00, -2.42, -0.01
 259 (287-j'-285) [l=181 cm][173 def.-8 rig.] [in j': N=Nxy,Nxz] - T.
 287, -1.01, 0.05, -1.31, 0.00, 1.86, 0.04
 j', -1.01, -1.01, 0.05, -3.83, 0.00, -2.58, -0.04
 285, -1.01, 0.05, -3.94, 0.00, -2.89, -0.05
 260 (286-i'-j'-284) [l=200 cm][8 rig.-184 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 286, 1.16, 0.00, 1.46, 0.00, -0.52, 0.00
 i', 1.16, 1.16, 0.00, 1.34, 0.00, -0.41, 0.00
 j', 1.16, 1.16, 0.00, -1.34, 0.00, -0.41, 0.00
 284, 1.16, 0.00, -1.46, 0.00, -0.52, 0.00
 261 (288-273) [l=106 cm] - T.
 288, 25.09, 0.01, -4.01, 0.00, 3.05, 0.00
 273, 23.73, 0.01, -7.82, 0.00, -3.23, 0.00
 262 (260-288) [l=149 cm] - T.
 260, 31.55, 0.01, -0.30, 0.00, 1.92, 0.01
 288, 29.65, 0.01, -5.64, 0.00, -2.49, -0.01
 263 (289-290) [l=192 cm] - T.
 289, 35.29, 0.00, 6.14, 0.00, -4.12, 0.00
 290, 32.83, 0.00, -0.76, 0.00, 1.05, 0.00
 264 (290-291) [l=149 cm] - T.
 290, 31.55, -0.01, -0.30, 0.00, 1.92, -0.01
 291, 29.65, -0.01, -5.64, 0.00, -2.49, 0.01
 265 (291-273) [l=106 cm] - T.
 291, 25.09, -0.01, -4.01, 0.00, 3.05, 0.00
 273, 23.73, -0.01, -7.82, 0.00, -3.23, 0.00
 266 (292-i'-j'-293) [l=140 cm][8 rig.-124 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 292, 0.60, 0.03, -2.11, 0.00, 1.93, 0.02
 i', 0.60, 0.60, 0.03, -2.23, 0.00, 1.75, 0.02
 j', 0.60, 0.60, 0.03, -4.03, 0.00, -2.13, -0.02
 293, 0.60, 0.03, -4.15, 0.00, -2.45, -0.02
 267 (294-j'-292) [l=181 cm][173 def.-8 rig.] [in j': N=Nxy,Nxz] - T.
 294, -1.04, 0.07, -1.42, 0.01, 1.95, 0.06
 j', -1.04, -1.04, 0.07, -3.93, 0.01, -2.67, -0.06
 292, -1.04, 0.07, -4.05, 0.01, -2.99, -0.06
 268 (295-i'-j'-293) [l=200 cm][8 rig.-184 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 295, 1.20, 0.00, 1.45, 0.00, -0.52, 0.00
 i', 1.20, 1.20, 0.00, 1.34, 0.00, -0.41, 0.00
 j', 1.20, 1.20, 0.00, -1.34, 0.00, -0.41, 0.00
 293, 1.20, 0.00, -1.45, 0.00, -0.52, 0.00
 269 (296-297) [l=149 cm] - T.
 296, 33.38, 0.01, -0.32, 0.00, 2.05, 0.01
 297, 31.35, 0.01, -6.00, 0.00, -2.65, -0.01
 270 (298-296) [l=192 cm] - T.
 298, 37.36, 0.00, 6.52, 0.00, -4.37, 0.00

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296, 34.75, 0.00, -0.81, 0.00, 1.11, 0.00
271 (297-274) [l=106 cm] - T.
297, 26.50, -0.01, -4.26, 0.00, 3.24, 0.00
274, 25.06, -0.01, -8.31, 0.00, -3.43, 0.00
272 (299-274) [l=106 cm] - T.
299, 26.50, 0.01, -4.26, 0.00, 3.24, 0.00
274, 25.06, 0.01, -8.32, 0.00, -3.43, 0.00
273 (300-299) [l=149 cm] - T.
300, 33.38, -0.01, -0.32, 0.00, 2.05, -0.01
299, 31.35, -0.01, -6.00, 0.00, -2.65, 0.01
274 (301-300) [l=192 cm] - T.
301, 37.36, 0.00, 6.52, 0.00, -4.37, 0.00
300, 34.75, 0.00, -0.81, 0.00, 1.11, 0.00
275 (302-i'-j'-295) [l=140 cm][8 rig.-124 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
302, 0.60, -0.03, -2.11, 0.00, 1.93, -0.02
i', 0.60, 0.60, -0.03, -2.23, 0.00, 1.75, -0.02
j', 0.60, 0.60, -0.03, -4.03, 0.00, -2.13, 0.02
295, 0.60, -0.03, -4.15, 0.00, -2.45, 0.02
276 (303-j'-302) [l=181 cm][173 def.-8 rig.] [in j': N=Nxy,Nxz] - T.
303, -1.04, -0.07, -1.42, -0.01, 1.95, -0.06
j', -1.04, -1.04, -0.07, -3.93, -0.01, -2.67, 0.06
302, -1.04, -0.07, -4.05, -0.01, -2.99, 0.06
277 (304-j'-305) [l=650 cm][226 def.-424 rig.] [in j': N=Nxy,Nxz] -
304, 7.21, 0.13, -0.02, 0.00, 0.06, 0.19
j', 6.63, 6.63, 0.13, -0.02, 0.00, 0.01, -0.10
305, 5.55, 0.13, -0.02, 0.00, -0.08, -0.64
278 (306-j'-307) [l=600 cm][226 def.-374 rig.] [in j': N=Nxy,Nxz] -
306, 3.42, 0.23, -0.03, 0.00, 0.06, 0.34
j', 2.84, 2.84, 0.23, -0.03, 0.00, 0.00, -0.17
307, 1.88, 0.23, -0.03, 0.00, -0.10, -1.03
279 (308-j'-309) [l=600 cm][226 def.-374 rig.] [in j': N=Nxy,Nxz] -
308, 3.42, 0.23, 0.03, 0.00, -0.06, 0.34
j', 2.84, 2.84, 0.23, 0.03, 0.00, 0.00, -0.17
309, 1.88, 0.23, 0.03, 0.00, 0.10, -1.03
280 (310-j'-311) [l=650 cm][226 def.-424 rig.] [in j': N=Nxy,Nxz] -
310, 7.21, 0.13, 0.02, 0.00, -0.06, 0.19
j', 6.63, 6.63, 0.13, 0.02, 0.00, -0.01, -0.10
311, 5.55, 0.13, 0.02, 0.00, 0.08, -0.64
281 (312-j'-313) [l=600 cm][226 def.-374 rig.] [in j': N=Nxy,Nxz] -
312, 3.47, 0.23, 0.04, 0.00, -0.09, 0.35
j', 2.90, 2.90, 0.23, 0.04, 0.00, 0.00, -0.18
313, 1.94, 0.23, 0.04, 0.00, 0.15, -1.05
282 (314-j'-315) [l=650 cm][226 def.-424 rig.] [in j': N=Nxy,Nxz] -
314, 7.26, 0.13, 0.03, 0.00, -0.08, 0.19
j', 6.69, 6.69, 0.13, 0.03, 0.00, -0.01, -0.10
315, 5.60, 0.13, 0.03, 0.00, 0.11, -0.65
283 (316-j'-317) [l=650 cm][226 def.-424 rig.] [in j': N=Nxy,Nxz] -
316, 7.26, 0.13, -0.03, 0.00, 0.08, 0.19
j', 6.69, 6.69, 0.13, -0.03, 0.00, 0.01, -0.10
317, 5.60, 0.13, -0.03, 0.00, -0.11, -0.65
284 (318-j'-319) [l=600 cm][226 def.-374 rig.] [in j': N=Nxy,Nxz] -
318, 3.47, 0.23, -0.04, 0.00, 0.09, 0.35
j', 2.90, 2.90, 0.23, -0.04, 0.00, 0.00, -0.18
319, 1.94, 0.23, -0.04, 0.00, -0.15, -1.05
285 (320-148) [l=188 cm] - K.
320, -4.93, -0.09, 0.00, 0.00, 0.00, 1.64
148, -4.93, -0.09, 0.00, 0.00, 0.00, 1.81
286 (321-151) [l=188 cm] - K.
321, -4.93, 0.09, 0.00, 0.00, 0.00, -1.64
151, -4.93, 0.09, 0.00, 0.00, 0.00, -1.81
287 (320-321) [l=200 cm] - W_3117_24_-1_-1.
320, 0.09, 0.00, 4.93, 0.00, -1.64, 0.00
321, 0.09, 0.00, -4.93, 0.00, -1.64, 0.00
288 (322-140) [l=188 cm] - K.
322, -4.93, 0.10, 0.00, 0.00, 0.00, -1.64
140, -4.93, 0.10, 0.00, 0.00, 0.00, -1.83
289 (323-143) [l=188 cm] - K.
323, -4.93, -0.10, 0.00, 0.00, 0.00, 1.64
143, -4.93, -0.10, 0.00, 0.00, 0.00, 1.83
290 (322-323) [l=200 cm] - W_3118_24_-1_-1.
322, 0.10, 0.00, 4.93, 0.00, -1.64, 0.00
323, 0.10, 0.00, -4.93, 0.00, -1.64, 0.00
291 (98-139) [l=62 cm] - K.
98, 185.29, 28.16, -0.25, 0.00, 2.03, 228.29
139, 185.29, 28.16, -0.25, 0.00, 1.87, 210.83
292 (276-156) [l=30 cm] - K.
276, 18.42, -0.43, 0.35, 0.00, 5.58, 6.73
156, 18.42, -0.43, 0.35, 0.00, 5.69, 6.86
293 (155-324) [l=30 cm] - K.
155, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
324, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
294 (159-325) [l=30 cm] - K.
159, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
325, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
295 (162-326) [l=30 cm] - K.
162, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00

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326, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 296 (164-259) [l=0 cm] - K.
 164, 0.00, 0.00, 12.46, -0.15, -299.18, 0.00
 259, 0.00, 0.00, 12.46, -0.15, -299.15, 0.00
 297 (164-327) [l=30 cm] - K.
 164, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 327, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 298 (167-328) [l=30 cm] - K.
 167, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 328, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 299 (167-301) [l=0 cm] - K.
 167, 0.00, 0.00, 5.72, 2.03, -299.61, 0.00
 301, 0.00, 0.00, 5.72, 2.03, -299.60, 0.00
 300 (169-329) [l=30 cm] - K.
 169, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 329, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 301 (172-330) [l=30 cm] - K.
 172, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 330, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 302 (175-331) [l=30 cm] - K.
 175, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 331, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 303 (182-279) [l=30 cm] - K.
 182, 22.14, -0.59, -0.35, 0.00, 5.69, -9.47
 279, 22.14, -0.59, -0.35, 0.00, 5.59, -9.29
 304 (181-332) [l=30 cm] - K.
 181, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 332, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 305 (185-333) [l=30 cm] - K.
 185, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 333, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 306 (188-334) [l=30 cm] - K.
 188, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 334, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 307 (190-298) [l=0 cm] - K.
 190, 0.00, 0.00, 5.70, -2.12, -299.53, 0.00
 298, 0.00, 0.00, 5.70, -2.12, -299.52, 0.00
 308 (190-335) [l=30 cm] - K.
 190, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 335, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 309 (193-289) [l=0 cm] - K.
 193, 0.00, 0.00, 12.44, 0.05, -299.15, 0.00
 289, 0.00, 0.00, 12.44, 0.05, -299.12, 0.00
 310 (193-336) [l=30 cm] - K.
 193, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 336, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 311 (195-337) [l=30 cm] - K.
 195, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 337, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 312 (198-338) [l=30 cm] - K.
 198, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 338, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 313 (204-280) [l=30 cm] - K.
 204, 10.38, -0.28, 1.82, 0.00, 0.00, -6.86
 280, 10.38, -0.28, 1.82, 0.00, 0.54, -6.77
 314 (201-339) [l=30 cm] - K.
 201, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 339, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 315 (275-207) [l=0 cm] - K.
 275, -0.67, 0.03, 123.77, -0.02, -0.51, 0.00
 207, -0.67, 0.03, 123.77, -0.02, -0.39, 0.00
 316 (207-278) [l=30 cm] - K.
 207, 151.73, 0.02, -0.10, 0.00, 0.17, 0.03
 278, 151.73, 0.02, -0.10, 0.00, 0.13, 0.02
 317 (281-212) [l=30 cm] - K.
 281, 19.55, -0.03, 0.21, 0.00, -0.39, -0.06
 212, 19.55, -0.03, 0.21, 0.00, -0.32, -0.05
 318 (275-278) [l=30 cm] - K.
 275, -124.74, -0.05, 0.28, 0.00, 0.11, 0.02
 278, -124.74, -0.05, 0.28, 0.00, 0.19, 0.04
 319 (277-178) [l=30 cm] - K.
 277, 22.14, -0.59, -0.35, 0.00, -5.58, 9.29
 178, 22.14, -0.59, -0.35, 0.00, -5.69, 9.47
 320 (153-131) [l=115 cm] - K.
 153, 0.00, 0.00, -146.76, 379.72, -183.95, 0.00
 131, 0.00, 0.00, -146.76, 379.72, -352.14, 0.00
 321 (153-135) [l=112 cm] - K.
 153, 0.00, 0.00, 73.64, 379.70, -191.29, 0.00
 135, 0.00, 0.00, 73.64, 379.70, -108.89, 0.00
 322 (157-123) [l=113 cm] - K.
 157, 0.00, 0.00, -209.82, 379.97, -940.06, 0.00
 123, 0.00, 0.00, -209.82, 379.97, -1177.78, 0.00
 323 (157-126) [l=113 cm] - K.
 157, 0.00, 0.00, 122.49, 379.94, -946.59, 0.00
 126, 0.00, 0.00, 122.49, 379.94, -807.93, 0.00
 324 (160-115) [l=171 cm] - K.

160, 0.00, 0.00, -291.72, 381.54, -2059.58, 0.00
 115, 0.00, 0.00, -291.72, 381.54, -2557.56, 0.00
 325 (160-119) [l=56 cm] - K.
 160, 0.00, 0.00, 213.00, 381.50, -2061.95, 0.00
 119, 0.00, 0.00, 213.00, 381.50, -1943.09, 0.00
 326 (165-104) [l=113 cm] - K.
 165, 0.00, 0.00, -11.24, 94.96, -2692.41, 0.00
 104, 0.00, 0.00, -11.24, 94.96, -2705.12, 0.00
 327 (165-107) [l=113 cm] - K.
 165, 0.00, 0.00, -47.85, 94.92, -2692.41, 0.00
 107, 0.00, 0.00, -47.85, 94.92, -2746.67, 0.00
 328 (170-93) [l=33 cm] - K.
 170, 0.00, 0.00, 190.91, -133.99, -1976.23, 0.00
 93, 0.00, 0.00, 190.91, -133.99, -1912.66, 0.00
 329 (170-97) [l=193 cm] - K.
 170, 0.00, 0.00, -268.89, -134.04, -1974.04, 0.00
 97, 0.00, 0.00, -268.89, -134.04, -2493.53, 0.00
 330 (173-85) [l=113 cm] - K.
 173, 0.00, 0.00, 111.98, -132.19, -889.21, 0.00
 85, 0.00, 0.00, 111.98, -132.19, -762.46, 0.00
 331 (173-88) [l=113 cm] - K.
 173, 0.00, 0.00, -205.53, -132.25, -881.57, 0.00
 88, 0.00, 0.00, -205.53, -132.25, -1114.43, 0.00
 332 (176-77) [l=132 cm] - K.
 176, 0.00, 0.00, 65.70, -131.77, -164.85, 0.00
 77, 0.00, 0.00, 65.70, -131.77, -78.13, 0.00
 333 (176-81) [l=95 cm] - K.
 176, 0.00, 0.00, -139.14, -131.81, -157.87, 0.00
 81, 0.00, 0.00, -139.14, -131.81, -289.36, 0.00
 334 (179-59) [l=95 cm] - K.
 179, 0.00, 0.00, -139.11, 131.73, -157.85, 0.00
 59, 0.00, 0.00, -139.11, 131.73, -289.31, 0.00
 335 (179-63) [l=132 cm] - K.
 179, 0.00, 0.00, 65.69, 131.68, -164.83, 0.00
 63, 0.00, 0.00, 65.69, 131.68, -78.12, 0.00
 336 (183-51) [l=113 cm] - K.
 183, 0.00, 0.00, -205.47, 132.17, -881.32, 0.00
 51, 0.00, 0.00, -205.47, 132.17, -1114.12, 0.00
 337 (183-54) [l=113 cm] - K.
 183, 0.00, 0.00, 111.94, 132.11, -888.97, 0.00
 54, 0.00, 0.00, 111.94, 132.11, -762.26, 0.00
 338 (186-43) [l=193 cm] - K.
 186, 0.00, 0.00, -268.80, 133.96, -1973.27, 0.00
 43, 0.00, 0.00, -268.80, 133.96, -2492.87, 0.00
 339 (186-47) [l=33 cm] - K.
 186, 0.00, 0.00, 190.85, 133.91, -1975.47, 0.00
 47, 0.00, 0.00, 190.85, 133.91, -1912.11, 0.00
 340 (191-32) [l=113 cm] - K.
 191, 0.00, 0.00, -47.88, -94.68, -2691.77, 0.00
 32, 0.00, 0.00, -47.88, -94.68, -2746.06, 0.00
 341 (191-35) [l=113 cm] - K.
 191, 0.00, 0.00, -11.22, -94.72, -2691.77, 0.00
 35, 0.00, 0.00, -11.22, -94.72, -2704.46, 0.00
 342 (196-21) [l=56 cm] - K.
 196, 0.00, 0.00, 212.89, -380.94, -2061.66, 0.00
 21, 0.00, 0.00, 212.89, -380.94, -1942.86, 0.00
 343 (196-25) [l=171 cm] - K.
 196, 0.00, 0.00, -291.62, -380.97, -2059.29, 0.00
 25, 0.00, 0.00, -291.62, -380.97, -2557.09, 0.00
 344 (199-13) [l=113 cm] - K.
 199, 0.00, 0.00, 122.36, -379.38, -946.83, 0.00
 13, 0.00, 0.00, 122.36, -379.38, -808.31, 0.00
 345 (199-16) [l=113 cm] - K.
 199, 0.00, 0.00, -209.72, -379.41, -940.31, 0.00
 16, 0.00, 0.00, -209.72, -379.41, -1177.92, 0.00
 346 (202-5) [l=112 cm] - K.
 202, 0.00, 0.00, 73.49, -379.14, -192.41, 0.00
 5, 0.00, 0.00, 73.49, -379.14, -110.10, 0.00
 347 (202-9) [l=115 cm] - K.
 202, 0.00, 0.00, -146.63, -379.16, -185.07, 0.00
 9, 0.00, 0.00, -146.63, -379.16, -352.97, 0.00
 348 (66-205) [l=57 cm] - K.
 66, 0.00, 0.00, 49.89, 0.03, -41.58, 0.00
 205, 0.00, 0.00, 49.89, 0.03, -13.34, 0.00
 349 (205-68) [l=97 cm] - K.
 205, 0.00, 0.00, 13.20, 0.00, -12.84, 0.00
 68, 0.00, 0.00, 13.20, 0.00, -0.01, 0.00
 350 (72-208) [l=97 cm] - K.
 72, 0.00, 0.00, -13.21, 0.00, -0.01, 0.00
 208, 0.00, 0.00, -13.21, 0.00, -12.84, 0.00
 351 (208-70) [l=57 cm] - K.
 208, 0.00, 0.00, -49.90, -0.03, -13.35, 0.00
 70, 0.00, 0.00, -49.90, -0.03, -41.65, 0.00
 352 (216-210) [l=70 cm] - K.
 216, 0.00, 0.00, 46.93, 0.95, -283.08, 0.00
 210, 0.00, 0.00, 46.93, 0.95, -250.14, 0.00

353 (210-217) [l=70 cm] - K.
 210, 0.00, 0.00, 11.02, 0.56, -250.11, 0.00
 217, 0.00, 0.00, 11.02, 0.56, -242.38, 0.00
 354 (220-213) [l=70 cm] - K.
 220, 0.00, 0.00, -10.90, 0.62, -242.21, 0.00
 213, 0.00, 0.00, -10.90, 0.62, -249.87, 0.00
 355 (213-222) [l=70 cm] - K.
 213, 0.00, 0.00, -46.81, 0.23, -249.89, 0.00
 222, 0.00, 0.00, -46.81, 0.23, -282.71, 0.00
 356 (223-1) [l=90 cm] - Z.
 223, 0.00, 0.00, 9.53, -0.50, 0.84, 0.00
 1, 0.00, 0.00, 53.85, -0.50, 29.27, 0.00
 357 (1-3) [l=90 cm] - Z.
 1, 0.00, 0.00, -31.14, 0.00, 7.67, 0.00
 3, 0.00, 0.00, 13.09, 0.00, -0.41, 0.00
 358 (8-6) [l=88 cm] - Z.
 8, 0.00, 0.00, -8.44, 0.00, -2.11, 0.00
 6, 0.00, 0.00, 35.03, 0.00, 9.65, 0.00
 359 (6-340) [l=88 cm] - Z.
 6, 0.00, 0.00, -61.34, -0.72, 98.65, 0.00
 340, 0.00, 0.00, -17.94, -0.72, 63.61, 0.00
 360 (340-11) [l=88 cm] - Z.
 340, 0.00, 0.00, -17.94, -0.72, 63.61, 0.00
 11, 0.00, 0.00, 25.39, -0.72, 66.91, 0.00
 361 (11-224) [l=88 cm] - Z.
 11, 0.00, 0.00, -91.65, -0.95, 72.33, 0.00
 224, 0.00, 0.00, -48.39, -0.95, 10.44, 0.00
 362 (225-14) [l=88 cm] - Z.
 225, 0.00, 0.00, 62.32, -0.95, 26.12, 0.00
 14, 0.00, 0.00, 105.73, -0.95, 100.40, 0.00
 363 (14-341) [l=88 cm] - Z.
 14, 0.00, 0.00, 1.67, -2.51, 95.40, 0.00
 341, 0.00, 0.00, 45.13, -2.51, 116.08, 0.00
 364 (341-18) [l=88 cm] - Z.
 341, 0.00, 0.00, 45.13, -2.51, 116.08, 0.00
 18, 0.00, 0.00, 88.60, -2.51, 175.12, 0.00
 365 (18-20) [l=88 cm] - Z.
 18, 0.00, 0.00, -22.73, -0.03, 5.27, 0.00
 20, 0.00, 0.00, 20.85, -0.03, 4.43, 0.00
 366 (24-22) [l=31 cm] - Z.
 24, 0.00, 0.00, 37.50, -0.03, -3.95, 0.00
 22, 0.00, 0.00, 52.63, -0.03, 9.98, 0.00
 367 (22-226) [l=31 cm] - Z.
 22, 0.00, 0.00, 8.91, -5.25, 286.02, 0.00
 226, 0.00, 0.00, 23.98, -5.25, 291.10, 0.00
 368 (226-27) [l=123 cm] - Z.
 226, 0.00, 0.00, -66.24, -233.94, 293.14, 0.00
 27, 0.00, 0.00, -7.01, -233.94, 248.36, 0.00
 369 (27-227) [l=123 cm] - Z.
 27, 0.00, 0.00, -264.10, -238.67, 327.84, 0.00
 227, 0.00, 0.00, -205.73, -238.67, 40.16, 0.00
 370 (227-30) [l=26 cm] - Z.
 227, 0.00, 0.00, -19.22, 0.44, 40.28, 0.00
 30, 0.00, 0.00, -7.04, 0.44, 36.89, 0.00
 371 (30-228) [l=26 cm] - Z.
 30, 0.00, 0.00, -82.70, -0.56, 38.11, 0.00
 228, 0.00, 0.00, -70.50, -0.56, 18.27, 0.00
 372 (229-33) [l=26 cm] - Z.
 229, 0.00, 0.00, 35.01, -0.56, -21.78, 0.00
 33, 0.00, 0.00, 47.20, -0.56, -11.10, 0.00
 373 (33-230) [l=26 cm] - Z.
 33, 0.00, 0.00, -32.57, -1.80, -12.82, 0.00
 230, 0.00, 0.00, -20.33, -1.80, -19.70, 0.00
 374 (230-37) [l=122 cm] - Z.
 230, 0.00, 0.00, 164.94, 232.79, -19.87, 0.00
 37, 0.00, 0.00, 223.28, 232.79, 217.60, 0.00
 375 (37-231) [l=122 cm] - Z.
 37, 0.00, 0.00, -16.51, 226.98, 106.73, 0.00
 231, 0.00, 0.00, 43.02, 226.98, 122.83, 0.00
 376 (231-40) [l=18 cm] - Z.
 231, 0.00, 0.00, -16.53, 5.18, 119.97, 0.00
 40, 0.00, 0.00, -7.54, 5.18, 117.77, 0.00
 377 (40-42) [l=18 cm] - Z.
 40, 0.00, 0.00, -4.56, 0.00, 0.14, 0.00
 42, 0.00, 0.00, 4.50, 0.00, 0.14, 0.00
 378 (46-44) [l=98 cm] - Z.
 46, 0.00, 0.00, -16.32, 0.03, 1.16, 0.00
 44, 0.00, 0.00, 32.10, 0.03, 8.93, 0.00
 379 (44-342) [l=98 cm] - Z.
 44, 0.00, 0.00, -76.02, 2.66, 147.01, 0.00
 342, 0.00, 0.00, -27.70, 2.66, 95.99, 0.00
 380 (342-49) [l=98 cm] - Z.
 342, 0.00, 0.00, -27.70, 2.66, 95.99, 0.00
 49, 0.00, 0.00, 20.47, 2.66, 92.45, 0.00
 381 (49-232) [l=98 cm] - Z.
 49, 0.00, 0.00, -105.67, 0.89, 100.60, 0.00

232, 0.00, 0.00, -57.55, 0.89, 20.31, 0.00
 382 (233-52) [l=98 cm] - Z.
 233, 0.00, 0.00, 52.84, 0.89, 15.01, 0.00
 52, 0.00, 0.00, 100.89, 0.89, 90.64, 0.00
 383 (52-343) [l=98 cm] - Z.
 52, 0.00, 0.00, -30.83, 0.50, 82.08, 0.00
 343, 0.00, 0.00, 17.32, 0.50, 75.43, 0.00
 384 (343-56) [l=98 cm] - Z.
 343, 0.00, 0.00, 17.32, 0.50, 75.43, 0.00
 56, 0.00, 0.00, 65.51, 0.50, 116.14, 0.00
 385 (56-58) [l=98 cm] - Z.
 56, 0.00, 0.00, -36.51, 0.00, 10.66, 0.00
 58, 0.00, 0.00, 11.82, 0.00, -1.49, 0.00
 386 (58-62) [l=227 cm] - Z.
 58, 0.00, 0.00, -58.26, 0.04, 24.29, 0.00
 62, 0.00, 0.00, 53.14, 0.04, 18.45, 0.00
 387 (62-60) [l=80 cm] - Z.
 62, 0.00, 0.00, -10.33, 0.00, -0.81, 0.00
 60, 0.00, 0.00, 28.93, 0.00, 6.59, 0.00
 388 (60-234) [l=80 cm] - Z.
 60, 0.00, 0.00, -43.03, -0.14, 19.45, 0.00
 234, 0.00, 0.00, -3.73, -0.14, 0.83, 0.00
 389 (234-65) [l=154 cm] - Z.
 234, 0.00, 0.00, -3.73, 0.83, 0.14, 0.00
 65, 0.00, 0.00, 72.21, 0.83, 52.82, 0.00
 390 (65-67) [l=154 cm] - Z.
 65, 0.00, 0.00, -44.80, 0.00, 15.31, 0.00
 67, 0.00, 0.00, 31.02, 0.00, 4.73, 0.00
 391 (71-69) [l=154 cm] - Z.
 71, 0.00, 0.00, -31.05, 0.00, 4.74, 0.00
 69, 0.00, 0.00, 44.82, 0.00, 15.32, 0.00
 392 (69-235) [l=154 cm] - Z.
 69, 0.00, 0.00, -72.20, -0.83, 52.81, 0.00
 235, 0.00, 0.00, 3.73, -0.83, 0.14, 0.00
 393 (235-74) [l=80 cm] - Z.
 235, 0.00, 0.00, 3.73, 0.14, 0.83, 0.00
 74, 0.00, 0.00, 43.04, 0.14, 19.45, 0.00
 394 (74-76) [l=80 cm] - Z.
 74, 0.00, 0.00, -28.93, 0.00, 6.58, 0.00
 76, 0.00, 0.00, 10.33, 0.00, -0.81, 0.00
 395 (80-78) [l=98 cm] - Z.
 80, 0.00, 0.00, -11.82, 0.00, -1.49, 0.00
 78, 0.00, 0.00, 36.51, 0.00, 10.66, 0.00
 396 (78-344) [l=98 cm] - Z.
 78, 0.00, 0.00, -65.51, -0.50, 116.14, 0.00
 344, 0.00, 0.00, -17.27, -0.50, 75.41, 0.00
 397 (344-83) [l=98 cm] - Z.
 344, 0.00, 0.00, -17.27, -0.50, 75.41, 0.00
 83, 0.00, 0.00, 30.82, -0.50, 82.08, 0.00
 398 (83-236) [l=98 cm] - Z.
 83, 0.00, 0.00, -100.89, -0.89, 90.64, 0.00
 236, 0.00, 0.00, -52.84, -0.89, 15.01, 0.00
 399 (237-86) [l=98 cm] - Z.
 237, 0.00, 0.00, 57.55, -0.89, 20.31, 0.00
 86, 0.00, 0.00, 105.67, -0.89, 100.60, 0.00
 400 (86-345) [l=98 cm] - Z.
 86, 0.00, 0.00, -20.47, -2.66, 92.45, 0.00
 345, 0.00, 0.00, 27.75, -2.66, 96.02, 0.00
 401 (345-90) [l=98 cm] - Z.
 345, 0.00, 0.00, 27.75, -2.66, 96.02, 0.00
 90, 0.00, 0.00, 76.02, -2.66, 147.01, 0.00
 402 (90-92) [l=98 cm] - Z.
 90, 0.00, 0.00, -32.10, -0.03, 8.93, 0.00
 92, 0.00, 0.00, 16.32, -0.03, 1.16, 0.00
 403 (96-94) [l=18 cm] - Z.
 96, 0.00, 0.00, -4.50, 0.00, 0.14, 0.00
 94, 0.00, 0.00, 4.56, 0.00, 0.14, 0.00
 404 (94-238) [l=18 cm] - Z.
 94, 0.00, 0.00, 7.53, -5.18, 117.76, 0.00
 238, 0.00, 0.00, 16.52, -5.18, 119.96, 0.00
 405 (238-99) [l=122 cm] - Z.
 238, 0.00, 0.00, -43.02, -226.98, 122.82, 0.00
 99, 0.00, 0.00, 16.50, -226.98, 106.72, 0.00
 406 (99-239) [l=122 cm] - Z.
 99, 0.00, 0.00, -223.28, -232.80, 217.59, 0.00
 239, 0.00, 0.00, -164.93, -232.80, -19.87, 0.00
 407 (239-102) [l=26 cm] - Z.
 239, 0.00, 0.00, 20.33, 1.80, -19.70, 0.00
 102, 0.00, 0.00, 32.57, 1.80, -12.82, 0.00
 408 (102-240) [l=26 cm] - Z.
 102, 0.00, 0.00, -47.20, 0.56, -11.10, 0.00
 240, 0.00, 0.00, -35.01, 0.56, -21.78, 0.00
 409 (241-105) [l=26 cm] - Z.
 241, 0.00, 0.00, 70.50, 0.56, 18.27, 0.00
 105, 0.00, 0.00, 82.69, 0.56, 38.11, 0.00
 410 (105-242) [l=26 cm] - Z.

105, 0.00, 0.00, 7.03, -0.44, 36.89, 0.00
 242, 0.00, 0.00, 19.22, -0.44, 40.28, 0.00
 411 (242-109) [l=123 cm] - Z.
 242, 0.00, 0.00, 205.72, 238.67, 40.15, 0.00
 109, 0.00, 0.00, 264.09, 238.67, 327.83, 0.00
 412 (109-243) [l=123 cm] - Z.
 109, 0.00, 0.00, 6.99, 233.94, 248.36, 0.00
 243, 0.00, 0.00, 66.22, 233.94, 293.11, 0.00
 413 (243-112) [l=31 cm] - Z.
 243, 0.00, 0.00, -23.98, 5.25, 291.07, 0.00
 112, 0.00, 0.00, -8.90, 5.25, 285.99, 0.00
 414 (112-114) [l=31 cm] - Z.
 112, 0.00, 0.00, -52.63, 0.03, 9.98, 0.00
 114, 0.00, 0.00, -37.50, 0.03, -3.95, 0.00
 415 (118-116) [l=88 cm] - Z.
 118, 0.00, 0.00, -20.85, 0.03, 4.43, 0.00
 116, 0.00, 0.00, 22.73, 0.03, 5.27, 0.00
 416 (116-346) [l=88 cm] - Z.
 116, 0.00, 0.00, -88.60, 2.51, 175.08, 0.00
 346, 0.00, 0.00, -45.13, 2.51, 116.05, 0.00
 417 (346-121) [l=88 cm] - Z.
 346, 0.00, 0.00, -45.13, 2.51, 116.05, 0.00
 121, 0.00, 0.00, -1.67, 2.51, 95.36, 0.00
 418 (121-244) [l=88 cm] - Z.
 121, 0.00, 0.00, -105.71, 0.95, 100.36, 0.00
 244, 0.00, 0.00, -62.36, 0.95, 26.16, 0.00
 419 (245-124) [l=88 cm] - Z.
 245, 0.00, 0.00, 48.40, 0.95, 10.44, 0.00
 124, 0.00, 0.00, 91.66, 0.95, 72.35, 0.00
 420 (124-347) [l=88 cm] - Z.
 124, 0.00, 0.00, -25.39, 0.72, 66.92, 0.00
 347, 0.00, 0.00, 17.94, 0.72, 63.63, 0.00
 421 (347-128) [l=88 cm] - Z.
 347, 0.00, 0.00, 17.94, 0.72, 63.63, 0.00
 128, 0.00, 0.00, 61.34, 0.72, 98.67, 0.00
 422 (128-130) [l=88 cm] - Z.
 128, 0.00, 0.00, -35.03, 0.00, 9.65, 0.00
 130, 0.00, 0.00, 8.44, 0.00, -2.11, 0.00
 423 (134-132) [l=90 cm] - Z.
 134, 0.00, 0.00, -13.15, 0.00, -0.40, 0.00
 132, 0.00, 0.00, 31.17, 0.00, 7.69, 0.00
 424 (132-246) [l=90 cm] - Z.
 132, 0.00, 0.00, -53.87, 0.50, 29.36, 0.00
 246, 0.00, 0.00, -9.54, 0.50, 0.92, 0.00
 425 (348-137) [l=160 cm] - Z.
 348, 0.00, 0.00, 50.52, 0.00, -40.71, 0.00
 137, 0.00, 0.00, 132.77, 0.00, 106.06, 0.00
 426 (137-238) [l=161 cm] - Z.
 137, 0.00, 0.00, -143.64, -2.86, -58.50, 0.00
 238, 0.00, 0.00, -59.55, -2.86, -221.80, 0.00
 427 (231-141) [l=160 cm] - Z.
 231, 0.00, 0.00, 59.55, 2.86, -221.80, 0.00
 141, 0.00, 0.00, 143.60, 2.86, -58.63, 0.00
 428 (349-348) [l=200 cm] - Z.
 349, 0.00, 0.00, -50.43, 0.00, -40.80, 0.00
 348, 0.00, 0.00, 50.52, 0.00, -40.71, 0.00
 429 (141-349) [l=161 cm] - Z.
 141, 0.00, 0.00, -132.74, 0.00, 105.96, 0.00
 349, 0.00, 0.00, -50.43, 0.00, -40.80, 0.00
 430 (350-145) [l=161 cm] - Z.
 350, 0.00, 0.00, 50.48, 0.00, -29.94, 0.00
 145, 0.00, 0.00, 132.62, 0.00, 116.81, 0.00
 431 (145-226) [l=160 cm] - Z.
 145, 0.00, 0.00, -173.77, -2.04, -16.77, 0.00
 226, 0.00, 0.00, -90.22, -2.04, -228.69, 0.00
 432 (243-149) [l=161 cm] - Z.
 243, 0.00, 0.00, 90.20, 2.04, -228.69, 0.00
 149, 0.00, 0.00, 173.80, 2.04, -16.64, 0.00
 433 (351-350) [l=200 cm] - Z.
 351, 0.00, 0.00, -50.57, 0.00, -29.84, 0.00
 350, 0.00, 0.00, 50.48, 0.00, -29.94, 0.00
 434 (149-351) [l=160 cm] - Z.
 149, 0.00, 0.00, -132.66, 0.00, 116.91, 0.00
 351, 0.00, 0.00, -50.57, 0.00, -29.84, 0.00
 435 (246-215) [l=140 cm] - Z.
 246, 0.00, 0.00, -9.54, 0.92, -0.50, 0.00
 215, 0.00, 0.00, 59.84, 0.92, 34.79, 0.00
 436 (215-352) [l=140 cm] - Z.
 215, 0.00, 0.00, -72.55, 0.36, 34.80, 0.00
 352, 0.00, 0.00, -3.18, 0.36, -18.33, 0.00
 437 (352-218) [l=140 cm] - Z.
 352, 0.00, 0.00, -3.18, 0.37, -18.33, 0.00
 218, 0.00, 0.00, 66.20, 0.37, 25.88, 0.00
 438 (218-353) [l=140 cm] - Z.
 218, 0.00, 0.00, -66.20, -0.22, 25.89, 0.00
 353, 0.00, 0.00, 3.18, -0.22, -18.32, 0.00

439 (353-221) [l=140 cm] - Z.
 353, 0.00, 0.00, 3.18, -0.23, -18.32, 0.00
 221, 0.00, 0.00, 72.55, -0.23, 34.80, 0.00
 440 (221-223) [l=140 cm] - Z.
 221, 0.00, 0.00, -59.85, -0.84, 34.80, 0.00
 223, 0.00, 0.00, 9.53, -0.84, -0.50, 0.00
 441 (227-306) [l=181 cm] - Z.
 227, 0.00, 0.00, -186.51, -0.12, 239.11, 0.00
 306, 0.00, 0.00, -96.88, -0.12, -16.12, 0.00
 442 (306-304) [l=140 cm] - Z.
 306, 0.00, 0.00, -100.30, -0.06, -15.78, 0.00
 304, 0.00, 0.00, -36.44, -0.06, -110.98, 0.00
 443 (308-242) [l=181 cm] - Z.
 308, 0.00, 0.00, 96.88, 0.12, -16.12, 0.00
 242, 0.00, 0.00, 186.51, 0.12, 239.12, 0.00
 444 (304-310) [l=200 cm] - Z.
 304, 0.00, 0.00, -43.66, 0.00, -110.79, 0.00
 310, 0.00, 0.00, 43.66, 0.00, -110.78, 0.00
 445 (310-308) [l=140 cm] - Z.
 310, 0.00, 0.00, 36.45, 0.06, -110.98, 0.00
 308, 0.00, 0.00, 100.30, 0.06, -15.78, 0.00
 446 (312-230) [l=181 cm] - Z.
 312, 0.00, 0.00, 96.01, 0.17, -18.69, 0.00
 230, 0.00, 0.00, 185.27, 0.17, 234.60, 0.00
 447 (314-312) [l=140 cm] - Z.
 314, 0.00, 0.00, 36.06, 0.08, -112.69, 0.00
 312, 0.00, 0.00, 99.48, 0.08, -18.34, 0.00
 448 (316-314) [l=200 cm] - Z.
 316, 0.00, 0.00, -43.33, 0.00, -112.50, 0.00
 314, 0.00, 0.00, 43.33, 0.00, -112.50, 0.00
 449 (239-318) [l=181 cm] - Z.
 239, 0.00, 0.00, -185.27, -0.17, 234.60, 0.00
 318, 0.00, 0.00, -96.01, -0.17, -18.69, 0.00
 450 (318-316) [l=140 cm] - Z.
 318, 0.00, 0.00, -99.49, -0.08, -18.34, 0.00
 316, 0.00, 0.00, -36.06, -0.08, -112.69, 0.00
 451 (26-147) [l=62 cm] - K.
 26, 215.26, -35.20, 0.18, 0.00, -1.44, -285.32
 147, 215.26, -35.20, 0.18, 0.00, -1.33, -263.50
 452 (29-282) [l=250 cm] - K.
 29, 1.31, -1.23, 0.03, 0.00, -0.12, -4.38
 282, 1.31, -1.23, 0.03, 0.00, -0.04, -1.32
 453 (36-294) [l=250 cm] - K.
 36, 1.42, -1.27, -0.05, 0.00, 0.17, -4.55
 294, 1.42, -1.27, -0.05, 0.00, 0.05, -1.37
 454 (39-144) [l=62 cm] - K.
 39, 185.21, -28.12, -0.25, 0.00, 2.03, -227.97
 144, 185.21, -28.12, -0.25, 0.00, 1.87, -210.53
 455 (101-303) [l=250 cm] - K.
 101, 1.42, 1.27, -0.05, 0.00, 0.17, 4.55
 303, 1.42, 1.27, -0.05, 0.00, 0.05, 1.37
 456 (108-287) [l=250 cm] - K.
 108, 1.31, 1.23, 0.03, 0.00, -0.12, 4.38
 287, 1.31, 1.23, 0.03, 0.00, -0.04, 1.32
 457 (111-152) [l=62 cm] - K.
 111, 215.32, 35.24, 0.18, 0.00, -1.44, 285.65
 152, 215.32, 35.24, 0.18, 0.00, -1.33, 263.80
 458 (280-354) [l=0 cm] - T.
 280, 0.00, 0.00, 0.61, 0.00, 0.00, 0.00
 354, 0.00, 0.00, 0.60, 0.00, 0.00, 0.00
 459 (204-354) [l=30 cm] - K.
 204, 8.04, 0.00, 0.35, 0.00, -5.69, 0.00
 354, 8.04, 0.00, 0.35, 0.00, -5.58, 0.00
 460 (155-247) [l=188 cm] - K.
 155, 0.00, 0.00, 39.21, -30.64, -226.69, 0.00
 247, 0.00, 0.00, 39.21, -30.64, -153.07, 0.00
 461 (247-154) [l=104 cm] - K.
 247, 0.00, 0.00, -1.34, -39.49, -152.37, 0.00
 154, 0.00, 0.00, -1.34, -39.49, -153.76, 0.00
 462 (276-355) [l=395 cm] - T.
 276, 0.00, 0.00, 8.64, 0.00, -5.69, 0.00
 355, 0.00, 0.00, -8.64, 0.00, -5.69, 0.00
 463 (247-355) [l=30 cm] - K.
 247, 16.73, 0.00, -0.04, 0.00, 0.70, 0.00
 355, 16.73, 0.00, -0.04, 0.00, 0.68, 0.00
 464 (203-249) [l=104 cm] - K.
 203, 0.00, 0.00, 1.32, 39.30, -153.98, 0.00
 249, 0.00, 0.00, 1.32, 39.30, -152.62, 0.00
 465 (249-201) [l=188 cm] - K.
 249, 0.00, 0.00, -39.23, 30.45, -153.32, 0.00
 201, 0.00, 0.00, -39.23, 30.45, -226.91, 0.00
 466 (354-356) [l=395 cm] - T.
 354, 0.00, 0.00, 8.64, 0.00, -5.69, 0.00
 356, 0.00, 0.00, -8.64, 0.00, -5.69, 0.00
 467 (249-356) [l=30 cm] - K.
 249, 16.73, 0.00, -0.04, 0.00, 0.70, 0.00

356, 16.73, 0.00, -0.04, 0.00, 0.68, 0.00
 468 (201-251) [l=182 cm] - K.
 201, 0.00, 0.00, -39.23, 30.45, -226.91, 0.00
 251, 0.00, 0.00, -39.23, 30.45, -298.47, 0.00
 469 (251-200) [l=108 cm] - K.
 251, 0.00, 0.00, -79.18, 21.68, -298.47, 0.00
 200, 0.00, 0.00, -79.18, 21.68, -383.67, 0.00
 470 (356-357) [l=370 cm] - T.
 356, 0.00, 0.00, 8.09, 0.00, -4.99, 0.00
 357, 0.00, 0.00, -8.09, 0.00, -4.99, 0.00
 471 (251-357) [l=30 cm] - K.
 251, 16.19, 0.00, 0.00, 0.00, 0.00, 0.00
 357, 16.19, 0.00, 0.00, 0.00, 0.00, 0.00
 472 (158-252) [l=108 cm] - K.
 158, 0.00, 0.00, 79.15, -21.86, -383.45, 0.00
 252, 0.00, 0.00, 79.15, -21.86, -298.12, 0.00
 473 (252-155) [l=182 cm] - K.
 252, 0.00, 0.00, 39.21, -30.64, -298.13, 0.00
 155, 0.00, 0.00, 39.21, -30.64, -226.69, 0.00
 474 (355-358) [l=370 cm] - T.
 355, 0.00, 0.00, 8.09, 0.00, -4.99, 0.00
 358, 0.00, 0.00, -8.09, 0.00, -4.99, 0.00
 475 (252-358) [l=30 cm] - K.
 252, 16.19, 0.00, 0.00, 0.00, 0.00, 0.00
 358, 16.19, 0.00, 0.00, 0.00, 0.00, 0.00
 476 (200-254) [l=262 cm] - K.
 200, 0.00, 0.00, -10.96, 21.70, -390.13, 0.00
 254, 0.00, 0.00, -10.96, 21.70, -418.90, 0.00
 477 (254-198) [l=28 cm] - K.
 254, 0.00, 0.00, -50.91, 12.93, -418.90, 0.00
 198, 0.00, 0.00, -50.91, 12.93, -432.95, 0.00
 478 (357-359) [l=370 cm] - T.
 357, 0.00, 0.00, 8.09, 0.00, -4.99, 0.00
 359, 0.00, 0.00, -8.09, 0.00, -4.99, 0.00
 479 (254-359) [l=30 cm] - K.
 254, 16.19, 0.00, 0.00, 0.00, 0.00, 0.00
 359, 16.19, 0.00, 0.00, 0.00, 0.00, 0.00
 480 (159-255) [l=28 cm] - K.
 159, 0.00, 0.00, 50.92, -13.11, -432.82, 0.00
 255, 0.00, 0.00, 50.92, -13.11, -418.67, 0.00
 481 (255-158) [l=262 cm] - K.
 255, 0.00, 0.00, 10.97, -21.88, -418.67, 0.00
 158, 0.00, 0.00, 10.97, -21.88, -389.92, 0.00
 482 (358-360) [l=370 cm] - T.
 358, 0.00, 0.00, 8.09, 0.00, -4.99, 0.00
 360, 0.00, 0.00, -8.09, 0.00, -4.99, 0.00
 483 (255-360) [l=30 cm] - K.
 255, 16.19, 0.00, 0.00, 0.00, 0.00, 0.00
 360, 16.19, 0.00, 0.00, 0.00, 0.00, 0.00
 484 (197-257) [l=110 cm] - K.
 197, 0.00, 0.00, 12.48, 12.95, -553.66, 0.00
 257, 0.00, 0.00, 12.48, 12.95, -539.94, 0.00
 485 (257-195) [l=123 cm] - K.
 257, 0.00, 0.00, -27.30, 4.21, -540.02, 0.00
 195, 0.00, 0.00, -27.30, 4.21, -573.49, 0.00
 486 (359-361) [l=370 cm] - T.
 359, 0.00, 0.00, 8.09, 0.00, -4.99, 0.00
 361, 0.00, 0.00, -8.09, 0.00, -4.99, 0.00
 487 (257-361) [l=30 cm] - K.
 257, 16.13, 0.00, 0.00, 0.00, 0.07, 0.00
 361, 16.13, 0.00, 0.00, 0.00, 0.07, 0.00
 488 (162-258) [l=123 cm] - K.
 162, 0.00, 0.00, 27.32, -4.40, -573.48, 0.00
 258, 0.00, 0.00, 27.32, -4.40, -539.93, 0.00
 489 (258-161) [l=110 cm] - K.
 258, 0.00, 0.00, -12.46, -13.14, -539.87, 0.00
 161, 0.00, 0.00, -12.46, -13.14, -553.54, 0.00
 490 (360-362) [l=370 cm] - T.
 360, 0.00, 0.00, 8.09, 0.00, -4.99, 0.00
 362, 0.00, 0.00, -8.09, 0.00, -4.99, 0.00
 491 (258-362) [l=30 cm] - K.
 258, 16.13, 0.00, 0.00, 0.00, 0.07, 0.00
 362, 16.13, 0.00, 0.00, 0.00, 0.07, 0.00
 492 (164-259) [l=0 cm] - K.
 164, 0.00, 0.00, 12.46, -0.15, -299.18, 0.00
 259, 0.00, 0.00, 12.46, -0.15, -299.15, 0.00
 493 (259-163) [l=122 cm] - K.
 259, 0.00, 0.00, -7.99, -4.41, -597.35, 0.00
 163, 0.00, 0.00, -7.99, -4.41, -607.11, 0.00
 494 (362-363) [l=368 cm] - T.
 362, 0.00, 0.00, 8.04, 0.00, -4.92, 0.00
 363, 0.00, 0.00, -8.04, 0.00, -4.92, 0.00
 495 (259-363) [l=30 cm] - K.
 259, 15.26, 0.00, -0.06, 0.00, 0.95, 0.00
 363, 15.26, 0.00, -0.06, 0.00, 0.93, 0.00
 496 (171-261) [l=73 cm] - K.

171, 0.00, 0.00, 17.84, 13.19, -560.32, 0.00
 261, 0.00, 0.00, 17.84, 13.19, -547.39, 0.00
 497 (261-169) [l=158 cm] - K.
 261, 0.00, 0.00, -23.80, 4.05, -546.47, 0.00
 169, 0.00, 0.00, -23.80, 4.05, -583.96, 0.00
 498 (261-364) [l=30 cm] - K.
 261, 16.90, 0.00, -0.06, 0.00, 0.91, 0.00
 364, 16.90, 0.00, -0.06, 0.00, 0.90, 0.00
 499 (188-263) [l=157 cm] - K.
 188, 0.00, 0.00, 23.84, -4.23, -583.68, 0.00
 263, 0.00, 0.00, 23.84, -4.23, -546.21, 0.00
 500 (263-187) [l=73 cm] - K.
 263, 0.00, 0.00, -17.80, -13.37, -547.12, 0.00
 187, 0.00, 0.00, -17.80, -13.37, -560.08, 0.00
 501 (263-365) [l=30 cm] - K.
 263, 16.89, 0.00, -0.06, 0.00, 0.91, 0.00
 365, 16.89, 0.00, -0.06, 0.00, 0.89, 0.00
 502 (174-264) [l=243 cm] - K.
 174, 0.00, 0.00, -5.00, 21.93, -412.29, 0.00
 264, 0.00, 0.00, -5.00, 21.93, -424.41, 0.00
 503 (264-172) [l=67 cm] - K.
 264, 0.00, 0.00, -44.96, 13.16, -424.41, 0.00
 172, 0.00, 0.00, -44.96, 13.16, -454.71, 0.00
 504 (364-366) [l=370 cm] - T.
 364, 0.00, 0.00, 8.09, 0.00, -4.99, 0.00
 366, 0.00, 0.00, -8.09, 0.00, -4.99, 0.00
 505 (264-366) [l=30 cm] - K.
 264, 16.19, 0.00, 0.00, 0.00, 0.00, 0.00
 366, 16.19, 0.00, 0.00, 0.00, 0.00, 0.00
 506 (185-266) [l=67 cm] - K.
 185, 0.00, 0.00, 44.97, -13.35, -454.47, 0.00
 266, 0.00, 0.00, 44.97, -13.35, -424.24, 0.00
 507 (266-184) [l=243 cm] - K.
 266, 0.00, 0.00, 5.01, -22.12, -424.24, 0.00
 184, 0.00, 0.00, 5.01, -22.12, -412.07, 0.00
 508 (365-367) [l=370 cm] - T.
 365, 0.00, 0.00, 8.09, 0.00, -4.99, 0.00
 367, 0.00, 0.00, -8.09, 0.00, -4.99, 0.00
 509 (266-367) [l=30 cm] - K.
 266, 16.19, 0.00, 0.00, 0.00, 0.00, 0.00
 367, 16.19, 0.00, 0.00, 0.00, 0.00, 0.00
 510 (175-267) [l=183 cm] - K.
 175, 0.00, 0.00, -38.17, 30.67, -235.53, 0.00
 267, 0.00, 0.00, -38.17, 30.67, -305.23, 0.00
 511 (267-174) [l=127 cm] - K.
 267, 0.00, 0.00, -78.08, 21.90, -305.23, 0.00
 174, 0.00, 0.00, -78.08, 21.90, -404.71, 0.00
 512 (366-368) [l=370 cm] - T.
 366, 0.00, 0.00, 8.09, 0.00, -4.99, 0.00
 368, 0.00, 0.00, -8.09, 0.00, -4.99, 0.00
 513 (267-368) [l=30 cm] - K.
 267, 16.19, 0.00, 0.00, 0.00, 0.00, 0.00
 368, 16.19, 0.00, 0.00, 0.00, 0.00, 0.00
 514 (184-269) [l=127 cm] - K.
 184, 0.00, 0.00, 78.08, -22.08, -404.48, 0.00
 269, 0.00, 0.00, 78.08, -22.08, -305.16, 0.00
 515 (269-181) [l=183 cm] - K.
 269, 0.00, 0.00, 38.17, -30.85, -305.16, 0.00
 181, 0.00, 0.00, 38.17, -30.85, -235.39, 0.00
 516 (367-369) [l=370 cm] - T.
 367, 0.00, 0.00, 8.09, 0.00, -4.99, 0.00
 369, 0.00, 0.00, -8.09, 0.00, -4.99, 0.00
 517 (269-369) [l=30 cm] - K.
 269, 16.19, 0.00, 0.00, 0.00, 0.00, 0.00
 369, 16.19, 0.00, 0.00, 0.00, 0.00, 0.00
 518 (181-271) [l=187 cm] - K.
 181, 0.00, 0.00, 38.17, -30.85, -235.39, 0.00
 271, 0.00, 0.00, 38.17, -30.85, -163.93, 0.00
 519 (271-180) [l=104 cm] - K.
 271, 0.00, 0.00, 1.27, -38.31, -163.23, 0.00
 180, 0.00, 0.00, 1.27, -38.31, -161.91, 0.00
 520 (369-370) [l=370 cm] - T.
 369, 0.00, 0.00, 8.09, 0.00, -4.99, 0.00
 370, 0.00, 0.00, -8.09, 0.00, -4.99, 0.00
 521 (370-279) [l=395 cm] - T.
 370, 0.00, 0.00, 8.65, 0.00, -5.69, 0.00
 279, 0.00, 0.00, -8.64, 0.00, -5.69, 0.00
 522 (271-370) [l=30 cm] - K.
 271, 16.74, 0.00, 0.04, 0.00, -0.70, 0.00
 370, 16.74, 0.00, 0.04, 0.00, -0.69, 0.00
 523 (177-272) [l=104 cm] - K.
 177, 0.00, 0.00, -1.27, 38.12, -161.98, 0.00
 272, 0.00, 0.00, -1.27, 38.12, -163.30, 0.00
 524 (272-175) [l=187 cm] - K.
 272, 0.00, 0.00, -38.17, 30.67, -164.00, 0.00
 175, 0.00, 0.00, -38.17, 30.67, -235.53, 0.00

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525 (368-371) [l=370 cm] - T.
  368, 0.00, 0.00, 8.09, 0.00, -4.99, 0.00
  371, 0.00, 0.00, -8.09, 0.00, -4.99, 0.00
526 (371-277) [l=395 cm] - T.
  371, 0.00, 0.00, 8.64, 0.00, -5.69, 0.00
  277, 0.00, 0.00, -8.64, 0.00, -5.69, 0.00
527 (272-371) [l=30 cm] - K.
  272, 16.73, 0.00, 0.04, 0.00, -0.70, 0.00
  371, 16.73, 0.00, 0.04, 0.00, -0.68, 0.00
528 (194-289) [l=122 cm] - K.
  194, 0.00, 0.00, 8.01, 4.23, -607.09, 0.00
  289, 0.00, 0.00, 8.01, 4.23, -597.30, 0.00
529 (289-193) [l=0 cm] - K.
  289, 0.00, 0.00, -12.44, 0.05, -299.12, 0.00
  193, 0.00, 0.00, -12.44, 0.05, -299.15, 0.00
530 (361-372) [l=367 cm] - T.
  361, 0.00, 0.00, 8.03, 0.00, -4.92, 0.00
  372, 0.00, 0.00, -8.03, 0.00, -4.92, 0.00
531 (289-372) [l=30 cm] - K.
  289, 15.26, 0.00, -0.06, 0.00, 0.94, 0.00
  372, 15.26, 0.00, -0.06, 0.00, 0.92, 0.00
532 (192-298) [l=165 cm] - K.
  192, 0.00, 0.00, 23.31, 0.13, -639.39, 0.00
  298, 0.00, 0.00, 23.31, 0.13, -600.95, 0.00
533 (298-190) [l=0 cm] - K.
  298, 0.00, 0.00, -5.70, -2.12, -299.52, 0.00
  190, 0.00, 0.00, -5.70, -2.12, -299.53, 0.00
534 (372-373) [l=330 cm] - T.
  372, 0.00, 0.00, 7.23, 0.00, -3.98, 0.00
  373, 0.00, 0.00, -7.23, 0.00, -3.98, 0.00
535 (373-365) [l=402 cm] - T.
  373, 0.00, 0.00, 8.80, 0.00, -5.90, 0.00
  365, 0.00, 0.00, -8.80, 0.00, -5.90, 0.00
536 (298-373) [l=30 cm] - K.
  298, 16.02, 0.00, 0.12, 0.00, -1.92, 0.00
  373, 16.02, 0.00, 0.12, 0.00, -1.88, 0.00
537 (167-301) [l=0 cm] - K.
  167, 0.00, 0.00, 5.72, 2.03, -299.61, 0.00
  301, 0.00, 0.00, 5.72, 2.03, -299.60, 0.00
538 (301-166) [l=165 cm] - K.
  301, 0.00, 0.00, -23.28, -0.31, -601.12, 0.00
  166, 0.00, 0.00, -23.28, -0.31, -639.50, 0.00
539 (363-374) [l=330 cm] - T.
  363, 0.00, 0.00, 7.23, 0.00, -3.98, 0.00
  374, 0.00, 0.00, -7.23, 0.00, -3.98, 0.00
540 (374-364) [l=402 cm] - T.
  374, 0.00, 0.00, 8.80, 0.00, -5.90, 0.00
  364, 0.00, 0.00, -8.80, 0.00, -5.90, 0.00
541 (301-374) [l=30 cm] - K.
  301, 16.03, 0.00, 0.12, 0.00, -1.93, 0.00
  374, 16.03, 0.00, 0.12, 0.00, -1.89, 0.00
542 (305-284) [l=400 cm] - K.
  305, -5.55, -0.06, -0.01, 0.00, 0.06, -0.53
  284, -5.55, -0.06, -0.01, 0.00, 0.03, -0.31
543 (307-283) [l=350 cm] - K.
  307, -1.88, -0.15, -0.01, 0.00, 0.09, -0.95
  283, -1.88, -0.15, -0.01, 0.00, 0.04, -0.42
544 (309-285) [l=350 cm] - K.
  309, -1.88, 0.15, -0.01, 0.00, 0.09, 0.95
  285, -1.88, 0.15, -0.01, 0.00, 0.04, 0.42
545 (311-286) [l=400 cm] - K.
  311, -5.55, 0.06, -0.01, 0.00, 0.06, 0.53
  286, -5.55, 0.06, -0.01, 0.00, 0.03, 0.31
546 (313-292) [l=350 cm] - K.
  313, -1.94, -0.15, 0.02, 0.00, -0.13, -0.97
  292, -1.94, -0.15, 0.02, 0.00, -0.06, -0.43
547 (315-293) [l=400 cm] - K.
  315, -5.60, -0.06, 0.01, 0.00, -0.08, -0.54
  293, -5.60, -0.06, 0.01, 0.00, -0.05, -0.31
548 (317-295) [l=400 cm] - K.
  317, -5.60, 0.06, 0.01, 0.00, -0.08, 0.54
  295, -5.60, 0.06, 0.01, 0.00, -0.05, 0.31
549 (319-302) [l=350 cm] - K.
  319, -1.94, 0.15, 0.02, 0.00, -0.13, 0.97
  302, -1.94, 0.15, 0.02, 0.00, -0.06, 0.43

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--> Deformazioni nelle Aste (v=sy, w=sz, fiy, fiz) (yz=assi locali) [mm, mrad]

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1 (1-i'-j'-2) [l=500 cm] [Piano XZ: 184 rig.-288 def.-28 rig.] - M.
  1, 0.000E+00, 0.000E+00, -6.877E-03, -1.556E-05
  i', 0.000E+00, 1.263E-02, -6.877E-03, -1.556E-05
  j', -9.421E-05, 2.066E-03, -3.855E-04, -2.351E-05
  2, -9.421E-05, 2.175E-03, -3.855E-04, -2.351E-05
2 (1-3) [l=90 cm][90 def.] - K.
  1, 0.000E+00, -6.795E+00, -6.877E-03, 0.000E+00
  i', 0.000E+00, -6.795E+00, -6.877E-03, 0.000E+00

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j', 0.000E+00, -6.789E+00, -6.877E-03, 0.000E+00 - K.
 3, 0.000E+00, -6.789E+00, -6.877E-03, 0.000E+00
 3 (4-2) [l=90 cm][90 def.]
 4, -9.435E-05, -6.850E+00, -3.856E-04, 1.645E-07
 i', -9.435E-05, -6.850E+00, -3.856E-04, 1.645E-07 - K.
 j', -9.421E-05, -6.850E+00, -3.855E-04, 1.645E-07
 2, -9.421E-05, -6.850E+00, -3.855E-04, 1.645E-07
 4 (2-5) [l=90 cm][90 def.]
 2, -9.421E-05, -6.850E+00, -3.855E-04, 1.645E-07 - M.
 i', -9.421E-05, -6.850E+00, -3.855E-04, 1.645E-07
 j', -9.406E-05, -6.849E+00, -3.852E-04, 1.645E-07
 5, -9.406E-05, -6.849E+00, -3.852E-04, 1.645E-07 - K.
 5 (6-i'-j'-7) [l=500 cm] [Piano XZ: 185 rig.-287 def.-29 rig.]
 6, 0.000E+00, 0.000E+00, -9.268E-03, -3.928E-03
 i', 0.000E+00, 1.715E-02, -9.268E-03, -3.928E-03 - K.
 j', -9.354E-05, 2.066E-03, -3.825E-04, -3.530E-05
 7, -9.354E-05, 2.175E-03, -3.825E-04, -3.530E-05
 6 (8-6) [l=88 cm][88 def.]
 8, 0.000E+00, -6.776E+00, -9.268E-03, 0.000E+00 - K.
 i', 0.000E+00, -6.776E+00, -9.268E-03, 0.000E+00
 j', 0.000E+00, -6.768E+00, -9.268E-03, 0.000E+00
 6, 0.000E+00, -6.768E+00, -9.268E-03, 0.000E+00 - F.
 7 (9-7) [l=88 cm][88 def.]
 9, -9.369E-05, -6.849E+00, -3.837E-04, 1.645E-07
 i', -9.369E-05, -6.849E+00, -3.837E-04, 1.645E-07 - S.
 j', -9.354E-05, -6.848E+00, -3.825E-04, 1.645E-07
 7, -9.354E-05, -6.848E+00, -3.825E-04, 1.645E-07
 8 (7-10) [l=88 cm][88 def.]
 7, -9.354E-05, -6.848E+00, -3.825E-04, 1.645E-07 - M.
 i', -9.354E-05, -6.848E+00, -3.825E-04, 1.645E-07
 j', -9.340E-05, -6.848E+00, -3.809E-04, 1.645E-07
 10, -9.340E-05, -6.848E+00, -3.809E-04, 1.645E-07 - K.
 9 (3-8) [l=227 cm][227 def.]
 3, 0.000E+00, -6.789E+00, -6.877E-03, 0.000E+00
 i', 0.000E+00, -6.789E+00, -6.877E-03, 0.000E+00 - K.
 j', 0.000E+00, -6.776E+00, -9.268E-03, 0.000E+00
 8, 0.000E+00, -6.776E+00, -9.268E-03, 0.000E+00
 10 (5-9) [l=227 cm][227 def.]
 5, -9.406E-05, -6.849E+00, -3.852E-04, 1.645E-07 - M.
 i', -9.406E-05, -6.849E+00, -3.852E-04, 1.645E-07
 j', -9.369E-05, -6.849E+00, -3.837E-04, 1.645E-07
 9, -9.369E-05, -6.849E+00, -3.837E-04, 1.645E-07 - K.
 11 (11-j'-12) [l=500 cm] [Piano XZ: 464 def.-36 rig.]
 11, 0.000E+00, 0.000E+00, -9.304E-03, -3.929E-03
 i', 0.000E+00, 0.000E+00, -9.304E-03, -3.929E-03 - K.
 j', -9.325E-05, 2.040E-03, -3.791E-04, -4.046E-05
 12, -9.325E-05, 2.175E-03, -3.791E-04, -4.046E-05
 12 (10-12) [l=88 cm][88 def.]
 10, -9.340E-05, -6.848E+00, -3.809E-04, 1.645E-07 - S.
 i', -9.340E-05, -6.848E+00, -3.809E-04, 1.645E-07
 j', -9.325E-05, -6.848E+00, -3.791E-04, 1.645E-07
 12, -9.325E-05, -6.848E+00, -3.791E-04, 1.645E-07 - M.
 13 (12-13) [l=88 cm][88 def.]
 12, -9.325E-05, -6.848E+00, -3.791E-04, 1.645E-07
 i', -9.325E-05, -6.848E+00, -3.791E-04, 1.645E-07 - K.
 j', -9.311E-05, -6.847E+00, -3.769E-04, 1.645E-07
 13, -9.311E-05, -6.847E+00, -3.769E-04, 1.645E-07
 14 (14-j'-15) [l=500 cm] [Piano XZ: 464 def.-36 rig.]
 14, 0.000E+00, 0.000E+00, 7.698E-03, -2.701E-02 - K.
 i', 0.000E+00, 0.000E+00, 7.698E-03, -2.701E-02
 j', -9.259E-05, 2.044E-03, -3.662E-04, -5.223E-05
 15, -9.259E-05, 2.175E-03, -3.662E-04, -5.223E-05 - K.
 15 (16-15) [l=88 cm][88 def.]
 16, -9.273E-05, -6.846E+00, -3.698E-04, 1.645E-07
 i', -9.273E-05, -6.846E+00, -3.698E-04, 1.645E-07 - M.
 j', -9.259E-05, -6.846E+00, -3.662E-04, 1.645E-07
 15, -9.259E-05, -6.846E+00, -3.662E-04, 1.645E-07
 16 (15-17) [l=88 cm][88 def.]
 15, -9.259E-05, -6.846E+00, -3.662E-04, 1.645E-07 - K.
 i', -9.259E-05, -6.846E+00, -3.662E-04, 1.645E-07
 j', -9.244E-05, -6.846E+00, -3.620E-04, 1.645E-07
 17, -9.244E-05, -6.846E+00, -3.620E-04, 1.645E-07 - K.
 17 (13-16) [l=227 cm][227 def.]
 13, -9.311E-05, -6.847E+00, -3.769E-04, 1.645E-07
 i', -9.311E-05, -6.847E+00, -3.769E-04, 1.645E-07 - K.
 j', -9.273E-05, -6.846E+00, -3.698E-04, 1.645E-07
 16, -9.273E-05, -6.846E+00, -3.698E-04, 1.645E-07
 18 (18-i'-j'-19) [l=500 cm] [Piano XZ: 185 rig.-287 def.-28 rig.]
 18, 0.000E+00, 0.000E+00, 7.635E-03, -2.702E-02 - F.
 i', 0.000E+00, -1.413E-02, 7.635E-03, -2.702E-02
 j', -9.230E-05, 2.074E-03, -3.572E-04, -5.740E-05
 19, -9.230E-05, 2.175E-03, -3.572E-04, -5.740E-05 - S.
 19 (18-20) [l=88 cm][88 def.]
 18, 0.000E+00, -6.782E+00, 7.635E-03, 0.000E+00
 i', 0.000E+00, -6.782E+00, 7.635E-03, 0.000E+00 - M.
 j', 0.000E+00, -6.788E+00, 7.635E-03, 0.000E+00

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20, 0.000E+00, -6.788E+00, 7.635E-03, 0.000E+00
20 (17-19) [l=88 cm][88 def.]
17, -9.244E-05, -6.846E+00, -3.620E-04, 1.645E-07 - K.
i', -9.244E-05, -6.846E+00, -3.620E-04, 1.645E-07
j', -9.230E-05, -6.845E+00, -3.572E-04, 1.645E-07
19, -9.230E-05, -6.845E+00, -3.572E-04, 1.645E-07 - K.
21 (19-21) [l=88 cm][88 def.]
19, -9.230E-05, -6.845E+00, -3.572E-04, 1.645E-07
i', -9.230E-05, -6.845E+00, -3.572E-04, 1.645E-07 - M.
j', -9.215E-05, -6.845E+00, -3.519E-04, 1.645E-07
21, -9.215E-05, -6.845E+00, -3.519E-04, 1.645E-07
22 (22-i'-j'-23) [l=500 cm] [Piano XZ: 255 rig.-191 def.-55 rig.]
22, 0.000E+00, 0.000E+00, -5.943E-02, -5.891E-02 - K.
i', 0.000E+00, 1.513E-01, -5.943E-02, -5.891E-02
j', -9.173E-05, 1.993E-03, -3.330E-04, -6.753E-05
23, -9.173E-05, 2.175E-03, -3.330E-04, -6.753E-05 - K.
23 (24-22) [l=31 cm][31 def.]
24, 0.000E+00, -6.760E+00, -5.943E-02, 0.000E+00
i', 0.000E+00, -6.760E+00, -5.943E-02, 0.000E+00 - M.
j', 0.000E+00, -6.741E+00, -5.943E-02, 0.000E+00
22, 0.000E+00, -6.741E+00, -5.943E-02, 0.000E+00
24 (25-23) [l=31 cm][31 def.]
25, -9.178E-05, -6.844E+00, -3.356E-04, 1.645E-07 - K.
i', -9.178E-05, -6.844E+00, -3.356E-04, 1.645E-07
j', -9.173E-05, -6.844E+00, -3.330E-04, 1.645E-07
23, -9.173E-05, -6.844E+00, -3.330E-04, 1.645E-07 - K.
25 (23-26) [l=31 cm][31 def.]
23, -9.173E-05, -6.844E+00, -3.330E-04, 1.645E-07
i', -9.173E-05, -6.844E+00, -3.330E-04, 1.645E-07 - S.
j', -9.168E-05, -6.844E+00, -3.304E-04, 1.645E-07
26, -9.168E-05, -6.844E+00, -3.304E-04, 1.645E-07
26 (20-24) [l=227 cm][227 def.]
20, 0.000E+00, -6.788E+00, 7.635E-03, 0.000E+00 - M.
i', 0.000E+00, -6.788E+00, 7.635E-03, 0.000E+00
j', 0.000E+00, -6.760E+00, -5.943E-02, 0.000E+00
24, 0.000E+00, -6.760E+00, -5.943E-02, 0.000E+00 - K.
27 (21-25) [l=227 cm][227 def.]
21, -9.215E-05, -6.845E+00, -3.519E-04, 1.645E-07
i', -9.215E-05, -6.845E+00, -3.519E-04, 1.645E-07 - K.
j', -9.178E-05, -6.844E+00, -3.356E-04, 1.645E-07
25, -9.178E-05, -6.844E+00, -3.356E-04, 1.645E-07
28 (27-28) [l=500 cm][500 def.]
27, 0.000E+00, 0.000E+00, -5.955E-02, -5.922E-02 - M.
i', 0.000E+00, 0.000E+00, -5.955E-02, -5.922E-02
j', -9.148E-05, 2.175E-03, -3.194E-04, -6.934E-05
28, -9.148E-05, 2.175E-03, -3.194E-04, -6.934E-05 - K.
29 (26-28) [l=123 cm][123 def.]
26, -9.168E-05, -6.844E+00, -3.304E-04, 1.645E-07
i', -9.168E-05, -6.844E+00, -3.304E-04, 1.645E-07 - K.
j', -9.148E-05, -6.844E+00, -3.194E-04, 1.645E-07
28, -9.148E-05, -6.844E+00, -3.194E-04, 1.645E-07
30 (28-29) [l=123 cm][123 def.]
28, -9.148E-05, -6.844E+00, -3.194E-04, 1.645E-07 - K.
i', -9.148E-05, -6.844E+00, -3.194E-04, 1.645E-07
j', -9.127E-05, -6.843E+00, -3.085E-04, 1.645E-07
29, -9.127E-05, -6.843E+00, -3.085E-04, 1.645E-07 - M.
31 (30-j'-31) [l=500 cm] [Piano XZ: 436 def.-64 rig.]
30, 0.000E+00, 0.000E+00, -5.962E-02, -5.953E-02
i', 0.000E+00, 0.000E+00, -5.962E-02, -5.953E-02 - K.
j', -9.123E-05, 1.978E-03, -3.062E-04, -7.046E-05
31, -9.123E-05, 2.175E-03, -3.062E-04, -7.046E-05
32 (29-31) [l=26 cm][26 def.]
29, -9.127E-05, -6.843E+00, -3.085E-04, 1.645E-07 - K.
i', -9.127E-05, -6.843E+00, -3.085E-04, 1.645E-07
j', -9.123E-05, -6.843E+00, -3.062E-04, 1.645E-07
31, -9.123E-05, -6.843E+00, -3.062E-04, 1.645E-07 - K.
33 (31-32) [l=26 cm][26 def.]
31, -9.123E-05, -6.843E+00, -3.062E-04, 1.645E-07
i', -9.123E-05, -6.843E+00, -3.062E-04, 1.645E-07 - F.
j', -9.119E-05, -6.843E+00, -3.039E-04, 1.645E-07
32, -9.119E-05, -6.843E+00, -3.039E-04, 1.645E-07
34 (33-j'-34) [l=500 cm] [Piano XZ: 436 def.-64 rig.]
33, 0.000E+00, 0.000E+00, 8.223E-02, -7.318E-02 - S.
i', 0.000E+00, 0.000E+00, 8.223E-02, -7.318E-02
j', -9.077E-05, 1.994E-03, -2.818E-04, -7.249E-05
34, -9.077E-05, 2.175E-03, -2.818E-04, -7.249E-05 - M.
35 (35-34) [l=26 cm][26 def.]
35, -9.082E-05, -6.842E+00, -2.841E-04, 1.645E-07
i', -9.082E-05, -6.842E+00, -2.841E-04, 1.645E-07 - K.
j', -9.077E-05, -6.842E+00, -2.818E-04, 1.645E-07
34, -9.077E-05, -6.842E+00, -2.818E-04, 1.645E-07
36 (34-36) [l=26 cm][26 def.]
34, -9.077E-05, -6.842E+00, -2.818E-04, 1.645E-07 - K.
i', -9.077E-05, -6.842E+00, -2.818E-04, 1.645E-07
j', -9.073E-05, -6.842E+00, -2.796E-04, 1.645E-07
36, -9.073E-05, -6.842E+00, -2.796E-04, 1.645E-07 - M.

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37 (32-35) [l=227 cm][227 def.]
32, -9.119E-05, -6.843E+00, -3.039E-04, 1.645E-07
    i', -9.119E-05, -6.843E+00, -3.039E-04, 1.645E-07 - K.
    j', -9.082E-05, -6.842E+00, -2.841E-04, 1.645E-07
35, -9.082E-05, -6.842E+00, -2.841E-04, 1.645E-07
38 (37-38) [l=500 cm][500 def.]
    37, 0.000E+00, 0.000E+00, 8.220E-02, -7.288E-02 - K.
    i', 0.000E+00, 0.000E+00, 8.220E-02, -7.288E-02
    j', -9.053E-05, 2.175E-03, -2.689E-04, -7.353E-05
    38, -9.053E-05, 2.175E-03, -2.689E-04, -7.353E-05 - S.
39 (36-38) [l=122 cm][122 def.]
36, -9.073E-05, -6.842E+00, -2.796E-04, 1.645E-07
    i', -9.073E-05, -6.842E+00, -2.796E-04, 1.645E-07 - M.
    j', -9.053E-05, -6.842E+00, -2.689E-04, 1.645E-07
    38, -9.053E-05, -6.842E+00, -2.689E-04, 1.645E-07
40 (38-39) [l=122 cm][122 def.]
    38, -9.053E-05, -6.842E+00, -2.689E-04, 1.645E-07 - K.
    i', -9.053E-05, -6.842E+00, -2.689E-04, 1.645E-07
    j', -9.033E-05, -6.842E+00, -2.585E-04, 1.645E-07
    39, -9.033E-05, -6.842E+00, -2.585E-04, 1.645E-07 - K.
41 (40-i'-j'-41) [l=500 cm] [Piano XZ: 276 rig.-160 def.-64 rig.]
40, 0.000E+00, 0.000E+00, 1.929E-02, -6.241E-02
    i', 0.000E+00, -5.331E-02, 1.929E-02, -6.241E-02 - K.
    j', -9.030E-05, 2.010E-03, -2.570E-04, -7.422E-05
    41, -9.030E-05, 2.175E-03, -2.570E-04, -7.422E-05
42 (40-42) [l=18 cm][18 def.]
    40, 0.000E+00, -6.776E+00, 1.929E-02, 0.000E+00 - M.
    i', 0.000E+00, -6.776E+00, 1.929E-02, 0.000E+00
    j', 0.000E+00, -6.779E+00, 1.929E-02, 0.000E+00
    42, 0.000E+00, -6.779E+00, 1.929E-02, 0.000E+00 - K.
43 (39-41) [l=18 cm][18 def.]
39, -9.033E-05, -6.842E+00, -2.585E-04, 1.645E-07
    i', -9.033E-05, -6.842E+00, -2.585E-04, 1.645E-07 - K.
    j', -9.030E-05, -6.842E+00, -2.570E-04, 1.645E-07
    41, -9.030E-05, -6.842E+00, -2.570E-04, 1.645E-07
44 (41-43) [l=18 cm][18 def.]
    41, -9.030E-05, -6.842E+00, -2.570E-04, 1.645E-07 - K.
    i', -9.030E-05, -6.842E+00, -2.570E-04, 1.645E-07
    j', -9.027E-05, -6.842E+00, -2.555E-04, 1.645E-07
    43, -9.027E-05, -6.842E+00, -2.555E-04, 1.645E-07 - F.
45 (44-i'-j'-45) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.]
44, 0.000E+00, 0.000E+00, -1.058E-02, -2.761E-02
    i', 0.000E+00, 1.848E-02, -1.058E-02, -2.761E-02 - S.
    j', -8.973E-05, 2.111E-03, -2.337E-04, -7.069E-05
    45, -8.973E-05, 2.175E-03, -2.337E-04, -7.069E-05
46 (46-44) [l=98 cm][98 def.]
    46, 0.000E+00, -6.781E+00, -1.058E-02, 0.000E+00 - M.
    i', 0.000E+00, -6.781E+00, -1.058E-02, 0.000E+00
    j', 0.000E+00, -6.771E+00, -1.058E-02, 0.000E+00
    44, 0.000E+00, -6.771E+00, -1.058E-02, 0.000E+00 - K.
47 (47-45) [l=98 cm][98 def.]
47, -8.989E-05, -6.841E+00, -2.395E-04, 1.645E-07
    i', -8.989E-05, -6.841E+00, -2.395E-04, 1.645E-07 - K.
    j', -8.973E-05, -6.841E+00, -2.337E-04, 1.645E-07
    45, -8.973E-05, -6.841E+00, -2.337E-04, 1.645E-07
48 (45-48) [l=98 cm][98 def.]
    45, -8.973E-05, -6.841E+00, -2.337E-04, 1.645E-07 - M.
    i', -8.973E-05, -6.841E+00, -2.337E-04, 1.645E-07
    j', -8.957E-05, -6.841E+00, -2.285E-04, 1.645E-07
    48, -8.957E-05, -6.841E+00, -2.285E-04, 1.645E-07 - K.
49 (42-46) [l=227 cm][227 def.]
42, 0.000E+00, -6.779E+00, 1.929E-02, 0.000E+00
    i', 0.000E+00, -6.779E+00, 1.929E-02, 0.000E+00 - K.
    j', 0.000E+00, -6.781E+00, -1.058E-02, 0.000E+00
    46, 0.000E+00, -6.781E+00, -1.058E-02, 0.000E+00
50 (43-47) [l=227 cm][227 def.]
    43, -9.027E-05, -6.842E+00, -2.555E-04, 1.645E-07 - F.
    i', -9.027E-05, -6.842E+00, -2.555E-04, 1.645E-07
    j', -8.989E-05, -6.841E+00, -2.395E-04, 1.645E-07
    47, -8.989E-05, -6.841E+00, -2.395E-04, 1.645E-07 - S.
51 (49-j'-50) [l=500 cm] [Piano XZ: 465 def.-35 rig.]
49, 0.000E+00, 0.000E+00, -1.064E-02, -2.760E-02
    i', 0.000E+00, 0.000E+00, -1.064E-02, -2.760E-02 - M.
    j', -8.941E-05, 2.096E-03, -2.240E-04, -6.867E-05
    50, -8.941E-05, 2.175E-03, -2.240E-04, -6.867E-05
52 (48-50) [l=98 cm][98 def.]
    48, -8.957E-05, -6.841E+00, -2.285E-04, 1.645E-07 - K.
    i', -8.957E-05, -6.841E+00, -2.285E-04, 1.645E-07
    j', -8.941E-05, -6.840E+00, -2.240E-04, 1.645E-07
    50, -8.941E-05, -6.840E+00, -2.240E-04, 1.645E-07 - K.
53 (50-51) [l=98 cm][98 def.]
50, -8.941E-05, -6.840E+00, -2.240E-04, 1.645E-07
    i', -8.941E-05, -6.840E+00, -2.240E-04, 1.645E-07 - K.
    j', -8.925E-05, -6.840E+00, -2.201E-04, 1.645E-07
    51, -8.925E-05, -6.840E+00, -2.201E-04, 1.645E-07
54 (52-j'-53) [l=500 cm] [Piano XZ: 465 def.-35 rig.]

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52, 0.000E+00, 0.000E+00, 1.008E-02, -5.995E-03 - M.
 i', 0.000E+00, 0.000E+00, 1.008E-02, -5.995E-03
 j', -8.871E-05, 2.101E-03, -2.112E-04, -6.437E-05
 53, -8.871E-05, 2.175E-03, -2.112E-04, -6.437E-05 - K.
 55 (54-53) [l=98 cm][98 def.]
 54, -8.887E-05, -6.840E+00, -2.134E-04, 1.645E-07
 i', -8.887E-05, -6.840E+00, -2.134E-04, 1.645E-07 - K.
 j', -8.871E-05, -6.839E+00, -2.112E-04, 1.645E-07
 53, -8.871E-05, -6.839E+00, -2.112E-04, 1.645E-07
 56 (53-55) [l=98 cm][98 def.]
 53, -8.871E-05, -6.839E+00, -2.112E-04, 1.645E-07 - K.
 i', -8.871E-05, -6.839E+00, -2.112E-04, 1.645E-07
 j', -8.855E-05, -6.839E+00, -2.092E-04, 1.645E-07
 55, -8.855E-05, -6.839E+00, -2.092E-04, 1.645E-07 - F.
 57 (51-54) [l=227 cm][227 def.]
 51, -8.925E-05, -6.840E+00, -2.201E-04, 1.645E-07
 i', -8.925E-05, -6.840E+00, -2.201E-04, 1.645E-07 - S.
 j', -8.887E-05, -6.840E+00, -2.134E-04, 1.645E-07
 54, -8.887E-05, -6.840E+00, -2.134E-04, 1.645E-07
 58 (56-i'-j'-57) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.]
 56, 0.000E+00, 0.000E+00, 1.003E-02, -5.994E-03 - M.
 i', 0.000E+00, -1.751E-02, 1.003E-02, -5.994E-03
 j', -8.839E-05, 2.118E-03, -2.077E-04, -6.238E-05
 57, -8.839E-05, 2.175E-03, -2.077E-04, -6.238E-05 - K.
 59 (56-58) [l=98 cm][98 def.]
 56, 0.000E+00, -6.762E+00, 1.003E-02, 0.000E+00
 i', 0.000E+00, -6.762E+00, 1.003E-02, 0.000E+00 - K.
 j', 0.000E+00, -6.772E+00, 1.003E-02, 0.000E+00
 58, 0.000E+00, -6.772E+00, 1.003E-02, 0.000E+00
 60 (55-57) [l=98 cm][98 def.]
 55, -8.855E-05, -6.839E+00, -2.092E-04, 1.645E-07 - M.
 i', -8.855E-05, -6.839E+00, -2.092E-04, 1.645E-07
 j', -8.839E-05, -6.839E+00, -2.077E-04, 1.645E-07
 57, -8.839E-05, -6.839E+00, -2.077E-04, 1.645E-07 - K.
 61 (57-59) [l=98 cm][98 def.]
 57, -8.839E-05, -6.839E+00, -2.077E-04, 1.645E-07
 i', -8.839E-05, -6.839E+00, -2.077E-04, 1.645E-07 - K.
 j', -8.823E-05, -6.839E+00, -2.065E-04, 1.645E-07
 59, -8.823E-05, -6.839E+00, -2.065E-04, 1.645E-07
 62 (60-i'-j'-61) [l=500 cm] [Piano XZ: 195 rig.-276 def.-29 rig.]
 60, 0.000E+00, 0.000E+00, 7.747E-03, -5.059E-03 - S.
 i', 0.000E+00, -1.509E-02, 7.747E-03, -5.059E-03
 j', -8.772E-05, 2.115E-03, -2.052E-04, -5.828E-05
 61, -8.772E-05, 2.175E-03, -2.052E-04, -5.828E-05 - M.
 63 (62-60) [l=80 cm][80 def.]
 62, 0.000E+00, -6.785E+00, 7.747E-03, 0.000E+00
 i', 0.000E+00, -6.785E+00, 7.747E-03, 0.000E+00 - K.
 j', 0.000E+00, -6.791E+00, 7.747E-03, 0.000E+00
 60, 0.000E+00, -6.791E+00, 7.747E-03, 0.000E+00
 64 (63-61) [l=80 cm][80 def.]
 63, -8.785E-05, -6.838E+00, -2.053E-04, 1.645E-07 - K.
 i', -8.785E-05, -6.838E+00, -2.053E-04, 1.645E-07
 j', -8.772E-05, -6.838E+00, -2.052E-04, 1.645E-07
 61, -8.772E-05, -6.838E+00, -2.052E-04, 1.645E-07 - K.
 65 (61-64) [l=80 cm][80 def.]
 61, -8.772E-05, -6.838E+00, -2.052E-04, 1.645E-07
 i', -8.772E-05, -6.838E+00, -2.052E-04, 1.645E-07 - M.
 j', -8.759E-05, -6.838E+00, -2.051E-04, 1.645E-07
 64, -8.759E-05, -6.838E+00, -2.051E-04, 1.645E-07
 66 (58-62) [l=227 cm][227 def.]
 58, 0.000E+00, -6.772E+00, 1.003E-02, 0.000E+00 - K.
 i', 0.000E+00, -6.772E+00, 1.003E-02, 0.000E+00
 j', 0.000E+00, -6.785E+00, 7.747E-03, 0.000E+00
 62, 0.000E+00, -6.785E+00, 7.747E-03, 0.000E+00 - K.
 67 (59-63) [l=227 cm][227 def.]
 59, -8.823E-05, -6.839E+00, -2.065E-04, 1.645E-07
 i', -8.823E-05, -6.839E+00, -2.065E-04, 1.645E-07 - K.
 j', -8.785E-05, -6.838E+00, -2.053E-04, 1.645E-07
 63, -8.785E-05, -6.838E+00, -2.053E-04, 1.645E-07
 68 (65-i'-j'-66) [l=500 cm] [Piano XZ: 127 rig.-350 def.-23 rig.]
 65, 0.000E+00, 0.000E+00, -5.066E-03, -7.744E-03 - F.
 i', 0.000E+00, 6.429E-03, -5.066E-03, -7.744E-03
 j', 2.175E-03, 7.465E-05, -5.703E-05, 2.051E-04
 66, 2.175E-03, 8.759E-05, -5.703E-05, 2.051E-04 - S.
 69 (65-67) [l=154 cm][154 def.]
 65, 0.000E+00, -6.789E+00, -5.066E-03, 0.000E+00
 i', 0.000E+00, -6.789E+00, -5.066E-03, 0.000E+00 - M.
 j', 0.000E+00, -6.781E+00, -5.066E-03, 0.000E+00
 67, 0.000E+00, -6.781E+00, -5.066E-03, 0.000E+00
 70 (64-66) [l=154 cm][154 def.]
 64, 2.175E-03, -6.838E+00, -5.747E-05, 1.645E-07 - K.
 i', 2.175E-03, -6.838E+00, -5.747E-05, 1.645E-07
 j', 2.175E-03, -6.838E+00, -5.703E-05, 1.645E-07
 66, 2.175E-03, -6.838E+00, -5.703E-05, 1.645E-07 - K.
 71 (69-i'-j'-70) [l=500 cm] [Piano XZ: 127 rig.-350 def.-23 rig.]
 69, 0.000E+00, 0.000E+00, 5.033E-03, -7.742E-03

i', 0.000E+00, -6.387E-03, 5.033E-03, -7.742E-03 - M.
 j', 2.176E-03, 9.276E-05, 2.277E-05, 2.052E-04
 70, 2.176E-03, 8.759E-05, 2.277E-05, 2.052E-04
 72 (71-69) [l=154 cm][154 def.]
 71, 0.000E+00, -6.781E+00, 5.033E-03, 0.000E+00 - K.
 i', 0.000E+00, -6.781E+00, 5.033E-03, 0.000E+00
 j', 0.000E+00, -6.789E+00, 5.033E-03, 0.000E+00
 69, 0.000E+00, -6.789E+00, 5.033E-03, 0.000E+00 - K.
 73 (70-73) [l=154 cm][154 def.]
 70, 2.176E-03, -6.838E+00, 2.277E-05, 1.645E-07
 i', 2.176E-03, -6.838E+00, 2.277E-05, 1.645E-07 - M.
 j', 2.176E-03, -6.838E+00, 2.321E-05, 1.645E-07
 73, 2.176E-03, -6.838E+00, 2.321E-05, 1.645E-07
 74 (67-71) [l=227 cm][227 def.]
 67, 0.000E+00, -6.781E+00, -5.066E-03, 0.000E+00 - K.
 i', 0.000E+00, -6.781E+00, -5.066E-03, 0.000E+00
 j', 0.000E+00, -6.781E+00, 5.033E-03, 0.000E+00
 71, 0.000E+00, -6.781E+00, 5.033E-03, 0.000E+00 - K.
 75 (68-72) [l=227 cm][227 def.]
 68, 2.175E-03, -6.838E+00, -5.696E-05, 1.645E-07
 i', 2.175E-03, -6.838E+00, -5.696E-05, 1.645E-07 - S.
 j', 2.176E-03, -6.838E+00, 2.270E-05, 1.645E-07
 72, 2.176E-03, -6.838E+00, 2.270E-05, 1.645E-07
 76 (74-i'-j'-75) [l=500 cm] [Piano XZ: 195 rig.-276 def.-29 rig.]
 74, 0.000E+00, 0.000E+00, 7.745E-03, 5.025E-03 - M.
 i', 0.000E+00, -1.509E-02, 7.745E-03, 5.025E-03
 j', -8.772E-05, 2.116E-03, -2.052E-04, 2.402E-05
 75, -8.772E-05, 2.176E-03, -2.052E-04, 2.402E-05 - K.
 77 (74-76) [l=80 cm][80 def.]
 74, 0.000E+00, -6.791E+00, -7.745E-03, 0.000E+00
 i', 0.000E+00, -6.791E+00, -7.745E-03, 0.000E+00 - K.
 j', 0.000E+00, -6.784E+00, -7.745E-03, 0.000E+00
 76, 0.000E+00, -6.784E+00, -7.745E-03, 0.000E+00
 78 (73-75) [l=80 cm][80 def.]
 73, 8.759E-05, -6.838E+00, 2.052E-04, 1.645E-07 - M.
 i', 8.759E-05, -6.838E+00, 2.052E-04, 1.645E-07
 j', 8.772E-05, -6.838E+00, 2.052E-04, 1.645E-07
 75, 8.772E-05, -6.838E+00, 2.052E-04, 1.645E-07 - K.
 79 (75-77) [l=80 cm][80 def.]
 75, 8.772E-05, -6.838E+00, 2.052E-04, 1.645E-07
 i', 8.772E-05, -6.838E+00, 2.052E-04, 1.645E-07 - K.
 j', 8.785E-05, -6.838E+00, 2.054E-04, 1.645E-07
 77, 8.785E-05, -6.838E+00, 2.054E-04, 1.645E-07
 80 (78-i'-j'-79) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.]
 78, 0.000E+00, 0.000E+00, 1.003E-02, 5.959E-03 - K.
 i', 0.000E+00, -1.751E-02, 1.003E-02, 5.959E-03
 j', -8.839E-05, 2.119E-03, -2.077E-04, 2.812E-05
 79, -8.839E-05, 2.176E-03, -2.077E-04, 2.812E-05 - M.
 81 (80-78) [l=98 cm][98 def.]
 80, 0.000E+00, -6.771E+00, -1.003E-02, 0.000E+00
 i', 0.000E+00, -6.771E+00, -1.003E-02, 0.000E+00 - K.
 j', 0.000E+00, -6.762E+00, -1.003E-02, 0.000E+00
 78, 0.000E+00, -6.762E+00, -1.003E-02, 0.000E+00
 82 (81-79) [l=98 cm][98 def.]
 81, 8.823E-05, -6.839E+00, 2.066E-04, 1.645E-07 - K.
 i', 8.823E-05, -6.839E+00, 2.066E-04, 1.645E-07
 j', 8.839E-05, -6.839E+00, 2.077E-04, 1.645E-07
 79, 8.839E-05, -6.839E+00, 2.077E-04, 1.645E-07 - K.
 83 (79-82) [l=98 cm][98 def.]
 79, 8.839E-05, -6.839E+00, 2.077E-04, 1.645E-07
 i', 8.839E-05, -6.839E+00, 2.077E-04, 1.645E-07 - F.
 j', 8.855E-05, -6.839E+00, 2.093E-04, 1.645E-07
 82, 8.855E-05, -6.839E+00, 2.093E-04, 1.645E-07
 84 (76-80) [l=227 cm][227 def.]
 76, 0.000E+00, -6.784E+00, -7.745E-03, 0.000E+00 - S.
 i', 0.000E+00, -6.784E+00, -7.745E-03, 0.000E+00
 j', 0.000E+00, -6.771E+00, -1.003E-02, 0.000E+00
 80, 0.000E+00, -6.771E+00, -1.003E-02, 0.000E+00 - M.
 85 (77-81) [l=227 cm][227 def.]
 77, 8.785E-05, -6.838E+00, 2.054E-04, 1.645E-07
 i', 8.785E-05, -6.838E+00, 2.054E-04, 1.645E-07 - K.
 j', 8.823E-05, -6.839E+00, 2.066E-04, 1.645E-07
 81, 8.823E-05, -6.839E+00, 2.066E-04, 1.645E-07
 86 (83-j'-84) [l=500 cm] [Piano XZ: 465 def.-35 rig.]
 83, 0.000E+00, 0.000E+00, 1.008E-02, 5.960E-03 - K.
 i', 0.000E+00, 0.000E+00, 1.008E-02, 5.960E-03
 j', -8.871E-05, 2.102E-03, -2.112E-04, 3.012E-05
 84, -8.871E-05, 2.176E-03, -2.112E-04, 3.012E-05 - M.
 87 (82-84) [l=98 cm][98 def.]
 82, 8.855E-05, -6.839E+00, 2.093E-04, 1.645E-07
 i', 8.855E-05, -6.839E+00, 2.093E-04, 1.645E-07 - K.
 j', 8.871E-05, -6.839E+00, 2.112E-04, 1.645E-07
 84, 8.871E-05, -6.839E+00, 2.112E-04, 1.645E-07
 88 (84-85) [l=98 cm][98 def.]
 84, 8.871E-05, -6.839E+00, 2.112E-04, 1.645E-07 - K.
 i', 8.871E-05, -6.839E+00, 2.112E-04, 1.645E-07

j', 8.887E-05, -6.839E+00, 2.135E-04, 1.645E-07
 85, 8.887E-05, -6.839E+00, 2.135E-04, 1.645E-07 - S.
 89 (86-j'-87) [l=500 cm] [Piano XZ: 465 def.-35 rig.]
 86, 0.000E+00, 0.000E+00, -1.064E-02, 2.756E-02
 i', 0.000E+00, 0.000E+00, -1.064E-02, 2.756E-02 - M.
 j', -8.941E-05, 2.098E-03, -2.240E-04, 3.442E-05
 87, -8.941E-05, 2.176E-03, -2.240E-04, 3.442E-05
 90 (88-87) [l=98 cm][98 def.]
 88, 8.925E-05, -6.840E+00, 2.201E-04, 1.645E-07 - K.
 i', 8.925E-05, -6.840E+00, 2.201E-04, 1.645E-07
 j', 8.941E-05, -6.840E+00, 2.240E-04, 1.645E-07
 87, 8.941E-05, -6.840E+00, 2.240E-04, 1.645E-07 - K.
 91 (87-89) [l=98 cm][98 def.]
 87, 8.941E-05, -6.840E+00, 2.240E-04, 1.645E-07
 i', 8.941E-05, -6.840E+00, 2.240E-04, 1.645E-07 - K.
 j', 8.957E-05, -6.840E+00, 2.286E-04, 1.645E-07
 89, 8.957E-05, -6.840E+00, 2.286E-04, 1.645E-07
 92 (85-88) [l=227 cm][227 def.]
 85, 8.887E-05, -6.839E+00, 2.135E-04, 1.645E-07 - M.
 i', 8.887E-05, -6.839E+00, 2.135E-04, 1.645E-07
 j', 8.925E-05, -6.840E+00, 2.201E-04, 1.645E-07
 88, 8.925E-05, -6.840E+00, 2.201E-04, 1.645E-07 - K.
 93 (90-i'-j'-91) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.]
 90, 0.000E+00, 0.000E+00, -1.058E-02, 2.757E-02
 i', 0.000E+00, 1.847E-02, -1.058E-02, 2.757E-02 - K.
 j', -8.973E-05, 2.112E-03, -2.337E-04, 3.644E-05
 91, -8.973E-05, 2.176E-03, -2.337E-04, 3.644E-05
 94 (90-92) [l=98 cm][98 def.]
 90, 0.000E+00, -6.770E+00, 1.058E-02, 0.000E+00 - K.
 i', 0.000E+00, -6.770E+00, 1.058E-02, 0.000E+00
 j', 0.000E+00, -6.781E+00, 1.058E-02, 0.000E+00
 92, 0.000E+00, -6.781E+00, 1.058E-02, 0.000E+00 - F.
 95 (89-91) [l=98 cm][98 def.]
 89, 8.957E-05, -6.840E+00, 2.286E-04, 1.645E-07
 i', 8.957E-05, -6.840E+00, 2.286E-04, 1.645E-07 - S.
 j', 8.973E-05, -6.841E+00, 2.337E-04, 1.645E-07
 91, 8.973E-05, -6.841E+00, 2.337E-04, 1.645E-07
 96 (91-93) [l=98 cm][98 def.]
 91, 8.973E-05, -6.841E+00, 2.337E-04, 1.645E-07 - M.
 i', 8.973E-05, -6.841E+00, 2.337E-04, 1.645E-07
 j', 8.989E-05, -6.841E+00, 2.395E-04, 1.645E-07
 93, 8.989E-05, -6.841E+00, 2.395E-04, 1.645E-07 - K.
 97 (94-i'-j'-95) [l=500 cm] [Piano XZ: 276 rig.-160 def.-64 rig.]
 94, 0.000E+00, 0.000E+00, 1.929E-02, 6.236E-02
 i', 0.000E+00, -5.331E-02, 1.929E-02, 6.236E-02 - K.
 j', -9.030E-05, 2.011E-03, -2.570E-04, 3.998E-05
 95, -9.030E-05, 2.176E-03, -2.570E-04, 3.998E-05
 98 (96-94) [l=18 cm][18 def.]
 96, 0.000E+00, -6.779E+00, -1.929E-02, 0.000E+00 - M.
 i', 0.000E+00, -6.779E+00, -1.929E-02, 0.000E+00
 j', 0.000E+00, -6.775E+00, -1.929E-02, 0.000E+00
 94, 0.000E+00, -6.775E+00, -1.929E-02, 0.000E+00 - K.
 99 (97-95) [l=18 cm][18 def.]
 97, 9.027E-05, -6.841E+00, 2.555E-04, 1.645E-07
 i', 9.027E-05, -6.841E+00, 2.555E-04, 1.645E-07 - K.
 j', 9.030E-05, -6.841E+00, 2.570E-04, 1.645E-07
 95, 9.030E-05, -6.841E+00, 2.570E-04, 1.645E-07
 100 (95-98) [l=18 cm][18 def.]
 95, 9.030E-05, -6.841E+00, 2.570E-04, 1.645E-07 - S.
 i', 9.030E-05, -6.841E+00, 2.570E-04, 1.645E-07
 j', 9.033E-05, -6.842E+00, 2.585E-04, 1.645E-07
 98, 9.033E-05, -6.842E+00, 2.585E-04, 1.645E-07 - M.
 101 (92-96) [l=227 cm][227 def.]
 92, 0.000E+00, -6.781E+00, 1.058E-02, 0.000E+00
 i', 0.000E+00, -6.781E+00, 1.058E-02, 0.000E+00 - K.
 j', 0.000E+00, -6.779E+00, -1.929E-02, 0.000E+00
 96, 0.000E+00, -6.779E+00, -1.929E-02, 0.000E+00
 102 (93-97) [l=227 cm][227 def.]
 93, 8.989E-05, -6.841E+00, 2.395E-04, 1.645E-07 - K.
 i', 8.989E-05, -6.841E+00, 2.395E-04, 1.645E-07
 j', 9.027E-05, -6.841E+00, 2.555E-04, 1.645E-07
 97, 9.027E-05, -6.841E+00, 2.555E-04, 1.645E-07 - M.
 103 (99-100) [l=500 cm][500 def.]
 99, 0.000E+00, 0.000E+00, 8.220E-02, 7.283E-02
 i', 0.000E+00, 0.000E+00, 8.220E-02, 7.283E-02 - K.
 j', -9.053E-05, 2.176E-03, -2.690E-04, 3.928E-05
 100, -9.053E-05, 2.176E-03, -2.690E-04, 3.928E-05
 104 (98-100) [l=122 cm][122 def.]
 98, 9.033E-05, -6.842E+00, 2.585E-04, 1.645E-07 - K.
 i', 9.033E-05, -6.842E+00, 2.585E-04, 1.645E-07
 j', 9.053E-05, -6.842E+00, 2.690E-04, 1.645E-07
 100, 9.053E-05, -6.842E+00, 2.690E-04, 1.645E-07 - S.
 105 (100-101) [l=122 cm][122 def.]
 100, 9.053E-05, -6.842E+00, 2.690E-04, 1.645E-07
 i', 9.053E-05, -6.842E+00, 2.690E-04, 1.645E-07 - M.
 j', 9.073E-05, -6.842E+00, 2.796E-04, 1.645E-07

101, 9.073E-05, -6.842E+00, 2.796E-04, 1.645E-07
 106 (102-j'-103) [l=500 cm] [Piano XZ: 436 def.-64 rig.]
 102, 0.000E+00, 0.000E+00, 8.223E-02, 7.314E-02 - K.
 i', 0.000E+00, 0.000E+00, 8.223E-02, 7.314E-02
 j', -9.077E-05, 1.995E-03, -2.819E-04, 3.823E-05
 103, -9.077E-05, 2.176E-03, -2.819E-04, 3.823E-05 - M.
 107 (101-103) [l=26 cm][26 def.]
 101, 9.073E-05, -6.842E+00, 2.796E-04, 1.645E-07
 i', 9.073E-05, -6.842E+00, 2.796E-04, 1.645E-07 - M.
 j', 9.077E-05, -6.842E+00, 2.819E-04, 1.645E-07
 103, 9.077E-05, -6.842E+00, 2.819E-04, 1.645E-07
 108 (103-104) [l=26 cm][26 def.]
 103, 9.077E-05, -6.842E+00, 2.819E-04, 1.645E-07 - K.
 i', 9.077E-05, -6.842E+00, 2.819E-04, 1.645E-07
 j', 9.082E-05, -6.842E+00, 2.842E-04, 1.645E-07
 104, 9.082E-05, -6.842E+00, 2.842E-04, 1.645E-07 - M.
 109 (105-j'-106) [l=500 cm] [Piano XZ: 436 def.-64 rig.]
 105, 0.000E+00, 0.000E+00, -5.962E-02, 5.949E-02
 i', 0.000E+00, 0.000E+00, -5.962E-02, 5.949E-02 - K.
 j', -9.123E-05, 1.979E-03, -3.062E-04, 3.620E-05
 106, -9.123E-05, 2.176E-03, -3.062E-04, 3.620E-05
 110 (107-106) [l=26 cm][26 def.]
 107, 9.119E-05, -6.843E+00, 3.039E-04, 1.645E-07 - M.
 i', 9.119E-05, -6.843E+00, 3.039E-04, 1.645E-07
 j', 9.123E-05, -6.843E+00, 3.062E-04, 1.645E-07
 106, 9.123E-05, -6.843E+00, 3.062E-04, 1.645E-07 - K.
 111 (106-108) [l=26 cm][26 def.]
 106, 9.123E-05, -6.843E+00, 3.062E-04, 1.645E-07
 i', 9.123E-05, -6.843E+00, 3.062E-04, 1.645E-07 - M.
 j', 9.127E-05, -6.843E+00, 3.086E-04, 1.645E-07
 108, 9.127E-05, -6.843E+00, 3.086E-04, 1.645E-07
 112 (104-107) [l=227 cm][227 def.]
 104, 9.082E-05, -6.842E+00, 2.842E-04, 1.645E-07 - K.
 i', 9.082E-05, -6.842E+00, 2.842E-04, 1.645E-07
 j', 9.119E-05, -6.843E+00, 3.039E-04, 1.645E-07
 107, 9.119E-05, -6.843E+00, 3.039E-04, 1.645E-07 - M.
 113 (109-110) [l=500 cm][500 def.]
 109, 0.000E+00, 0.000E+00, -5.955E-02, 5.917E-02
 i', 0.000E+00, 0.000E+00, -5.955E-02, 5.917E-02 - M.
 j', -9.148E-05, 2.176E-03, -3.195E-04, 3.508E-05
 110, -9.148E-05, 2.176E-03, -3.195E-04, 3.508E-05
 114 (108-110) [l=123 cm][123 def.]
 108, 9.127E-05, -6.843E+00, 3.086E-04, 1.645E-07 - K.
 i', 9.127E-05, -6.843E+00, 3.086E-04, 1.645E-07
 j', 9.148E-05, -6.844E+00, 3.195E-04, 1.645E-07
 110, 9.148E-05, -6.844E+00, 3.195E-04, 1.645E-07 - M.
 115 (110-111) [l=123 cm][123 def.]
 110, 9.148E-05, -6.844E+00, 3.195E-04, 1.645E-07
 i', 9.148E-05, -6.844E+00, 3.195E-04, 1.645E-07 - M.
 j', 9.168E-05, -6.844E+00, 3.304E-04, 1.645E-07
 111, 9.168E-05, -6.844E+00, 3.304E-04, 1.645E-07
 116 (112-i'-j'-113) [l=500 cm] [Piano XZ: 255 rig.-191 def.-55 rig.]
 112, 0.000E+00, 0.000E+00, -5.943E-02, 5.886E-02 - K.
 i', 0.000E+00, 1.513E-01, -5.943E-02, 5.886E-02
 j', -9.173E-05, 1.995E-03, -3.331E-04, 3.327E-05
 113, -9.173E-05, 2.176E-03, -3.331E-04, 3.327E-05 - M.
 117 (112-114) [l=31 cm][31 def.]
 112, 0.000E+00, -6.741E+00, 5.943E-02, 0.000E+00
 i', 0.000E+00, -6.741E+00, 5.943E-02, 0.000E+00 - K.
 j', 0.000E+00, -6.760E+00, 5.943E-02, 0.000E+00
 114, 0.000E+00, -6.760E+00, 5.943E-02, 0.000E+00
 118 (111-113) [l=31 cm][31 def.]
 111, 9.168E-05, -6.844E+00, 3.304E-04, 1.645E-07 - M.
 i', 9.168E-05, -6.844E+00, 3.304E-04, 1.645E-07
 j', 9.173E-05, -6.844E+00, 3.331E-04, 1.645E-07
 113, 9.173E-05, -6.844E+00, 3.331E-04, 1.645E-07 - M.
 119 (113-115) [l=31 cm][31 def.]
 113, 9.173E-05, -6.844E+00, 3.331E-04, 1.645E-07
 i', 9.173E-05, -6.844E+00, 3.331E-04, 1.645E-07 - K.
 j', 9.178E-05, -6.844E+00, 3.357E-04, 1.645E-07
 115, 9.178E-05, -6.844E+00, 3.357E-04, 1.645E-07
 120 (116-i'-j'-117) [l=500 cm] [Piano XZ: 185 rig.-287 def.-28 rig.]
 116, 0.000E+00, 0.000E+00, 7.628E-03, 2.698E-02 - M.
 i', 0.000E+00, -1.412E-02, 7.628E-03, 2.698E-02
 j', -9.230E-05, 2.075E-03, -3.573E-04, 2.312E-05
 117, -9.230E-05, 2.176E-03, -3.573E-04, 2.312E-05 - K.
 121 (118-116) [l=88 cm][88 def.]
 118, 0.000E+00, -6.788E+00, -7.627E-03, 0.000E+00
 i', 0.000E+00, -6.788E+00, -7.627E-03, 0.000E+00 - K.
 j', 0.000E+00, -6.781E+00, -7.628E-03, 0.000E+00
 116, 0.000E+00, -6.781E+00, -7.628E-03, 0.000E+00
 122 (119-117) [l=88 cm][88 def.]
 119, 9.215E-05, -6.845E+00, 3.520E-04, 1.645E-07 - M.
 i', 9.215E-05, -6.845E+00, 3.520E-04, 1.645E-07
 j', 9.230E-05, -6.845E+00, 3.573E-04, 1.645E-07
 117, 9.230E-05, -6.845E+00, 3.573E-04, 1.645E-07 - K.

123 (117-120) [l=88 cm][88 def.]
 117, 9.230E-05, -6.845E+00, 3.573E-04, 1.645E-07
 i', 9.230E-05, -6.845E+00, 3.573E-04, 1.645E-07 - M.
 j', 9.244E-05, -6.846E+00, 3.620E-04, 1.645E-07
 120, 9.244E-05, -6.846E+00, 3.620E-04, 1.645E-07
 124 (114-118) [l=227 cm][227 def.]
 114, 0.000E+00, -6.760E+00, 5.943E-02, 0.000E+00 - K.
 i', 0.000E+00, -6.760E+00, 5.943E-02, 0.000E+00
 j', 0.000E+00, -6.788E+00, -7.627E-03, 0.000E+00
 118, 0.000E+00, -6.788E+00, -7.627E-03, 0.000E+00 - M.
 125 (115-119) [l=227 cm][227 def.]
 115, 9.178E-05, -6.844E+00, 3.357E-04, 1.645E-07
 i', 9.178E-05, -6.844E+00, 3.357E-04, 1.645E-07 - K.
 j', 9.215E-05, -6.845E+00, 3.520E-04, 1.645E-07
 119, 9.215E-05, -6.845E+00, 3.520E-04, 1.645E-07
 126 (121-j'-122) [l=500 cm] [Piano XZ: 464 def.-36 rig.]
 121, 0.000E+00, 0.000E+00, 7.690E-03, 2.697E-02 - M.
 i', 0.000E+00, 0.000E+00, 7.690E-03, 2.697E-02
 j', -9.259E-05, 2.046E-03, -3.662E-04, 1.794E-05
 122, -9.259E-05, 2.176E-03, -3.662E-04, 1.794E-05 - M.
 127 (120-122) [l=88 cm][88 def.]
 120, 9.244E-05, -6.846E+00, 3.620E-04, 1.645E-07
 i', 9.244E-05, -6.846E+00, 3.620E-04, 1.645E-07 - K.
 j', 9.259E-05, -6.846E+00, 3.662E-04, 1.645E-07
 122, 9.259E-05, -6.846E+00, 3.662E-04, 1.645E-07
 128 (122-123) [l=88 cm][88 def.]
 122, 9.259E-05, -6.846E+00, 3.662E-04, 1.645E-07 - M.
 i', 9.259E-05, -6.846E+00, 3.662E-04, 1.645E-07
 j', 9.273E-05, -6.846E+00, 3.699E-04, 1.645E-07
 123, 9.273E-05, -6.846E+00, 3.699E-04, 1.645E-07 - K.
 129 (124-j'-125) [l=500 cm] [Piano XZ: 464 def.-36 rig.]
 124, 0.000E+00, 0.000E+00, -9.307E-03, 3.891E-03
 i', 0.000E+00, 0.000E+00, -9.307E-03, 3.891E-03 - K.
 j', -9.325E-05, 2.041E-03, -3.791E-04, 6.158E-06
 125, -9.325E-05, 2.176E-03, -3.791E-04, 6.158E-06
 130 (126-125) [l=88 cm][88 def.]
 126, 9.311E-05, -6.847E+00, 3.770E-04, 1.645E-07 - M.
 i', 9.311E-05, -6.847E+00, 3.770E-04, 1.645E-07
 j', 9.325E-05, -6.847E+00, 3.791E-04, 1.645E-07
 125, 9.325E-05, -6.847E+00, 3.791E-04, 1.645E-07 - K.
 131 (125-127) [l=88 cm][88 def.]
 125, 9.325E-05, -6.847E+00, 3.791E-04, 1.645E-07
 i', 9.325E-05, -6.847E+00, 3.791E-04, 1.645E-07 - K.
 j', 9.340E-05, -6.848E+00, 3.810E-04, 1.645E-07
 127, 9.340E-05, -6.848E+00, 3.810E-04, 1.645E-07
 132 (123-126) [l=227 cm][227 def.]
 123, 9.273E-05, -6.846E+00, 3.699E-04, 1.645E-07 - M.
 i', 9.273E-05, -6.846E+00, 3.699E-04, 1.645E-07
 j', 9.311E-05, -6.847E+00, 3.770E-04, 1.645E-07
 126, 9.311E-05, -6.847E+00, 3.770E-04, 1.645E-07 - K.
 133 (128-i'-j'-129) [l=500 cm] [Piano XZ: 185 rig.-287 def.-29 rig.]
 128, 0.000E+00, 0.000E+00, -9.271E-03, 3.889E-03
 i', 0.000E+00, 1.715E-02, -9.271E-03, 3.889E-03 - K.
 j', -9.354E-05, 2.067E-03, -3.825E-04, 9.920E-07
 129, -9.354E-05, 2.176E-03, -3.825E-04, 9.920E-07
 134 (128-130) [l=88 cm][88 def.]
 128, 0.000E+00, -6.768E+00, 9.271E-03, 0.000E+00 - M.
 i', 0.000E+00, -6.768E+00, 9.271E-03, 0.000E+00
 j', 0.000E+00, -6.776E+00, 9.271E-03, 0.000E+00
 130, 0.000E+00, -6.776E+00, 9.271E-03, 0.000E+00 - K.
 135 (127-129) [l=88 cm][88 def.]
 127, 9.340E-05, -6.848E+00, 3.810E-04, 1.645E-07
 i', 9.340E-05, -6.848E+00, 3.810E-04, 1.645E-07 - K.
 j', 9.354E-05, -6.848E+00, 3.825E-04, 1.645E-07
 129, 9.354E-05, -6.848E+00, 3.825E-04, 1.645E-07
 136 (129-131) [l=88 cm][88 def.]
 129, 9.354E-05, -6.848E+00, 3.825E-04, 1.645E-07 - M.
 i', 9.354E-05, -6.848E+00, 3.825E-04, 1.645E-07
 j', 9.369E-05, -6.848E+00, 3.837E-04, 1.645E-07
 131, 9.369E-05, -6.848E+00, 3.837E-04, 1.645E-07 - K.
 137 (132-i'-j'-133) [l=500 cm] [Piano XZ: 184 rig.-288 def.-28 rig.]
 132, 0.000E+00, 0.000E+00, -6.877E-03, -1.852E-05
 i', 0.000E+00, 1.263E-02, -6.877E-03, -1.852E-05 - M.
 j', -9.421E-05, 2.068E-03, -3.855E-04, -1.083E-05
 133, -9.421E-05, 2.176E-03, -3.855E-04, -1.083E-05
 138 (134-132) [l=90 cm][90 def.]
 134, 0.000E+00, -6.788E+00, 6.877E-03, 0.000E+00 - K.
 i', 0.000E+00, -6.788E+00, 6.877E-03, 0.000E+00
 j', 0.000E+00, -6.795E+00, 6.877E-03, 0.000E+00
 132, 0.000E+00, -6.795E+00, 6.877E-03, 0.000E+00 - K.
 139 (135-133) [l=90 cm][90 def.]
 135, 9.406E-05, -6.849E+00, 3.853E-04, 1.645E-07
 i', 9.406E-05, -6.849E+00, 3.853E-04, 1.645E-07 - M.
 j', 9.421E-05, -6.850E+00, 3.855E-04, 1.645E-07
 133, 9.421E-05, -6.850E+00, 3.855E-04, 1.645E-07
 140 (133-136) [l=90 cm][90 def.]

133, 9.421E-05, -6.850E+00, 3.855E-04, 1.645E-07 - K.
 i', 9.421E-05, -6.850E+00, 3.855E-04, 1.645E-07
 j', 9.435E-05, -6.850E+00, 3.856E-04, 1.645E-07
 136, 9.435E-05, -6.850E+00, 3.856E-04, 1.645E-07 - Z.
 141 (130-134) [l=227 cm][227 def.]
 130, 0.000E+00, -6.776E+00, 9.271E-03, 0.000E+00
 i', 0.000E+00, -6.776E+00, 9.271E-03, 0.000E+00 - Z.
 j', 0.000E+00, -6.788E+00, 6.877E-03, 0.000E+00
 134, 0.000E+00, -6.788E+00, 6.877E-03, 0.000E+00
 142 (131-135) [l=227 cm][227 def.]
 131, 9.369E-05, -6.848E+00, 3.837E-04, 1.645E-07 - Z.
 i', 9.369E-05, -6.848E+00, 3.837E-04, 1.645E-07
 j', 9.406E-05, -6.849E+00, 3.853E-04, 1.645E-07
 135, 9.406E-05, -6.849E+00, 3.853E-04, 1.645E-07 - Z.
 143 (137-j'-138) [l=438 cm] [Piano XZ: 372 def.-66 rig.]
 137, 0.000E+00, 0.000E+00, 7.250E-02, -8.216E-02
 i', 0.000E+00, 0.000E+00, 7.250E-02, -8.216E-02 - Z.
 j', 2.016E-03, 1.425E-04, 4.090E-05, 2.586E-04
 138, 2.016E-03, 1.157E-04, 4.090E-05, 2.586E-04
 144 (139-138) [l=161 cm][161 def.]
 139, -2.016E-03, -6.842E+00, -4.061E-05, 1.645E-07 - Z.
 i', -2.016E-03, -6.842E+00, -4.061E-05, 1.645E-07
 j', -2.016E-03, -6.841E+00, -4.090E-05, 1.645E-07
 138, -2.016E-03, -6.841E+00, -4.090E-05, 1.645E-07 - Z.
 145 (138-140) [l=160 cm][160 def.]
 138, -2.016E-03, -6.841E+00, -4.090E-05, 1.645E-07
 i', -2.016E-03, -6.841E+00, -4.090E-05, 1.645E-07 - Z.
 j', -2.016E-03, -6.841E+00, -4.086E-05, 1.645E-07
 140, -2.016E-03, -6.841E+00, -4.086E-05, 1.645E-07
 146 (141-j'-142) [l=438 cm] [Piano XZ: 372 def.-66 rig.]
 141, 0.000E+00, 0.000E+00, -7.255E-02, -8.216E-02 - Z.
 i', 0.000E+00, 0.000E+00, -7.255E-02, -8.216E-02
 j', 2.015E-03, -5.560E-06, -7.515E-05, 2.585E-04
 142, 2.015E-03, 4.374E-05, -7.515E-05, 2.585E-04 - Z.
 147 (143-142) [l=161 cm][161 def.]
 143, -2.015E-03, -6.841E+00, 7.510E-05, 1.645E-07
 i', -2.015E-03, -6.841E+00, 7.510E-05, 1.645E-07 - Z.
 j', -2.015E-03, -6.842E+00, 7.515E-05, 1.645E-07
 142, -2.015E-03, -6.842E+00, 7.515E-05, 1.645E-07
 148 (142-144) [l=160 cm][160 def.]
 142, -2.015E-03, -6.842E+00, 7.515E-05, 1.645E-07 - Z.
 i', -2.015E-03, -6.842E+00, 7.515E-05, 1.645E-07
 j', -2.015E-03, -6.842E+00, 7.485E-05, 1.645E-07
 144, -2.015E-03, -6.842E+00, 7.485E-05, 1.645E-07 - Z.
 149 (140-143) [l=200 cm][200 def.]
 140, -2.016E-03, -6.841E+00, -4.086E-05, 1.645E-07
 i', -2.016E-03, -6.841E+00, -4.086E-05, 1.645E-07 - Z.
 j', -2.015E-03, -6.841E+00, 7.510E-05, 1.645E-07
 143, -2.015E-03, -6.841E+00, 7.510E-05, 1.645E-07
 150 (145-j'-146) [l=438 cm] [Piano XZ: 372 def.-66 rig.]
 145, 0.000E+00, 0.000E+00, -5.888E-02, 5.946E-02 - T.
 i', 0.000E+00, 0.000E+00, -5.888E-02, 5.946E-02
 j', 1.970E-03, 3.117E-06, -6.940E-05, 3.304E-04
 146, 1.970E-03, 4.865E-05, -6.940E-05, 3.304E-04 - T.
 151 (147-146) [l=160 cm][160 def.]
 147, 1.970E-03, -6.844E+00, -6.898E-05, 1.645E-07
 i', 1.970E-03, -6.844E+00, -6.898E-05, 1.645E-07 - T.
 j', 1.970E-03, -6.844E+00, -6.940E-05, 1.645E-07
 146, 1.970E-03, -6.844E+00, -6.940E-05, 1.645E-07
 152 (146-148) [l=161 cm][161 def.]
 146, 1.970E-03, -6.844E+00, -6.940E-05, 1.645E-07 - T.
 i', 1.970E-03, -6.844E+00, -6.940E-05, 1.645E-07
 j', 1.971E-03, -6.844E+00, -6.936E-05, 1.645E-07
 148, 1.971E-03, -6.844E+00, -6.936E-05, 1.645E-07 - T.
 153 (149-j'-150) [l=438 cm] [Piano XZ: 372 def.-66 rig.]
 149, 0.000E+00, 0.000E+00, 5.884E-02, 5.946E-02
 i', 0.000E+00, 0.000E+00, 5.884E-02, 5.946E-02 - T.
 j', 1.971E-03, 1.365E-04, 3.514E-05, 3.304E-04
 150, 1.971E-03, 1.135E-04, 3.514E-05, 3.304E-04
 154 (151-150) [l=160 cm][160 def.]
 151, 1.971E-03, -6.844E+00, 3.510E-05, 1.645E-07 - T.
 i', 1.971E-03, -6.844E+00, 3.510E-05, 1.645E-07
 j', 1.971E-03, -6.844E+00, 3.514E-05, 1.645E-07
 150, 1.971E-03, -6.844E+00, 3.514E-05, 1.645E-07 - T.
 155 (150-152) [l=161 cm][161 def.]
 150, 1.971E-03, -6.844E+00, 3.514E-05, 1.645E-07
 i', 1.971E-03, -6.844E+00, 3.514E-05, 1.645E-07 - T.
 j', 1.972E-03, -6.844E+00, 3.472E-05, 1.645E-07
 152, 1.972E-03, -6.844E+00, 3.472E-05, 1.645E-07
 156 (148-151) [l=200 cm][200 def.]
 148, 1.971E-03, -6.844E+00, -6.936E-05, 1.645E-07 - T.
 i', 1.971E-03, -6.844E+00, -6.936E-05, 1.645E-07
 j', 1.971E-03, -6.844E+00, 3.510E-05, 1.645E-07
 151, 1.971E-03, -6.844E+00, 3.510E-05, 1.645E-07 - T.
 157 (153-154) [l=30 cm][30 def.]
 153, -9.388E-05, 2.176E-03, -3.847E-04, -4.937E-06

i', -9.388E-05, 2.176E-03, -3.847E-04, -4.937E-06 - T.
 j', -9.905E-05, 2.265E-03, -3.182E-04, -1.911E-05
 154, -9.905E-05, 2.265E-03, -3.182E-04, -1.911E-05
 158 (154-156) [l=291 cm][291 def.]
 154, 9.905E-05, -6.850E+00, 3.182E-04, 1.648E-07 - T.
 i', 9.905E-05, -6.850E+00, 3.182E-04, 1.648E-07
 j', 9.953E-05, -6.851E+00, 3.189E-04, 1.648E-07
 156, 9.953E-05, -6.851E+00, 3.189E-04, 1.648E-07 - T.
 159 (157-158) [l=30 cm][30 def.]
 157, -9.292E-05, 2.176E-03, -3.738E-04, 1.205E-05
 i', -9.292E-05, 2.176E-03, -3.738E-04, 1.205E-05 - T.
 j', -9.809E-05, 2.265E-03, -3.138E-04, -2.047E-05
 158, -9.809E-05, 2.265E-03, -3.138E-04, -2.047E-05
 160 (160-161) [l=30 cm][30 def.]
 160, -9.206E-05, 2.176E-03, -3.484E-04, 2.735E-05 - T.
 i', -9.206E-05, 2.176E-03, -3.484E-04, 2.735E-05
 j', -9.723E-05, 2.265E-03, -3.063E-04, -2.118E-05
 161, -9.723E-05, 2.265E-03, -3.063E-04, -2.118E-05 - T.
 161 (161-159) [l=233 cm][233 def.]
 161, 9.723E-05, -6.847E+00, 3.063E-04, 1.648E-07
 i', 9.723E-05, -6.847E+00, 3.063E-04, 1.648E-07 - T.
 j', 9.761E-05, -6.848E+00, 3.100E-04, 1.648E-07
 159, 9.761E-05, -6.848E+00, 3.100E-04, 1.648E-07
 162 (110-163) [l=30 cm][30 def.]
 110, -9.148E-05, 2.176E-03, -3.195E-04, 3.508E-05 - T.
 i', -9.148E-05, 2.176E-03, -3.195E-04, 3.508E-05
 j', -9.664E-05, 2.265E-03, -2.999E-04, -2.137E-05
 163, -9.664E-05, 2.265E-03, -2.999E-04, -2.137E-05 - T.
 163 (163-162) [l=123 cm][123 def.]
 163, 9.664E-05, -6.846E+00, 2.999E-04, 1.648E-07
 i', 9.664E-05, -6.846E+00, 2.999E-04, 1.648E-07 - T.
 j', 9.684E-05, -6.846E+00, 3.022E-04, 1.648E-07
 162, 9.684E-05, -6.846E+00, 3.022E-04, 1.648E-07
 164 (165-166) [l=30 cm][30 def.]
 165, -9.100E-05, 2.176E-03, -2.940E-04, 3.722E-05 - T.
 i', -9.100E-05, 2.176E-03, -2.940E-04, 3.722E-05
 j', -9.617E-05, 2.265E-03, -2.942E-04, -2.142E-05
 166, -9.617E-05, 2.265E-03, -2.942E-04, -2.142E-05 - T.
 165 (166-164) [l=165 cm][165 def.]
 166, 9.617E-05, -6.845E+00, 2.942E-04, 1.648E-07
 i', 9.617E-05, -6.845E+00, 2.942E-04, 1.648E-07 - T.
 j', 9.644E-05, -6.846E+00, 2.975E-04, 1.648E-07
 164, 9.644E-05, -6.846E+00, 2.975E-04, 1.648E-07
 166 (100-168) [l=30 cm][30 def.]
 100, -9.053E-05, 2.176E-03, -2.690E-04, 3.928E-05 - T.
 i', -9.053E-05, 2.176E-03, -2.690E-04, 3.928E-05
 j', -9.569E-05, 2.265E-03, -2.885E-04, -2.138E-05
 168, -9.569E-05, 2.265E-03, -2.885E-04, -2.138E-05 - T.
 167 (169-168) [l=122 cm][122 def.]
 169, 9.549E-05, -6.844E+00, 2.861E-04, 1.648E-07
 i', 9.549E-05, -6.844E+00, 2.861E-04, 1.648E-07 - T.
 j', 9.569E-05, -6.844E+00, 2.885E-04, 1.648E-07
 168, 9.569E-05, -6.844E+00, 2.885E-04, 1.648E-07
 168 (168-167) [l=122 cm][122 def.]
 168, 9.569E-05, -6.844E+00, 2.885E-04, 1.648E-07 - T.
 i', 9.569E-05, -6.844E+00, 2.885E-04, 1.648E-07
 j', 9.590E-05, -6.845E+00, 2.909E-04, 1.648E-07
 167, 9.590E-05, -6.845E+00, 2.909E-04, 1.648E-07 - T.
 169 (170-171) [l=30 cm][30 def.]
 170, -8.995E-05, 2.176E-03, -2.416E-04, 3.780E-05
 i', -8.995E-05, 2.176E-03, -2.416E-04, 3.780E-05 - T.
 j', -9.511E-05, 2.265E-03, -2.820E-04, -2.122E-05
 171, -9.511E-05, 2.265E-03, -2.820E-04, -2.122E-05
 170 (172-171) [l=230 cm][230 def.]
 172, 9.473E-05, -6.843E+00, 2.782E-04, 1.648E-07 - T.
 i', 9.473E-05, -6.843E+00, 2.782E-04, 1.648E-07
 j', 9.511E-05, -6.843E+00, 2.820E-04, 1.648E-07
 171, 9.511E-05, -6.843E+00, 2.820E-04, 1.648E-07 - T.
 171 (173-174) [l=30 cm][30 def.]
 173, -8.906E-05, 2.176E-03, -2.165E-04, 3.227E-05
 i', -8.906E-05, 2.176E-03, -2.165E-04, 3.227E-05 - T.
 j', -9.422E-05, 2.265E-03, -2.740E-04, -2.051E-05
 174, -9.422E-05, 2.265E-03, -2.740E-04, -2.051E-05
 172 (176-177) [l=30 cm][30 def.]
 176, -8.807E-05, 2.176E-03, -2.059E-04, 2.617E-05 - T.
 i', -8.807E-05, 2.176E-03, -2.059E-04, 2.617E-05
 j', -9.323E-05, 2.265E-03, -2.692E-04, -1.912E-05
 177, -9.323E-05, 2.265E-03, -2.692E-04, -1.912E-05 - T.
 173 (178-177) [l=291 cm][291 def.]
 178, 9.275E-05, -6.839E+00, 2.685E-04, 1.648E-07
 i', 9.275E-05, -6.839E+00, 2.685E-04, 1.648E-07 - T.
 j', 9.323E-05, -6.840E+00, 2.692E-04, 1.648E-07
 177, 9.323E-05, -6.840E+00, 2.692E-04, 1.648E-07
 174 (179-180) [l=30 cm][30 def.]
 179, -8.807E-05, 2.175E-03, -2.059E-04, -6.042E-05
 i', -8.807E-05, 2.175E-03, -2.059E-04, -6.042E-05

j', -9.323E-05, 2.263E-03, -2.692E-04, -1.557E-05
 180, -9.323E-05, 2.263E-03, -2.692E-04, -1.557E-05 - T.
 175 (180-182) [l=291 cm][291 def.]
 180, -9.323E-05, -6.840E+00, -2.692E-04, 1.648E-07
 i', -9.323E-05, -6.840E+00, -2.692E-04, 1.648E-07 - T.
 j', -9.275E-05, -6.839E+00, -2.685E-04, 1.648E-07
 182, -9.275E-05, -6.839E+00, -2.685E-04, 1.648E-07
 176 (183-184) [l=30 cm][30 def.]
 183, -8.906E-05, 2.175E-03, -2.165E-04, -6.652E-05 - T.
 i', -8.906E-05, 2.175E-03, -2.165E-04, -6.652E-05
 j', -9.422E-05, 2.263E-03, -2.740E-04, -1.417E-05
 184, -9.422E-05, 2.263E-03, -2.740E-04, -1.417E-05 - T.
 177 (186-187) [l=30 cm][30 def.]
 186, -8.995E-05, 2.175E-03, -2.416E-04, -7.204E-05
 i', -8.995E-05, 2.175E-03, -2.416E-04, -7.204E-05 - T.
 j', -9.511E-05, 2.263E-03, -2.820E-04, -1.345E-05
 187, -9.511E-05, 2.263E-03, -2.820E-04, -1.345E-05
 178 (187-185) [l=230 cm][230 def.]
 187, -9.511E-05, -6.843E+00, -2.820E-04, 1.648E-07 - T.
 i', -9.511E-05, -6.843E+00, -2.820E-04, 1.648E-07
 j', -9.473E-05, -6.843E+00, -2.782E-04, 1.648E-07
 185, -9.473E-05, -6.843E+00, -2.782E-04, 1.648E-07 - T.
 179 (38-189) [l=30 cm][30 def.]
 38, -9.053E-05, 2.175E-03, -2.689E-04, -7.353E-05
 i', -9.053E-05, 2.175E-03, -2.689E-04, -7.353E-05 - T.
 j', -9.569E-05, 2.263E-03, -2.885E-04, -1.329E-05
 189, -9.569E-05, 2.263E-03, -2.885E-04, -1.329E-05
 180 (190-189) [l=122 cm][122 def.]
 190, -9.590E-05, -6.845E+00, -2.909E-04, 1.648E-07 - T.
 i', -9.590E-05, -6.845E+00, -2.909E-04, 1.648E-07
 j', -9.569E-05, -6.844E+00, -2.885E-04, 1.648E-07
 189, -9.569E-05, -6.844E+00, -2.885E-04, 1.648E-07 - T.
 181 (189-188) [l=122 cm][122 def.]
 189, -9.569E-05, -6.844E+00, -2.885E-04, 1.648E-07
 i', -9.569E-05, -6.844E+00, -2.885E-04, 1.648E-07 - T.
 j', -9.549E-05, -6.844E+00, -2.861E-04, 1.648E-07
 188, -9.549E-05, -6.844E+00, -2.861E-04, 1.648E-07
 182 (191-192) [l=30 cm][30 def.]
 191, -9.100E-05, 2.175E-03, -2.939E-04, -7.147E-05 - T.
 i', -9.100E-05, 2.175E-03, -2.939E-04, -7.147E-05
 j', -9.617E-05, 2.263E-03, -2.942E-04, -1.325E-05
 192, -9.617E-05, 2.263E-03, -2.942E-04, -1.325E-05 - T.
 183 (193-192) [l=165 cm][165 def.]
 193, -9.644E-05, -6.846E+00, -2.975E-04, 1.648E-07
 i', -9.644E-05, -6.846E+00, -2.975E-04, 1.648E-07 - T.
 j', -9.617E-05, -6.845E+00, -2.942E-04, 1.648E-07
 192, -9.617E-05, -6.845E+00, -2.942E-04, 1.648E-07
 184 (28-194) [l=30 cm][30 def.]
 28, -9.148E-05, 2.175E-03, -3.194E-04, -6.934E-05 - T.
 i', -9.148E-05, 2.175E-03, -3.194E-04, -6.934E-05
 j', -9.664E-05, 2.263E-03, -2.999E-04, -1.329E-05
 194, -9.664E-05, 2.263E-03, -2.999E-04, -1.329E-05 - T.
 185 (195-194) [l=123 cm][123 def.]
 195, -9.684E-05, -6.846E+00, -3.022E-04, 1.648E-07
 i', -9.684E-05, -6.846E+00, -3.022E-04, 1.648E-07 -
 j', -9.664E-05, -6.846E+00, -2.999E-04, 1.648E-07
 194, -9.664E-05, -6.846E+00, -2.999E-04, 1.648E-07
 186 (196-197) [l=30 cm][30 def.]
 196, -9.206E-05, 2.175E-03, -3.483E-04, -6.162E-05 -
 i', -9.206E-05, 2.175E-03, -3.483E-04, -6.162E-05
 j', -9.723E-05, 2.263E-03, -3.063E-04, -1.348E-05
 197, -9.723E-05, 2.263E-03, -3.063E-04, -1.348E-05 -
 187 (198-197) [l=233 cm][233 def.]
 198, -9.761E-05, -6.848E+00, -3.100E-04, 1.648E-07
 i', -9.761E-05, -6.848E+00, -3.100E-04, 1.648E-07 -
 j', -9.723E-05, -6.847E+00, -3.063E-04, 1.648E-07
 197, -9.723E-05, -6.847E+00, -3.063E-04, 1.648E-07
 188 (199-200) [l=30 cm][30 def.]
 199, -9.292E-05, 2.175E-03, -3.737E-04, -4.634E-05 -
 i', -9.292E-05, 2.175E-03, -3.737E-04, -4.634E-05
 j', -9.809E-05, 2.263E-03, -3.138E-04, -1.418E-05
 200, -9.809E-05, 2.263E-03, -3.138E-04, -1.418E-05 -
 189 (202-203) [l=30 cm][30 def.]
 202, -9.388E-05, 2.175E-03, -3.847E-04, -2.939E-05
 i', -9.388E-05, 2.175E-03, -3.847E-04, -2.939E-05 -
 j', -9.905E-05, 2.263E-03, -3.182E-04, -1.553E-05
 203, -9.905E-05, 2.263E-03, -3.182E-04, -1.553E-05
 190 (204-203) [l=291 cm][291 def.]
 204, -9.953E-05, -6.852E+00, -3.189E-04, 1.648E-07 -
 i', -9.953E-05, -6.852E+00, -3.189E-04, 1.648E-07
 j', -9.905E-05, -6.851E+00, -3.182E-04, 1.648E-07
 203, -9.905E-05, -6.851E+00, -3.182E-04, 1.648E-07 - K.
 191 (205-206) [l=105 cm][105 def.]
 205, 2.175E-03, 8.759E-05, -5.698E-05, 2.051E-04
 i', 2.175E-03, 8.759E-05, -5.698E-05, 2.051E-04 - K.
 j', 2.465E-03, 1.054E-04, -1.692E-05, 2.685E-04

206, 2.465E-03, 1.054E-04, -1.692E-05, 2.685E-04
 192 (182-206) [l=223 cm][223 def.]
 182, 2.263E-03, -6.442E+00, -1.643E-05, 9.030E-05 - W_3117_24_-1_-1.
 i', 2.263E-03, -6.442E+00, -1.643E-05, 9.030E-05
 j', 2.465E-03, -6.442E+00, -1.692E-05, 9.031E-05
 206, 2.465E-03, -6.442E+00, -1.692E-05, 9.031E-05 - K.
 193 (206-207) [l=223 cm][223 def.]
 206, 2.465E-03, -6.443E+00, -1.692E-05, 9.027E-05
 i', 2.465E-03, -6.443E+00, -1.692E-05, 9.027E-05 - K.
 j', 2.667E-03, -6.443E+00, -1.735E-05, 9.027E-05
 207, 2.667E-03, -6.443E+00, -1.735E-05, 9.027E-05
 194 (208-209) [l=105 cm][105 def.]
 208, 2.176E-03, 8.759E-05, 2.272E-05, 2.052E-04 - W_3118_24_-1_-1.
 i', 2.176E-03, 8.759E-05, 2.272E-05, 2.052E-04
 j', 2.466E-03, 1.061E-04, -1.778E-05, 2.685E-04
 209, 2.466E-03, 1.061E-04, -1.778E-05, 2.685E-04 - K.
 195 (207-209) [l=223 cm][223 def.]
 207, 2.667E-03, -6.442E+00, -1.735E-05, -9.000E-05
 i', 2.667E-03, -6.442E+00, -1.735E-05, -9.000E-05 - K.
 j', 2.466E-03, -6.442E+00, -1.778E-05, -9.000E-05
 209, 2.466E-03, -6.442E+00, -1.778E-05, -9.000E-05
 196 (209-178) [l=223 cm][223 def.]
 209, 2.466E-03, -6.443E+00, -1.778E-05, -8.996E-05 - K.
 i', 2.466E-03, -6.443E+00, -1.778E-05, -8.996E-05
 j', 2.265E-03, -6.443E+00, -1.827E-05, -8.996E-05
 178, 2.265E-03, -6.443E+00, -1.827E-05, -8.996E-05 - K.
 197 (210-211) [l=105 cm][105 def.]
 210, -2.176E-03, -9.435E-05, 1.555E-05, -3.856E-04
 i', -2.176E-03, -9.435E-05, 1.555E-05, -3.856E-04 - K.
 j', -2.503E-03, -1.128E-04, 1.774E-05, -3.189E-04
 211, -2.503E-03, -1.128E-04, 1.774E-05, -3.189E-04
 198 (156-211) [l=223 cm][223 def.]
 156, -2.265E-03, -6.454E+00, 1.822E-05, -1.069E-04 - K.
 i', -2.265E-03, -6.454E+00, 1.822E-05, -1.069E-04
 j', -2.503E-03, -6.454E+00, 1.774E-05, -1.069E-04
 211, -2.503E-03, -6.454E+00, 1.774E-05, -1.069E-04 - K.
 199 (211-212) [l=223 cm][223 def.]
 211, -2.503E-03, -6.454E+00, 1.759E-05, -1.069E-04
 i', -2.503E-03, -6.454E+00, 1.759E-05, -1.069E-04 - K.
 j', -2.742E-03, -6.454E+00, 1.717E-05, -1.069E-04
 212, -2.742E-03, -6.454E+00, 1.717E-05, -1.069E-04
 200 (213-214) [l=105 cm][105 def.]
 213, -2.175E-03, -9.435E-05, 1.879E-05, -3.856E-04 - K.
 i', -2.175E-03, -9.435E-05, 1.879E-05, -3.856E-04
 j', -2.503E-03, -1.122E-04, 1.690E-05, -3.189E-04
 214, -2.503E-03, -1.122E-04, 1.690E-05, -3.189E-04 - K.
 201 (212-214) [l=223 cm][223 def.]
 212, -2.742E-03, -6.454E+00, 1.732E-05, 1.072E-04
 i', -2.742E-03, -6.454E+00, 1.732E-05, 1.072E-04 - K.
 j', -2.503E-03, -6.454E+00, 1.690E-05, 1.072E-04
 214, -2.503E-03, -6.454E+00, 1.690E-05, 1.072E-04
 202 (214-204) [l=223 cm][223 def.]
 214, -2.503E-03, -6.454E+00, 1.674E-05, 1.072E-04 - K.
 i', -2.503E-03, -6.454E+00, 1.674E-05, 1.072E-04
 j', -2.263E-03, -6.454E+00, 1.626E-05, 1.072E-04
 204, -2.263E-03, -6.454E+00, 1.626E-05, 1.072E-04 - K.
 203 (215-216) [l=500 cm][500 def.]
 215, 0.000E+00, 0.000E+00, 1.534E-05, -6.873E-03
 i', 0.000E+00, 0.000E+00, 1.534E-05, -6.873E-03 - K.
 j', -2.176E-03, -9.435E-05, 1.495E-05, -3.856E-04
 216, -2.176E-03, -9.435E-05, 1.495E-05, -3.856E-04
 204 (136-216) [l=140 cm][140 def.]
 136, -2.176E-03, -6.850E+00, 1.345E-05, 1.645E-07 - K.
 i', -2.176E-03, -6.850E+00, 1.345E-05, 1.645E-07
 j', -2.176E-03, -6.850E+00, 1.495E-05, 1.645E-07
 216, -2.176E-03, -6.850E+00, 1.495E-05, 1.645E-07 - K.
 205 (218-219) [l=500 cm][500 def.]
 218, 0.000E+00, 0.000E+00, 1.704E-05, -6.872E-03
 i', 0.000E+00, 0.000E+00, 1.704E-05, -6.872E-03 - K.
 j', -2.176E-03, -9.435E-05, 1.717E-05, -3.856E-04
 219, -2.176E-03, -9.435E-05, 1.717E-05, -3.856E-04
 206 (217-219) [l=140 cm][140 def.]
 217, -2.176E-03, -6.850E+00, 1.611E-05, 1.645E-07 - K.
 i', -2.176E-03, -6.850E+00, 1.611E-05, 1.645E-07
 j', -2.176E-03, -6.850E+00, 1.717E-05, 1.645E-07
 219, -2.176E-03, -6.850E+00, 1.717E-05, 1.645E-07 - K.
 207 (219-220) [l=140 cm][140 def.]
 219, -2.176E-03, -6.850E+00, 1.717E-05, 1.645E-07
 i', -2.176E-03, -6.850E+00, 1.717E-05, 1.645E-07 - K.
 j', -2.175E-03, -6.850E+00, 1.823E-05, 1.645E-07
 220, -2.175E-03, -6.850E+00, 1.823E-05, 1.645E-07
 208 (221-222) [l=500 cm][500 def.]
 221, 0.000E+00, 0.000E+00, 1.875E-05, -6.872E-03 - K.
 i', 0.000E+00, 0.000E+00, 1.875E-05, -6.872E-03
 j', -2.175E-03, -9.435E-05, 1.939E-05, -3.856E-04
 222, -2.175E-03, -9.435E-05, 1.939E-05, -3.856E-04 - K.

209 (222-4) [l=140 cm][140 def.]
 222, -2.175E-03, -6.850E+00, 1.939E-05, 1.645E-07
 i', -2.175E-03, -6.850E+00, 1.939E-05, 1.645E-07 - K.
 j', -2.175E-03, -6.850E+00, 2.089E-05, 1.645E-07
 4, -2.175E-03, -6.850E+00, 2.089E-05, 1.645E-07
 210 (3-8) [l=227 cm][227 def.]
 3, 0.000E+00, -6.789E+00, -6.877E-03, 0.000E+00 - K.
 i', 0.000E+00, -6.789E+00, -6.877E-03, 0.000E+00
 j', 0.000E+00, -6.776E+00, -9.268E-03, 0.000E+00
 8, 0.000E+00, -6.776E+00, -9.268E-03, 0.000E+00 - K.
 211 (224-225) [l=226 cm][226 def.]
 224, 0.000E+00, -6.744E+00, -9.314E-03, 0.000E+00
 i', 0.000E+00, -6.744E+00, -9.314E-03, 0.000E+00 - K.
 j', 0.000E+00, -6.761E+00, 7.713E-03, 0.000E+00
 225, 0.000E+00, -6.761E+00, 7.713E-03, 0.000E+00
 212 (20-24) [l=227 cm][227 def.]
 20, 0.000E+00, -6.788E+00, 7.635E-03, 0.000E+00 - K.
 i', 0.000E+00, -6.788E+00, 7.635E-03, 0.000E+00
 j', 0.000E+00, -6.760E+00, -5.943E-02, 0.000E+00
 24, 0.000E+00, -6.760E+00, -5.943E-02, 0.000E+00 - K.
 213 (228-229) [l=227 cm][227 def.]
 228, 0.000E+00, -6.546E+00, -5.962E-02, 0.000E+00
 i', 0.000E+00, -6.546E+00, -5.962E-02, 0.000E+00 - K.
 j', 0.000E+00, -6.522E+00, 8.223E-02, 0.000E+00
 229, 0.000E+00, -6.522E+00, 8.223E-02, 0.000E+00
 214 (42-46) [l=227 cm][227 def.]
 42, 0.000E+00, -6.779E+00, 1.929E-02, 0.000E+00 - K.
 i', 0.000E+00, -6.779E+00, 1.929E-02, 0.000E+00
 j', 0.000E+00, -6.781E+00, -1.058E-02, 0.000E+00
 46, 0.000E+00, -6.781E+00, -1.058E-02, 0.000E+00 - K.
 215 (232-233) [l=227 cm][227 def.]
 232, 0.000E+00, -6.739E+00, -1.066E-02, 0.000E+00
 i', 0.000E+00, -6.739E+00, -1.066E-02, 0.000E+00 - K.
 j', 0.000E+00, -6.732E+00, 1.009E-02, 0.000E+00
 233, 0.000E+00, -6.732E+00, 1.009E-02, 0.000E+00
 216 (67-71) [l=227 cm][227 def.]
 67, 0.000E+00, -6.781E+00, -5.066E-03, 0.000E+00 - K.
 i', 0.000E+00, -6.781E+00, -5.066E-03, 0.000E+00
 j', 0.000E+00, -6.781E+00, 5.033E-03, 0.000E+00
 71, 0.000E+00, -6.781E+00, 5.033E-03, 0.000E+00 - K.
 217 (76-80) [l=227 cm][227 def.]
 76, 0.000E+00, -6.784E+00, -7.745E-03, 0.000E+00
 i', 0.000E+00, -6.784E+00, -7.745E-03, 0.000E+00 - K.
 j', 0.000E+00, -6.771E+00, -1.003E-02, 0.000E+00
 80, 0.000E+00, -6.771E+00, -1.003E-02, 0.000E+00
 218 (236-237) [l=227 cm][227 def.]
 236, 0.000E+00, -6.732E+00, -1.009E-02, 0.000E+00 - K.
 i', 0.000E+00, -6.732E+00, -1.009E-02, 0.000E+00
 j', 0.000E+00, -6.739E+00, 1.066E-02, 0.000E+00
 237, 0.000E+00, -6.739E+00, 1.066E-02, 0.000E+00 - K.
 219 (92-96) [l=227 cm][227 def.]
 92, 0.000E+00, -6.781E+00, 1.058E-02, 0.000E+00
 i', 0.000E+00, -6.781E+00, 1.058E-02, 0.000E+00 - K.
 j', 0.000E+00, -6.779E+00, -1.929E-02, 0.000E+00
 96, 0.000E+00, -6.779E+00, -1.929E-02, 0.000E+00
 220 (240-241) [l=227 cm][227 def.]
 240, 0.000E+00, -6.522E+00, -8.223E-02, 0.000E+00 - K.
 i', 0.000E+00, -6.522E+00, -8.223E-02, 0.000E+00
 j', 0.000E+00, -6.546E+00, 5.962E-02, 0.000E+00
 241, 0.000E+00, -6.546E+00, 5.962E-02, 0.000E+00 - K.
 221 (114-118) [l=227 cm][227 def.]
 114, 0.000E+00, -6.760E+00, 5.943E-02, 0.000E+00
 i', 0.000E+00, -6.760E+00, 5.943E-02, 0.000E+00 - K.
 j', 0.000E+00, -6.788E+00, -7.627E-03, 0.000E+00
 118, 0.000E+00, -6.788E+00, -7.627E-03, 0.000E+00
 222 (244-245) [l=227 cm][227 def.]
 244, 0.000E+00, -6.761E+00, -7.705E-03, 0.000E+00 - K.
 i', 0.000E+00, -6.761E+00, -7.705E-03, 0.000E+00
 j', 0.000E+00, -6.743E+00, 9.317E-03, 0.000E+00
 245, 0.000E+00, -6.743E+00, 9.317E-03, 0.000E+00 - K.
 223 (130-134) [l=227 cm][227 def.]
 130, 0.000E+00, -6.776E+00, 9.271E-03, 0.000E+00
 i', 0.000E+00, -6.776E+00, 9.271E-03, 0.000E+00 - K.
 j', 0.000E+00, -6.788E+00, 6.877E-03, 0.000E+00
 134, 0.000E+00, -6.788E+00, 6.877E-03, 0.000E+00
 224 (247-248) [l=447 cm][447 def.]
 247, -2.265E-03, -6.453E+00, 1.935E-05, -1.065E-04 - K.
 i', -2.265E-03, -6.453E+00, 1.935E-05, -1.065E-04
 j', 1.346E-03, -7.603E+00, 1.725E-05, 8.081E-04
 248, 1.346E-03, -7.603E+00, 1.725E-05, 8.081E-04 - K.
 225 (248-249) [l=447 cm][447 def.]
 248, 1.346E-03, -7.603E+00, 1.725E-05, -8.078E-04
 i', 1.346E-03, -7.603E+00, 1.725E-05, -8.078E-04 - K.
 j', -2.263E-03, -6.453E+00, 1.515E-05, 1.068E-04
 249, -2.263E-03, -6.453E+00, 1.515E-05, 1.068E-04
 226 (250-251) [l=447 cm][447 def.]

250, 4.836E-05, -7.609E+00, 1.725E-05, -5.173E-04 - K.
 i', 4.836E-05, -7.609E+00, 1.725E-05, -5.173E-04
 j', -2.263E-03, -6.452E+00, 1.428E-05, 1.059E-04
 251, -2.263E-03, -6.452E+00, 1.428E-05, 1.059E-04 - K.
 227 (252-250) [l=447 cm][447 def.]
 252, -2.265E-03, -6.452E+00, 2.022E-05, -1.056E-04
 i', -2.265E-03, -6.452E+00, 2.022E-05, -1.056E-04 - K.
 j', 4.836E-05, -7.609E+00, 1.725E-05, 5.176E-04
 250, 4.836E-05, -7.609E+00, 1.725E-05, 5.176E-04
 228 (253-254) [l=447 cm][447 def.]
 253, -1.212E-03, -7.608E+00, 1.724E-05, -2.354E-04 - K.
 i', -1.212E-03, -7.608E+00, 1.724E-05, -2.354E-04
 j', -2.263E-03, -6.451E+00, 1.366E-05, 1.044E-04
 254, -2.263E-03, -6.451E+00, 1.366E-05, 1.044E-04 - K.
 229 (255-253) [l=447 cm][447 def.]
 255, -2.265E-03, -6.450E+00, 2.084E-05, -1.041E-04
 i', -2.265E-03, -6.450E+00, 2.084E-05, -1.041E-04 - K.
 j', -1.212E-03, -7.608E+00, 1.724E-05, 2.357E-04
 253, -1.212E-03, -7.608E+00, 1.724E-05, 2.357E-04
 230 (256-257) [l=447 cm][447 def.]
 256, -2.392E-03, -7.600E+00, 1.272E-05, 2.883E-05 - K.
 i', -2.392E-03, -7.600E+00, 1.272E-05, 2.883E-05
 j', -2.263E-03, -6.449E+00, 1.330E-05, 1.023E-04
 257, -2.263E-03, -6.449E+00, 1.330E-05, 1.023E-04 - K.
 231 (258-256) [l=447 cm][447 def.]
 258, -2.265E-03, -6.449E+00, 2.122E-05, -1.020E-04
 i', -2.265E-03, -6.449E+00, 2.122E-05, -1.020E-04 - K.
 j', -2.392E-03, -7.600E+00, 1.272E-05, -2.852E-05
 256, -2.392E-03, -7.600E+00, 1.272E-05, -2.852E-05
 232 (259-260) [l=192 cm][192 def.]
 259, -2.265E-03, -6.448E+00, 2.125E-05, -9.976E-05 - K.
 i', -2.265E-03, -6.448E+00, 2.125E-05, -9.976E-05
 j', 1.287E-04, -7.787E+00, 4.485E-01, 1.246E-03
 260, 1.287E-04, -7.787E+00, 4.485E-01, 1.246E-03 - K.
 233 (261-262) [l=447 cm][447 def.]
 261, -2.265E-03, -6.446E+00, 2.136E-05, -9.494E-05
 i', -2.265E-03, -6.446E+00, 2.136E-05, -9.494E-05 - K.
 j', -3.940E-03, -7.650E+00, 1.741E-05, -3.750E-04
 262, -3.940E-03, -7.650E+00, 1.741E-05, -3.750E-04
 234 (262-263) [l=447 cm][447 def.]
 262, -3.940E-03, -7.650E+00, 1.741E-05, 3.753E-04 - K.
 i', -3.940E-03, -7.650E+00, 1.741E-05, 3.753E-04
 j', -2.263E-03, -6.446E+00, 1.344E-05, 9.525E-05
 263, -2.263E-03, -6.446E+00, 1.344E-05, 9.525E-05 - K.
 235 (264-265) [l=447 cm][447 def.]
 264, -2.265E-03, -6.445E+00, 2.099E-05, -9.292E-05
 i', -2.265E-03, -6.445E+00, 2.099E-05, -9.292E-05 - K.
 j', -5.571E-03, -7.604E+00, 1.741E-05, -7.399E-04
 265, -5.571E-03, -7.604E+00, 1.741E-05, -7.399E-04
 236 (265-266) [l=447 cm][447 def.]
 265, -5.571E-03, -7.604E+00, 1.741E-05, 7.403E-04 - K.
 i', -5.571E-03, -7.604E+00, 1.741E-05, 7.403E-04
 j', -2.263E-03, -6.445E+00, 1.382E-05, 9.323E-05
 266, -2.263E-03, -6.445E+00, 1.382E-05, 9.323E-05 - K.
 237 (267-268) [l=447 cm][447 def.]
 267, -2.265E-03, -6.444E+00, 2.036E-05, -9.133E-05
 i', -2.265E-03, -6.444E+00, 2.036E-05, -9.133E-05 - K.
 j', -7.009E-03, -7.598E+00, 1.741E-05, -1.062E-03
 268, -7.009E-03, -7.598E+00, 1.741E-05, -1.062E-03
 238 (268-269) [l=447 cm][447 def.]
 268, -7.009E-03, -7.598E+00, 1.741E-05, 1.062E-03 - Z.
 i', -7.009E-03, -7.598E+00, 1.741E-05, 1.062E-03
 j', -2.263E-03, -6.445E+00, 1.445E-05, 9.164E-05
 269, -2.263E-03, -6.445E+00, 1.445E-05, 9.164E-05 - Z.
 239 (270-271) [l=447 cm][447 def.]
 270, -7.593E-03, -7.424E+00, 1.741E-05, 1.193E-03
 i', -7.593E-03, -7.424E+00, 1.741E-05, 1.193E-03 - Z.
 j', -2.263E-03, -6.444E+00, 1.533E-05, 9.070E-05
 271, -2.263E-03, -6.444E+00, 1.533E-05, 9.070E-05
 240 (272-270) [l=447 cm][447 def.]
 272, -2.265E-03, -6.443E+00, 1.949E-05, -9.039E-05 - Z.
 i', -2.265E-03, -6.443E+00, 1.949E-05, -9.039E-05
 j', -7.593E-03, -7.424E+00, 1.741E-05, -1.192E-03
 270, -7.593E-03, -7.424E+00, 1.741E-05, -1.192E-03 - Z.
 241 (212-248) [l=395 cm][395 def.]
 212, -1.255E-04, -6.851E+00, -3.189E-04, 1.648E-07
 i', -1.255E-04, -6.851E+00, -3.189E-04, 1.648E-07 - Z.
 j', -1.239E-04, -8.071E+00, 2.407E-03, 1.648E-07
 248, -1.239E-04, -8.071E+00, 2.407E-03, 1.648E-07
 242 (248-250) [l=370 cm][370 def.]
 248, -1.239E-04, -8.071E+00, 2.407E-03, 1.648E-07 - Z.
 i', -1.239E-04, -8.071E+00, 2.407E-03, 1.648E-07
 j', -1.236E-04, -8.077E+00, 1.542E-03, 1.648E-07
 250, -1.236E-04, -8.077E+00, 1.542E-03, 1.648E-07 - Z.
 243 (250-253) [l=370 cm][370 def.]
 250, -1.236E-04, -8.077E+00, 1.542E-03, 1.648E-07

i', -1.236E-04, -8.077E+00, 1.542E-03, 1.648E-07 - Z.
 j', -1.233E-04, -8.076E+00, 7.016E-04, 1.648E-07
 253, -1.233E-04, -8.076E+00, 7.016E-04, 1.648E-07
 244 (253-256) [l=370 cm][370 def.]
 253, -1.233E-04, -8.076E+00, 7.016E-04, 1.648E-07 - Z.
 i', -1.233E-04, -8.076E+00, 7.016E-04, 1.648E-07
 j', -1.162E-04, -8.068E+00, -8.541E-05, 1.648E-07
 256, -1.162E-04, -8.068E+00, -8.541E-05, 1.648E-07 - Z.
 245 (256-273) [l=368 cm][368 def.]
 256, -1.162E-04, -8.068E+00, -8.541E-05, 1.648E-07
 i', -1.162E-04, -8.068E+00, -8.541E-05, 1.648E-07 - Z.
 j', -1.099E-04, -7.906E+00, -2.619E-04, 1.648E-07
 273, -1.099E-04, -7.906E+00, -2.619E-04, 1.648E-07
 246 (273-274) [l=330 cm][330 def.]
 273, -1.099E-04, -7.906E+00, -2.619E-04, 1.648E-07 - Z.
 i', -1.099E-04, -7.906E+00, -2.619E-04, 1.648E-07
 j', -1.202E-04, -7.966E+00, 2.422E-05, 1.648E-07
 274, -1.202E-04, -7.966E+00, 2.422E-05, 1.648E-07 - Z.
 247 (274-262) [l=402 cm][402 def.]
 274, -1.202E-04, -7.966E+00, 2.422E-05, 1.648E-07
 i', -1.202E-04, -7.966E+00, 2.422E-05, 1.648E-07 - Z.
 j', -1.210E-04, -8.121E+00, -1.118E-03, 1.648E-07
 262, -1.210E-04, -8.121E+00, -1.118E-03, 1.648E-07
 248 (265-262) [l=370 cm][370 def.]
 265, 1.200E-04, -8.072E+00, 2.205E-03, 1.648E-07 - Z.
 i', 1.200E-04, -8.072E+00, 2.205E-03, 1.648E-07
 j', 1.210E-04, -8.121E+00, 1.118E-03, 1.648E-07
 262, 1.210E-04, -8.121E+00, 1.118E-03, 1.648E-07 - Z.
 249 (268-265) [l=370 cm][370 def.]
 268, 1.190E-04, -8.066E+00, 3.163E-03, 1.648E-07
 i', 1.190E-04, -8.066E+00, 3.163E-03, 1.648E-07 - Z.
 j', 1.200E-04, -8.072E+00, 2.205E-03, 1.648E-07
 265, 1.200E-04, -8.072E+00, 2.205E-03, 1.648E-07
 250 (275-270) [l=395 cm][395 def.]
 275, 1.188E-04, -6.839E+00, 2.685E-04, 1.648E-07 - Z.
 i', 1.188E-04, -6.839E+00, 2.685E-04, 1.648E-07
 j', 1.183E-04, -7.881E+00, 3.553E-03, 1.648E-07
 270, 1.183E-04, -7.881E+00, 3.553E-03, 1.648E-07 - Z.
 251 (270-268) [l=370 cm][370 def.]
 270, 1.183E-04, -7.881E+00, 3.553E-03, 1.648E-07
 i', 1.183E-04, -7.881E+00, 3.553E-03, 1.648E-07 - Z.
 j', 1.190E-04, -8.066E+00, 3.163E-03, 1.648E-07
 268, 1.190E-04, -8.066E+00, 3.163E-03, 1.648E-07
 252 (277-278) [l=447 cm][447 def.]
 277, -2.345E-03, -6.442E+00, 1.828E-05, -8.998E-05 - Z.
 i', -2.345E-03, -6.442E+00, 1.828E-05, -8.998E-05
 j', -2.747E-03, -6.443E+00, 1.735E-05, -8.998E-05
 278, -2.747E-03, -6.443E+00, 1.735E-05, -8.998E-05 - Z.
 253 (279-278) [l=447 cm][447 def.]
 279, 2.344E-03, -6.443E+00, -1.642E-05, 9.029E-05
 i', 2.344E-03, -6.443E+00, -1.642E-05, 9.029E-05 - Z.
 j', 2.747E-03, -6.442E+00, -1.735E-05, 9.029E-05
 278, 2.747E-03, -6.442E+00, -1.735E-05, 9.029E-05
 254 (280-281) [l=447 cm][447 def.]
 280, 2.359E-03, -6.454E+00, -1.641E-05, 1.072E-04 - Z.
 i', 2.359E-03, -6.454E+00, -1.641E-05, 1.072E-04
 j', 2.838E-03, -6.454E+00, -1.732E-05, 1.072E-04
 281, 2.838E-03, -6.454E+00, -1.732E-05, 1.072E-04 - Z.
 255 (276-281) [l=447 cm][447 def.]
 276, -2.360E-03, -6.454E+00, 1.823E-05, -1.069E-04
 i', -2.360E-03, -6.454E+00, 1.823E-05, -1.069E-04 - Z.
 j', -2.838E-03, -6.454E+00, 1.732E-05, -1.069E-04
 281, -2.838E-03, -6.454E+00, 1.732E-05, -1.069E-04
 256 (282-j'-283) [l=181 cm][173 def.-8 rig.]
 282, 1.404E-03, -6.843E+00, -7.029E-05, 1.645E-07 - Z.
 i', 1.404E-03, -6.843E+00, -7.029E-05, 1.645E-07
 j', 2.725E-02, -6.202E+00, -1.886E-03, 1.645E-07
 283, 2.725E-02, -6.202E+00, -1.886E-03, 1.645E-07 - Z.
 257 (283-i'-j'-284) [l=140 cm][8 rig.-124 def.-8 rig.]
 283, 2.725E-02, -6.202E+00, -1.886E-03, 1.645E-07
 i', 2.725E-02, -6.202E+00, -1.886E-03, 1.645E-07 - Z.
 j', 3.114E-02, -5.901E+00, -1.132E-03, 1.645E-07
 284, 3.114E-02, -5.901E+00, -1.132E-03, 1.645E-07
 258 (285-i'-j'-286) [l=140 cm][8 rig.-124 def.-8 rig.]
 285, -2.725E-02, -6.202E+00, -1.852E-03, 1.645E-07 - Z.
 i', -2.725E-02, -6.202E+00, -1.852E-03, 1.645E-07
 j', -3.114E-02, -5.901E+00, -1.097E-03, 1.645E-07
 286, -3.114E-02, -5.901E+00, -1.097E-03, 1.645E-07 - Z.
 259 (287-j'-285) [l=181 cm][173 def.-8 rig.]
 287, -1.405E-03, -6.843E+00, -3.604E-05, 1.645E-07
 i', -1.405E-03, -6.843E+00, -3.604E-05, 1.645E-07 - Z.
 j', -2.725E-02, -6.202E+00, -1.852E-03, 1.645E-07
 285, -2.725E-02, -6.202E+00, -1.852E-03, 1.645E-07
 260 (286-i'-j'-284) [l=200 cm][8 rig.-184 def.-8 rig.]
 286, -3.114E-02, -5.901E+00, -1.097E-03, 1.645E-07 - Z.
 i', -3.114E-02, -5.900E+00, -1.097E-03, 1.645E-07

j', -3.114E-02, -5.900E+00, 1.132E-03, 1.645E-07
 284, -3.114E-02, -5.901E+00, 1.132E-03, 1.645E-07 - Z.
 261 (288-273) [l=106 cm][106 def.]
 288, -1.767E-03, -7.748E+00, 1.434E-01, 1.458E-04
 i', -1.767E-03, -7.748E+00, 1.434E-01, 1.458E-04 - Z.
 j', -2.657E-03, -7.448E+00, 8.964E-06, -8.766E-05
 273, -2.657E-03, -7.448E+00, 8.964E-06, -8.766E-05
 262 (260-288) [l=149 cm][149 def.]
 260, 2.887E-04, -7.787E+00, 4.485E-01, 1.329E-03 - Z.
 i', 2.887E-04, -7.787E+00, 4.485E-01, 1.329E-03
 j', -1.767E-03, -7.747E+00, 1.434E-01, 1.460E-04
 288, -1.767E-03, -7.747E+00, 1.434E-01, 1.460E-04 - Z.
 263 (289-290) [l=192 cm][192 def.]
 289, 2.263E-03, -6.448E+00, -1.341E-05, 1.001E-04
 i', 2.263E-03, -6.448E+00, -1.341E-05, 1.001E-04 - Z.
 j', -1.294E-04, -7.787E+00, 4.484E-01, -1.246E-03
 290, -1.294E-04, -7.787E+00, 4.484E-01, -1.246E-03
 264 (290-291) [l=149 cm][149 def.]
 290, -2.892E-04, -7.787E+00, 4.484E-01, -1.329E-03 - Z.
 i', -2.892E-04, -7.787E+00, 4.484E-01, -1.329E-03
 j', 1.767E-03, -7.747E+00, 1.434E-01, -1.457E-04
 291, 1.767E-03, -7.747E+00, 1.434E-01, -1.457E-04 - Z.
 265 (291-273) [l=106 cm][106 def.]
 291, 1.767E-03, -7.748E+00, 1.434E-01, -1.455E-04
 i', 1.767E-03, -7.748E+00, 1.434E-01, -1.455E-04 - Z.
 j', 2.657E-03, -7.448E+00, -8.964E-06, 8.798E-05
 273, 2.657E-03, -7.448E+00, -8.964E-06, 8.798E-05
 266 (292-i'-j'-293) [l=140 cm][8 rig.-124 def.-8 rig.]
 292, -3.520E-02, -6.173E+00, -1.943E-03, 1.645E-07 - Z.
 i', -3.520E-02, -6.173E+00, -1.943E-03, 1.645E-07
 j', -4.072E-02, -5.867E+00, -1.163E-03, 1.645E-07
 293, -4.072E-02, -5.867E+00, -1.163E-03, 1.645E-07 - Z.
 267 (294-j'-292) [l=181 cm][173 def.-8 rig.]
 294, 1.476E-03, -6.842E+00, -7.270E-05, 1.645E-07
 i', 1.476E-03, -6.842E+00, -7.270E-05, 1.645E-07 - Z.
 j', -3.520E-02, -6.174E+00, -1.943E-03, 1.645E-07
 292, -3.520E-02, -6.173E+00, -1.943E-03, 1.645E-07
 268 (295-i'-j'-293) [l=200 cm][8 rig.-184 def.-8 rig.]
 295, 4.072E-02, -5.867E+00, -1.129E-03, 1.645E-07 - Z.
 i', 4.072E-02, -5.867E+00, -1.129E-03, 1.645E-07
 j', 4.072E-02, -5.867E+00, 1.163E-03, 1.645E-07
 293, 4.072E-02, -5.867E+00, 1.163E-03, 1.645E-07 - Z.
 269 (296-297) [l=149 cm][149 def.]
 296, 5.160E-03, -7.867E+00, 4.759E-01, 1.508E-03
 i', 5.160E-03, -7.867E+00, 4.759E-01, 1.508E-03 - Z.
 j', 1.558E-03, -7.823E+00, 1.521E-01, -2.069E-04
 297, 1.558E-03, -7.823E+00, 1.521E-01, -2.069E-04
 270 (298-296) [l=192 cm][192 def.]
 298, 2.263E-03, -6.447E+00, -1.325E-05, 9.785E-05 - Z.
 i', 2.263E-03, -6.447E+00, -1.325E-05, 9.785E-05
 j', 4.941E-03, -7.867E+00, 4.759E-01, 1.394E-03
 296, 4.941E-03, -7.867E+00, 4.759E-01, 1.394E-03 - Z.
 271 (297-274) [l=106 cm][106 def.]
 297, 1.434E-03, -7.824E+00, 1.521E-01, -2.431E-04
 i', 1.434E-03, -7.824E+00, 1.521E-01, -2.431E-04 - Z.
 j', 2.228E-03, -7.505E+00, -1.621E-05, -7.969E-06
 274, 2.228E-03, -7.505E+00, -1.621E-05, -7.969E-06
 272 (299-274) [l=106 cm][106 def.]
 299, -1.434E-03, -7.824E+00, 1.522E-01, 2.435E-04 - Z.
 i', -1.434E-03, -7.824E+00, 1.522E-01, 2.435E-04
 j', -2.228E-03, -7.505E+00, 1.621E-05, 8.280E-06
 274, -2.228E-03, -7.505E+00, 1.621E-05, 8.280E-06 - Z.
 273 (300-299) [l=149 cm][149 def.]
 300, -5.161E-03, -7.867E+00, 4.759E-01, -1.508E-03
 i', -5.161E-03, -7.867E+00, 4.759E-01, -1.508E-03 - Z.
 j', -1.559E-03, -7.823E+00, 1.522E-01, 2.072E-04
 299, -1.559E-03, -7.823E+00, 1.522E-01, 2.072E-04
 274 (301-300) [l=192 cm][192 def.]
 301, -2.265E-03, -6.447E+00, 2.142E-05, -9.754E-05 - Z.
 i', -2.265E-03, -6.447E+00, 2.142E-05, -9.754E-05
 j', -4.942E-03, -7.867E+00, 4.759E-01, -1.394E-03
 300, -4.942E-03, -7.867E+00, 4.759E-01, -1.394E-03 - Z.
 275 (302-i'-j'-295) [l=140 cm][8 rig.-124 def.-8 rig.]
 302, 3.520E-02, -6.173E+00, -1.909E-03, 1.645E-07
 i', 3.520E-02, -6.173E+00, -1.909E-03, 1.645E-07 - Z.
 j', 4.072E-02, -5.867E+00, -1.129E-03, 1.645E-07
 295, 4.072E-02, -5.867E+00, -1.129E-03, 1.645E-07
 276 (303-j'-302) [l=181 cm][173 def.-8 rig.]
 303, -1.477E-03, -6.842E+00, -3.845E-05, 1.645E-07 - Z.
 i', -1.477E-03, -6.842E+00, -3.845E-05, 1.645E-07
 j', 3.520E-02, -6.174E+00, -1.909E-03, 1.645E-07
 302, 3.520E-02, -6.173E+00, -1.909E-03, 1.645E-07 - Z.
 277 (304-j'-305) [l=650 cm][226 def.-424 rig.]
 304, 0.000E+00, 0.000E+00, 5.886E-02, 1.579E-01
 i', 0.000E+00, 0.000E+00, 5.886E-02, 1.579E-01 - Z.
 j', -3.010E-03, -3.392E-02, -1.158E-02, 1.132E-03

305, 1.789E-03, 1.520E-02, -1.158E-02, 1.132E-03
 278 (306-j'-307) [l=600 cm][226 def.-374 rig.]
 306, 0.000E+00, 0.000E+00, 5.906E-02, 2.828E-01 - Z.
 i', 0.000E+00, 0.000E+00, 5.906E-02, 2.828E-01
 j', -5.078E-03, -2.965E-02, -1.003E-02, 1.886E-03
 307, 1.978E-03, 7.853E-03, -1.003E-02, 1.886E-03 - Z.
 279 (308-j'-309) [l=600 cm][226 def.-374 rig.]
 308, 0.000E+00, 0.000E+00, -5.906E-02, 2.828E-01
 i', 0.000E+00, 0.000E+00, -5.906E-02, 2.828E-01 - Z.
 j', -5.166E-03, 2.965E-02, 1.003E-02, 1.852E-03
 309, 1.761E-03, -7.852E-03, 1.003E-02, 1.852E-03
 280 (310-j'-311) [l=650 cm][226 def.-424 rig.]
 310, 0.000E+00, 0.000E+00, -5.886E-02, 1.579E-01 - Z.
 i', 0.000E+00, 0.000E+00, -5.886E-02, 1.579E-01
 j', -3.098E-03, 3.392E-02, 1.158E-02, 1.097E-03
 311, 1.555E-03, -1.520E-02, 1.158E-02, 1.097E-03 - Z.
 281 (312-j'-313) [l=600 cm][226 def.-374 rig.]
 312, 0.000E+00, 0.000E+00, -8.146E-02, 2.886E-01
 i', 0.000E+00, 0.000E+00, -8.146E-02, 2.886E-01 - Z.
 j', -5.233E-03, 3.879E-02, 1.495E-02, 1.943E-03
 313, 2.034E-03, -1.713E-02, 1.495E-02, 1.943E-03
 282 (314-j'-315) [l=650 cm][226 def.-424 rig.]
 314, 0.000E+00, 0.000E+00, -8.118E-02, 1.599E-01 - Z.
 i', 0.000E+00, 0.000E+00, -8.118E-02, 1.599E-01
 j', -3.096E-03, 4.484E-02, 1.716E-02, 1.163E-03
 315, 1.835E-03, -2.791E-02, 1.716E-02, 1.163E-03 - Z.
 283 (316-j'-317) [l=650 cm][226 def.-424 rig.]
 316, 0.000E+00, 0.000E+00, 8.118E-02, 1.599E-01
 i', 0.000E+00, 0.000E+00, 8.118E-02, 1.599E-01 - Z.
 j', -3.183E-03, -4.484E-02, -1.716E-02, 1.129E-03
 317, 1.602E-03, 2.791E-02, -1.716E-02, 1.129E-03
 284 (318-j'-319) [l=600 cm][226 def.-374 rig.]
 318, 0.000E+00, 0.000E+00, 8.146E-02, 2.885E-01 - Z.
 i', 0.000E+00, 0.000E+00, 8.146E-02, 2.885E-01
 j', -5.321E-03, -3.879E-02, -1.495E-02, 1.909E-03
 319, 1.818E-03, 1.713E-02, -1.495E-02, 1.909E-03 - Z.
 285 (320-148) [l=188 cm][188 def.]
 320, 8.171E-05, 1.350E-03, -3.304E-04, -6.935E-05
 i', 8.171E-05, 1.350E-03, -3.304E-04, -6.935E-05 - Z.
 j', -4.867E-05, 1.971E-03, -3.304E-04, -6.936E-05
 148, -4.867E-05, 1.971E-03, -3.304E-04, -6.936E-05
 286 (321-151) [l=188 cm][188 def.]
 321, -1.794E-04, 1.350E-03, -3.304E-04, 3.509E-05 - Z.
 i', -1.794E-04, 1.350E-03, -3.304E-04, 3.509E-05
 j', -1.134E-04, 1.971E-03, -3.304E-04, 3.510E-05
 151, -1.134E-04, 1.971E-03, -3.304E-04, 3.510E-05 - Z.
 287 (320-321) [l=200 cm][200 def.]
 320, 1.350E-03, -6.844E+00, -6.935E-05, 1.645E-07
 i', 1.350E-03, -6.844E+00, -6.935E-05, 1.645E-07 - Z.
 j', 1.350E-03, -6.844E+00, 3.509E-05, 1.645E-07
 321, 1.350E-03, -6.844E+00, 3.509E-05, 1.645E-07
 288 (322-140) [l=188 cm][188 def.]
 322, -1.925E-04, 1.529E-03, -2.586E-04, 4.085E-05 - Z.
 i', -1.925E-04, 1.529E-03, -2.586E-04, 4.085E-05
 j', -1.157E-04, 2.016E-03, -2.586E-04, 4.086E-05
 140, -1.157E-04, 2.016E-03, -2.586E-04, 4.086E-05 - Z.
 289 (323-143) [l=188 cm][188 def.]
 323, 9.742E-05, 1.529E-03, -2.585E-04, -7.509E-05
 i', 9.742E-05, 1.529E-03, -2.585E-04, -7.509E-05 - Z.
 j', -4.376E-05, 2.015E-03, -2.585E-04, -7.510E-05
 143, -4.376E-05, 2.015E-03, -2.585E-04, -7.510E-05
 290 (322-323) [l=200 cm][200 def.]
 322, -1.529E-03, -6.841E+00, -4.085E-05, 1.645E-07 - Z.
 i', -1.529E-03, -6.841E+00, -4.085E-05, 1.645E-07
 j', -1.529E-03, -6.841E+00, 7.509E-05, 1.645E-07
 323, -1.529E-03, -6.841E+00, 7.509E-05, 1.645E-07 - Z.
 291 (98-139) [l=62 cm][62 def.]
 98, -9.033E-05, -2.176E-03, -2.585E-04, -4.017E-05
 i', -9.033E-05, -2.176E-03, -2.585E-04, -4.017E-05 - Z.
 j', -1.155E-04, -2.016E-03, -2.585E-04, -4.061E-05
 139, -1.155E-04, -2.016E-03, -2.585E-04, -4.061E-05
 292 (276-156) [l=30 cm][30 def.]
 276, -1.050E-04, -2.360E-03, -3.189E-04, 1.823E-05 - Z.
 i', -1.050E-04, -2.360E-03, -3.189E-04, 1.823E-05
 j', -9.953E-05, -2.265E-03, -3.189E-04, 1.822E-05
 156, -9.953E-05, -2.265E-03, -3.189E-04, 1.822E-05 - Z.
 293 (155-324) [l=30 cm][30 def.]
 155, -9.857E-05, 2.265E-03, -3.166E-04, -1.986E-05
 i', -9.857E-05, 2.265E-03, -3.166E-04, -1.986E-05 - Z.
 j', -1.045E-04, 2.360E-03, -3.166E-04, -1.986E-05
 324, -1.045E-04, 2.360E-03, -3.166E-04, -1.986E-05
 294 (159-325) [l=30 cm][30 def.]
 159, -9.761E-05, 2.265E-03, -3.100E-04, -2.094E-05 - Z.
 i', -9.761E-05, 2.265E-03, -3.100E-04, -2.094E-05
 j', -1.039E-04, 2.358E-03, -3.100E-04, -2.094E-05
 325, -1.039E-04, 2.358E-03, -3.100E-04, -2.094E-05 - Z.

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295 (162-326) [l=30 cm][30 def.]
162, -9.684E-05, 2.265E-03, -3.022E-04, -2.133E-05
    i', -9.684E-05, 2.265E-03, -3.022E-04, -2.133E-05 - Z.
j', -1.032E-04, 2.355E-03, -3.022E-04, -2.133E-05
326, -1.032E-04, 2.355E-03, -3.022E-04, -2.133E-05
296 (164-259) [l=0 cm][0 def.]
164, 9.644E-05, -6.846E+00, 2.975E-04, 1.648E-07 - Z.
i', 9.644E-05, -6.846E+00, 2.975E-04, 1.648E-07
j', 9.644E-05, -6.846E+00, 2.975E-04, 1.648E-07
259, 9.644E-05, -6.846E+00, 2.975E-04, 1.648E-07 - Z.
297 (164-327) [l=30 cm][30 def.]
164, -9.644E-05, 2.265E-03, -2.975E-04, -2.141E-05
    i', -9.644E-05, 2.265E-03, -2.975E-04, -2.141E-05 - Z.
j', -1.029E-04, 2.354E-03, -2.975E-04, -2.141E-05
327, -1.029E-04, 2.354E-03, -2.975E-04, -2.141E-05
298 (167-328) [l=30 cm][30 def.]
167, -9.590E-05, 2.265E-03, -2.909E-04, -2.142E-05 - Z.
i', -9.590E-05, 2.265E-03, -2.909E-04, -2.142E-05
j', -1.023E-04, 2.352E-03, -2.909E-04, -2.142E-05
328, -1.023E-04, 2.352E-03, -2.909E-04, -2.142E-05 - Z.
299 (167-301) [l=0 cm][0 def.]
167, 9.590E-05, -6.845E+00, 2.909E-04, 1.648E-07
    i', 9.590E-05, -6.845E+00, 2.909E-04, 1.648E-07 - Z.
j', 9.590E-05, -6.845E+00, 2.909E-04, 1.648E-07
301, 9.590E-05, -6.845E+00, 2.909E-04, 1.648E-07
300 (169-329) [l=30 cm][30 def.]
169, -9.549E-05, 2.265E-03, -2.861E-04, -2.135E-05 - Z.
i', -9.549E-05, 2.265E-03, -2.861E-04, -2.135E-05
j', -1.019E-04, 2.350E-03, -2.861E-04, -2.135E-05
329, -1.019E-04, 2.350E-03, -2.861E-04, -2.135E-05 - Z.
301 (172-330) [l=30 cm][30 def.]
172, -9.473E-05, 2.265E-03, -2.782E-04, -2.099E-05
    i', -9.473E-05, 2.265E-03, -2.782E-04, -2.099E-05 - K.
j', -1.010E-04, 2.348E-03, -2.782E-04, -2.099E-05
330, -1.010E-04, 2.348E-03, -2.782E-04, -2.099E-05
302 (175-331) [l=30 cm][30 def.]
175, -9.371E-05, 2.265E-03, -2.709E-04, -1.987E-05 - K.
i', -9.371E-05, 2.265E-03, -2.709E-04, -1.987E-05
j', -9.967E-05, 2.346E-03, -2.709E-04, -1.987E-05
331, -9.967E-05, 2.346E-03, -2.709E-04, -1.987E-05 - K.
303 (182-279) [l=30 cm][30 def.]
182, -9.275E-05, 2.263E-03, -2.685E-04, -1.643E-05
    i', -9.275E-05, 2.263E-03, -2.685E-04, -1.643E-05 - K.
j', -9.768E-05, 2.344E-03, -2.685E-04, -1.642E-05
279, -9.768E-05, 2.344E-03, -2.685E-04, -1.642E-05
304 (181-332) [l=30 cm][30 def.]
181, -9.371E-05, 2.263E-03, -2.709E-04, -1.482E-05 - K.
i', -9.371E-05, 2.263E-03, -2.709E-04, -1.482E-05
j', -9.816E-05, 2.344E-03, -2.709E-04, -1.482E-05
332, -9.816E-05, 2.344E-03, -2.709E-04, -1.482E-05 - K.
305 (185-333) [l=30 cm][30 def.]
185, -9.473E-05, 2.263E-03, -2.782E-04, -1.369E-05
    i', -9.473E-05, 2.263E-03, -2.782E-04, -1.369E-05 - K.
j', -9.884E-05, 2.347E-03, -2.782E-04, -1.369E-05
333, -9.884E-05, 2.347E-03, -2.782E-04, -1.369E-05
306 (188-334) [l=30 cm][30 def.]
188, -9.549E-05, 2.263E-03, -2.861E-04, -1.333E-05 - T.
i', -9.549E-05, 2.263E-03, -2.861E-04, -1.333E-05
j', -9.949E-05, 2.349E-03, -2.861E-04, -1.333E-05
334, -9.949E-05, 2.349E-03, -2.861E-04, -1.333E-05 - K.
307 (190-298) [l=0 cm][0 def.]
190, 9.590E-05, -6.845E+00, 2.909E-04, 1.648E-07
    i', 9.590E-05, -6.845E+00, 2.909E-04, 1.648E-07 - K.
j', 9.590E-05, -6.845E+00, 2.909E-04, 1.648E-07
298, 9.590E-05, -6.845E+00, 2.909E-04, 1.648E-07
308 (190-335) [l=30 cm][30 def.]
190, -9.590E-05, 2.263E-03, -2.909E-04, -1.325E-05 - K.
i', -9.590E-05, 2.263E-03, -2.909E-04, -1.325E-05
j', -9.987E-05, 2.350E-03, -2.909E-04, -1.325E-05
335, -9.987E-05, 2.350E-03, -2.909E-04, -1.325E-05 - T.
309 (193-289) [l=0 cm][0 def.]
193, 9.644E-05, -6.846E+00, 2.975E-04, 1.648E-07
    i', 9.644E-05, -6.846E+00, 2.975E-04, 1.648E-07 - K.
j', 9.644E-05, -6.846E+00, 2.975E-04, 1.648E-07
289, 9.644E-05, -6.846E+00, 2.975E-04, 1.648E-07
310 (193-336) [l=30 cm][30 def.]
193, -9.644E-05, 2.263E-03, -2.975E-04, -1.325E-05 - K.
i', -9.644E-05, 2.263E-03, -2.975E-04, -1.325E-05
j', -1.004E-04, 2.352E-03, -2.975E-04, -1.325E-05
336, -1.004E-04, 2.352E-03, -2.975E-04, -1.325E-05 - K.
311 (195-337) [l=30 cm][30 def.]
195, -9.684E-05, 2.263E-03, -3.022E-04, -1.333E-05
    i', -9.684E-05, 2.263E-03, -3.022E-04, -1.333E-05 - T.
j', -1.008E-04, 2.354E-03, -3.022E-04, -1.333E-05
337, -1.008E-04, 2.354E-03, -3.022E-04, -1.333E-05
312 (198-338) [l=30 cm][30 def.]

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198, -9.761E-05, 2.263E-03, -3.100E-04, -1.371E-05 - K.
 i', -9.761E-05, 2.263E-03, -3.100E-04, -1.371E-05
 j', -1.017E-04, 2.356E-03, -3.100E-04, -1.371E-05
 338, -1.017E-04, 2.356E-03, -3.100E-04, -1.371E-05 - K.
 313 (204-280) [l=30 cm][30 def.]
 204, -9.953E-05, 2.263E-03, -3.189E-04, -1.641E-05
 i', -9.953E-05, 2.263E-03, -3.189E-04, -1.641E-05 - K.
 j', -1.044E-04, 2.359E-03, -3.189E-04, -1.641E-05
 280, -1.044E-04, 2.359E-03, -3.189E-04, -1.641E-05
 314 (201-339) [l=30 cm][30 def.]
 201, -9.857E-05, 2.263E-03, -3.166E-04, -1.478E-05 - T.
 i', -9.857E-05, 2.263E-03, -3.166E-04, -1.478E-05
 j', -1.030E-04, 2.358E-03, -3.166E-04, -1.478E-05
 339, -1.030E-04, 2.358E-03, -3.166E-04, -1.478E-05 - K.
 315 (275-207) [l=0 cm][0 def.]
 275, -1.188E-04, -6.839E+00, -2.685E-04, 1.648E-07
 i', -1.188E-04, -6.839E+00, -2.685E-04, 1.648E-07 - K.
 j', -1.188E-04, -6.839E+00, -2.685E-04, 1.648E-07
 207, -1.188E-04, -6.839E+00, -2.685E-04, 1.648E-07
 316 (207-278) [l=30 cm][30 def.]
 207, -1.188E-04, 2.667E-03, -2.685E-04, -1.735E-05 - K.
 i', -1.188E-04, 2.667E-03, -2.685E-04, -1.735E-05
 j', -1.240E-04, 2.747E-03, -2.685E-04, -1.735E-05
 278, -1.240E-04, 2.747E-03, -2.685E-04, -1.735E-05 - T.
 317 (281-212) [l=30 cm][30 def.]
 281, -1.307E-04, -2.838E-03, -3.189E-04, 1.732E-05
 i', -1.307E-04, -2.838E-03, -3.189E-04, 1.732E-05 - K.
 j', -1.255E-04, -2.742E-03, -3.189E-04, 1.732E-05
 212, -1.255E-04, -2.742E-03, -3.189E-04, 1.732E-05
 318 (275-278) [l=30 cm][30 def.]
 275, -1.188E-04, 2.667E-03, -2.685E-04, -1.735E-05 - K.
 i', -1.188E-04, 2.667E-03, -2.685E-04, -1.735E-05
 j', -1.240E-04, 2.747E-03, -2.685E-04, -1.735E-05
 278, -1.240E-04, 2.747E-03, -2.685E-04, -1.735E-05 - K.
 319 (277-178) [l=30 cm][30 def.]
 277, -9.824E-05, -2.345E-03, -2.685E-04, 1.828E-05
 i', -9.824E-05, -2.345E-03, -2.685E-04, 1.828E-05 - T.
 j', -9.275E-05, -2.265E-03, -2.685E-04, 1.827E-05
 178, -9.275E-05, -2.265E-03, -2.685E-04, 1.827E-05
 320 (153-131) [l=115 cm][115 def.]
 153, -9.388E-05, -6.849E+00, -3.847E-04, 1.645E-07 - K.
 i', -9.388E-05, -6.849E+00, -3.847E-04, 1.645E-07
 j', -9.369E-05, -6.848E+00, -3.837E-04, 1.645E-07
 131, -9.369E-05, -6.848E+00, -3.837E-04, 1.645E-07 - K.
 321 (153-135) [l=112 cm][112 def.]
 153, 9.388E-05, -6.849E+00, 3.847E-04, 1.645E-07
 i', 9.388E-05, -6.849E+00, 3.847E-04, 1.645E-07 - K.
 j', 9.406E-05, -6.849E+00, 3.853E-04, 1.645E-07
 135, 9.406E-05, -6.849E+00, 3.853E-04, 1.645E-07
 322 (157-123) [l=113 cm][113 def.]
 157, -9.292E-05, -6.847E+00, -3.738E-04, 1.645E-07 - T.
 i', -9.292E-05, -6.847E+00, -3.738E-04, 1.645E-07
 j', -9.273E-05, -6.846E+00, -3.699E-04, 1.645E-07
 123, -9.273E-05, -6.846E+00, -3.699E-04, 1.645E-07 - K.
 323 (157-126) [l=113 cm][113 def.]
 157, 9.292E-05, -6.847E+00, 3.738E-04, 1.645E-07
 i', 9.292E-05, -6.847E+00, 3.738E-04, 1.645E-07 - K.
 j', 9.311E-05, -6.847E+00, 3.770E-04, 1.645E-07
 126, 9.311E-05, -6.847E+00, 3.770E-04, 1.645E-07
 324 (160-115) [l=171 cm][171 def.]
 160, -9.206E-05, -6.845E+00, -3.484E-04, 1.645E-07 - K.
 i', -9.206E-05, -6.845E+00, -3.484E-04, 1.645E-07
 j', -9.178E-05, -6.844E+00, -3.357E-04, 1.645E-07
 115, -9.178E-05, -6.844E+00, -3.357E-04, 1.645E-07 - T.
 325 (160-119) [l=56 cm][56 def.]
 160, 9.206E-05, -6.845E+00, 3.484E-04, 1.645E-07
 i', 9.206E-05, -6.845E+00, 3.484E-04, 1.645E-07 - K.
 j', 9.215E-05, -6.845E+00, 3.520E-04, 1.645E-07
 119, 9.215E-05, -6.845E+00, 3.520E-04, 1.645E-07
 326 (165-104) [l=113 cm][113 def.]
 165, -9.100E-05, -6.843E+00, -2.940E-04, 1.645E-07 - K.
 i', -9.100E-05, -6.843E+00, -2.940E-04, 1.645E-07
 j', -9.082E-05, -6.842E+00, -2.842E-04, 1.645E-07
 104, -9.082E-05, -6.842E+00, -2.842E-04, 1.645E-07 - K.
 327 (165-107) [l=113 cm][113 def.]
 165, 9.100E-05, -6.843E+00, 2.940E-04, 1.645E-07
 i', 9.100E-05, -6.843E+00, 2.940E-04, 1.645E-07 - T.
 j', 9.119E-05, -6.843E+00, 3.039E-04, 1.645E-07
 107, 9.119E-05, -6.843E+00, 3.039E-04, 1.645E-07
 328 (170-93) [l=33 cm][33 def.]
 170, -8.995E-05, -6.841E+00, -2.416E-04, 1.645E-07 - K.
 i', -8.995E-05, -6.841E+00, -2.416E-04, 1.645E-07
 j', -8.989E-05, -6.841E+00, -2.395E-04, 1.645E-07
 93, -8.989E-05, -6.841E+00, -2.395E-04, 1.645E-07 - K.
 329 (170-97) [l=193 cm][193 def.]
 170, 8.995E-05, -6.841E+00, 2.416E-04, 1.645E-07

i', 8.995E-05, -6.841E+00, 2.416E-04, 1.645E-07 - K.
 j', 9.027E-05, -6.841E+00, 2.555E-04, 1.645E-07
 97, 9.027E-05, -6.841E+00, 2.555E-04, 1.645E-07
 330 (173-85) [l=113 cm][113 def.]
 173, -8.906E-05, -6.840E+00, -2.165E-04, 1.645E-07 - T.
 i', -8.906E-05, -6.840E+00, -2.165E-04, 1.645E-07
 j', -8.887E-05, -6.839E+00, -2.135E-04, 1.645E-07
 85, -8.887E-05, -6.839E+00, -2.135E-04, 1.645E-07 - K.
 331 (173-88) [l=113 cm][113 def.]
 173, 8.906E-05, -6.840E+00, 2.165E-04, 1.645E-07
 i', 8.906E-05, -6.840E+00, 2.165E-04, 1.645E-07 - K.
 j', 8.925E-05, -6.840E+00, 2.201E-04, 1.645E-07
 88, 8.925E-05, -6.840E+00, 2.201E-04, 1.645E-07
 332 (176-77) [l=132 cm][132 def.]
 176, -8.807E-05, -6.838E+00, -2.059E-04, 1.645E-07 - K.
 i', -8.807E-05, -6.838E+00, -2.059E-04, 1.645E-07
 j', -8.785E-05, -6.838E+00, -2.054E-04, 1.645E-07
 77, -8.785E-05, -6.838E+00, -2.054E-04, 1.645E-07 - K.
 333 (176-81) [l=95 cm][95 def.]
 176, 8.807E-05, -6.838E+00, 2.059E-04, 1.645E-07
 i', 8.807E-05, -6.838E+00, 2.059E-04, 1.645E-07 - K.
 j', 8.823E-05, -6.839E+00, 2.066E-04, 1.645E-07
 81, 8.823E-05, -6.839E+00, 2.066E-04, 1.645E-07
 334 (179-59) [l=95 cm][95 def.]
 179, 8.807E-05, -6.839E+00, 2.059E-04, 1.645E-07 - K.
 i', 8.807E-05, -6.839E+00, 2.059E-04, 1.645E-07
 j', 8.823E-05, -6.839E+00, 2.065E-04, 1.645E-07
 59, 8.823E-05, -6.839E+00, 2.065E-04, 1.645E-07 - K.
 335 (179-63) [l=132 cm][132 def.]
 179, -8.807E-05, -6.839E+00, -2.059E-04, 1.645E-07
 i', -8.807E-05, -6.839E+00, -2.059E-04, 1.645E-07 - K.
 j', -8.785E-05, -6.838E+00, -2.053E-04, 1.645E-07
 63, -8.785E-05, -6.838E+00, -2.053E-04, 1.645E-07
 336 (183-51) [l=113 cm][113 def.]
 183, 8.906E-05, -6.840E+00, 2.165E-04, 1.645E-07 - K.
 i', 8.906E-05, -6.840E+00, 2.165E-04, 1.645E-07
 j', 8.925E-05, -6.840E+00, 2.201E-04, 1.645E-07
 51, 8.925E-05, -6.840E+00, 2.201E-04, 1.645E-07 - T.
 337 (183-54) [l=113 cm][113 def.]
 183, -8.906E-05, -6.840E+00, -2.165E-04, 1.645E-07
 i', -8.906E-05, -6.840E+00, -2.165E-04, 1.645E-07 - K.
 j', -8.887E-05, -6.840E+00, -2.134E-04, 1.645E-07
 54, -8.887E-05, -6.840E+00, -2.134E-04, 1.645E-07
 338 (186-43) [l=193 cm][193 def.]
 186, 8.995E-05, -6.841E+00, 2.416E-04, 1.645E-07 - K.
 i', 8.995E-05, -6.841E+00, 2.416E-04, 1.645E-07
 j', 9.027E-05, -6.842E+00, 2.555E-04, 1.645E-07
 43, 9.027E-05, -6.842E+00, 2.555E-04, 1.645E-07 - K.
 339 (186-47) [l=33 cm][33 def.]
 186, -8.995E-05, -6.841E+00, -2.416E-04, 1.645E-07
 i', -8.995E-05, -6.841E+00, -2.416E-04, 1.645E-07 - T.
 j', -8.989E-05, -6.841E+00, -2.395E-04, 1.645E-07
 47, -8.989E-05, -6.841E+00, -2.395E-04, 1.645E-07
 340 (191-32) [l=113 cm][113 def.]
 191, 9.100E-05, -6.843E+00, 2.939E-04, 1.645E-07 - K.
 i', 9.100E-05, -6.843E+00, 2.939E-04, 1.645E-07
 j', 9.119E-05, -6.843E+00, 3.039E-04, 1.645E-07
 32, 9.119E-05, -6.843E+00, 3.039E-04, 1.645E-07 - K.
 341 (191-35) [l=113 cm][113 def.]
 191, -9.100E-05, -6.843E+00, -2.939E-04, 1.645E-07
 i', -9.100E-05, -6.843E+00, -2.939E-04, 1.645E-07 - K.
 j', -9.082E-05, -6.842E+00, -2.841E-04, 1.645E-07
 35, -9.082E-05, -6.842E+00, -2.841E-04, 1.645E-07
 342 (196-21) [l=56 cm][56 def.]
 196, 9.206E-05, -6.845E+00, 3.483E-04, 1.645E-07 - T.
 i', 9.206E-05, -6.845E+00, 3.483E-04, 1.645E-07
 j', 9.215E-05, -6.845E+00, 3.519E-04, 1.645E-07
 21, 9.215E-05, -6.845E+00, 3.519E-04, 1.645E-07 - K.
 343 (196-25) [l=171 cm][171 def.]
 196, -9.206E-05, -6.845E+00, -3.483E-04, 1.645E-07
 i', -9.206E-05, -6.845E+00, -3.483E-04, 1.645E-07 - K.
 j', -9.178E-05, -6.844E+00, -3.356E-04, 1.645E-07
 25, -9.178E-05, -6.844E+00, -3.356E-04, 1.645E-07
 344 (199-13) [l=113 cm][113 def.]
 199, 9.292E-05, -6.847E+00, 3.737E-04, 1.645E-07 - K.
 i', 9.292E-05, -6.847E+00, 3.737E-04, 1.645E-07
 j', 9.311E-05, -6.847E+00, 3.769E-04, 1.645E-07
 13, 9.311E-05, -6.847E+00, 3.769E-04, 1.645E-07 - T.
 345 (199-16) [l=113 cm][113 def.]
 199, -9.292E-05, -6.847E+00, -3.737E-04, 1.645E-07
 i', -9.292E-05, -6.847E+00, -3.737E-04, 1.645E-07 - K.
 j', -9.273E-05, -6.846E+00, -3.698E-04, 1.645E-07
 16, -9.273E-05, -6.846E+00, -3.698E-04, 1.645E-07
 346 (202-5) [l=112 cm][112 def.]
 202, 9.388E-05, -6.849E+00, 3.847E-04, 1.645E-07 - K.
 i', 9.388E-05, -6.849E+00, 3.847E-04, 1.645E-07

j', 9.406E-05, -6.849E+00, 3.852E-04, 1.645E-07
 5, 9.406E-05, -6.849E+00, 3.852E-04, 1.645E-07 - K.
 347 (202-9) [l=115 cm][115 def.]
 202, -9.388E-05, -6.849E+00, -3.847E-04, 1.645E-07
 i', -9.388E-05, -6.849E+00, -3.847E-04, 1.645E-07 - T.
 j', -9.369E-05, -6.849E+00, -3.837E-04, 1.645E-07
 9, -9.369E-05, -6.849E+00, -3.837E-04, 1.645E-07
 348 (66-205) [l=57 cm][57 def.]
 66, 2.175E-03, -6.838E+00, -5.703E-05, 1.645E-07 - T.
 i', 2.175E-03, -6.838E+00, -5.703E-05, 1.645E-07
 j', 2.175E-03, -6.838E+00, -5.698E-05, 1.645E-07
 205, 2.175E-03, -6.838E+00, -5.698E-05, 1.645E-07 - K.
 349 (205-68) [l=97 cm][97 def.]
 205, 2.175E-03, -6.838E+00, -5.698E-05, 1.645E-07
 i', 2.175E-03, -6.838E+00, -5.698E-05, 1.645E-07 - K.
 j', 2.175E-03, -6.838E+00, -5.696E-05, 1.645E-07
 68, 2.175E-03, -6.838E+00, -5.696E-05, 1.645E-07
 350 (72-208) [l=97 cm][97 def.]
 72, 2.176E-03, -6.838E+00, 2.270E-05, 1.645E-07 - K.
 i', 2.176E-03, -6.838E+00, 2.270E-05, 1.645E-07
 j', 2.176E-03, -6.838E+00, 2.272E-05, 1.645E-07
 208, 2.176E-03, -6.838E+00, 2.272E-05, 1.645E-07 - T.
 351 (208-70) [l=57 cm][57 def.]
 208, 2.176E-03, -6.838E+00, 2.272E-05, 1.645E-07
 i', 2.176E-03, -6.838E+00, 2.272E-05, 1.645E-07 - T.
 j', 2.176E-03, -6.838E+00, 2.277E-05, 1.645E-07
 70, 2.176E-03, -6.838E+00, 2.277E-05, 1.645E-07
 352 (216-210) [l=70 cm][70 def.]
 216, -2.176E-03, -6.850E+00, 1.495E-05, 1.645E-07 - K.
 i', -2.176E-03, -6.850E+00, 1.495E-05, 1.645E-07
 j', -2.176E-03, -6.850E+00, 1.555E-05, 1.645E-07
 210, -2.176E-03, -6.850E+00, 1.555E-05, 1.645E-07 - K.
 353 (210-217) [l=70 cm][70 def.]
 210, -2.176E-03, -6.850E+00, 1.500E-05, 1.645E-07
 i', -2.176E-03, -6.850E+00, 1.500E-05, 1.645E-07 - K.
 j', -2.176E-03, -6.850E+00, 1.556E-05, 1.645E-07
 217, -2.176E-03, -6.850E+00, 1.556E-05, 1.645E-07
 354 (220-213) [l=70 cm][70 def.]
 220, -2.175E-03, -6.850E+00, 1.823E-05, 1.645E-07 - T.
 i', -2.175E-03, -6.850E+00, 1.823E-05, 1.645E-07
 j', -2.175E-03, -6.850E+00, 1.879E-05, 1.645E-07
 213, -2.175E-03, -6.850E+00, 1.879E-05, 1.645E-07 - K.
 355 (213-222) [l=70 cm][70 def.]
 213, -2.175E-03, -6.850E+00, 1.824E-05, 1.645E-07
 i', -2.175E-03, -6.850E+00, 1.824E-05, 1.645E-07 - K.
 j', -2.175E-03, -6.850E+00, 1.884E-05, 1.645E-07
 222, -2.175E-03, -6.850E+00, 1.884E-05, 1.645E-07
 356 (223-1) [l=90 cm][90 def.]
 223, 0.000E+00, -6.801E+00, -6.874E-03, 0.000E+00 - K.
 i', 0.000E+00, -6.801E+00, -6.874E-03, 0.000E+00
 j', 0.000E+00, -6.795E+00, -6.877E-03, 0.000E+00
 1, 0.000E+00, -6.795E+00, -6.877E-03, 0.000E+00 - T.
 357 (1-3) [l=90 cm][90 def.]
 1, 0.000E+00, -6.795E+00, -6.877E-03, 0.000E+00
 i', 0.000E+00, -6.795E+00, -6.877E-03, 0.000E+00 - T.
 j', 0.000E+00, -6.789E+00, -6.877E-03, 0.000E+00
 3, 0.000E+00, -6.789E+00, -6.877E-03, 0.000E+00
 358 (8-6) [l=88 cm][88 def.]
 8, 0.000E+00, -6.776E+00, -9.268E-03, 0.000E+00 - K.
 i', 0.000E+00, -6.776E+00, -9.268E-03, 0.000E+00
 j', 0.000E+00, -6.768E+00, -9.268E-03, 0.000E+00
 6, 0.000E+00, -6.768E+00, -9.268E-03, 0.000E+00 - K.
 359 (6-340) [l=88 cm][88 def.]
 6, 0.000E+00, -6.768E+00, -9.268E-03, 0.000E+00
 i', 0.000E+00, -6.768E+00, -9.268E-03, 0.000E+00 - K.
 j', 0.000E+00, -6.760E+00, -9.288E-03, 0.000E+00
 340, 0.000E+00, -6.760E+00, -9.288E-03, 0.000E+00
 360 (340-11) [l=88 cm][88 def.]
 340, 0.000E+00, -6.760E+00, -9.288E-03, 0.000E+00 - T.
 i', 0.000E+00, -6.760E+00, -9.288E-03, 0.000E+00
 j', 0.000E+00, -6.752E+00, -9.304E-03, 0.000E+00
 11, 0.000E+00, -6.752E+00, -9.304E-03, 0.000E+00 - T.
 361 (11-224) [l=88 cm][88 def.]
 11, 0.000E+00, -6.752E+00, -9.304E-03, 0.000E+00
 i', 0.000E+00, -6.752E+00, -9.304E-03, 0.000E+00 - K.
 j', 0.000E+00, -6.744E+00, -9.314E-03, 0.000E+00
 224, 0.000E+00, -6.744E+00, -9.314E-03, 0.000E+00
 362 (225-14) [l=88 cm][88 def.]
 225, 0.000E+00, -6.761E+00, 7.713E-03, 0.000E+00 - K.
 i', 0.000E+00, -6.761E+00, 7.713E-03, 0.000E+00
 j', 0.000E+00, -6.768E+00, 7.698E-03, 0.000E+00
 14, 0.000E+00, -6.768E+00, 7.698E-03, 0.000E+00 - K.
 363 (14-341) [l=88 cm][88 def.]
 14, 0.000E+00, -6.768E+00, 7.698E-03, 0.000E+00
 i', 0.000E+00, -6.768E+00, 7.698E-03, 0.000E+00 - K.
 j', 0.000E+00, -6.775E+00, 7.672E-03, 0.000E+00


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341, 0.000E+00, -6.775E+00, 7.672E-03, 0.000E+00
364 (341-18) [l=88 cm][88 def.]
    341, 0.000E+00, -6.775E+00, 7.672E-03, 0.000E+00 - K.
i', 0.000E+00, -6.775E+00, 7.672E-03, 0.000E+00
j', 0.000E+00, -6.782E+00, 7.635E-03, 0.000E+00
    18, 0.000E+00, -6.782E+00, 7.635E-03, 0.000E+00 - K.
365 (18-20) [l=88 cm][88 def.]
    18, 0.000E+00, -6.782E+00, 7.635E-03, 0.000E+00
i', 0.000E+00, -6.782E+00, 7.635E-03, 0.000E+00 - K.
j', 0.000E+00, -6.788E+00, 7.635E-03, 0.000E+00
    20, 0.000E+00, -6.788E+00, 7.635E-03, 0.000E+00
366 (24-22) [l=31 cm][31 def.]
    24, 0.000E+00, -6.760E+00, -5.943E-02, 0.000E+00 - K.
i', 0.000E+00, -6.760E+00, -5.943E-02, 0.000E+00
j', 0.000E+00, -6.741E+00, -5.943E-02, 0.000E+00
    22, 0.000E+00, -6.741E+00, -5.943E-02, 0.000E+00 - K.
367 (22-226) [l=31 cm][31 def.]
    22, 0.000E+00, -6.741E+00, -5.943E-02, 0.000E+00
i', 0.000E+00, -6.741E+00, -5.943E-02, 0.000E+00
j', 0.000E+00, -6.723E+00, -5.946E-02, 0.000E+00
    226, 0.000E+00, -6.723E+00, -5.946E-02, 0.000E+00
368 (226-27) [l=123 cm][123 def.]
    226, 0.000E+00, -6.723E+00, -5.946E-02, 0.000E+00
i', 0.000E+00, -6.723E+00, -5.946E-02, 0.000E+00
j', 0.000E+00, -6.650E+00, -5.955E-02, 0.000E+00
    27, 0.000E+00, -6.650E+00, -5.955E-02, 0.000E+00
369 (27-227) [l=123 cm][123 def.]
    27, 0.000E+00, -6.650E+00, -5.955E-02, 0.000E+00
i', 0.000E+00, -6.650E+00, -5.955E-02, 0.000E+00
j', 0.000E+00, -6.577E+00, -5.962E-02, 0.000E+00
    227, 0.000E+00, -6.577E+00, -5.962E-02, 0.000E+00
370 (227-30) [l=26 cm][26 def.]
    227, 0.000E+00, -6.577E+00, -5.962E-02, 0.000E+00
i', 0.000E+00, -6.577E+00, -5.962E-02, 0.000E+00
j', 0.000E+00, -6.562E+00, -5.962E-02, 0.000E+00
    30, 0.000E+00, -6.562E+00, -5.962E-02, 0.000E+00
371 (30-228) [l=26 cm][26 def.]
    30, 0.000E+00, -6.562E+00, -5.962E-02, 0.000E+00
i', 0.000E+00, -6.562E+00, -5.962E-02, 0.000E+00
j', 0.000E+00, -6.546E+00, -5.962E-02, 0.000E+00
    228, 0.000E+00, -6.546E+00, -5.962E-02, 0.000E+00
372 (228-33) [l=26 cm][26 def.]
    228, 0.000E+00, -6.546E+00, -5.962E-02, 0.000E+00
i', 0.000E+00, -6.522E+00, 8.223E-02, 0.000E+00
j', 0.000E+00, -6.522E+00, 8.223E-02, 0.000E+00
    33, 0.000E+00, -6.544E+00, 8.223E-02, 0.000E+00
373 (33-230) [l=26 cm][26 def.]
    33, 0.000E+00, -6.544E+00, 8.223E-02, 0.000E+00
i', 0.000E+00, -6.544E+00, 8.223E-02, 0.000E+00
j', 0.000E+00, -6.565E+00, 8.223E-02, 0.000E+00
    230, 0.000E+00, -6.565E+00, 8.223E-02, 0.000E+00
374 (230-37) [l=122 cm][122 def.]
    230, 0.000E+00, -6.565E+00, 8.223E-02, 0.000E+00
i', 0.000E+00, -6.565E+00, 8.223E-02, 0.000E+00
j', 0.000E+00, -6.666E+00, 8.220E-02, 0.000E+00
    37, 0.000E+00, -6.666E+00, 8.220E-02, 0.000E+00
375 (37-231) [l=122 cm][122 def.]
    37, 0.000E+00, -6.666E+00, 8.220E-02, 0.000E+00
i', 0.000E+00, -6.666E+00, 8.220E-02, 0.000E+00
j', 0.000E+00, -6.766E+00, 8.216E-02, 0.000E+00
    231, 0.000E+00, -6.766E+00, 8.216E-02, 0.000E+00
376 (231-40) [l=18 cm][18 def.]
    231, 0.000E+00, -6.766E+00, 8.216E-02, 0.000E+00
i', 0.000E+00, -6.766E+00, 8.216E-02, 0.000E+00
j', 0.000E+00, -6.776E+00, 1.929E-02, 0.000E+00
    40, 0.000E+00, -6.776E+00, 1.929E-02, 0.000E+00
377 (40-42) [l=18 cm][18 def.]
    40, 0.000E+00, -6.776E+00, 1.929E-02, 0.000E+00
i', 0.000E+00, -6.776E+00, 1.929E-02, 0.000E+00
j', 0.000E+00, -6.779E+00, 1.929E-02, 0.000E+00
    42, 0.000E+00, -6.779E+00, 1.929E-02, 0.000E+00
378 (46-44) [l=98 cm][98 def.]
    46, 0.000E+00, -6.781E+00, -1.058E-02, 0.000E+00
i', 0.000E+00, -6.781E+00, -1.058E-02, 0.000E+00
j', 0.000E+00, -6.771E+00, -1.058E-02, 0.000E+00
    44, 0.000E+00, -6.771E+00, -1.058E-02, 0.000E+00
379 (44-342) [l=98 cm][98 def.]
    44, 0.000E+00, -6.771E+00, -1.058E-02, 0.000E+00
i', 0.000E+00, -6.771E+00, -1.058E-02, 0.000E+00
j', 0.000E+00, -6.760E+00, -1.062E-02, 0.000E+00
    342, 0.000E+00, -6.760E+00, -1.062E-02, 0.000E+00
380 (342-49) [l=98 cm][98 def.]
    342, 0.000E+00, -6.760E+00, -1.062E-02, 0.000E+00
i', 0.000E+00, -6.760E+00, -1.062E-02, 0.000E+00
j', 0.000E+00, -6.750E+00, -1.064E-02, 0.000E+00
    49, 0.000E+00, -6.750E+00, -1.064E-02, 0.000E+00

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381 (49-232) [l=98 cm][98 def.]
49, 0.000E+00, -6.750E+00, -1.064E-02, 0.000E+00
i', 0.000E+00, -6.750E+00, -1.064E-02, 0.000E+00
j', 0.000E+00, -6.739E+00, -1.066E-02, 0.000E+00
232, 0.000E+00, -6.739E+00, -1.066E-02, 0.000E+00

382 (233-52) [l=98 cm][98 def.]
233, 0.000E+00, -6.732E+00, 1.009E-02, 0.000E+00
i', 0.000E+00, -6.732E+00, 1.009E-02, 0.000E+00
j', 0.000E+00, -6.742E+00, 1.008E-02, 0.000E+00
52, 0.000E+00, -6.742E+00, 1.008E-02, 0.000E+00

383 (52-343) [l=98 cm][98 def.]
52, 0.000E+00, -6.742E+00, 1.008E-02, 0.000E+00
i', 0.000E+00, -6.742E+00, 1.008E-02, 0.000E+00
j', 0.000E+00, -6.752E+00, 1.006E-02, 0.000E+00
343, 0.000E+00, -6.752E+00, 1.006E-02, 0.000E+00

384 (343-56) [l=98 cm][98 def.]
343, 0.000E+00, -6.752E+00, 1.006E-02, 0.000E+00
i', 0.000E+00, -6.752E+00, 1.006E-02, 0.000E+00
j', 0.000E+00, -6.762E+00, 1.003E-02, 0.000E+00
56, 0.000E+00, -6.762E+00, 1.003E-02, 0.000E+00

385 (56-58) [l=98 cm][98 def.]
56, 0.000E+00, -6.762E+00, 1.003E-02, 0.000E+00
i', 0.000E+00, -6.762E+00, 1.003E-02, 0.000E+00
j', 0.000E+00, -6.772E+00, 1.003E-02, 0.000E+00
58, 0.000E+00, -6.772E+00, 1.003E-02, 0.000E+00

386 (58-62) [l=227 cm][227 def.]
58, 0.000E+00, -6.772E+00, 1.003E-02, 0.000E+00
i', 0.000E+00, -6.772E+00, 1.003E-02, 0.000E+00
j', 0.000E+00, -6.785E+00, 7.747E-03, 0.000E+00
62, 0.000E+00, -6.785E+00, 7.747E-03, 0.000E+00

387 (62-60) [l=80 cm][80 def.]
62, 0.000E+00, -6.785E+00, 7.747E-03, 0.000E+00
i', 0.000E+00, -6.785E+00, 7.747E-03, 0.000E+00
j', 0.000E+00, -6.791E+00, 7.747E-03, 0.000E+00
60, 0.000E+00, -6.791E+00, 7.747E-03, 0.000E+00

388 (60-234) [l=80 cm][80 def.]
60, 0.000E+00, -6.791E+00, 7.747E-03, 0.000E+00
i', 0.000E+00, -6.791E+00, 7.747E-03, 0.000E+00
j', 0.000E+00, -6.797E+00, 7.745E-03, 0.000E+00
234, 0.000E+00, -6.797E+00, 7.745E-03, 0.000E+00

389 (234-65) [l=154 cm][154 def.]
234, 0.000E+00, -6.797E+00, -5.059E-03, 0.000E+00
i', 0.000E+00, -6.797E+00, -5.059E-03, 0.000E+00
j', 0.000E+00, -6.789E+00, -5.066E-03, 0.000E+00
65, 0.000E+00, -6.789E+00, -5.066E-03, 0.000E+00

390 (65-67) [l=154 cm][154 def.]
65, 0.000E+00, -6.789E+00, -5.066E-03, 0.000E+00
i', 0.000E+00, -6.789E+00, -5.066E-03, 0.000E+00
j', 0.000E+00, -6.781E+00, -5.066E-03, 0.000E+00
67, 0.000E+00, -6.781E+00, -5.066E-03, 0.000E+00

391 (71-69) [l=154 cm][154 def.]
71, 0.000E+00, -6.781E+00, 5.033E-03, 0.000E+00
i', 0.000E+00, -6.781E+00, 5.033E-03, 0.000E+00
j', 0.000E+00, -6.789E+00, 5.033E-03, 0.000E+00
69, 0.000E+00, -6.789E+00, 5.033E-03, 0.000E+00

392 (69-235) [l=154 cm][154 def.]
69, 0.000E+00, -6.789E+00, 5.033E-03, 0.000E+00
i', 0.000E+00, -6.789E+00, 5.033E-03, 0.000E+00
j', 0.000E+00, -6.797E+00, 5.025E-03, 0.000E+00
235, 0.000E+00, -6.797E+00, 5.025E-03, 0.000E+00

393 (235-74) [l=80 cm][80 def.]
235, 0.000E+00, -6.797E+00, -7.743E-03, 0.000E+00
i', 0.000E+00, -6.797E+00, -7.743E-03, 0.000E+00
j', 0.000E+00, -6.791E+00, -7.745E-03, 0.000E+00
74, 0.000E+00, -6.791E+00, -7.745E-03, 0.000E+00

394 (74-76) [l=80 cm][80 def.]
74, 0.000E+00, -6.791E+00, -7.745E-03, 0.000E+00
i', 0.000E+00, -6.791E+00, -7.745E-03, 0.000E+00
j', 0.000E+00, -6.784E+00, -7.745E-03, 0.000E+00
76, 0.000E+00, -6.784E+00, -7.745E-03, 0.000E+00

395 (80-78) [l=98 cm][98 def.]
80, 0.000E+00, -6.771E+00, -1.003E-02, 0.000E+00
i', 0.000E+00, -6.771E+00, -1.003E-02, 0.000E+00
j', 0.000E+00, -6.762E+00, -1.003E-02, 0.000E+00
78, 0.000E+00, -6.762E+00, -1.003E-02, 0.000E+00

396 (78-344) [l=98 cm][98 def.]
78, 0.000E+00, -6.762E+00, -1.003E-02, 0.000E+00
i', 0.000E+00, -6.762E+00, -1.003E-02, 0.000E+00
j', 0.000E+00, -6.752E+00, -1.006E-02, 0.000E+00
344, 0.000E+00, -6.752E+00, -1.006E-02, 0.000E+00

397 (344-83) [l=98 cm][98 def.]
344, 0.000E+00, -6.752E+00, -1.006E-02, 0.000E+00
i', 0.000E+00, -6.752E+00, -1.006E-02, 0.000E+00
j', 0.000E+00, -6.742E+00, -1.008E-02, 0.000E+00
83, 0.000E+00, -6.742E+00, -1.008E-02, 0.000E+00

398 (83-236) [l=98 cm][98 def.]

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      83,    0.000E+00, -6.742E+00, -1.008E-02,  0.000E+00
      i',    0.000E+00, -6.742E+00, -1.008E-02,  0.000E+00
      j',    0.000E+00, -6.732E+00, -1.009E-02,  0.000E+00
      236,    0.000E+00, -6.732E+00, -1.009E-02,  0.000E+00
399 (237-86) [l=98 cm][98 def.]
      237,    0.000E+00, -6.739E+00,  1.066E-02,  0.000E+00
      i',    0.000E+00, -6.739E+00,  1.066E-02,  0.000E+00
      j',    0.000E+00, -6.750E+00,  1.064E-02,  0.000E+00
      86,    0.000E+00, -6.750E+00,  1.064E-02,  0.000E+00
400 (86-345) [l=98 cm][98 def.]
      86,    0.000E+00, -6.750E+00,  1.064E-02,  0.000E+00
      i',    0.000E+00, -6.750E+00,  1.064E-02,  0.000E+00
      j',    0.000E+00, -6.760E+00,  1.061E-02,  0.000E+00
      345,    0.000E+00, -6.760E+00,  1.061E-02,  0.000E+00
401 (345-90) [l=98 cm][98 def.]
      345,    0.000E+00, -6.760E+00,  1.061E-02,  0.000E+00
      i',    0.000E+00, -6.760E+00,  1.061E-02,  0.000E+00
      j',    0.000E+00, -6.770E+00,  1.058E-02,  0.000E+00
      90,    0.000E+00, -6.770E+00,  1.058E-02,  0.000E+00
402 (90-92) [l=98 cm][98 def.]
      90,    0.000E+00, -6.770E+00,  1.058E-02,  0.000E+00
      i',    0.000E+00, -6.770E+00,  1.058E-02,  0.000E+00
      j',    0.000E+00, -6.781E+00,  1.058E-02,  0.000E+00
      92,    0.000E+00, -6.781E+00,  1.058E-02,  0.000E+00
403 (96-94) [l=18 cm][18 def.]
      96,    0.000E+00, -6.779E+00, -1.929E-02,  0.000E+00
      i',    0.000E+00, -6.779E+00, -1.929E-02,  0.000E+00
      j',    0.000E+00, -6.775E+00, -1.929E-02,  0.000E+00
      94,    0.000E+00, -6.775E+00, -1.929E-02,  0.000E+00
404 (94-238) [l=18 cm][18 def.]
      94,    0.000E+00, -6.775E+00, -1.929E-02,  0.000E+00
      i',    0.000E+00, -6.775E+00, -1.929E-02,  0.000E+00
      j',    0.000E+00, -6.766E+00, -8.216E-02,  0.000E+00
      238,    0.000E+00, -6.766E+00, -8.216E-02,  0.000E+00
405 (238-99) [l=122 cm][122 def.]
      238,    0.000E+00, -6.766E+00, -8.216E-02,  0.000E+00
      i',    0.000E+00, -6.766E+00, -8.216E-02,  0.000E+00
      j',    0.000E+00, -6.666E+00, -8.220E-02,  0.000E+00
      99,    0.000E+00, -6.666E+00, -8.220E-02,  0.000E+00
406 (99-239) [l=122 cm][122 def.]
      99,    0.000E+00, -6.666E+00, -8.220E-02,  0.000E+00
      i',    0.000E+00, -6.666E+00, -8.220E-02,  0.000E+00
      j',    0.000E+00, -6.565E+00, -8.223E-02,  0.000E+00
      239,    0.000E+00, -6.565E+00, -8.223E-02,  0.000E+00
407 (239-102) [l=26 cm][26 def.]
      239,    0.000E+00, -6.565E+00, -8.223E-02,  0.000E+00
      i',    0.000E+00, -6.565E+00, -8.223E-02,  0.000E+00
      j',    0.000E+00, -6.544E+00, -8.223E-02,  0.000E+00
      102,    0.000E+00, -6.544E+00, -8.223E-02,  0.000E+00
408 (102-240) [l=26 cm][26 def.]
      102,    0.000E+00, -6.544E+00, -8.223E-02,  0.000E+00
      i',    0.000E+00, -6.544E+00, -8.223E-02,  0.000E+00
      j',    0.000E+00, -6.522E+00, -8.223E-02,  0.000E+00
      240,    0.000E+00, -6.522E+00, -8.223E-02,  0.000E+00
409 (241-105) [l=26 cm][26 def.]
      241,    0.000E+00, -6.546E+00,  5.962E-02,  0.000E+00
      i',    0.000E+00, -6.546E+00,  5.962E-02,  0.000E+00
      j',    0.000E+00, -6.562E+00,  5.962E-02,  0.000E+00
      105,    0.000E+00, -6.562E+00,  5.962E-02,  0.000E+00
410 (105-242) [l=26 cm][26 def.]
      105,    0.000E+00, -6.562E+00,  5.962E-02,  0.000E+00
      i',    0.000E+00, -6.562E+00,  5.962E-02,  0.000E+00
      j',    0.000E+00, -6.577E+00,  5.962E-02,  0.000E+00
      242,    0.000E+00, -6.577E+00,  5.962E-02,  0.000E+00
411 (242-109) [l=123 cm][123 def.]
      242,    0.000E+00, -6.577E+00,  5.962E-02,  0.000E+00
      i',    0.000E+00, -6.577E+00,  5.962E-02,  0.000E+00
      j',    0.000E+00, -6.650E+00,  5.955E-02,  0.000E+00
      109,    0.000E+00, -6.650E+00,  5.955E-02,  0.000E+00
412 (109-243) [l=123 cm][123 def.]
      109,    0.000E+00, -6.650E+00,  5.955E-02,  0.000E+00
      i',    0.000E+00, -6.650E+00,  5.955E-02,  0.000E+00
      j',    0.000E+00, -6.723E+00,  5.946E-02,  0.000E+00
      243,    0.000E+00, -6.723E+00,  5.946E-02,  0.000E+00
413 (243-112) [l=31 cm][31 def.]
      243,    0.000E+00, -6.723E+00,  5.946E-02,  0.000E+00
      i',    0.000E+00, -6.723E+00,  5.946E-02,  0.000E+00
      j',    0.000E+00, -6.741E+00,  5.943E-02,  0.000E+00
      112,    0.000E+00, -6.741E+00,  5.943E-02,  0.000E+00
414 (112-114) [l=31 cm][31 def.]
      112,    0.000E+00, -6.741E+00,  5.943E-02,  0.000E+00
      i',    0.000E+00, -6.741E+00,  5.943E-02,  0.000E+00
      j',    0.000E+00, -6.760E+00,  5.943E-02,  0.000E+00
      114,    0.000E+00, -6.760E+00,  5.943E-02,  0.000E+00
415 (118-116) [l=88 cm][88 def.]
      118,    0.000E+00, -6.788E+00, -7.627E-03,  0.000E+00

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i', 0.000E+00, -6.788E+00, -7.627E-03, 0.000E+00
j', 0.000E+00, -6.781E+00, -7.628E-03, 0.000E+00
116, 0.000E+00, -6.781E+00, -7.628E-03, 0.000E+00
416 (116-346) [l=88 cm][88 def.]
116, 0.000E+00, -6.781E+00, -7.628E-03, 0.000E+00
i', 0.000E+00, -6.781E+00, -7.628E-03, 0.000E+00
j', 0.000E+00, -6.775E+00, -7.664E-03, 0.000E+00
346, 0.000E+00, -6.775E+00, -7.664E-03, 0.000E+00
417 (346-121) [l=88 cm][88 def.]
346, 0.000E+00, -6.775E+00, -7.664E-03, 0.000E+00
i', 0.000E+00, -6.775E+00, -7.664E-03, 0.000E+00
j', 0.000E+00, -6.768E+00, -7.690E-03, 0.000E+00
121, 0.000E+00, -6.768E+00, -7.690E-03, 0.000E+00
418 (121-244) [l=88 cm][88 def.]
121, 0.000E+00, -6.768E+00, -7.690E-03, 0.000E+00
i', 0.000E+00, -6.768E+00, -7.690E-03, 0.000E+00
j', 0.000E+00, -6.761E+00, -7.705E-03, 0.000E+00
244, 0.000E+00, -6.761E+00, -7.705E-03, 0.000E+00
419 (245-124) [l=88 cm][88 def.]
245, 0.000E+00, -6.743E+00, 9.317E-03, 0.000E+00
i', 0.000E+00, -6.743E+00, 9.317E-03, 0.000E+00
j', 0.000E+00, -6.752E+00, 9.307E-03, 0.000E+00
124, 0.000E+00, -6.752E+00, 9.307E-03, 0.000E+00
420 (124-347) [l=88 cm][88 def.]
124, 0.000E+00, -6.752E+00, 9.307E-03, 0.000E+00
i', 0.000E+00, -6.752E+00, 9.307E-03, 0.000E+00
j', 0.000E+00, -6.760E+00, 9.291E-03, 0.000E+00
347, 0.000E+00, -6.760E+00, 9.291E-03, 0.000E+00
421 (347-128) [l=88 cm][88 def.]
347, 0.000E+00, -6.760E+00, 9.291E-03, 0.000E+00
i', 0.000E+00, -6.760E+00, 9.291E-03, 0.000E+00
j', 0.000E+00, -6.768E+00, 9.271E-03, 0.000E+00
128, 0.000E+00, -6.768E+00, 9.271E-03, 0.000E+00
422 (128-130) [l=88 cm][88 def.]
128, 0.000E+00, -6.768E+00, 9.271E-03, 0.000E+00
i', 0.000E+00, -6.768E+00, 9.271E-03, 0.000E+00
j', 0.000E+00, -6.776E+00, 9.271E-03, 0.000E+00
130, 0.000E+00, -6.776E+00, 9.271E-03, 0.000E+00
423 (134-132) [l=90 cm][90 def.]
134, 0.000E+00, -6.788E+00, 6.877E-03, 0.000E+00
i', 0.000E+00, -6.788E+00, 6.877E-03, 0.000E+00
j', 0.000E+00, -6.795E+00, 6.877E-03, 0.000E+00
132, 0.000E+00, -6.795E+00, 6.877E-03, 0.000E+00
424 (132-246) [l=90 cm][90 def.]
132, 0.000E+00, -6.795E+00, 6.877E-03, 0.000E+00
i', 0.000E+00, -6.795E+00, 6.877E-03, 0.000E+00
j', 0.000E+00, -6.801E+00, 6.874E-03, 0.000E+00
246, 0.000E+00, -6.801E+00, 6.874E-03, 0.000E+00
425 (348-137) [l=160 cm][160 def.]
348, 0.000E+00, -6.534E+00, 7.251E-02, 0.000E+00
i', 0.000E+00, -6.534E+00, 7.251E-02, 0.000E+00
j', 0.000E+00, -6.650E+00, 7.250E-02, 0.000E+00
137, 0.000E+00, -6.650E+00, 7.250E-02, 0.000E+00
426 (137-238) [l=161 cm][161 def.]
137, 0.000E+00, -6.650E+00, 7.250E-02, 0.000E+00
i', 0.000E+00, -6.650E+00, 7.250E-02, 0.000E+00
j', 0.000E+00, -6.766E+00, 7.253E-02, 0.000E+00
238, 0.000E+00, -6.766E+00, 7.253E-02, 0.000E+00
427 (231-141) [l=160 cm][160 def.]
231, 0.000E+00, -6.766E+00, -7.258E-02, 0.000E+00
i', 0.000E+00, -6.766E+00, -7.258E-02, 0.000E+00
j', 0.000E+00, -6.650E+00, -7.255E-02, 0.000E+00
141, 0.000E+00, -6.650E+00, -7.255E-02, 0.000E+00
428 (349-348) [l=200 cm][200 def.]
349, 0.000E+00, -6.534E+00, -7.255E-02, 0.000E+00
i', 0.000E+00, -6.534E+00, -7.255E-02, 0.000E+00
j', 0.000E+00, -6.534E+00, 7.251E-02, 0.000E+00
348, 0.000E+00, -6.534E+00, 7.251E-02, 0.000E+00
429 (141-349) [l=161 cm][161 def.]
141, 0.000E+00, -6.650E+00, -7.255E-02, 0.000E+00
i', 0.000E+00, -6.650E+00, -7.255E-02, 0.000E+00
j', 0.000E+00, -6.534E+00, -7.255E-02, 0.000E+00
349, 0.000E+00, -6.534E+00, -7.255E-02, 0.000E+00
430 (350-145) [l=161 cm][161 def.]
350, 0.000E+00, -6.534E+00, 5.889E-02, 0.000E+00
i', 0.000E+00, -6.534E+00, 5.889E-02, 0.000E+00
j', 0.000E+00, -6.629E+00, 5.888E-02, 0.000E+00
145, 0.000E+00, -6.629E+00, 5.888E-02, 0.000E+00
431 (145-226) [l=160 cm][160 def.]
145, 0.000E+00, -6.629E+00, 5.888E-02, 0.000E+00
i', 0.000E+00, -6.629E+00, 5.888E-02, 0.000E+00
j', 0.000E+00, -6.723E+00, 5.891E-02, 0.000E+00
226, 0.000E+00, -6.723E+00, 5.891E-02, 0.000E+00
432 (243-149) [l=161 cm][161 def.]
243, 0.000E+00, -6.723E+00, -5.887E-02, 0.000E+00
i', 0.000E+00, -6.723E+00, -5.887E-02, 0.000E+00

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j', 0.000E+00, -6.628E+00, -5.884E-02, 0.000E+00
149, 0.000E+00, -6.628E+00, -5.884E-02, 0.000E+00
433 (351-350) [l=200 cm][200 def.]
351, 0.000E+00, -6.534E+00, -5.885E-02, 0.000E+00
i', 0.000E+00, -6.534E+00, -5.885E-02, 0.000E+00
j', 0.000E+00, -6.534E+00, 5.889E-02, 0.000E+00
350, 0.000E+00, -6.534E+00, 5.889E-02, 0.000E+00
434 (149-351) [l=160 cm][160 def.]
149, 0.000E+00, -6.628E+00, -5.884E-02, 0.000E+00
i', 0.000E+00, -6.628E+00, -5.884E-02, 0.000E+00
j', 0.000E+00, -6.534E+00, -5.885E-02, 0.000E+00
351, 0.000E+00, -6.534E+00, -5.885E-02, 0.000E+00
435 (246-215) [l=140 cm][140 def.]
246, 0.000E+00, -6.801E+00, 1.900E-05, 0.000E+00
i', 0.000E+00, -6.801E+00, 1.900E-05, 0.000E+00
j', 0.000E+00, -6.801E+00, 1.534E-05, 0.000E+00
215, 0.000E+00, -6.801E+00, 1.534E-05, 0.000E+00
436 (215-352) [l=140 cm][140 def.]
215, 0.000E+00, -6.801E+00, 1.044E-05, 0.000E+00
i', 0.000E+00, -6.801E+00, 1.044E-05, 0.000E+00
j', 0.000E+00, -6.801E+00, 1.039E-05, 0.000E+00
352, 0.000E+00, -6.801E+00, 1.039E-05, 0.000E+00
437 (352-218) [l=140 cm][140 def.]
352, 0.000E+00, -6.801E+00, 1.528E-05, 0.000E+00
i', 0.000E+00, -6.801E+00, 1.528E-05, 0.000E+00
j', 0.000E+00, -6.801E+00, 1.704E-05, 0.000E+00
218, 0.000E+00, -6.801E+00, 1.704E-05, 0.000E+00
438 (218-353) [l=140 cm][140 def.]
218, 0.000E+00, -6.801E+00, 1.704E-05, 0.000E+00
i', 0.000E+00, -6.801E+00, 1.704E-05, 0.000E+00
j', 0.000E+00, -6.801E+00, 1.880E-05, 0.000E+00
353, 0.000E+00, -6.801E+00, 1.880E-05, 0.000E+00
439 (353-221) [l=140 cm][140 def.]
353, 0.000E+00, -6.801E+00, 1.390E-05, 0.000E+00
i', 0.000E+00, -6.801E+00, 1.390E-05, 0.000E+00
j', 0.000E+00, -6.801E+00, 1.385E-05, 0.000E+00
221, 0.000E+00, -6.801E+00, 1.385E-05, 0.000E+00
440 (221-223) [l=140 cm][140 def.]
221, 0.000E+00, -6.801E+00, 1.875E-05, 0.000E+00
i', 0.000E+00, -6.801E+00, 1.875E-05, 0.000E+00
j', 0.000E+00, -6.801E+00, 1.508E-05, 0.000E+00
223, 0.000E+00, -6.801E+00, 1.508E-05, 0.000E+00
441 (227-306) [l=181 cm][181 def.]
227, 0.000E+00, -6.577E+00, -5.953E-02, 0.000E+00
i', 0.000E+00, -6.577E+00, -5.953E-02, 0.000E+00
j', 0.000E+00, -6.180E+00, -2.828E-01, 0.000E+00
306, 0.000E+00, -6.180E+00, -2.828E-01, 0.000E+00
442 (306-304) [l=140 cm][140 def.]
306, 0.000E+00, -6.180E+00, -2.828E-01, 0.000E+00
i', 0.000E+00, -6.180E+00, -2.828E-01, 0.000E+00
j', 0.000E+00, -5.852E+00, -1.579E-01, 0.000E+00
304, 0.000E+00, -5.852E+00, -1.579E-01, 0.000E+00
443 (308-242) [l=181 cm][181 def.]
308, 0.000E+00, -6.180E+00, 2.828E-01, 0.000E+00
i', 0.000E+00, -6.180E+00, 2.828E-01, 0.000E+00
j', 0.000E+00, -6.577E+00, 5.949E-02, 0.000E+00
242, 0.000E+00, -6.577E+00, 5.949E-02, 0.000E+00
444 (304-310) [l=200 cm][200 def.]
304, 0.000E+00, -5.852E+00, -1.579E-01, 0.000E+00
i', 0.000E+00, -5.852E+00, -1.579E-01, 0.000E+00
j', 0.000E+00, -5.852E+00, 1.579E-01, 0.000E+00
310, 0.000E+00, -5.852E+00, 1.579E-01, 0.000E+00
445 (310-308) [l=140 cm][140 def.]
310, 0.000E+00, -5.852E+00, 1.579E-01, 0.000E+00
i', 0.000E+00, -5.852E+00, 1.579E-01, 0.000E+00
j', 0.000E+00, -6.180E+00, 2.828E-01, 0.000E+00
308, 0.000E+00, -6.180E+00, 2.828E-01, 0.000E+00
446 (312-230) [l=181 cm][181 def.]
312, 0.000E+00, -6.151E+00, 2.886E-01, 0.000E+00
i', 0.000E+00, -6.151E+00, 2.886E-01, 0.000E+00
j', 0.000E+00, -6.565E+00, 7.318E-02, 0.000E+00
230, 0.000E+00, -6.565E+00, 7.318E-02, 0.000E+00
447 (314-312) [l=140 cm][140 def.]
314, 0.000E+00, -5.818E+00, 1.599E-01, 0.000E+00
i', 0.000E+00, -5.818E+00, 1.599E-01, 0.000E+00
j', 0.000E+00, -6.151E+00, 2.886E-01, 0.000E+00
312, 0.000E+00, -6.151E+00, 2.886E-01, 0.000E+00
448 (316-314) [l=200 cm][200 def.]
316, 0.000E+00, -5.818E+00, -1.599E-01, 0.000E+00
i', 0.000E+00, -5.818E+00, -1.599E-01, 0.000E+00
j', 0.000E+00, -5.818E+00, 1.599E-01, 0.000E+00
314, 0.000E+00, -5.818E+00, 1.599E-01, 0.000E+00
449 (239-318) [l=181 cm][181 def.]
239, 0.000E+00, -6.565E+00, -7.314E-02, 0.000E+00
i', 0.000E+00, -6.565E+00, -7.314E-02, 0.000E+00
j', 0.000E+00, -6.151E+00, -2.885E-01, 0.000E+00

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318, 0.000E+00, -6.151E+00, -2.885E-01, 0.000E+00
450 (318-316) [l=140 cm][140 def.]
318, 0.000E+00, -6.151E+00, -2.885E-01, 0.000E+00
i', 0.000E+00, -6.151E+00, -2.885E-01, 0.000E+00
j', 0.000E+00, -5.818E+00, -1.599E-01, 0.000E+00
316, 0.000E+00, -5.818E+00, -1.599E-01, 0.000E+00
451 (26-147) [l=62 cm][62 def.]
26, -9.168E-05, -2.175E-03, -3.304E-04, 6.844E-05
i', -9.168E-05, -2.175E-03, -3.304E-04, 6.844E-05
j', -4.891E-05, -1.970E-03, -3.304E-04, 6.898E-05
147, -4.891E-05, -1.970E-03, -3.304E-04, 6.898E-05
452 (29-282) [l=250 cm][250 def.]
29, -9.127E-05, -2.175E-03, -3.085E-04, 7.027E-05
i', -9.127E-05, -2.175E-03, -3.085E-04, 7.027E-05
j', 8.446E-05, -1.404E-03, -3.085E-04, 7.029E-05
282, 8.446E-05, -1.404E-03, -3.085E-04, 7.029E-05
453 (36-294) [l=250 cm][250 def.]
36, -9.073E-05, -2.175E-03, -2.796E-04, 7.268E-05
i', -9.073E-05, -2.175E-03, -2.796E-04, 7.268E-05
j', 9.102E-05, -1.476E-03, -2.796E-04, 7.270E-05
294, 9.102E-05, -1.476E-03, -2.796E-04, 7.270E-05
454 (39-144) [l=62 cm][62 def.]
39, -9.033E-05, -2.175E-03, -2.585E-04, 7.441E-05
i', -9.033E-05, -2.175E-03, -2.585E-04, 7.441E-05
j', -4.392E-05, -2.015E-03, -2.585E-04, 7.485E-05
144, -4.392E-05, -2.015E-03, -2.585E-04, 7.485E-05
455 (101-303) [l=250 cm][250 def.]
101, -9.073E-05, -2.176E-03, -2.796E-04, -3.843E-05
i', -9.073E-05, -2.176E-03, -2.796E-04, -3.843E-05
j', -1.869E-04, -1.477E-03, -2.796E-04, -3.845E-05
303, -1.869E-04, -1.477E-03, -2.796E-04, -3.845E-05
456 (108-287) [l=250 cm][250 def.]
108, -9.127E-05, -2.176E-03, -3.086E-04, -3.601E-05
i', -9.127E-05, -2.176E-03, -3.086E-04, -3.601E-05
j', -1.814E-04, -1.405E-03, -3.085E-04, -3.604E-05
287, -1.814E-04, -1.405E-03, -3.085E-04, -3.604E-05
457 (111-152) [l=62 cm][62 def.]
111, -9.168E-05, -2.176E-03, -3.304E-04, -3.417E-05
i', -9.168E-05, -2.176E-03, -3.304E-04, -3.417E-05
j', -1.132E-04, -1.972E-03, -3.304E-04, -3.472E-05
152, -1.132E-04, -1.972E-03, -3.304E-04, -3.472E-05
458 (280-354) [l=0 cm][0 def.]
280, -1.044E-04, -6.852E+00, -3.189E-04, 1.648E-07
i', -1.044E-04, -6.852E+00, -3.189E-04, 1.648E-07
j', -1.045E-04, -6.852E+00, -3.189E-04, 1.648E-07
354, -1.045E-04, -6.852E+00, -3.189E-04, 1.648E-07
459 (204-354) [l=30 cm][30 def.]
204, -9.953E-05, 2.263E-03, -3.189E-04, -1.642E-05
i', -9.953E-05, 2.263E-03, -3.189E-04, -1.642E-05
j', -1.045E-04, 2.359E-03, -3.189E-04, -1.642E-05
354, -1.045E-04, 2.359E-03, -3.189E-04, -1.642E-05
460 (155-247) [l=188 cm][188 def.]
155, 9.857E-05, -6.850E+00, 3.166E-04, 1.648E-07
i', 9.857E-05, -6.850E+00, 3.166E-04, 1.648E-07
j', 9.888E-05, -6.850E+00, 3.177E-04, 1.648E-07
247, 9.888E-05, -6.850E+00, 3.177E-04, 1.648E-07
461 (247-154) [l=104 cm][104 def.]
247, 9.888E-05, -6.850E+00, 3.177E-04, 1.648E-07
i', 9.888E-05, -6.850E+00, 3.177E-04, 1.648E-07
j', 9.905E-05, -6.850E+00, 3.182E-04, 1.648E-07
154, 9.905E-05, -6.850E+00, 3.182E-04, 1.648E-07
462 (276-355) [l=395 cm][395 def.]
276, -1.050E-04, -6.851E+00, -3.189E-04, 1.648E-07
i', -1.050E-04, -6.851E+00, -3.189E-04, 1.648E-07
j', -1.047E-04, -6.850E+00, -3.177E-04, 1.648E-07
355, -1.047E-04, -6.850E+00, -3.177E-04, 1.648E-07
463 (247-355) [l=30 cm][30 def.]
247, -9.888E-05, 2.265E-03, -3.177E-04, -1.942E-05
i', -9.888E-05, 2.265E-03, -3.177E-04, -1.942E-05
j', -1.047E-04, 2.360E-03, -3.177E-04, -1.942E-05
355, -1.047E-04, 2.360E-03, -3.177E-04, -1.942E-05
464 (203-249) [l=104 cm][104 def.]
203, -9.905E-05, -6.851E+00, -3.182E-04, 1.648E-07
i', -9.905E-05, -6.851E+00, -3.182E-04, 1.648E-07
j', -9.888E-05, -6.850E+00, -3.177E-04, 1.648E-07
249, -9.888E-05, -6.850E+00, -3.177E-04, 1.648E-07
465 (249-201) [l=188 cm][188 def.]
249, -9.888E-05, -6.850E+00, -3.177E-04, 1.648E-07
i', -9.888E-05, -6.850E+00, -3.177E-04, 1.648E-07
j', -9.857E-05, -6.850E+00, -3.166E-04, 1.648E-07
201, -9.857E-05, -6.850E+00, -3.166E-04, 1.648E-07
466 (354-356) [l=395 cm][395 def.]
354, -1.045E-04, -6.852E+00, -3.189E-04, 1.648E-07
i', -1.045E-04, -6.852E+00, -3.189E-04, 1.648E-07
j', -1.034E-04, -6.850E+00, -3.177E-04, 1.648E-07
356, -1.034E-04, -6.850E+00, -3.177E-04, 1.648E-07

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467 (249-356) [l=30 cm][30 def.]
249, -9.888E-05, 2.263E-03, -3.177E-04, -1.522E-05
i', -9.888E-05, 2.263E-03, -3.177E-04, -1.522E-05
j', -1.034E-04, 2.359E-03, -3.177E-04, -1.522E-05
356, -1.034E-04, 2.359E-03, -3.177E-04, -1.522E-05

468 (201-251) [l=182 cm][182 def.]
201, -9.857E-05, -6.850E+00, -3.166E-04, 1.648E-07
i', -9.857E-05, -6.850E+00, -3.166E-04, 1.648E-07
j', -9.827E-05, -6.849E+00, -3.150E-04, 1.648E-07
251, -9.827E-05, -6.849E+00, -3.150E-04, 1.648E-07

469 (251-200) [l=108 cm][108 def.]
251, -9.827E-05, -6.849E+00, -3.150E-04, 1.648E-07
i', -9.827E-05, -6.849E+00, -3.150E-04, 1.648E-07
j', -9.809E-05, -6.849E+00, -3.138E-04, 1.648E-07
200, -9.809E-05, -6.849E+00, -3.138E-04, 1.648E-07

470 (356-357) [l=370 cm][370 def.]
356, -1.034E-04, -6.850E+00, -3.177E-04, 1.648E-07
i', -1.034E-04, -6.850E+00, -3.177E-04, 1.648E-07
j', -1.026E-04, -6.849E+00, -3.150E-04, 1.648E-07
357, -1.026E-04, -6.849E+00, -3.150E-04, 1.648E-07

471 (251-357) [l=30 cm][30 def.]
251, -9.827E-05, 2.263E-03, -3.150E-04, -1.435E-05
i', -9.827E-05, 2.263E-03, -3.150E-04, -1.435E-05
j', -1.026E-04, 2.358E-03, -3.150E-04, -1.435E-05
357, -1.026E-04, 2.358E-03, -3.150E-04, -1.435E-05

472 (158-252) [l=108 cm][108 def.]
158, 9.809E-05, -6.849E+00, 3.138E-04, 1.648E-07
i', 9.809E-05, -6.849E+00, 3.138E-04, 1.648E-07
j', 9.827E-05, -6.849E+00, 3.150E-04, 1.648E-07
252, 9.827E-05, -6.849E+00, 3.150E-04, 1.648E-07

473 (252-155) [l=182 cm][182 def.]
252, 9.827E-05, -6.849E+00, 3.150E-04, 1.648E-07
i', 9.827E-05, -6.849E+00, 3.150E-04, 1.648E-07
j', 9.857E-05, -6.850E+00, 3.166E-04, 1.648E-07
155, 9.857E-05, -6.850E+00, 3.166E-04, 1.648E-07

474 (355-358) [l=370 cm][370 def.]
355, -1.047E-04, -6.850E+00, -3.177E-04, 1.648E-07
i', -1.047E-04, -6.850E+00, -3.177E-04, 1.648E-07
j', -1.044E-04, -6.849E+00, -3.150E-04, 1.648E-07
358, -1.044E-04, -6.849E+00, -3.150E-04, 1.648E-07

475 (252-358) [l=30 cm][30 def.]
252, -9.827E-05, 2.265E-03, -3.150E-04, -2.029E-05
i', -9.827E-05, 2.265E-03, -3.150E-04, -2.029E-05
j', -1.044E-04, 2.359E-03, -3.150E-04, -2.029E-05
358, -1.044E-04, 2.359E-03, -3.150E-04, -2.029E-05

476 (200-254) [l=262 cm][262 def.]
200, -9.809E-05, -6.849E+00, -3.138E-04, 1.648E-07
i', -9.809E-05, -6.849E+00, -3.138E-04, 1.648E-07
j', -9.766E-05, -6.848E+00, -3.104E-04, 1.648E-07
254, -9.766E-05, -6.848E+00, -3.104E-04, 1.648E-07

477 (254-198) [l=28 cm][28 def.]
254, -9.766E-05, -6.848E+00, -3.104E-04, 1.648E-07
i', -9.766E-05, -6.848E+00, -3.104E-04, 1.648E-07
j', -9.761E-05, -6.848E+00, -3.100E-04, 1.648E-07
198, -9.761E-05, -6.848E+00, -3.100E-04, 1.648E-07

478 (357-359) [l=370 cm][370 def.]
357, -1.026E-04, -6.849E+00, -3.150E-04, 1.648E-07
i', -1.026E-04, -6.849E+00, -3.150E-04, 1.648E-07
j', -1.018E-04, -6.848E+00, -3.104E-04, 1.648E-07
359, -1.018E-04, -6.848E+00, -3.104E-04, 1.648E-07

479 (254-359) [l=30 cm][30 def.]
254, -9.766E-05, 2.263E-03, -3.104E-04, -1.374E-05
i', -9.766E-05, 2.263E-03, -3.104E-04, -1.374E-05
j', -1.018E-04, 2.356E-03, -3.104E-04, -1.374E-05
359, -1.018E-04, 2.356E-03, -3.104E-04, -1.374E-05

480 (159-255) [l=28 cm][28 def.]
159, 9.761E-05, -6.848E+00, 3.100E-04, 1.648E-07
i', 9.761E-05, -6.848E+00, 3.100E-04, 1.648E-07
j', 9.766E-05, -6.848E+00, 3.104E-04, 1.648E-07
255, 9.766E-05, -6.848E+00, 3.104E-04, 1.648E-07

481 (255-158) [l=262 cm][262 def.]
255, 9.766E-05, -6.848E+00, 3.104E-04, 1.648E-07
i', 9.766E-05, -6.848E+00, 3.104E-04, 1.648E-07
j', 9.809E-05, -6.849E+00, 3.138E-04, 1.648E-07
158, 9.809E-05, -6.849E+00, 3.138E-04, 1.648E-07

482 (358-360) [l=370 cm][370 def.]
358, -1.044E-04, -6.849E+00, -3.150E-04, 1.648E-07
i', -1.044E-04, -6.849E+00, -3.150E-04, 1.648E-07
j', -1.039E-04, -6.848E+00, -3.104E-04, 1.648E-07
360, -1.039E-04, -6.848E+00, -3.104E-04, 1.648E-07

483 (255-360) [l=30 cm][30 def.]
255, -9.766E-05, 2.265E-03, -3.104E-04, -2.092E-05
i', -9.766E-05, 2.265E-03, -3.104E-04, -2.092E-05
j', -1.039E-04, 2.358E-03, -3.104E-04, -2.092E-05
360, -1.039E-04, 2.358E-03, -3.104E-04, -2.092E-05

484 (197-257) [l=110 cm][110 def.]

197, -9.723E-05, -6.847E+00, -3.063E-04, 1.648E-07
 i', -9.723E-05, -6.847E+00, -3.063E-04, 1.648E-07
 j', -9.705E-05, -6.847E+00, -3.044E-04, 1.648E-07
 257, -9.705E-05, -6.847E+00, -3.044E-04, 1.648E-07
 485 (257-195) [l=123 cm][123 def.]
 257, -9.705E-05, -6.847E+00, -3.044E-04, 1.648E-07
 i', -9.705E-05, -6.847E+00, -3.044E-04, 1.648E-07
 j', -9.684E-05, -6.846E+00, -3.022E-04, 1.648E-07
 195, -9.684E-05, -6.846E+00, -3.022E-04, 1.648E-07
 486 (359-361) [l=370 cm][370 def.]
 359, -1.018E-04, -6.848E+00, -3.104E-04, 1.648E-07
 i', -1.018E-04, -6.848E+00, -3.104E-04, 1.648E-07
 j', -1.011E-04, -6.847E+00, -3.044E-04, 1.648E-07
 361, -1.011E-04, -6.847E+00, -3.044E-04, 1.648E-07
 487 (257-361) [l=30 cm][30 def.]
 257, -9.705E-05, 2.263E-03, -3.044E-04, -1.337E-05
 i', -9.705E-05, 2.263E-03, -3.044E-04, -1.337E-05
 j', -1.011E-04, 2.355E-03, -3.044E-04, -1.337E-05
 361, -1.011E-04, 2.355E-03, -3.044E-04, -1.337E-05
 488 (162-258) [l=123 cm][123 def.]
 162, 9.684E-05, -6.846E+00, 3.022E-04, 1.648E-07
 i', 9.684E-05, -6.846E+00, 3.022E-04, 1.648E-07
 j', 9.705E-05, -6.847E+00, 3.044E-04, 1.648E-07
 258, 9.705E-05, -6.847E+00, 3.044E-04, 1.648E-07
 489 (258-161) [l=110 cm][110 def.]
 258, 9.705E-05, -6.847E+00, 3.044E-04, 1.648E-07
 i', 9.705E-05, -6.847E+00, 3.044E-04, 1.648E-07
 j', 9.723E-05, -6.847E+00, 3.063E-04, 1.648E-07
 161, 9.723E-05, -6.847E+00, 3.063E-04, 1.648E-07
 490 (360-362) [l=370 cm][370 def.]
 360, -1.039E-04, -6.848E+00, -3.104E-04, 1.648E-07
 i', -1.039E-04, -6.848E+00, -3.104E-04, 1.648E-07
 j', -1.034E-04, -6.847E+00, -3.044E-04, 1.648E-07
 362, -1.034E-04, -6.847E+00, -3.044E-04, 1.648E-07
 491 (258-362) [l=30 cm][30 def.]
 258, -9.705E-05, 2.265E-03, -3.044E-04, -2.129E-05
 i', -9.705E-05, 2.265E-03, -3.044E-04, -2.129E-05
 j', -1.034E-04, 2.356E-03, -3.044E-04, -2.129E-05
 362, -1.034E-04, 2.356E-03, -3.044E-04, -2.129E-05
 492 (164-259) [l=0 cm][0 def.]
 164, 9.644E-05, -6.846E+00, 2.975E-04, 1.648E-07
 i', 9.644E-05, -6.846E+00, 2.975E-04, 1.648E-07
 j', 9.644E-05, -6.846E+00, 2.975E-04, 1.648E-07
 259, 9.644E-05, -6.846E+00, 2.975E-04, 1.648E-07
 493 (259-163) [l=122 cm][122 def.]
 259, 9.644E-05, -6.846E+00, 2.975E-04, 1.648E-07
 i', 9.644E-05, -6.846E+00, 2.975E-04, 1.648E-07
 j', 9.664E-05, -6.846E+00, 2.999E-04, 1.648E-07
 163, 9.664E-05, -6.846E+00, 2.999E-04, 1.648E-07
 494 (362-363) [l=368 cm][368 def.]
 362, -1.034E-04, -6.847E+00, -3.044E-04, 1.648E-07
 i', -1.034E-04, -6.847E+00, -3.044E-04, 1.648E-07
 j', -1.029E-04, -6.846E+00, -2.975E-04, 1.648E-07
 363, -1.029E-04, -6.846E+00, -2.975E-04, 1.648E-07
 495 (259-363) [l=30 cm][30 def.]
 259, -9.644E-05, 2.265E-03, -2.975E-04, -2.141E-05
 i', -9.644E-05, 2.265E-03, -2.975E-04, -2.141E-05
 j', -1.029E-04, 2.354E-03, -2.975E-04, -2.141E-05
 363, -1.029E-04, 2.354E-03, -2.975E-04, -2.141E-05
 496 (171-261) [l=73 cm][73 def.]
 171, 9.511E-05, -6.843E+00, 2.820E-04, 1.648E-07
 i', 9.511E-05, -6.843E+00, 2.820E-04, 1.648E-07
 j', 9.523E-05, -6.843E+00, 2.833E-04, 1.648E-07
 261, 9.523E-05, -6.843E+00, 2.833E-04, 1.648E-07
 497 (261-169) [l=158 cm][158 def.]
 261, 9.523E-05, -6.843E+00, 2.833E-04, 1.648E-07
 i', 9.523E-05, -6.843E+00, 2.833E-04, 1.648E-07
 j', 9.549E-05, -6.844E+00, 2.861E-04, 1.648E-07
 169, 9.549E-05, -6.844E+00, 2.861E-04, 1.648E-07
 498 (261-364) [l=30 cm][30 def.]
 261, -9.523E-05, 2.265E-03, -2.833E-04, -2.130E-05
 i', -9.523E-05, 2.265E-03, -2.833E-04, -2.130E-05
 j', -1.016E-04, 2.350E-03, -2.833E-04, -2.130E-05
 364, -1.016E-04, 2.350E-03, -2.833E-04, -2.130E-05
 499 (188-263) [l=157 cm][157 def.]
 188, -9.549E-05, -6.844E+00, -2.861E-04, 1.648E-07
 i', -9.549E-05, -6.844E+00, -2.861E-04, 1.648E-07
 j', -9.523E-05, -6.844E+00, -2.833E-04, 1.648E-07
 263, -9.523E-05, -6.844E+00, -2.833E-04, 1.648E-07
 500 (263-187) [l=73 cm][73 def.]
 263, -9.523E-05, -6.844E+00, -2.833E-04, 1.648E-07
 i', -9.523E-05, -6.844E+00, -2.833E-04, 1.648E-07
 j', -9.511E-05, -6.843E+00, -2.820E-04, 1.648E-07
 187, -9.511E-05, -6.843E+00, -2.820E-04, 1.648E-07
 501 (263-365) [l=30 cm][30 def.]
 263, -9.523E-05, 2.263E-03, -2.833E-04, -1.338E-05

i', -9.523E-05, 2.263E-03, -2.833E-04, -1.338E-05
 j', -9.925E-05, 2.348E-03, -2.833E-04, -1.338E-05
 365, -9.925E-05, 2.348E-03, -2.833E-04, -1.338E-05
 502 (174-264) [l=243 cm][243 def.]
 174, 9.422E-05, -6.842E+00, 2.740E-04, 1.648E-07
 i', 9.422E-05, -6.842E+00, 2.740E-04, 1.648E-07
 j', 9.462E-05, -6.842E+00, 2.773E-04, 1.648E-07
 264, 9.462E-05, -6.842E+00, 2.773E-04, 1.648E-07
 503 (264-172) [l=67 cm][67 def.]
 264, 9.462E-05, -6.842E+00, 2.773E-04, 1.648E-07
 i', 9.462E-05, -6.842E+00, 2.773E-04, 1.648E-07
 j', 9.473E-05, -6.843E+00, 2.782E-04, 1.648E-07
 172, 9.473E-05, -6.843E+00, 2.782E-04, 1.648E-07
 504 (364-366) [l=370 cm][370 def.]
 364, -1.016E-04, -6.843E+00, -2.833E-04, 1.648E-07
 i', -1.016E-04, -6.843E+00, -2.833E-04, 1.648E-07
 j', -1.009E-04, -6.842E+00, -2.773E-04, 1.648E-07
 366, -1.009E-04, -6.842E+00, -2.773E-04, 1.648E-07
 505 (264-366) [l=30 cm][30 def.]
 264, -9.462E-05, 2.265E-03, -2.773E-04, -2.092E-05
 i', -9.462E-05, 2.265E-03, -2.773E-04, -2.092E-05
 j', -1.009E-04, 2.348E-03, -2.773E-04, -2.092E-05
 366, -1.009E-04, 2.348E-03, -2.773E-04, -2.092E-05
 506 (185-266) [l=67 cm][67 def.]
 185, -9.473E-05, -6.843E+00, -2.782E-04, 1.648E-07
 i', -9.473E-05, -6.843E+00, -2.782E-04, 1.648E-07
 j', -9.462E-05, -6.843E+00, -2.773E-04, 1.648E-07
 266, -9.462E-05, -6.843E+00, -2.773E-04, 1.648E-07
 507 (266-184) [l=243 cm][243 def.]
 266, -9.462E-05, -6.843E+00, -2.773E-04, 1.648E-07
 i', -9.462E-05, -6.843E+00, -2.773E-04, 1.648E-07
 j', -9.422E-05, -6.842E+00, -2.740E-04, 1.648E-07
 184, -9.422E-05, -6.842E+00, -2.740E-04, 1.648E-07
 508 (365-367) [l=370 cm][370 def.]
 365, -9.925E-05, -6.844E+00, -2.833E-04, 1.648E-07
 i', -9.925E-05, -6.844E+00, -2.833E-04, 1.648E-07
 j', -9.875E-05, -6.843E+00, -2.773E-04, 1.648E-07
 367, -9.875E-05, -6.843E+00, -2.773E-04, 1.648E-07
 509 (266-367) [l=30 cm][30 def.]
 266, -9.462E-05, 2.263E-03, -2.773E-04, -1.376E-05
 i', -9.462E-05, 2.263E-03, -2.773E-04, -1.376E-05
 j', -9.875E-05, 2.346E-03, -2.773E-04, -1.376E-05
 367, -9.875E-05, 2.346E-03, -2.773E-04, -1.376E-05
 510 (175-267) [l=183 cm][183 def.]
 175, 9.371E-05, -6.841E+00, 2.709E-04, 1.648E-07
 i', 9.371E-05, -6.841E+00, 2.709E-04, 1.648E-07
 j', 9.401E-05, -6.841E+00, 2.725E-04, 1.648E-07
 267, 9.401E-05, -6.841E+00, 2.725E-04, 1.648E-07
 511 (267-174) [l=127 cm][127 def.]
 267, 9.401E-05, -6.841E+00, 2.725E-04, 1.648E-07
 i', 9.401E-05, -6.841E+00, 2.725E-04, 1.648E-07
 j', 9.422E-05, -6.842E+00, 2.740E-04, 1.648E-07
 174, 9.422E-05, -6.842E+00, 2.740E-04, 1.648E-07
 512 (366-368) [l=370 cm][370 def.]
 366, -1.009E-04, -6.842E+00, -2.773E-04, 1.648E-07
 i', -1.009E-04, -6.842E+00, -2.773E-04, 1.648E-07
 j', -1.001E-04, -6.841E+00, -2.725E-04, 1.648E-07
 368, -1.001E-04, -6.841E+00, -2.725E-04, 1.648E-07
 513 (267-368) [l=30 cm][30 def.]
 267, -9.401E-05, 2.265E-03, -2.725E-04, -2.030E-05
 i', -9.401E-05, 2.265E-03, -2.725E-04, -2.030E-05
 j', -1.001E-04, 2.346E-03, -2.725E-04, -2.030E-05
 368, -1.001E-04, 2.346E-03, -2.725E-04, -2.030E-05
 514 (184-269) [l=127 cm][127 def.]
 184, -9.422E-05, -6.842E+00, -2.740E-04, 1.648E-07
 i', -9.422E-05, -6.842E+00, -2.740E-04, 1.648E-07
 j', -9.401E-05, -6.842E+00, -2.725E-04, 1.648E-07
 269, -9.401E-05, -6.842E+00, -2.725E-04, 1.648E-07
 515 (269-181) [l=183 cm][183 def.]
 269, -9.401E-05, -6.842E+00, -2.725E-04, 1.648E-07
 i', -9.401E-05, -6.842E+00, -2.725E-04, 1.648E-07
 j', -9.371E-05, -6.841E+00, -2.709E-04, 1.648E-07
 181, -9.371E-05, -6.841E+00, -2.709E-04, 1.648E-07
 516 (367-369) [l=370 cm][370 def.]
 367, -9.875E-05, -6.843E+00, -2.773E-04, 1.648E-07
 i', -9.875E-05, -6.843E+00, -2.773E-04, 1.648E-07
 j', -9.833E-05, -6.842E+00, -2.725E-04, 1.648E-07
 369, -9.833E-05, -6.842E+00, -2.725E-04, 1.648E-07
 517 (269-369) [l=30 cm][30 def.]
 269, -9.401E-05, 2.263E-03, -2.725E-04, -1.439E-05
 i', -9.401E-05, 2.263E-03, -2.725E-04, -1.439E-05
 j', -9.833E-05, 2.345E-03, -2.725E-04, -1.439E-05
 369, -9.833E-05, 2.345E-03, -2.725E-04, -1.439E-05
 518 (181-271) [l=187 cm][187 def.]
 181, -9.371E-05, -6.841E+00, -2.709E-04, 1.648E-07
 i', -9.371E-05, -6.841E+00, -2.709E-04, 1.648E-07

j', -9.340E-05, -6.841E+00, -2.697E-04, 1.648E-07
 271, -9.340E-05, -6.841E+00, -2.697E-04, 1.648E-07
 519 (271-180) [l=104 cm][104 def.]
 271, -9.340E-05, -6.841E+00, -2.697E-04, 1.648E-07
 i', -9.340E-05, -6.841E+00, -2.697E-04, 1.648E-07
 j', -9.323E-05, -6.840E+00, -2.692E-04, 1.648E-07
 180, -9.323E-05, -6.840E+00, -2.692E-04, 1.648E-07
 520 (369-370) [l=370 cm][370 def.]
 369, -9.833E-05, -6.842E+00, -2.725E-04, 1.648E-07
 i', -9.833E-05, -6.842E+00, -2.725E-04, 1.648E-07
 j', -9.798E-05, -6.841E+00, -2.697E-04, 1.648E-07
 370, -9.798E-05, -6.841E+00, -2.697E-04, 1.648E-07
 521 (370-279) [l=395 cm][395 def.]
 370, -9.798E-05, -6.841E+00, -2.697E-04, 1.648E-07
 i', -9.798E-05, -6.841E+00, -2.697E-04, 1.648E-07
 j', -9.768E-05, -6.839E+00, -2.685E-04, 1.648E-07
 279, -9.768E-05, -6.839E+00, -2.685E-04, 1.648E-07
 522 (271-370) [l=30 cm][30 def.]
 271, -9.340E-05, 2.263E-03, -2.697E-04, -1.526E-05
 i', -9.340E-05, 2.263E-03, -2.697E-04, -1.526E-05
 j', -9.798E-05, 2.344E-03, -2.697E-04, -1.526E-05
 370, -9.798E-05, 2.344E-03, -2.697E-04, -1.526E-05
 523 (177-272) [l=104 cm][104 def.]
 177, 9.323E-05, -6.840E+00, 2.692E-04, 1.648E-07
 i', 9.323E-05, -6.840E+00, 2.692E-04, 1.648E-07
 j', 9.340E-05, -6.840E+00, 2.697E-04, 1.648E-07
 272, 9.340E-05, -6.840E+00, 2.697E-04, 1.648E-07
 524 (272-175) [l=187 cm][187 def.]
 272, 9.340E-05, -6.840E+00, 2.697E-04, 1.648E-07
 i', 9.340E-05, -6.840E+00, 2.697E-04, 1.648E-07
 j', 9.371E-05, -6.841E+00, 2.709E-04, 1.648E-07
 175, 9.371E-05, -6.841E+00, 2.709E-04, 1.648E-07
 525 (368-371) [l=370 cm][370 def.]
 368, -1.001E-04, -6.841E+00, -2.725E-04, 1.648E-07
 i', -1.001E-04, -6.841E+00, -2.725E-04, 1.648E-07
 j', -9.923E-05, -6.840E+00, -2.697E-04, 1.648E-07
 371, -9.923E-05, -6.840E+00, -2.697E-04, 1.648E-07
 526 (371-277) [l=395 cm][395 def.]
 371, -9.923E-05, -6.840E+00, -2.697E-04, 1.648E-07
 i', -9.923E-05, -6.840E+00, -2.697E-04, 1.648E-07
 j', -9.824E-05, -6.839E+00, -2.685E-04, 1.648E-07
 277, -9.824E-05, -6.839E+00, -2.685E-04, 1.648E-07
 527 (272-371) [l=30 cm][30 def.]
 272, -9.340E-05, 2.265E-03, -2.697E-04, -1.942E-05
 i', -9.340E-05, 2.265E-03, -2.697E-04, -1.942E-05
 j', -9.923E-05, 2.346E-03, -2.697E-04, -1.942E-05
 371, -9.923E-05, 2.346E-03, -2.697E-04, -1.942E-05
 528 (194-289) [l=122 cm][122 def.]
 194, -9.664E-05, -6.846E+00, -2.999E-04, 1.648E-07
 i', -9.664E-05, -6.846E+00, -2.999E-04, 1.648E-07
 j', -9.644E-05, -6.846E+00, -2.975E-04, 1.648E-07
 289, -9.644E-05, -6.846E+00, -2.975E-04, 1.648E-07
 529 (289-193) [l=0 cm][0 def.]
 289, -9.644E-05, -6.846E+00, -2.975E-04, 1.648E-07
 i', -9.644E-05, -6.846E+00, -2.975E-04, 1.648E-07
 j', -9.644E-05, -6.846E+00, -2.975E-04, 1.648E-07
 193, -9.644E-05, -6.846E+00, -2.975E-04, 1.648E-07
 530 (361-372) [l=367 cm][367 def.]
 361, -1.011E-04, -6.847E+00, -3.044E-04, 1.648E-07
 i', -1.011E-04, -6.847E+00, -3.044E-04, 1.648E-07
 j', -1.004E-04, -6.846E+00, -2.975E-04, 1.648E-07
 372, -1.004E-04, -6.846E+00, -2.975E-04, 1.648E-07
 531 (289-372) [l=30 cm][30 def.]
 289, -9.644E-05, 2.263E-03, -2.975E-04, -1.325E-05
 i', -9.644E-05, 2.263E-03, -2.975E-04, -1.325E-05
 j', -1.004E-04, 2.352E-03, -2.975E-04, -1.325E-05
 372, -1.004E-04, 2.352E-03, -2.975E-04, -1.325E-05
 532 (192-298) [l=165 cm][165 def.]
 192, -9.617E-05, -6.845E+00, -2.942E-04, 1.648E-07
 i', -9.617E-05, -6.845E+00, -2.942E-04, 1.648E-07
 j', -9.590E-05, -6.845E+00, -2.909E-04, 1.648E-07
 298, -9.590E-05, -6.845E+00, -2.909E-04, 1.648E-07
 533 (298-190) [l=0 cm][0 def.]
 298, -9.590E-05, -6.845E+00, -2.909E-04, 1.648E-07
 i', -9.590E-05, -6.845E+00, -2.909E-04, 1.648E-07
 j', -9.590E-05, -6.845E+00, -2.909E-04, 1.648E-07
 190, -9.590E-05, -6.845E+00, -2.909E-04, 1.648E-07
 534 (372-373) [l=330 cm][330 def.]
 372, -1.004E-04, -6.846E+00, -2.975E-04, 1.648E-07
 i', -1.004E-04, -6.846E+00, -2.975E-04, 1.648E-07
 j', -9.987E-05, -6.845E+00, -2.909E-04, 1.648E-07
 373, -9.987E-05, -6.845E+00, -2.909E-04, 1.648E-07
 535 (373-365) [l=402 cm][402 def.]
 373, -9.987E-05, -6.845E+00, -2.909E-04, 1.648E-07
 i', -9.987E-05, -6.845E+00, -2.909E-04, 1.648E-07
 j', -9.925E-05, -6.844E+00, -2.833E-04, 1.648E-07

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365, -9.925E-05, -6.844E+00, -2.833E-04, 1.648E-07
536 (298-373) [l=30 cm][30 def.]
298, -9.590E-05, 2.263E-03, -2.909E-04, -1.325E-05
i', -9.590E-05, 2.263E-03, -2.909E-04, -1.325E-05
j', -9.987E-05, 2.350E-03, -2.909E-04, -1.325E-05
373, -9.987E-05, 2.350E-03, -2.909E-04, -1.325E-05
537 (167-301) [l=0 cm][0 def.]
167, 9.590E-05, -6.845E+00, 2.909E-04, 1.648E-07
i', 9.590E-05, -6.845E+00, 2.909E-04, 1.648E-07
j', 9.590E-05, -6.845E+00, 2.909E-04, 1.648E-07
301, 9.590E-05, -6.845E+00, 2.909E-04, 1.648E-07
538 (301-166) [l=165 cm][165 def.]
301, 9.590E-05, -6.845E+00, 2.909E-04, 1.648E-07
i', 9.590E-05, -6.845E+00, 2.909E-04, 1.648E-07
j', 9.617E-05, -6.845E+00, 2.942E-04, 1.648E-07
166, 9.617E-05, -6.845E+00, 2.942E-04, 1.648E-07
539 (363-374) [l=330 cm][330 def.]
363, -1.029E-04, -6.846E+00, -2.975E-04, 1.648E-07
i', -1.029E-04, -6.846E+00, -2.975E-04, 1.648E-07
j', -1.023E-04, -6.845E+00, -2.909E-04, 1.648E-07
374, -1.023E-04, -6.845E+00, -2.909E-04, 1.648E-07
540 (374-364) [l=402 cm][402 def.]
374, -1.023E-04, -6.845E+00, -2.909E-04, 1.648E-07
i', -1.023E-04, -6.845E+00, -2.909E-04, 1.648E-07
j', -1.016E-04, -6.843E+00, -2.833E-04, 1.648E-07
364, -1.016E-04, -6.843E+00, -2.833E-04, 1.648E-07
541 (301-374) [l=30 cm][30 def.]
301, -9.590E-05, 2.265E-03, -2.909E-04, -2.142E-05
i', -9.590E-05, 2.265E-03, -2.909E-04, -2.142E-05
j', -1.023E-04, 2.352E-03, -2.909E-04, -2.142E-05
374, -1.023E-04, 2.352E-03, -2.909E-04, -2.142E-05
542 (305-284) [l=400 cm][400 def.]
305, -1.789E-03, 1.520E-02, 1.158E-02, 1.132E-03
i', -1.789E-03, 1.520E-02, 1.158E-02, 1.132E-03
j', 2.738E-03, -3.114E-02, 1.158E-02, 1.132E-03
284, 2.738E-03, -3.114E-02, 1.158E-02, 1.132E-03
543 (307-283) [l=350 cm][350 def.]
307, -1.978E-03, 7.853E-03, 1.003E-02, 1.886E-03
i', -1.978E-03, 7.853E-03, 1.003E-02, 1.886E-03
j', 4.625E-03, -2.725E-02, 1.003E-02, 1.886E-03
283, 4.625E-03, -2.725E-02, 1.003E-02, 1.886E-03
544 (309-285) [l=350 cm][350 def.]
309, 1.761E-03, 7.852E-03, 1.003E-02, -1.852E-03
i', 1.761E-03, 7.852E-03, 1.003E-02, -1.852E-03
j', -4.722E-03, -2.725E-02, 1.003E-02, -1.852E-03
285, -4.722E-03, -2.725E-02, 1.003E-02, -1.852E-03
545 (311-286) [l=400 cm][400 def.]
311, 1.555E-03, 1.520E-02, 1.158E-02, -1.097E-03
i', 1.555E-03, 1.520E-02, 1.158E-02, -1.097E-03
j', -2.835E-03, -3.114E-02, 1.158E-02, -1.097E-03
286, -2.835E-03, -3.114E-02, 1.158E-02, -1.097E-03
546 (313-292) [l=350 cm][350 def.]
313, -2.034E-03, -1.713E-02, -1.495E-02, 1.943E-03
i', -2.034E-03, -1.713E-02, -1.495E-02, 1.943E-03
j', 4.767E-03, 3.520E-02, -1.495E-02, 1.943E-03
292, 4.767E-03, 3.520E-02, -1.495E-02, 1.943E-03
547 (315-293) [l=400 cm][400 def.]
315, -1.835E-03, -2.791E-02, -1.716E-02, 1.163E-03
i', -1.835E-03, -2.791E-02, -1.716E-02, 1.163E-03
j', 2.816E-03, 4.072E-02, -1.716E-02, 1.163E-03
293, 2.816E-03, 4.072E-02, -1.716E-02, 1.163E-03
548 (317-295) [l=400 cm][400 def.]
317, 1.602E-03, -2.791E-02, -1.716E-02, -1.129E-03
i', 1.602E-03, -2.791E-02, -1.716E-02, -1.129E-03
j', -2.912E-03, 4.072E-02, -1.716E-02, -1.129E-03
295, -2.912E-03, 4.072E-02, -1.716E-02, -1.129E-03
549 (319-302) [l=350 cm][350 def.]
319, 1.818E-03, -1.713E-02, -1.495E-02, -1.909E-03
i', 1.818E-03, -1.713E-02, -1.495E-02, -1.909E-03
j', -4.863E-03, 3.520E-02, -1.495E-02, -1.909E-03
302, -4.863E-03, 3.520E-02, -1.495E-02, -1.909E-03

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--> Reazioni Vincolari (RX, RY, RZ, MX, MY, MZ) [kN, kN m]

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1, -4.69, 0.00, 107.07, 0.00, 0.00, 0.00
2, 4.69, 0.00, 0.00, 0.00, 0.00, 0.00
3, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
4, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
5, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
6, -6.34, -0.07, 128.09, 0.00, 0.00, 0.00
7, 6.34, 0.07, 0.00, 0.00, 0.00, 0.00
8, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
9, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
10, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
11, -1.57, -0.07, 117.04, 0.00, 0.00, 0.00
12, 1.57, 0.07, 0.00, 0.00, 0.00, 0.00

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13, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 14, 1.47, -0.46, 104.06, 0.00, 0.00, 0.00
 15, -1.47, 0.46, 0.00, 0.00, 0.00, 0.00
 16, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 17, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 18, 5.84, -0.46, 113.58, 0.00, 0.00, 0.00
 19, -5.84, 0.46, 0.00, 0.00, 0.00, 0.00
 20, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 21, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 22, -10.65, -0.35, 57.17, 0.00, 0.00, 0.00
 23, 10.65, 0.35, 0.00, 0.00, 0.00, 0.00
 24, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 25, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 26, 0.18, -35.20, 0.00, 0.00, 0.00, 0.00
 27, -20.18, -1.41, 257.09, 0.00, 0.00, 0.00
 28, 20.15, 1.37, 0.00, 0.00, 0.00, 0.00
 29, 0.03, -1.23, 0.00, 0.00, 0.00, 0.00
 30, -0.41, -0.30, 75.66, 0.00, 0.00, 0.00
 31, 0.41, 0.30, 0.00, 0.00, 0.00, 0.00
 32, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 33, 0.59, -0.37, 79.77, 0.00, 0.00, 0.00
 34, -0.59, 0.37, 0.00, 0.00, 0.00, 0.00
 35, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 36, -0.05, -1.27, 0.00, 0.00, 0.00, 0.00
 37, 28.24, -1.73, 239.79, 0.00, 0.00, 0.00
 38, -28.21, 1.69, 0.00, 0.00, 0.00, 0.00
 39, -0.25, -28.12, 0.00, 0.00, 0.00, 0.00
 40, 1.49, -0.22, 26.98, 0.00, 0.00, 0.00
 41, -1.49, 0.22, 0.00, 0.00, 0.00, 0.00
 42, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 43, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 44, -8.11, -0.53, 131.31, 0.00, 0.00, 0.00
 45, 8.11, 0.53, 0.00, 0.00, 0.00, 0.00
 46, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 47, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 48, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 49, -2.29, -0.53, 126.14, 0.00, 0.00, 0.00
 50, 2.29, 0.53, 0.00, 0.00, 0.00, 0.00
 51, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 52, 2.47, -0.12, 131.72, 0.00, 0.00, 0.00
 53, -2.47, 0.12, 0.00, 0.00, 0.00, 0.00
 54, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 55, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 56, 8.55, -0.12, 138.30, 0.00, 0.00, 0.00
 57, -8.55, 0.12, 0.00, 0.00, 0.00, 0.00
 58, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 59, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 60, 5.31, -0.08, 90.02, 0.00, 0.00, 0.00
 61, -5.31, 0.08, 0.00, 0.00, 0.00, 0.00
 62, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 63, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 64, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 65, 0.25, -6.26, 164.14, 0.00, 0.00, 0.00
 66, -0.25, 6.26, 0.00, 0.00, 0.00, 0.00
 67, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 68, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 69, 0.25, 6.27, 164.15, 0.00, 0.00, 0.00
 70, -0.25, -6.27, 0.00, 0.00, 0.00, 0.00
 71, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 72, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 73, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 74, 5.31, 0.08, 90.02, 0.00, 0.00, 0.00
 75, -5.31, -0.08, 0.00, 0.00, 0.00, 0.00
 76, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 77, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 78, 8.55, 0.12, 138.29, 0.00, 0.00, 0.00
 79, -8.55, -0.12, 0.00, 0.00, 0.00, 0.00
 80, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 81, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 82, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 83, 2.47, 0.12, 131.71, 0.00, 0.00, 0.00
 84, -2.47, -0.12, 0.00, 0.00, 0.00, 0.00
 85, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 86, -2.28, 0.53, 126.14, 0.00, 0.00, 0.00
 87, 2.28, -0.53, 0.00, 0.00, 0.00, 0.00
 88, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 89, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 90, -8.10, 0.53, 131.31, 0.00, 0.00, 0.00
 91, 8.10, -0.53, 0.00, 0.00, 0.00, 0.00
 92, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 93, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 94, 1.49, 0.22, 26.98, 0.00, 0.00, 0.00
 95, -1.49, -0.22, 0.00, 0.00, 0.00, 0.00
 96, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 97, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 98, -0.25, 28.16, 0.00, 0.00, 0.00, 0.00

99, 28.24, 1.73, 239.78, 0.00, 0.00, 0.00
 100, -28.21, -1.69, 0.00, 0.00, 0.00, 0.00
 101, -0.05, 1.27, 0.00, 0.00, 0.00, 0.00
 102, 0.59, 0.37, 79.77, 0.00, 0.00, 0.00
 103, -0.59, -0.37, 0.00, 0.00, 0.00, 0.00
 104, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 105, -0.41, 0.30, 75.66, 0.00, 0.00, 0.00
 106, 0.41, -0.30, 0.00, 0.00, 0.00, 0.00
 107, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 108, 0.03, 1.23, 0.00, 0.00, 0.00, 0.00
 109, -20.18, 1.41, 257.10, 0.00, 0.00, 0.00
 110, 20.15, -1.37, 0.00, 0.00, 0.00, 0.00
 111, 0.18, 35.24, 0.00, 0.00, 0.00, 0.00
 112, -10.65, 0.35, 57.17, 0.00, 0.00, 0.00
 113, 10.65, -0.35, 0.00, 0.00, 0.00, 0.00
 114, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 115, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 116, 5.83, 0.46, 113.58, 0.00, 0.00, 0.00
 117, -5.83, -0.46, 0.00, 0.00, 0.00, 0.00
 118, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 119, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 120, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 121, 1.46, 0.46, 104.04, 0.00, 0.00, 0.00
 122, -1.46, -0.46, 0.00, 0.00, 0.00, 0.00
 123, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 124, -1.57, 0.07, 117.05, 0.00, 0.00, 0.00
 125, 1.57, -0.07, 0.00, 0.00, 0.00, 0.00
 126, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 127, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 128, -6.34, 0.07, 128.10, 0.00, 0.00, 0.00
 129, 6.34, -0.07, 0.00, 0.00, 0.00, 0.00
 130, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 131, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 132, -4.70, 0.00, 107.17, 0.00, 0.00, 0.00
 133, 4.70, 0.00, 0.00, 0.00, 0.00, 0.00
 134, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 135, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 136, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 137, 0.98, 42.62, 276.42, 0.00, 0.00, 0.00
 138, -0.13, -83.32, 0.00, 51.66, -0.08, -0.68
 139, -0.60, 7.26, 0.00, -4.50, -0.37, -0.68
 140, 0.00, 5.06, 0.00, -3.14, 0.00, 0.00
 141, 0.98, -42.63, 276.34, 0.00, 0.00, 0.00
 142, -0.13, 83.25, 0.00, -51.62, -0.08, 0.68
 143, 0.00, -5.07, 0.00, 3.14, 0.00, 0.00
 144, -0.60, -7.23, 0.00, 4.48, -0.37, 0.68
 145, -0.70, -34.60, 306.39, 0.00, 0.00, 0.00
 146, 0.09, 90.11, 0.00, -55.87, 0.06, -0.48
 147, 0.43, -15.05, 0.00, 9.33, 0.26, -0.48
 148, 0.00, -5.07, 0.00, 3.14, 0.00, 0.00
 149, -0.70, 34.60, 306.46, 0.00, 0.00, 0.00
 150, 0.09, -90.17, 0.00, 55.91, 0.06, 0.48
 151, 0.00, 5.07, 0.00, -3.14, 0.00, 0.00
 152, 0.43, 15.08, 0.00, -9.35, 0.26, 0.48
 153, -0.22, 0.02, 0.00, 0.00, 0.00, 0.00
 154, 0.22, -0.02, 0.00, 0.00, 0.00, 0.00
 155, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 156, -0.59, -35.27, 0.00, 0.00, 0.00, -0.58
 157, -0.19, 0.04, 0.00, 0.00, 0.00, 0.00
 158, 0.19, -0.04, 0.00, 0.00, 0.00, 0.00
 159, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 160, -0.10, 0.06, 0.00, 0.00, 0.00, 0.00
 161, 0.10, -0.06, 0.00, 0.00, 0.00, 0.00
 162, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 163, 0.03, -0.04, 0.00, 0.00, 0.00, 0.00
 164, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 165, 0.00, 0.05, 0.00, 0.00, 0.00, 0.00
 166, 0.00, -0.05, 0.00, 0.00, 0.00, 0.00
 167, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 168, -0.02, -0.04, 0.00, 0.00, 0.00, 0.00
 169, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 170, 0.10, 0.07, 0.00, 0.00, 0.00, 0.00
 171, -0.10, -0.07, 0.00, 0.00, 0.00, 0.00
 172, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 173, 0.20, 0.09, 0.00, 0.00, 0.00, 0.00
 174, -0.20, -0.09, 0.00, 0.00, 0.00, 0.00
 175, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 176, 0.22, 0.07, 0.00, 0.00, 0.00, 0.00
 177, -0.22, -0.07, 0.00, 0.00, 0.00, 0.00
 178, 0.57, -35.47, 0.00, 0.00, 0.00, 0.51
 179, 0.22, -0.07, 0.00, 0.00, 0.00, 0.00
 180, -0.22, 0.07, 0.00, 0.00, 0.00, 0.00
 181, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 182, 0.56, 35.49, 0.00, 0.00, 0.00, -0.50
 183, 0.20, -0.09, 0.00, 0.00, 0.00, 0.00
 184, -0.20, 0.09, 0.00, 0.00, 0.00, 0.00

185, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
186, 0.10, -0.07, 0.00, 0.00, 0.00, 0.00
187, -0.10, 0.07, 0.00, 0.00, 0.00, 0.00
188, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
189, -0.02, 0.04, 0.00, 0.00, 0.00, 0.00
190, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
191, 0.00, -0.05, 0.00, 0.00, 0.00, 0.00
192, 0.00, 0.05, 0.00, 0.00, 0.00, 0.00
193, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
194, 0.03, 0.04, 0.00, 0.00, 0.00, 0.00
195, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
196, -0.10, -0.06, 0.00, 0.00, 0.00, 0.00
197, 0.10, 0.06, 0.00, 0.00, 0.00, 0.00
198, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
199, -0.19, -0.04, 0.00, 0.00, 0.00, 0.00
200, 0.19, 0.04, 0.00, 0.00, 0.00, 0.00
201, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
202, -0.22, -0.02, 0.00, 0.00, 0.00, 0.00
203, 0.22, 0.02, 0.00, 0.00, 0.00, 0.00
204, -2.39, 35.39, 0.00, 0.00, 0.00, 0.49
205, 0.04, -0.05, 0.00, 0.00, 0.00, 0.00
206, 0.11, 27.22, 0.00, 20.41, -0.08, -0.48
207, 0.04, -0.02, 0.00, -0.03, -0.06, 0.00
208, 0.04, 0.06, 0.00, 0.00, 0.00, 0.00
209, 0.12, -27.23, 0.00, -20.42, -0.09, 0.49
210, -0.05, 0.00, 0.00, 0.00, 0.00, 0.00
211, -0.13, -25.19, 0.00, -18.90, 0.10, -0.59
212, 0.18, 0.05, 0.00, 0.07, -0.27, -0.04
213, -0.05, 0.00, 0.00, 0.00, 0.00, 0.00
214, -0.11, 25.21, 0.00, 18.91, 0.08, 0.50
215, -0.17, 0.00, 132.39, 0.00, 0.00, 0.00
216, 0.17, 0.00, 0.00, 0.00, 0.00, 0.00
217, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
218, -0.17, 0.00, 132.40, 0.00, 0.00, 0.00
219, 0.17, 0.00, 0.00, 0.00, 0.00, 0.00
220, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
221, -0.17, 0.00, 132.40, 0.00, 0.00, 0.00
222, 0.17, 0.00, 0.00, 0.00, 0.00, 0.00
223, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
224, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
225, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
226, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
227, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
228, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
229, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
230, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
231, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
232, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
233, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
234, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
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264, -0.01, -33.32, 0.00, 0.00, 0.00, 0.00
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266, 0.01, 33.32, 0.00, 0.00, 0.00, 0.00
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268, -0.09, 0.00, 0.00, 0.00, 0.13, 0.00
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271, -0.04, 28.19, 0.00, 0.00, 0.00, 0.00
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Massimi Effetti Sismici

Risultati Analisi Sismica Dinamica Modale - SLU di salvaguardia della Vita (SLV)

--> Spostamenti dei Nodi (u=sX, v=sY, w=sZ, fiX, fiY, fiZ) (XYZ=assi globali) [mm, mrad]

1,	0.000E+00,	0.000E+00,	3.782E-01,	7.788E-02,	9.825E-03,	0.000E+00
2,	7.446E-02,	4.768E-01,	3.815E-01,	7.832E-02,	8.729E-03,	1.063E-03
3,	0.000E+00,	0.000E+00,	3.756E-01,	7.788E-02,	9.825E-03,	0.000E+00
4,	7.446E-02,	4.777E-01,	3.839E-01,	7.831E-02,	8.729E-03,	1.063E-03
5,	7.446E-02,	4.758E-01,	3.792E-01,	7.832E-02,	8.730E-03,	1.063E-03
6,	0.000E+00,	0.000E+00,	3.617E-01,	8.925E-02,	9.219E-03,	0.000E+00
7,	7.446E-02,	4.726E-01,	3.709E-01,	7.832E-02,	8.731E-03,	1.063E-03
8,	0.000E+00,	0.000E+00,	3.651E-01,	8.925E-02,	9.219E-03,	0.000E+00
9,	7.446E-02,	4.735E-01,	3.732E-01,	7.832E-02,	8.731E-03,	1.063E-03
10,	7.446E-02,	4.717E-01,	3.685E-01,	7.832E-02,	8.731E-03,	1.063E-03
11,	0.000E+00,	0.000E+00,	3.551E-01,	8.925E-02,	9.219E-03,	0.000E+00
12,	7.446E-02,	4.707E-01,	3.662E-01,	7.832E-02,	8.731E-03,	1.063E-03
13,	7.446E-02,	4.698E-01,	3.639E-01,	7.833E-02,	8.731E-03,	1.063E-03
14,	0.000E+00,	0.000E+00,	3.446E-01,	8.853E-02,	9.027E-03,	0.000E+00
15,	7.446E-02,	4.666E-01,	3.556E-01,	7.833E-02,	8.731E-03,	1.063E-03
16,	7.446E-02,	4.675E-01,	3.579E-01,	7.833E-02,	8.731E-03,	1.063E-03
17,	7.446E-02,	4.657E-01,	3.532E-01,	7.833E-02,	8.731E-03,	1.063E-03
18,	0.000E+00,	0.000E+00,	3.417E-01,	8.853E-02,	9.028E-03,	0.000E+00
19,	7.446E-02,	4.647E-01,	3.509E-01,	7.833E-02,	8.731E-03,	1.063E-03
20,	0.000E+00,	0.000E+00,	3.403E-01,	8.853E-02,	9.028E-03,	0.000E+00
21,	7.446E-02,	4.638E-01,	3.486E-01,	7.833E-02,	8.731E-03,	1.063E-03
22,	0.000E+00,	0.000E+00,	3.345E-01,	7.764E-02,	9.143E-03,	0.000E+00
23,	7.446E-02,	4.612E-01,	3.418E-01,	7.834E-02,	8.731E-03,	1.063E-03
24,	0.000E+00,	0.000E+00,	3.359E-01,	7.764E-02,	9.143E-03,	0.000E+00
25,	7.446E-02,	4.615E-01,	3.426E-01,	7.834E-02,	8.731E-03,	1.063E-03
26,	7.446E-02,	4.608E-01,	3.410E-01,	7.834E-02,	8.731E-03,	1.063E-03
27,	0.000E+00,	0.000E+00,	3.279E-01,	7.764E-02,	9.145E-03,	0.000E+00
28,	7.446E-02,	4.596E-01,	3.378E-01,	7.834E-02,	8.731E-03,	1.063E-03
29,	7.446E-02,	4.583E-01,	3.346E-01,	7.834E-02,	8.730E-03,	1.063E-03
30,	0.000E+00,	0.000E+00,	3.216E-01,	7.765E-02,	9.146E-03,	0.000E+00
31,	7.446E-02,	4.580E-01,	3.339E-01,	7.834E-02,	8.730E-03,	1.063E-03
32,	7.446E-02,	4.578E-01,	3.332E-01,	7.834E-02,	8.730E-03,	1.063E-03
33,	0.000E+00,	0.000E+00,	3.186E-01,	7.807E-02,	9.475E-03,	0.000E+00
34,	7.446E-02,	4.554E-01,	3.321E-01,	7.834E-02,	8.730E-03,	1.063E-03
35,	7.446E-02,	4.554E-01,	3.314E-01,	7.834E-02,	8.730E-03,	1.063E-03
36,	7.446E-02,	4.554E-01,	3.327E-01,	7.834E-02,	8.730E-03,	1.063E-03
37,	0.000E+00,	0.000E+00,	3.266E-01,	7.807E-02,	9.475E-03,	0.000E+00
38,	7.446E-02,	4.557E-01,	3.358E-01,	7.834E-02,	8.730E-03,	1.063E-03
39,	7.446E-02,	4.560E-01,	3.390E-01,	7.834E-02,	8.729E-03,	1.063E-03
40,	0.000E+00,	0.000E+00,	3.341E-01,	8.060E-02,	8.559E-03,	0.000E+00
41,	7.446E-02,	4.560E-01,	3.395E-01,	7.834E-02,	8.729E-03,	1.063E-03
42,	0.000E+00,	0.000E+00,	3.345E-01,	8.060E-02,	8.559E-03,	0.000E+00
43,	7.446E-02,	4.561E-01,	3.399E-01,	7.834E-02,	8.729E-03,	1.063E-03
44,	0.000E+00,	0.000E+00,	3.388E-01,	8.929E-02,	9.107E-03,	0.000E+00
45,	7.446E-02,	4.568E-01,	3.484E-01,	7.834E-02,	8.729E-03,	1.063E-03
46,	0.000E+00,	0.000E+00,	3.374E-01,	8.929E-02,	9.107E-03,	0.000E+00
47,	7.446E-02,	4.566E-01,	3.458E-01,	7.834E-02,	8.729E-03,	1.063E-03
48,	7.446E-02,	4.570E-01,	3.509E-01,	7.834E-02,	8.729E-03,	1.063E-03
49,	0.000E+00,	0.000E+00,	3.421E-01,	8.929E-02,	9.105E-03,	0.000E+00
50,	7.446E-02,	4.572E-01,	3.535E-01,	7.834E-02,	8.729E-03,	1.063E-03
51,	7.446E-02,	4.575E-01,	3.561E-01,	7.834E-02,	8.728E-03,	1.063E-03
52,	0.000E+00,	0.000E+00,	3.521E-01,	8.987E-02,	9.340E-03,	0.000E+00
53,	7.446E-02,	4.582E-01,	3.645E-01,	7.834E-02,	8.728E-03,	1.063E-03
54,	7.446E-02,	4.580E-01,	3.620E-01,	7.834E-02,	8.728E-03,	1.063E-03
55,	7.446E-02,	4.584E-01,	3.671E-01,	7.834E-02,	8.728E-03,	1.063E-03
56,	0.000E+00,	0.000E+00,	3.598E-01,	8.987E-02,	9.340E-03,	0.000E+00
57,	7.446E-02,	4.587E-01,	3.697E-01,	7.834E-02,	8.728E-03,	1.063E-03
58,	0.000E+00,	0.000E+00,	3.637E-01,	8.987E-02,	9.340E-03,	0.000E+00
59,	7.446E-02,	4.589E-01,	3.722E-01,	7.834E-02,	8.728E-03,	1.063E-03
60,	0.000E+00,	0.000E+00,	3.810E-01,	8.164E-02,	1.092E-02,	0.000E+00
61,	7.446E-02,	4.596E-01,	3.802E-01,	7.835E-02,	8.728E-03,	1.063E-03
62,	0.000E+00,	0.000E+00,	3.760E-01,	8.164E-02,	1.092E-02,	0.000E+00

63,	7.446E-02,	4.594E-01,	3.781E-01,	7.835E-02,	8.728E-03,	1.063E-03
64,	7.446E-02,	4.598E-01,	3.823E-01,	7.835E-02,	8.728E-03,	1.063E-03
65,	0.000E+00,	0.000E+00,	2.608E-01,	8.164E-02,	1.092E-02,	0.000E+00
66,	7.381E-02,	4.598E-01,	2.618E-01,	7.835E-02,	8.728E-03,	1.063E-03
67,	0.000E+00,	0.000E+00,	1.979E-01,	8.164E-02,	1.092E-02,	0.000E+00
68,	7.316E-02,	4.598E-01,	2.042E-01,	7.835E-02,	8.728E-03,	1.063E-03
69,	0.000E+00,	0.000E+00,	2.608E-01,	8.164E-02,	1.092E-02,	0.000E+00
70,	7.381E-02,	4.598E-01,	2.618E-01,	7.835E-02,	8.727E-03,	1.063E-03
71,	0.000E+00,	0.000E+00,	1.979E-01,	8.164E-02,	1.092E-02,	0.000E+00
72,	7.316E-02,	4.598E-01,	2.042E-01,	7.835E-02,	8.727E-03,	1.063E-03
73,	7.446E-02,	4.598E-01,	3.823E-01,	7.835E-02,	8.727E-03,	1.063E-03
74,	0.000E+00,	0.000E+00,	3.810E-01,	8.164E-02,	1.092E-02,	0.000E+00
75,	7.446E-02,	4.596E-01,	3.802E-01,	7.834E-02,	8.727E-03,	1.063E-03
76,	0.000E+00,	0.000E+00,	3.760E-01,	8.164E-02,	1.092E-02,	0.000E+00
77,	7.446E-02,	4.594E-01,	3.781E-01,	7.834E-02,	8.727E-03,	1.063E-03
78,	0.000E+00,	0.000E+00,	3.598E-01,	8.987E-02,	9.341E-03,	0.000E+00
79,	7.446E-02,	4.587E-01,	3.697E-01,	7.834E-02,	8.728E-03,	1.063E-03
80,	0.000E+00,	0.000E+00,	3.637E-01,	8.987E-02,	9.341E-03,	0.000E+00
81,	7.446E-02,	4.589E-01,	3.722E-01,	7.834E-02,	8.728E-03,	1.063E-03
82,	7.446E-02,	4.584E-01,	3.671E-01,	7.834E-02,	8.728E-03,	1.063E-03
83,	0.000E+00,	0.000E+00,	3.521E-01,	8.987E-02,	9.340E-03,	0.000E+00
84,	7.446E-02,	4.582E-01,	3.645E-01,	7.834E-02,	8.728E-03,	1.063E-03
85,	7.446E-02,	4.580E-01,	3.620E-01,	7.834E-02,	8.728E-03,	1.063E-03
86,	0.000E+00,	0.000E+00,	3.421E-01,	8.929E-02,	9.105E-03,	0.000E+00
87,	7.446E-02,	4.572E-01,	3.535E-01,	7.834E-02,	8.728E-03,	1.063E-03
88,	7.446E-02,	4.575E-01,	3.561E-01,	7.834E-02,	8.728E-03,	1.063E-03
89,	7.446E-02,	4.570E-01,	3.509E-01,	7.834E-02,	8.728E-03,	1.063E-03
90,	0.000E+00,	0.000E+00,	3.388E-01,	8.929E-02,	9.106E-03,	0.000E+00
91,	7.446E-02,	4.568E-01,	3.484E-01,	7.834E-02,	8.728E-03,	1.063E-03
92,	0.000E+00,	0.000E+00,	3.374E-01,	8.929E-02,	9.106E-03,	0.000E+00
93,	7.446E-02,	4.566E-01,	3.458E-01,	7.834E-02,	8.729E-03,	1.063E-03
94,	0.000E+00,	0.000E+00,	3.341E-01,	8.060E-02,	8.558E-03,	0.000E+00
95,	7.446E-02,	4.560E-01,	3.395E-01,	7.834E-02,	8.729E-03,	1.063E-03
96,	0.000E+00,	0.000E+00,	3.345E-01,	8.060E-02,	8.558E-03,	0.000E+00
97,	7.446E-02,	4.561E-01,	3.399E-01,	7.834E-02,	8.729E-03,	1.063E-03
98,	7.446E-02,	4.560E-01,	3.390E-01,	7.834E-02,	8.729E-03,	1.063E-03
99,	0.000E+00,	0.000E+00,	3.266E-01,	7.807E-02,	9.475E-03,	0.000E+00
100,	7.446E-02,	4.557E-01,	3.358E-01,	7.834E-02,	8.729E-03,	1.063E-03
101,	7.446E-02,	4.554E-01,	3.327E-01,	7.834E-02,	8.729E-03,	1.063E-03
102,	0.000E+00,	0.000E+00,	3.186E-01,	7.807E-02,	9.475E-03,	0.000E+00
103,	7.446E-02,	4.554E-01,	3.320E-01,	7.834E-02,	8.730E-03,	1.063E-03
104,	7.446E-02,	4.554E-01,	3.314E-01,	7.834E-02,	8.730E-03,	1.063E-03
105,	0.000E+00,	0.000E+00,	3.215E-01,	7.764E-02,	9.145E-03,	0.000E+00
106,	7.446E-02,	4.580E-01,	3.339E-01,	7.834E-02,	8.730E-03,	1.063E-03
107,	7.446E-02,	4.578E-01,	3.332E-01,	7.834E-02,	8.730E-03,	1.063E-03
108,	7.446E-02,	4.583E-01,	3.345E-01,	7.834E-02,	8.730E-03,	1.063E-03
109,	0.000E+00,	0.000E+00,	3.279E-01,	7.764E-02,	9.145E-03,	0.000E+00
110,	7.446E-02,	4.596E-01,	3.377E-01,	7.834E-02,	8.730E-03,	1.063E-03
111,	7.446E-02,	4.608E-01,	3.410E-01,	7.834E-02,	8.730E-03,	1.063E-03
112,	0.000E+00,	0.000E+00,	3.345E-01,	7.764E-02,	9.142E-03,	0.000E+00
113,	7.446E-02,	4.612E-01,	3.418E-01,	7.834E-02,	8.730E-03,	1.063E-03
114,	0.000E+00,	0.000E+00,	3.359E-01,	7.764E-02,	9.142E-03,	0.000E+00
115,	7.446E-02,	4.615E-01,	3.426E-01,	7.834E-02,	8.731E-03,	1.063E-03
116,	0.000E+00,	0.000E+00,	3.416E-01,	8.853E-02,	9.029E-03,	0.000E+00
117,	7.446E-02,	4.647E-01,	3.509E-01,	7.833E-02,	8.731E-03,	1.063E-03
118,	0.000E+00,	0.000E+00,	3.403E-01,	8.853E-02,	9.029E-03,	0.000E+00
119,	7.446E-02,	4.638E-01,	3.485E-01,	7.833E-02,	8.731E-03,	1.063E-03
120,	7.446E-02,	4.657E-01,	3.532E-01,	7.833E-02,	8.731E-03,	1.063E-03
121,	0.000E+00,	0.000E+00,	3.446E-01,	8.853E-02,	9.028E-03,	0.000E+00
122,	7.446E-02,	4.666E-01,	3.555E-01,	7.833E-02,	8.731E-03,	1.063E-03
123,	7.446E-02,	4.675E-01,	3.579E-01,	7.833E-02,	8.731E-03,	1.063E-03
124,	0.000E+00,	0.000E+00,	3.551E-01,	8.926E-02,	9.219E-03,	0.000E+00
125,	7.446E-02,	4.707E-01,	3.662E-01,	7.832E-02,	8.731E-03,	1.063E-03
126,	7.446E-02,	4.698E-01,	3.638E-01,	7.833E-02,	8.731E-03,	1.063E-03
127,	7.446E-02,	4.717E-01,	3.685E-01,	7.832E-02,	8.731E-03,	1.063E-03
128,	0.000E+00,	0.000E+00,	3.617E-01,	8.925E-02,	9.219E-03,	0.000E+00
129,	7.446E-02,	4.726E-01,	3.708E-01,	7.832E-02,	8.730E-03,	1.063E-03
130,	0.000E+00,	0.000E+00,	3.650E-01,	8.925E-02,	9.219E-03,	0.000E+00
131,	7.446E-02,	4.735E-01,	3.732E-01,	7.832E-02,	8.730E-03,	1.063E-03
132,	0.000E+00,	0.000E+00,	3.781E-01,	7.788E-02,	9.824E-03,	0.000E+00
133,	7.446E-02,	4.768E-01,	3.815E-01,	7.832E-02,	8.729E-03,	1.063E-03
134,	0.000E+00,	0.000E+00,	3.756E-01,	7.788E-02,	9.824E-03,	0.000E+00
135,	7.446E-02,	4.758E-01,	3.791E-01,	7.832E-02,	8.729E-03,	1.063E-03
136,	7.446E-02,	4.777E-01,	3.838E-01,	7.831E-02,	8.729E-03,	1.063E-03
137,	0.000E+00,	0.000E+00,	2.082E-01,	7.807E-02,	9.474E-03,	0.000E+00
138,	7.062E-02,	4.076E-01,	2.133E-01,	7.834E-02,	8.729E-03,	1.063E-03
139,	7.131E-02,	4.076E-01,	3.390E-01,	7.834E-02,	8.729E-03,	1.063E-03
140,	6.994E-02,	4.076E-01,	8.762E-02,	7.834E-02,	8.729E-03,	1.063E-03
141,	0.000E+00,	0.000E+00,	2.083E-01,	7.807E-02,	9.474E-03,	0.000E+00
142,	7.062E-02,	4.076E-01,	2.133E-01,	7.834E-02,	8.729E-03,	1.063E-03
143,	6.994E-02,	4.076E-01,	8.763E-02,	7.834E-02,	8.729E-03,	1.063E-03
144,	7.131E-02,	4.076E-01,	3.390E-01,	7.834E-02,	8.729E-03,	1.063E-03
145,	0.000E+00,	0.000E+00,	2.088E-01,	7.764E-02,	9.143E-03,	0.000E+00
146,	7.062E-02,	4.124E-01,	2.153E-01,	7.834E-02,	8.731E-03,	1.063E-03
147,	7.131E-02,	4.124E-01,	3.410E-01,	7.834E-02,	8.731E-03,	1.063E-03
148,	6.994E-02,	4.124E-01,	8.961E-02,	7.834E-02,	8.731E-03,	1.063E-03

149,	0.000E+00,	0.000E+00,	2.087E-01,	7.764E-02,	9.143E-03,	0.000E+00
150,	7.062E-02,	4.124E-01,	2.152E-01,	7.834E-02,	8.730E-03,	1.063E-03
151,	6.994E-02,	4.124E-01,	8.959E-02,	7.834E-02,	8.730E-03,	1.063E-03
152,	7.131E-02,	4.124E-01,	3.410E-01,	7.834E-02,	8.730E-03,	1.063E-03
153,	7.446E-02,	4.747E-01,	3.762E-01,	7.832E-02,	8.730E-03,	1.063E-03
154,	7.636E-02,	4.985E-01,	3.760E-01,	7.824E-02,	8.729E-03,	1.067E-03
155,	7.636E-02,	4.955E-01,	3.683E-01,	7.824E-02,	8.729E-03,	1.067E-03
156,	7.636E-02,	5.015E-01,	3.836E-01,	7.824E-02,	8.729E-03,	1.067E-03
157,	7.446E-02,	4.687E-01,	3.608E-01,	7.833E-02,	8.731E-03,	1.063E-03
158,	7.636E-02,	4.924E-01,	3.607E-01,	7.824E-02,	8.729E-03,	1.067E-03
159,	7.636E-02,	4.894E-01,	3.531E-01,	7.824E-02,	8.730E-03,	1.067E-03
160,	7.446E-02,	4.632E-01,	3.471E-01,	7.833E-02,	8.731E-03,	1.063E-03
161,	7.636E-02,	4.870E-01,	3.470E-01,	7.824E-02,	8.730E-03,	1.067E-03
162,	7.636E-02,	4.846E-01,	3.410E-01,	7.824E-02,	8.730E-03,	1.067E-03
163,	7.636E-02,	4.833E-01,	3.378E-01,	7.824E-02,	8.730E-03,	1.067E-03
164,	7.636E-02,	4.821E-01,	3.346E-01,	7.823E-02,	8.730E-03,	1.067E-03
165,	7.446E-02,	4.566E-01,	3.305E-01,	7.834E-02,	8.730E-03,	1.063E-03
166,	7.636E-02,	4.803E-01,	3.305E-01,	7.823E-02,	8.730E-03,	1.067E-03
167,	7.636E-02,	4.792E-01,	3.328E-01,	7.823E-02,	8.730E-03,	1.067E-03
168,	7.636E-02,	4.794E-01,	3.359E-01,	7.823E-02,	8.730E-03,	1.067E-03
169,	7.636E-02,	4.797E-01,	3.391E-01,	7.823E-02,	8.730E-03,	1.067E-03
170,	7.446E-02,	4.565E-01,	3.450E-01,	7.834E-02,	8.729E-03,	1.063E-03
171,	7.636E-02,	4.803E-01,	3.451E-01,	7.823E-02,	8.730E-03,	1.067E-03
172,	7.636E-02,	4.808E-01,	3.511E-01,	7.823E-02,	8.729E-03,	1.067E-03
173,	7.446E-02,	4.577E-01,	3.590E-01,	7.834E-02,	8.728E-03,	1.063E-03
174,	7.636E-02,	4.815E-01,	3.592E-01,	7.823E-02,	8.729E-03,	1.067E-03
175,	7.636E-02,	4.822E-01,	3.674E-01,	7.823E-02,	8.729E-03,	1.067E-03
176,	7.446E-02,	4.591E-01,	3.747E-01,	7.834E-02,	8.727E-03,	1.063E-03
177,	7.636E-02,	4.829E-01,	3.750E-01,	7.823E-02,	8.729E-03,	1.067E-03
178,	7.636E-02,	4.836E-01,	3.826E-01,	7.822E-02,	8.729E-03,	1.067E-03
179,	7.446E-02,	4.591E-01,	3.747E-01,	7.834E-02,	8.728E-03,	1.063E-03
180,	7.636E-02,	4.829E-01,	3.750E-01,	7.823E-02,	8.729E-03,	1.067E-03
181,	7.636E-02,	4.822E-01,	3.673E-01,	7.823E-02,	8.729E-03,	1.067E-03
182,	7.636E-02,	4.836E-01,	3.826E-01,	7.822E-02,	8.729E-03,	1.067E-03
183,	7.446E-02,	4.577E-01,	3.590E-01,	7.834E-02,	8.728E-03,	1.063E-03
184,	7.636E-02,	4.815E-01,	3.592E-01,	7.823E-02,	8.730E-03,	1.067E-03
185,	7.636E-02,	4.808E-01,	3.511E-01,	7.823E-02,	8.730E-03,	1.067E-03
186,	7.446E-02,	4.565E-01,	3.450E-01,	7.834E-02,	8.729E-03,	1.063E-03
187,	7.636E-02,	4.803E-01,	3.451E-01,	7.823E-02,	8.730E-03,	1.067E-03
188,	7.636E-02,	4.797E-01,	3.391E-01,	7.823E-02,	8.730E-03,	1.067E-03
189,	7.636E-02,	4.794E-01,	3.359E-01,	7.823E-02,	8.730E-03,	1.067E-03
190,	7.636E-02,	4.792E-01,	3.328E-01,	7.823E-02,	8.730E-03,	1.067E-03
191,	7.446E-02,	4.566E-01,	3.305E-01,	7.834E-02,	8.730E-03,	1.063E-03
192,	7.636E-02,	4.803E-01,	3.305E-01,	7.823E-02,	8.730E-03,	1.067E-03
193,	7.636E-02,	4.821E-01,	3.346E-01,	7.823E-02,	8.730E-03,	1.067E-03
194,	7.636E-02,	4.833E-01,	3.378E-01,	7.824E-02,	8.730E-03,	1.067E-03
195,	7.636E-02,	4.846E-01,	3.410E-01,	7.824E-02,	8.730E-03,	1.067E-03
196,	7.446E-02,	4.632E-01,	3.471E-01,	7.833E-02,	8.731E-03,	1.063E-03
197,	7.636E-02,	4.870E-01,	3.471E-01,	7.824E-02,	8.730E-03,	1.067E-03
198,	7.636E-02,	4.894E-01,	3.532E-01,	7.824E-02,	8.730E-03,	1.067E-03
199,	7.446E-02,	4.687E-01,	3.609E-01,	7.833E-02,	8.731E-03,	1.063E-03
200,	7.636E-02,	4.924E-01,	3.608E-01,	7.824E-02,	8.730E-03,	1.067E-03
201,	7.636E-02,	4.955E-01,	3.684E-01,	7.824E-02,	8.730E-03,	1.067E-03
202,	7.446E-02,	4.747E-01,	3.762E-01,	7.832E-02,	8.730E-03,	1.063E-03
203,	7.636E-02,	4.985E-01,	3.760E-01,	7.824E-02,	8.730E-03,	1.067E-03
204,	7.636E-02,	5.015E-01,	3.836E-01,	7.824E-02,	8.729E-03,	1.067E-03
205,	7.357E-02,	4.598E-01,	2.270E-01,	7.835E-02,	8.728E-03,	1.063E-03
206,	7.976E-02,	5.421E-01,	2.273E-01,	7.822E-02,	8.729E-03,	1.067E-03
207,	8.347E-02,	6.006E-01,	1.779E-01,	7.822E-02,	8.729E-03,	1.067E-03
208,	7.357E-02,	4.598E-01,	2.270E-01,	7.835E-02,	8.727E-03,	1.063E-03
209,	7.976E-02,	5.421E-01,	2.272E-01,	7.822E-02,	8.729E-03,	1.067E-03
210,	7.357E-02,	4.777E-01,	2.303E-01,	7.831E-02,	8.726E-03,	1.063E-03
211,	7.976E-02,	5.600E-01,	2.303E-01,	7.824E-02,	8.729E-03,	1.067E-03
212,	8.347E-02,	6.186E-01,	1.809E-01,	7.824E-02,	8.729E-03,	1.067E-03
213,	7.357E-02,	4.777E-01,	2.303E-01,	7.831E-02,	8.727E-03,	1.063E-03
214,	7.976E-02,	5.600E-01,	2.304E-01,	7.824E-02,	8.729E-03,	1.067E-03
215,	0.000E+00,	0.000E+00,	2.714E-01,	7.788E-02,	9.813E-03,	0.000E+00
216,	7.387E-02,	4.777E-01,	2.740E-01,	7.831E-02,	8.727E-03,	1.063E-03
217,	7.328E-02,	4.777E-01,	2.138E-01,	7.831E-02,	8.725E-03,	1.063E-03
218,	0.000E+00,	0.000E+00,	1.767E-01,	7.787E-02,	9.794E-03,	0.000E+00
219,	7.268E-02,	4.777E-01,	1.808E-01,	7.831E-02,	8.724E-03,	1.063E-03
220,	7.327E-02,	4.777E-01,	2.138E-01,	7.831E-02,	8.726E-03,	1.063E-03
221,	0.000E+00,	0.000E+00,	2.715E-01,	7.788E-02,	9.814E-03,	0.000E+00
222,	7.387E-02,	4.777E-01,	2.740E-01,	7.831E-02,	8.727E-03,	1.063E-03
223,	0.000E+00,	0.000E+00,	3.807E-01,	7.788E-02,	9.824E-03,	0.000E+00
224,	0.000E+00,	0.000E+00,	3.518E-01,	8.925E-02,	9.219E-03,	0.000E+00
225,	0.000E+00,	0.000E+00,	3.462E-01,	8.853E-02,	9.026E-03,	0.000E+00
226,	0.000E+00,	0.000E+00,	3.332E-01,	7.764E-02,	9.143E-03,	0.000E+00
227,	0.000E+00,	0.000E+00,	3.226E-01,	7.765E-02,	9.146E-03,	0.000E+00
228,	0.000E+00,	0.000E+00,	3.205E-01,	7.765E-02,	9.146E-03,	0.000E+00
229,	0.000E+00,	0.000E+00,	3.172E-01,	7.807E-02,	9.475E-03,	0.000E+00
230,	0.000E+00,	0.000E+00,	3.200E-01,	7.807E-02,	9.475E-03,	0.000E+00
231,	0.000E+00,	0.000E+00,	3.334E-01,	7.807E-02,	9.474E-03,	0.000E+00
232,	0.000E+00,	0.000E+00,	3.438E-01,	8.929E-02,	9.104E-03,	0.000E+00
233,	0.000E+00,	0.000E+00,	3.482E-01,	8.987E-02,	9.339E-03,	0.000E+00
234,	0.000E+00,	0.000E+00,	3.859E-01,	8.163E-02,	1.092E-02,	0.000E+00

235,	0.000E+00,	0.000E+00,	3.859E-01,	8.163E-02,	1.092E-02,	0.000E+00
236,	0.000E+00,	0.000E+00,	3.482E-01,	8.987E-02,	9.340E-03,	0.000E+00
237,	0.000E+00,	0.000E+00,	3.438E-01,	8.929E-02,	9.104E-03,	0.000E+00
238,	0.000E+00,	0.000E+00,	3.334E-01,	7.806E-02,	9.474E-03,	0.000E+00
239,	0.000E+00,	0.000E+00,	3.199E-01,	7.807E-02,	9.475E-03,	0.000E+00
240,	0.000E+00,	0.000E+00,	3.172E-01,	7.807E-02,	9.475E-03,	0.000E+00
241,	0.000E+00,	0.000E+00,	3.205E-01,	7.764E-02,	9.145E-03,	0.000E+00
242,	0.000E+00,	0.000E+00,	3.226E-01,	7.764E-02,	9.145E-03,	0.000E+00
243,	0.000E+00,	0.000E+00,	3.332E-01,	7.764E-02,	9.143E-03,	0.000E+00
244,	0.000E+00,	0.000E+00,	3.462E-01,	8.853E-02,	9.027E-03,	0.000E+00
245,	0.000E+00,	0.000E+00,	3.518E-01,	8.926E-02,	9.219E-03,	0.000E+00
246,	0.000E+00,	0.000E+00,	3.807E-01,	7.788E-02,	9.823E-03,	0.000E+00
247,	7.636E-02,	4.974E-01,	3.732E-01,	7.824E-02,	8.729E-03,	1.067E-03
248,	8.370E-02,	6.145E-01,	2.441E-01,	7.824E-02,	8.822E-03,	1.067E-03
249,	7.636E-02,	4.974E-01,	3.733E-01,	7.824E-02,	8.730E-03,	1.067E-03
250,	8.413E-02,	6.107E-01,	1.900E-01,	7.824E-02,	9.046E-03,	1.067E-03
251,	7.636E-02,	4.936E-01,	3.636E-01,	7.824E-02,	8.730E-03,	1.067E-03
252,	7.636E-02,	4.936E-01,	3.636E-01,	7.824E-02,	8.729E-03,	1.067E-03
253,	8.445E-02,	6.068E-01,	1.359E-01,	7.824E-02,	9.248E-03,	1.067E-03
254,	7.636E-02,	4.897E-01,	3.539E-01,	7.824E-02,	8.730E-03,	1.067E-03
255,	7.636E-02,	4.897E-01,	3.539E-01,	7.824E-02,	8.730E-03,	1.067E-03
256,	8.466E-02,	6.030E-01,	8.181E-02,	7.824E-02,	9.394E-03,	1.067E-03
257,	7.636E-02,	4.859E-01,	3.442E-01,	7.824E-02,	8.730E-03,	1.067E-03
258,	7.636E-02,	4.859E-01,	3.442E-01,	7.824E-02,	8.730E-03,	1.067E-03
259,	7.636E-02,	4.821E-01,	3.346E-01,	7.823E-02,	8.730E-03,	1.067E-03
260,	7.970E-02,	5.304E-01,	2.150E-01,	7.918E-02,	9.304E-03,	1.067E-03
261,	7.636E-02,	4.801E-01,	3.432E-01,	7.823E-02,	8.730E-03,	1.067E-03
262,	8.461E-02,	5.972E-01,	8.028E-02,	7.823E-02,	9.368E-03,	1.067E-03
263,	7.636E-02,	4.801E-01,	3.432E-01,	7.823E-02,	8.730E-03,	1.067E-03
264,	7.636E-02,	4.809E-01,	3.529E-01,	7.823E-02,	8.729E-03,	1.067E-03
265,	8.438E-02,	5.980E-01,	1.337E-01,	7.823E-02,	9.222E-03,	1.067E-03
266,	7.636E-02,	4.809E-01,	3.529E-01,	7.823E-02,	8.730E-03,	1.067E-03
267,	7.636E-02,	4.818E-01,	3.626E-01,	7.823E-02,	8.729E-03,	1.067E-03
268,	8.403E-02,	5.988E-01,	1.925E-01,	7.822E-02,	9.027E-03,	1.067E-03
269,	7.636E-02,	4.818E-01,	3.626E-01,	7.823E-02,	8.730E-03,	1.067E-03
270,	8.365E-02,	5.997E-01,	2.561E-01,	7.822E-02,	8.814E-03,	1.067E-03
271,	7.636E-02,	4.827E-01,	3.722E-01,	7.823E-02,	8.729E-03,	1.067E-03
272,	7.636E-02,	4.827E-01,	3.723E-01,	7.823E-02,	8.729E-03,	1.067E-03
273,	8.475E-02,	6.006E-01,	2.533E-02,	7.919E-02,	9.460E-03,	1.067E-03
274,	8.474E-02,	5.978E-01,	2.013E-02,	7.925E-02,	9.453E-03,	1.067E-03
275,	8.347E-02,	6.006E-01,	1.779E-01,	7.822E-02,	8.729E-03,	1.067E-03
276,	7.803E-02,	5.249E-01,	3.836E-01,	7.824E-02,	8.729E-03,	1.067E-03
277,	7.803E-02,	5.070E-01,	3.826E-01,	7.822E-02,	8.729E-03,	1.067E-03
278,	8.538E-02,	6.240E-01,	1.779E-01,	7.822E-02,	8.729E-03,	1.067E-03
279,	7.803E-02,	5.070E-01,	3.826E-01,	7.822E-02,	8.729E-03,	1.067E-03
280,	7.803E-02,	5.249E-01,	3.836E-01,	7.824E-02,	8.729E-03,	1.067E-03
281,	8.538E-02,	6.420E-01,	1.809E-01,	7.824E-02,	8.729E-03,	1.067E-03
282,	6.367E-02,	2.634E-01,	3.346E-01,	7.834E-02,	8.730E-03,	1.063E-03
283,	4.036E-02,	2.629E-01,	1.827E-01,	7.855E-02,	1.341E-02,	1.063E-03
284,	3.680E-02,	2.627E-01,	7.697E-02,	7.861E-02,	1.452E-02,	1.063E-03
285,	4.036E-02,	2.629E-01,	1.826E-01,	7.855E-02,	1.341E-02,	1.063E-03
286,	3.680E-02,	2.627E-01,	7.696E-02,	7.861E-02,	1.452E-02,	1.063E-03
287,	6.367E-02,	2.634E-01,	3.345E-01,	7.834E-02,	8.730E-03,	1.063E-03
288,	8.261E-02,	5.716E-01,	9.465E-02,	7.852E-02,	9.433E-03,	1.067E-03
289,	7.636E-02,	4.821E-01,	3.346E-01,	7.823E-02,	8.730E-03,	1.067E-03
290,	7.970E-02,	5.304E-01,	2.151E-01,	7.918E-02,	9.304E-03,	1.067E-03
291,	8.261E-02,	5.716E-01,	9.467E-02,	7.852E-02,	9.433E-03,	1.067E-03
292,	4.047E-02,	2.600E-01,	1.801E-01,	7.854E-02,	1.342E-02,	1.063E-03
293,	3.683E-02,	2.599E-01,	7.497E-02,	7.859E-02,	1.455E-02,	1.063E-03
294,	6.367E-02,	2.606E-01,	3.327E-01,	7.834E-02,	8.730E-03,	1.063E-03
295,	3.683E-02,	2.599E-01,	7.497E-02,	7.859E-02,	1.455E-02,	1.063E-03
296,	7.969E-02,	5.273E-01,	2.138E-01,	7.849E-02,	9.308E-03,	1.067E-03
297,	8.261E-02,	5.687E-01,	9.337E-02,	7.850E-02,	9.430E-03,	1.067E-03
298,	7.636E-02,	4.792E-01,	3.328E-01,	7.823E-02,	8.730E-03,	1.067E-03
299,	8.261E-02,	5.687E-01,	9.335E-02,	7.850E-02,	9.430E-03,	1.067E-03
300,	7.969E-02,	5.273E-01,	2.137E-01,	7.849E-02,	9.308E-03,	1.067E-03
301,	7.636E-02,	4.792E-01,	3.328E-01,	7.823E-02,	8.730E-03,	1.067E-03
302,	4.047E-02,	2.600E-01,	1.800E-01,	7.854E-02,	1.342E-02,	1.063E-03
303,	6.367E-02,	2.606E-01,	3.327E-01,	7.834E-02,	8.729E-03,	1.063E-03
304,	0.000E+00,	0.000E+00,	7.686E-02,	7.322E-02,	8.765E-03,	0.000E+00
305,	9.489E-02,	5.760E-01,	7.697E-02,	7.861E-02,	1.452E-02,	1.063E-03
306,	0.000E+00,	0.000E+00,	1.816E-01,	7.664E-02,	8.938E-03,	0.000E+00
307,	8.707E-02,	5.367E-01,	1.827E-01,	7.855E-02,	1.341E-02,	1.063E-03
308,	0.000E+00,	0.000E+00,	1.816E-01,	7.664E-02,	8.937E-03,	0.000E+00
309,	8.707E-02,	5.367E-01,	1.826E-01,	7.855E-02,	1.341E-02,	1.063E-03
310,	0.000E+00,	0.000E+00,	7.685E-02,	7.322E-02,	8.764E-03,	0.000E+00
311,	9.489E-02,	5.760E-01,	7.696E-02,	7.861E-02,	1.452E-02,	1.063E-03
312,	0.000E+00,	0.000E+00,	1.790E-01,	7.630E-02,	9.103E-03,	0.000E+00
313,	8.702E-02,	5.338E-01,	1.801E-01,	7.854E-02,	1.342E-02,	1.063E-03
314,	0.000E+00,	0.000E+00,	7.487E-02,	7.266E-02,	8.807E-03,	0.000E+00
315,	9.487E-02,	5.730E-01,	7.497E-02,	7.859E-02,	1.455E-02,	1.063E-03
316,	0.000E+00,	0.000E+00,	7.486E-02,	7.266E-02,	8.807E-03,	0.000E+00
317,	9.487E-02,	5.730E-01,	7.497E-02,	7.859E-02,	1.455E-02,	1.063E-03
318,	0.000E+00,	0.000E+00,	1.790E-01,	7.629E-02,	9.103E-03,	0.000E+00
319,	8.703E-02,	5.338E-01,	1.800E-01,	7.854E-02,	1.342E-02,	1.063E-03
320,	6.226E-02,	2.660E-01,	8.961E-02,	7.834E-02,	8.731E-03,	1.063E-03

321,	6.226E-02,	2.660E-01,	8.959E-02,	7.834E-02,	8.730E-03,	1.063E-03
322,	6.225E-02,	2.612E-01,	8.762E-02,	7.834E-02,	8.729E-03,	1.063E-03
323,	6.225E-02,	2.612E-01,	8.763E-02,	7.834E-02,	8.729E-03,	1.063E-03
324,	7.803E-02,	5.189E-01,	3.683E-01,	7.824E-02,	8.729E-03,	1.067E-03
325,	7.803E-02,	5.128E-01,	3.531E-01,	7.824E-02,	8.730E-03,	1.067E-03
326,	7.803E-02,	5.080E-01,	3.410E-01,	7.824E-02,	8.730E-03,	1.067E-03
327,	7.803E-02,	5.055E-01,	3.346E-01,	7.823E-02,	8.730E-03,	1.067E-03
328,	7.803E-02,	5.026E-01,	3.328E-01,	7.823E-02,	8.730E-03,	1.067E-03
329,	7.803E-02,	5.031E-01,	3.391E-01,	7.823E-02,	8.730E-03,	1.067E-03
330,	7.803E-02,	5.042E-01,	3.511E-01,	7.823E-02,	8.729E-03,	1.067E-03
331,	7.803E-02,	5.056E-01,	3.674E-01,	7.823E-02,	8.729E-03,	1.067E-03
332,	7.803E-02,	5.056E-01,	3.673E-01,	7.823E-02,	8.729E-03,	1.067E-03
333,	7.803E-02,	5.042E-01,	3.511E-01,	7.823E-02,	8.730E-03,	1.067E-03
334,	7.803E-02,	5.031E-01,	3.391E-01,	7.823E-02,	8.730E-03,	1.067E-03
335,	7.803E-02,	5.026E-01,	3.328E-01,	7.823E-02,	8.730E-03,	1.067E-03
336,	7.803E-02,	5.055E-01,	3.346E-01,	7.823E-02,	8.730E-03,	1.067E-03
337,	7.803E-02,	5.080E-01,	3.410E-01,	7.824E-02,	8.730E-03,	1.067E-03
338,	7.803E-02,	5.128E-01,	3.532E-01,	7.824E-02,	8.730E-03,	1.067E-03
339,	7.803E-02,	5.189E-01,	3.684E-01,	7.824E-02,	8.730E-03,	1.067E-03
340,	0.000E+00,	0.000E+00,	3.584E-01,	8.925E-02,	9.219E-03,	0.000E+00
341,	0.000E+00,	0.000E+00,	3.430E-01,	8.853E-02,	9.027E-03,	0.000E+00
342,	0.000E+00,	0.000E+00,	3.404E-01,	8.929E-02,	9.106E-03,	0.000E+00
343,	0.000E+00,	0.000E+00,	3.560E-01,	8.987E-02,	9.340E-03,	0.000E+00
344,	0.000E+00,	0.000E+00,	3.560E-01,	8.987E-02,	9.340E-03,	0.000E+00
345,	0.000E+00,	0.000E+00,	3.404E-01,	8.929E-02,	9.105E-03,	0.000E+00
346,	0.000E+00,	0.000E+00,	3.430E-01,	8.853E-02,	9.028E-03,	0.000E+00
347,	0.000E+00,	0.000E+00,	3.584E-01,	8.925E-02,	9.219E-03,	0.000E+00
348,	0.000E+00,	0.000E+00,	8.321E-02,	7.806E-02,	9.474E-03,	0.000E+00
349,	0.000E+00,	0.000E+00,	8.321E-02,	7.806E-02,	9.473E-03,	0.000E+00
350,	0.000E+00,	0.000E+00,	8.442E-02,	7.763E-02,	9.143E-03,	0.000E+00
351,	0.000E+00,	0.000E+00,	8.441E-02,	7.763E-02,	9.142E-03,	0.000E+00
352,	0.000E+00,	0.000E+00,	2.094E-01,	7.787E-02,	9.804E-03,	0.000E+00
353,	0.000E+00,	0.000E+00,	2.094E-01,	7.787E-02,	9.804E-03,	0.000E+00
354,	7.803E-02,	5.249E-01,	3.836E-01,	7.824E-02,	8.729E-03,	1.067E-03
355,	7.803E-02,	5.208E-01,	3.732E-01,	7.824E-02,	8.729E-03,	1.067E-03
356,	7.803E-02,	5.208E-01,	3.733E-01,	7.824E-02,	8.730E-03,	1.067E-03
357,	7.803E-02,	5.170E-01,	3.636E-01,	7.824E-02,	8.730E-03,	1.067E-03
358,	7.803E-02,	5.170E-01,	3.636E-01,	7.824E-02,	8.729E-03,	1.067E-03
359,	7.803E-02,	5.131E-01,	3.539E-01,	7.824E-02,	8.730E-03,	1.067E-03
360,	7.803E-02,	5.131E-01,	3.539E-01,	7.824E-02,	8.730E-03,	1.067E-03
361,	7.803E-02,	5.093E-01,	3.442E-01,	7.824E-02,	8.730E-03,	1.067E-03
362,	7.803E-02,	5.093E-01,	3.442E-01,	7.824E-02,	8.730E-03,	1.067E-03
363,	7.803E-02,	5.055E-01,	3.346E-01,	7.823E-02,	8.730E-03,	1.067E-03
364,	7.803E-02,	5.035E-01,	3.432E-01,	7.823E-02,	8.730E-03,	1.067E-03
365,	7.803E-02,	5.035E-01,	3.432E-01,	7.823E-02,	8.730E-03,	1.067E-03
366,	7.803E-02,	5.043E-01,	3.529E-01,	7.823E-02,	8.729E-03,	1.067E-03
367,	7.803E-02,	5.043E-01,	3.529E-01,	7.823E-02,	8.730E-03,	1.067E-03
368,	7.803E-02,	5.052E-01,	3.626E-01,	7.823E-02,	8.729E-03,	1.067E-03
369,	7.803E-02,	5.052E-01,	3.626E-01,	7.823E-02,	8.730E-03,	1.067E-03
370,	7.803E-02,	5.061E-01,	3.722E-01,	7.823E-02,	8.729E-03,	1.067E-03
371,	7.803E-02,	5.061E-01,	3.723E-01,	7.823E-02,	8.729E-03,	1.067E-03
372,	7.803E-02,	5.055E-01,	3.346E-01,	7.823E-02,	8.730E-03,	1.067E-03
373,	7.803E-02,	5.026E-01,	3.328E-01,	7.823E-02,	8.730E-03,	1.067E-03
374,	7.803E-02,	5.026E-01,	3.328E-01,	7.823E-02,	8.730E-03,	1.067E-03
375,	7.268E-02,	4.567E-01,	0.000E+00,	0.000E+00,	0.000E+00,	1.063E-03
376,	7.459E-02,	4.801E-01,	0.000E+00,	0.000E+00,	0.000E+00,	1.067E-03

--> Sollecitazioni nelle Aste (N, Ty, Tz, Mx, My, Mz) [kN, kN m]

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1 (1-i'-j'-2) [l=500 cm] [Piano XZ: 184 rig.-288 def.-28 rig.] [in i' j': N=Nxy,Nxz] - M.
  1, 5.70, 0.64, 10.50, 0.03, 33.14, 1.61
  i', 5.70, 5.70, 0.64, 10.50, 0.03, 13.86, 1.61
  j', 5.70, 5.70, 0.64, 10.50, 0.03, 16.37, 1.61
  2, 5.70, 0.64, 10.50, 0.03, 19.34, 1.61
2 (1-3) [l=90 cm] - K.
  1, 0.00, 0.00, 9.51, 1.55, 28.83, 0.00
  3, 0.00, 0.00, 9.51, 1.55, 20.44, 0.00
3 (4-2) [l=90 cm] - K.
  4, 0.00, 0.00, 62.85, 214.64, 502.27, 0.00
  2, 0.00, 0.00, 62.85, 214.64, 447.77, 0.00
4 (2-5) [l=90 cm] - K.
  2, 0.00, 0.00, 63.48, 213.50, 455.12, 0.00
  5, 0.00, 0.00, 63.48, 213.50, 400.34, 0.00
5 (6-i'-j'-7) [l=500 cm] [Piano XZ: 185 rig.-287 def.-29 rig.] [in i' j': N=Nxy,Nxz] - M.
  6, 8.79, 0.40, 11.84, 0.03, 38.34, 0.81
  i', 8.79, 8.79, 0.40, 11.84, 0.03, 16.43, 0.81
  j', 8.79, 8.79, 0.40, 11.84, 0.03, 17.50, 1.17
  7, 8.79, 0.40, 11.84, 0.03, 20.87, 1.17
6 (8-6) [l=88 cm] - K.
  8, 0.00, 0.00, 8.20, 1.55, 9.11, 0.00
  6, 0.00, 0.00, 8.20, 1.55, 16.26, 0.00
7 (9-7) [l=88 cm] - K.
  9, 0.00, 0.00, 51.93, 213.12, 275.69, 0.00
  7, 0.00, 0.00, 51.93, 213.12, 230.66, 0.00
8 (7-10) [l=88 cm] - K.
  7, 0.00, 0.00, 46.51, 212.25, 239.40, 0.00

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10, 0.00, 0.00, 46.51, 212.25, 198.32, 0.00
 9 (3-8) [l=227 cm] - F.
 3, 0.00, 0.00, 8.14, 1.06, 14.30, 0.00
 8, 0.00, 0.00, 8.14, 1.06, 4.31, 0.00
 10 (5-9) [l=227 cm] - S.
 5, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 9, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 11 (11-j'-12) [l=500 cm] [Piano XZ: 464 def.-36 rig.] [in j': N=Nxy,Nxz] - M.
 11, 8.95, 0.38, 4.28, 0.02, 9.60, 0.78
 j', 8.95, 8.95, 0.38, 4.28, 0.02, 10.26, 1.14
 12, 8.95, 0.38, 4.28, 0.02, 11.79, 1.14
 12 (10-12) [l=88 cm] - K.
 10, 0.00, 0.00, 46.51, 212.25, 198.32, 0.00
 12, 0.00, 0.00, 46.51, 212.25, 157.24, 0.00
 13 (12-13) [l=88 cm] - K.
 12, 0.00, 0.00, 42.29, 211.37, 161.89, 0.00
 13, 0.00, 0.00, 42.29, 211.37, 124.60, 0.00
 14 (14-j'-15) [l=500 cm] [Piano XZ: 464 def.-36 rig.] [in j': N=Nxy,Nxz] - M.
 14, 8.52, 0.37, 4.13, 0.02, 9.19, 0.75
 j', 8.52, 8.52, 0.37, 4.13, 0.02, 10.04, 1.09
 15, 8.52, 0.37, 4.13, 0.02, 11.51, 1.09
 15 (16-15) [l=88 cm] - K.
 16, 0.00, 0.00, 36.62, 210.95, 50.28, 0.00
 15, 0.00, 0.00, 36.62, 210.95, 45.45, 0.00
 16 (15-17) [l=88 cm] - K.
 15, 0.00, 0.00, 30.02, 210.05, 56.84, 0.00
 17, 0.00, 0.00, 30.02, 210.05, 68.88, 0.00
 17 (13-16) [l=227 cm] - S.
 13, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 16, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 18 (18-i'-j'-19) [l=500 cm] [Piano XZ: 185 rig.-287 def.-28 rig.] [in i' j': N=Nxy,Nxz] - M.
 18, 8.55, 0.35, 11.35, 0.03, 36.61, 0.72
 i', 8.55, 8.55, 0.35, 11.35, 0.03, 15.60, 0.72
 j', 8.55, 8.55, 0.35, 11.35, 0.03, 16.92, 1.05
 19, 8.55, 0.35, 11.35, 0.03, 20.14, 1.05
 19 (18-20) [l=88 cm] - K.
 18, 0.00, 0.00, 5.81, 1.49, 19.05, 0.00
 20, 0.00, 0.00, 5.81, 1.49, 13.95, 0.00
 20 (17-19) [l=88 cm] - K.
 17, 0.00, 0.00, 30.02, 210.05, 68.88, 0.00
 19, 0.00, 0.00, 30.02, 210.05, 90.94, 0.00
 21 (19-21) [l=88 cm] - K.
 19, 0.00, 0.00, 24.52, 209.15, 97.95, 0.00
 21, 0.00, 0.00, 24.52, 209.15, 114.21, 0.00
 22 (22-i'-j'-23) [l=500 cm] [Piano XZ: 255 rig.-191 def.-55 rig.] [in i' j': N=Nxy,Nxz] - M.
 22, 2.86, 0.19, 2.97, 0.01, 10.39, 0.47
 i', 2.86, 2.86, 0.19, 2.97, 0.01, 2.83, 0.47
 j', 2.86, 2.86, 0.19, 2.97, 0.01, 2.85, 0.46
 23, 2.86, 0.19, 2.97, 0.01, 4.47, 0.46
 23 (24-22) [l=31 cm] - K.
 24, 0.00, 0.00, 2.19, 1.49, 13.94, 0.00
 22, 0.00, 0.00, 2.19, 1.49, 14.58, 0.00
 24 (25-23) [l=31 cm] - K.
 25, 0.00, 0.00, 23.55, 208.78, 153.58, 0.00
 23, 0.00, 0.00, 23.55, 208.78, 159.08, 0.00
 25 (23-26) [l=31 cm] - K.
 23, 0.00, 0.00, 21.88, 208.36, 159.95, 0.00
 26, 0.00, 0.00, 21.88, 208.36, 164.83, 0.00
 26 (20-24) [l=227 cm] - F.
 20, 0.00, 0.00, 5.78, 1.02, 10.09, 0.00
 24, 0.00, 0.00, 5.78, 1.02, 9.72, 0.00
 27 (21-25) [l=227 cm] - S.
 21, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 25, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 28 (27-28) [l=500 cm] - M.
 27, 10.75, 0.72, 7.95, 0.03, 19.60, 1.82
 28, 10.75, 0.72, 7.95, 0.03, 20.12, 1.80
 29 (26-28) [l=123 cm] - K.
 26, 0.00, 0.00, 16.06, 130.80, 164.84, 0.00
 28, 0.00, 0.00, 16.06, 130.80, 176.08, 0.00
 30 (28-29) [l=123 cm] - K.
 28, 0.00, 0.00, 14.57, 128.93, 181.36, 0.00
 29, 0.00, 0.00, 14.57, 128.93, 182.96, 0.00
 31 (30-j'-31) [l=500 cm] [Piano XZ: 436 def.-64 rig.] [in j': N=Nxy,Nxz] - M.
 30, 3.11, 0.15, 0.19, 0.00, 0.41, 0.38
 j', 3.11, 3.11, 0.15, 0.19, 0.00, 0.41, 0.37
 31, 3.11, 0.15, 0.19, 0.00, 0.53, 0.37
 32 (29-31) [l=26 cm] - K.
 29, 0.00, 0.00, 14.58, 128.57, 183.00, 0.00
 31, 0.00, 0.00, 14.58, 128.57, 183.35, 0.00
 33 (31-32) [l=26 cm] - K.
 31, 0.00, 0.00, 14.91, 128.21, 183.48, 0.00
 32, 0.00, 0.00, 14.91, 128.21, 183.18, 0.00
 34 (33-j'-34) [l=500 cm] [Piano XZ: 436 def.-64 rig.] [in j': N=Nxy,Nxz] - M.
 33, 3.30, 0.14, 0.19, 0.00, 0.42, 0.36
 j', 3.30, 3.30, 0.14, 0.19, 0.00, 0.42, 0.36

34, 3.30, 0.14, 0.19, 0.00, 0.54, 0.36
 35 (35-34) [l=26 cm] - K.
 35, 0.00, 0.00, 15.38, 127.93, 193.03, 0.00
 34, 0.00, 0.00, 15.38, 127.93, 195.26, 0.00
 36 (34-36) [l=26 cm] - K.
 34, 0.00, 0.00, 13.88, 127.57, 195.16, 0.00
 36, 0.00, 0.00, 13.88, 127.57, 196.71, 0.00
 37 (32-35) [l=227 cm] - S.
 32, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 35, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 38 (37-38) [l=500 cm] - M.
 37, 9.99, 0.68, 8.03, 0.03, 20.16, 1.70
 38, 9.99, 0.68, 8.03, 0.03, 20.00, 1.70
 39 (36-38) [l=122 cm] - K.
 36, 0.00, 0.00, 13.87, 127.22, 196.68, 0.00
 38, 0.00, 0.00, 13.87, 127.22, 203.98, 0.00
 40 (38-39) [l=122 cm] - K.
 38, 0.00, 0.00, 11.10, 125.31, 199.57, 0.00
 39, 0.00, 0.00, 11.10, 125.31, 200.47, 0.00
 41 (40-i'-j'-41) [l=500 cm] [Piano XZ: 276 rig.-160 def.-64 rig.] [in i' j': N=Nxy,Nxz] - M.
 40, 1.44, 0.09, 1.24, 0.00, 4.40, 0.22
 i', 1.44, 1.44, 0.09, 1.24, 0.00, 0.99, 0.22
 j', 1.44, 1.44, 0.09, 1.24, 0.00, 0.99, 0.24
 41, 1.44, 0.09, 1.24, 0.00, 1.78, 0.24
 42 (40-42) [l=18 cm] - K.
 40, 0.00, 0.00, 8.92, 1.23, 7.50, 0.00
 42, 0.00, 0.00, 8.92, 1.23, 6.02, 0.00
 43 (39-41) [l=18 cm] - K.
 39, 0.00, 0.00, 11.38, 50.77, 200.52, 0.00
 41, 0.00, 0.00, 11.38, 50.77, 199.86, 0.00
 44 (41-43) [l=18 cm] - K.
 41, 0.00, 0.00, 11.32, 50.54, 199.35, 0.00
 43, 0.00, 0.00, 11.32, 50.54, 198.56, 0.00
 45 (44-i'-j'-45) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.] [in i' j': N=Nxy,Nxz] - M.
 44, 9.81, 0.32, 13.10, 0.03, 41.47, 0.59
 i', 9.81, 9.81, 0.32, 13.10, 0.03, 18.60, 0.59
 j', 9.81, 9.81, 0.32, 13.10, 0.03, 20.42, 1.01
 45, 9.81, 0.32, 13.10, 0.03, 24.01, 1.01
 46 (46-44) [l=98 cm] - K.
 46, 0.00, 0.00, 6.20, 1.22, 14.40, 0.00
 44, 0.00, 0.00, 6.20, 1.22, 20.49, 0.00
 47 (47-45) [l=98 cm] - K.
 47, 0.00, 0.00, 9.08, 50.11, 190.16, 0.00
 45, 0.00, 0.00, 9.08, 50.11, 190.44, 0.00
 48 (45-48) [l=98 cm] - K.
 45, 0.00, 0.00, 10.98, 49.11, 182.98, 0.00
 48, 0.00, 0.00, 10.98, 49.11, 175.82, 0.00
 49 (42-46) [l=227 cm] - F.
 42, 0.00, 0.00, 5.42, 0.83, 3.37, 0.00
 46, 0.00, 0.00, 5.42, 0.83, 10.58, 0.00
 50 (43-47) [l=227 cm] - S.
 43, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 47, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 51 (49-j'-50) [l=500 cm] [Piano XZ: 465 def.-35 rig.] [in j': N=Nxy,Nxz] - M.
 49, 9.97, 0.32, 5.37, 0.02, 11.90, 0.61
 j', 9.97, 9.97, 0.32, 5.37, 0.02, 13.07, 1.02
 50, 9.97, 0.32, 5.37, 0.02, 14.96, 1.02
 52 (48-50) [l=98 cm] - K.
 48, 0.00, 0.00, 10.98, 49.11, 175.82, 0.00
 50, 0.00, 0.00, 10.98, 49.11, 168.69, 0.00
 53 (50-51) [l=98 cm] - K.
 50, 0.00, 0.00, 18.92, 48.09, 164.34, 0.00
 51, 0.00, 0.00, 18.92, 48.09, 150.46, 0.00
 54 (52-j'-53) [l=500 cm] [Piano XZ: 465 def.-35 rig.] [in j': N=Nxy,Nxz] - M.
 52, 10.96, 0.33, 5.35, 0.02, 11.94, 0.61
 j', 10.96, 10.96, 0.33, 5.35, 0.02, 12.95, 1.03
 53, 10.96, 0.33, 5.35, 0.02, 14.83, 1.03
 55 (54-53) [l=98 cm] - K.
 54, 0.00, 0.00, 10.16, 47.47, 125.91, 0.00
 53, 0.00, 0.00, 10.16, 47.47, 119.45, 0.00
 56 (53-55) [l=98 cm] - K.
 53, 0.00, 0.00, 15.95, 46.44, 116.01, 0.00
 55, 0.00, 0.00, 15.95, 46.44, 100.76, 0.00
 57 (51-54) [l=227 cm] - S.
 51, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 54, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 58 (56-i'-j'-57) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.] [in i' j': N=Nxy,Nxz] - M.
 56, 10.32, 0.33, 13.11, 0.03, 41.65, 0.62
 i', 10.32, 10.32, 0.33, 13.11, 0.03, 18.76, 0.62
 j', 10.32, 10.32, 0.33, 13.11, 0.03, 20.33, 1.05
 57, 10.32, 0.33, 13.11, 0.03, 23.92, 1.05
 59 (56-58) [l=98 cm] - K.
 56, 0.00, 0.00, 9.10, 1.20, 18.16, 0.00
 58, 0.00, 0.00, 9.10, 1.20, 10.86, 0.00
 60 (55-57) [l=98 cm] - K.
 55, 0.00, 0.00, 15.95, 46.44, 100.76, 0.00

57, 0.00, 0.00, 15.95, 46.44, 85.51, 0.00
 61 (57-59) [l=98 cm] - K.
 57, 0.00, 0.00, 22.74, 45.40, 80.74, 0.00
 59, 0.00, 0.00, 22.74, 45.40, 58.99, 0.00
 62 (60-i'-j'-61) [l=500 cm] [Piano XZ: 195 rig.-276 def.-29 rig.] [in i' j': N=Nxy,Nxz] - M.
 60, 6.68, 0.43, 9.56, 0.02, 31.17, 1.02
 i', 6.68, 6.68, 0.43, 9.56, 0.02, 12.55, 1.02
 j', 6.68, 6.68, 0.43, 9.56, 0.02, 13.83, 1.11
 61, 6.68, 0.43, 9.56, 0.02, 16.64, 1.11
 63 (62-60) [l=80 cm] - K.
 62, 0.00, 0.00, 8.07, 1.20, 17.42, 0.00
 60, 0.00, 0.00, 8.07, 1.20, 22.20, 0.00
 64 (63-61) [l=80 cm] - K.
 63, 0.00, 0.00, 13.95, 44.76, 26.09, 0.00
 61, 0.00, 0.00, 13.95, 44.76, 20.32, 0.00
 65 (61-64) [l=80 cm] - K.
 61, 0.00, 0.00, 8.77, 43.66, 7.26, 0.00
 64, 0.00, 0.00, 8.77, 43.66, 1.80, 0.00
 66 (58-62) [l=227 cm] - F.
 58, 0.00, 0.00, 7.42, 0.82, 7.79, 0.00
 62, 0.00, 0.00, 7.42, 0.82, 12.91, 0.00
 67 (59-63) [l=227 cm] - S.
 59, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 63, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 68 (65-i'-j'-66) [l=500 cm] [Piano XZ: 127 rig.-350 def.-23 rig.] [in i' j': N=Nxy,Nxz] - M.
 65, 11.42, 0.62, 27.45, 0.05, 78.04, 1.47
 i', 11.42, 11.42, 0.62, 27.45, 0.05, 43.21, 1.47
 j', 11.42, 11.42, 0.62, 27.45, 0.05, 53.03, 1.61
 66, 11.42, 0.62, 27.45, 0.05, 59.26, 1.61
 69 (65-67) [l=154 cm] - K.
 65, 0.00, 0.00, 18.46, 0.95, 55.19, 0.00
 67, 0.00, 0.00, 18.46, 0.95, 27.67, 0.00
 70 (64-66) [l=154 cm] - K.
 64, 0.00, 0.00, 8.77, 1.80, 43.66, 0.00
 66, 0.00, 0.00, 8.77, 1.80, 55.21, 0.00
 71 (69-i'-j'-70) [l=500 cm] [Piano XZ: 127 rig.-350 def.-23 rig.] [in i' j': N=Nxy,Nxz] - M.
 69, 11.42, 0.62, 27.46, 0.05, 78.05, 1.47
 i', 11.42, 11.42, 0.62, 27.46, 0.05, 43.22, 1.47
 j', 11.42, 11.42, 0.62, 27.46, 0.05, 53.03, 1.61
 70, 11.42, 0.62, 27.46, 0.05, 59.26, 1.61
 72 (71-69) [l=154 cm] - K.
 71, 0.00, 0.00, 18.46, 0.95, 27.66, 0.00
 69, 0.00, 0.00, 18.46, 0.95, 55.20, 0.00
 73 (70-73) [l=154 cm] - K.
 70, 0.00, 0.00, 8.77, 1.80, 55.21, 0.00
 73, 0.00, 0.00, 8.77, 1.80, 43.65, 0.00
 74 (67-71) [l=227 cm] - F.
 67, 0.00, 0.00, 14.85, 0.65, 18.42, 0.00
 71, 0.00, 0.00, 14.85, 0.65, 18.41, 0.00
 75 (68-72) [l=227 cm] - S.
 68, 0.00, 0.00, 0.23, 0.00, 0.26, 0.00
 72, 0.00, 0.00, 0.23, 0.00, 0.26, 0.00
 76 (74-i'-j'-75) [l=500 cm] [Piano XZ: 195 rig.-276 def.-29 rig.] [in i' j': N=Nxy,Nxz] - M.
 74, 6.68, 0.43, 9.56, 0.02, 31.17, 1.02
 i', 6.68, 6.68, 0.43, 9.56, 0.02, 12.55, 1.02
 j', 6.68, 6.68, 0.43, 9.56, 0.02, 13.83, 1.11
 75, 6.68, 0.43, 9.56, 0.02, 16.64, 1.11
 77 (74-76) [l=80 cm] - K.
 74, 0.00, 0.00, 8.07, 1.20, 22.20, 0.00
 76, 0.00, 0.00, 8.07, 1.20, 17.42, 0.00
 78 (73-75) [l=80 cm] - K.
 73, 0.00, 0.00, 8.77, 43.65, 1.80, 0.00
 75, 0.00, 0.00, 8.77, 43.65, 7.27, 0.00
 79 (75-77) [l=80 cm] - K.
 75, 0.00, 0.00, 13.95, 44.76, 20.32, 0.00
 77, 0.00, 0.00, 13.95, 44.76, 26.09, 0.00
 80 (78-i'-j'-79) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.] [in i' j': N=Nxy,Nxz] - M.
 78, 10.32, 0.33, 13.11, 0.03, 41.65, 0.62
 i', 10.32, 10.32, 0.33, 13.11, 0.03, 18.76, 0.62
 j', 10.32, 10.32, 0.33, 13.11, 0.03, 20.33, 1.05
 79, 10.32, 0.33, 13.11, 0.03, 23.92, 1.05
 81 (80-78) [l=98 cm] - K.
 80, 0.00, 0.00, 9.10, 1.20, 10.86, 0.00
 78, 0.00, 0.00, 9.10, 1.20, 18.15, 0.00
 82 (81-79) [l=98 cm] - K.
 81, 0.00, 0.00, 22.74, 45.39, 58.99, 0.00
 79, 0.00, 0.00, 22.74, 45.39, 80.74, 0.00
 83 (79-82) [l=98 cm] - K.
 79, 0.00, 0.00, 15.95, 46.44, 85.51, 0.00
 82, 0.00, 0.00, 15.95, 46.44, 100.75, 0.00
 84 (76-80) [l=227 cm] - F.
 76, 0.00, 0.00, 7.42, 0.82, 12.91, 0.00
 80, 0.00, 0.00, 7.42, 0.82, 7.79, 0.00
 85 (77-81) [l=227 cm] - S.
 77, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 81, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00

86 (83-j'-84) [l=500 cm] [Piano XZ: 465 def.-35 rig.] [in j': N=Nxy,Nxz] - M.
83, 10.96, 0.33, 5.35, 0.02, 11.94, 0.61
j', 10.96, 10.96, 0.33, 5.35, 0.02, 12.95, 1.03
84, 10.96, 0.33, 5.35, 0.02, 14.83, 1.03
87 (82-84) [l=98 cm] - K.
82, 0.00, 0.00, 15.95, 46.44, 100.75, 0.00
84, 0.00, 0.00, 15.95, 46.44, 116.01, 0.00
88 (84-85) [l=98 cm] - K.
84, 0.00, 0.00, 10.16, 47.47, 119.45, 0.00
85, 0.00, 0.00, 10.16, 47.47, 125.90, 0.00
89 (86-j'-87) [l=500 cm] [Piano XZ: 465 def.-35 rig.] [in j': N=Nxy,Nxz] - M.
86, 9.97, 0.32, 5.37, 0.02, 11.90, 0.61
j', 9.97, 9.97, 0.32, 5.37, 0.02, 13.07, 1.02
87, 9.97, 0.32, 5.37, 0.02, 14.96, 1.02
90 (88-87) [l=98 cm] - K.
88, 0.00, 0.00, 18.92, 48.09, 150.45, 0.00
87, 0.00, 0.00, 18.92, 48.09, 164.33, 0.00
91 (87-89) [l=98 cm] - K.
87, 0.00, 0.00, 10.98, 49.10, 168.68, 0.00
89, 0.00, 0.00, 10.98, 49.10, 175.81, 0.00
92 (85-88) [l=227 cm] - S.
85, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
88, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
93 (90-i'-j'-91) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.] [in i' j': N=Nxy,Nxz] - M.
90, 9.81, 0.32, 13.10, 0.03, 41.47, 0.59
i', 9.81, 9.81, 0.32, 13.10, 0.03, 18.60, 0.59
j', 9.81, 9.81, 0.32, 13.10, 0.03, 20.42, 1.01
91, 9.81, 0.32, 13.10, 0.03, 24.01, 1.01
94 (90-92) [l=98 cm] - K.
90, 0.00, 0.00, 6.20, 1.22, 20.49, 0.00
92, 0.00, 0.00, 6.20, 1.22, 14.40, 0.00
95 (89-91) [l=98 cm] - K.
89, 0.00, 0.00, 10.98, 49.10, 175.81, 0.00
91, 0.00, 0.00, 10.98, 49.10, 182.96, 0.00
96 (91-93) [l=98 cm] - K.
91, 0.00, 0.00, 9.08, 50.10, 190.43, 0.00
93, 0.00, 0.00, 9.08, 50.10, 190.14, 0.00
97 (94-i'-j'-95) [l=500 cm] [Piano XZ: 276 rig.-160 def.-64 rig.] [in i' j': N=Nxy,Nxz] - M.
94, 1.44, 0.09, 1.24, 0.00, 4.40, 0.22
i', 1.44, 1.44, 0.09, 1.24, 0.00, 0.99, 0.22
j', 1.44, 1.44, 0.09, 1.24, 0.00, 0.99, 0.24
95, 1.44, 0.09, 1.24, 0.00, 1.78, 0.24
98 (96-94) [l=18 cm] - K.
96, 0.00, 0.00, 8.92, 1.23, 6.02, 0.00
94, 0.00, 0.00, 8.92, 1.23, 7.50, 0.00
99 (97-95) [l=18 cm] - K.
97, 0.00, 0.00, 11.32, 50.53, 198.53, 0.00
95, 0.00, 0.00, 11.32, 50.53, 199.32, 0.00
100 (95-98) [l=18 cm] - K.
95, 0.00, 0.00, 11.38, 50.77, 199.84, 0.00
98, 0.00, 0.00, 11.38, 50.77, 200.49, 0.00
101 (92-96) [l=227 cm] - F.
92, 0.00, 0.00, 5.42, 0.83, 10.58, 0.00
96, 0.00, 0.00, 5.42, 0.83, 3.36, 0.00
102 (93-97) [l=227 cm] - S.
93, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
97, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
103 (99-100) [l=500 cm] - M.
99, 10.00, 0.68, 8.03, 0.03, 20.16, 1.70
100, 10.00, 0.68, 8.03, 0.03, 20.00, 1.70
104 (98-100) [l=122 cm] - K.
98, 0.00, 0.00, 11.10, 125.31, 200.45, 0.00
100, 0.00, 0.00, 11.10, 125.31, 199.54, 0.00
105 (100-101) [l=122 cm] - K.
100, 0.00, 0.00, 13.87, 127.22, 203.96, 0.00
101, 0.00, 0.00, 13.87, 127.22, 196.65, 0.00
106 (102-j'-103) [l=500 cm] [Piano XZ: 436 def.-64 rig.] [in j': N=Nxy,Nxz] - M.
102, 3.30, 0.14, 0.19, 0.00, 0.42, 0.36
j', 3.30, 3.30, 0.14, 0.19, 0.00, 0.42, 0.36
103, 3.30, 0.14, 0.19, 0.00, 0.54, 0.36
107 (101-103) [l=26 cm] - K.
101, 0.00, 0.00, 13.88, 127.57, 196.68, 0.00
103, 0.00, 0.00, 13.88, 127.57, 195.13, 0.00
108 (103-104) [l=26 cm] - K.
103, 0.00, 0.00, 15.38, 127.93, 195.23, 0.00
104, 0.00, 0.00, 15.38, 127.93, 193.00, 0.00
109 (105-j'-106) [l=500 cm] [Piano XZ: 436 def.-64 rig.] [in j': N=Nxy,Nxz] - M.
105, 3.11, 0.15, 0.19, 0.00, 0.41, 0.38
j', 3.11, 3.11, 0.15, 0.19, 0.00, 0.41, 0.37
106, 3.11, 0.15, 0.19, 0.00, 0.53, 0.37
110 (107-106) [l=26 cm] - K.
107, 0.00, 0.00, 14.91, 128.21, 183.14, 0.00
106, 0.00, 0.00, 14.91, 128.21, 183.44, 0.00
111 (106-108) [l=26 cm] - K.
106, 0.00, 0.00, 14.58, 128.57, 183.31, 0.00
108, 0.00, 0.00, 14.58, 128.57, 182.96, 0.00

112 (104-107) [l=227 cm] - S.
 104, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 107, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 113 (109-110) [l=500 cm] - M.
 109, 10.75, 0.72, 7.95, 0.03, 19.60, 1.82
 110, 10.75, 0.72, 7.95, 0.03, 20.12, 1.80
 114 (108-110) [l=123 cm] - K.
 108, 0.00, 0.00, 14.57, 128.92, 182.92, 0.00
 110, 0.00, 0.00, 14.57, 128.92, 181.31, 0.00
 115 (110-111) [l=123 cm] - K.
 110, 0.00, 0.00, 16.07, 130.80, 176.04, 0.00
 111, 0.00, 0.00, 16.07, 130.80, 164.79, 0.00
 116 (112-i'-j'-113) [l=500 cm] [Piano XZ: 255 rig.-191 def.-55 rig.] [in i' j': N=Nxy,Nxz] - M.
 112, 2.86, 0.19, 2.97, 0.01, 10.39, 0.47
 i', 2.86, 2.86, 0.19, 2.97, 0.01, 2.83, 0.47
 j', 2.86, 2.86, 0.19, 2.97, 0.01, 2.85, 0.46
 113, 2.86, 0.19, 2.97, 0.01, 4.47, 0.46
 117 (112-114) [l=31 cm] - K.
 112, 0.00, 0.00, 2.19, 1.49, 14.57, 0.00
 114, 0.00, 0.00, 2.19, 1.49, 13.94, 0.00
 118 (111-113) [l=31 cm] - K.
 111, 0.00, 0.00, 21.88, 208.36, 164.79, 0.00
 113, 0.00, 0.00, 21.88, 208.36, 159.90, 0.00
 119 (113-115) [l=31 cm] - K.
 113, 0.00, 0.00, 23.55, 208.78, 159.04, 0.00
 115, 0.00, 0.00, 23.55, 208.78, 153.54, 0.00
 120 (116-i'-j'-117) [l=500 cm] [Piano XZ: 185 rig.-287 def.-28 rig.] [in i' j': N=Nxy,Nxz] - M.
 116, 8.55, 0.35, 11.35, 0.03, 36.61, 0.72
 i', 8.55, 8.55, 0.35, 11.35, 0.03, 15.60, 0.72
 j', 8.55, 8.55, 0.35, 11.35, 0.03, 16.92, 1.05
 117, 8.55, 0.35, 11.35, 0.03, 20.14, 1.05
 121 (118-116) [l=88 cm] - K.
 118, 0.00, 0.00, 5.81, 1.49, 13.96, 0.00
 116, 0.00, 0.00, 5.81, 1.49, 19.05, 0.00
 122 (119-117) [l=88 cm] - K.
 119, 0.00, 0.00, 24.52, 209.15, 114.17, 0.00
 117, 0.00, 0.00, 24.52, 209.15, 97.91, 0.00
 123 (117-120) [l=88 cm] - K.
 117, 0.00, 0.00, 30.02, 210.05, 90.89, 0.00
 120, 0.00, 0.00, 30.02, 210.05, 68.84, 0.00
 124 (114-118) [l=227 cm] - F.
 114, 0.00, 0.00, 5.78, 1.02, 9.71, 0.00
 118, 0.00, 0.00, 5.78, 1.02, 10.10, 0.00
 125 (115-119) [l=227 cm] - S.
 115, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 119, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 126 (121-j'-122) [l=500 cm] [Piano XZ: 464 def.-36 rig.] [in j': N=Nxy,Nxz] - M.
 121, 8.52, 0.37, 4.13, 0.02, 9.19, 0.75
 j', 8.52, 8.52, 0.37, 4.13, 0.02, 10.04, 1.09
 122, 8.52, 0.37, 4.13, 0.02, 11.51, 1.09
 127 (120-122) [l=88 cm] - K.
 120, 0.00, 0.00, 30.02, 210.05, 68.84, 0.00
 122, 0.00, 0.00, 30.02, 210.05, 56.83, 0.00
 128 (122-123) [l=88 cm] - K.
 122, 0.00, 0.00, 36.62, 210.95, 45.44, 0.00
 123, 0.00, 0.00, 36.62, 210.95, 50.30, 0.00
 129 (124-j'-125) [l=500 cm] [Piano XZ: 464 def.-36 rig.] [in j': N=Nxy,Nxz] - M.
 124, 8.95, 0.38, 4.28, 0.02, 9.60, 0.78
 j', 8.95, 8.95, 0.38, 4.28, 0.02, 10.26, 1.14
 125, 8.95, 0.38, 4.28, 0.02, 11.79, 1.14
 130 (126-125) [l=88 cm] - K.
 126, 0.00, 0.00, 42.28, 211.37, 124.65, 0.00
 125, 0.00, 0.00, 42.28, 211.37, 161.93, 0.00
 131 (125-127) [l=88 cm] - K.
 125, 0.00, 0.00, 46.50, 212.25, 157.28, 0.00
 127, 0.00, 0.00, 46.50, 212.25, 198.36, 0.00
 132 (123-126) [l=227 cm] - S.
 123, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 126, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 133 (128-i'-j'-129) [l=500 cm] [Piano XZ: 185 rig.-287 def.-29 rig.] [in i' j': N=Nxy,Nxz] - M.
 128, 8.79, 0.40, 11.84, 0.03, 38.34, 0.81
 i', 8.79, 8.79, 0.40, 11.84, 0.03, 16.43, 0.81
 j', 8.79, 8.79, 0.40, 11.84, 0.03, 17.50, 1.17
 129, 8.79, 0.40, 11.84, 0.03, 20.87, 1.17
 134 (128-130) [l=88 cm] - K.
 128, 0.00, 0.00, 8.20, 1.55, 16.27, 0.00
 130, 0.00, 0.00, 8.20, 1.55, 9.11, 0.00
 135 (127-129) [l=88 cm] - K.
 127, 0.00, 0.00, 46.50, 212.25, 198.36, 0.00
 129, 0.00, 0.00, 46.50, 212.25, 239.44, 0.00
 136 (129-131) [l=88 cm] - K.
 129, 0.00, 0.00, 51.93, 213.12, 230.70, 0.00
 131, 0.00, 0.00, 51.93, 213.12, 275.73, 0.00
 137 (132-i'-j'-133) [l=500 cm] [Piano XZ: 184 rig.-288 def.-28 rig.] [in i' j': N=Nxy,Nxz] - M.
 132, 5.70, 0.64, 10.51, 0.03, 33.16, 1.61
 i', 5.70, 5.70, 0.64, 10.51, 0.03, 13.88, 1.61

j', 5.70, 5.70, 0.64, 10.51, 0.03, 16.40, 1.61
 133, 5.70, 0.64, 10.51, 0.03, 19.36, 1.61
 138 (134-132) [l=90 cm] - K.
 134, 0.00, 0.00, 9.53, 1.55, 20.44, 0.00
 132, 0.00, 0.00, 9.53, 1.55, 28.86, 0.00
 139 (135-133) [l=90 cm] - K.
 135, 0.00, 0.00, 63.47, 213.50, 400.35, 0.00
 133, 0.00, 0.00, 63.47, 213.50, 455.25, 0.00
 140 (133-136) [l=90 cm] - K.
 133, 0.00, 0.00, 62.85, 214.64, 447.90, 0.00
 136, 0.00, 0.00, 62.85, 214.64, 502.40, 0.00
 141 (130-134) [l=227 cm] - F.
 130, 0.00, 0.00, 8.14, 1.06, 4.31, 0.00
 134, 0.00, 0.00, 8.14, 1.06, 14.30, 0.00
 142 (131-135) [l=227 cm] - S.
 131, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 135, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 143 (137-j'-138) [l=438 cm] [Piano XZ: 372 def.-66 rig.] [in j': N=Nxy,Nxz] - M.
 137, 6.67, 0.31, 22.65, 0.02, 42.14, 0.69
 j', 6.67, 6.67, 0.31, 22.65, 0.02, 42.28, 0.69
 138, 6.67, 0.31, 22.65, 0.02, 57.12, 0.69
 144 (139-138) [l=161 cm] - K.
 139, 32.59, 0.08, 5.14, 0.13, 56.00, 0.06
 138, 32.59, 0.08, 5.14, 0.13, 49.35, 0.06
 145 (138-140) [l=160 cm] - K.
 138, 0.65, 0.30, 0.59, 0.54, 1.50, 0.24
 140, 0.65, 0.30, 0.59, 0.54, 0.67, 0.24
 146 (141-j'-142) [l=438 cm] [Piano XZ: 372 def.-66 rig.] [in j': N=Nxy,Nxz] - M.
 141, 6.67, 0.31, 22.65, 0.02, 42.14, 0.69
 j', 6.67, 6.67, 0.31, 22.65, 0.02, 42.28, 0.69
 142, 6.67, 0.31, 22.65, 0.02, 57.12, 0.69
 147 (143-142) [l=161 cm] - K.
 143, 0.65, 0.30, 0.59, 0.54, 0.67, 0.24
 142, 0.65, 0.30, 0.59, 0.54, 1.50, 0.24
 148 (142-144) [l=160 cm] - K.
 142, 32.59, 0.08, 5.14, 0.13, 49.35, 0.06
 144, 32.59, 0.08, 5.14, 0.13, 55.99, 0.06
 149 (140-143) [l=200 cm] - S.
 140, 0.00, 0.00, 0.49, 0.00, 0.49, 0.00
 143, 0.00, 0.00, 0.49, 0.00, 0.49, 0.00
 150 (145-j'-146) [l=438 cm] [Piano XZ: 372 def.-66 rig.] [in j': N=Nxy,Nxz] - M.
 145, 8.50, 0.31, 24.29, 0.02, 45.75, 0.67
 j', 8.50, 8.50, 0.31, 24.29, 0.02, 44.79, 0.68
 146, 8.50, 0.31, 24.29, 0.02, 60.70, 0.68
 151 (147-146) [l=160 cm] - K.
 147, 35.50, 0.07, 7.15, 0.13, 62.37, 0.06
 146, 35.50, 0.07, 7.15, 0.13, 52.42, 0.06
 152 (146-148) [l=161 cm] - K.
 146, 0.54, 0.30, 0.46, 0.54, 1.21, 0.24
 148, 0.54, 0.30, 0.46, 0.54, 0.59, 0.24
 153 (149-j'-150) [l=438 cm] [Piano XZ: 372 def.-66 rig.] [in j': N=Nxy,Nxz] - M.
 149, 8.50, 0.31, 24.29, 0.02, 45.75, 0.67
 j', 8.50, 8.50, 0.31, 24.29, 0.02, 44.79, 0.68
 150, 8.50, 0.31, 24.29, 0.02, 60.70, 0.68
 154 (151-150) [l=160 cm] - K.
 151, 0.54, 0.30, 0.46, 0.54, 0.59, 0.24
 150, 0.54, 0.30, 0.46, 0.54, 1.21, 0.24
 155 (150-152) [l=161 cm] - K.
 150, 35.50, 0.07, 7.15, 0.13, 52.42, 0.06
 152, 35.50, 0.07, 7.15, 0.13, 62.37, 0.06
 156 (148-151) [l=200 cm] - S.
 148, 0.00, 0.00, 0.34, 0.00, 0.34, 0.00
 151, 0.00, 0.00, 0.34, 0.00, 0.34, 0.00
 157 (153-154) [l=30 cm] - M.
 153, 13.16, 4.76, 4.59, 0.01, 2.32, 0.64
 154, 13.16, 4.76, 4.59, 0.01, 2.44, 0.79
 158 (154-156) [l=291 cm] - K.
 154, 0.00, 0.00, 15.33, 66.76, 71.09, 0.00
 156, 0.00, 0.00, 15.33, 66.76, 27.00, 0.00
 159 (157-158) [l=30 cm] - M.
 157, 8.14, 4.47, 4.57, 0.01, 2.53, 0.59
 158, 8.14, 4.47, 4.57, 0.01, 2.60, 0.75
 160 (160-161) [l=30 cm] - M.
 160, 3.31, 3.39, 3.66, 0.01, 1.29, 0.44
 161, 3.31, 3.39, 3.66, 0.01, 1.30, 0.58
 161 (161-159) [l=233 cm] - K.
 161, 0.00, 0.00, 6.16, 68.28, 49.89, 0.00
 159, 0.00, 0.00, 6.16, 68.28, 63.53, 0.00
 162 (110-163) [l=30 cm] - M.
 110, 1.16, 1.72, 1.92, 0.00, 0.32, 0.22
 163, 1.16, 1.72, 1.92, 0.00, 0.34, 0.30
 163 (163-162) [l=123 cm] - K.
 163, 0.00, 0.00, 8.91, 68.86, 18.66, 0.00
 162, 0.00, 0.00, 8.91, 68.86, 28.85, 0.00
 164 (165-166) [l=30 cm] - M.
 165, 1.87, 2.25, 2.60, 0.00, 0.48, 0.28

166, 1.87, 2.25, 2.60, 0.00, 0.52, 0.39
 165 (166-164) [l=165 cm] - K.
 166, 0.00, 0.00, 9.49, 69.11, 15.25, 0.00
 164, 0.00, 0.00, 9.49, 69.11, 9.09, 0.00
 166 (100-168) [l=30 cm] - M.
 100, 1.93, 1.72, 1.92, 0.00, 0.32, 0.22
 168, 1.93, 1.72, 1.92, 0.00, 0.33, 0.30
 167 (169-168) [l=122 cm] - K.
 169, 0.00, 0.00, 7.53, 69.75, 45.08, 0.00
 168, 0.00, 0.00, 7.53, 69.75, 36.24, 0.00
 168 (168-167) [l=122 cm] - K.
 168, 0.00, 0.00, 8.98, 69.46, 36.10, 0.00
 167, 0.00, 0.00, 8.98, 69.46, 25.62, 0.00
 169 (170-171) [l=30 cm] - M.
 170, 5.17, 3.40, 3.62, 0.01, 0.94, 0.43
 171, 5.17, 3.40, 3.62, 0.01, 0.95, 0.59
 170 (172-171) [l=230 cm] - K.
 172, 0.00, 0.00, 3.69, 70.27, 71.08, 0.00
 171, 0.00, 0.00, 3.69, 70.27, 63.20, 0.00
 171 (173-174) [l=30 cm] - M.
 173, 10.13, 4.90, 4.88, 0.01, 1.97, 0.63
 174, 10.13, 4.90, 4.88, 0.01, 2.08, 0.84
 172 (176-177) [l=30 cm] - M.
 176, 12.84, 4.94, 4.59, 0.01, 1.63, 0.64
 177, 12.84, 4.94, 4.59, 0.01, 1.76, 0.85
 173 (178-177) [l=291 cm] - K.
 178, 0.00, 0.00, 16.21, 71.55, 12.96, 0.00
 177, 0.00, 0.00, 16.21, 71.55, 57.98, 0.00
 174 (179-180) [l=30 cm] - M.
 179, 12.84, 4.94, 4.59, 0.01, 1.63, 0.64
 180, 12.84, 4.94, 4.59, 0.01, 1.76, 0.85
 175 (180-182) [l=291 cm] - K.
 180, 0.00, 0.00, 16.21, 71.56, 57.98, 0.00
 182, 0.00, 0.00, 16.21, 71.56, 12.96, 0.00
 176 (183-184) [l=30 cm] - M.
 183, 10.13, 4.90, 4.88, 0.01, 1.97, 0.63
 184, 10.13, 4.90, 4.88, 0.01, 2.08, 0.84
 177 (186-187) [l=30 cm] - M.
 186, 5.17, 3.39, 3.62, 0.01, 0.94, 0.43
 187, 5.17, 3.39, 3.62, 0.01, 0.95, 0.59
 178 (187-185) [l=230 cm] - K.
 187, 0.00, 0.00, 3.69, 70.27, 63.20, 0.00
 185, 0.00, 0.00, 3.69, 70.27, 71.08, 0.00
 179 (38-189) [l=30 cm] - M.
 38, 1.93, 1.72, 1.92, 0.00, 0.32, 0.22
 189, 1.93, 1.72, 1.92, 0.00, 0.33, 0.30
 180 (190-189) [l=122 cm] - K.
 190, 0.00, 0.00, 8.98, 69.47, 25.61, 0.00
 189, 0.00, 0.00, 8.98, 69.47, 36.09, 0.00
 181 (189-188) [l=122 cm] - K.
 189, 0.00, 0.00, 7.53, 69.75, 36.23, 0.00
 188, 0.00, 0.00, 7.53, 69.75, 45.08, 0.00
 182 (191-192) [l=30 cm] - M.
 191, 1.87, 2.25, 2.60, 0.00, 0.48, 0.28
 192, 1.87, 2.25, 2.60, 0.00, 0.52, 0.39
 183 (193-192) [l=165 cm] - K.
 193, 0.00, 0.00, 9.49, 69.11, 9.10, 0.00
 192, 0.00, 0.00, 9.49, 69.11, 15.24, 0.00
 184 (28-194) [l=30 cm] - M.
 28, 1.16, 1.72, 1.92, 0.00, 0.32, 0.22
 194, 1.16, 1.72, 1.92, 0.00, 0.34, 0.30
 185 (195-194) [l=123 cm] - K.
 195, 0.00, 0.00, 8.92, 68.86, 28.86, 0.00
 194, 0.00, 0.00, 8.92, 68.86, 18.67, 0.00
 186 (196-197) [l=30 cm] - M.
 196, 3.31, 3.39, 3.66, 0.01, 1.29, 0.44
 197, 3.31, 3.39, 3.66, 0.01, 1.30, 0.58
 187 (198-197) [l=233 cm] - K.
 198, 0.00, 0.00, 6.16, 68.28, 63.55, 0.00
 197, 0.00, 0.00, 6.16, 68.28, 49.90, 0.00
 188 (199-200) [l=30 cm] - M.
 199, 8.14, 4.47, 4.57, 0.01, 2.54, 0.59
 200, 8.14, 4.47, 4.57, 0.01, 2.60, 0.75
 189 (202-203) [l=30 cm] - M.
 202, 13.16, 4.75, 4.59, 0.01, 2.32, 0.64
 203, 13.16, 4.75, 4.59, 0.01, 2.43, 0.79
 190 (204-203) [l=291 cm] - K.
 204, 0.00, 0.00, 15.33, 66.76, 27.03, 0.00
 203, 0.00, 0.00, 15.33, 66.76, 71.10, 0.00
 191 (205-206) [l=105 cm] - M.
 205, 5.36, 0.38, 1.03, 0.00, 1.41, 0.20
 206, 5.36, 0.38, 1.03, 0.00, 2.11, 0.20
 192 (182-206) [l=223 cm] - K.
 182, 4.14, 3.24, 17.48, 9.56, 71.56, 11.75
 206, 4.14, 3.24, 17.48, 9.56, 33.77, 4.51
 193 (206-207) [l=223 cm] - K.

206, 2.82, 5.55, 20.32, 5.46, 38.36, 10.85
 207, 2.82, 5.55, 20.32, 5.46, 7.94, 1.56
 194 (208-209) [l=105 cm] - M.
 208, 5.36, 0.38, 1.03, 0.00, 1.41, 0.20
 209, 5.36, 0.38, 1.03, 0.00, 2.11, 0.20
 195 (207-209) [l=223 cm] - K.
 207, 2.82, 5.55, 20.32, 5.46, 7.93, 1.56
 209, 2.82, 5.55, 20.32, 5.46, 38.35, 10.85
 196 (209-178) [l=223 cm] - K.
 209, 4.14, 3.24, 17.48, 9.57, 33.76, 4.51
 178, 4.14, 3.24, 17.48, 9.57, 71.55, 11.75
 197 (210-211) [l=105 cm] - M.
 210, 1.73, 0.38, 1.03, 0.00, 0.59, 0.20
 211, 1.73, 0.38, 1.03, 0.00, 1.54, 0.20
 198 (156-211) [l=223 cm] - K.
 156, 2.98, 6.76, 16.95, 19.94, 66.76, 24.49
 211, 2.98, 6.76, 16.95, 19.94, 30.12, 9.39
 199 (211-212) [l=223 cm] - K.
 211, 2.55, 11.58, 16.92, 11.38, 32.06, 22.61
 212, 2.55, 11.58, 16.92, 11.38, 6.66, 3.25
 200 (213-214) [l=105 cm] - M.
 213, 1.73, 0.38, 1.03, 0.00, 0.59, 0.20
 214, 1.73, 0.38, 1.03, 0.00, 1.54, 0.20
 201 (212-214) [l=223 cm] - K.
 212, 2.54, 11.58, 16.93, 11.39, 6.66, 3.26
 214, 2.54, 11.58, 16.93, 11.39, 32.08, 22.61
 202 (214-204) [l=223 cm] - K.
 214, 2.99, 6.76, 16.96, 19.93, 30.15, 9.40
 204, 2.99, 6.76, 16.96, 19.93, 66.78, 24.49
 203 (215-216) [l=500 cm] - M.
 215, 8.58, 0.54, 16.96, 0.04, 42.49, 1.25
 216, 8.58, 0.54, 16.96, 0.04, 42.34, 1.43
 204 (136-216) [l=140 cm] - K.
 136, 0.00, 0.00, 62.85, 502.40, 214.64, 0.00
 216, 0.00, 0.00, 62.85, 502.40, 130.20, 0.00
 205 (218-219) [l=500 cm] - M.
 218, 7.45, 0.52, 16.96, 0.04, 42.48, 1.22
 219, 7.45, 0.52, 16.96, 0.04, 42.34, 1.40
 206 (217-219) [l=140 cm] - K.
 217, 0.00, 0.00, 62.96, 501.77, 73.12, 0.00
 219, 0.00, 0.00, 62.96, 501.77, 22.82, 0.00
 207 (219-220) [l=140 cm] - K.
 219, 0.00, 0.00, 62.96, 501.77, 22.84, 0.00
 220, 0.00, 0.00, 62.96, 501.77, 73.12, 0.00
 208 (221-222) [l=500 cm] - M.
 221, 8.58, 0.54, 16.96, 0.04, 42.48, 1.25
 222, 8.58, 0.54, 16.96, 0.04, 42.33, 1.43
 209 (222-4) [l=140 cm] - K.
 222, 0.00, 0.00, 62.85, 502.27, 130.20, 0.00
 4, 0.00, 0.00, 62.85, 502.27, 214.64, 0.00
 210 (3-8) [l=227 cm] - Z.
 3, 0.00, 0.00, 5.81, 0.50, 4.84, 0.00
 8, 0.00, 0.00, 4.51, 0.50, 3.68, 0.00
 211 (224-225) [l=226 cm] - Z.
 224, 0.00, 0.00, 7.08, 0.03, 6.97, 0.00
 225, 0.00, 0.00, 7.20, 0.03, 7.17, 0.00
 212 (20-24) [l=227 cm] - Z.
 20, 0.00, 0.00, 3.46, 0.49, 3.06, 0.00
 24, 0.00, 0.00, 5.13, 0.49, 3.51, 0.00
 213 (228-229) [l=227 cm] - Z.
 228, 0.00, 0.00, 5.64, 0.04, 4.48, 0.00
 229, 0.00, 0.00, 4.19, 0.04, 4.07, 0.00
 214 (42-46) [l=227 cm] - Z.
 42, 0.00, 0.00, 4.83, 0.40, 2.83, 0.00
 46, 0.00, 0.00, 3.72, 0.40, 3.10, 0.00
 215 (232-233) [l=227 cm] - Z.
 232, 0.00, 0.00, 7.65, 0.04, 7.68, 0.00
 233, 0.00, 0.00, 7.31, 0.04, 7.27, 0.00
 216 (67-71) [l=227 cm] - Z.
 67, 0.00, 0.00, 6.82, 0.31, 7.61, 0.00
 71, 0.00, 0.00, 6.82, 0.31, 7.61, 0.00
 217 (76-80) [l=227 cm] - Z.
 76, 0.00, 0.00, 4.94, 0.39, 4.25, 0.00
 80, 0.00, 0.00, 4.68, 0.39, 3.79, 0.00
 218 (236-237) [l=227 cm] - Z.
 236, 0.00, 0.00, 7.31, 0.04, 7.27, 0.00
 237, 0.00, 0.00, 7.65, 0.04, 7.68, 0.00
 219 (92-96) [l=227 cm] - Z.
 92, 0.00, 0.00, 3.72, 0.40, 3.10, 0.00
 96, 0.00, 0.00, 4.83, 0.40, 2.83, 0.00
 220 (240-241) [l=227 cm] - Z.
 240, 0.00, 0.00, 4.19, 0.04, 4.07, 0.00
 241, 0.00, 0.00, 5.64, 0.04, 4.48, 0.00
 221 (114-118) [l=227 cm] - Z.
 114, 0.00, 0.00, 5.13, 0.49, 3.51, 0.00
 118, 0.00, 0.00, 3.46, 0.49, 3.06, 0.00

222 (244-245) [l=227 cm] - Z.
 244, 0.00, 0.00, 7.19, 0.03, 7.17, 0.00
 245, 0.00, 0.00, 7.07, 0.03, 6.97, 0.00
 223 (130-134) [l=227 cm] - Z.
 130, 0.00, 0.00, 4.51, 0.50, 3.68, 0.00
 134, 0.00, 0.00, 5.81, 0.50, 4.84, 0.00
 224 (247-248) [l=447 cm] - T.
 247, 4.90, 0.00, 0.04, 0.00, 0.09, 0.00
 248, 4.90, 0.00, 0.04, 0.00, 0.09, 0.00
 225 (248-249) [l=447 cm] - T.
 248, 4.90, 0.00, 0.04, 0.00, 0.09, 0.00
 249, 4.90, 0.00, 0.04, 0.00, 0.09, 0.00
 226 (250-251) [l=447 cm] - T.
 250, 3.80, 0.00, 0.03, 0.00, 0.07, 0.00
 251, 3.80, 0.00, 0.03, 0.00, 0.07, 0.00
 227 (252-250) [l=447 cm] - T.
 252, 3.80, 0.00, 0.03, 0.00, 0.07, 0.00
 250, 3.80, 0.00, 0.03, 0.00, 0.07, 0.00
 228 (253-254) [l=447 cm] - T.
 253, 2.71, 0.00, 0.02, 0.00, 0.05, 0.00
 254, 2.71, 0.00, 0.02, 0.00, 0.05, 0.00
 229 (255-253) [l=447 cm] - T.
 255, 2.71, 0.00, 0.02, 0.00, 0.05, 0.00
 253, 2.71, 0.00, 0.02, 0.00, 0.05, 0.00
 230 (256-257) [l=447 cm] - T.
 256, 1.63, 0.00, 0.01, 0.00, 0.03, 0.00
 257, 1.63, 0.00, 0.01, 0.00, 0.03, 0.00
 231 (258-256) [l=447 cm] - T.
 258, 1.63, 0.00, 0.01, 0.00, 0.03, 0.00
 256, 1.63, 0.00, 0.01, 0.00, 0.03, 0.00
 232 (259-260) [l=192 cm] - T.
 259, 1.05, 0.00, 0.12, 0.00, 0.14, 0.00
 260, 1.05, 0.00, 0.12, 0.00, 0.09, 0.00
 233 (261-262) [l=447 cm] - T.
 261, 1.63, 0.00, 0.01, 0.00, 0.03, 0.00
 262, 1.63, 0.00, 0.01, 0.00, 0.03, 0.00
 234 (262-263) [l=447 cm] - T.
 262, 1.63, 0.00, 0.01, 0.00, 0.03, 0.00
 263, 1.63, 0.00, 0.01, 0.00, 0.03, 0.00
 235 (264-265) [l=447 cm] - T.
 264, 2.71, 0.00, 0.02, 0.00, 0.05, 0.00
 265, 2.71, 0.00, 0.02, 0.00, 0.05, 0.00
 236 (265-266) [l=447 cm] - T.
 265, 2.71, 0.00, 0.02, 0.00, 0.05, 0.00
 266, 2.71, 0.00, 0.02, 0.00, 0.05, 0.00
 237 (267-268) [l=447 cm] - T.
 267, 4.00, 0.00, 0.03, 0.00, 0.07, 0.00
 268, 4.00, 0.00, 0.03, 0.00, 0.07, 0.00
 238 (268-269) [l=447 cm] - T.
 268, 4.00, 0.00, 0.03, 0.00, 0.07, 0.00
 269, 4.00, 0.00, 0.03, 0.00, 0.07, 0.00
 239 (270-271) [l=447 cm] - T.
 270, 5.62, 0.00, 0.05, 0.00, 0.10, 0.00
 271, 5.62, 0.00, 0.05, 0.00, 0.10, 0.00
 240 (272-270) [l=447 cm] - T.
 272, 5.62, 0.00, 0.05, 0.00, 0.10, 0.00
 270, 5.62, 0.00, 0.05, 0.00, 0.10, 0.00
 241 (212-248) [l=395 cm] - T.
 212, 0.06, 0.00, 0.06, 0.00, 0.12, 0.00
 248, 0.06, 0.00, 0.06, 0.00, 0.12, 0.00
 242 (248-250) [l=370 cm] - T.
 248, 0.12, 0.00, 0.02, 0.00, 0.03, 0.00
 250, 0.12, 0.00, 0.02, 0.00, 0.03, 0.00
 243 (250-253) [l=370 cm] - T.
 250, 0.09, 0.00, 0.01, 0.00, 0.03, 0.00
 253, 0.09, 0.00, 0.01, 0.00, 0.03, 0.00
 244 (253-256) [l=370 cm] - T.
 253, 0.06, 0.00, 0.01, 0.00, 0.02, 0.00
 256, 0.06, 0.00, 0.01, 0.00, 0.02, 0.00
 245 (256-273) [l=368 cm] - T.
 256, 0.02, 0.00, 0.02, 0.00, 0.03, 0.00
 273, 0.02, 0.00, 0.02, 0.00, 0.03, 0.00
 246 (273-274) [l=330 cm] - T.
 273, 0.01, 0.00, 0.01, 0.00, 0.02, 0.00
 274, 0.01, 0.00, 0.01, 0.00, 0.02, 0.00
 247 (274-262) [l=402 cm] - T.
 274, 0.04, 0.00, 0.01, 0.00, 0.03, 0.00
 262, 0.04, 0.00, 0.01, 0.00, 0.03, 0.00
 248 (265-262) [l=370 cm] - T.
 265, 0.07, 0.00, 0.02, 0.00, 0.03, 0.00
 262, 0.07, 0.00, 0.02, 0.00, 0.03, 0.00
 249 (268-265) [l=370 cm] - T.
 268, 0.10, 0.00, 0.02, 0.00, 0.04, 0.00
 265, 0.10, 0.00, 0.02, 0.00, 0.04, 0.00
 250 (275-270) [l=395 cm] - T.
 275, 0.08, 0.00, 0.07, 0.00, 0.14, 0.00

270, 0.08, 0.00, 0.07, 0.00, 0.14, 0.00
 251 (270-268) [l=370 cm] - T.
 270, 0.12, 0.00, 0.07, 0.00, 0.13, 0.00
 268, 0.12, 0.00, 0.07, 0.00, 0.13, 0.00
 252 (277-278) [l=447 cm] - T.
 277, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 278, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 253 (279-278) [l=447 cm] - T.
 279, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 278, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 254 (280-281) [l=447 cm] - T.
 280, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 281, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 255 (276-281) [l=447 cm] - T.
 276, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 281, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 256 (282-j'-283) [l=181 cm][173 def.-8 rig.] [in j': N=Nxy,Nxz] - T.
 282, 0.14, 0.05, 0.04, 0.00, 0.04, 0.04
 j', 0.14, 0.14, 0.05, 0.04, 0.00, 0.04, 0.04
 283, 0.14, 0.05, 0.04, 0.00, 0.04, 0.04
 257 (283-i'-j'-284) [l=140 cm][8 rig.-124 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 283, 0.06, 0.02, 0.05, 0.00, 0.04, 0.01
 i', 0.06, 0.06, 0.02, 0.05, 0.00, 0.03, 0.01
 j', 0.06, 0.06, 0.02, 0.05, 0.00, 0.03, 0.01
 284, 0.06, 0.02, 0.05, 0.00, 0.04, 0.01
 258 (285-i'-j'-286) [l=140 cm][8 rig.-124 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 285, 0.06, 0.02, 0.05, 0.00, 0.04, 0.01
 i', 0.06, 0.06, 0.02, 0.05, 0.00, 0.03, 0.01
 j', 0.06, 0.06, 0.02, 0.05, 0.00, 0.03, 0.01
 286, 0.06, 0.02, 0.05, 0.00, 0.04, 0.01
 259 (287-j'-285) [l=181 cm][173 def.-8 rig.] [in j': N=Nxy,Nxz] - T.
 287, 0.14, 0.05, 0.04, 0.00, 0.04, 0.04
 j', 0.14, 0.14, 0.05, 0.04, 0.00, 0.04, 0.04
 285, 0.14, 0.05, 0.04, 0.00, 0.04, 0.04
 260 (286-i'-j'-284) [l=200 cm][8 rig.-184 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 286, 0.00, 0.00, 0.04, 0.00, 0.04, 0.00
 i', 0.00, 0.00, 0.00, 0.04, 0.00, 0.04, 0.00
 j', 0.00, 0.00, 0.00, 0.04, 0.00, 0.04, 0.00
 284, 0.00, 0.00, 0.04, 0.00, 0.04, 0.00
 261 (288-273) [l=106 cm] - T.
 288, 0.34, 0.00, 0.41, 0.00, 0.23, 0.00
 273, 0.34, 0.00, 0.41, 0.00, 0.20, 0.00
 262 (260-288) [l=149 cm] - T.
 260, 0.55, 0.00, 0.35, 0.00, 0.29, 0.00
 288, 0.55, 0.00, 0.35, 0.00, 0.23, 0.00
 263 (289-290) [l=192 cm] - T.
 289, 1.05, 0.00, 0.12, 0.00, 0.14, 0.00
 290, 1.05, 0.00, 0.12, 0.00, 0.09, 0.00
 264 (290-291) [l=149 cm] - T.
 290, 0.55, 0.00, 0.35, 0.00, 0.29, 0.00
 291, 0.55, 0.00, 0.35, 0.00, 0.23, 0.00
 265 (291-273) [l=106 cm] - T.
 291, 0.34, 0.00, 0.41, 0.00, 0.23, 0.00
 273, 0.34, 0.00, 0.41, 0.00, 0.20, 0.00
 266 (292-i'-j'-293) [l=140 cm][8 rig.-124 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 292, 0.05, 0.02, 0.06, 0.00, 0.04, 0.01
 i', 0.05, 0.05, 0.02, 0.06, 0.00, 0.03, 0.01
 j', 0.05, 0.05, 0.02, 0.06, 0.00, 0.03, 0.01
 293, 0.05, 0.02, 0.06, 0.00, 0.04, 0.01
 267 (294-j'-292) [l=181 cm][173 def.-8 rig.] [in j': N=Nxy,Nxz] - T.
 294, 0.13, 0.05, 0.05, 0.00, 0.04, 0.04
 j', 0.13, 0.13, 0.05, 0.05, 0.00, 0.04, 0.04
 292, 0.13, 0.05, 0.05, 0.00, 0.04, 0.04
 268 (295-i'-j'-293) [l=200 cm][8 rig.-184 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 295, 0.00, 0.00, 0.04, 0.00, 0.04, 0.00
 i', 0.00, 0.00, 0.00, 0.04, 0.00, 0.04, 0.00
 j', 0.00, 0.00, 0.00, 0.04, 0.00, 0.04, 0.00
 293, 0.00, 0.00, 0.04, 0.00, 0.04, 0.00
 269 (296-297) [l=149 cm] - T.
 296, 0.54, 0.00, 0.33, 0.00, 0.28, 0.00
 297, 0.54, 0.00, 0.33, 0.00, 0.22, 0.00
 270 (298-296) [l=192 cm] - T.
 298, 1.01, 0.00, 0.11, 0.00, 0.13, 0.00
 296, 1.01, 0.00, 0.11, 0.00, 0.08, 0.00
 271 (297-274) [l=106 cm] - T.
 297, 0.33, 0.00, 0.40, 0.00, 0.22, 0.00
 274, 0.33, 0.00, 0.40, 0.00, 0.20, 0.00
 272 (299-274) [l=106 cm] - T.
 299, 0.33, 0.00, 0.40, 0.00, 0.22, 0.00
 274, 0.33, 0.00, 0.40, 0.00, 0.20, 0.00
 273 (300-299) [l=149 cm] - T.
 300, 0.54, 0.00, 0.33, 0.00, 0.28, 0.00
 299, 0.54, 0.00, 0.33, 0.00, 0.22, 0.00
 274 (301-300) [l=192 cm] - T.
 301, 1.01, 0.00, 0.11, 0.00, 0.13, 0.00
 300, 1.01, 0.00, 0.11, 0.00, 0.08, 0.00

275 (302-i'-j'-295) [l=140 cm][8 rig.-124 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 302, 0.05, 0.02, 0.06, 0.00, 0.04, 0.01
 i', 0.05, 0.05, 0.02, 0.06, 0.00, 0.03, 0.01
 j', 0.05, 0.05, 0.02, 0.06, 0.00, 0.03, 0.01
 295, 0.05, 0.02, 0.06, 0.00, 0.04, 0.01
 276 (303-j'-302) [l=181 cm][173 def.-8 rig.] [in j': N=Nxy,Nxz] - T.
 303, 0.13, 0.05, 0.05, 0.00, 0.04, 0.04
 j', 0.13, 0.13, 0.05, 0.05, 0.00, 0.04, 0.04
 302, 0.13, 0.05, 0.05, 0.00, 0.04, 0.04
 277 (304-j'-305) [l=650 cm][226 def.-424 rig.] [in j': N=Nxy,Nxz] -
 304, 0.03, 0.05, 0.01, 0.00, 0.02, 0.06
 j', 0.03, 0.03, 0.05, 0.01, 0.00, 0.01, 0.06
 305, 0.03, 0.05, 0.01, 0.00, 0.07, 0.29
 278 (306-j'-307) [l=600 cm][226 def.-374 rig.] [in j': N=Nxy,Nxz] -
 306, 0.16, 0.05, 0.02, 0.00, 0.03, 0.06
 j', 0.16, 0.16, 0.05, 0.02, 0.00, 0.02, 0.06
 307, 0.16, 0.05, 0.02, 0.00, 0.09, 0.25
 279 (308-j'-309) [l=600 cm][226 def.-374 rig.] [in j': N=Nxy,Nxz] -
 308, 0.16, 0.05, 0.02, 0.00, 0.03, 0.06
 j', 0.16, 0.16, 0.05, 0.02, 0.00, 0.02, 0.06
 309, 0.16, 0.05, 0.02, 0.00, 0.09, 0.25
 280 (310-j'-311) [l=650 cm][226 def.-424 rig.] [in j': N=Nxy,Nxz] -
 310, 0.03, 0.05, 0.01, 0.00, 0.02, 0.06
 j', 0.03, 0.03, 0.05, 0.01, 0.00, 0.01, 0.06
 311, 0.03, 0.05, 0.01, 0.00, 0.07, 0.29
 281 (312-j'-313) [l=600 cm][226 def.-374 rig.] [in j': N=Nxy,Nxz] -
 312, 0.16, 0.05, 0.02, 0.00, 0.03, 0.06
 j', 0.16, 0.16, 0.05, 0.02, 0.00, 0.02, 0.06
 313, 0.16, 0.05, 0.02, 0.00, 0.09, 0.25
 282 (314-j'-315) [l=650 cm][226 def.-424 rig.] [in j': N=Nxy,Nxz] -
 314, 0.03, 0.05, 0.01, 0.00, 0.02, 0.06
 j', 0.03, 0.03, 0.05, 0.01, 0.00, 0.01, 0.06
 315, 0.03, 0.05, 0.01, 0.00, 0.07, 0.28
 283 (316-j'-317) [l=650 cm][226 def.-424 rig.] [in j': N=Nxy,Nxz] -
 316, 0.03, 0.05, 0.01, 0.00, 0.02, 0.06
 j', 0.03, 0.03, 0.05, 0.01, 0.00, 0.01, 0.06
 317, 0.03, 0.05, 0.01, 0.00, 0.07, 0.28
 284 (318-j'-319) [l=600 cm][226 def.-374 rig.] [in j': N=Nxy,Nxz] -
 318, 0.16, 0.05, 0.02, 0.00, 0.03, 0.06
 j', 0.16, 0.16, 0.05, 0.02, 0.00, 0.02, 0.06
 319, 0.16, 0.05, 0.02, 0.00, 0.09, 0.25
 285 (320-148) [l=188 cm] - K.
 320, 0.08, 0.24, 0.29, 0.00, 0.00, 0.00
 148, 0.08, 0.24, 0.29, 0.00, 0.54, 0.45
 286 (321-151) [l=188 cm] - K.
 321, 0.08, 0.24, 0.29, 0.00, 0.00, 0.00
 151, 0.08, 0.24, 0.29, 0.00, 0.54, 0.45
 287 (320-321) [l=200 cm] - W_3117_24_-1_-1.
 320, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 321, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 288 (322-140) [l=188 cm] - K.
 322, 0.08, 0.24, 0.29, 0.00, 0.00, 0.00
 140, 0.08, 0.24, 0.29, 0.00, 0.54, 0.46
 289 (323-143) [l=188 cm] - K.
 323, 0.08, 0.24, 0.29, 0.00, 0.00, 0.00
 143, 0.08, 0.24, 0.29, 0.00, 0.54, 0.46
 290 (322-323) [l=200 cm] - W_3118_24_-1_-1.
 322, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 323, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 291 (98-139) [l=62 cm] - K.
 98, 5.10, 9.40, 0.02, 0.00, 0.18, 76.19
 139, 5.10, 9.40, 0.02, 0.00, 0.17, 70.36
 292 (276-156) [l=30 cm] - K.
 276, 1.30, 0.00, 0.00, 0.00, 0.00, 0.00
 156, 1.30, 0.00, 0.00, 0.00, 0.00, 0.00
 293 (155-324) [l=30 cm] - K.
 155, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 324, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 294 (159-325) [l=30 cm] - K.
 159, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 325, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 295 (162-326) [l=30 cm] - K.
 162, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 326, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 296 (164-259) [l=0 cm] - K.
 164, 0.00, 0.00, 4.75, 34.55, 4.54, 0.00
 259, 0.00, 0.00, 4.75, 34.55, 4.55, 0.00
 297 (164-327) [l=30 cm] - K.
 164, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 327, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 298 (167-328) [l=30 cm] - K.
 167, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 328, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 299 (167-301) [l=0 cm] - K.
 167, 0.00, 0.00, 4.49, 34.73, 12.81, 0.00
 301, 0.00, 0.00, 4.49, 34.73, 12.80, 0.00

300 (169-329) [l=30 cm] - K.
 169, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 329, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 301 (172-330) [l=30 cm] - K.
 172, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 330, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 302 (175-331) [l=30 cm] - K.
 175, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 331, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 303 (182-279) [l=30 cm] - K.
 182, 1.57, 0.00, 0.00, 0.00, 0.00, 0.00
 279, 1.57, 0.00, 0.00, 0.00, 0.00, 0.00
 304 (181-332) [l=30 cm] - K.
 181, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 332, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 305 (185-333) [l=30 cm] - K.
 185, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 333, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 306 (188-334) [l=30 cm] - K.
 188, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 334, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 307 (190-298) [l=0 cm] - K.
 190, 0.00, 0.00, 4.49, 34.73, 12.81, 0.00
 298, 0.00, 0.00, 4.49, 34.73, 12.80, 0.00
 308 (190-335) [l=30 cm] - K.
 190, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 335, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 309 (193-289) [l=0 cm] - K.
 193, 0.00, 0.00, 4.75, 34.56, 4.55, 0.00
 289, 0.00, 0.00, 4.75, 34.56, 4.56, 0.00
 310 (193-336) [l=30 cm] - K.
 193, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 336, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 311 (195-337) [l=30 cm] - K.
 195, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 337, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 312 (198-338) [l=30 cm] - K.
 198, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 338, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 313 (204-280) [l=30 cm] - K.
 204, 17.11, 913.21, 49.81, 0.00, 0.02, 0.01
 280, 17.11, 913.21, 49.81, 0.00, 14.92, 273.94
 314 (201-339) [l=30 cm] - K.
 201, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 339, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 315 (275-207) [l=0 cm] - K.
 275, 5.82, 175.04, 4492.77, 116.69, 1.63, 0.09
 207, 5.82, 175.04, 4492.77, 116.69, 6.12, 0.09
 316 (207-278) [l=30 cm] - K.
 207, 4491.53, 122.35, 3.34, 0.00, 5.34, 195.73
 278, 4491.53, 122.35, 3.34, 0.00, 4.34, 159.03
 317 (281-212) [l=30 cm] - K.
 281, 1.10, 215.57, 5.88, 0.00, 10.58, 388.01
 212, 1.10, 215.57, 5.88, 0.00, 8.82, 323.34
 318 (275-278) [l=30 cm] - K.
 275, 4492.71, 337.92, 9.22, 0.00, 3.47, 127.62
 278, 4492.71, 337.92, 9.22, 0.00, 6.24, 228.99
 319 (277-178) [l=30 cm] - K.
 277, 1.57, 0.00, 0.00, 0.00, 0.00, 0.00
 178, 1.57, 0.00, 0.00, 0.00, 0.00, 0.00
 320 (153-131) [l=115 cm] - K.
 153, 0.00, 0.00, 51.59, 213.12, 333.77, 0.00
 131, 0.00, 0.00, 51.59, 213.12, 275.73, 0.00
 321 (153-135) [l=112 cm] - K.
 153, 0.00, 0.00, 63.50, 213.50, 331.59, 0.00
 135, 0.00, 0.00, 63.50, 213.50, 400.35, 0.00
 322 (157-123) [l=113 cm] - K.
 157, 0.00, 0.00, 36.26, 210.95, 79.06, 0.00
 123, 0.00, 0.00, 36.26, 210.95, 50.30, 0.00
 323 (157-126) [l=113 cm] - K.
 157, 0.00, 0.00, 42.56, 211.37, 76.63, 0.00
 126, 0.00, 0.00, 42.56, 211.37, 124.65, 0.00
 324 (160-115) [l=171 cm] - K.
 160, 0.00, 0.00, 23.19, 208.78, 123.76, 0.00
 115, 0.00, 0.00, 23.19, 208.78, 153.54, 0.00
 325 (160-119) [l=56 cm] - K.
 160, 0.00, 0.00, 24.81, 209.15, 124.56, 0.00
 119, 0.00, 0.00, 24.81, 209.15, 114.17, 0.00
 326 (165-104) [l=113 cm] - K.
 165, 0.00, 0.00, 15.30, 127.93, 183.93, 0.00
 104, 0.00, 0.00, 15.30, 127.93, 193.00, 0.00
 327 (165-107) [l=113 cm] - K.
 165, 0.00, 0.00, 14.95, 128.21, 184.25, 0.00
 107, 0.00, 0.00, 14.95, 128.21, 183.14, 0.00
 328 (170-93) [l=33 cm] - K.
 170, 0.00, 0.00, 9.29, 50.10, 190.11, 0.00

93, 0.00, 0.00, 9.29, 50.10, 190.14, 0.00
 329 (170-97) [l=193 cm] - K.
 170, 0.00, 0.00, 11.08, 50.53, 190.77, 0.00
 97, 0.00, 0.00, 11.08, 50.53, 198.53, 0.00
 330 (173-85) [l=113 cm] - K.
 173, 0.00, 0.00, 10.35, 47.47, 133.51, 0.00
 85, 0.00, 0.00, 10.35, 47.47, 125.90, 0.00
 331 (173-88) [l=113 cm] - K.
 173, 0.00, 0.00, 18.53, 48.09, 134.70, 0.00
 88, 0.00, 0.00, 18.53, 48.09, 150.45, 0.00
 332 (176-77) [l=132 cm] - K.
 176, 0.00, 0.00, 13.90, 44.76, 37.45, 0.00
 77, 0.00, 0.00, 13.90, 44.76, 26.09, 0.00
 333 (176-81) [l=95 cm] - K.
 176, 0.00, 0.00, 22.41, 45.39, 38.33, 0.00
 81, 0.00, 0.00, 22.41, 45.39, 58.99, 0.00
 334 (179-59) [l=95 cm] - K.
 179, 0.00, 0.00, 22.41, 45.40, 38.33, 0.00
 59, 0.00, 0.00, 22.41, 45.40, 58.99, 0.00
 335 (179-63) [l=132 cm] - K.
 179, 0.00, 0.00, 13.90, 44.76, 37.44, 0.00
 63, 0.00, 0.00, 13.90, 44.76, 26.09, 0.00
 336 (183-51) [l=113 cm] - K.
 183, 0.00, 0.00, 18.53, 48.09, 134.71, 0.00
 51, 0.00, 0.00, 18.53, 48.09, 150.46, 0.00
 337 (183-54) [l=113 cm] - K.
 183, 0.00, 0.00, 10.35, 47.47, 133.51, 0.00
 54, 0.00, 0.00, 10.35, 47.47, 125.91, 0.00
 338 (186-43) [l=193 cm] - K.
 186, 0.00, 0.00, 11.08, 50.54, 190.78, 0.00
 43, 0.00, 0.00, 11.08, 50.54, 198.56, 0.00
 339 (186-47) [l=33 cm] - K.
 186, 0.00, 0.00, 9.29, 50.11, 190.13, 0.00
 47, 0.00, 0.00, 9.29, 50.11, 190.16, 0.00
 340 (191-32) [l=113 cm] - K.
 191, 0.00, 0.00, 14.95, 128.21, 184.28, 0.00
 32, 0.00, 0.00, 14.95, 128.21, 183.18, 0.00
 341 (191-35) [l=113 cm] - K.
 191, 0.00, 0.00, 15.30, 127.93, 183.96, 0.00
 35, 0.00, 0.00, 15.30, 127.93, 193.03, 0.00
 342 (196-21) [l=56 cm] - K.
 196, 0.00, 0.00, 24.81, 209.15, 124.60, 0.00
 21, 0.00, 0.00, 24.81, 209.15, 114.21, 0.00
 343 (196-25) [l=171 cm] - K.
 196, 0.00, 0.00, 23.19, 208.78, 123.80, 0.00
 25, 0.00, 0.00, 23.19, 208.78, 153.58, 0.00
 344 (199-13) [l=113 cm] - K.
 199, 0.00, 0.00, 42.56, 211.37, 76.58, 0.00
 13, 0.00, 0.00, 42.56, 211.37, 124.60, 0.00
 345 (199-16) [l=113 cm] - K.
 199, 0.00, 0.00, 36.26, 210.95, 79.01, 0.00
 16, 0.00, 0.00, 36.26, 210.95, 50.28, 0.00
 346 (202-5) [l=112 cm] - K.
 202, 0.00, 0.00, 63.51, 213.50, 331.51, 0.00
 5, 0.00, 0.00, 63.51, 213.50, 400.33, 0.00
 347 (202-9) [l=115 cm] - K.
 202, 0.00, 0.00, 51.60, 213.12, 333.70, 0.00
 9, 0.00, 0.00, 51.60, 213.12, 275.69, 0.00
 348 (66-205) [l=57 cm] - K.
 66, 0.00, 0.00, 6.53, 0.20, 5.82, 0.00
 205, 0.00, 0.00, 6.53, 0.20, 2.14, 0.00
 349 (205-68) [l=97 cm] - K.
 205, 0.00, 0.00, 0.84, 0.00, 0.89, 0.00
 68, 0.00, 0.00, 0.84, 0.00, 0.26, 0.00
 350 (72-208) [l=97 cm] - K.
 72, 0.00, 0.00, 0.84, 0.00, 0.26, 0.00
 208, 0.00, 0.00, 0.84, 0.00, 0.89, 0.00
 351 (208-70) [l=57 cm] - K.
 208, 0.00, 0.00, 6.53, 0.20, 2.14, 0.00
 70, 0.00, 0.00, 6.53, 0.20, 5.83, 0.00
 352 (216-210) [l=70 cm] - K.
 216, 0.00, 0.00, 61.59, 501.90, 159.46, 0.00
 210, 0.00, 0.00, 61.59, 501.90, 116.67, 0.00
 353 (210-217) [l=70 cm] - K.
 210, 0.00, 0.00, 62.96, 501.67, 116.77, 0.00
 217, 0.00, 0.00, 62.96, 501.67, 73.77, 0.00
 354 (220-213) [l=70 cm] - K.
 220, 0.00, 0.00, 62.96, 501.77, 73.12, 0.00
 213, 0.00, 0.00, 62.96, 501.77, 116.18, 0.00
 355 (213-222) [l=70 cm] - K.
 213, 0.00, 0.00, 61.60, 501.99, 116.08, 0.00
 222, 0.00, 0.00, 61.60, 501.99, 158.81, 0.00
 356 (223-1) [l=90 cm] - Z.
 223, 0.00, 0.00, 14.68, 3.17, 23.19, 0.00
 1, 0.00, 0.00, 12.15, 3.17, 15.90, 0.00
 357 (1-3) [l=90 cm] - Z.

1, 0.00, 0.00, 4.95, 0.01, 2.09, 0.00
 3, 0.00, 0.00, 3.42, 0.01, 1.39, 0.00
 358 (8-6) [l=88 cm] - Z.
 8, 0.00, 0.00, 3.46, 0.01, 1.32, 0.00
 6, 0.00, 0.00, 4.02, 0.01, 1.74, 0.00
 359 (6-340) [l=88 cm] - Z.
 6, 0.00, 0.00, 10.90, 0.75, 21.71, 0.00
 340, 0.00, 0.00, 10.03, 0.75, 12.49, 0.00
 360 (340-11) [l=88 cm] - Z.
 340, 0.00, 0.00, 10.03, 0.75, 12.49, 0.00
 11, 0.00, 0.00, 10.06, 0.75, 5.03, 0.00
 361 (11-224) [l=88 cm] - Z.
 11, 0.00, 0.00, 8.16, 0.03, 13.62, 0.00
 224, 0.00, 0.00, 7.08, 0.03, 6.97, 0.00
 362 (225-14) [l=88 cm] - Z.
 225, 0.00, 0.00, 7.20, 0.03, 7.17, 0.00
 14, 0.00, 0.00, 8.38, 0.03, 13.94, 0.00
 363 (14-341) [l=88 cm] - Z.
 14, 0.00, 0.00, 8.70, 0.78, 6.40, 0.00
 341, 0.00, 0.00, 8.85, 0.78, 12.22, 0.00
 364 (341-18) [l=88 cm] - Z.
 341, 0.00, 0.00, 8.85, 0.78, 12.22, 0.00
 18, 0.00, 0.00, 9.72, 0.78, 20.40, 0.00
 365 (18-20) [l=88 cm] - Z.
 18, 0.00, 0.00, 2.88, 0.01, 1.32, 0.00
 20, 0.00, 0.00, 2.45, 0.01, 0.85, 0.00
 366 (24-22) [l=31 cm] - Z.
 24, 0.00, 0.00, 7.21, 0.01, 1.02, 0.00
 22, 0.00, 0.00, 7.60, 0.01, 1.28, 0.00
 367 (22-226) [l=31 cm] - Z.
 22, 0.00, 0.00, 8.72, 1.97, 16.11, 0.00
 226, 0.00, 0.00, 9.00, 1.97, 17.28, 0.00
 368 (226-27) [l=123 cm] - Z.
 226, 0.00, 0.00, 8.73, 4.47, 18.13, 0.00
 27, 0.00, 0.00, 7.73, 4.47, 14.92, 0.00
 369 (27-227) [l=123 cm] - Z.
 27, 0.00, 0.00, 13.21, 2.81, 19.28, 0.00
 227, 0.00, 0.00, 9.45, 2.81, 6.60, 0.00
 370 (227-30) [l=26 cm] - Z.
 227, 0.00, 0.00, 5.36, 0.40, 6.70, 0.00
 30, 0.00, 0.00, 5.12, 0.40, 5.35, 0.00
 371 (30-228) [l=26 cm] - Z.
 30, 0.00, 0.00, 6.43, 0.04, 5.76, 0.00
 228, 0.00, 0.00, 5.64, 0.04, 4.48, 0.00
 372 (229-33) [l=26 cm] - Z.
 229, 0.00, 0.00, 4.19, 0.04, 4.07, 0.00
 33, 0.00, 0.00, 4.43, 0.04, 4.84, 0.00
 373 (33-230) [l=26 cm] - Z.
 33, 0.00, 0.00, 4.26, 0.36, 4.45, 0.00
 230, 0.00, 0.00, 4.48, 0.36, 5.53, 0.00
 374 (230-37) [l=122 cm] - Z.
 230, 0.00, 0.00, 6.91, 2.30, 5.51, 0.00
 37, 0.00, 0.00, 10.66, 2.30, 13.32, 0.00
 375 (37-231) [l=122 cm] - Z.
 37, 0.00, 0.00, 6.98, 3.80, 10.06, 0.00
 231, 0.00, 0.00, 7.75, 3.80, 8.49, 0.00
 376 (231-40) [l=18 cm] - Z.
 231, 0.00, 0.00, 8.63, 1.45, 7.35, 0.00
 40, 0.00, 0.00, 8.46, 1.45, 6.10, 0.00
 377 (40-42) [l=18 cm] - Z.
 40, 0.00, 0.00, 0.30, 0.00, 0.01, 0.00
 42, 0.00, 0.00, 0.29, 0.00, 0.01, 0.00
 378 (46-44) [l=98 cm] - Z.
 46, 0.00, 0.00, 2.06, 0.01, 0.77, 0.00
 44, 0.00, 0.00, 2.97, 0.01, 1.31, 0.00
 379 (44-342) [l=98 cm] - Z.
 44, 0.00, 0.00, 10.27, 0.64, 22.14, 0.00
 342, 0.00, 0.00, 9.32, 0.64, 12.51, 0.00
 380 (342-49) [l=98 cm] - Z.
 342, 0.00, 0.00, 9.32, 0.64, 12.51, 0.00
 49, 0.00, 0.00, 9.50, 0.64, 6.61, 0.00
 381 (49-232) [l=98 cm] - Z.
 49, 0.00, 0.00, 9.16, 0.04, 15.71, 0.00
 232, 0.00, 0.00, 7.65, 0.04, 7.68, 0.00
 382 (233-52) [l=98 cm] - Z.
 233, 0.00, 0.00, 7.31, 0.04, 7.27, 0.00
 52, 0.00, 0.00, 8.50, 0.04, 14.95, 0.00
 383 (52-343) [l=98 cm] - Z.
 52, 0.00, 0.00, 11.36, 0.59, 5.17, 0.00
 343, 0.00, 0.00, 10.43, 0.59, 12.65, 0.00
 384 (343-56) [l=98 cm] - Z.
 343, 0.00, 0.00, 10.43, 0.59, 12.65, 0.00
 56, 0.00, 0.00, 11.11, 0.59, 23.05, 0.00
 385 (56-58) [l=98 cm] - Z.
 56, 0.00, 0.00, 3.78, 0.01, 1.77, 0.00
 58, 0.00, 0.00, 2.78, 0.01, 1.29, 0.00

386 (58-62) [l=227 cm] - Z.
 58, 0.00, 0.00, 4.68, 0.39, 3.79, 0.00
 62, 0.00, 0.00, 4.94, 0.39, 4.25, 0.00
 387 (62-60) [l=80 cm] - Z.
 62, 0.00, 0.00, 3.74, 0.01, 1.38, 0.00
 60, 0.00, 0.00, 4.68, 0.01, 1.93, 0.00
 388 (60-234) [l=80 cm] - Z.
 60, 0.00, 0.00, 13.03, 2.22, 9.46, 0.00
 234, 0.00, 0.00, 15.18, 2.22, 1.77, 0.00
 389 (234-65) [l=154 cm] - Z.
 234, 0.00, 0.00, 15.18, 1.77, 2.22, 0.00
 65, 0.00, 0.00, 18.95, 1.77, 24.17, 0.00
 390 (65-67) [l=154 cm] - Z.
 65, 0.00, 0.00, 2.17, 0.01, 2.36, 0.00
 67, 0.00, 0.00, 3.63, 0.01, 1.79, 0.00
 391 (71-69) [l=154 cm] - Z.
 71, 0.00, 0.00, 3.63, 0.01, 1.79, 0.00
 69, 0.00, 0.00, 2.17, 0.01, 2.36, 0.00
 392 (69-235) [l=154 cm] - Z.
 69, 0.00, 0.00, 18.95, 1.77, 24.17, 0.00
 235, 0.00, 0.00, 15.18, 1.77, 2.22, 0.00
 393 (235-74) [l=80 cm] - Z.
 235, 0.00, 0.00, 15.18, 2.22, 1.77, 0.00
 74, 0.00, 0.00, 13.03, 2.22, 9.46, 0.00
 394 (74-76) [l=80 cm] - Z.
 74, 0.00, 0.00, 4.68, 0.01, 1.93, 0.00
 76, 0.00, 0.00, 3.74, 0.01, 1.38, 0.00
 395 (80-78) [l=98 cm] - Z.
 80, 0.00, 0.00, 2.78, 0.01, 1.29, 0.00
 78, 0.00, 0.00, 3.78, 0.01, 1.77, 0.00
 396 (78-344) [l=98 cm] - Z.
 78, 0.00, 0.00, 11.11, 0.59, 23.05, 0.00
 344, 0.00, 0.00, 10.43, 0.59, 12.64, 0.00
 397 (344-83) [l=98 cm] - Z.
 344, 0.00, 0.00, 10.43, 0.59, 12.64, 0.00
 83, 0.00, 0.00, 11.36, 0.59, 5.17, 0.00
 398 (83-236) [l=98 cm] - Z.
 83, 0.00, 0.00, 8.50, 0.04, 14.95, 0.00
 236, 0.00, 0.00, 7.31, 0.04, 7.27, 0.00
 399 (237-86) [l=98 cm] - Z.
 237, 0.00, 0.00, 7.65, 0.04, 7.68, 0.00
 86, 0.00, 0.00, 9.16, 0.04, 15.71, 0.00
 400 (86-345) [l=98 cm] - Z.
 86, 0.00, 0.00, 9.50, 0.64, 6.61, 0.00
 345, 0.00, 0.00, 9.33, 0.64, 12.52, 0.00
 401 (345-90) [l=98 cm] - Z.
 345, 0.00, 0.00, 9.33, 0.64, 12.52, 0.00
 90, 0.00, 0.00, 10.27, 0.64, 22.14, 0.00
 402 (90-92) [l=98 cm] - Z.
 90, 0.00, 0.00, 2.97, 0.01, 1.31, 0.00
 92, 0.00, 0.00, 2.06, 0.01, 0.77, 0.00
 403 (96-94) [l=18 cm] - Z.
 96, 0.00, 0.00, 0.29, 0.00, 0.01, 0.00
 94, 0.00, 0.00, 0.30, 0.00, 0.01, 0.00
 404 (94-238) [l=18 cm] - Z.
 94, 0.00, 0.00, 8.46, 1.45, 6.10, 0.00
 238, 0.00, 0.00, 8.63, 1.45, 7.35, 0.00
 405 (238-99) [l=122 cm] - Z.
 238, 0.00, 0.00, 7.75, 3.80, 8.49, 0.00
 99, 0.00, 0.00, 6.98, 3.80, 10.06, 0.00
 406 (99-239) [l=122 cm] - Z.
 99, 0.00, 0.00, 10.66, 2.30, 13.32, 0.00
 239, 0.00, 0.00, 6.91, 2.30, 5.51, 0.00
 407 (239-102) [l=26 cm] - Z.
 239, 0.00, 0.00, 4.48, 0.36, 5.53, 0.00
 102, 0.00, 0.00, 4.26, 0.36, 4.45, 0.00
 408 (102-240) [l=26 cm] - Z.
 102, 0.00, 0.00, 4.43, 0.04, 4.84, 0.00
 240, 0.00, 0.00, 4.19, 0.04, 4.07, 0.00
 409 (241-105) [l=26 cm] - Z.
 241, 0.00, 0.00, 5.64, 0.04, 4.48, 0.00
 105, 0.00, 0.00, 6.43, 0.04, 5.76, 0.00
 410 (105-242) [l=26 cm] - Z.
 105, 0.00, 0.00, 5.12, 0.40, 5.35, 0.00
 242, 0.00, 0.00, 5.36, 0.40, 6.70, 0.00
 411 (242-109) [l=123 cm] - Z.
 242, 0.00, 0.00, 9.45, 2.81, 6.60, 0.00
 109, 0.00, 0.00, 13.21, 2.81, 19.28, 0.00
 412 (109-243) [l=123 cm] - Z.
 109, 0.00, 0.00, 7.73, 4.47, 14.92, 0.00
 243, 0.00, 0.00, 8.73, 4.47, 18.13, 0.00
 413 (243-112) [l=31 cm] - Z.
 243, 0.00, 0.00, 9.00, 1.97, 17.28, 0.00
 112, 0.00, 0.00, 8.72, 1.97, 16.10, 0.00
 414 (112-114) [l=31 cm] - Z.
 112, 0.00, 0.00, 7.60, 0.01, 1.28, 0.00

114, 0.00, 0.00, 7.21, 0.01, 1.02, 0.00
 415 (118-116) [l=88 cm] - Z.
 118, 0.00, 0.00, 2.45, 0.01, 0.85, 0.00
 116, 0.00, 0.00, 2.88, 0.01, 1.32, 0.00
 416 (116-346) [l=88 cm] - Z.
 116, 0.00, 0.00, 9.72, 0.78, 20.39, 0.00
 346, 0.00, 0.00, 8.85, 0.78, 12.21, 0.00
 417 (346-121) [l=88 cm] - Z.
 346, 0.00, 0.00, 8.85, 0.78, 12.21, 0.00
 121, 0.00, 0.00, 8.70, 0.78, 6.40, 0.00
 418 (121-244) [l=88 cm] - Z.
 121, 0.00, 0.00, 8.38, 0.03, 13.93, 0.00
 244, 0.00, 0.00, 7.19, 0.03, 7.17, 0.00
 419 (245-124) [l=88 cm] - Z.
 245, 0.00, 0.00, 7.07, 0.03, 6.97, 0.00
 124, 0.00, 0.00, 8.16, 0.03, 13.62, 0.00
 420 (124-347) [l=88 cm] - Z.
 124, 0.00, 0.00, 10.06, 0.75, 5.03, 0.00
 347, 0.00, 0.00, 10.03, 0.75, 12.48, 0.00
 421 (347-128) [l=88 cm] - Z.
 347, 0.00, 0.00, 10.03, 0.75, 12.48, 0.00
 128, 0.00, 0.00, 10.90, 0.75, 21.71, 0.00
 422 (128-130) [l=88 cm] - Z.
 128, 0.00, 0.00, 4.02, 0.01, 1.74, 0.00
 130, 0.00, 0.00, 3.46, 0.01, 1.32, 0.00
 423 (134-132) [l=90 cm] - Z.
 134, 0.00, 0.00, 3.41, 0.01, 1.39, 0.00
 132, 0.00, 0.00, 4.94, 0.01, 2.09, 0.00
 424 (132-246) [l=90 cm] - Z.
 132, 0.00, 0.00, 12.16, 3.17, 15.91, 0.00
 246, 0.00, 0.00, 14.69, 3.17, 23.23, 0.00
 425 (348-137) [l=160 cm] - Z.
 348, 0.00, 0.00, 11.01, 1.22, 11.22, 0.00
 137, 0.00, 0.00, 9.35, 1.22, 27.66, 0.00
 426 (137-238) [l=161 cm] - Z.
 137, 0.00, 0.00, 14.28, 1.53, 14.91, 0.00
 238, 0.00, 0.00, 10.37, 1.53, 5.16, 0.00
 427 (231-141) [l=160 cm] - Z.
 231, 0.00, 0.00, 10.37, 1.53, 5.16, 0.00
 141, 0.00, 0.00, 14.28, 1.53, 14.90, 0.00
 428 (349-348) [l=200 cm] - Z.
 349, 0.00, 0.00, 11.01, 1.22, 11.23, 0.00
 348, 0.00, 0.00, 11.01, 1.22, 11.22, 0.00
 429 (141-349) [l=161 cm] - Z.
 141, 0.00, 0.00, 9.34, 1.22, 27.67, 0.00
 349, 0.00, 0.00, 11.01, 1.22, 11.23, 0.00
 430 (350-145) [l=161 cm] - Z.
 350, 0.00, 0.00, 11.41, 0.73, 11.61, 0.00
 145, 0.00, 0.00, 9.76, 0.73, 28.72, 0.00
 431 (145-226) [l=160 cm] - Z.
 145, 0.00, 0.00, 16.66, 1.00, 17.49, 0.00
 226, 0.00, 0.00, 12.71, 1.00, 6.37, 0.00
 432 (243-149) [l=161 cm] - Z.
 243, 0.00, 0.00, 12.71, 1.00, 6.37, 0.00
 149, 0.00, 0.00, 16.66, 1.00, 17.51, 0.00
 433 (351-350) [l=200 cm] - Z.
 351, 0.00, 0.00, 11.41, 0.73, 11.61, 0.00
 350, 0.00, 0.00, 11.41, 0.73, 11.61, 0.00
 434 (149-351) [l=160 cm] - Z.
 149, 0.00, 0.00, 9.76, 0.73, 28.71, 0.00
 351, 0.00, 0.00, 11.41, 0.73, 11.61, 0.00
 435 (246-215) [l=140 cm] - Z.
 246, 0.00, 0.00, 14.69, 23.23, 3.17, 0.00
 215, 0.00, 0.00, 18.25, 23.23, 20.06, 0.00
 436 (215-352) [l=140 cm] - Z.
 215, 0.00, 0.00, 16.26, 22.76, 29.97, 0.00
 352, 0.00, 0.00, 18.02, 22.76, 17.58, 0.00
 437 (352-218) [l=140 cm] - Z.
 352, 0.00, 0.00, 18.02, 22.76, 17.58, 0.00
 218, 0.00, 0.00, 18.90, 22.76, 27.54, 0.00
 438 (218-353) [l=140 cm] - Z.
 218, 0.00, 0.00, 18.90, 22.76, 27.54, 0.00
 353, 0.00, 0.00, 18.02, 22.76, 17.58, 0.00
 439 (353-221) [l=140 cm] - Z.
 353, 0.00, 0.00, 18.02, 22.76, 17.57, 0.00
 221, 0.00, 0.00, 16.26, 22.76, 29.94, 0.00
 440 (221-223) [l=140 cm] - Z.
 221, 0.00, 0.00, 18.25, 23.19, 20.06, 0.00
 223, 0.00, 0.00, 14.68, 23.19, 3.17, 0.00
 441 (227-306) [l=181 cm] - Z.
 227, 0.00, 0.00, 4.82, 0.19, 2.48, 0.00
 306, 0.00, 0.00, 0.45, 0.19, 1.98, 0.00
 442 (306-304) [l=140 cm] - Z.
 306, 0.00, 0.00, 0.61, 0.18, 2.03, 0.00
 304, 0.00, 0.00, 1.22, 0.18, 1.46, 0.00
 443 (308-242) [l=181 cm] - Z.

308, 0.00, 0.00, 0.45, 0.19, 1.98, 0.00
 242, 0.00, 0.00, 4.82, 0.19, 2.48, 0.00
 444 (304-310) [l=200 cm] - Z.
 304, 0.00, 0.00, 1.22, 0.17, 1.52, 0.00
 310, 0.00, 0.00, 1.22, 0.17, 1.52, 0.00
 445 (310-308) [l=140 cm] - Z.
 310, 0.00, 0.00, 1.22, 0.18, 1.46, 0.00
 308, 0.00, 0.00, 0.61, 0.18, 2.03, 0.00
 446 (312-230) [l=181 cm] - Z.
 312, 0.00, 0.00, 0.33, 0.31, 2.19, 0.00
 230, 0.00, 0.00, 4.64, 0.31, 2.02, 0.00
 447 (314-312) [l=140 cm] - Z.
 314, 0.00, 0.00, 1.29, 0.29, 1.51, 0.00
 312, 0.00, 0.00, 0.49, 0.29, 2.24, 0.00
 448 (316-314) [l=200 cm] - Z.
 316, 0.00, 0.00, 1.29, 0.29, 1.57, 0.00
 314, 0.00, 0.00, 1.29, 0.29, 1.57, 0.00
 449 (239-318) [l=181 cm] - Z.
 239, 0.00, 0.00, 4.64, 0.31, 2.02, 0.00
 318, 0.00, 0.00, 0.33, 0.31, 2.19, 0.00
 450 (318-316) [l=140 cm] - Z.
 318, 0.00, 0.00, 0.49, 0.29, 2.24, 0.00
 316, 0.00, 0.00, 1.29, 0.29, 1.51, 0.00
 451 (26-147) [l=62 cm] - K.
 26, 7.12, 10.41, 0.02, 0.00, 0.17, 84.37
 147, 7.12, 10.41, 0.02, 0.00, 0.16, 77.91
 452 (29-282) [l=250 cm] - K.
 29, 0.05, 0.11, 0.03, 0.00, 0.12, 0.38
 282, 0.05, 0.11, 0.03, 0.00, 0.04, 0.11
 453 (36-294) [l=250 cm] - K.
 36, 0.05, 0.10, 0.03, 0.00, 0.12, 0.36
 294, 0.05, 0.10, 0.03, 0.00, 0.04, 0.11
 454 (39-144) [l=62 cm] - K.
 39, 5.11, 9.40, 0.02, 0.00, 0.18, 76.19
 144, 5.11, 9.40, 0.02, 0.00, 0.17, 70.36
 455 (101-303) [l=250 cm] - K.
 101, 0.05, 0.10, 0.03, 0.00, 0.12, 0.36
 303, 0.05, 0.10, 0.03, 0.00, 0.04, 0.11
 456 (108-287) [l=250 cm] - K.
 108, 0.05, 0.11, 0.03, 0.00, 0.12, 0.38
 287, 0.05, 0.11, 0.03, 0.00, 0.04, 0.11
 457 (111-152) [l=62 cm] - K.
 111, 7.12, 10.41, 0.02, 0.00, 0.17, 84.37
 152, 7.12, 10.41, 0.02, 0.00, 0.16, 77.92
 458 (280-354) [l=0 cm] - T.
 280, 0.01, 0.04, 16.52, 0.00, 0.02, 0.00
 354, 0.01, 0.04, 16.52, 0.00, 0.02, 0.00
 459 (204-354) [l=30 cm] - K.
 204, 16.26, 0.00, 0.00, 0.00, 0.01, 0.01
 354, 16.26, 0.00, 0.00, 0.00, 0.01, 0.01
 460 (155-247) [l=188 cm] - K.
 155, 0.00, 0.00, 2.41, 67.54, 75.84, 0.00
 247, 0.00, 0.00, 2.41, 67.54, 71.46, 0.00
 461 (247-154) [l=104 cm] - K.
 247, 0.00, 0.00, 3.33, 67.55, 71.46, 0.00
 154, 0.00, 0.00, 3.33, 67.55, 68.70, 0.00
 462 (276-355) [l=395 cm] - T.
 276, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 355, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 463 (247-355) [l=30 cm] - K.
 247, 1.04, 0.00, 0.00, 0.00, 0.00, 0.00
 355, 1.04, 0.00, 0.00, 0.00, 0.00, 0.00
 464 (203-249) [l=104 cm] - K.
 203, 0.00, 0.00, 3.33, 67.55, 68.71, 0.00
 249, 0.00, 0.00, 3.33, 67.55, 71.48, 0.00
 465 (249-201) [l=188 cm] - K.
 249, 0.00, 0.00, 2.42, 67.54, 71.48, 0.00
 201, 0.00, 0.00, 2.42, 67.54, 75.85, 0.00
 466 (354-356) [l=395 cm] - T.
 354, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 356, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 467 (249-356) [l=30 cm] - K.
 249, 1.04, 0.00, 0.00, 0.00, 0.00, 0.00
 356, 1.04, 0.00, 0.00, 0.00, 0.00, 0.00
 468 (201-251) [l=182 cm] - K.
 201, 0.00, 0.00, 2.42, 67.54, 75.85, 0.00
 251, 0.00, 0.00, 2.42, 67.54, 80.12, 0.00
 469 (251-200) [l=108 cm] - K.
 251, 0.00, 0.00, 2.98, 67.53, 80.12, 0.00
 200, 0.00, 0.00, 2.98, 67.53, 82.25, 0.00
 470 (356-357) [l=370 cm] - T.
 356, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 357, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 471 (251-357) [l=30 cm] - K.
 251, 0.96, 0.00, 0.00, 0.00, 0.00, 0.00
 357, 0.96, 0.00, 0.00, 0.00, 0.00, 0.00

472 (158-252) [l=108 cm] - K.
 158, 0.00, 0.00, 2.98, 67.53, 82.23, 0.00
 252, 0.00, 0.00, 2.98, 67.53, 80.09, 0.00
 473 (252-155) [l=182 cm] - K.
 252, 0.00, 0.00, 2.41, 67.54, 80.09, 0.00
 155, 0.00, 0.00, 2.41, 67.54, 75.84, 0.00
 474 (355-358) [l=370 cm] - T.
 355, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 358, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 475 (252-358) [l=30 cm] - K.
 252, 0.96, 0.00, 0.00, 0.00, 0.00, 0.00
 358, 0.96, 0.00, 0.00, 0.00, 0.00, 0.00
 476 (200-254) [l=262 cm] - K.
 200, 0.00, 0.00, 5.64, 68.29, 79.72, 0.00
 254, 0.00, 0.00, 5.64, 68.29, 65.18, 0.00
 477 (254-198) [l=28 cm] - K.
 254, 0.00, 0.00, 6.16, 68.28, 65.18, 0.00
 198, 0.00, 0.00, 6.16, 68.28, 63.55, 0.00
 478 (357-359) [l=370 cm] - T.
 357, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 359, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 479 (254-359) [l=30 cm] - K.
 254, 0.91, 0.00, 0.00, 0.00, 0.00, 0.00
 359, 0.91, 0.00, 0.00, 0.00, 0.00, 0.00
 480 (159-255) [l=28 cm] - K.
 159, 0.00, 0.00, 6.16, 68.28, 63.53, 0.00
 255, 0.00, 0.00, 6.16, 68.28, 65.18, 0.00
 481 (255-158) [l=262 cm] - K.
 255, 0.00, 0.00, 5.64, 68.28, 65.18, 0.00
 158, 0.00, 0.00, 5.64, 68.28, 79.71, 0.00
 482 (358-360) [l=370 cm] - T.
 358, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 360, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 483 (255-360) [l=30 cm] - K.
 255, 0.91, 0.00, 0.00, 0.00, 0.00, 0.00
 360, 0.91, 0.00, 0.00, 0.00, 0.00, 0.00
 484 (197-257) [l=110 cm] - K.
 197, 0.00, 0.00, 8.49, 68.86, 48.68, 0.00
 257, 0.00, 0.00, 8.49, 68.86, 39.44, 0.00
 485 (257-195) [l=123 cm] - K.
 257, 0.00, 0.00, 8.92, 68.86, 39.44, 0.00
 195, 0.00, 0.00, 8.92, 68.86, 28.86, 0.00
 486 (359-361) [l=370 cm] - T.
 359, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 361, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 487 (257-361) [l=30 cm] - K.
 257, 0.86, 0.00, 0.00, 0.00, 0.00, 0.00
 361, 0.86, 0.00, 0.00, 0.00, 0.00, 0.00
 488 (162-258) [l=123 cm] - K.
 162, 0.00, 0.00, 8.91, 68.86, 28.85, 0.00
 258, 0.00, 0.00, 8.91, 68.86, 39.44, 0.00
 489 (258-161) [l=110 cm] - K.
 258, 0.00, 0.00, 8.49, 68.86, 39.44, 0.00
 161, 0.00, 0.00, 8.49, 68.86, 48.66, 0.00
 490 (360-362) [l=370 cm] - T.
 360, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 362, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 491 (258-362) [l=30 cm] - K.
 258, 0.86, 0.00, 0.00, 0.00, 0.00, 0.00
 362, 0.86, 0.00, 0.00, 0.00, 0.00, 0.00
 492 (164-259) [l=0 cm] - K.
 164, 0.00, 0.00, 4.75, 34.55, 4.54, 0.00
 259, 0.00, 0.00, 4.75, 34.55, 4.55, 0.00
 493 (259-163) [l=122 cm] - K.
 259, 0.00, 0.00, 9.02, 69.15, 9.11, 0.00
 163, 0.00, 0.00, 9.02, 69.15, 18.48, 0.00
 494 (362-363) [l=368 cm] - T.
 362, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 363, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 495 (259-363) [l=30 cm] - K.
 259, 0.77, 0.00, 0.00, 0.00, 0.00, 0.00
 363, 0.77, 0.00, 0.00, 0.00, 0.00, 0.00
 496 (171-261) [l=73 cm] - K.
 171, 0.00, 0.00, 8.03, 69.75, 62.35, 0.00
 261, 0.00, 0.00, 8.03, 69.75, 56.63, 0.00
 497 (261-169) [l=158 cm] - K.
 261, 0.00, 0.00, 7.53, 69.75, 56.63, 0.00
 169, 0.00, 0.00, 7.53, 69.75, 45.08, 0.00
 498 (261-364) [l=30 cm] - K.
 261, 0.90, 0.00, 0.00, 0.00, 0.00, 0.00
 364, 0.90, 0.00, 0.00, 0.00, 0.00, 0.00
 499 (188-263) [l=157 cm] - K.
 188, 0.00, 0.00, 7.53, 69.75, 45.08, 0.00
 263, 0.00, 0.00, 7.53, 69.75, 56.61, 0.00
 500 (263-187) [l=73 cm] - K.
 263, 0.00, 0.00, 8.03, 69.75, 56.61, 0.00

187, 0.00, 0.00, 8.03, 69.75, 62.35, 0.00
 501 (263-365) [l=30 cm] - K.
 263, 0.90, 0.00, 0.00, 0.00, 0.00, 0.00
 365, 0.90, 0.00, 0.00, 0.00, 0.00, 0.00
 502 (174-264) [l=243 cm] - K.
 174, 0.00, 0.00, 4.11, 70.27, 82.90, 0.00
 264, 0.00, 0.00, 4.11, 70.27, 73.42, 0.00
 503 (264-172) [l=67 cm] - K.
 264, 0.00, 0.00, 3.69, 70.27, 73.42, 0.00
 172, 0.00, 0.00, 3.69, 70.27, 71.08, 0.00
 504 (364-366) [l=370 cm] - T.
 364, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 366, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 505 (264-366) [l=30 cm] - K.
 264, 0.91, 0.00, 0.00, 0.00, 0.00, 0.00
 366, 0.91, 0.00, 0.00, 0.00, 0.00, 0.00
 506 (185-266) [l=67 cm] - K.
 185, 0.00, 0.00, 3.69, 70.27, 71.08, 0.00
 266, 0.00, 0.00, 3.69, 70.27, 73.41, 0.00
 507 (266-184) [l=243 cm] - K.
 266, 0.00, 0.00, 4.12, 70.28, 73.41, 0.00
 184, 0.00, 0.00, 4.12, 70.28, 82.90, 0.00
 508 (365-367) [l=370 cm] - T.
 365, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 367, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 509 (266-367) [l=30 cm] - K.
 266, 0.91, 0.00, 0.00, 0.00, 0.00, 0.00
 367, 0.91, 0.00, 0.00, 0.00, 0.00, 0.00
 510 (175-267) [l=183 cm] - K.
 175, 0.00, 0.00, 4.89, 70.95, 69.49, 0.00
 267, 0.00, 0.00, 4.89, 70.95, 78.20, 0.00
 511 (267-174) [l=127 cm] - K.
 267, 0.00, 0.00, 5.78, 70.94, 78.20, 0.00
 174, 0.00, 0.00, 5.78, 70.94, 84.87, 0.00
 512 (366-368) [l=370 cm] - T.
 366, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 368, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 513 (267-368) [l=30 cm] - K.
 267, 0.96, 0.00, 0.00, 0.00, 0.00, 0.00
 368, 0.96, 0.00, 0.00, 0.00, 0.00, 0.00
 514 (184-269) [l=127 cm] - K.
 184, 0.00, 0.00, 5.78, 70.95, 84.87, 0.00
 269, 0.00, 0.00, 5.78, 70.95, 78.22, 0.00
 515 (269-181) [l=183 cm] - K.
 269, 0.00, 0.00, 4.89, 70.96, 78.22, 0.00
 181, 0.00, 0.00, 4.89, 70.96, 69.50, 0.00
 516 (367-369) [l=370 cm] - T.
 367, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 369, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 517 (269-369) [l=30 cm] - K.
 269, 0.96, 0.00, 0.00, 0.00, 0.00, 0.00
 369, 0.96, 0.00, 0.00, 0.00, 0.00, 0.00
 518 (181-271) [l=187 cm] - K.
 181, 0.00, 0.00, 4.89, 70.96, 69.50, 0.00
 271, 0.00, 0.00, 4.89, 70.96, 60.67, 0.00
 519 (271-180) [l=104 cm] - K.
 271, 0.00, 0.00, 4.76, 70.96, 60.67, 0.00
 180, 0.00, 0.00, 4.76, 70.96, 56.26, 0.00
 520 (369-370) [l=370 cm] - T.
 369, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 370, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 521 (370-279) [l=395 cm] - T.
 370, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 279, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 522 (271-370) [l=30 cm] - K.
 271, 1.04, 0.00, 0.00, 0.00, 0.00, 0.00
 370, 1.04, 0.00, 0.00, 0.00, 0.00, 0.00
 523 (177-272) [l=104 cm] - K.
 177, 0.00, 0.00, 4.76, 70.96, 56.25, 0.00
 272, 0.00, 0.00, 4.76, 70.96, 60.66, 0.00
 524 (272-175) [l=187 cm] - K.
 272, 0.00, 0.00, 4.89, 70.95, 60.66, 0.00
 175, 0.00, 0.00, 4.89, 70.95, 69.49, 0.00
 525 (368-371) [l=370 cm] - T.
 368, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 371, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 526 (371-277) [l=395 cm] - T.
 371, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 277, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 527 (272-371) [l=30 cm] - K.
 272, 1.04, 0.00, 0.00, 0.00, 0.00, 0.00
 371, 1.04, 0.00, 0.00, 0.00, 0.00, 0.00
 528 (194-289) [l=122 cm] - K.
 194, 0.00, 0.00, 9.02, 69.16, 18.50, 0.00
 289, 0.00, 0.00, 9.02, 69.16, 9.12, 0.00
 529 (289-193) [l=0 cm] - K.

289, 0.00, 0.00, 4.75, 34.56, 4.56, 0.00
 193, 0.00, 0.00, 4.75, 34.56, 4.55, 0.00
 530 (361-372) [l=367 cm] - T.
 361, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 372, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 531 (289-372) [l=30 cm] - K.
 289, 0.77, 0.00, 0.00, 0.00, 0.00, 0.00
 372, 0.77, 0.00, 0.00, 0.00, 0.00, 0.00
 532 (192-298) [l=165 cm] - K.
 192, 0.00, 0.00, 8.54, 69.51, 15.49, 0.00
 298, 0.00, 0.00, 8.54, 69.51, 25.60, 0.00
 533 (298-190) [l=0 cm] - K.
 298, 0.00, 0.00, 4.49, 34.73, 12.80, 0.00
 190, 0.00, 0.00, 4.49, 34.73, 12.81, 0.00
 534 (372-373) [l=330 cm] - T.
 372, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 373, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 535 (373-365) [l=402 cm] - T.
 373, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 365, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 536 (298-373) [l=30 cm] - K.
 298, 0.80, 0.00, 0.00, 0.00, 0.00, 0.00
 373, 0.80, 0.00, 0.00, 0.00, 0.00, 0.00
 537 (167-301) [l=0 cm] - K.
 167, 0.00, 0.00, 4.49, 34.73, 12.81, 0.00
 301, 0.00, 0.00, 4.49, 34.73, 12.80, 0.00
 538 (301-166) [l=165 cm] - K.
 301, 0.00, 0.00, 8.54, 69.50, 25.61, 0.00
 166, 0.00, 0.00, 8.54, 69.50, 15.50, 0.00
 539 (363-374) [l=330 cm] - T.
 363, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 374, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 540 (374-364) [l=402 cm] - T.
 374, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 364, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 541 (301-374) [l=30 cm] - K.
 301, 0.80, 0.00, 0.00, 0.00, 0.00, 0.00
 374, 0.80, 0.00, 0.00, 0.00, 0.00, 0.00
 542 (305-284) [l=400 cm] - K.
 305, 0.03, 0.03, 0.01, 0.00, 0.06, 0.25
 284, 0.03, 0.03, 0.01, 0.00, 0.03, 0.14
 543 (307-283) [l=350 cm] - K.
 307, 0.14, 0.04, 0.01, 0.00, 0.09, 0.24
 283, 0.14, 0.04, 0.01, 0.00, 0.04, 0.11
 544 (309-285) [l=350 cm] - K.
 309, 0.14, 0.04, 0.01, 0.00, 0.09, 0.24
 285, 0.14, 0.04, 0.01, 0.00, 0.04, 0.11
 545 (311-286) [l=400 cm] - K.
 311, 0.03, 0.03, 0.01, 0.00, 0.06, 0.25
 286, 0.03, 0.03, 0.01, 0.00, 0.03, 0.14
 546 (313-292) [l=350 cm] - K.
 313, 0.15, 0.04, 0.01, 0.00, 0.09, 0.23
 292, 0.15, 0.04, 0.01, 0.00, 0.04, 0.10
 547 (315-293) [l=400 cm] - K.
 315, 0.03, 0.03, 0.01, 0.00, 0.06, 0.24
 293, 0.03, 0.03, 0.01, 0.00, 0.03, 0.14
 548 (317-295) [l=400 cm] - K.
 317, 0.03, 0.03, 0.01, 0.00, 0.06, 0.24
 295, 0.03, 0.03, 0.01, 0.00, 0.03, 0.14
 549 (319-302) [l=350 cm] - K.
 319, 0.15, 0.04, 0.01, 0.00, 0.09, 0.23
 302, 0.15, 0.04, 0.01, 0.00, 0.04, 0.10

--> Deformazioni nelle Aste (v=sy, w=sz, fiy, fiz) (yz=assi locali) [mm, mrad]

1 (1-i'-j'-2) [l=500 cm] [Piano XZ: 184 rig.-288 def.-28 rig.] - M.
 1, 0.000E+00, 0.000E+00, 9.825E-03, 7.788E-02
 i', 0.000E+00, 1.805E-02, 9.825E-03, 7.788E-02
 j', 4.768E-01, 7.299E-02, 8.729E-03, 7.832E-02
 2, 4.768E-01, 7.446E-02, 8.729E-03, 7.832E-02
 2 (1-3) [l=90 cm] [90 def.] - K.
 1, 0.000E+00, 3.782E-01, 9.825E-03, 0.000E+00
 i', 0.000E+00, 3.782E-01, 9.825E-03, 0.000E+00
 j', 0.000E+00, 3.756E-01, 9.825E-03, 0.000E+00 - K.
 3, 0.000E+00, 3.756E-01, 9.825E-03, 0.000E+00
 3 (4-2) [l=90 cm] [90 def.]
 4, 4.777E-01, 3.839E-01, 8.729E-03, 1.063E-03
 i', 4.777E-01, 3.839E-01, 8.729E-03, 1.063E-03 - K.
 j', 4.768E-01, 3.815E-01, 8.729E-03, 1.063E-03
 2, 4.768E-01, 3.815E-01, 8.729E-03, 1.063E-03
 4 (2-5) [l=90 cm] [90 def.]
 2, 4.768E-01, 3.815E-01, 8.729E-03, 1.063E-03 - M.
 i', 4.768E-01, 3.815E-01, 8.729E-03, 1.063E-03
 j', 4.758E-01, 3.792E-01, 8.730E-03, 1.063E-03
 5, 4.758E-01, 3.792E-01, 8.730E-03, 1.063E-03 - K.
 5 (6-i'-j'-7) [l=500 cm] [Piano XZ: 185 rig.-287 def.-29 rig.]

6, 0.000E+00, 0.000E+00, 9.219E-03, 8.925E-02
i', 0.000E+00, 1.706E-02, 9.219E-03, 8.925E-02 - K.
j', 4.726E-01, 7.298E-02, 8.731E-03, 7.832E-02
7, 4.726E-01, 7.446E-02, 8.731E-03, 7.832E-02
6 (8-6) [l=88 cm][88 def.]
8, 0.000E+00, 3.651E-01, 9.219E-03, 0.000E+00 - K.
i', 0.000E+00, 3.651E-01, 9.219E-03, 0.000E+00
j', 0.000E+00, 3.617E-01, 9.219E-03, 0.000E+00
6, 0.000E+00, 3.617E-01, 9.219E-03, 0.000E+00 - F.
7 (9-7) [l=88 cm][88 def.]
9, 4.735E-01, 3.732E-01, 8.731E-03, 1.063E-03
i', 4.735E-01, 3.732E-01, 8.731E-03, 1.063E-03 - S.
j', 4.726E-01, 3.709E-01, 8.731E-03, 1.063E-03
7, 4.726E-01, 3.709E-01, 8.731E-03, 1.063E-03
8 (7-10) [l=88 cm][88 def.]
7, 4.726E-01, 3.709E-01, 8.731E-03, 1.063E-03 - M.
i', 4.726E-01, 3.709E-01, 8.731E-03, 1.063E-03
j', 4.717E-01, 3.685E-01, 8.731E-03, 1.063E-03
10, 4.717E-01, 3.685E-01, 8.731E-03, 1.063E-03 - K.
9 (3-8) [l=227 cm][227 def.]
3, 0.000E+00, 3.756E-01, 9.825E-03, 0.000E+00
i', 0.000E+00, 3.756E-01, 9.825E-03, 0.000E+00 - K.
j', 0.000E+00, 3.651E-01, 9.219E-03, 0.000E+00
8, 0.000E+00, 3.651E-01, 9.219E-03, 0.000E+00
10 (5-9) [l=227 cm][227 def.]
5, 4.758E-01, 3.792E-01, 8.730E-03, 1.063E-03 - M.
i', 4.758E-01, 3.792E-01, 8.730E-03, 1.063E-03
j', 4.735E-01, 3.732E-01, 8.731E-03, 1.063E-03
9, 4.735E-01, 3.732E-01, 8.731E-03, 1.063E-03 - K.
11 (11-j'-12) [l=500 cm] [Piano XZ: 464 def.-36 rig.]
11, 0.000E+00, 0.000E+00, 9.219E-03, 8.925E-02
i', 0.000E+00, 0.000E+00, 9.219E-03, 8.925E-02 - K.
j', 4.707E-01, 7.261E-02, 8.731E-03, 7.832E-02
12, 4.707E-01, 7.446E-02, 8.731E-03, 7.832E-02
12 (10-12) [l=88 cm][88 def.]
10, 4.717E-01, 3.685E-01, 8.731E-03, 1.063E-03 - S.
i', 4.717E-01, 3.685E-01, 8.731E-03, 1.063E-03
j', 4.707E-01, 3.662E-01, 8.731E-03, 1.063E-03
12, 4.707E-01, 3.662E-01, 8.731E-03, 1.063E-03 - M.
13 (12-13) [l=88 cm][88 def.]
12, 4.707E-01, 3.662E-01, 8.731E-03, 1.063E-03
i', 4.707E-01, 3.662E-01, 8.731E-03, 1.063E-03 - K.
j', 4.698E-01, 3.639E-01, 8.731E-03, 1.063E-03
13, 4.698E-01, 3.639E-01, 8.731E-03, 1.063E-03
14 (14-j'-15) [l=500 cm] [Piano XZ: 464 def.-36 rig.]
14, 0.000E+00, 0.000E+00, 9.027E-03, 8.853E-02 - K.
i', 0.000E+00, 0.000E+00, 9.027E-03, 8.853E-02
j', 4.666E-01, 7.261E-02, 8.731E-03, 7.833E-02
15, 4.666E-01, 7.446E-02, 8.731E-03, 7.833E-02 - K.
15 (16-15) [l=88 cm][88 def.]
16, 4.675E-01, 3.579E-01, 8.731E-03, 1.063E-03
i', 4.675E-01, 3.579E-01, 8.731E-03, 1.063E-03 - M.
j', 4.666E-01, 3.556E-01, 8.731E-03, 1.063E-03
15, 4.666E-01, 3.556E-01, 8.731E-03, 1.063E-03
16 (15-17) [l=88 cm][88 def.]
15, 4.666E-01, 3.556E-01, 8.731E-03, 1.063E-03 - K.
i', 4.666E-01, 3.556E-01, 8.731E-03, 1.063E-03
j', 4.657E-01, 3.532E-01, 8.731E-03, 1.063E-03
17, 4.657E-01, 3.532E-01, 8.731E-03, 1.063E-03 - K.
17 (13-16) [l=227 cm][227 def.]
13, 4.698E-01, 3.639E-01, 8.731E-03, 1.063E-03
i', 4.698E-01, 3.639E-01, 8.731E-03, 1.063E-03 - K.
j', 4.675E-01, 3.579E-01, 8.731E-03, 1.063E-03
16, 4.675E-01, 3.579E-01, 8.731E-03, 1.063E-03
18 (18-i'-j'-19) [l=500 cm] [Piano XZ: 185 rig.-287 def.-28 rig.]
18, 0.000E+00, 0.000E+00, 9.028E-03, 8.853E-02 - F.
i', 0.000E+00, 1.671E-02, 9.028E-03, 8.853E-02
j', 4.647E-01, 7.298E-02, 8.731E-03, 7.833E-02
19, 4.647E-01, 7.446E-02, 8.731E-03, 7.833E-02 - S.
19 (18-20) [l=88 cm][88 def.]
18, 0.000E+00, 3.417E-01, 9.028E-03, 0.000E+00
i', 0.000E+00, 3.417E-01, 9.028E-03, 0.000E+00 - M.
j', 0.000E+00, 3.403E-01, 9.028E-03, 0.000E+00
20, 0.000E+00, 3.403E-01, 9.028E-03, 0.000E+00
20 (17-19) [l=88 cm][88 def.]
17, 4.657E-01, 3.532E-01, 8.731E-03, 1.063E-03 - K.
i', 4.657E-01, 3.532E-01, 8.731E-03, 1.063E-03
j', 4.647E-01, 3.509E-01, 8.731E-03, 1.063E-03
19, 4.647E-01, 3.509E-01, 8.731E-03, 1.063E-03 - K.
21 (19-21) [l=88 cm][88 def.]
19, 4.647E-01, 3.509E-01, 8.731E-03, 1.063E-03
i', 4.647E-01, 3.509E-01, 8.731E-03, 1.063E-03 - M.
j', 4.638E-01, 3.486E-01, 8.731E-03, 1.063E-03
21, 4.638E-01, 3.486E-01, 8.731E-03, 1.063E-03
22 (22-i'-j'-23) [l=500 cm] [Piano XZ: 255 rig.-191 def.-55 rig.]
22, 0.000E+00, 0.000E+00, 9.143E-03, 7.764E-02 - K.

i', 0.000E+00, 2.328E-02, 9.143E-03, 7.764E-02
 j', 4.612E-01, 7.167E-02, 8.731E-03, 7.834E-02
 23, 4.612E-01, 7.446E-02, 8.731E-03, 7.834E-02 - K.
 23 (24-22) [l=31 cm][31 def.]
 24, 0.000E+00, 3.359E-01, 9.143E-03, 0.000E+00
 i', 0.000E+00, 3.359E-01, 9.143E-03, 0.000E+00 - M.
 j', 0.000E+00, 3.345E-01, 9.143E-03, 0.000E+00
 22, 0.000E+00, 3.345E-01, 9.143E-03, 0.000E+00
 24 (25-23) [l=31 cm][31 def.]
 25, 4.615E-01, 3.426E-01, 8.731E-03, 1.063E-03 - K.
 i', 4.615E-01, 3.426E-01, 8.731E-03, 1.063E-03
 j', 4.612E-01, 3.418E-01, 8.731E-03, 1.063E-03
 23, 4.612E-01, 3.418E-01, 8.731E-03, 1.063E-03 - K.
 25 (23-26) [l=31 cm][31 def.]
 23, 4.612E-01, 3.418E-01, 8.731E-03, 1.063E-03
 i', 4.612E-01, 3.418E-01, 8.731E-03, 1.063E-03 - S.
 j', 4.608E-01, 3.410E-01, 8.731E-03, 1.063E-03
 26, 4.608E-01, 3.410E-01, 8.731E-03, 1.063E-03
 26 (20-24) [l=227 cm][227 def.]
 20, 0.000E+00, 3.403E-01, 9.028E-03, 0.000E+00 - M.
 i', 0.000E+00, 3.403E-01, 9.028E-03, 0.000E+00
 j', 0.000E+00, 3.359E-01, 9.143E-03, 0.000E+00
 24, 0.000E+00, 3.359E-01, 9.143E-03, 0.000E+00 - K.
 27 (21-25) [l=227 cm][227 def.]
 21, 4.638E-01, 3.486E-01, 8.731E-03, 1.063E-03
 i', 4.638E-01, 3.486E-01, 8.731E-03, 1.063E-03 - K.
 j', 4.615E-01, 3.426E-01, 8.731E-03, 1.063E-03
 25, 4.615E-01, 3.426E-01, 8.731E-03, 1.063E-03
 28 (27-28) [l=500 cm][500 def.]
 27, 0.000E+00, 0.000E+00, 9.145E-03, 7.764E-02 - M.
 i', 0.000E+00, 0.000E+00, 9.145E-03, 7.764E-02
 j', 4.596E-01, 7.446E-02, 8.731E-03, 7.834E-02
 28, 4.596E-01, 7.446E-02, 8.731E-03, 7.834E-02 - K.
 29 (26-28) [l=123 cm][123 def.]
 26, 4.608E-01, 3.410E-01, 8.731E-03, 1.063E-03
 i', 4.608E-01, 3.410E-01, 8.731E-03, 1.063E-03 - K.
 j', 4.596E-01, 3.378E-01, 8.731E-03, 1.063E-03
 28, 4.596E-01, 3.378E-01, 8.731E-03, 1.063E-03
 30 (28-29) [l=123 cm][123 def.]
 28, 4.596E-01, 3.378E-01, 8.731E-03, 1.063E-03 - K.
 i', 4.596E-01, 3.378E-01, 8.731E-03, 1.063E-03
 j', 4.583E-01, 3.346E-01, 8.730E-03, 1.063E-03
 29, 4.583E-01, 3.346E-01, 8.730E-03, 1.063E-03 - M.
 31 (30-j'-31) [l=500 cm] [Piano XZ: 436 def.-64 rig.]
 30, 0.000E+00, 0.000E+00, 9.146E-03, 7.765E-02
 i', 0.000E+00, 0.000E+00, 9.146E-03, 7.765E-02 - K.
 j', 4.580E-01, 7.119E-02, 8.730E-03, 7.834E-02
 31, 4.580E-01, 7.446E-02, 8.730E-03, 7.834E-02
 32 (29-31) [l=26 cm][26 def.]
 29, 4.583E-01, 3.346E-01, 8.730E-03, 1.063E-03 - K.
 i', 4.583E-01, 3.346E-01, 8.730E-03, 1.063E-03
 j', 4.580E-01, 3.339E-01, 8.730E-03, 1.063E-03
 31, 4.580E-01, 3.339E-01, 8.730E-03, 1.063E-03 - K.
 33 (31-32) [l=26 cm][26 def.]
 31, 4.580E-01, 3.339E-01, 8.730E-03, 1.063E-03
 i', 4.580E-01, 3.339E-01, 8.730E-03, 1.063E-03 - F.
 j', 4.578E-01, 3.332E-01, 8.730E-03, 1.063E-03
 32, 4.578E-01, 3.332E-01, 8.730E-03, 1.063E-03
 34 (33-j'-34) [l=500 cm] [Piano XZ: 436 def.-64 rig.]
 33, 0.000E+00, 0.000E+00, 9.475E-03, 7.807E-02 - S.
 i', 0.000E+00, 0.000E+00, 9.475E-03, 7.807E-02
 j', 4.554E-01, 7.120E-02, 8.730E-03, 7.834E-02
 34, 4.554E-01, 7.446E-02, 8.730E-03, 7.834E-02 - M.
 35 (35-34) [l=26 cm][26 def.]
 35, 4.554E-01, 3.314E-01, 8.730E-03, 1.063E-03
 i', 4.554E-01, 3.314E-01, 8.730E-03, 1.063E-03 - K.
 j', 4.554E-01, 3.321E-01, 8.730E-03, 1.063E-03
 34, 4.554E-01, 3.321E-01, 8.730E-03, 1.063E-03
 36 (34-36) [l=26 cm][26 def.]
 34, 4.554E-01, 3.321E-01, 8.730E-03, 1.063E-03 - K.
 i', 4.554E-01, 3.321E-01, 8.730E-03, 1.063E-03
 j', 4.554E-01, 3.327E-01, 8.730E-03, 1.063E-03
 36, 4.554E-01, 3.327E-01, 8.730E-03, 1.063E-03 - M.
 37 (32-35) [l=227 cm][227 def.]
 32, 4.578E-01, 3.332E-01, 8.730E-03, 1.063E-03
 i', 4.578E-01, 3.332E-01, 8.730E-03, 1.063E-03 - K.
 j', 4.554E-01, 3.314E-01, 8.730E-03, 1.063E-03
 35, 4.554E-01, 3.314E-01, 8.730E-03, 1.063E-03
 38 (37-38) [l=500 cm][500 def.]
 37, 0.000E+00, 0.000E+00, 9.475E-03, 7.807E-02 - K.
 i', 0.000E+00, 0.000E+00, 9.475E-03, 7.807E-02
 j', 4.557E-01, 7.446E-02, 8.730E-03, 7.834E-02
 38, 4.557E-01, 7.446E-02, 8.730E-03, 7.834E-02 - S.
 39 (36-38) [l=122 cm][122 def.]
 36, 4.554E-01, 3.327E-01, 8.730E-03, 1.063E-03
 i', 4.554E-01, 3.327E-01, 8.730E-03, 1.063E-03 - M.

j', 4.557E-01, 3.358E-01, 8.730E-03, 1.063E-03
 38, 4.557E-01, 3.358E-01, 8.730E-03, 1.063E-03
 40 (38-39) [l=122 cm][122 def.]
 38, 4.557E-01, 3.358E-01, 8.730E-03, 1.063E-03 - K.
 i', 4.557E-01, 3.358E-01, 8.730E-03, 1.063E-03
 j', 4.560E-01, 3.390E-01, 8.729E-03, 1.063E-03
 39, 4.560E-01, 3.390E-01, 8.729E-03, 1.063E-03 - K.
 41 (40-i'-j'-41) [l=500 cm] [Piano XZ: 276 rig.-160 def.-64 rig.]
 40, 0.000E+00, 0.000E+00, 8.559E-03, 8.060E-02
 i', 0.000E+00, 2.365E-02, 8.559E-03, 8.060E-02 - K.
 j', 4.560E-01, 7.120E-02, 8.729E-03, 7.834E-02
 41, 4.560E-01, 7.446E-02, 8.729E-03, 7.834E-02
 42 (40-42) [l=18 cm][18 def.]
 40, 0.000E+00, 3.341E-01, 8.559E-03, 0.000E+00 - M.
 i', 0.000E+00, 3.341E-01, 8.559E-03, 0.000E+00
 j', 0.000E+00, 3.345E-01, 8.559E-03, 0.000E+00
 42, 0.000E+00, 3.345E-01, 8.559E-03, 0.000E+00 - K.
 43 (39-41) [l=18 cm][18 def.]
 39, 4.560E-01, 3.390E-01, 8.729E-03, 1.063E-03
 i', 4.560E-01, 3.390E-01, 8.729E-03, 1.063E-03 - K.
 j', 4.560E-01, 3.395E-01, 8.729E-03, 1.063E-03
 41, 4.560E-01, 3.395E-01, 8.729E-03, 1.063E-03
 44 (41-43) [l=18 cm][18 def.]
 41, 4.560E-01, 3.395E-01, 8.729E-03, 1.063E-03 - K.
 i', 4.560E-01, 3.395E-01, 8.729E-03, 1.063E-03
 j', 4.561E-01, 3.399E-01, 8.729E-03, 1.063E-03
 43, 4.561E-01, 3.399E-01, 8.729E-03, 1.063E-03 - F.
 45 (44-i'-j'-45) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.]
 44, 0.000E+00, 0.000E+00, 9.107E-03, 8.929E-02
 i', 0.000E+00, 1.590E-02, 9.107E-03, 8.929E-02 - S.
 j', 4.568E-01, 7.303E-02, 8.729E-03, 7.834E-02
 45, 4.568E-01, 7.446E-02, 8.729E-03, 7.834E-02
 46 (46-44) [l=98 cm][98 def.]
 46, 0.000E+00, 3.374E-01, 9.107E-03, 0.000E+00 - M.
 i', 0.000E+00, 3.374E-01, 9.107E-03, 0.000E+00
 j', 0.000E+00, 3.388E-01, 9.107E-03, 0.000E+00
 44, 0.000E+00, 3.388E-01, 9.107E-03, 0.000E+00 - K.
 47 (47-45) [l=98 cm][98 def.]
 47, 4.566E-01, 3.458E-01, 8.729E-03, 1.063E-03
 i', 4.566E-01, 3.458E-01, 8.729E-03, 1.063E-03 - K.
 j', 4.568E-01, 3.484E-01, 8.729E-03, 1.063E-03
 45, 4.568E-01, 3.484E-01, 8.729E-03, 1.063E-03
 48 (45-48) [l=98 cm][98 def.]
 45, 4.568E-01, 3.484E-01, 8.729E-03, 1.063E-03 - M.
 i', 4.568E-01, 3.484E-01, 8.729E-03, 1.063E-03
 j', 4.570E-01, 3.509E-01, 8.729E-03, 1.063E-03
 48, 4.570E-01, 3.509E-01, 8.729E-03, 1.063E-03 - K.
 49 (42-46) [l=227 cm][227 def.]
 42, 0.000E+00, 3.345E-01, 8.559E-03, 0.000E+00
 i', 0.000E+00, 3.345E-01, 8.559E-03, 0.000E+00 - K.
 j', 0.000E+00, 3.374E-01, 9.107E-03, 0.000E+00
 46, 0.000E+00, 3.374E-01, 9.107E-03, 0.000E+00
 50 (43-47) [l=227 cm][227 def.]
 43, 4.561E-01, 3.399E-01, 8.729E-03, 1.063E-03 - F.
 i', 4.561E-01, 3.399E-01, 8.729E-03, 1.063E-03
 j', 4.566E-01, 3.458E-01, 8.729E-03, 1.063E-03
 47, 4.566E-01, 3.458E-01, 8.729E-03, 1.063E-03 - S.
 51 (49-j'-50) [l=500 cm] [Piano XZ: 465 def.-35 rig.]
 49, 0.000E+00, 0.000E+00, 9.105E-03, 8.929E-02
 i', 0.000E+00, 0.000E+00, 9.105E-03, 8.929E-02 - M.
 j', 4.572E-01, 7.264E-02, 8.729E-03, 7.834E-02
 50, 4.572E-01, 7.446E-02, 8.729E-03, 7.834E-02
 52 (48-50) [l=98 cm][98 def.]
 48, 4.570E-01, 3.509E-01, 8.729E-03, 1.063E-03 - K.
 i', 4.570E-01, 3.509E-01, 8.729E-03, 1.063E-03
 j', 4.572E-01, 3.535E-01, 8.729E-03, 1.063E-03
 50, 4.572E-01, 3.535E-01, 8.729E-03, 1.063E-03 - K.
 53 (50-51) [l=98 cm][98 def.]
 50, 4.572E-01, 3.535E-01, 8.729E-03, 1.063E-03
 i', 4.572E-01, 3.535E-01, 8.729E-03, 1.063E-03 - K.
 j', 4.575E-01, 3.561E-01, 8.728E-03, 1.063E-03
 51, 4.575E-01, 3.561E-01, 8.728E-03, 1.063E-03
 54 (52-j'-53) [l=500 cm] [Piano XZ: 465 def.-35 rig.]
 52, 0.000E+00, 0.000E+00, 9.340E-03, 8.987E-02 - M.
 i', 0.000E+00, 0.000E+00, 9.340E-03, 8.987E-02
 j', 4.582E-01, 7.264E-02, 8.728E-03, 7.834E-02
 53, 4.582E-01, 7.446E-02, 8.728E-03, 7.834E-02 - K.
 55 (54-53) [l=98 cm][98 def.]
 54, 4.580E-01, 3.620E-01, 8.728E-03, 1.063E-03
 i', 4.580E-01, 3.620E-01, 8.728E-03, 1.063E-03 - K.
 j', 4.582E-01, 3.645E-01, 8.728E-03, 1.063E-03
 53, 4.582E-01, 3.645E-01, 8.728E-03, 1.063E-03
 56 (53-55) [l=98 cm][98 def.]
 53, 4.582E-01, 3.645E-01, 8.728E-03, 1.063E-03 - K.
 i', 4.582E-01, 3.645E-01, 8.728E-03, 1.063E-03
 j', 4.584E-01, 3.671E-01, 8.728E-03, 1.063E-03

55, 4.584E-01, 3.671E-01, 8.728E-03, 1.063E-03 - F.
 57 (51-54) [l=227 cm][227 def.]
 51, 4.575E-01, 3.561E-01, 8.728E-03, 1.063E-03
 i', 4.575E-01, 3.561E-01, 8.728E-03, 1.063E-03 - S.
 j', 4.580E-01, 3.620E-01, 8.728E-03, 1.063E-03
 54, 4.580E-01, 3.620E-01, 8.728E-03, 1.063E-03
 58 (56-i'-j'-57) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.]
 56, 0.000E+00, 0.000E+00, 9.340E-03, 8.987E-02 - M.
 i', 0.000E+00, 1.631E-02, 9.340E-03, 8.987E-02
 j', 4.587E-01, 7.303E-02, 8.728E-03, 7.834E-02
 57, 4.587E-01, 7.446E-02, 8.728E-03, 7.834E-02 - K.
 59 (56-58) [l=98 cm][98 def.]
 56, 0.000E+00, 3.598E-01, 9.340E-03, 0.000E+00
 i', 0.000E+00, 3.598E-01, 9.340E-03, 0.000E+00 - K.
 j', 0.000E+00, 3.637E-01, 9.340E-03, 0.000E+00
 58, 0.000E+00, 3.637E-01, 9.340E-03, 0.000E+00
 60 (55-57) [l=98 cm][98 def.]
 55, 4.584E-01, 3.671E-01, 8.728E-03, 1.063E-03 - M.
 i', 4.584E-01, 3.671E-01, 8.728E-03, 1.063E-03
 j', 4.587E-01, 3.697E-01, 8.728E-03, 1.063E-03
 57, 4.587E-01, 3.697E-01, 8.728E-03, 1.063E-03 - K.
 61 (57-59) [l=98 cm][98 def.]
 57, 4.587E-01, 3.697E-01, 8.728E-03, 1.063E-03
 i', 4.587E-01, 3.697E-01, 8.728E-03, 1.063E-03 - K.
 j', 4.589E-01, 3.722E-01, 8.728E-03, 1.063E-03
 59, 4.589E-01, 3.722E-01, 8.728E-03, 1.063E-03
 62 (60-i'-j'-61) [l=500 cm] [Piano XZ: 195 rig.-276 def.-29 rig.]
 60, 0.000E+00, 0.000E+00, 1.092E-02, 8.164E-02 - S.
 i', 0.000E+00, 2.126E-02, 1.092E-02, 8.164E-02
 j', 4.596E-01, 7.293E-02, 8.728E-03, 7.835E-02
 61, 4.596E-01, 7.446E-02, 8.728E-03, 7.835E-02 - M.
 63 (62-60) [l=80 cm][80 def.]
 62, 0.000E+00, 3.760E-01, 1.092E-02, 0.000E+00
 i', 0.000E+00, 3.760E-01, 1.092E-02, 0.000E+00 - K.
 j', 0.000E+00, 3.810E-01, 1.092E-02, 0.000E+00
 60, 0.000E+00, 3.810E-01, 1.092E-02, 0.000E+00
 64 (63-61) [l=80 cm][80 def.]
 63, 4.594E-01, 3.781E-01, 8.728E-03, 1.063E-03 - K.
 i', 4.594E-01, 3.781E-01, 8.728E-03, 1.063E-03
 j', 4.596E-01, 3.802E-01, 8.728E-03, 1.063E-03
 61, 4.596E-01, 3.802E-01, 8.728E-03, 1.063E-03 - K.
 65 (61-64) [l=80 cm][80 def.]
 61, 4.596E-01, 3.802E-01, 8.728E-03, 1.063E-03
 i', 4.596E-01, 3.802E-01, 8.728E-03, 1.063E-03 - M.
 j', 4.598E-01, 3.823E-01, 8.728E-03, 1.063E-03
 64, 4.598E-01, 3.823E-01, 8.728E-03, 1.063E-03
 66 (58-62) [l=227 cm][227 def.]
 58, 0.000E+00, 3.637E-01, 9.340E-03, 0.000E+00 - K.
 i', 0.000E+00, 3.637E-01, 9.340E-03, 0.000E+00
 j', 0.000E+00, 3.760E-01, 1.092E-02, 0.000E+00
 62, 0.000E+00, 3.760E-01, 1.092E-02, 0.000E+00 - K.
 67 (59-63) [l=227 cm][227 def.]
 59, 4.589E-01, 3.722E-01, 8.728E-03, 1.063E-03
 i', 4.589E-01, 3.722E-01, 8.728E-03, 1.063E-03 - K.
 j', 4.594E-01, 3.781E-01, 8.728E-03, 1.063E-03
 63, 4.594E-01, 3.781E-01, 8.728E-03, 1.063E-03
 68 (65-i'-j'-66) [l=500 cm] [Piano XZ: 127 rig.-350 def.-23 rig.]
 65, 0.000E+00, 0.000E+00, 8.164E-02, 1.092E-02 - F.
 i', 0.000E+00, 1.036E-01, 8.164E-02, 1.092E-02
 j', 7.381E-02, 4.421E-01, 7.835E-02, 8.728E-03
 66, 7.381E-02, 4.598E-01, 7.835E-02, 8.728E-03 - S.
 69 (65-67) [l=154 cm][154 def.]
 65, 0.000E+00, 2.608E-01, 8.164E-02, 0.000E+00
 i', 0.000E+00, 2.608E-01, 8.164E-02, 0.000E+00 - M.
 j', 0.000E+00, 1.979E-01, 8.164E-02, 0.000E+00
 67, 0.000E+00, 1.979E-01, 8.164E-02, 0.000E+00
 70 (64-66) [l=154 cm][154 def.]
 64, 7.446E-02, 3.823E-01, 7.835E-02, 1.063E-03 - K.
 i', 7.446E-02, 3.823E-01, 7.835E-02, 1.063E-03
 j', 7.381E-02, 2.618E-01, 7.835E-02, 1.063E-03
 66, 7.381E-02, 2.618E-01, 7.835E-02, 1.063E-03 - K.
 71 (69-i'-j'-70) [l=500 cm] [Piano XZ: 127 rig.-350 def.-23 rig.]
 69, 0.000E+00, 0.000E+00, 8.164E-02, 1.092E-02
 i', 0.000E+00, 1.036E-01, 8.164E-02, 1.092E-02 - M.
 j', 7.381E-02, 4.421E-01, 7.835E-02, 8.727E-03
 70, 7.381E-02, 4.598E-01, 7.835E-02, 8.727E-03
 72 (71-69) [l=154 cm][154 def.]
 71, 0.000E+00, 1.979E-01, 8.164E-02, 0.000E+00 - K.
 i', 0.000E+00, 1.979E-01, 8.164E-02, 0.000E+00
 j', 0.000E+00, 2.608E-01, 8.164E-02, 0.000E+00
 69, 0.000E+00, 2.608E-01, 8.164E-02, 0.000E+00 - K.
 73 (70-73) [l=154 cm][154 def.]
 70, 7.381E-02, 2.618E-01, 7.835E-02, 1.063E-03
 i', 7.381E-02, 2.618E-01, 7.835E-02, 1.063E-03 - M.
 j', 7.446E-02, 3.823E-01, 7.835E-02, 1.063E-03
 73, 7.446E-02, 3.823E-01, 7.835E-02, 1.063E-03

74 (67-71) [l=227 cm][227 def.]
67, 0.000E+00, 1.979E-01, 8.164E-02, 0.000E+00 - K.
i', 0.000E+00, 1.979E-01, 8.164E-02, 0.000E+00
j', 0.000E+00, 1.979E-01, 8.164E-02, 0.000E+00
71, 0.000E+00, 1.979E-01, 8.164E-02, 0.000E+00 - K.
75 (68-72) [l=227 cm][227 def.]
68, 7.316E-02, 2.042E-01, 7.835E-02, 1.063E-03
i', 7.316E-02, 2.042E-01, 7.835E-02, 1.063E-03 - S.
j', 7.316E-02, 2.042E-01, 7.835E-02, 1.063E-03
72, 7.316E-02, 2.042E-01, 7.835E-02, 1.063E-03
76 (74-i'-j'-75) [l=500 cm] [Piano XZ: 195 rig.-276 def.-29 rig.]
74, 0.000E+00, 0.000E+00, 1.092E-02, 8.164E-02 - M.
i', 0.000E+00, 2.127E-02, 1.092E-02, 8.164E-02
j', 4.596E-01, 7.293E-02, 8.727E-03, 7.834E-02
75, 4.596E-01, 7.446E-02, 8.727E-03, 7.834E-02 - K.
77 (74-76) [l=80 cm][80 def.]
74, 0.000E+00, 3.810E-01, 1.092E-02, 0.000E+00
i', 0.000E+00, 3.810E-01, 1.092E-02, 0.000E+00 - K.
j', 0.000E+00, 3.760E-01, 1.092E-02, 0.000E+00
76, 0.000E+00, 3.760E-01, 1.092E-02, 0.000E+00
78 (73-75) [l=80 cm][80 def.]
73, 4.598E-01, 3.823E-01, 8.727E-03, 1.063E-03 - M.
i', 4.598E-01, 3.823E-01, 8.727E-03, 1.063E-03
j', 4.596E-01, 3.802E-01, 8.727E-03, 1.063E-03
75, 4.596E-01, 3.802E-01, 8.727E-03, 1.063E-03 - K.
79 (75-77) [l=80 cm][80 def.]
75, 4.596E-01, 3.802E-01, 8.727E-03, 1.063E-03
i', 4.596E-01, 3.802E-01, 8.727E-03, 1.063E-03 - K.
j', 4.594E-01, 3.781E-01, 8.727E-03, 1.063E-03
77, 4.594E-01, 3.781E-01, 8.727E-03, 1.063E-03
80 (78-i'-j'-79) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.]
78, 0.000E+00, 0.000E+00, 9.341E-03, 8.987E-02 - K.
i', 0.000E+00, 1.631E-02, 9.341E-03, 8.987E-02
j', 4.587E-01, 7.303E-02, 8.728E-03, 7.834E-02
79, 4.587E-01, 7.446E-02, 8.728E-03, 7.834E-02 - M.
81 (80-78) [l=98 cm][98 def.]
80, 0.000E+00, 3.637E-01, 9.341E-03, 0.000E+00
i', 0.000E+00, 3.637E-01, 9.341E-03, 0.000E+00 - K.
j', 0.000E+00, 3.598E-01, 9.341E-03, 0.000E+00
78, 0.000E+00, 3.598E-01, 9.341E-03, 0.000E+00
82 (81-79) [l=98 cm][98 def.]
81, 4.589E-01, 3.722E-01, 8.728E-03, 1.063E-03 - K.
i', 4.589E-01, 3.722E-01, 8.728E-03, 1.063E-03
j', 4.587E-01, 3.697E-01, 8.728E-03, 1.063E-03
79, 4.587E-01, 3.697E-01, 8.728E-03, 1.063E-03 - K.
83 (79-82) [l=98 cm][98 def.]
79, 4.587E-01, 3.697E-01, 8.728E-03, 1.063E-03
i', 4.587E-01, 3.697E-01, 8.728E-03, 1.063E-03 - F.
j', 4.584E-01, 3.671E-01, 8.728E-03, 1.063E-03
82, 4.584E-01, 3.671E-01, 8.728E-03, 1.063E-03
84 (76-80) [l=227 cm][227 def.]
76, 0.000E+00, 3.760E-01, 1.092E-02, 0.000E+00 - S.
i', 0.000E+00, 3.760E-01, 1.092E-02, 0.000E+00
j', 0.000E+00, 3.637E-01, 9.341E-03, 0.000E+00
80, 0.000E+00, 3.637E-01, 9.341E-03, 0.000E+00 - M.
85 (77-81) [l=227 cm][227 def.]
77, 4.594E-01, 3.781E-01, 8.727E-03, 1.063E-03
i', 4.594E-01, 3.781E-01, 8.727E-03, 1.063E-03 - K.
j', 4.589E-01, 3.722E-01, 8.728E-03, 1.063E-03
81, 4.589E-01, 3.722E-01, 8.728E-03, 1.063E-03
86 (83-j'-84) [l=500 cm] [Piano XZ: 465 def.-35 rig.]
83, 0.000E+00, 0.000E+00, 9.340E-03, 8.987E-02 - K.
i', 0.000E+00, 0.000E+00, 9.340E-03, 8.987E-02
j', 4.582E-01, 7.264E-02, 8.728E-03, 7.834E-02
84, 4.582E-01, 7.446E-02, 8.728E-03, 7.834E-02 - M.
87 (82-84) [l=98 cm][98 def.]
82, 4.584E-01, 3.671E-01, 8.728E-03, 1.063E-03
i', 4.584E-01, 3.671E-01, 8.728E-03, 1.063E-03 - K.
j', 4.582E-01, 3.645E-01, 8.728E-03, 1.063E-03
84, 4.582E-01, 3.645E-01, 8.728E-03, 1.063E-03
88 (84-85) [l=98 cm][98 def.]
84, 4.582E-01, 3.645E-01, 8.728E-03, 1.063E-03 - K.
i', 4.582E-01, 3.645E-01, 8.728E-03, 1.063E-03
j', 4.580E-01, 3.620E-01, 8.728E-03, 1.063E-03
85, 4.580E-01, 3.620E-01, 8.728E-03, 1.063E-03 - S.
89 (86-j'-87) [l=500 cm] [Piano XZ: 465 def.-35 rig.]
86, 0.000E+00, 0.000E+00, 9.105E-03, 8.929E-02
i', 0.000E+00, 0.000E+00, 9.105E-03, 8.929E-02 - M.
j', 4.572E-01, 7.264E-02, 8.728E-03, 7.834E-02
87, 4.572E-01, 7.446E-02, 8.728E-03, 7.834E-02
90 (88-87) [l=98 cm][98 def.]
88, 4.575E-01, 3.561E-01, 8.728E-03, 1.063E-03 - K.
i', 4.575E-01, 3.561E-01, 8.728E-03, 1.063E-03
j', 4.572E-01, 3.535E-01, 8.728E-03, 1.063E-03
87, 4.572E-01, 3.535E-01, 8.728E-03, 1.063E-03 - K.
91 (87-89) [l=98 cm][98 def.]

87, 4.572E-01, 3.535E-01, 8.728E-03, 1.063E-03
 i', 4.572E-01, 3.535E-01, 8.728E-03, 1.063E-03 - K.
 j', 4.570E-01, 3.509E-01, 8.728E-03, 1.063E-03
 89, 4.570E-01, 3.509E-01, 8.728E-03, 1.063E-03
 92 (85-88) [l=227 cm][227 def.]
 85, 4.580E-01, 3.620E-01, 8.728E-03, 1.063E-03 - M.
 i', 4.580E-01, 3.620E-01, 8.728E-03, 1.063E-03
 j', 4.575E-01, 3.561E-01, 8.728E-03, 1.063E-03
 88, 4.575E-01, 3.561E-01, 8.728E-03, 1.063E-03 - K.
 93 (90-i'-j'-91) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.]
 90, 0.000E+00, 0.000E+00, 9.106E-03, 8.929E-02
 i', 0.000E+00, 1.590E-02, 9.106E-03, 8.929E-02 - K.
 j', 4.568E-01, 7.303E-02, 8.728E-03, 7.834E-02
 91, 4.568E-01, 7.446E-02, 8.728E-03, 7.834E-02
 94 (90-92) [l=98 cm][98 def.]
 90, 0.000E+00, 3.388E-01, 9.106E-03, 0.000E+00 - K.
 i', 0.000E+00, 3.388E-01, 9.106E-03, 0.000E+00
 j', 0.000E+00, 3.374E-01, 9.106E-03, 0.000E+00
 92, 0.000E+00, 3.374E-01, 9.106E-03, 0.000E+00 - F.
 95 (89-91) [l=98 cm][98 def.]
 89, 4.570E-01, 3.509E-01, 8.728E-03, 1.063E-03
 i', 4.570E-01, 3.509E-01, 8.728E-03, 1.063E-03 - S.
 j', 4.568E-01, 3.484E-01, 8.728E-03, 1.063E-03
 91, 4.568E-01, 3.484E-01, 8.728E-03, 1.063E-03
 96 (91-93) [l=98 cm][98 def.]
 91, 4.568E-01, 3.484E-01, 8.728E-03, 1.063E-03 - M.
 i', 4.568E-01, 3.484E-01, 8.728E-03, 1.063E-03
 j', 4.566E-01, 3.458E-01, 8.729E-03, 1.063E-03
 93, 4.566E-01, 3.458E-01, 8.729E-03, 1.063E-03 - K.
 97 (94-i'-j'-95) [l=500 cm] [Piano XZ: 276 rig.-160 def.-64 rig.]
 94, 0.000E+00, 0.000E+00, 8.558E-03, 8.060E-02
 i', 0.000E+00, 2.365E-02, 8.558E-03, 8.060E-02 - K.
 j', 4.560E-01, 7.120E-02, 8.729E-03, 7.834E-02
 95, 4.560E-01, 7.446E-02, 8.729E-03, 7.834E-02
 98 (96-94) [l=18 cm][18 def.]
 96, 0.000E+00, 3.345E-01, 8.558E-03, 0.000E+00 - M.
 i', 0.000E+00, 3.345E-01, 8.558E-03, 0.000E+00
 j', 0.000E+00, 3.341E-01, 8.558E-03, 0.000E+00
 94, 0.000E+00, 3.341E-01, 8.558E-03, 0.000E+00 - K.
 99 (97-95) [l=18 cm][18 def.]
 97, 4.561E-01, 3.399E-01, 8.729E-03, 1.063E-03
 i', 4.561E-01, 3.399E-01, 8.729E-03, 1.063E-03 - K.
 j', 4.560E-01, 3.395E-01, 8.729E-03, 1.063E-03
 95, 4.560E-01, 3.395E-01, 8.729E-03, 1.063E-03
 100 (95-98) [l=18 cm][18 def.]
 95, 4.560E-01, 3.395E-01, 8.729E-03, 1.063E-03 - S.
 i', 4.560E-01, 3.395E-01, 8.729E-03, 1.063E-03
 j', 4.560E-01, 3.390E-01, 8.729E-03, 1.063E-03
 98, 4.560E-01, 3.390E-01, 8.729E-03, 1.063E-03 - M.
 101 (92-96) [l=227 cm][227 def.]
 92, 0.000E+00, 3.374E-01, 9.106E-03, 0.000E+00
 i', 0.000E+00, 3.374E-01, 9.106E-03, 0.000E+00 - K.
 j', 0.000E+00, 3.345E-01, 8.558E-03, 0.000E+00
 96, 0.000E+00, 3.345E-01, 8.558E-03, 0.000E+00
 102 (93-97) [l=227 cm][227 def.]
 93, 4.566E-01, 3.458E-01, 8.729E-03, 1.063E-03 - K.
 i', 4.566E-01, 3.458E-01, 8.729E-03, 1.063E-03
 j', 4.561E-01, 3.399E-01, 8.729E-03, 1.063E-03
 97, 4.561E-01, 3.399E-01, 8.729E-03, 1.063E-03 - M.
 103 (99-100) [l=500 cm][500 def.]
 99, 0.000E+00, 0.000E+00, 9.475E-03, 7.807E-02
 i', 0.000E+00, 0.000E+00, 9.475E-03, 7.807E-02 - K.
 j', 4.557E-01, 7.446E-02, 8.729E-03, 7.834E-02
 100, 4.557E-01, 7.446E-02, 8.729E-03, 7.834E-02
 104 (98-100) [l=122 cm][122 def.]
 98, 4.560E-01, 3.390E-01, 8.729E-03, 1.063E-03 - K.
 i', 4.560E-01, 3.390E-01, 8.729E-03, 1.063E-03
 j', 4.557E-01, 3.358E-01, 8.729E-03, 1.063E-03
 100, 4.557E-01, 3.358E-01, 8.729E-03, 1.063E-03 - S.
 105 (100-101) [l=122 cm][122 def.]
 100, 4.557E-01, 3.358E-01, 8.729E-03, 1.063E-03
 i', 4.557E-01, 3.358E-01, 8.729E-03, 1.063E-03 - M.
 j', 4.554E-01, 3.327E-01, 8.729E-03, 1.063E-03
 101, 4.554E-01, 3.327E-01, 8.729E-03, 1.063E-03
 106 (102-j'-103) [l=500 cm] [Piano XZ: 436 def.-64 rig.]
 102, 0.000E+00, 0.000E+00, 9.475E-03, 7.807E-02 - K.
 i', 0.000E+00, 0.000E+00, 9.475E-03, 7.807E-02
 j', 4.554E-01, 7.120E-02, 8.730E-03, 7.834E-02
 103, 4.554E-01, 7.446E-02, 8.730E-03, 7.834E-02 - M.
 107 (101-103) [l=26 cm][26 def.]
 101, 4.554E-01, 3.327E-01, 8.729E-03, 1.063E-03
 i', 4.554E-01, 3.327E-01, 8.729E-03, 1.063E-03 - M.
 j', 4.554E-01, 3.320E-01, 8.730E-03, 1.063E-03
 103, 4.554E-01, 3.320E-01, 8.730E-03, 1.063E-03
 108 (103-104) [l=26 cm][26 def.]
 103, 4.554E-01, 3.320E-01, 8.730E-03, 1.063E-03 - K.

i', 4.554E-01, 3.320E-01, 8.730E-03, 1.063E-03
 j', 4.554E-01, 3.314E-01, 8.730E-03, 1.063E-03
 104, 4.554E-01, 3.314E-01, 8.730E-03, 1.063E-03 - M.
 109 (105-j'-106) [l=500 cm] [Piano XZ: 436 def.-64 rig.]
 105, 0.000E+00, 0.000E+00, 9.145E-03, 7.764E-02
 i', 0.000E+00, 0.000E+00, 9.145E-03, 7.764E-02 - K.
 j', 4.580E-01, 7.119E-02, 8.730E-03, 7.834E-02
 106, 4.580E-01, 7.446E-02, 8.730E-03, 7.834E-02
 110 (107-106) [l=26 cm] [26 def.]
 107, 4.578E-01, 3.332E-01, 8.730E-03, 1.063E-03 - M.
 i', 4.578E-01, 3.332E-01, 8.730E-03, 1.063E-03
 j', 4.580E-01, 3.339E-01, 8.730E-03, 1.063E-03
 106, 4.580E-01, 3.339E-01, 8.730E-03, 1.063E-03 - K.
 111 (106-108) [l=26 cm] [26 def.]
 106, 4.580E-01, 3.339E-01, 8.730E-03, 1.063E-03
 i', 4.580E-01, 3.339E-01, 8.730E-03, 1.063E-03 - M.
 j', 4.583E-01, 3.345E-01, 8.730E-03, 1.063E-03
 108, 4.583E-01, 3.345E-01, 8.730E-03, 1.063E-03
 112 (104-107) [l=227 cm] [227 def.]
 104, 4.554E-01, 3.314E-01, 8.730E-03, 1.063E-03 - K.
 i', 4.554E-01, 3.314E-01, 8.730E-03, 1.063E-03
 j', 4.578E-01, 3.332E-01, 8.730E-03, 1.063E-03
 107, 4.578E-01, 3.332E-01, 8.730E-03, 1.063E-03 - K.
 113 (109-110) [l=500 cm] [500 def.]
 109, 0.000E+00, 0.000E+00, 9.145E-03, 7.764E-02
 i', 0.000E+00, 0.000E+00, 9.145E-03, 7.764E-02 - M.
 j', 4.596E-01, 7.446E-02, 8.730E-03, 7.834E-02
 110, 4.596E-01, 7.446E-02, 8.730E-03, 7.834E-02
 114 (108-110) [l=123 cm] [123 def.]
 108, 4.583E-01, 3.345E-01, 8.730E-03, 1.063E-03 - K.
 i', 4.583E-01, 3.345E-01, 8.730E-03, 1.063E-03
 j', 4.596E-01, 3.377E-01, 8.730E-03, 1.063E-03
 110, 4.596E-01, 3.377E-01, 8.730E-03, 1.063E-03 - M.
 115 (110-111) [l=123 cm] [123 def.]
 110, 4.596E-01, 3.377E-01, 8.730E-03, 1.063E-03
 i', 4.596E-01, 3.377E-01, 8.730E-03, 1.063E-03 - M.
 j', 4.608E-01, 3.410E-01, 8.730E-03, 1.063E-03
 111, 4.608E-01, 3.410E-01, 8.730E-03, 1.063E-03
 116 (112-i'-j'-113) [l=500 cm] [Piano XZ: 255 rig.-191 def.-55 rig.]
 112, 0.000E+00, 0.000E+00, 9.142E-03, 7.764E-02 - K.
 i', 0.000E+00, 2.328E-02, 9.142E-03, 7.764E-02
 j', 4.612E-01, 7.168E-02, 8.730E-03, 7.834E-02
 113, 4.612E-01, 7.446E-02, 8.730E-03, 7.834E-02 - M.
 117 (112-114) [l=31 cm] [31 def.]
 112, 0.000E+00, 3.345E-01, 9.142E-03, 0.000E+00
 i', 0.000E+00, 3.345E-01, 9.142E-03, 0.000E+00 - K.
 j', 0.000E+00, 3.359E-01, 9.142E-03, 0.000E+00
 114, 0.000E+00, 3.359E-01, 9.142E-03, 0.000E+00
 118 (111-113) [l=31 cm] [31 def.]
 111, 4.608E-01, 3.410E-01, 8.730E-03, 1.063E-03 - M.
 i', 4.608E-01, 3.410E-01, 8.730E-03, 1.063E-03
 j', 4.612E-01, 3.418E-01, 8.730E-03, 1.063E-03
 113, 4.612E-01, 3.418E-01, 8.730E-03, 1.063E-03 - M.
 119 (113-115) [l=31 cm] [31 def.]
 113, 4.612E-01, 3.418E-01, 8.730E-03, 1.063E-03
 i', 4.612E-01, 3.418E-01, 8.730E-03, 1.063E-03 - K.
 j', 4.615E-01, 3.426E-01, 8.731E-03, 1.063E-03
 115, 4.615E-01, 3.426E-01, 8.731E-03, 1.063E-03
 120 (116-i'-j'-117) [l=500 cm] [Piano XZ: 185 rig.-287 def.-28 rig.]
 116, 0.000E+00, 0.000E+00, 9.029E-03, 8.853E-02 - M.
 i', 0.000E+00, 1.671E-02, 9.029E-03, 8.853E-02
 j', 4.647E-01, 7.298E-02, 8.731E-03, 7.833E-02
 117, 4.647E-01, 7.446E-02, 8.731E-03, 7.833E-02 - K.
 121 (118-116) [l=88 cm] [88 def.]
 118, 0.000E+00, 3.403E-01, 9.029E-03, 0.000E+00
 i', 0.000E+00, 3.403E-01, 9.029E-03, 0.000E+00 - K.
 j', 0.000E+00, 3.416E-01, 9.029E-03, 0.000E+00
 116, 0.000E+00, 3.416E-01, 9.029E-03, 0.000E+00
 122 (119-117) [l=88 cm] [88 def.]
 119, 4.638E-01, 3.485E-01, 8.731E-03, 1.063E-03 - M.
 i', 4.638E-01, 3.485E-01, 8.731E-03, 1.063E-03
 j', 4.647E-01, 3.509E-01, 8.731E-03, 1.063E-03
 117, 4.647E-01, 3.509E-01, 8.731E-03, 1.063E-03 - K.
 123 (117-120) [l=88 cm] [88 def.]
 117, 4.647E-01, 3.509E-01, 8.731E-03, 1.063E-03
 i', 4.647E-01, 3.509E-01, 8.731E-03, 1.063E-03 - M.
 j', 4.657E-01, 3.532E-01, 8.731E-03, 1.063E-03
 120, 4.657E-01, 3.532E-01, 8.731E-03, 1.063E-03
 124 (114-118) [l=227 cm] [227 def.]
 114, 0.000E+00, 3.359E-01, 9.142E-03, 0.000E+00 - K.
 i', 0.000E+00, 3.359E-01, 9.142E-03, 0.000E+00
 j', 0.000E+00, 3.403E-01, 9.029E-03, 0.000E+00
 118, 0.000E+00, 3.403E-01, 9.029E-03, 0.000E+00 - M.
 125 (115-119) [l=227 cm] [227 def.]
 115, 4.615E-01, 3.426E-01, 8.731E-03, 1.063E-03
 i', 4.615E-01, 3.426E-01, 8.731E-03, 1.063E-03 - K.

j', 4.638E-01, 3.485E-01, 8.731E-03, 1.063E-03
119, 4.638E-01, 3.485E-01, 8.731E-03, 1.063E-03
126 (121-j'-122) [l=500 cm] [Piano XZ: 464 def.-36 rig.]
121, 0.000E+00, 0.000E+00, 9.028E-03, 8.853E-02 - M.
i', 0.000E+00, 0.000E+00, 9.028E-03, 8.853E-02
j', 4.666E-01, 7.261E-02, 8.731E-03, 7.833E-02
122, 4.666E-01, 7.446E-02, 8.731E-03, 7.833E-02 - M.
127 (120-122) [l=88 cm][88 def.]
120, 4.657E-01, 3.532E-01, 8.731E-03, 1.063E-03
i', 4.657E-01, 3.532E-01, 8.731E-03, 1.063E-03 - K.
j', 4.666E-01, 3.555E-01, 8.731E-03, 1.063E-03
122, 4.666E-01, 3.555E-01, 8.731E-03, 1.063E-03
128 (122-123) [l=88 cm][88 def.]
122, 4.666E-01, 3.555E-01, 8.731E-03, 1.063E-03 - M.
i', 4.666E-01, 3.555E-01, 8.731E-03, 1.063E-03
j', 4.675E-01, 3.579E-01, 8.731E-03, 1.063E-03
123, 4.675E-01, 3.579E-01, 8.731E-03, 1.063E-03 - K.
129 (124-j'-125) [l=500 cm] [Piano XZ: 464 def.-36 rig.]
124, 0.000E+00, 0.000E+00, 9.219E-03, 8.926E-02
i', 0.000E+00, 0.000E+00, 9.219E-03, 8.926E-02 - K.
j', 4.707E-01, 7.261E-02, 8.731E-03, 7.832E-02
125, 4.707E-01, 7.446E-02, 8.731E-03, 7.832E-02
130 (126-125) [l=88 cm][88 def.]
126, 4.698E-01, 3.638E-01, 8.731E-03, 1.063E-03 - M.
i', 4.698E-01, 3.638E-01, 8.731E-03, 1.063E-03
j', 4.707E-01, 3.662E-01, 8.731E-03, 1.063E-03
125, 4.707E-01, 3.662E-01, 8.731E-03, 1.063E-03 - K.
131 (125-127) [l=88 cm][88 def.]
125, 4.707E-01, 3.662E-01, 8.731E-03, 1.063E-03
i', 4.707E-01, 3.662E-01, 8.731E-03, 1.063E-03 - K.
j', 4.717E-01, 3.685E-01, 8.731E-03, 1.063E-03
127, 4.717E-01, 3.685E-01, 8.731E-03, 1.063E-03
132 (123-126) [l=227 cm][227 def.]
123, 4.675E-01, 3.579E-01, 8.731E-03, 1.063E-03 - M.
i', 4.675E-01, 3.579E-01, 8.731E-03, 1.063E-03
j', 4.698E-01, 3.638E-01, 8.731E-03, 1.063E-03
126, 4.698E-01, 3.638E-01, 8.731E-03, 1.063E-03 - K.
133 (128-i'-j'-129) [l=500 cm] [Piano XZ: 185 rig.-287 def.-29 rig.]
128, 0.000E+00, 0.000E+00, 9.219E-03, 8.925E-02
i', 0.000E+00, 1.705E-02, 9.219E-03, 8.925E-02 - K.
j', 4.726E-01, 7.298E-02, 8.730E-03, 7.832E-02
129, 4.726E-01, 7.446E-02, 8.730E-03, 7.832E-02
134 (128-130) [l=88 cm][88 def.]
128, 0.000E+00, 3.617E-01, 9.219E-03, 0.000E+00 - M.
i', 0.000E+00, 3.617E-01, 9.219E-03, 0.000E+00
j', 0.000E+00, 3.650E-01, 9.219E-03, 0.000E+00
130, 0.000E+00, 3.650E-01, 9.219E-03, 0.000E+00 - K.
135 (127-129) [l=88 cm][88 def.]
127, 4.717E-01, 3.685E-01, 8.731E-03, 1.063E-03
i', 4.717E-01, 3.685E-01, 8.731E-03, 1.063E-03 - K.
j', 4.726E-01, 3.708E-01, 8.730E-03, 1.063E-03
129, 4.726E-01, 3.708E-01, 8.730E-03, 1.063E-03
136 (129-131) [l=88 cm][88 def.]
129, 4.726E-01, 3.708E-01, 8.730E-03, 1.063E-03 - M.
i', 4.726E-01, 3.708E-01, 8.730E-03, 1.063E-03
j', 4.735E-01, 3.732E-01, 8.730E-03, 1.063E-03
131, 4.735E-01, 3.732E-01, 8.730E-03, 1.063E-03 - K.
137 (132-i'-j'-133) [l=500 cm] [Piano XZ: 184 rig.-288 def.-28 rig.]
132, 0.000E+00, 0.000E+00, 9.824E-03, 7.788E-02
i', 0.000E+00, 1.804E-02, 9.824E-03, 7.788E-02 - M.
j', 4.768E-01, 7.299E-02, 8.729E-03, 7.832E-02
133, 4.768E-01, 7.446E-02, 8.729E-03, 7.832E-02
138 (134-132) [l=90 cm][90 def.]
134, 0.000E+00, 3.756E-01, 9.824E-03, 0.000E+00 - K.
i', 0.000E+00, 3.756E-01, 9.824E-03, 0.000E+00
j', 0.000E+00, 3.781E-01, 9.824E-03, 0.000E+00
132, 0.000E+00, 3.781E-01, 9.824E-03, 0.000E+00 - K.
139 (135-133) [l=90 cm][90 def.]
135, 4.758E-01, 3.791E-01, 8.729E-03, 1.063E-03
i', 4.758E-01, 3.791E-01, 8.729E-03, 1.063E-03 - M.
j', 4.768E-01, 3.815E-01, 8.729E-03, 1.063E-03
133, 4.768E-01, 3.815E-01, 8.729E-03, 1.063E-03
140 (133-136) [l=90 cm][90 def.]
133, 4.768E-01, 3.815E-01, 8.729E-03, 1.063E-03 - K.
i', 4.768E-01, 3.815E-01, 8.729E-03, 1.063E-03
j', 4.777E-01, 3.838E-01, 8.729E-03, 1.063E-03
136, 4.777E-01, 3.838E-01, 8.729E-03, 1.063E-03 - Z.
141 (130-134) [l=227 cm][227 def.]
130, 0.000E+00, 3.650E-01, 9.219E-03, 0.000E+00
i', 0.000E+00, 3.650E-01, 9.219E-03, 0.000E+00 - Z.
j', 0.000E+00, 3.756E-01, 9.824E-03, 0.000E+00
134, 0.000E+00, 3.756E-01, 9.824E-03, 0.000E+00
142 (131-135) [l=227 cm][227 def.]
131, 4.735E-01, 3.732E-01, 8.730E-03, 1.063E-03 - Z.
i', 4.735E-01, 3.732E-01, 8.730E-03, 1.063E-03
j', 4.758E-01, 3.791E-01, 8.729E-03, 1.063E-03

135, 4.758E-01, 3.791E-01, 8.729E-03, 1.063E-03 - Z.
 143 (137-j'-138) [l=438 cm] [Piano XZ: 372 def.-66 rig.]
 137, 0.000E+00, 0.000E+00, 7.807E-02, 9.474E-03
 i', 0.000E+00, 0.000E+00, 7.807E-02, 9.474E-03 - Z.
 j', 7.062E-02, 3.564E-01, 7.834E-02, 8.729E-03
 138, 7.062E-02, 4.076E-01, 7.834E-02, 8.729E-03
 144 (139-138) [l=161 cm][161 def.]
 139, 7.131E-02, 3.390E-01, 7.834E-02, 1.063E-03 - Z.
 i', 7.131E-02, 3.390E-01, 7.834E-02, 1.063E-03
 j', 7.062E-02, 2.133E-01, 7.834E-02, 1.063E-03
 138, 7.062E-02, 2.133E-01, 7.834E-02, 1.063E-03 - Z.
 145 (138-140) [l=160 cm][160 def.]
 138, 7.062E-02, 2.133E-01, 7.834E-02, 1.063E-03
 i', 7.062E-02, 2.133E-01, 7.834E-02, 1.063E-03 - Z.
 j', 6.994E-02, 8.762E-02, 7.834E-02, 1.063E-03
 140, 6.994E-02, 8.762E-02, 7.834E-02, 1.063E-03
 146 (141-j'-142) [l=438 cm] [Piano XZ: 372 def.-66 rig.]
 141, 0.000E+00, 0.000E+00, 7.807E-02, 9.474E-03 - Z.
 i', 0.000E+00, 0.000E+00, 7.807E-02, 9.474E-03
 j', 7.062E-02, 3.564E-01, 7.834E-02, 8.729E-03
 142, 7.062E-02, 4.076E-01, 7.834E-02, 8.729E-03 - Z.
 147 (143-142) [l=161 cm][161 def.]
 143, 6.994E-02, 8.763E-02, 7.834E-02, 1.063E-03
 i', 6.994E-02, 8.763E-02, 7.834E-02, 1.063E-03 - Z.
 j', 7.062E-02, 2.133E-01, 7.834E-02, 1.063E-03
 142, 7.062E-02, 2.133E-01, 7.834E-02, 1.063E-03
 148 (142-144) [l=160 cm][160 def.]
 142, 7.062E-02, 2.133E-01, 7.834E-02, 1.063E-03 - Z.
 i', 7.062E-02, 2.133E-01, 7.834E-02, 1.063E-03
 j', 7.131E-02, 3.390E-01, 7.834E-02, 1.063E-03
 144, 7.131E-02, 3.390E-01, 7.834E-02, 1.063E-03 - Z.
 149 (140-143) [l=200 cm][200 def.]
 140, 6.994E-02, 8.762E-02, 7.834E-02, 1.063E-03
 i', 6.994E-02, 8.762E-02, 7.834E-02, 1.063E-03 - Z.
 j', 6.994E-02, 8.763E-02, 7.834E-02, 1.063E-03
 143, 6.994E-02, 8.763E-02, 7.834E-02, 1.063E-03
 150 (145-j'-146) [l=438 cm] [Piano XZ: 372 def.-66 rig.]
 145, 0.000E+00, 0.000E+00, 7.764E-02, 9.143E-03 - T.
 i', 0.000E+00, 0.000E+00, 7.764E-02, 9.143E-03
 j', 7.062E-02, 3.613E-01, 7.834E-02, 8.731E-03
 146, 7.062E-02, 4.124E-01, 7.834E-02, 8.731E-03 - T.
 151 (147-146) [l=160 cm][160 def.]
 147, 7.131E-02, 3.410E-01, 7.834E-02, 1.063E-03
 i', 7.131E-02, 3.410E-01, 7.834E-02, 1.063E-03 - T.
 j', 7.062E-02, 2.153E-01, 7.834E-02, 1.063E-03
 146, 7.062E-02, 2.153E-01, 7.834E-02, 1.063E-03
 152 (146-148) [l=161 cm][161 def.]
 146, 7.062E-02, 2.153E-01, 7.834E-02, 1.063E-03 - T.
 i', 7.062E-02, 2.153E-01, 7.834E-02, 1.063E-03
 j', 6.994E-02, 8.961E-02, 7.834E-02, 1.063E-03
 148, 6.994E-02, 8.961E-02, 7.834E-02, 1.063E-03 - T.
 153 (149-j'-150) [l=438 cm] [Piano XZ: 372 def.-66 rig.]
 149, 0.000E+00, 0.000E+00, 7.764E-02, 9.143E-03
 i', 0.000E+00, 0.000E+00, 7.764E-02, 9.143E-03 - T.
 j', 7.062E-02, 3.613E-01, 7.834E-02, 8.730E-03
 150, 7.062E-02, 4.124E-01, 7.834E-02, 8.730E-03
 154 (151-150) [l=160 cm][160 def.]
 151, 6.994E-02, 8.959E-02, 7.834E-02, 1.063E-03 - T.
 i', 6.994E-02, 8.959E-02, 7.834E-02, 1.063E-03
 j', 7.062E-02, 2.152E-01, 7.834E-02, 1.063E-03
 150, 7.062E-02, 2.152E-01, 7.834E-02, 1.063E-03 - T.
 155 (150-152) [l=161 cm][161 def.]
 150, 7.062E-02, 2.152E-01, 7.834E-02, 1.063E-03
 i', 7.062E-02, 2.152E-01, 7.834E-02, 1.063E-03 - T.
 j', 7.131E-02, 3.410E-01, 7.834E-02, 1.063E-03
 152, 7.131E-02, 3.410E-01, 7.834E-02, 1.063E-03
 156 (148-151) [l=200 cm][200 def.]
 148, 6.994E-02, 8.961E-02, 7.834E-02, 1.063E-03 - T.
 i', 6.994E-02, 8.961E-02, 7.834E-02, 1.063E-03
 j', 6.994E-02, 8.959E-02, 7.834E-02, 1.063E-03
 151, 6.994E-02, 8.959E-02, 7.834E-02, 1.063E-03 - T.
 157 (153-154) [l=30 cm][30 def.]
 153, 4.747E-01, 7.446E-02, 8.730E-03, 7.832E-02
 i', 4.747E-01, 7.446E-02, 8.730E-03, 7.832E-02 - T.
 j', 4.985E-01, 7.636E-02, 8.729E-03, 7.824E-02
 154, 4.985E-01, 7.636E-02, 8.729E-03, 7.824E-02
 158 (154-156) [l=291 cm][291 def.]
 154, 4.985E-01, 3.760E-01, 8.729E-03, 1.067E-03 - T.
 i', 4.985E-01, 3.760E-01, 8.729E-03, 1.067E-03
 j', 5.015E-01, 3.836E-01, 8.729E-03, 1.067E-03
 156, 5.015E-01, 3.836E-01, 8.729E-03, 1.067E-03 - T.
 159 (157-158) [l=30 cm][30 def.]
 157, 4.687E-01, 7.446E-02, 8.731E-03, 7.833E-02
 i', 4.687E-01, 7.446E-02, 8.731E-03, 7.833E-02 - T.
 j', 4.924E-01, 7.636E-02, 8.729E-03, 7.824E-02
 158, 4.924E-01, 7.636E-02, 8.729E-03, 7.824E-02

160 (160-161) [l=30 cm][30 def.]
 160, 4.632E-01, 7.446E-02, 8.731E-03, 7.833E-02 - T.
 i', 4.632E-01, 7.446E-02, 8.731E-03, 7.833E-02
 j', 4.870E-01, 7.636E-02, 8.730E-03, 7.824E-02
 161, 4.870E-01, 7.636E-02, 8.730E-03, 7.824E-02 - T.
 161 (161-159) [l=233 cm][233 def.]
 161, 4.870E-01, 3.470E-01, 8.730E-03, 1.067E-03
 i', 4.870E-01, 3.470E-01, 8.730E-03, 1.067E-03 - T.
 j', 4.894E-01, 3.531E-01, 8.730E-03, 1.067E-03
 159, 4.894E-01, 3.531E-01, 8.730E-03, 1.067E-03
 162 (110-163) [l=30 cm][30 def.]
 110, 4.596E-01, 7.446E-02, 8.730E-03, 7.834E-02 - T.
 i', 4.596E-01, 7.446E-02, 8.730E-03, 7.834E-02
 j', 4.833E-01, 7.636E-02, 8.730E-03, 7.824E-02
 163, 4.833E-01, 7.636E-02, 8.730E-03, 7.824E-02 - T.
 163 (163-162) [l=123 cm][123 def.]
 163, 4.833E-01, 3.378E-01, 8.730E-03, 1.067E-03
 i', 4.833E-01, 3.378E-01, 8.730E-03, 1.067E-03 - T.
 j', 4.846E-01, 3.410E-01, 8.730E-03, 1.067E-03
 162, 4.846E-01, 3.410E-01, 8.730E-03, 1.067E-03
 164 (165-166) [l=30 cm][30 def.]
 165, 4.566E-01, 7.446E-02, 8.730E-03, 7.834E-02 - T.
 i', 4.566E-01, 7.446E-02, 8.730E-03, 7.834E-02
 j', 4.803E-01, 7.636E-02, 8.730E-03, 7.823E-02
 166, 4.803E-01, 7.636E-02, 8.730E-03, 7.823E-02 - T.
 165 (166-164) [l=165 cm][165 def.]
 166, 4.803E-01, 3.305E-01, 8.730E-03, 1.067E-03
 i', 4.803E-01, 3.305E-01, 8.730E-03, 1.067E-03 - T.
 j', 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03
 164, 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03
 166 (100-168) [l=30 cm][30 def.]
 100, 4.557E-01, 7.446E-02, 8.729E-03, 7.834E-02 - T.
 i', 4.557E-01, 7.446E-02, 8.729E-03, 7.834E-02
 j', 4.794E-01, 7.636E-02, 8.730E-03, 7.823E-02
 168, 4.794E-01, 7.636E-02, 8.730E-03, 7.823E-02 - T.
 167 (169-168) [l=122 cm][122 def.]
 169, 4.797E-01, 3.391E-01, 8.730E-03, 1.067E-03
 i', 4.797E-01, 3.391E-01, 8.730E-03, 1.067E-03 - T.
 j', 4.794E-01, 3.359E-01, 8.730E-03, 1.067E-03
 168, 4.794E-01, 3.359E-01, 8.730E-03, 1.067E-03
 168 (168-167) [l=122 cm][122 def.]
 168, 4.794E-01, 3.359E-01, 8.730E-03, 1.067E-03 - T.
 i', 4.794E-01, 3.359E-01, 8.730E-03, 1.067E-03
 j', 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03
 167, 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03 - T.
 169 (170-171) [l=30 cm][30 def.]
 170, 4.565E-01, 7.446E-02, 8.729E-03, 7.834E-02
 i', 4.565E-01, 7.446E-02, 8.729E-03, 7.834E-02 - T.
 j', 4.803E-01, 7.636E-02, 8.730E-03, 7.823E-02
 171, 4.803E-01, 7.636E-02, 8.730E-03, 7.823E-02
 170 (172-171) [l=230 cm][230 def.]
 172, 4.808E-01, 3.511E-01, 8.729E-03, 1.067E-03 - T.
 i', 4.808E-01, 3.511E-01, 8.729E-03, 1.067E-03
 j', 4.803E-01, 3.451E-01, 8.730E-03, 1.067E-03
 171, 4.803E-01, 3.451E-01, 8.730E-03, 1.067E-03 - T.
 171 (173-174) [l=30 cm][30 def.]
 173, 4.577E-01, 7.446E-02, 8.728E-03, 7.834E-02
 i', 4.577E-01, 7.446E-02, 8.728E-03, 7.834E-02 - T.
 j', 4.815E-01, 7.636E-02, 8.729E-03, 7.823E-02
 174, 4.815E-01, 7.636E-02, 8.729E-03, 7.823E-02
 172 (176-177) [l=30 cm][30 def.]
 176, 4.591E-01, 7.446E-02, 8.727E-03, 7.834E-02 - T.
 i', 4.591E-01, 7.446E-02, 8.727E-03, 7.834E-02
 j', 4.829E-01, 7.636E-02, 8.729E-03, 7.823E-02
 177, 4.829E-01, 7.636E-02, 8.729E-03, 7.823E-02 - T.
 173 (178-177) [l=291 cm][291 def.]
 178, 4.836E-01, 3.826E-01, 8.729E-03, 1.067E-03
 i', 4.836E-01, 3.826E-01, 8.729E-03, 1.067E-03 - T.
 j', 4.829E-01, 3.750E-01, 8.729E-03, 1.067E-03
 177, 4.829E-01, 3.750E-01, 8.729E-03, 1.067E-03
 174 (179-180) [l=30 cm][30 def.]
 179, 4.591E-01, 7.446E-02, 8.728E-03, 7.834E-02 - T.
 i', 4.591E-01, 7.446E-02, 8.728E-03, 7.834E-02
 j', 4.829E-01, 7.636E-02, 8.729E-03, 7.823E-02
 180, 4.829E-01, 7.636E-02, 8.729E-03, 7.823E-02 - T.
 175 (180-182) [l=291 cm][291 def.]
 180, 4.829E-01, 3.750E-01, 8.729E-03, 1.067E-03
 i', 4.829E-01, 3.750E-01, 8.729E-03, 1.067E-03 - T.
 j', 4.836E-01, 3.826E-01, 8.729E-03, 1.067E-03
 182, 4.836E-01, 3.826E-01, 8.729E-03, 1.067E-03
 176 (183-184) [l=30 cm][30 def.]
 183, 4.577E-01, 7.446E-02, 8.728E-03, 7.834E-02 - T.
 i', 4.577E-01, 7.446E-02, 8.728E-03, 7.834E-02
 j', 4.815E-01, 7.636E-02, 8.730E-03, 7.823E-02
 184, 4.815E-01, 7.636E-02, 8.730E-03, 7.823E-02 - T.
 177 (186-187) [l=30 cm][30 def.]

186, 4.565E-01, 7.446E-02, 8.729E-03, 7.834E-02
 i', 4.565E-01, 7.446E-02, 8.729E-03, 7.834E-02 - T.
 j', 4.803E-01, 7.636E-02, 8.730E-03, 7.823E-02
 187, 4.803E-01, 7.636E-02, 8.730E-03, 7.823E-02
 178 (187-185) [l=230 cm][230 def.]
 187, 4.803E-01, 3.451E-01, 8.730E-03, 1.067E-03 - T.
 i', 4.803E-01, 3.451E-01, 8.730E-03, 1.067E-03
 j', 4.808E-01, 3.511E-01, 8.730E-03, 1.067E-03
 185, 4.808E-01, 3.511E-01, 8.730E-03, 1.067E-03 - T.
 179 (38-189) [l=30 cm][30 def.]
 38, 4.557E-01, 7.446E-02, 8.730E-03, 7.834E-02
 i', 4.557E-01, 7.446E-02, 8.730E-03, 7.834E-02 - T.
 j', 4.794E-01, 7.636E-02, 8.730E-03, 7.823E-02
 189, 4.794E-01, 7.636E-02, 8.730E-03, 7.823E-02
 180 (190-189) [l=122 cm][122 def.]
 190, 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03 - T.
 i', 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03
 j', 4.794E-01, 3.359E-01, 8.730E-03, 1.067E-03
 189, 4.794E-01, 3.359E-01, 8.730E-03, 1.067E-03 - T.
 181 (189-188) [l=122 cm][122 def.]
 189, 4.794E-01, 3.359E-01, 8.730E-03, 1.067E-03
 i', 4.794E-01, 3.359E-01, 8.730E-03, 1.067E-03 - T.
 j', 4.797E-01, 3.391E-01, 8.730E-03, 1.067E-03
 188, 4.797E-01, 3.391E-01, 8.730E-03, 1.067E-03
 182 (191-192) [l=30 cm][30 def.]
 191, 4.566E-01, 7.446E-02, 8.730E-03, 7.834E-02 - T.
 i', 4.566E-01, 7.446E-02, 8.730E-03, 7.834E-02
 j', 4.803E-01, 7.636E-02, 8.730E-03, 7.823E-02
 192, 4.803E-01, 7.636E-02, 8.730E-03, 7.823E-02 - T.
 183 (193-192) [l=165 cm][165 def.]
 193, 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03
 i', 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03 - T.
 j', 4.803E-01, 3.305E-01, 8.730E-03, 1.067E-03
 192, 4.803E-01, 3.305E-01, 8.730E-03, 1.067E-03
 184 (28-194) [l=30 cm][30 def.]
 28, 4.596E-01, 7.446E-02, 8.731E-03, 7.834E-02 - T.
 i', 4.596E-01, 7.446E-02, 8.731E-03, 7.834E-02
 j', 4.833E-01, 7.636E-02, 8.730E-03, 7.824E-02
 194, 4.833E-01, 7.636E-02, 8.730E-03, 7.824E-02 - T.
 185 (195-194) [l=123 cm][123 def.]
 195, 4.846E-01, 3.410E-01, 8.730E-03, 1.067E-03
 i', 4.846E-01, 3.410E-01, 8.730E-03, 1.067E-03 -
 j', 4.833E-01, 3.378E-01, 8.730E-03, 1.067E-03
 194, 4.833E-01, 3.378E-01, 8.730E-03, 1.067E-03
 186 (196-197) [l=30 cm][30 def.]
 196, 4.632E-01, 7.446E-02, 8.731E-03, 7.833E-02 -
 i', 4.632E-01, 7.446E-02, 8.731E-03, 7.833E-02
 j', 4.870E-01, 7.636E-02, 8.730E-03, 7.824E-02
 197, 4.870E-01, 7.636E-02, 8.730E-03, 7.824E-02 -
 187 (198-197) [l=233 cm][233 def.]
 198, 4.894E-01, 3.532E-01, 8.730E-03, 1.067E-03
 i', 4.894E-01, 3.532E-01, 8.730E-03, 1.067E-03 -
 j', 4.870E-01, 3.471E-01, 8.730E-03, 1.067E-03
 197, 4.870E-01, 3.471E-01, 8.730E-03, 1.067E-03
 188 (199-200) [l=30 cm][30 def.]
 199, 4.687E-01, 7.446E-02, 8.731E-03, 7.833E-02 -
 i', 4.687E-01, 7.446E-02, 8.731E-03, 7.833E-02
 j', 4.924E-01, 7.636E-02, 8.730E-03, 7.824E-02
 200, 4.924E-01, 7.636E-02, 8.730E-03, 7.824E-02 -
 189 (202-203) [l=30 cm][30 def.]
 202, 4.747E-01, 7.446E-02, 8.730E-03, 7.832E-02
 i', 4.747E-01, 7.446E-02, 8.730E-03, 7.832E-02 -
 j', 4.985E-01, 7.636E-02, 8.730E-03, 7.824E-02
 203, 4.985E-01, 7.636E-02, 8.730E-03, 7.824E-02
 190 (204-203) [l=291 cm][291 def.]
 204, 5.015E-01, 3.836E-01, 8.729E-03, 1.067E-03 -
 i', 5.015E-01, 3.836E-01, 8.729E-03, 1.067E-03
 j', 4.985E-01, 3.760E-01, 8.730E-03, 1.067E-03
 203, 4.985E-01, 3.760E-01, 8.730E-03, 1.067E-03 - K.
 191 (205-206) [l=105 cm][105 def.]
 205, 7.357E-02, 4.598E-01, 7.835E-02, 8.728E-03
 i', 7.357E-02, 4.598E-01, 7.835E-02, 8.728E-03 - K.
 j', 7.976E-02, 5.421E-01, 7.822E-02, 8.729E-03
 206, 7.976E-02, 5.421E-01, 7.822E-02, 8.729E-03
 192 (182-206) [l=223 cm][223 def.]
 182, 7.636E-02, 2.145E-01, 7.822E-02, 3.227E-03 - W_3117_24_-1_-1.
 i', 7.636E-02, 2.145E-01, 7.822E-02, 3.227E-03
 j', 7.976E-02, 1.764E-01, 7.822E-02, 3.227E-03
 206, 7.976E-02, 1.764E-01, 7.822E-02, 3.227E-03 - K.
 193 (206-207) [l=223 cm][223 def.]
 206, 7.976E-02, 1.764E-01, 7.822E-02, 3.225E-03
 i', 7.976E-02, 1.764E-01, 7.822E-02, 3.225E-03 - K.
 j', 8.347E-02, 2.516E-01, 7.822E-02, 3.225E-03
 207, 8.347E-02, 2.516E-01, 7.822E-02, 3.225E-03
 194 (208-209) [l=105 cm][105 def.]
 208, 7.357E-02, 4.598E-01, 7.835E-02, 8.727E-03 - W_3118_24_-1_-1.

i', 7.357E-02, 4.598E-01, 7.835E-02, 8.727E-03
 j', 7.976E-02, 5.421E-01, 7.822E-02, 8.729E-03
 209, 7.976E-02, 5.421E-01, 7.822E-02, 8.729E-03 - K.
 195 (207-209) [l=223 cm][223 def.]
 207, 8.347E-02, 2.516E-01, 7.822E-02, 3.226E-03
 i', 8.347E-02, 2.516E-01, 7.822E-02, 3.226E-03 - K.
 j', 7.976E-02, 1.765E-01, 7.822E-02, 3.226E-03
 209, 7.976E-02, 1.765E-01, 7.822E-02, 3.226E-03
 196 (209-178) [l=223 cm][223 def.]
 209, 7.976E-02, 1.764E-01, 7.822E-02, 3.225E-03 - K.
 i', 7.976E-02, 1.764E-01, 7.822E-02, 3.225E-03
 j', 7.636E-02, 2.145E-01, 7.822E-02, 3.225E-03
 178, 7.636E-02, 2.145E-01, 7.822E-02, 3.225E-03 - K.
 197 (210-211) [l=105 cm][105 def.]
 210, 7.357E-02, 4.777E-01, 7.831E-02, 8.726E-03
 i', 7.357E-02, 4.777E-01, 7.831E-02, 8.726E-03 - K.
 j', 7.976E-02, 5.600E-01, 7.824E-02, 8.729E-03
 211, 7.976E-02, 5.600E-01, 7.824E-02, 8.729E-03
 198 (156-211) [l=223 cm][223 def.]
 156, 7.636E-02, 2.159E-01, 7.824E-02, 3.225E-03 - K.
 i', 7.636E-02, 2.159E-01, 7.824E-02, 3.225E-03
 j', 7.976E-02, 1.809E-01, 7.824E-02, 3.225E-03
 211, 7.976E-02, 1.809E-01, 7.824E-02, 3.225E-03 - K.
 199 (211-212) [l=223 cm][223 def.]
 211, 7.984E-02, 1.809E-01, 7.824E-02, 3.223E-03
 i', 7.984E-02, 1.809E-01, 7.824E-02, 3.223E-03 - K.
 j', 8.356E-02, 2.585E-01, 7.824E-02, 3.223E-03
 212, 8.356E-02, 2.585E-01, 7.824E-02, 3.223E-03
 200 (213-214) [l=105 cm][105 def.]
 213, 7.357E-02, 4.777E-01, 7.831E-02, 8.727E-03 - K.
 i', 7.357E-02, 4.777E-01, 7.831E-02, 8.727E-03
 j', 7.976E-02, 5.600E-01, 7.824E-02, 8.729E-03
 214, 7.976E-02, 5.600E-01, 7.824E-02, 8.729E-03 - K.
 201 (212-214) [l=223 cm][223 def.]
 212, 8.347E-02, 2.584E-01, 7.824E-02, 3.225E-03
 i', 8.347E-02, 2.584E-01, 7.824E-02, 3.225E-03 - K.
 j', 7.976E-02, 1.809E-01, 7.824E-02, 3.225E-03
 214, 7.976E-02, 1.809E-01, 7.824E-02, 3.225E-03
 202 (214-204) [l=223 cm][223 def.]
 214, 7.968E-02, 1.809E-01, 7.824E-02, 3.230E-03 - K.
 i', 7.968E-02, 1.809E-01, 7.824E-02, 3.230E-03
 j', 7.629E-02, 2.158E-01, 7.824E-02, 3.230E-03
 204, 7.629E-02, 2.158E-01, 7.824E-02, 3.230E-03 - K.
 203 (215-216) [l=500 cm][500 def.]
 215, 0.000E+00, 0.000E+00, 7.788E-02, 9.813E-03
 i', 0.000E+00, 0.000E+00, 7.788E-02, 9.813E-03 - K.
 j', 7.387E-02, 4.777E-01, 7.831E-02, 8.727E-03
 216, 7.387E-02, 4.777E-01, 7.831E-02, 8.727E-03
 204 (136-216) [l=140 cm][140 def.]
 136, 7.446E-02, 3.838E-01, 7.831E-02, 1.063E-03 - K.
 i', 7.446E-02, 3.838E-01, 7.831E-02, 1.063E-03
 j', 7.387E-02, 2.740E-01, 7.831E-02, 1.063E-03
 216, 7.387E-02, 2.740E-01, 7.831E-02, 1.063E-03 - K.
 205 (218-219) [l=500 cm][500 def.]
 218, 0.000E+00, 0.000E+00, 7.787E-02, 9.794E-03
 i', 0.000E+00, 0.000E+00, 7.787E-02, 9.794E-03 - K.
 j', 7.268E-02, 4.777E-01, 7.831E-02, 8.724E-03
 219, 7.268E-02, 4.777E-01, 7.831E-02, 8.724E-03
 206 (217-219) [l=140 cm][140 def.]
 217, 7.328E-02, 2.138E-01, 7.831E-02, 1.063E-03 - K.
 i', 7.328E-02, 2.138E-01, 7.831E-02, 1.063E-03
 j', 7.268E-02, 1.808E-01, 7.831E-02, 1.063E-03
 219, 7.268E-02, 1.808E-01, 7.831E-02, 1.063E-03 - K.
 207 (219-220) [l=140 cm][140 def.]
 219, 7.268E-02, 1.808E-01, 7.831E-02, 1.063E-03
 i', 7.268E-02, 1.808E-01, 7.831E-02, 1.063E-03 - K.
 j', 7.327E-02, 2.138E-01, 7.831E-02, 1.063E-03
 220, 7.327E-02, 2.138E-01, 7.831E-02, 1.063E-03
 208 (221-222) [l=500 cm][500 def.]
 221, 0.000E+00, 0.000E+00, 7.788E-02, 9.814E-03 - K.
 i', 0.000E+00, 0.000E+00, 7.788E-02, 9.814E-03
 j', 7.387E-02, 4.777E-01, 7.831E-02, 8.727E-03
 222, 7.387E-02, 4.777E-01, 7.831E-02, 8.727E-03 - K.
 209 (222-4) [l=140 cm][140 def.]
 222, 7.387E-02, 2.740E-01, 7.831E-02, 1.063E-03
 i', 7.387E-02, 2.740E-01, 7.831E-02, 1.063E-03 - K.
 j', 7.446E-02, 3.839E-01, 7.831E-02, 1.063E-03
 4, 7.446E-02, 3.839E-01, 7.831E-02, 1.063E-03
 210 (3-8) [l=227 cm][227 def.]
 3, 0.000E+00, 3.756E-01, 9.825E-03, 0.000E+00 - K.
 i', 0.000E+00, 3.756E-01, 9.825E-03, 0.000E+00
 j', 0.000E+00, 3.651E-01, 9.219E-03, 0.000E+00
 8, 0.000E+00, 3.651E-01, 9.219E-03, 0.000E+00 - K.
 211 (224-225) [l=226 cm][226 def.]
 224, 0.000E+00, 3.518E-01, 9.219E-03, 0.000E+00
 i', 0.000E+00, 3.518E-01, 9.219E-03, 0.000E+00 - K.

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j', 0.000E+00, 3.462E-01, 9.026E-03, 0.000E+00
225, 0.000E+00, 3.462E-01, 9.026E-03, 0.000E+00
212 (20-24) [l=227 cm][227 def.]
20, 0.000E+00, 3.403E-01, 9.028E-03, 0.000E+00 - K.
i', 0.000E+00, 3.403E-01, 9.028E-03, 0.000E+00
j', 0.000E+00, 3.359E-01, 9.143E-03, 0.000E+00
24, 0.000E+00, 3.359E-01, 9.143E-03, 0.000E+00 - K.
213 (228-229) [l=227 cm][227 def.]
228, 0.000E+00, 3.205E-01, 9.146E-03, 0.000E+00
i', 0.000E+00, 3.205E-01, 9.146E-03, 0.000E+00 - K.
j', 0.000E+00, 3.172E-01, 9.475E-03, 0.000E+00
229, 0.000E+00, 3.172E-01, 9.475E-03, 0.000E+00
214 (42-46) [l=227 cm][227 def.]
42, 0.000E+00, 3.345E-01, 8.559E-03, 0.000E+00 - K.
i', 0.000E+00, 3.345E-01, 8.559E-03, 0.000E+00
j', 0.000E+00, 3.374E-01, 9.107E-03, 0.000E+00
46, 0.000E+00, 3.374E-01, 9.107E-03, 0.000E+00 - K.
215 (232-233) [l=227 cm][227 def.]
232, 0.000E+00, 3.438E-01, 9.104E-03, 0.000E+00
i', 0.000E+00, 3.438E-01, 9.104E-03, 0.000E+00 - K.
j', 0.000E+00, 3.482E-01, 9.339E-03, 0.000E+00
233, 0.000E+00, 3.482E-01, 9.339E-03, 0.000E+00
216 (67-71) [l=227 cm][227 def.]
67, 0.000E+00, 1.979E-01, 8.164E-02, 0.000E+00 - K.
i', 0.000E+00, 1.979E-01, 8.164E-02, 0.000E+00
j', 0.000E+00, 1.979E-01, 8.164E-02, 0.000E+00
71, 0.000E+00, 1.979E-01, 8.164E-02, 0.000E+00 - K.
217 (76-80) [l=227 cm][227 def.]
76, 0.000E+00, 3.760E-01, 1.092E-02, 0.000E+00
i', 0.000E+00, 3.760E-01, 1.092E-02, 0.000E+00 - K.
j', 0.000E+00, 3.637E-01, 9.341E-03, 0.000E+00
80, 0.000E+00, 3.637E-01, 9.341E-03, 0.000E+00
218 (236-237) [l=227 cm][227 def.]
236, 0.000E+00, 3.482E-01, 9.340E-03, 0.000E+00 - K.
i', 0.000E+00, 3.482E-01, 9.340E-03, 0.000E+00
j', 0.000E+00, 3.438E-01, 9.104E-03, 0.000E+00
237, 0.000E+00, 3.438E-01, 9.104E-03, 0.000E+00 - K.
219 (92-96) [l=227 cm][227 def.]
92, 0.000E+00, 3.374E-01, 9.106E-03, 0.000E+00
i', 0.000E+00, 3.374E-01, 9.106E-03, 0.000E+00 - K.
j', 0.000E+00, 3.345E-01, 8.558E-03, 0.000E+00
96, 0.000E+00, 3.345E-01, 8.558E-03, 0.000E+00
220 (240-241) [l=227 cm][227 def.]
240, 0.000E+00, 3.172E-01, 9.475E-03, 0.000E+00 - K.
i', 0.000E+00, 3.172E-01, 9.475E-03, 0.000E+00
j', 0.000E+00, 3.205E-01, 9.145E-03, 0.000E+00
241, 0.000E+00, 3.205E-01, 9.145E-03, 0.000E+00 - K.
221 (114-118) [l=227 cm][227 def.]
114, 0.000E+00, 3.359E-01, 9.142E-03, 0.000E+00
i', 0.000E+00, 3.359E-01, 9.142E-03, 0.000E+00 - K.
j', 0.000E+00, 3.403E-01, 9.029E-03, 0.000E+00
118, 0.000E+00, 3.403E-01, 9.029E-03, 0.000E+00
222 (244-245) [l=227 cm][227 def.]
244, 0.000E+00, 3.462E-01, 9.027E-03, 0.000E+00 - K.
i', 0.000E+00, 3.462E-01, 9.027E-03, 0.000E+00
j', 0.000E+00, 3.518E-01, 9.219E-03, 0.000E+00
245, 0.000E+00, 3.518E-01, 9.219E-03, 0.000E+00 - K.
223 (130-134) [l=227 cm][227 def.]
130, 0.000E+00, 3.650E-01, 9.219E-03, 0.000E+00
i', 0.000E+00, 3.650E-01, 9.219E-03, 0.000E+00 - K.
j', 0.000E+00, 3.756E-01, 9.824E-03, 0.000E+00
134, 0.000E+00, 3.756E-01, 9.824E-03, 0.000E+00
224 (247-248) [l=447 cm][447 def.]
247, 7.640E-02, 1.924E-01, 7.824E-02, 3.224E-03 - K.
i', 7.640E-02, 1.924E-01, 7.824E-02, 3.224E-03
j', 8.374E-02, 2.919E-01, 7.824E-02, 3.257E-03
248, 8.374E-02, 2.919E-01, 7.824E-02, 3.257E-03 - K.
225 (248-249) [l=447 cm][447 def.]
248, 8.374E-02, 2.919E-01, 7.824E-02, 3.261E-03
i', 8.374E-02, 2.919E-01, 7.824E-02, 3.261E-03 - K.
j', 7.633E-02, 1.924E-01, 7.824E-02, 3.228E-03
249, 7.633E-02, 1.924E-01, 7.824E-02, 3.228E-03
226 (250-251) [l=447 cm][447 def.]
250, 8.417E-02, 2.585E-01, 7.824E-02, 3.340E-03 - K.
i', 8.417E-02, 2.585E-01, 7.824E-02, 3.340E-03
j', 7.633E-02, 1.831E-01, 7.824E-02, 3.228E-03
251, 7.633E-02, 1.831E-01, 7.824E-02, 3.228E-03 - K.
227 (252-250) [l=447 cm][447 def.]
252, 7.640E-02, 1.831E-01, 7.824E-02, 3.224E-03
i', 7.640E-02, 1.831E-01, 7.824E-02, 3.224E-03 - K.
j', 8.417E-02, 2.585E-01, 7.824E-02, 3.336E-03
250, 8.417E-02, 2.585E-01, 7.824E-02, 3.336E-03
228 (253-254) [l=447 cm][447 def.]
253, 8.449E-02, 2.420E-01, 7.824E-02, 3.410E-03 - K.
i', 8.449E-02, 2.420E-01, 7.824E-02, 3.410E-03
j', 7.633E-02, 1.738E-01, 7.824E-02, 3.228E-03

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254, 7.633E-02, 1.738E-01, 7.824E-02, 3.228E-03 - K.
 229 (255-253) [l=447 cm][447 def.]
 255, 7.640E-02, 1.738E-01, 7.824E-02, 3.224E-03
 i', 7.640E-02, 1.738E-01, 7.824E-02, 3.224E-03 - K.
 j', 8.449E-02, 2.420E-01, 7.824E-02, 3.406E-03
 253, 8.449E-02, 2.420E-01, 7.824E-02, 3.406E-03
 230 (256-257) [l=447 cm][447 def.]
 256, 8.470E-02, 2.255E-01, 7.824E-02, 3.460E-03 - K.
 i', 8.470E-02, 2.255E-01, 7.824E-02, 3.460E-03
 j', 7.633E-02, 1.645E-01, 7.824E-02, 3.228E-03
 257, 7.633E-02, 1.645E-01, 7.824E-02, 3.228E-03 - K.
 231 (258-256) [l=447 cm][447 def.]
 258, 7.640E-02, 1.645E-01, 7.824E-02, 3.224E-03
 i', 7.640E-02, 1.645E-01, 7.824E-02, 3.224E-03 - K.
 j', 8.470E-02, 2.255E-01, 7.824E-02, 3.456E-03
 256, 8.470E-02, 2.255E-01, 7.824E-02, 3.456E-03
 232 (259-260) [l=192 cm][192 def.]
 259, 7.644E-02, 1.552E-01, 7.823E-02, 3.223E-03 - K.
 i', 7.644E-02, 1.552E-01, 7.823E-02, 3.223E-03
 j', 7.978E-02, 6.370E-02, 7.918E-02, 3.409E-03
 260, 7.978E-02, 6.370E-02, 7.918E-02, 3.409E-03 - K.
 233 (261-262) [l=447 cm][447 def.]
 261, 7.633E-02, 1.648E-01, 7.823E-02, 3.228E-03
 i', 7.633E-02, 1.648E-01, 7.823E-02, 3.228E-03 - K.
 j', 8.465E-02, 2.231E-01, 7.823E-02, 3.451E-03
 262, 8.465E-02, 2.231E-01, 7.823E-02, 3.451E-03
 234 (262-263) [l=447 cm][447 def.]
 262, 8.465E-02, 2.231E-01, 7.823E-02, 3.447E-03 - K.
 i', 8.465E-02, 2.231E-01, 7.823E-02, 3.447E-03
 j', 7.639E-02, 1.648E-01, 7.823E-02, 3.224E-03
 263, 7.639E-02, 1.648E-01, 7.823E-02, 3.224E-03 - K.
 235 (264-265) [l=447 cm][447 def.]
 264, 7.633E-02, 1.751E-01, 7.823E-02, 3.228E-03
 i', 7.633E-02, 1.751E-01, 7.823E-02, 3.228E-03 - K.
 j', 8.442E-02, 2.384E-01, 7.823E-02, 3.400E-03
 265, 8.442E-02, 2.384E-01, 7.823E-02, 3.400E-03
 236 (265-266) [l=447 cm][447 def.]
 265, 8.442E-02, 2.384E-01, 7.823E-02, 3.397E-03 - K.
 i', 8.442E-02, 2.384E-01, 7.823E-02, 3.397E-03
 j', 7.639E-02, 1.751E-01, 7.823E-02, 3.224E-03
 266, 7.639E-02, 1.751E-01, 7.823E-02, 3.224E-03 - K.
 237 (267-268) [l=447 cm][447 def.]
 267, 7.633E-02, 1.854E-01, 7.823E-02, 3.228E-03
 i', 7.633E-02, 1.854E-01, 7.823E-02, 3.228E-03 - K.
 j', 8.407E-02, 2.553E-01, 7.822E-02, 3.332E-03
 268, 8.407E-02, 2.553E-01, 7.822E-02, 3.332E-03
 238 (268-269) [l=447 cm][447 def.]
 268, 8.407E-02, 2.553E-01, 7.822E-02, 3.329E-03 - Z.
 i', 8.407E-02, 2.553E-01, 7.822E-02, 3.329E-03
 j', 7.639E-02, 1.854E-01, 7.823E-02, 3.224E-03
 269, 7.639E-02, 1.854E-01, 7.823E-02, 3.224E-03 - Z.
 239 (270-271) [l=447 cm][447 def.]
 270, 8.369E-02, 3.017E-01, 7.822E-02, 3.254E-03
 i', 8.369E-02, 3.017E-01, 7.822E-02, 3.254E-03 - Z.
 j', 7.639E-02, 1.957E-01, 7.823E-02, 3.224E-03
 271, 7.639E-02, 1.957E-01, 7.823E-02, 3.224E-03
 240 (272-270) [l=447 cm][447 def.]
 272, 7.633E-02, 1.957E-01, 7.823E-02, 3.228E-03 - Z.
 i', 7.633E-02, 1.957E-01, 7.823E-02, 3.228E-03
 j', 8.369E-02, 3.017E-01, 7.822E-02, 3.257E-03
 270, 8.369E-02, 3.017E-01, 7.822E-02, 3.257E-03 - Z.
 241 (212-248) [l=395 cm][395 def.]
 212, 6.186E-01, 1.809E-01, 8.729E-03, 1.067E-03
 i', 6.186E-01, 1.809E-01, 8.729E-03, 1.067E-03 - Z.
 j', 6.145E-01, 2.441E-01, 8.822E-03, 1.067E-03
 248, 6.145E-01, 2.441E-01, 8.822E-03, 1.067E-03
 242 (248-250) [l=370 cm][370 def.]
 248, 6.145E-01, 2.441E-01, 8.822E-03, 1.067E-03 - Z.
 i', 6.145E-01, 2.441E-01, 8.822E-03, 1.067E-03
 j', 6.107E-01, 1.900E-01, 9.046E-03, 1.067E-03
 250, 6.107E-01, 1.900E-01, 9.046E-03, 1.067E-03 - Z.
 243 (250-253) [l=370 cm][370 def.]
 250, 6.107E-01, 1.900E-01, 9.046E-03, 1.067E-03
 i', 6.107E-01, 1.900E-01, 9.046E-03, 1.067E-03 - Z.
 j', 6.068E-01, 1.359E-01, 9.248E-03, 1.067E-03
 253, 6.068E-01, 1.359E-01, 9.248E-03, 1.067E-03
 244 (253-256) [l=370 cm][370 def.]
 253, 6.068E-01, 1.359E-01, 9.248E-03, 1.067E-03 - Z.
 i', 6.068E-01, 1.359E-01, 9.248E-03, 1.067E-03
 j', 6.030E-01, 8.181E-02, 9.394E-03, 1.067E-03
 256, 6.030E-01, 8.181E-02, 9.394E-03, 1.067E-03 - Z.
 245 (256-273) [l=368 cm][368 def.]
 256, 6.030E-01, 8.181E-02, 9.394E-03, 1.067E-03
 i', 6.030E-01, 8.181E-02, 9.394E-03, 1.067E-03 - Z.
 j', 6.006E-01, 2.533E-02, 9.460E-03, 1.067E-03
 273, 6.006E-01, 2.533E-02, 9.460E-03, 1.067E-03

246 (273-274) [l=330 cm][330 def.]
 273, 6.006E-01, 2.533E-02, 9.460E-03, 1.067E-03 - Z.
 i', 6.006E-01, 2.533E-02, 9.460E-03, 1.067E-03
 j', 5.978E-01, 2.013E-02, 9.453E-03, 1.067E-03
 274, 5.978E-01, 2.013E-02, 9.453E-03, 1.067E-03 - Z.
 247 (274-262) [l=402 cm][402 def.]
 274, 5.978E-01, 2.013E-02, 9.453E-03, 1.067E-03
 i', 5.978E-01, 2.013E-02, 9.453E-03, 1.067E-03 - Z.
 j', 5.972E-01, 8.028E-02, 9.368E-03, 1.067E-03
 262, 5.972E-01, 8.028E-02, 9.368E-03, 1.067E-03
 248 (265-262) [l=370 cm][370 def.]
 265, 5.980E-01, 1.337E-01, 9.222E-03, 1.067E-03 - Z.
 i', 5.980E-01, 1.337E-01, 9.222E-03, 1.067E-03
 j', 5.972E-01, 8.028E-02, 9.368E-03, 1.067E-03
 262, 5.972E-01, 8.028E-02, 9.368E-03, 1.067E-03 - Z.
 249 (268-265) [l=370 cm][370 def.]
 268, 5.988E-01, 1.925E-01, 9.027E-03, 1.067E-03
 i', 5.988E-01, 1.925E-01, 9.027E-03, 1.067E-03 - Z.
 j', 5.980E-01, 1.337E-01, 9.222E-03, 1.067E-03
 265, 5.980E-01, 1.337E-01, 9.222E-03, 1.067E-03
 250 (275-270) [l=395 cm][395 def.]
 275, 6.006E-01, 1.779E-01, 8.729E-03, 1.067E-03 - Z.
 i', 6.006E-01, 1.779E-01, 8.729E-03, 1.067E-03
 j', 5.997E-01, 2.561E-01, 8.814E-03, 1.067E-03
 270, 5.997E-01, 2.561E-01, 8.814E-03, 1.067E-03 - Z.
 251 (270-268) [l=370 cm][370 def.]
 270, 5.997E-01, 2.561E-01, 8.814E-03, 1.067E-03
 i', 5.997E-01, 2.561E-01, 8.814E-03, 1.067E-03 - Z.
 j', 5.988E-01, 1.925E-01, 9.027E-03, 1.067E-03
 268, 5.988E-01, 1.925E-01, 9.027E-03, 1.067E-03
 252 (277-278) [l=447 cm][447 def.]
 277, 7.803E-02, 2.122E-01, 7.822E-02, 3.226E-03 - Z.
 i', 7.803E-02, 2.122E-01, 7.822E-02, 3.226E-03
 j', 8.538E-02, 2.595E-01, 7.822E-02, 3.226E-03
 278, 8.538E-02, 2.595E-01, 7.822E-02, 3.226E-03 - Z.
 253 (279-278) [l=447 cm][447 def.]
 279, 7.803E-02, 2.122E-01, 7.822E-02, 3.226E-03
 i', 7.803E-02, 2.122E-01, 7.822E-02, 3.226E-03 - Z.
 j', 8.538E-02, 2.595E-01, 7.822E-02, 3.226E-03
 278, 8.538E-02, 2.595E-01, 7.822E-02, 3.226E-03
 254 (280-281) [l=447 cm][447 def.]
 280, 7.803E-02, 2.135E-01, 7.824E-02, 3.226E-03 - Z.
 i', 7.803E-02, 2.135E-01, 7.824E-02, 3.226E-03
 j', 8.538E-02, 2.663E-01, 7.824E-02, 3.226E-03
 281, 8.538E-02, 2.663E-01, 7.824E-02, 3.226E-03 - Z.
 255 (276-281) [l=447 cm][447 def.]
 276, 7.803E-02, 2.135E-01, 7.824E-02, 3.226E-03
 i', 7.803E-02, 2.135E-01, 7.824E-02, 3.226E-03 - Z.
 j', 8.538E-02, 2.664E-01, 7.824E-02, 3.226E-03
 281, 8.538E-02, 2.664E-01, 7.824E-02, 3.226E-03
 256 (282-j'-283) [l=181 cm][173 def.-8 rig.]
 282, 6.367E-02, 3.346E-01, 7.834E-02, 1.063E-03 - Z.
 i', 6.367E-02, 3.346E-01, 7.834E-02, 1.063E-03
 j', 4.039E-02, 1.889E-01, 7.855E-02, 1.063E-03
 283, 4.036E-02, 1.827E-01, 7.855E-02, 1.063E-03 - Z.
 257 (283-i'-j'-284) [l=140 cm][8 rig.-124 def.-8 rig.]
 283, 4.036E-02, 1.827E-01, 7.855E-02, 1.063E-03
 i', 4.033E-02, 1.764E-01, 7.855E-02, 1.063E-03 - Z.
 j', 3.684E-02, 8.326E-02, 7.861E-02, 1.063E-03
 284, 3.680E-02, 7.697E-02, 7.861E-02, 1.063E-03
 258 (285-i'-j'-286) [l=140 cm][8 rig.-124 def.-8 rig.]
 285, 4.036E-02, 1.826E-01, 7.855E-02, 1.063E-03 - Z.
 i', 4.033E-02, 1.764E-01, 7.855E-02, 1.063E-03
 j', 3.684E-02, 8.325E-02, 7.861E-02, 1.063E-03
 286, 3.680E-02, 7.696E-02, 7.861E-02, 1.063E-03 - Z.
 259 (287-j'-285) [l=181 cm][173 def.-8 rig.]
 287, 6.367E-02, 3.345E-01, 7.834E-02, 1.063E-03
 i', 6.367E-02, 3.345E-01, 7.834E-02, 1.063E-03 - Z.
 j', 4.040E-02, 1.889E-01, 7.855E-02, 1.063E-03
 285, 4.036E-02, 1.826E-01, 7.855E-02, 1.063E-03
 260 (286-i'-j'-284) [l=200 cm][8 rig.-184 def.-8 rig.]
 286, 3.680E-02, 7.696E-02, 7.861E-02, 1.063E-03 - Z.
 i', 3.679E-02, 7.067E-02, 7.861E-02, 1.063E-03
 j', 3.679E-02, 7.068E-02, 7.861E-02, 1.063E-03
 284, 3.680E-02, 7.697E-02, 7.861E-02, 1.063E-03 - Z.
 261 (288-273) [l=106 cm][106 def.]
 288, 8.261E-02, 1.231E-01, 7.852E-02, 3.466E-03
 i', 8.261E-02, 1.231E-01, 7.852E-02, 3.466E-03 - Z.
 j', 8.475E-02, 2.086E-01, 7.919E-02, 3.478E-03
 273, 8.475E-02, 2.086E-01, 7.919E-02, 3.478E-03
 262 (260-288) [l=149 cm][149 def.]
 260, 7.970E-02, 6.372E-02, 7.918E-02, 3.412E-03 - Z.
 i', 7.970E-02, 6.372E-02, 7.918E-02, 3.412E-03
 j', 8.261E-02, 1.233E-01, 7.852E-02, 3.469E-03
 288, 8.261E-02, 1.233E-01, 7.852E-02, 3.469E-03 - Z.
 263 (289-290) [l=192 cm][192 def.]

289, 7.644E-02, 1.552E-01, 7.824E-02, 3.223E-03
 i', 7.644E-02, 1.552E-01, 7.824E-02, 3.223E-03 - Z.
 j', 7.978E-02, 6.372E-02, 7.918E-02, 3.410E-03
 290, 7.978E-02, 6.372E-02, 7.918E-02, 3.410E-03
 264 (290-291) [l=149 cm][149 def.]
 290, 7.970E-02, 6.373E-02, 7.918E-02, 3.412E-03 - Z.
 i', 7.970E-02, 6.373E-02, 7.918E-02, 3.412E-03
 j', 8.261E-02, 1.233E-01, 7.852E-02, 3.470E-03
 291, 8.261E-02, 1.233E-01, 7.852E-02, 3.470E-03 - Z.
 265 (291-273) [l=106 cm][106 def.]
 291, 8.261E-02, 1.231E-01, 7.852E-02, 3.466E-03
 i', 8.261E-02, 1.231E-01, 7.852E-02, 3.466E-03 - Z.
 j', 8.475E-02, 2.086E-01, 7.919E-02, 3.478E-03
 273, 8.475E-02, 2.086E-01, 7.919E-02, 3.478E-03
 266 (292-i'-j'-293) [l=140 cm][8 rig.-124 def.-8 rig.]
 292, 4.047E-02, 1.801E-01, 7.854E-02, 1.063E-03 - Z.
 i', 4.043E-02, 1.738E-01, 7.854E-02, 1.063E-03
 j', 3.687E-02, 8.126E-02, 7.859E-02, 1.063E-03
 293, 3.683E-02, 7.497E-02, 7.859E-02, 1.063E-03 - Z.
 267 (294-j'-292) [l=181 cm][173 def.-8 rig.]
 294, 6.367E-02, 3.327E-01, 7.834E-02, 1.063E-03
 i', 6.367E-02, 3.327E-01, 7.834E-02, 1.063E-03 - Z.
 j', 4.050E-02, 1.863E-01, 7.854E-02, 1.063E-03
 292, 4.047E-02, 1.801E-01, 7.854E-02, 1.063E-03
 268 (295-i'-j'-293) [l=200 cm][8 rig.-184 def.-8 rig.]
 295, 3.683E-02, 7.497E-02, 7.859E-02, 1.063E-03 - Z.
 i', 3.680E-02, 6.868E-02, 7.859E-02, 1.063E-03
 j', 3.680E-02, 6.869E-02, 7.859E-02, 1.063E-03
 293, 3.683E-02, 7.497E-02, 7.859E-02, 1.063E-03 - Z.
 269 (296-297) [l=149 cm][149 def.]
 296, 7.980E-02, 5.957E-02, 7.850E-02, 3.415E-03
 i', 7.980E-02, 5.957E-02, 7.850E-02, 3.415E-03 - Z.
 j', 8.273E-02, 1.206E-01, 7.850E-02, 3.465E-03
 297, 8.273E-02, 1.206E-01, 7.850E-02, 3.465E-03
 270 (298-296) [l=192 cm][192 def.]
 298, 7.636E-02, 1.536E-01, 7.823E-02, 3.227E-03 - Z.
 i', 7.636E-02, 1.536E-01, 7.823E-02, 3.227E-03
 j', 7.969E-02, 5.955E-02, 7.849E-02, 3.421E-03
 296, 7.969E-02, 5.955E-02, 7.849E-02, 3.421E-03 - Z.
 271 (297-274) [l=106 cm][106 def.]
 297, 8.261E-02, 1.204E-01, 7.850E-02, 3.467E-03
 i', 8.261E-02, 1.204E-01, 7.850E-02, 3.467E-03 - Z.
 j', 8.474E-02, 2.062E-01, 7.925E-02, 3.476E-03
 274, 8.474E-02, 2.062E-01, 7.925E-02, 3.476E-03
 272 (299-274) [l=106 cm][106 def.]
 299, 8.261E-02, 1.204E-01, 7.850E-02, 3.467E-03 - Z.
 i', 8.261E-02, 1.204E-01, 7.850E-02, 3.467E-03
 j', 8.474E-02, 2.062E-01, 7.925E-02, 3.475E-03
 274, 8.474E-02, 2.062E-01, 7.925E-02, 3.475E-03 - Z.
 273 (300-299) [l=149 cm][149 def.]
 300, 7.980E-02, 5.957E-02, 7.849E-02, 3.415E-03
 i', 7.980E-02, 5.957E-02, 7.849E-02, 3.415E-03 - Z.
 j', 8.273E-02, 1.206E-01, 7.850E-02, 3.465E-03
 299, 8.273E-02, 1.206E-01, 7.850E-02, 3.465E-03
 274 (301-300) [l=192 cm][192 def.]
 301, 7.636E-02, 1.536E-01, 7.823E-02, 3.227E-03 - Z.
 i', 7.636E-02, 1.536E-01, 7.823E-02, 3.227E-03
 j', 7.969E-02, 5.955E-02, 7.849E-02, 3.421E-03
 300, 7.969E-02, 5.955E-02, 7.849E-02, 3.421E-03 - Z.
 275 (302-i'-j'-295) [l=140 cm][8 rig.-124 def.-8 rig.]
 302, 4.047E-02, 1.800E-01, 7.854E-02, 1.063E-03
 i', 4.044E-02, 1.738E-01, 7.854E-02, 1.063E-03 - Z.
 j', 3.687E-02, 8.125E-02, 7.859E-02, 1.063E-03
 295, 3.683E-02, 7.497E-02, 7.859E-02, 1.063E-03
 276 (303-j'-302) [l=181 cm][173 def.-8 rig.]
 303, 6.367E-02, 3.327E-01, 7.834E-02, 1.063E-03 - Z.
 i', 6.367E-02, 3.327E-01, 7.834E-02, 1.063E-03
 j', 4.050E-02, 1.863E-01, 7.854E-02, 1.063E-03
 302, 4.047E-02, 1.800E-01, 7.854E-02, 1.063E-03 - Z.
 277 (304-j'-305) [l=650 cm][226 def.-424 rig.]
 304, 0.000E+00, 0.000E+00, 8.765E-03, 7.322E-02
 i', 0.000E+00, 0.000E+00, 8.765E-03, 7.322E-02 - Z.
 j', 2.440E-01, 3.334E-02, 1.452E-02, 7.861E-02
 305, 5.760E-01, 9.489E-02, 1.452E-02, 7.861E-02
 278 (306-j'-307) [l=600 cm][226 def.-374 rig.]
 306, 0.000E+00, 0.000E+00, 8.938E-03, 7.664E-02 - Z.
 i', 0.000E+00, 0.000E+00, 8.938E-03, 7.664E-02
 j', 2.442E-01, 3.718E-02, 1.341E-02, 7.855E-02
 307, 5.367E-01, 8.707E-02, 1.341E-02, 7.855E-02 - Z.
 279 (308-j'-309) [l=600 cm][226 def.-374 rig.]
 308, 0.000E+00, 0.000E+00, 8.937E-03, 7.664E-02
 i', 0.000E+00, 0.000E+00, 8.937E-03, 7.664E-02 - Z.
 j', 2.442E-01, 3.718E-02, 1.341E-02, 7.855E-02
 309, 5.367E-01, 8.707E-02, 1.341E-02, 7.855E-02
 280 (310-j'-311) [l=650 cm][226 def.-424 rig.]
 310, 0.000E+00, 0.000E+00, 8.764E-03, 7.322E-02 - Z.

i', 0.000E+00, 0.000E+00, 8.764E-03, 7.322E-02
 j', 2.440E-01, 3.334E-02, 1.452E-02, 7.861E-02
 311, 5.760E-01, 9.489E-02, 1.452E-02, 7.861E-02 - Z.
 281 (312-j'-313) [l=600 cm][226 def.-374 rig.]
 312, 0.000E+00, 0.000E+00, 9.103E-03, 7.630E-02
 i', 0.000E+00, 0.000E+00, 9.103E-03, 7.630E-02 - Z.
 j', 2.413E-01, 3.730E-02, 1.342E-02, 7.854E-02
 313, 5.338E-01, 8.702E-02, 1.342E-02, 7.854E-02
 282 (314-j'-315) [l=650 cm][226 def.-424 rig.]
 314, 0.000E+00, 0.000E+00, 8.807E-03, 7.266E-02 - Z.
 i', 0.000E+00, 0.000E+00, 8.807E-03, 7.266E-02
 j', 2.412E-01, 3.335E-02, 1.455E-02, 7.859E-02
 315, 5.730E-01, 9.487E-02, 1.455E-02, 7.859E-02 - Z.
 283 (316-j'-317) [l=650 cm][226 def.-424 rig.]
 316, 0.000E+00, 0.000E+00, 8.807E-03, 7.266E-02
 i', 0.000E+00, 0.000E+00, 8.807E-03, 7.266E-02 - Z.
 j', 2.412E-01, 3.335E-02, 1.455E-02, 7.859E-02
 317, 5.730E-01, 9.487E-02, 1.455E-02, 7.859E-02
 284 (318-j'-319) [l=600 cm][226 def.-374 rig.]
 318, 0.000E+00, 0.000E+00, 9.103E-03, 7.629E-02 - Z.
 i', 0.000E+00, 0.000E+00, 9.103E-03, 7.629E-02
 j', 2.413E-01, 3.730E-02, 1.342E-02, 7.854E-02
 319, 5.338E-01, 8.703E-02, 1.342E-02, 7.854E-02 - Z.
 285 (320-148) [l=188 cm][188 def.]
 320, 2.660E-01, 6.226E-02, 8.731E-03, 7.834E-02
 i', 2.660E-01, 6.226E-02, 8.731E-03, 7.834E-02 - Z.
 j', 4.124E-01, 6.994E-02, 8.731E-03, 7.834E-02
 148, 4.124E-01, 6.994E-02, 8.731E-03, 7.834E-02
 286 (321-151) [l=188 cm][188 def.]
 321, 2.660E-01, 6.226E-02, 8.730E-03, 7.834E-02 - Z.
 i', 2.660E-01, 6.226E-02, 8.730E-03, 7.834E-02
 j', 4.124E-01, 6.994E-02, 8.730E-03, 7.834E-02
 151, 4.124E-01, 6.994E-02, 8.730E-03, 7.834E-02 - Z.
 287 (320-321) [l=200 cm][200 def.]
 320, 6.226E-02, 8.961E-02, 7.834E-02, 1.063E-03
 i', 6.226E-02, 8.961E-02, 7.834E-02, 1.063E-03 - Z.
 j', 6.226E-02, 8.959E-02, 7.834E-02, 1.063E-03
 321, 6.226E-02, 8.959E-02, 7.834E-02, 1.063E-03
 288 (322-140) [l=188 cm][188 def.]
 322, 2.612E-01, 6.225E-02, 8.729E-03, 7.834E-02 - Z.
 i', 2.612E-01, 6.225E-02, 8.729E-03, 7.834E-02
 j', 4.076E-01, 6.994E-02, 8.729E-03, 7.834E-02
 140, 4.076E-01, 6.994E-02, 8.729E-03, 7.834E-02 - Z.
 289 (323-143) [l=188 cm][188 def.]
 323, 2.612E-01, 6.225E-02, 8.729E-03, 7.834E-02
 i', 2.612E-01, 6.225E-02, 8.729E-03, 7.834E-02 - Z.
 j', 4.076E-01, 6.994E-02, 8.729E-03, 7.834E-02
 143, 4.076E-01, 6.994E-02, 8.729E-03, 7.834E-02
 290 (322-323) [l=200 cm][200 def.]
 322, 6.225E-02, 8.762E-02, 7.834E-02, 1.063E-03 - Z.
 i', 6.225E-02, 8.762E-02, 7.834E-02, 1.063E-03
 j', 6.225E-02, 8.763E-02, 7.834E-02, 1.063E-03
 323, 6.225E-02, 8.763E-02, 7.834E-02, 1.063E-03 - Z.
 291 (98-139) [l=62 cm][62 def.]
 98, 4.560E-01, 7.446E-02, 8.729E-03, 7.834E-02
 i', 4.560E-01, 7.446E-02, 8.729E-03, 7.834E-02 - Z.
 j', 4.076E-01, 7.131E-02, 8.729E-03, 7.834E-02
 139, 4.076E-01, 7.131E-02, 8.729E-03, 7.834E-02
 292 (276-156) [l=30 cm][30 def.]
 276, 5.249E-01, 7.803E-02, 8.729E-03, 7.824E-02 - Z.
 i', 5.249E-01, 7.803E-02, 8.729E-03, 7.824E-02
 j', 5.015E-01, 7.636E-02, 8.729E-03, 7.824E-02
 156, 5.015E-01, 7.636E-02, 8.729E-03, 7.824E-02 - Z.
 293 (155-324) [l=30 cm][30 def.]
 155, 4.955E-01, 7.636E-02, 8.729E-03, 7.824E-02
 i', 4.955E-01, 7.636E-02, 8.729E-03, 7.824E-02 - Z.
 j', 5.189E-01, 7.803E-02, 8.729E-03, 7.824E-02
 324, 5.189E-01, 7.803E-02, 8.729E-03, 7.824E-02
 294 (159-325) [l=30 cm][30 def.]
 159, 4.894E-01, 7.636E-02, 8.730E-03, 7.824E-02 - Z.
 i', 4.894E-01, 7.636E-02, 8.730E-03, 7.824E-02
 j', 5.128E-01, 7.803E-02, 8.730E-03, 7.824E-02
 325, 5.128E-01, 7.803E-02, 8.730E-03, 7.824E-02 - Z.
 295 (162-326) [l=30 cm][30 def.]
 162, 4.846E-01, 7.636E-02, 8.730E-03, 7.824E-02
 i', 4.846E-01, 7.636E-02, 8.730E-03, 7.824E-02 - Z.
 j', 5.080E-01, 7.803E-02, 8.730E-03, 7.824E-02
 326, 5.080E-01, 7.803E-02, 8.730E-03, 7.824E-02
 296 (164-259) [l=0 cm][0 def.]
 164, 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03 - Z.
 i', 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03
 j', 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03
 259, 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03 - Z.
 297 (164-327) [l=30 cm][30 def.]
 164, 4.821E-01, 7.636E-02, 8.730E-03, 7.823E-02
 i', 4.821E-01, 7.636E-02, 8.730E-03, 7.823E-02 - Z.

j', 5.055E-01, 7.803E-02, 8.730E-03, 7.823E-02
 327, 5.055E-01, 7.803E-02, 8.730E-03, 7.823E-02
 298 (167-328) [l=30 cm][30 def.]
 167, 4.792E-01, 7.636E-02, 8.730E-03, 7.823E-02 - Z.
 i', 4.792E-01, 7.636E-02, 8.730E-03, 7.823E-02
 j', 5.026E-01, 7.803E-02, 8.730E-03, 7.823E-02
 328, 5.026E-01, 7.803E-02, 8.730E-03, 7.823E-02 - Z.
 299 (167-301) [l=0 cm][0 def.]
 167, 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03
 i', 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03 - Z.
 j', 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03
 301, 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03
 300 (169-329) [l=30 cm][30 def.]
 169, 4.797E-01, 7.636E-02, 8.730E-03, 7.823E-02 - Z.
 i', 4.797E-01, 7.636E-02, 8.730E-03, 7.823E-02
 j', 5.031E-01, 7.803E-02, 8.730E-03, 7.823E-02
 329, 5.031E-01, 7.803E-02, 8.730E-03, 7.823E-02 - Z.
 301 (172-330) [l=30 cm][30 def.]
 172, 4.808E-01, 7.636E-02, 8.729E-03, 7.823E-02
 i', 4.808E-01, 7.636E-02, 8.729E-03, 7.823E-02 - K.
 j', 5.042E-01, 7.803E-02, 8.729E-03, 7.823E-02
 330, 5.042E-01, 7.803E-02, 8.729E-03, 7.823E-02
 302 (175-331) [l=30 cm][30 def.]
 175, 4.822E-01, 7.636E-02, 8.729E-03, 7.823E-02 - K.
 i', 4.822E-01, 7.636E-02, 8.729E-03, 7.823E-02
 j', 5.056E-01, 7.803E-02, 8.729E-03, 7.823E-02
 331, 5.056E-01, 7.803E-02, 8.729E-03, 7.823E-02 - K.
 303 (182-279) [l=30 cm][30 def.]
 182, 4.836E-01, 7.636E-02, 8.729E-03, 7.822E-02
 i', 4.836E-01, 7.636E-02, 8.729E-03, 7.822E-02 - K.
 j', 5.070E-01, 7.803E-02, 8.729E-03, 7.822E-02
 279, 5.070E-01, 7.803E-02, 8.729E-03, 7.822E-02
 304 (181-332) [l=30 cm][30 def.]
 181, 4.822E-01, 7.636E-02, 8.729E-03, 7.823E-02 - K.
 i', 4.822E-01, 7.636E-02, 8.729E-03, 7.823E-02
 j', 5.056E-01, 7.803E-02, 8.729E-03, 7.823E-02
 332, 5.056E-01, 7.803E-02, 8.729E-03, 7.823E-02 - K.
 305 (185-333) [l=30 cm][30 def.]
 185, 4.808E-01, 7.636E-02, 8.730E-03, 7.823E-02
 i', 4.808E-01, 7.636E-02, 8.730E-03, 7.823E-02 - K.
 j', 5.042E-01, 7.803E-02, 8.730E-03, 7.823E-02
 333, 5.042E-01, 7.803E-02, 8.730E-03, 7.823E-02
 306 (188-334) [l=30 cm][30 def.]
 188, 4.797E-01, 7.636E-02, 8.730E-03, 7.823E-02 - T.
 i', 4.797E-01, 7.636E-02, 8.730E-03, 7.823E-02
 j', 5.031E-01, 7.803E-02, 8.730E-03, 7.823E-02
 334, 5.031E-01, 7.803E-02, 8.730E-03, 7.823E-02 - K.
 307 (190-298) [l=0 cm][0 def.]
 190, 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03
 i', 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03 - K.
 j', 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03
 298, 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03
 308 (190-335) [l=30 cm][30 def.]
 190, 4.792E-01, 7.636E-02, 8.730E-03, 7.823E-02 - K.
 i', 4.792E-01, 7.636E-02, 8.730E-03, 7.823E-02
 j', 5.026E-01, 7.803E-02, 8.730E-03, 7.823E-02
 335, 5.026E-01, 7.803E-02, 8.730E-03, 7.823E-02 - T.
 309 (193-289) [l=0 cm][0 def.]
 193, 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03
 i', 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03 - K.
 j', 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03
 289, 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03
 310 (193-336) [l=30 cm][30 def.]
 193, 4.821E-01, 7.636E-02, 8.730E-03, 7.823E-02 - K.
 i', 4.821E-01, 7.636E-02, 8.730E-03, 7.823E-02
 j', 5.055E-01, 7.803E-02, 8.730E-03, 7.823E-02
 336, 5.055E-01, 7.803E-02, 8.730E-03, 7.823E-02 - K.
 311 (195-337) [l=30 cm][30 def.]
 195, 4.846E-01, 7.636E-02, 8.730E-03, 7.824E-02
 i', 4.846E-01, 7.636E-02, 8.730E-03, 7.824E-02 - T.
 j', 5.080E-01, 7.803E-02, 8.730E-03, 7.824E-02
 337, 5.080E-01, 7.803E-02, 8.730E-03, 7.824E-02
 312 (198-338) [l=30 cm][30 def.]
 198, 4.894E-01, 7.636E-02, 8.730E-03, 7.824E-02 - K.
 i', 4.894E-01, 7.636E-02, 8.730E-03, 7.824E-02
 j', 5.128E-01, 7.803E-02, 8.730E-03, 7.824E-02
 338, 5.128E-01, 7.803E-02, 8.730E-03, 7.824E-02 - K.
 313 (204-280) [l=30 cm][30 def.]
 204, 5.015E-01, 7.636E-02, 8.729E-03, 7.824E-02
 i', 5.015E-01, 7.636E-02, 8.729E-03, 7.824E-02 - K.
 j', 5.249E-01, 7.803E-02, 8.729E-03, 7.824E-02
 280, 5.249E-01, 7.803E-02, 8.729E-03, 7.824E-02
 314 (201-339) [l=30 cm][30 def.]
 201, 4.955E-01, 7.636E-02, 8.730E-03, 7.824E-02 - T.
 i', 4.955E-01, 7.636E-02, 8.730E-03, 7.824E-02
 j', 5.189E-01, 7.803E-02, 8.730E-03, 7.824E-02

339, 5.189E-01, 7.803E-02, 8.730E-03, 7.824E-02 - K.
 315 (275-207) [l=0 cm][0 def.]
 275, 6.006E-01, 1.779E-01, 8.729E-03, 1.067E-03
 i', 6.006E-01, 1.779E-01, 8.729E-03, 1.067E-03 - K.
 j', 6.006E-01, 1.779E-01, 8.729E-03, 1.067E-03
 207, 6.006E-01, 1.779E-01, 8.729E-03, 1.067E-03
 316 (207-278) [l=30 cm][30 def.]
 207, 6.006E-01, 8.347E-02, 8.729E-03, 7.822E-02 - K.
 i', 6.006E-01, 8.347E-02, 8.729E-03, 7.822E-02
 j', 6.240E-01, 8.538E-02, 8.729E-03, 7.822E-02
 278, 6.240E-01, 8.538E-02, 8.729E-03, 7.822E-02 - T.
 317 (281-212) [l=30 cm][30 def.]
 281, 6.420E-01, 8.538E-02, 8.729E-03, 7.824E-02
 i', 6.420E-01, 8.538E-02, 8.729E-03, 7.824E-02 - K.
 j', 6.186E-01, 8.347E-02, 8.729E-03, 7.824E-02
 212, 6.186E-01, 8.347E-02, 8.729E-03, 7.824E-02
 318 (275-278) [l=30 cm][30 def.]
 275, 6.006E-01, 8.347E-02, 8.729E-03, 7.822E-02 - K.
 i', 6.006E-01, 8.347E-02, 8.729E-03, 7.822E-02
 j', 6.240E-01, 8.538E-02, 8.729E-03, 7.822E-02
 278, 6.240E-01, 8.538E-02, 8.729E-03, 7.822E-02 - K.
 319 (277-178) [l=30 cm][30 def.]
 277, 5.070E-01, 7.803E-02, 8.729E-03, 7.822E-02
 i', 5.070E-01, 7.803E-02, 8.729E-03, 7.822E-02 - T.
 j', 4.836E-01, 7.636E-02, 8.729E-03, 7.822E-02
 178, 4.836E-01, 7.636E-02, 8.729E-03, 7.822E-02
 320 (153-131) [l=115 cm][115 def.]
 153, 4.747E-01, 3.762E-01, 8.730E-03, 1.063E-03 - K.
 i', 4.747E-01, 3.762E-01, 8.730E-03, 1.063E-03
 j', 4.735E-01, 3.732E-01, 8.730E-03, 1.063E-03
 131, 4.735E-01, 3.732E-01, 8.730E-03, 1.063E-03 - K.
 321 (153-135) [l=112 cm][112 def.]
 153, 4.747E-01, 3.762E-01, 8.730E-03, 1.063E-03
 i', 4.747E-01, 3.762E-01, 8.730E-03, 1.063E-03 - K.
 j', 4.758E-01, 3.791E-01, 8.729E-03, 1.063E-03
 135, 4.758E-01, 3.791E-01, 8.729E-03, 1.063E-03
 322 (157-123) [l=113 cm][113 def.]
 157, 4.687E-01, 3.608E-01, 8.731E-03, 1.063E-03 - T.
 i', 4.687E-01, 3.608E-01, 8.731E-03, 1.063E-03
 j', 4.675E-01, 3.579E-01, 8.731E-03, 1.063E-03
 123, 4.675E-01, 3.579E-01, 8.731E-03, 1.063E-03 - K.
 323 (157-126) [l=113 cm][113 def.]
 157, 4.687E-01, 3.608E-01, 8.731E-03, 1.063E-03
 i', 4.687E-01, 3.608E-01, 8.731E-03, 1.063E-03 - K.
 j', 4.698E-01, 3.638E-01, 8.731E-03, 1.063E-03
 126, 4.698E-01, 3.638E-01, 8.731E-03, 1.063E-03
 324 (160-115) [l=171 cm][171 def.]
 160, 4.632E-01, 3.471E-01, 8.731E-03, 1.063E-03 - K.
 i', 4.632E-01, 3.471E-01, 8.731E-03, 1.063E-03
 j', 4.615E-01, 3.426E-01, 8.731E-03, 1.063E-03
 115, 4.615E-01, 3.426E-01, 8.731E-03, 1.063E-03 - T.
 325 (160-119) [l=56 cm][56 def.]
 160, 4.632E-01, 3.471E-01, 8.731E-03, 1.063E-03
 i', 4.632E-01, 3.471E-01, 8.731E-03, 1.063E-03 - K.
 j', 4.638E-01, 3.485E-01, 8.731E-03, 1.063E-03
 119, 4.638E-01, 3.485E-01, 8.731E-03, 1.063E-03
 326 (165-104) [l=113 cm][113 def.]
 165, 4.566E-01, 3.305E-01, 8.730E-03, 1.063E-03 - K.
 i', 4.566E-01, 3.305E-01, 8.730E-03, 1.063E-03
 j', 4.554E-01, 3.314E-01, 8.730E-03, 1.063E-03
 104, 4.554E-01, 3.314E-01, 8.730E-03, 1.063E-03 - K.
 327 (165-107) [l=113 cm][113 def.]
 165, 4.566E-01, 3.305E-01, 8.730E-03, 1.063E-03
 i', 4.566E-01, 3.305E-01, 8.730E-03, 1.063E-03 - T.
 j', 4.578E-01, 3.332E-01, 8.730E-03, 1.063E-03
 107, 4.578E-01, 3.332E-01, 8.730E-03, 1.063E-03
 328 (170-93) [l=33 cm][33 def.]
 170, 4.565E-01, 3.450E-01, 8.729E-03, 1.063E-03 - K.
 i', 4.565E-01, 3.450E-01, 8.729E-03, 1.063E-03
 j', 4.566E-01, 3.458E-01, 8.729E-03, 1.063E-03
 93, 4.566E-01, 3.458E-01, 8.729E-03, 1.063E-03 - K.
 329 (170-97) [l=193 cm][193 def.]
 170, 4.565E-01, 3.450E-01, 8.729E-03, 1.063E-03
 i', 4.565E-01, 3.450E-01, 8.729E-03, 1.063E-03 - K.
 j', 4.561E-01, 3.399E-01, 8.729E-03, 1.063E-03
 97, 4.561E-01, 3.399E-01, 8.729E-03, 1.063E-03
 330 (173-85) [l=113 cm][113 def.]
 173, 4.577E-01, 3.590E-01, 8.728E-03, 1.063E-03 - T.
 i', 4.577E-01, 3.590E-01, 8.728E-03, 1.063E-03
 j', 4.580E-01, 3.620E-01, 8.728E-03, 1.063E-03
 85, 4.580E-01, 3.620E-01, 8.728E-03, 1.063E-03 - K.
 331 (173-88) [l=113 cm][113 def.]
 173, 4.577E-01, 3.590E-01, 8.728E-03, 1.063E-03
 i', 4.577E-01, 3.590E-01, 8.728E-03, 1.063E-03 - K.
 j', 4.575E-01, 3.561E-01, 8.728E-03, 1.063E-03
 88, 4.575E-01, 3.561E-01, 8.728E-03, 1.063E-03

332 (176-77) [l=132 cm][132 def.]
176, 4.591E-01, 3.747E-01, 8.727E-03, 1.063E-03 - K.
i', 4.591E-01, 3.747E-01, 8.727E-03, 1.063E-03
j', 4.594E-01, 3.781E-01, 8.727E-03, 1.063E-03
77, 4.594E-01, 3.781E-01, 8.727E-03, 1.063E-03 - K.
333 (176-81) [l=95 cm][95 def.]
176, 4.591E-01, 3.747E-01, 8.727E-03, 1.063E-03
i', 4.591E-01, 3.747E-01, 8.727E-03, 1.063E-03 - K.
j', 4.589E-01, 3.722E-01, 8.728E-03, 1.063E-03
81, 4.589E-01, 3.722E-01, 8.728E-03, 1.063E-03
334 (179-59) [l=95 cm][95 def.]
179, 4.591E-01, 3.747E-01, 8.728E-03, 1.063E-03 - K.
i', 4.591E-01, 3.747E-01, 8.728E-03, 1.063E-03
j', 4.589E-01, 3.722E-01, 8.728E-03, 1.063E-03
59, 4.589E-01, 3.722E-01, 8.728E-03, 1.063E-03 - K.
335 (179-63) [l=132 cm][132 def.]
179, 4.591E-01, 3.747E-01, 8.728E-03, 1.063E-03
i', 4.591E-01, 3.747E-01, 8.728E-03, 1.063E-03 - K.
j', 4.594E-01, 3.781E-01, 8.728E-03, 1.063E-03
63, 4.594E-01, 3.781E-01, 8.728E-03, 1.063E-03
336 (183-51) [l=113 cm][113 def.]
183, 4.577E-01, 3.590E-01, 8.728E-03, 1.063E-03 - K.
i', 4.577E-01, 3.590E-01, 8.728E-03, 1.063E-03
j', 4.575E-01, 3.561E-01, 8.728E-03, 1.063E-03
51, 4.575E-01, 3.561E-01, 8.728E-03, 1.063E-03 - T.
337 (183-54) [l=113 cm][113 def.]
183, 4.577E-01, 3.590E-01, 8.728E-03, 1.063E-03
i', 4.577E-01, 3.590E-01, 8.728E-03, 1.063E-03 - K.
j', 4.580E-01, 3.620E-01, 8.728E-03, 1.063E-03
54, 4.580E-01, 3.620E-01, 8.728E-03, 1.063E-03
338 (186-43) [l=193 cm][193 def.]
186, 4.565E-01, 3.450E-01, 8.729E-03, 1.063E-03 - K.
i', 4.565E-01, 3.450E-01, 8.729E-03, 1.063E-03
j', 4.561E-01, 3.399E-01, 8.729E-03, 1.063E-03
43, 4.561E-01, 3.399E-01, 8.729E-03, 1.063E-03 - K.
339 (186-47) [l=33 cm][33 def.]
186, 4.565E-01, 3.450E-01, 8.729E-03, 1.063E-03
i', 4.565E-01, 3.450E-01, 8.729E-03, 1.063E-03 - T.
j', 4.566E-01, 3.458E-01, 8.729E-03, 1.063E-03
47, 4.566E-01, 3.458E-01, 8.729E-03, 1.063E-03
340 (191-32) [l=113 cm][113 def.]
191, 4.566E-01, 3.305E-01, 8.730E-03, 1.063E-03 - K.
i', 4.566E-01, 3.305E-01, 8.730E-03, 1.063E-03
j', 4.578E-01, 3.332E-01, 8.730E-03, 1.063E-03
32, 4.578E-01, 3.332E-01, 8.730E-03, 1.063E-03 - K.
341 (191-35) [l=113 cm][113 def.]
191, 4.566E-01, 3.305E-01, 8.730E-03, 1.063E-03
i', 4.566E-01, 3.305E-01, 8.730E-03, 1.063E-03 - K.
j', 4.554E-01, 3.314E-01, 8.730E-03, 1.063E-03
35, 4.554E-01, 3.314E-01, 8.730E-03, 1.063E-03
342 (196-21) [l=56 cm][56 def.]
196, 4.632E-01, 3.471E-01, 8.731E-03, 1.063E-03 - T.
i', 4.632E-01, 3.471E-01, 8.731E-03, 1.063E-03
j', 4.638E-01, 3.486E-01, 8.731E-03, 1.063E-03
21, 4.638E-01, 3.486E-01, 8.731E-03, 1.063E-03 - K.
343 (196-25) [l=171 cm][171 def.]
196, 4.632E-01, 3.471E-01, 8.731E-03, 1.063E-03
i', 4.632E-01, 3.471E-01, 8.731E-03, 1.063E-03 - K.
j', 4.615E-01, 3.426E-01, 8.731E-03, 1.063E-03
25, 4.615E-01, 3.426E-01, 8.731E-03, 1.063E-03
344 (199-13) [l=113 cm][113 def.]
199, 4.687E-01, 3.609E-01, 8.731E-03, 1.063E-03 - K.
i', 4.687E-01, 3.609E-01, 8.731E-03, 1.063E-03
j', 4.698E-01, 3.639E-01, 8.731E-03, 1.063E-03
13, 4.698E-01, 3.639E-01, 8.731E-03, 1.063E-03 - T.
345 (199-16) [l=113 cm][113 def.]
199, 4.687E-01, 3.609E-01, 8.731E-03, 1.063E-03
i', 4.687E-01, 3.609E-01, 8.731E-03, 1.063E-03 - K.
j', 4.675E-01, 3.579E-01, 8.731E-03, 1.063E-03
16, 4.675E-01, 3.579E-01, 8.731E-03, 1.063E-03
346 (202-5) [l=112 cm][112 def.]
202, 4.747E-01, 3.762E-01, 8.730E-03, 1.063E-03 - K.
i', 4.747E-01, 3.762E-01, 8.730E-03, 1.063E-03
j', 4.758E-01, 3.792E-01, 8.730E-03, 1.063E-03
5, 4.758E-01, 3.792E-01, 8.730E-03, 1.063E-03 - K.
347 (202-9) [l=115 cm][115 def.]
202, 4.747E-01, 3.762E-01, 8.730E-03, 1.063E-03
i', 4.747E-01, 3.762E-01, 8.730E-03, 1.063E-03 - T.
j', 4.735E-01, 3.732E-01, 8.731E-03, 1.063E-03
9, 4.735E-01, 3.732E-01, 8.731E-03, 1.063E-03
348 (66-205) [l=57 cm][57 def.]
66, 7.381E-02, 2.618E-01, 7.835E-02, 1.063E-03 - T.
i', 7.381E-02, 2.618E-01, 7.835E-02, 1.063E-03
j', 7.357E-02, 2.270E-01, 7.835E-02, 1.063E-03
205, 7.357E-02, 2.270E-01, 7.835E-02, 1.063E-03 - K.
349 (205-68) [l=97 cm][97 def.]

205, 7.357E-02, 2.270E-01, 7.835E-02, 1.063E-03
 i', 7.357E-02, 2.270E-01, 7.835E-02, 1.063E-03 - K.
 j', 7.316E-02, 2.042E-01, 7.835E-02, 1.063E-03
 68, 7.316E-02, 2.042E-01, 7.835E-02, 1.063E-03
 350 (72-208) [l=97 cm][97 def.]
 72, 7.316E-02, 2.042E-01, 7.835E-02, 1.063E-03 - K.
 i', 7.316E-02, 2.042E-01, 7.835E-02, 1.063E-03
 j', 7.357E-02, 2.270E-01, 7.835E-02, 1.063E-03
 208, 7.357E-02, 2.270E-01, 7.835E-02, 1.063E-03 - T.
 351 (208-70) [l=57 cm][57 def.]
 208, 7.357E-02, 2.270E-01, 7.835E-02, 1.063E-03
 i', 7.357E-02, 2.270E-01, 7.835E-02, 1.063E-03 - T.
 j', 7.381E-02, 2.618E-01, 7.835E-02, 1.063E-03
 70, 7.381E-02, 2.618E-01, 7.835E-02, 1.063E-03
 352 (216-210) [l=70 cm][70 def.]
 216, 7.387E-02, 2.740E-01, 7.831E-02, 1.063E-03 - K.
 i', 7.387E-02, 2.740E-01, 7.831E-02, 1.063E-03
 j', 7.357E-02, 2.303E-01, 7.831E-02, 1.063E-03
 210, 7.357E-02, 2.303E-01, 7.831E-02, 1.063E-03 - K.
 353 (210-217) [l=70 cm][70 def.]
 210, 7.378E-02, 2.303E-01, 7.832E-02, 1.063E-03
 i', 7.378E-02, 2.303E-01, 7.832E-02, 1.063E-03 - K.
 j', 7.348E-02, 2.138E-01, 7.832E-02, 1.063E-03
 217, 7.348E-02, 2.138E-01, 7.832E-02, 1.063E-03
 354 (220-213) [l=70 cm][70 def.]
 220, 7.327E-02, 2.138E-01, 7.831E-02, 1.063E-03 - T.
 i', 7.327E-02, 2.138E-01, 7.831E-02, 1.063E-03
 j', 7.357E-02, 2.303E-01, 7.831E-02, 1.063E-03
 213, 7.357E-02, 2.303E-01, 7.831E-02, 1.063E-03 - K.
 355 (213-222) [l=70 cm][70 def.]
 213, 7.337E-02, 2.303E-01, 7.832E-02, 1.063E-03
 i', 7.337E-02, 2.303E-01, 7.832E-02, 1.063E-03 - K.
 j', 7.367E-02, 2.740E-01, 7.832E-02, 1.063E-03
 222, 7.367E-02, 2.740E-01, 7.832E-02, 1.063E-03
 356 (223-1) [l=90 cm][90 def.]
 223, 0.000E+00, 3.807E-01, 9.824E-03, 0.000E+00 - K.
 i', 0.000E+00, 3.807E-01, 9.824E-03, 0.000E+00
 j', 0.000E+00, 3.782E-01, 9.825E-03, 0.000E+00
 1, 0.000E+00, 3.782E-01, 9.825E-03, 0.000E+00 - T.
 357 (1-3) [l=90 cm][90 def.]
 1, 0.000E+00, 3.782E-01, 9.825E-03, 0.000E+00
 i', 0.000E+00, 3.782E-01, 9.825E-03, 0.000E+00 - T.
 j', 0.000E+00, 3.756E-01, 9.825E-03, 0.000E+00
 3, 0.000E+00, 3.756E-01, 9.825E-03, 0.000E+00
 358 (8-6) [l=88 cm][88 def.]
 8, 0.000E+00, 3.651E-01, 9.219E-03, 0.000E+00 - K.
 i', 0.000E+00, 3.651E-01, 9.219E-03, 0.000E+00
 j', 0.000E+00, 3.617E-01, 9.219E-03, 0.000E+00
 6, 0.000E+00, 3.617E-01, 9.219E-03, 0.000E+00 - K.
 359 (6-340) [l=88 cm][88 def.]
 6, 0.000E+00, 3.617E-01, 9.219E-03, 0.000E+00
 i', 0.000E+00, 3.617E-01, 9.219E-03, 0.000E+00 - K.
 j', 0.000E+00, 3.584E-01, 9.219E-03, 0.000E+00
 340, 0.000E+00, 3.584E-01, 9.219E-03, 0.000E+00
 360 (340-11) [l=88 cm][88 def.]
 340, 0.000E+00, 3.584E-01, 9.219E-03, 0.000E+00 - T.
 i', 0.000E+00, 3.584E-01, 9.219E-03, 0.000E+00
 j', 0.000E+00, 3.551E-01, 9.219E-03, 0.000E+00
 11, 0.000E+00, 3.551E-01, 9.219E-03, 0.000E+00 - T.
 361 (11-224) [l=88 cm][88 def.]
 11, 0.000E+00, 3.551E-01, 9.219E-03, 0.000E+00
 i', 0.000E+00, 3.551E-01, 9.219E-03, 0.000E+00 - K.
 j', 0.000E+00, 3.518E-01, 9.219E-03, 0.000E+00
 224, 0.000E+00, 3.518E-01, 9.219E-03, 0.000E+00
 362 (225-14) [l=88 cm][88 def.]
 225, 0.000E+00, 3.462E-01, 9.026E-03, 0.000E+00 - K.
 i', 0.000E+00, 3.462E-01, 9.026E-03, 0.000E+00
 j', 0.000E+00, 3.446E-01, 9.027E-03, 0.000E+00
 14, 0.000E+00, 3.446E-01, 9.027E-03, 0.000E+00 - K.
 363 (14-341) [l=88 cm][88 def.]
 14, 0.000E+00, 3.446E-01, 9.027E-03, 0.000E+00
 i', 0.000E+00, 3.446E-01, 9.027E-03, 0.000E+00 - K.
 j', 0.000E+00, 3.430E-01, 9.027E-03, 0.000E+00
 341, 0.000E+00, 3.430E-01, 9.027E-03, 0.000E+00
 364 (341-18) [l=88 cm][88 def.]
 341, 0.000E+00, 3.430E-01, 9.027E-03, 0.000E+00 - K.
 i', 0.000E+00, 3.430E-01, 9.027E-03, 0.000E+00
 j', 0.000E+00, 3.417E-01, 9.028E-03, 0.000E+00
 18, 0.000E+00, 3.417E-01, 9.028E-03, 0.000E+00 - K.
 365 (18-20) [l=88 cm][88 def.]
 18, 0.000E+00, 3.417E-01, 9.028E-03, 0.000E+00
 i', 0.000E+00, 3.417E-01, 9.028E-03, 0.000E+00 - K.
 j', 0.000E+00, 3.403E-01, 9.028E-03, 0.000E+00
 20, 0.000E+00, 3.403E-01, 9.028E-03, 0.000E+00
 366 (24-22) [l=31 cm][31 def.]
 24, 0.000E+00, 3.359E-01, 9.143E-03, 0.000E+00 - K.

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i', 0.000E+00, 3.359E-01, 9.143E-03, 0.000E+00
j', 0.000E+00, 3.345E-01, 9.143E-03, 0.000E+00
22, 0.000E+00, 3.345E-01, 9.143E-03, 0.000E+00 - K.
367 (22-226) [l=31 cm][31 def.]
22, 0.000E+00, 3.345E-01, 9.143E-03, 0.000E+00
i', 0.000E+00, 3.345E-01, 9.143E-03, 0.000E+00
j', 0.000E+00, 3.332E-01, 9.143E-03, 0.000E+00
226, 0.000E+00, 3.332E-01, 9.143E-03, 0.000E+00
368 (226-27) [l=123 cm][123 def.]
226, 0.000E+00, 3.332E-01, 9.143E-03, 0.000E+00
i', 0.000E+00, 3.332E-01, 9.143E-03, 0.000E+00
j', 0.000E+00, 3.279E-01, 9.145E-03, 0.000E+00
27, 0.000E+00, 3.279E-01, 9.145E-03, 0.000E+00
369 (27-227) [l=123 cm][123 def.]
27, 0.000E+00, 3.279E-01, 9.145E-03, 0.000E+00
i', 0.000E+00, 3.279E-01, 9.145E-03, 0.000E+00
j', 0.000E+00, 3.226E-01, 9.146E-03, 0.000E+00
227, 0.000E+00, 3.226E-01, 9.146E-03, 0.000E+00
370 (227-30) [l=26 cm][26 def.]
227, 0.000E+00, 3.226E-01, 9.146E-03, 0.000E+00
i', 0.000E+00, 3.226E-01, 9.146E-03, 0.000E+00
j', 0.000E+00, 3.216E-01, 9.146E-03, 0.000E+00
30, 0.000E+00, 3.216E-01, 9.146E-03, 0.000E+00
371 (30-228) [l=26 cm][26 def.]
30, 0.000E+00, 3.216E-01, 9.146E-03, 0.000E+00
i', 0.000E+00, 3.216E-01, 9.146E-03, 0.000E+00
j', 0.000E+00, 3.205E-01, 9.146E-03, 0.000E+00
228, 0.000E+00, 3.205E-01, 9.146E-03, 0.000E+00
372 (228-33) [l=26 cm][26 def.]
229, 0.000E+00, 3.172E-01, 9.475E-03, 0.000E+00
i', 0.000E+00, 3.172E-01, 9.475E-03, 0.000E+00
j', 0.000E+00, 3.186E-01, 9.475E-03, 0.000E+00
33, 0.000E+00, 3.186E-01, 9.475E-03, 0.000E+00
373 (33-230) [l=26 cm][26 def.]
33, 0.000E+00, 3.186E-01, 9.475E-03, 0.000E+00
i', 0.000E+00, 3.186E-01, 9.475E-03, 0.000E+00
j', 0.000E+00, 3.200E-01, 9.475E-03, 0.000E+00
230, 0.000E+00, 3.200E-01, 9.475E-03, 0.000E+00
374 (230-37) [l=122 cm][122 def.]
230, 0.000E+00, 3.200E-01, 9.475E-03, 0.000E+00
i', 0.000E+00, 3.200E-01, 9.475E-03, 0.000E+00
j', 0.000E+00, 3.266E-01, 9.475E-03, 0.000E+00
37, 0.000E+00, 3.266E-01, 9.475E-03, 0.000E+00
375 (37-231) [l=122 cm][122 def.]
37, 0.000E+00, 3.266E-01, 9.475E-03, 0.000E+00
i', 0.000E+00, 3.266E-01, 9.475E-03, 0.000E+00
j', 0.000E+00, 3.334E-01, 9.474E-03, 0.000E+00
231, 0.000E+00, 3.334E-01, 9.474E-03, 0.000E+00
376 (231-40) [l=18 cm][18 def.]
231, 0.000E+00, 3.334E-01, 9.474E-03, 0.000E+00
i', 0.000E+00, 3.334E-01, 9.474E-03, 0.000E+00
j', 0.000E+00, 3.341E-01, 8.559E-03, 0.000E+00
40, 0.000E+00, 3.341E-01, 8.559E-03, 0.000E+00
377 (40-42) [l=18 cm][18 def.]
40, 0.000E+00, 3.341E-01, 8.559E-03, 0.000E+00
i', 0.000E+00, 3.341E-01, 8.559E-03, 0.000E+00
j', 0.000E+00, 3.345E-01, 8.559E-03, 0.000E+00
42, 0.000E+00, 3.345E-01, 8.559E-03, 0.000E+00
378 (46-44) [l=98 cm][98 def.]
46, 0.000E+00, 3.374E-01, 9.107E-03, 0.000E+00
i', 0.000E+00, 3.374E-01, 9.107E-03, 0.000E+00
j', 0.000E+00, 3.388E-01, 9.107E-03, 0.000E+00
44, 0.000E+00, 3.388E-01, 9.107E-03, 0.000E+00
379 (44-342) [l=98 cm][98 def.]
44, 0.000E+00, 3.388E-01, 9.107E-03, 0.000E+00
i', 0.000E+00, 3.388E-01, 9.107E-03, 0.000E+00
j', 0.000E+00, 3.404E-01, 9.106E-03, 0.000E+00
342, 0.000E+00, 3.404E-01, 9.106E-03, 0.000E+00
380 (342-49) [l=98 cm][98 def.]
342, 0.000E+00, 3.404E-01, 9.106E-03, 0.000E+00
i', 0.000E+00, 3.404E-01, 9.106E-03, 0.000E+00
j', 0.000E+00, 3.421E-01, 9.105E-03, 0.000E+00
49, 0.000E+00, 3.421E-01, 9.105E-03, 0.000E+00
381 (49-232) [l=98 cm][98 def.]
49, 0.000E+00, 3.421E-01, 9.105E-03, 0.000E+00
i', 0.000E+00, 3.421E-01, 9.105E-03, 0.000E+00
j', 0.000E+00, 3.438E-01, 9.104E-03, 0.000E+00
232, 0.000E+00, 3.438E-01, 9.104E-03, 0.000E+00
382 (233-52) [l=98 cm][98 def.]
233, 0.000E+00, 3.482E-01, 9.339E-03, 0.000E+00
i', 0.000E+00, 3.482E-01, 9.339E-03, 0.000E+00
j', 0.000E+00, 3.521E-01, 9.340E-03, 0.000E+00
52, 0.000E+00, 3.521E-01, 9.340E-03, 0.000E+00
383 (52-343) [l=98 cm][98 def.]
52, 0.000E+00, 3.521E-01, 9.340E-03, 0.000E+00
i', 0.000E+00, 3.521E-01, 9.340E-03, 0.000E+00

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j', 0.000E+00, 3.560E-01, 9.340E-03, 0.000E+00
343, 0.000E+00, 3.560E-01, 9.340E-03, 0.000E+00
384 (343-56) [l=98 cm][98 def.]
343, 0.000E+00, 3.560E-01, 9.340E-03, 0.000E+00
i', 0.000E+00, 3.560E-01, 9.340E-03, 0.000E+00
j', 0.000E+00, 3.598E-01, 9.340E-03, 0.000E+00
56, 0.000E+00, 3.598E-01, 9.340E-03, 0.000E+00
385 (56-58) [l=98 cm][98 def.]
56, 0.000E+00, 3.598E-01, 9.340E-03, 0.000E+00
i', 0.000E+00, 3.598E-01, 9.340E-03, 0.000E+00
j', 0.000E+00, 3.637E-01, 9.340E-03, 0.000E+00
58, 0.000E+00, 3.637E-01, 9.340E-03, 0.000E+00
386 (58-62) [l=227 cm][227 def.]
58, 0.000E+00, 3.637E-01, 9.340E-03, 0.000E+00
i', 0.000E+00, 3.637E-01, 9.340E-03, 0.000E+00
j', 0.000E+00, 3.760E-01, 1.092E-02, 0.000E+00
62, 0.000E+00, 3.760E-01, 1.092E-02, 0.000E+00
387 (62-60) [l=80 cm][80 def.]
62, 0.000E+00, 3.760E-01, 1.092E-02, 0.000E+00
i', 0.000E+00, 3.760E-01, 1.092E-02, 0.000E+00
j', 0.000E+00, 3.810E-01, 1.092E-02, 0.000E+00
60, 0.000E+00, 3.810E-01, 1.092E-02, 0.000E+00
388 (60-234) [l=80 cm][80 def.]
60, 0.000E+00, 3.810E-01, 1.092E-02, 0.000E+00
i', 0.000E+00, 3.810E-01, 1.092E-02, 0.000E+00
j', 0.000E+00, 3.859E-01, 1.092E-02, 0.000E+00
234, 0.000E+00, 3.859E-01, 1.092E-02, 0.000E+00
389 (234-65) [l=154 cm][154 def.]
234, 0.000E+00, 3.859E-01, 8.163E-02, 0.000E+00
i', 0.000E+00, 3.859E-01, 8.163E-02, 0.000E+00
j', 0.000E+00, 2.608E-01, 8.164E-02, 0.000E+00
65, 0.000E+00, 2.608E-01, 8.164E-02, 0.000E+00
390 (65-67) [l=154 cm][154 def.]
65, 0.000E+00, 2.608E-01, 8.164E-02, 0.000E+00
i', 0.000E+00, 2.608E-01, 8.164E-02, 0.000E+00
j', 0.000E+00, 1.979E-01, 8.164E-02, 0.000E+00
67, 0.000E+00, 1.979E-01, 8.164E-02, 0.000E+00
391 (71-69) [l=154 cm][154 def.]
71, 0.000E+00, 1.979E-01, 8.164E-02, 0.000E+00
i', 0.000E+00, 1.979E-01, 8.164E-02, 0.000E+00
j', 0.000E+00, 2.608E-01, 8.164E-02, 0.000E+00
69, 0.000E+00, 2.608E-01, 8.164E-02, 0.000E+00
392 (69-235) [l=154 cm][154 def.]
69, 0.000E+00, 2.608E-01, 8.164E-02, 0.000E+00
i', 0.000E+00, 2.608E-01, 8.164E-02, 0.000E+00
j', 0.000E+00, 3.859E-01, 8.163E-02, 0.000E+00
235, 0.000E+00, 3.859E-01, 8.163E-02, 0.000E+00
393 (235-74) [l=80 cm][80 def.]
235, 0.000E+00, 3.859E-01, 1.092E-02, 0.000E+00
i', 0.000E+00, 3.859E-01, 1.092E-02, 0.000E+00
j', 0.000E+00, 3.810E-01, 1.092E-02, 0.000E+00
74, 0.000E+00, 3.810E-01, 1.092E-02, 0.000E+00
394 (74-76) [l=80 cm][80 def.]
74, 0.000E+00, 3.810E-01, 1.092E-02, 0.000E+00
i', 0.000E+00, 3.810E-01, 1.092E-02, 0.000E+00
j', 0.000E+00, 3.760E-01, 1.092E-02, 0.000E+00
76, 0.000E+00, 3.760E-01, 1.092E-02, 0.000E+00
395 (80-78) [l=98 cm][98 def.]
80, 0.000E+00, 3.637E-01, 9.341E-03, 0.000E+00
i', 0.000E+00, 3.637E-01, 9.341E-03, 0.000E+00
j', 0.000E+00, 3.598E-01, 9.341E-03, 0.000E+00
78, 0.000E+00, 3.598E-01, 9.341E-03, 0.000E+00
396 (78-344) [l=98 cm][98 def.]
78, 0.000E+00, 3.598E-01, 9.341E-03, 0.000E+00
i', 0.000E+00, 3.598E-01, 9.341E-03, 0.000E+00
j', 0.000E+00, 3.560E-01, 9.340E-03, 0.000E+00
344, 0.000E+00, 3.560E-01, 9.340E-03, 0.000E+00
397 (344-83) [l=98 cm][98 def.]
344, 0.000E+00, 3.560E-01, 9.340E-03, 0.000E+00
i', 0.000E+00, 3.560E-01, 9.340E-03, 0.000E+00
j', 0.000E+00, 3.521E-01, 9.340E-03, 0.000E+00
83, 0.000E+00, 3.521E-01, 9.340E-03, 0.000E+00
398 (83-236) [l=98 cm][98 def.]
83, 0.000E+00, 3.521E-01, 9.340E-03, 0.000E+00
i', 0.000E+00, 3.521E-01, 9.340E-03, 0.000E+00
j', 0.000E+00, 3.482E-01, 9.340E-03, 0.000E+00
236, 0.000E+00, 3.482E-01, 9.340E-03, 0.000E+00
399 (237-86) [l=98 cm][98 def.]
237, 0.000E+00, 3.438E-01, 9.104E-03, 0.000E+00
i', 0.000E+00, 3.438E-01, 9.104E-03, 0.000E+00
j', 0.000E+00, 3.421E-01, 9.105E-03, 0.000E+00
86, 0.000E+00, 3.421E-01, 9.105E-03, 0.000E+00
400 (86-345) [l=98 cm][98 def.]
86, 0.000E+00, 3.421E-01, 9.105E-03, 0.000E+00
i', 0.000E+00, 3.421E-01, 9.105E-03, 0.000E+00
j', 0.000E+00, 3.404E-01, 9.105E-03, 0.000E+00

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345, 0.000E+00, 3.404E-01, 9.105E-03, 0.000E+00
 401 (345-90) [l=98 cm][98 def.]
 345, 0.000E+00, 3.404E-01, 9.105E-03, 0.000E+00
 i', 0.000E+00, 3.404E-01, 9.105E-03, 0.000E+00
 j', 0.000E+00, 3.388E-01, 9.106E-03, 0.000E+00
 90, 0.000E+00, 3.388E-01, 9.106E-03, 0.000E+00
 402 (90-92) [l=98 cm][98 def.]
 90, 0.000E+00, 3.388E-01, 9.106E-03, 0.000E+00
 i', 0.000E+00, 3.388E-01, 9.106E-03, 0.000E+00
 j', 0.000E+00, 3.374E-01, 9.106E-03, 0.000E+00
 92, 0.000E+00, 3.374E-01, 9.106E-03, 0.000E+00
 403 (96-94) [l=18 cm][18 def.]
 96, 0.000E+00, 3.345E-01, 8.558E-03, 0.000E+00
 i', 0.000E+00, 3.345E-01, 8.558E-03, 0.000E+00
 j', 0.000E+00, 3.341E-01, 8.558E-03, 0.000E+00
 94, 0.000E+00, 3.341E-01, 8.558E-03, 0.000E+00
 404 (94-238) [l=18 cm][18 def.]
 94, 0.000E+00, 3.341E-01, 8.558E-03, 0.000E+00
 i', 0.000E+00, 3.341E-01, 8.558E-03, 0.000E+00
 j', 0.000E+00, 3.334E-01, 9.474E-03, 0.000E+00
 238, 0.000E+00, 3.334E-01, 9.474E-03, 0.000E+00
 405 (238-99) [l=122 cm][122 def.]
 238, 0.000E+00, 3.334E-01, 9.474E-03, 0.000E+00
 i', 0.000E+00, 3.334E-01, 9.474E-03, 0.000E+00
 j', 0.000E+00, 3.266E-01, 9.475E-03, 0.000E+00
 99, 0.000E+00, 3.266E-01, 9.475E-03, 0.000E+00
 406 (99-239) [l=122 cm][122 def.]
 99, 0.000E+00, 3.266E-01, 9.475E-03, 0.000E+00
 i', 0.000E+00, 3.266E-01, 9.475E-03, 0.000E+00
 j', 0.000E+00, 3.199E-01, 9.475E-03, 0.000E+00
 239, 0.000E+00, 3.199E-01, 9.475E-03, 0.000E+00
 407 (239-102) [l=26 cm][26 def.]
 239, 0.000E+00, 3.199E-01, 9.475E-03, 0.000E+00
 i', 0.000E+00, 3.199E-01, 9.475E-03, 0.000E+00
 j', 0.000E+00, 3.186E-01, 9.475E-03, 0.000E+00
 102, 0.000E+00, 3.186E-01, 9.475E-03, 0.000E+00
 408 (102-240) [l=26 cm][26 def.]
 102, 0.000E+00, 3.186E-01, 9.475E-03, 0.000E+00
 i', 0.000E+00, 3.186E-01, 9.475E-03, 0.000E+00
 j', 0.000E+00, 3.172E-01, 9.475E-03, 0.000E+00
 240, 0.000E+00, 3.172E-01, 9.475E-03, 0.000E+00
 409 (241-105) [l=26 cm][26 def.]
 241, 0.000E+00, 3.205E-01, 9.145E-03, 0.000E+00
 i', 0.000E+00, 3.205E-01, 9.145E-03, 0.000E+00
 j', 0.000E+00, 3.215E-01, 9.145E-03, 0.000E+00
 105, 0.000E+00, 3.215E-01, 9.145E-03, 0.000E+00
 410 (105-242) [l=26 cm][26 def.]
 105, 0.000E+00, 3.215E-01, 9.145E-03, 0.000E+00
 i', 0.000E+00, 3.215E-01, 9.145E-03, 0.000E+00
 j', 0.000E+00, 3.226E-01, 9.145E-03, 0.000E+00
 242, 0.000E+00, 3.226E-01, 9.145E-03, 0.000E+00
 411 (242-109) [l=123 cm][123 def.]
 242, 0.000E+00, 3.226E-01, 9.145E-03, 0.000E+00
 i', 0.000E+00, 3.226E-01, 9.145E-03, 0.000E+00
 j', 0.000E+00, 3.279E-01, 9.145E-03, 0.000E+00
 109, 0.000E+00, 3.279E-01, 9.145E-03, 0.000E+00
 412 (109-243) [l=123 cm][123 def.]
 109, 0.000E+00, 3.279E-01, 9.145E-03, 0.000E+00
 i', 0.000E+00, 3.279E-01, 9.145E-03, 0.000E+00
 j', 0.000E+00, 3.332E-01, 9.143E-03, 0.000E+00
 243, 0.000E+00, 3.332E-01, 9.143E-03, 0.000E+00
 413 (243-112) [l=31 cm][31 def.]
 243, 0.000E+00, 3.332E-01, 9.143E-03, 0.000E+00
 i', 0.000E+00, 3.332E-01, 9.143E-03, 0.000E+00
 j', 0.000E+00, 3.345E-01, 9.142E-03, 0.000E+00
 112, 0.000E+00, 3.345E-01, 9.142E-03, 0.000E+00
 414 (112-114) [l=31 cm][31 def.]
 112, 0.000E+00, 3.345E-01, 9.142E-03, 0.000E+00
 i', 0.000E+00, 3.345E-01, 9.142E-03, 0.000E+00
 j', 0.000E+00, 3.359E-01, 9.142E-03, 0.000E+00
 114, 0.000E+00, 3.359E-01, 9.142E-03, 0.000E+00
 415 (118-116) [l=88 cm][88 def.]
 118, 0.000E+00, 3.403E-01, 9.029E-03, 0.000E+00
 i', 0.000E+00, 3.403E-01, 9.029E-03, 0.000E+00
 j', 0.000E+00, 3.416E-01, 9.029E-03, 0.000E+00
 116, 0.000E+00, 3.416E-01, 9.029E-03, 0.000E+00
 416 (116-346) [l=88 cm][88 def.]
 116, 0.000E+00, 3.416E-01, 9.029E-03, 0.000E+00
 i', 0.000E+00, 3.416E-01, 9.029E-03, 0.000E+00
 j', 0.000E+00, 3.430E-01, 9.028E-03, 0.000E+00
 346, 0.000E+00, 3.430E-01, 9.028E-03, 0.000E+00
 417 (346-121) [l=88 cm][88 def.]
 346, 0.000E+00, 3.430E-01, 9.028E-03, 0.000E+00
 i', 0.000E+00, 3.430E-01, 9.028E-03, 0.000E+00
 j', 0.000E+00, 3.446E-01, 9.028E-03, 0.000E+00
 121, 0.000E+00, 3.446E-01, 9.028E-03, 0.000E+00

418 (121-244) [l=88 cm][88 def.]
 121, 0.000E+00, 3.446E-01, 9.028E-03, 0.000E+00
 i', 0.000E+00, 3.446E-01, 9.028E-03, 0.000E+00
 j', 0.000E+00, 3.462E-01, 9.027E-03, 0.000E+00
 244, 0.000E+00, 3.462E-01, 9.027E-03, 0.000E+00
 419 (245-124) [l=88 cm][88 def.]
 245, 0.000E+00, 3.518E-01, 9.219E-03, 0.000E+00
 i', 0.000E+00, 3.518E-01, 9.219E-03, 0.000E+00
 j', 0.000E+00, 3.551E-01, 9.219E-03, 0.000E+00
 124, 0.000E+00, 3.551E-01, 9.219E-03, 0.000E+00
 420 (124-347) [l=88 cm][88 def.]
 124, 0.000E+00, 3.551E-01, 9.219E-03, 0.000E+00
 i', 0.000E+00, 3.551E-01, 9.219E-03, 0.000E+00
 j', 0.000E+00, 3.584E-01, 9.219E-03, 0.000E+00
 347, 0.000E+00, 3.584E-01, 9.219E-03, 0.000E+00
 421 (347-128) [l=88 cm][88 def.]
 347, 0.000E+00, 3.584E-01, 9.219E-03, 0.000E+00
 i', 0.000E+00, 3.584E-01, 9.219E-03, 0.000E+00
 j', 0.000E+00, 3.617E-01, 9.219E-03, 0.000E+00
 128, 0.000E+00, 3.617E-01, 9.219E-03, 0.000E+00
 422 (128-130) [l=88 cm][88 def.]
 128, 0.000E+00, 3.617E-01, 9.219E-03, 0.000E+00
 i', 0.000E+00, 3.617E-01, 9.219E-03, 0.000E+00
 j', 0.000E+00, 3.650E-01, 9.219E-03, 0.000E+00
 130, 0.000E+00, 3.650E-01, 9.219E-03, 0.000E+00
 423 (134-132) [l=90 cm][90 def.]
 134, 0.000E+00, 3.756E-01, 9.824E-03, 0.000E+00
 i', 0.000E+00, 3.756E-01, 9.824E-03, 0.000E+00
 j', 0.000E+00, 3.781E-01, 9.824E-03, 0.000E+00
 132, 0.000E+00, 3.781E-01, 9.824E-03, 0.000E+00
 424 (132-246) [l=90 cm][90 def.]
 132, 0.000E+00, 3.781E-01, 9.824E-03, 0.000E+00
 i', 0.000E+00, 3.781E-01, 9.824E-03, 0.000E+00
 j', 0.000E+00, 3.807E-01, 9.823E-03, 0.000E+00
 246, 0.000E+00, 3.807E-01, 9.823E-03, 0.000E+00
 425 (348-137) [l=160 cm][160 def.]
 348, 0.000E+00, 8.321E-02, 7.806E-02, 0.000E+00
 i', 0.000E+00, 8.321E-02, 7.806E-02, 0.000E+00
 j', 0.000E+00, 2.082E-01, 7.807E-02, 0.000E+00
 137, 0.000E+00, 2.082E-01, 7.807E-02, 0.000E+00
 426 (137-238) [l=161 cm][161 def.]
 137, 0.000E+00, 2.082E-01, 7.807E-02, 0.000E+00
 i', 0.000E+00, 2.082E-01, 7.807E-02, 0.000E+00
 j', 0.000E+00, 3.334E-01, 7.806E-02, 0.000E+00
 238, 0.000E+00, 3.334E-01, 7.806E-02, 0.000E+00
 427 (231-141) [l=160 cm][160 def.]
 231, 0.000E+00, 3.334E-01, 7.807E-02, 0.000E+00
 i', 0.000E+00, 3.334E-01, 7.807E-02, 0.000E+00
 j', 0.000E+00, 2.083E-01, 7.807E-02, 0.000E+00
 141, 0.000E+00, 2.083E-01, 7.807E-02, 0.000E+00
 428 (349-348) [l=200 cm][200 def.]
 349, 0.000E+00, 8.321E-02, 7.806E-02, 0.000E+00
 i', 0.000E+00, 8.321E-02, 7.806E-02, 0.000E+00
 j', 0.000E+00, 8.321E-02, 7.806E-02, 0.000E+00
 348, 0.000E+00, 8.321E-02, 7.806E-02, 0.000E+00
 429 (141-349) [l=161 cm][161 def.]
 141, 0.000E+00, 2.083E-01, 7.807E-02, 0.000E+00
 i', 0.000E+00, 2.083E-01, 7.807E-02, 0.000E+00
 j', 0.000E+00, 8.321E-02, 7.806E-02, 0.000E+00
 349, 0.000E+00, 8.321E-02, 7.806E-02, 0.000E+00
 430 (350-145) [l=161 cm][161 def.]
 350, 0.000E+00, 8.442E-02, 7.763E-02, 0.000E+00
 i', 0.000E+00, 8.442E-02, 7.763E-02, 0.000E+00
 j', 0.000E+00, 2.088E-01, 7.764E-02, 0.000E+00
 145, 0.000E+00, 2.088E-01, 7.764E-02, 0.000E+00
 431 (145-226) [l=160 cm][160 def.]
 145, 0.000E+00, 2.088E-01, 7.764E-02, 0.000E+00
 i', 0.000E+00, 2.088E-01, 7.764E-02, 0.000E+00
 j', 0.000E+00, 3.332E-01, 7.764E-02, 0.000E+00
 226, 0.000E+00, 3.332E-01, 7.764E-02, 0.000E+00
 432 (243-149) [l=161 cm][161 def.]
 243, 0.000E+00, 3.332E-01, 7.764E-02, 0.000E+00
 i', 0.000E+00, 3.332E-01, 7.764E-02, 0.000E+00
 j', 0.000E+00, 2.087E-01, 7.764E-02, 0.000E+00
 149, 0.000E+00, 2.087E-01, 7.764E-02, 0.000E+00
 433 (351-350) [l=200 cm][200 def.]
 351, 0.000E+00, 8.441E-02, 7.763E-02, 0.000E+00
 i', 0.000E+00, 8.441E-02, 7.763E-02, 0.000E+00
 j', 0.000E+00, 8.442E-02, 7.763E-02, 0.000E+00
 350, 0.000E+00, 8.442E-02, 7.763E-02, 0.000E+00
 434 (149-351) [l=160 cm][160 def.]
 149, 0.000E+00, 2.087E-01, 7.764E-02, 0.000E+00
 i', 0.000E+00, 2.087E-01, 7.764E-02, 0.000E+00
 j', 0.000E+00, 8.441E-02, 7.763E-02, 0.000E+00
 351, 0.000E+00, 8.441E-02, 7.763E-02, 0.000E+00
 435 (246-215) [l=140 cm][140 def.]

246, 0.000E+00, 3.807E-01, 7.788E-02, 0.000E+00
 i', 0.000E+00, 3.807E-01, 7.788E-02, 0.000E+00
 j', 0.000E+00, 2.714E-01, 7.788E-02, 0.000E+00
 215, 0.000E+00, 2.714E-01, 7.788E-02, 0.000E+00
 436 (215-352) [l=140 cm][140 def.]
 215, 0.000E+00, 2.714E-01, 7.788E-02, 0.000E+00
 i', 0.000E+00, 2.714E-01, 7.788E-02, 0.000E+00
 j', 0.000E+00, 2.094E-01, 7.787E-02, 0.000E+00
 352, 0.000E+00, 2.094E-01, 7.787E-02, 0.000E+00
 437 (352-218) [l=140 cm][140 def.]
 352, 0.000E+00, 2.094E-01, 7.787E-02, 0.000E+00
 i', 0.000E+00, 2.094E-01, 7.787E-02, 0.000E+00
 j', 0.000E+00, 1.767E-01, 7.787E-02, 0.000E+00
 218, 0.000E+00, 1.767E-01, 7.787E-02, 0.000E+00
 438 (218-353) [l=140 cm][140 def.]
 218, 0.000E+00, 1.767E-01, 7.787E-02, 0.000E+00
 i', 0.000E+00, 1.767E-01, 7.787E-02, 0.000E+00
 j', 0.000E+00, 2.094E-01, 7.787E-02, 0.000E+00
 353, 0.000E+00, 2.094E-01, 7.787E-02, 0.000E+00
 439 (353-221) [l=140 cm][140 def.]
 353, 0.000E+00, 2.094E-01, 7.787E-02, 0.000E+00
 i', 0.000E+00, 2.094E-01, 7.787E-02, 0.000E+00
 j', 0.000E+00, 2.715E-01, 7.788E-02, 0.000E+00
 221, 0.000E+00, 2.715E-01, 7.788E-02, 0.000E+00
 440 (221-223) [l=140 cm][140 def.]
 221, 0.000E+00, 2.715E-01, 7.788E-02, 0.000E+00
 i', 0.000E+00, 2.715E-01, 7.788E-02, 0.000E+00
 j', 0.000E+00, 3.807E-01, 7.788E-02, 0.000E+00
 223, 0.000E+00, 3.807E-01, 7.788E-02, 0.000E+00
 441 (227-306) [l=181 cm][181 def.]
 227, 0.000E+00, 3.226E-01, 7.765E-02, 0.000E+00
 i', 0.000E+00, 3.226E-01, 7.765E-02, 0.000E+00
 j', 0.000E+00, 1.816E-01, 7.664E-02, 0.000E+00
 306, 0.000E+00, 1.816E-01, 7.664E-02, 0.000E+00
 442 (306-304) [l=140 cm][140 def.]
 306, 0.000E+00, 1.816E-01, 7.664E-02, 0.000E+00
 i', 0.000E+00, 1.816E-01, 7.664E-02, 0.000E+00
 j', 0.000E+00, 7.686E-02, 7.322E-02, 0.000E+00
 304, 0.000E+00, 7.686E-02, 7.322E-02, 0.000E+00
 443 (308-242) [l=181 cm][181 def.]
 308, 0.000E+00, 1.816E-01, 7.664E-02, 0.000E+00
 i', 0.000E+00, 1.816E-01, 7.664E-02, 0.000E+00
 j', 0.000E+00, 3.226E-01, 7.764E-02, 0.000E+00
 242, 0.000E+00, 3.226E-01, 7.764E-02, 0.000E+00
 444 (304-310) [l=200 cm][200 def.]
 304, 0.000E+00, 7.686E-02, 7.322E-02, 0.000E+00
 i', 0.000E+00, 7.686E-02, 7.322E-02, 0.000E+00
 j', 0.000E+00, 7.685E-02, 7.322E-02, 0.000E+00
 310, 0.000E+00, 7.685E-02, 7.322E-02, 0.000E+00
 445 (310-308) [l=140 cm][140 def.]
 310, 0.000E+00, 7.685E-02, 7.322E-02, 0.000E+00
 i', 0.000E+00, 7.685E-02, 7.322E-02, 0.000E+00
 j', 0.000E+00, 1.816E-01, 7.664E-02, 0.000E+00
 308, 0.000E+00, 1.816E-01, 7.664E-02, 0.000E+00
 446 (312-230) [l=181 cm][181 def.]
 312, 0.000E+00, 1.790E-01, 7.630E-02, 0.000E+00
 i', 0.000E+00, 1.790E-01, 7.630E-02, 0.000E+00
 j', 0.000E+00, 3.200E-01, 7.807E-02, 0.000E+00
 230, 0.000E+00, 3.200E-01, 7.807E-02, 0.000E+00
 447 (314-312) [l=140 cm][140 def.]
 314, 0.000E+00, 7.487E-02, 7.266E-02, 0.000E+00
 i', 0.000E+00, 7.487E-02, 7.266E-02, 0.000E+00
 j', 0.000E+00, 1.790E-01, 7.630E-02, 0.000E+00
 312, 0.000E+00, 1.790E-01, 7.630E-02, 0.000E+00
 448 (316-314) [l=200 cm][200 def.]
 316, 0.000E+00, 7.486E-02, 7.266E-02, 0.000E+00
 i', 0.000E+00, 7.486E-02, 7.266E-02, 0.000E+00
 j', 0.000E+00, 7.487E-02, 7.266E-02, 0.000E+00
 314, 0.000E+00, 7.487E-02, 7.266E-02, 0.000E+00
 449 (239-318) [l=181 cm][181 def.]
 239, 0.000E+00, 3.199E-01, 7.807E-02, 0.000E+00
 i', 0.000E+00, 3.199E-01, 7.807E-02, 0.000E+00
 j', 0.000E+00, 1.790E-01, 7.629E-02, 0.000E+00
 318, 0.000E+00, 1.790E-01, 7.629E-02, 0.000E+00
 450 (318-316) [l=140 cm][140 def.]
 318, 0.000E+00, 1.790E-01, 7.629E-02, 0.000E+00
 i', 0.000E+00, 1.790E-01, 7.629E-02, 0.000E+00
 j', 0.000E+00, 7.486E-02, 7.266E-02, 0.000E+00
 316, 0.000E+00, 7.486E-02, 7.266E-02, 0.000E+00
 451 (26-147) [l=62 cm][62 def.]
 26, 4.608E-01, 7.446E-02, 8.731E-03, 7.834E-02
 i', 4.608E-01, 7.446E-02, 8.731E-03, 7.834E-02
 j', 4.124E-01, 7.131E-02, 8.731E-03, 7.834E-02
 147, 4.124E-01, 7.131E-02, 8.731E-03, 7.834E-02
 452 (29-282) [l=250 cm][250 def.]
 29, 4.583E-01, 7.446E-02, 8.730E-03, 7.834E-02

i', 4.583E-01, 7.446E-02, 8.730E-03, 7.834E-02
 j', 2.634E-01, 6.367E-02, 8.730E-03, 7.834E-02
 282, 2.634E-01, 6.367E-02, 8.730E-03, 7.834E-02
 453 (36-294) [l=250 cm][250 def.]
 36, 4.554E-01, 7.446E-02, 8.730E-03, 7.834E-02
 i', 4.554E-01, 7.446E-02, 8.730E-03, 7.834E-02
 j', 2.606E-01, 6.367E-02, 8.730E-03, 7.834E-02
 294, 2.606E-01, 6.367E-02, 8.730E-03, 7.834E-02
 454 (39-144) [l=62 cm][62 def.]
 39, 4.560E-01, 7.446E-02, 8.729E-03, 7.834E-02
 i', 4.560E-01, 7.446E-02, 8.729E-03, 7.834E-02
 j', 4.076E-01, 7.131E-02, 8.729E-03, 7.834E-02
 144, 4.076E-01, 7.131E-02, 8.729E-03, 7.834E-02
 455 (101-303) [l=250 cm][250 def.]
 101, 4.554E-01, 7.446E-02, 8.729E-03, 7.834E-02
 i', 4.554E-01, 7.446E-02, 8.729E-03, 7.834E-02
 j', 2.606E-01, 6.367E-02, 8.729E-03, 7.834E-02
 303, 2.606E-01, 6.367E-02, 8.729E-03, 7.834E-02
 456 (108-287) [l=250 cm][250 def.]
 108, 4.583E-01, 7.446E-02, 8.730E-03, 7.834E-02
 i', 4.583E-01, 7.446E-02, 8.730E-03, 7.834E-02
 j', 2.634E-01, 6.367E-02, 8.730E-03, 7.834E-02
 287, 2.634E-01, 6.367E-02, 8.730E-03, 7.834E-02
 457 (111-152) [l=62 cm][62 def.]
 111, 4.608E-01, 7.446E-02, 8.730E-03, 7.834E-02
 i', 4.608E-01, 7.446E-02, 8.730E-03, 7.834E-02
 j', 4.124E-01, 7.131E-02, 8.730E-03, 7.834E-02
 152, 4.124E-01, 7.131E-02, 8.730E-03, 7.834E-02
 458 (280-354) [l=0 cm][0 def.]
 280, 5.249E-01, 3.836E-01, 8.729E-03, 1.067E-03
 i', 5.249E-01, 3.836E-01, 8.729E-03, 1.067E-03
 j', 5.249E-01, 3.836E-01, 8.729E-03, 1.067E-03
 354, 5.249E-01, 3.836E-01, 8.729E-03, 1.067E-03
 459 (204-354) [l=30 cm][30 def.]
 204, 5.015E-01, 7.636E-02, 8.729E-03, 7.824E-02
 i', 5.015E-01, 7.636E-02, 8.729E-03, 7.824E-02
 j', 5.249E-01, 7.803E-02, 8.729E-03, 7.824E-02
 354, 5.249E-01, 7.803E-02, 8.729E-03, 7.824E-02
 460 (155-247) [l=188 cm][188 def.]
 155, 4.955E-01, 3.683E-01, 8.729E-03, 1.067E-03
 i', 4.955E-01, 3.683E-01, 8.729E-03, 1.067E-03
 j', 4.974E-01, 3.732E-01, 8.729E-03, 1.067E-03
 247, 4.974E-01, 3.732E-01, 8.729E-03, 1.067E-03
 461 (247-154) [l=104 cm][104 def.]
 247, 4.974E-01, 3.732E-01, 8.729E-03, 1.067E-03
 i', 4.974E-01, 3.732E-01, 8.729E-03, 1.067E-03
 j', 4.985E-01, 3.760E-01, 8.729E-03, 1.067E-03
 154, 4.985E-01, 3.760E-01, 8.729E-03, 1.067E-03
 462 (276-355) [l=395 cm][395 def.]
 276, 5.249E-01, 3.836E-01, 8.729E-03, 1.067E-03
 i', 5.249E-01, 3.836E-01, 8.729E-03, 1.067E-03
 j', 5.208E-01, 3.732E-01, 8.729E-03, 1.067E-03
 355, 5.208E-01, 3.732E-01, 8.729E-03, 1.067E-03
 463 (247-355) [l=30 cm][30 def.]
 247, 4.974E-01, 7.636E-02, 8.729E-03, 7.824E-02
 i', 4.974E-01, 7.636E-02, 8.729E-03, 7.824E-02
 j', 5.208E-01, 7.803E-02, 8.729E-03, 7.824E-02
 355, 5.208E-01, 7.803E-02, 8.729E-03, 7.824E-02
 464 (203-249) [l=104 cm][104 def.]
 203, 4.985E-01, 3.760E-01, 8.730E-03, 1.067E-03
 i', 4.985E-01, 3.760E-01, 8.730E-03, 1.067E-03
 j', 4.974E-01, 3.733E-01, 8.730E-03, 1.067E-03
 249, 4.974E-01, 3.733E-01, 8.730E-03, 1.067E-03
 465 (249-201) [l=188 cm][188 def.]
 249, 4.974E-01, 3.733E-01, 8.730E-03, 1.067E-03
 i', 4.974E-01, 3.733E-01, 8.730E-03, 1.067E-03
 j', 4.955E-01, 3.684E-01, 8.730E-03, 1.067E-03
 201, 4.955E-01, 3.684E-01, 8.730E-03, 1.067E-03
 466 (354-356) [l=395 cm][395 def.]
 354, 5.249E-01, 3.836E-01, 8.729E-03, 1.067E-03
 i', 5.249E-01, 3.836E-01, 8.729E-03, 1.067E-03
 j', 5.208E-01, 3.733E-01, 8.730E-03, 1.067E-03
 356, 5.208E-01, 3.733E-01, 8.730E-03, 1.067E-03
 467 (249-356) [l=30 cm][30 def.]
 249, 4.974E-01, 7.636E-02, 8.730E-03, 7.824E-02
 i', 4.974E-01, 7.636E-02, 8.730E-03, 7.824E-02
 j', 5.208E-01, 7.803E-02, 8.730E-03, 7.824E-02
 356, 5.208E-01, 7.803E-02, 8.730E-03, 7.824E-02
 468 (201-251) [l=182 cm][182 def.]
 201, 4.955E-01, 3.684E-01, 8.730E-03, 1.067E-03
 i', 4.955E-01, 3.684E-01, 8.730E-03, 1.067E-03
 j', 4.936E-01, 3.636E-01, 8.730E-03, 1.067E-03
 251, 4.936E-01, 3.636E-01, 8.730E-03, 1.067E-03
 469 (251-200) [l=108 cm][108 def.]
 251, 4.936E-01, 3.636E-01, 8.730E-03, 1.067E-03
 i', 4.936E-01, 3.636E-01, 8.730E-03, 1.067E-03

j', 4.924E-01, 3.608E-01, 8.730E-03, 1.067E-03
 200, 4.924E-01, 3.608E-01, 8.730E-03, 1.067E-03
 470 (356-357) [l=370 cm][370 def.]
 356, 5.208E-01, 3.733E-01, 8.730E-03, 1.067E-03
 i', 5.208E-01, 3.733E-01, 8.730E-03, 1.067E-03
 j', 5.170E-01, 3.636E-01, 8.730E-03, 1.067E-03
 357, 5.170E-01, 3.636E-01, 8.730E-03, 1.067E-03
 471 (251-357) [l=30 cm][30 def.]
 251, 4.936E-01, 7.636E-02, 8.730E-03, 7.824E-02
 i', 4.936E-01, 7.636E-02, 8.730E-03, 7.824E-02
 j', 5.170E-01, 7.803E-02, 8.730E-03, 7.824E-02
 357, 5.170E-01, 7.803E-02, 8.730E-03, 7.824E-02
 472 (158-252) [l=108 cm][108 def.]
 158, 4.924E-01, 3.607E-01, 8.729E-03, 1.067E-03
 i', 4.924E-01, 3.607E-01, 8.729E-03, 1.067E-03
 j', 4.936E-01, 3.636E-01, 8.729E-03, 1.067E-03
 252, 4.936E-01, 3.636E-01, 8.729E-03, 1.067E-03
 473 (252-155) [l=182 cm][182 def.]
 252, 4.936E-01, 3.636E-01, 8.729E-03, 1.067E-03
 i', 4.936E-01, 3.636E-01, 8.729E-03, 1.067E-03
 j', 4.955E-01, 3.683E-01, 8.729E-03, 1.067E-03
 155, 4.955E-01, 3.683E-01, 8.729E-03, 1.067E-03
 474 (355-358) [l=370 cm][370 def.]
 355, 5.208E-01, 3.732E-01, 8.729E-03, 1.067E-03
 i', 5.208E-01, 3.732E-01, 8.729E-03, 1.067E-03
 j', 5.170E-01, 3.636E-01, 8.729E-03, 1.067E-03
 358, 5.170E-01, 3.636E-01, 8.729E-03, 1.067E-03
 475 (252-358) [l=30 cm][30 def.]
 252, 4.936E-01, 7.636E-02, 8.729E-03, 7.824E-02
 i', 4.936E-01, 7.636E-02, 8.729E-03, 7.824E-02
 j', 5.170E-01, 7.803E-02, 8.729E-03, 7.824E-02
 358, 5.170E-01, 7.803E-02, 8.729E-03, 7.824E-02
 476 (200-254) [l=262 cm][262 def.]
 200, 4.924E-01, 3.608E-01, 8.730E-03, 1.067E-03
 i', 4.924E-01, 3.608E-01, 8.730E-03, 1.067E-03
 j', 4.897E-01, 3.539E-01, 8.730E-03, 1.067E-03
 254, 4.897E-01, 3.539E-01, 8.730E-03, 1.067E-03
 477 (254-198) [l=28 cm][28 def.]
 254, 4.897E-01, 3.539E-01, 8.730E-03, 1.067E-03
 i', 4.897E-01, 3.539E-01, 8.730E-03, 1.067E-03
 j', 4.894E-01, 3.532E-01, 8.730E-03, 1.067E-03
 198, 4.894E-01, 3.532E-01, 8.730E-03, 1.067E-03
 478 (357-359) [l=370 cm][370 def.]
 357, 5.170E-01, 3.636E-01, 8.730E-03, 1.067E-03
 i', 5.170E-01, 3.636E-01, 8.730E-03, 1.067E-03
 j', 5.131E-01, 3.539E-01, 8.730E-03, 1.067E-03
 359, 5.131E-01, 3.539E-01, 8.730E-03, 1.067E-03
 479 (254-359) [l=30 cm][30 def.]
 254, 4.897E-01, 7.636E-02, 8.730E-03, 7.824E-02
 i', 4.897E-01, 7.636E-02, 8.730E-03, 7.824E-02
 j', 5.131E-01, 7.803E-02, 8.730E-03, 7.824E-02
 359, 5.131E-01, 7.803E-02, 8.730E-03, 7.824E-02
 480 (159-255) [l=28 cm][28 def.]
 159, 4.894E-01, 3.531E-01, 8.730E-03, 1.067E-03
 i', 4.894E-01, 3.531E-01, 8.730E-03, 1.067E-03
 j', 4.897E-01, 3.539E-01, 8.730E-03, 1.067E-03
 255, 4.897E-01, 3.539E-01, 8.730E-03, 1.067E-03
 481 (255-158) [l=262 cm][262 def.]
 255, 4.897E-01, 3.539E-01, 8.730E-03, 1.067E-03
 i', 4.897E-01, 3.539E-01, 8.730E-03, 1.067E-03
 j', 4.924E-01, 3.607E-01, 8.729E-03, 1.067E-03
 158, 4.924E-01, 3.607E-01, 8.729E-03, 1.067E-03
 482 (358-360) [l=370 cm][370 def.]
 358, 5.170E-01, 3.636E-01, 8.729E-03, 1.067E-03
 i', 5.170E-01, 3.636E-01, 8.729E-03, 1.067E-03
 j', 5.131E-01, 3.539E-01, 8.730E-03, 1.067E-03
 360, 5.131E-01, 3.539E-01, 8.730E-03, 1.067E-03
 483 (255-360) [l=30 cm][30 def.]
 255, 4.897E-01, 7.636E-02, 8.730E-03, 7.824E-02
 i', 4.897E-01, 7.636E-02, 8.730E-03, 7.824E-02
 j', 5.131E-01, 7.803E-02, 8.730E-03, 7.824E-02
 360, 5.131E-01, 7.803E-02, 8.730E-03, 7.824E-02
 484 (197-257) [l=110 cm][110 def.]
 197, 4.870E-01, 3.471E-01, 8.730E-03, 1.067E-03
 i', 4.870E-01, 3.471E-01, 8.730E-03, 1.067E-03
 j', 4.859E-01, 3.442E-01, 8.730E-03, 1.067E-03
 257, 4.859E-01, 3.442E-01, 8.730E-03, 1.067E-03
 485 (257-195) [l=123 cm][123 def.]
 257, 4.859E-01, 3.442E-01, 8.730E-03, 1.067E-03
 i', 4.859E-01, 3.442E-01, 8.730E-03, 1.067E-03
 j', 4.846E-01, 3.410E-01, 8.730E-03, 1.067E-03
 195, 4.846E-01, 3.410E-01, 8.730E-03, 1.067E-03
 486 (359-361) [l=370 cm][370 def.]
 359, 5.131E-01, 3.539E-01, 8.730E-03, 1.067E-03
 i', 5.131E-01, 3.539E-01, 8.730E-03, 1.067E-03
 j', 5.093E-01, 3.442E-01, 8.730E-03, 1.067E-03

361, 5.093E-01, 3.442E-01, 8.730E-03, 1.067E-03
 487 (257-361) [l=30 cm][30 def.]
 257, 4.859E-01, 7.636E-02, 8.730E-03, 7.824E-02
 i', 4.859E-01, 7.636E-02, 8.730E-03, 7.824E-02
 j', 5.093E-01, 7.803E-02, 8.730E-03, 7.824E-02
 361, 5.093E-01, 7.803E-02, 8.730E-03, 7.824E-02
 488 (162-258) [l=123 cm][123 def.]
 162, 4.846E-01, 3.410E-01, 8.730E-03, 1.067E-03
 i', 4.846E-01, 3.410E-01, 8.730E-03, 1.067E-03
 j', 4.859E-01, 3.442E-01, 8.730E-03, 1.067E-03
 258, 4.859E-01, 3.442E-01, 8.730E-03, 1.067E-03
 489 (258-161) [l=110 cm][110 def.]
 258, 4.859E-01, 3.442E-01, 8.730E-03, 1.067E-03
 i', 4.859E-01, 3.442E-01, 8.730E-03, 1.067E-03
 j', 4.870E-01, 3.470E-01, 8.730E-03, 1.067E-03
 161, 4.870E-01, 3.470E-01, 8.730E-03, 1.067E-03
 490 (360-362) [l=370 cm][370 def.]
 360, 5.131E-01, 3.539E-01, 8.730E-03, 1.067E-03
 i', 5.131E-01, 3.539E-01, 8.730E-03, 1.067E-03
 j', 5.093E-01, 3.442E-01, 8.730E-03, 1.067E-03
 362, 5.093E-01, 3.442E-01, 8.730E-03, 1.067E-03
 491 (258-362) [l=30 cm][30 def.]
 258, 4.859E-01, 7.636E-02, 8.730E-03, 7.824E-02
 i', 4.859E-01, 7.636E-02, 8.730E-03, 7.824E-02
 j', 5.093E-01, 7.803E-02, 8.730E-03, 7.824E-02
 362, 5.093E-01, 7.803E-02, 8.730E-03, 7.824E-02
 492 (164-259) [l=0 cm][0 def.]
 164, 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03
 i', 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03
 j', 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03
 259, 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03
 493 (259-163) [l=122 cm][122 def.]
 259, 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03
 i', 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03
 j', 4.833E-01, 3.378E-01, 8.730E-03, 1.067E-03
 163, 4.833E-01, 3.378E-01, 8.730E-03, 1.067E-03
 494 (362-363) [l=368 cm][368 def.]
 362, 5.093E-01, 3.442E-01, 8.730E-03, 1.067E-03
 i', 5.093E-01, 3.442E-01, 8.730E-03, 1.067E-03
 j', 5.055E-01, 3.346E-01, 8.730E-03, 1.067E-03
 363, 5.055E-01, 3.346E-01, 8.730E-03, 1.067E-03
 495 (259-363) [l=30 cm][30 def.]
 259, 4.821E-01, 7.636E-02, 8.730E-03, 7.823E-02
 i', 4.821E-01, 7.636E-02, 8.730E-03, 7.823E-02
 j', 5.055E-01, 7.803E-02, 8.730E-03, 7.823E-02
 363, 5.055E-01, 7.803E-02, 8.730E-03, 7.823E-02
 496 (171-261) [l=73 cm][73 def.]
 171, 4.803E-01, 3.451E-01, 8.730E-03, 1.067E-03
 i', 4.803E-01, 3.451E-01, 8.730E-03, 1.067E-03
 j', 4.801E-01, 3.432E-01, 8.730E-03, 1.067E-03
 261, 4.801E-01, 3.432E-01, 8.730E-03, 1.067E-03
 497 (261-169) [l=158 cm][158 def.]
 261, 4.801E-01, 3.432E-01, 8.730E-03, 1.067E-03
 i', 4.801E-01, 3.432E-01, 8.730E-03, 1.067E-03
 j', 4.797E-01, 3.391E-01, 8.730E-03, 1.067E-03
 169, 4.797E-01, 3.391E-01, 8.730E-03, 1.067E-03
 498 (261-364) [l=30 cm][30 def.]
 261, 4.801E-01, 7.636E-02, 8.730E-03, 7.823E-02
 i', 4.801E-01, 7.636E-02, 8.730E-03, 7.823E-02
 j', 5.035E-01, 7.803E-02, 8.730E-03, 7.823E-02
 364, 5.035E-01, 7.803E-02, 8.730E-03, 7.823E-02
 499 (188-263) [l=157 cm][157 def.]
 188, 4.797E-01, 3.391E-01, 8.730E-03, 1.067E-03
 i', 4.797E-01, 3.391E-01, 8.730E-03, 1.067E-03
 j', 4.801E-01, 3.432E-01, 8.730E-03, 1.067E-03
 263, 4.801E-01, 3.432E-01, 8.730E-03, 1.067E-03
 500 (263-187) [l=73 cm][73 def.]
 263, 4.801E-01, 3.432E-01, 8.730E-03, 1.067E-03
 i', 4.801E-01, 3.432E-01, 8.730E-03, 1.067E-03
 j', 4.803E-01, 3.451E-01, 8.730E-03, 1.067E-03
 187, 4.803E-01, 3.451E-01, 8.730E-03, 1.067E-03
 501 (263-365) [l=30 cm][30 def.]
 263, 4.801E-01, 7.636E-02, 8.730E-03, 7.823E-02
 i', 4.801E-01, 7.636E-02, 8.730E-03, 7.823E-02
 j', 5.035E-01, 7.803E-02, 8.730E-03, 7.823E-02
 365, 5.035E-01, 7.803E-02, 8.730E-03, 7.823E-02
 502 (174-264) [l=243 cm][243 def.]
 174, 4.815E-01, 3.592E-01, 8.729E-03, 1.067E-03
 i', 4.815E-01, 3.592E-01, 8.729E-03, 1.067E-03
 j', 4.809E-01, 3.529E-01, 8.729E-03, 1.067E-03
 264, 4.809E-01, 3.529E-01, 8.729E-03, 1.067E-03
 503 (264-172) [l=67 cm][67 def.]
 264, 4.809E-01, 3.529E-01, 8.729E-03, 1.067E-03
 i', 4.809E-01, 3.529E-01, 8.729E-03, 1.067E-03
 j', 4.808E-01, 3.511E-01, 8.729E-03, 1.067E-03
 172, 4.808E-01, 3.511E-01, 8.729E-03, 1.067E-03

504 (364-366) [l=370 cm][370 def.]
 364, 5.035E-01, 3.432E-01, 8.730E-03, 1.067E-03
 i', 5.035E-01, 3.432E-01, 8.730E-03, 1.067E-03
 j', 5.043E-01, 3.529E-01, 8.729E-03, 1.067E-03
 366, 5.043E-01, 3.529E-01, 8.729E-03, 1.067E-03

505 (264-366) [l=30 cm][30 def.]
 264, 4.809E-01, 7.636E-02, 8.729E-03, 7.823E-02
 i', 4.809E-01, 7.636E-02, 8.729E-03, 7.823E-02
 j', 5.043E-01, 7.803E-02, 8.729E-03, 7.823E-02
 366, 5.043E-01, 7.803E-02, 8.729E-03, 7.823E-02

506 (185-266) [l=67 cm][67 def.]
 185, 4.808E-01, 3.511E-01, 8.730E-03, 1.067E-03
 i', 4.808E-01, 3.511E-01, 8.730E-03, 1.067E-03
 j', 4.809E-01, 3.529E-01, 8.730E-03, 1.067E-03
 266, 4.809E-01, 3.529E-01, 8.730E-03, 1.067E-03

507 (266-184) [l=243 cm][243 def.]
 266, 4.809E-01, 3.529E-01, 8.730E-03, 1.067E-03
 i', 4.809E-01, 3.529E-01, 8.730E-03, 1.067E-03
 j', 4.815E-01, 3.592E-01, 8.730E-03, 1.067E-03
 184, 4.815E-01, 3.592E-01, 8.730E-03, 1.067E-03

508 (365-367) [l=370 cm][370 def.]
 365, 5.035E-01, 3.432E-01, 8.730E-03, 1.067E-03
 i', 5.035E-01, 3.432E-01, 8.730E-03, 1.067E-03
 j', 5.043E-01, 3.529E-01, 8.730E-03, 1.067E-03
 367, 5.043E-01, 3.529E-01, 8.730E-03, 1.067E-03

509 (266-367) [l=30 cm][30 def.]
 266, 4.809E-01, 7.636E-02, 8.730E-03, 7.823E-02
 i', 4.809E-01, 7.636E-02, 8.730E-03, 7.823E-02
 j', 5.043E-01, 7.803E-02, 8.730E-03, 7.823E-02
 367, 5.043E-01, 7.803E-02, 8.730E-03, 7.823E-02

510 (175-267) [l=183 cm][183 def.]
 175, 4.822E-01, 3.674E-01, 8.729E-03, 1.067E-03
 i', 4.822E-01, 3.674E-01, 8.729E-03, 1.067E-03
 j', 4.818E-01, 3.626E-01, 8.729E-03, 1.067E-03
 267, 4.818E-01, 3.626E-01, 8.729E-03, 1.067E-03

511 (267-174) [l=127 cm][127 def.]
 267, 4.818E-01, 3.626E-01, 8.729E-03, 1.067E-03
 i', 4.818E-01, 3.626E-01, 8.729E-03, 1.067E-03
 j', 4.815E-01, 3.592E-01, 8.729E-03, 1.067E-03
 174, 4.815E-01, 3.592E-01, 8.729E-03, 1.067E-03

512 (366-368) [l=370 cm][370 def.]
 366, 5.043E-01, 3.529E-01, 8.729E-03, 1.067E-03
 i', 5.043E-01, 3.529E-01, 8.729E-03, 1.067E-03
 j', 5.052E-01, 3.626E-01, 8.729E-03, 1.067E-03
 368, 5.052E-01, 3.626E-01, 8.729E-03, 1.067E-03

513 (267-368) [l=30 cm][30 def.]
 267, 4.818E-01, 7.636E-02, 8.729E-03, 7.823E-02
 i', 4.818E-01, 7.636E-02, 8.729E-03, 7.823E-02
 j', 5.052E-01, 7.803E-02, 8.729E-03, 7.823E-02
 368, 5.052E-01, 7.803E-02, 8.729E-03, 7.823E-02

514 (184-269) [l=127 cm][127 def.]
 184, 4.815E-01, 3.592E-01, 8.730E-03, 1.067E-03
 i', 4.815E-01, 3.592E-01, 8.730E-03, 1.067E-03
 j', 4.818E-01, 3.626E-01, 8.730E-03, 1.067E-03
 269, 4.818E-01, 3.626E-01, 8.730E-03, 1.067E-03

515 (269-181) [l=183 cm][183 def.]
 269, 4.818E-01, 3.626E-01, 8.730E-03, 1.067E-03
 i', 4.818E-01, 3.626E-01, 8.730E-03, 1.067E-03
 j', 4.822E-01, 3.673E-01, 8.729E-03, 1.067E-03
 181, 4.822E-01, 3.673E-01, 8.729E-03, 1.067E-03

516 (367-369) [l=370 cm][370 def.]
 367, 5.043E-01, 3.529E-01, 8.730E-03, 1.067E-03
 i', 5.043E-01, 3.529E-01, 8.730E-03, 1.067E-03
 j', 5.052E-01, 3.626E-01, 8.730E-03, 1.067E-03
 369, 5.052E-01, 3.626E-01, 8.730E-03, 1.067E-03

517 (269-369) [l=30 cm][30 def.]
 269, 4.818E-01, 7.636E-02, 8.730E-03, 7.823E-02
 i', 4.818E-01, 7.636E-02, 8.730E-03, 7.823E-02
 j', 5.052E-01, 7.803E-02, 8.730E-03, 7.823E-02
 369, 5.052E-01, 7.803E-02, 8.730E-03, 7.823E-02

518 (181-271) [l=187 cm][187 def.]
 181, 4.822E-01, 3.673E-01, 8.729E-03, 1.067E-03
 i', 4.822E-01, 3.673E-01, 8.729E-03, 1.067E-03
 j', 4.827E-01, 3.722E-01, 8.729E-03, 1.067E-03
 271, 4.827E-01, 3.722E-01, 8.729E-03, 1.067E-03

519 (271-180) [l=104 cm][104 def.]
 271, 4.827E-01, 3.722E-01, 8.729E-03, 1.067E-03
 i', 4.827E-01, 3.722E-01, 8.729E-03, 1.067E-03
 j', 4.829E-01, 3.750E-01, 8.729E-03, 1.067E-03
 180, 4.829E-01, 3.750E-01, 8.729E-03, 1.067E-03

520 (369-370) [l=370 cm][370 def.]
 369, 5.052E-01, 3.626E-01, 8.730E-03, 1.067E-03
 i', 5.052E-01, 3.626E-01, 8.730E-03, 1.067E-03
 j', 5.061E-01, 3.722E-01, 8.729E-03, 1.067E-03
 370, 5.061E-01, 3.722E-01, 8.729E-03, 1.067E-03

521 (370-279) [l=395 cm][395 def.]

370, 5.061E-01, 3.722E-01, 8.729E-03, 1.067E-03
 i', 5.061E-01, 3.722E-01, 8.729E-03, 1.067E-03
 j', 5.070E-01, 3.826E-01, 8.729E-03, 1.067E-03
 279, 5.070E-01, 3.826E-01, 8.729E-03, 1.067E-03
 522 (271-370) [l=30 cm][30 def.]
 271, 4.827E-01, 7.636E-02, 8.729E-03, 7.823E-02
 i', 4.827E-01, 7.636E-02, 8.729E-03, 7.823E-02
 j', 5.061E-01, 7.803E-02, 8.729E-03, 7.823E-02
 370, 5.061E-01, 7.803E-02, 8.729E-03, 7.823E-02
 523 (177-272) [l=104 cm][104 def.]
 177, 4.829E-01, 3.750E-01, 8.729E-03, 1.067E-03
 i', 4.829E-01, 3.750E-01, 8.729E-03, 1.067E-03
 j', 4.827E-01, 3.723E-01, 8.729E-03, 1.067E-03
 272, 4.827E-01, 3.723E-01, 8.729E-03, 1.067E-03
 524 (272-175) [l=187 cm][187 def.]
 272, 4.827E-01, 3.723E-01, 8.729E-03, 1.067E-03
 i', 4.827E-01, 3.723E-01, 8.729E-03, 1.067E-03
 j', 4.822E-01, 3.674E-01, 8.729E-03, 1.067E-03
 175, 4.822E-01, 3.674E-01, 8.729E-03, 1.067E-03
 525 (368-371) [l=370 cm][370 def.]
 368, 5.052E-01, 3.626E-01, 8.729E-03, 1.067E-03
 i', 5.052E-01, 3.626E-01, 8.729E-03, 1.067E-03
 j', 5.061E-01, 3.723E-01, 8.729E-03, 1.067E-03
 371, 5.061E-01, 3.723E-01, 8.729E-03, 1.067E-03
 526 (371-277) [l=395 cm][395 def.]
 371, 5.061E-01, 3.723E-01, 8.729E-03, 1.067E-03
 i', 5.061E-01, 3.723E-01, 8.729E-03, 1.067E-03
 j', 5.070E-01, 3.826E-01, 8.729E-03, 1.067E-03
 277, 5.070E-01, 3.826E-01, 8.729E-03, 1.067E-03
 527 (272-371) [l=30 cm][30 def.]
 272, 4.827E-01, 7.636E-02, 8.729E-03, 7.823E-02
 i', 4.827E-01, 7.636E-02, 8.729E-03, 7.823E-02
 j', 5.061E-01, 7.803E-02, 8.729E-03, 7.823E-02
 371, 5.061E-01, 7.803E-02, 8.729E-03, 7.823E-02
 528 (194-289) [l=122 cm][122 def.]
 194, 4.833E-01, 3.378E-01, 8.730E-03, 1.067E-03
 i', 4.833E-01, 3.378E-01, 8.730E-03, 1.067E-03
 j', 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03
 289, 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03
 529 (289-193) [l=0 cm][0 def.]
 289, 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03
 i', 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03
 j', 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03
 193, 4.821E-01, 3.346E-01, 8.730E-03, 1.067E-03
 530 (361-372) [l=367 cm][367 def.]
 361, 5.093E-01, 3.442E-01, 8.730E-03, 1.067E-03
 i', 5.093E-01, 3.442E-01, 8.730E-03, 1.067E-03
 j', 5.055E-01, 3.346E-01, 8.730E-03, 1.067E-03
 372, 5.055E-01, 3.346E-01, 8.730E-03, 1.067E-03
 531 (289-372) [l=30 cm][30 def.]
 289, 4.821E-01, 7.636E-02, 8.730E-03, 7.823E-02
 i', 4.821E-01, 7.636E-02, 8.730E-03, 7.823E-02
 j', 5.055E-01, 7.803E-02, 8.730E-03, 7.823E-02
 372, 5.055E-01, 7.803E-02, 8.730E-03, 7.823E-02
 532 (192-298) [l=165 cm][165 def.]
 192, 4.803E-01, 3.305E-01, 8.730E-03, 1.067E-03
 i', 4.803E-01, 3.305E-01, 8.730E-03, 1.067E-03
 j', 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03
 298, 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03
 533 (298-190) [l=0 cm][0 def.]
 298, 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03
 i', 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03
 j', 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03
 190, 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03
 534 (372-373) [l=330 cm][330 def.]
 372, 5.055E-01, 3.346E-01, 8.730E-03, 1.067E-03
 i', 5.055E-01, 3.346E-01, 8.730E-03, 1.067E-03
 j', 5.026E-01, 3.328E-01, 8.730E-03, 1.067E-03
 373, 5.026E-01, 3.328E-01, 8.730E-03, 1.067E-03
 535 (373-365) [l=402 cm][402 def.]
 373, 5.026E-01, 3.328E-01, 8.730E-03, 1.067E-03
 i', 5.026E-01, 3.328E-01, 8.730E-03, 1.067E-03
 j', 5.035E-01, 3.432E-01, 8.730E-03, 1.067E-03
 365, 5.035E-01, 3.432E-01, 8.730E-03, 1.067E-03
 536 (298-373) [l=30 cm][30 def.]
 298, 4.792E-01, 7.636E-02, 8.730E-03, 7.823E-02
 i', 4.792E-01, 7.636E-02, 8.730E-03, 7.823E-02
 j', 5.026E-01, 7.803E-02, 8.730E-03, 7.823E-02
 373, 5.026E-01, 7.803E-02, 8.730E-03, 7.823E-02
 537 (167-301) [l=0 cm][0 def.]
 167, 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03
 i', 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03
 j', 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03
 301, 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03
 538 (301-166) [l=165 cm][165 def.]
 301, 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03

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i', 4.792E-01, 3.328E-01, 8.730E-03, 1.067E-03
j', 4.803E-01, 3.305E-01, 8.730E-03, 1.067E-03
166, 4.803E-01, 3.305E-01, 8.730E-03, 1.067E-03
539 (363-374) [l=330 cm][330 def.]
363, 5.055E-01, 3.346E-01, 8.730E-03, 1.067E-03
i', 5.055E-01, 3.346E-01, 8.730E-03, 1.067E-03
j', 5.026E-01, 3.328E-01, 8.730E-03, 1.067E-03
374, 5.026E-01, 3.328E-01, 8.730E-03, 1.067E-03
540 (374-364) [l=402 cm][402 def.]
374, 5.026E-01, 3.328E-01, 8.730E-03, 1.067E-03
i', 5.026E-01, 3.328E-01, 8.730E-03, 1.067E-03
j', 5.035E-01, 3.432E-01, 8.730E-03, 1.067E-03
364, 5.035E-01, 3.432E-01, 8.730E-03, 1.067E-03
541 (301-374) [l=30 cm][30 def.]
301, 4.792E-01, 7.636E-02, 8.730E-03, 7.823E-02
i', 4.792E-01, 7.636E-02, 8.730E-03, 7.823E-02
j', 5.026E-01, 7.803E-02, 8.730E-03, 7.823E-02
374, 5.026E-01, 7.803E-02, 8.730E-03, 7.823E-02
542 (305-284) [l=400 cm][400 def.]
305, 5.760E-01, 9.489E-02, 1.452E-02, 7.861E-02
i', 5.760E-01, 9.489E-02, 1.452E-02, 7.861E-02
j', 2.627E-01, 3.680E-02, 1.452E-02, 7.861E-02
284, 2.627E-01, 3.680E-02, 1.452E-02, 7.861E-02
543 (307-283) [l=350 cm][350 def.]
307, 5.367E-01, 8.707E-02, 1.341E-02, 7.855E-02
i', 5.367E-01, 8.707E-02, 1.341E-02, 7.855E-02
j', 2.629E-01, 4.036E-02, 1.341E-02, 7.855E-02
283, 2.629E-01, 4.036E-02, 1.341E-02, 7.855E-02
544 (309-285) [l=350 cm][350 def.]
309, 5.367E-01, 8.707E-02, 1.341E-02, 7.855E-02
i', 5.367E-01, 8.707E-02, 1.341E-02, 7.855E-02
j', 2.629E-01, 4.036E-02, 1.341E-02, 7.855E-02
285, 2.629E-01, 4.036E-02, 1.341E-02, 7.855E-02
545 (311-286) [l=400 cm][400 def.]
311, 5.760E-01, 9.489E-02, 1.452E-02, 7.861E-02
i', 5.760E-01, 9.489E-02, 1.452E-02, 7.861E-02
j', 2.627E-01, 3.680E-02, 1.452E-02, 7.861E-02
286, 2.627E-01, 3.680E-02, 1.452E-02, 7.861E-02
546 (313-292) [l=350 cm][350 def.]
313, 5.338E-01, 8.702E-02, 1.342E-02, 7.854E-02
i', 5.338E-01, 8.702E-02, 1.342E-02, 7.854E-02
j', 2.600E-01, 4.047E-02, 1.342E-02, 7.854E-02
292, 2.600E-01, 4.047E-02, 1.342E-02, 7.854E-02
547 (315-293) [l=400 cm][400 def.]
315, 5.730E-01, 9.487E-02, 1.455E-02, 7.859E-02
i', 5.730E-01, 9.487E-02, 1.455E-02, 7.859E-02
j', 2.599E-01, 3.683E-02, 1.455E-02, 7.859E-02
293, 2.599E-01, 3.683E-02, 1.455E-02, 7.859E-02
548 (317-295) [l=400 cm][400 def.]
317, 5.730E-01, 9.487E-02, 1.455E-02, 7.859E-02
i', 5.730E-01, 9.487E-02, 1.455E-02, 7.859E-02
j', 2.599E-01, 3.683E-02, 1.455E-02, 7.859E-02
295, 2.599E-01, 3.683E-02, 1.455E-02, 7.859E-02
549 (319-302) [l=350 cm][350 def.]
319, 5.338E-01, 8.703E-02, 1.342E-02, 7.854E-02
i', 5.338E-01, 8.703E-02, 1.342E-02, 7.854E-02
j', 2.600E-01, 4.047E-02, 1.342E-02, 7.854E-02
302, 2.600E-01, 4.047E-02, 1.342E-02, 7.854E-02

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--> Reazioni Vincolari (RX, RY, RZ, MX, MY, MZ) [kN, kN m]

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1, 10.50, 0.64, 5.70, 0.00, 0.00, 0.03
2, 10.50, 0.64, 0.00, 0.00, 0.00, 0.03
3, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
4, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
5, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
6, 11.84, 0.40, 8.79, 0.00, 0.00, 0.03
7, 11.84, 0.40, 0.00, 0.00, 0.00, 0.03
8, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
9, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
10, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
11, 4.28, 0.38, 8.95, 0.00, 0.00, 0.02
12, 4.28, 0.38, 0.00, 0.00, 0.00, 0.02
13, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
14, 4.13, 0.37, 8.52, 0.00, 0.00, 0.02
15, 4.13, 0.37, 0.00, 0.00, 0.00, 0.02
16, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
17, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
18, 11.35, 0.35, 8.55, 0.00, 0.00, 0.03
19, 11.35, 0.35, 0.00, 0.00, 0.00, 0.03
20, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
21, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
22, 2.97, 0.19, 2.86, 0.00, 0.00, 0.01
23, 2.97, 0.19, 0.00, 0.00, 0.00, 0.01
24, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
25, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00

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26, 0.02, 10.41, 0.00, 0.00, 0.00, 0.00
 27, 7.95, 0.72, 10.75, 0.00, 0.00, 0.03
 28, 6.02, 1.00, 0.00, 0.00, 0.00, 0.03
 29, 0.03, 0.11, 0.00, 0.00, 0.00, 0.00
 30, 0.19, 0.15, 3.11, 0.00, 0.00, 0.00
 31, 0.19, 0.15, 0.00, 0.00, 0.00, 0.00
 32, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 33, 0.19, 0.14, 3.30, 0.00, 0.00, 0.00
 34, 0.19, 0.14, 0.00, 0.00, 0.00, 0.00
 35, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 36, 0.03, 0.10, 0.00, 0.00, 0.00, 0.00
 37, 8.03, 0.68, 9.99, 0.00, 0.00, 0.03
 38, 6.11, 1.05, 0.00, 0.00, 0.00, 0.03
 39, 0.02, 9.40, 0.00, 0.00, 0.00, 0.00
 40, 1.24, 0.09, 1.44, 0.00, 0.00, 0.00
 41, 1.24, 0.09, 0.00, 0.00, 0.00, 0.00
 42, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 43, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 44, 13.10, 0.32, 9.81, 0.00, 0.00, 0.03
 45, 13.10, 0.32, 0.00, 0.00, 0.00, 0.03
 46, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 47, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 48, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 49, 5.37, 0.32, 9.97, 0.00, 0.00, 0.02
 50, 5.37, 0.32, 0.00, 0.00, 0.00, 0.02
 51, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 52, 5.35, 0.33, 10.96, 0.00, 0.00, 0.02
 53, 5.35, 0.33, 0.00, 0.00, 0.00, 0.02
 54, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 55, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 56, 13.11, 0.33, 10.32, 0.00, 0.00, 0.03
 57, 13.11, 0.33, 0.00, 0.00, 0.00, 0.03
 58, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 59, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 60, 9.56, 0.43, 6.68, 0.00, 0.00, 0.02
 61, 9.56, 0.43, 0.00, 0.00, 0.00, 0.02
 62, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 63, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 64, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 65, 0.62, 27.45, 11.42, 0.00, 0.00, 0.05
 66, 0.62, 27.45, 0.00, 0.00, 0.00, 0.05
 67, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 68, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 69, 0.62, 27.46, 11.42, 0.00, 0.00, 0.05
 70, 0.62, 27.46, 0.00, 0.00, 0.00, 0.05
 71, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 72, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 73, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 74, 9.56, 0.43, 6.68, 0.00, 0.00, 0.02
 75, 9.56, 0.43, 0.00, 0.00, 0.00, 0.02
 76, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 77, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 78, 13.11, 0.33, 10.32, 0.00, 0.00, 0.03
 79, 13.11, 0.33, 0.00, 0.00, 0.00, 0.03
 80, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 81, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 82, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 83, 5.35, 0.33, 10.96, 0.00, 0.00, 0.02
 84, 5.35, 0.33, 0.00, 0.00, 0.00, 0.02
 85, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 86, 5.37, 0.32, 9.97, 0.00, 0.00, 0.02
 87, 5.37, 0.32, 0.00, 0.00, 0.00, 0.02
 88, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 89, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 90, 13.10, 0.32, 9.81, 0.00, 0.00, 0.03
 91, 13.10, 0.32, 0.00, 0.00, 0.00, 0.03
 92, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 93, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 94, 1.24, 0.09, 1.44, 0.00, 0.00, 0.00
 95, 1.24, 0.09, 0.00, 0.00, 0.00, 0.00
 96, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 97, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 98, 0.02, 9.40, 0.00, 0.00, 0.00, 0.00
 99, 8.03, 0.68, 10.00, 0.00, 0.00, 0.03
 100, 6.11, 1.05, 0.00, 0.00, 0.00, 0.03
 101, 0.03, 0.10, 0.00, 0.00, 0.00, 0.00
 102, 0.19, 0.14, 3.30, 0.00, 0.00, 0.00
 103, 0.19, 0.14, 0.00, 0.00, 0.00, 0.00
 104, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 105, 0.19, 0.15, 3.11, 0.00, 0.00, 0.00
 106, 0.19, 0.15, 0.00, 0.00, 0.00, 0.00
 107, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 108, 0.03, 0.11, 0.00, 0.00, 0.00, 0.00
 109, 7.95, 0.72, 10.75, 0.00, 0.00, 0.03
 110, 6.02, 1.00, 0.00, 0.00, 0.00, 0.03
 111, 0.02, 10.41, 0.00, 0.00, 0.00, 0.00

112, 2.97, 0.19, 2.86, 0.00, 0.00, 0.01
113, 2.97, 0.19, 0.00, 0.00, 0.00, 0.01
114, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
115, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
116, 11.35, 0.35, 8.55, 0.00, 0.00, 0.03
117, 11.35, 0.35, 0.00, 0.00, 0.00, 0.03
118, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
119, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
120, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
121, 4.13, 0.37, 8.52, 0.00, 0.00, 0.02
122, 4.13, 0.37, 0.00, 0.00, 0.00, 0.02
123, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
124, 4.28, 0.38, 8.95, 0.00, 0.00, 0.02
125, 4.28, 0.38, 0.00, 0.00, 0.00, 0.02
126, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
127, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
128, 11.84, 0.40, 8.79, 0.00, 0.00, 0.03
129, 11.84, 0.40, 0.00, 0.00, 0.00, 0.03
130, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
131, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
132, 10.51, 0.64, 5.70, 0.00, 0.00, 0.03
133, 10.51, 0.64, 0.00, 0.00, 0.00, 0.03
134, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
135, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
136, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
137, 0.31, 22.65, 6.67, 0.00, 0.00, 0.02
138, 0.06, 10.58, 0.00, 6.56, 0.04, 0.21
139, 0.05, 23.20, 0.00, 14.38, 0.03, 0.06
140, 0.01, 0.45, 0.00, 0.28, 0.01, 0.24
141, 0.31, 22.65, 6.67, 0.00, 0.00, 0.02
142, 0.06, 10.58, 0.00, 6.56, 0.04, 0.21
143, 0.01, 0.45, 0.00, 0.28, 0.01, 0.24
144, 0.05, 23.20, 0.00, 14.38, 0.03, 0.06
145, 0.31, 24.29, 8.50, 0.00, 0.00, 0.02
146, 0.06, 11.78, 0.00, 7.30, 0.04, 0.21
147, 0.05, 25.10, 0.00, 15.56, 0.03, 0.06
148, 0.01, 0.34, 0.00, 0.21, 0.01, 0.24
149, 0.31, 24.29, 8.50, 0.00, 0.00, 0.02
150, 0.06, 11.78, 0.00, 7.30, 0.04, 0.21
151, 0.01, 0.34, 0.00, 0.21, 0.01, 0.24
152, 0.05, 25.10, 0.00, 15.56, 0.03, 0.06
153, 4.59, 4.76, 0.00, 0.00, 0.00, 0.01
154, 4.59, 4.76, 0.00, 0.00, 0.00, 0.01
155, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
156, 6.76, 8.27, 0.00, 0.00, 0.00, 16.38
157, 4.57, 4.47, 0.00, 0.00, 0.00, 0.01
158, 4.57, 4.47, 0.00, 0.00, 0.00, 0.01
159, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
160, 3.66, 3.39, 0.00, 0.00, 0.00, 0.01
161, 3.66, 3.39, 0.00, 0.00, 0.00, 0.01
162, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
163, 1.92, 1.72, 0.00, 0.00, 0.00, 0.00
164, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
165, 2.60, 2.25, 0.00, 0.00, 0.00, 0.00
166, 2.60, 2.25, 0.00, 0.00, 0.00, 0.00
167, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
168, 1.92, 1.72, 0.00, 0.00, 0.00, 0.00
169, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
170, 3.62, 3.40, 0.00, 0.00, 0.00, 0.01
171, 3.62, 3.40, 0.00, 0.00, 0.00, 0.01
172, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
173, 4.88, 4.90, 0.00, 0.00, 0.00, 0.01
174, 4.88, 4.90, 0.00, 0.00, 0.00, 0.01
175, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
176, 4.59, 4.94, 0.00, 0.00, 0.00, 0.01
177, 4.59, 4.94, 0.00, 0.00, 0.00, 0.01
178, 3.24, 9.54, 0.00, 0.00, 0.00, 7.86
179, 4.59, 4.94, 0.00, 0.00, 0.00, 0.01
180, 4.59, 4.94, 0.00, 0.00, 0.00, 0.01
181, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
182, 3.24, 9.54, 0.00, 0.00, 0.00, 7.86
183, 4.88, 4.90, 0.00, 0.00, 0.00, 0.01
184, 4.88, 4.90, 0.00, 0.00, 0.00, 0.01
185, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
186, 3.62, 3.39, 0.00, 0.00, 0.00, 0.01
187, 3.62, 3.39, 0.00, 0.00, 0.00, 0.01
188, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
189, 1.92, 1.72, 0.00, 0.00, 0.00, 0.00
190, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
191, 2.60, 2.25, 0.00, 0.00, 0.00, 0.00
192, 2.60, 2.25, 0.00, 0.00, 0.00, 0.00
193, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
194, 1.92, 1.72, 0.00, 0.00, 0.00, 0.00
195, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
196, 3.66, 3.39, 0.00, 0.00, 0.00, 0.01
197, 3.66, 3.39, 0.00, 0.00, 0.00, 0.01

198,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
199,	4.57,	4.47,	0.00,	0.00,	0.00,	0.01
200,	4.57,	4.47,	0.00,	0.00,	0.00,	0.01
201,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
202,	4.59,	4.75,	0.00,	0.00,	0.00,	0.01
203,	4.59,	4.75,	0.00,	0.00,	0.00,	0.01
204,	51.83,	921.08,	0.00,	0.00,	0.00,	16.38
205,	0.38,	1.03,	0.00,	0.00,	0.00,	0.00
206,	2.36,	4.03,	0.00,	3.02,	1.77,	7.35
207,	0.55,	43.34,	0.00,	65.02,	0.82,	6.41
208,	0.38,	1.03,	0.00,	0.00,	0.00,	0.00
209,	2.36,	4.03,	0.00,	3.03,	1.77,	7.35
210,	0.38,	1.03,	0.00,	0.00,	0.00,	0.00
211,	4.92,	5.14,	0.00,	3.85,	3.69,	15.32
212,	5.87,	207.65,	0.00,	311.48,	8.80,	13.78
213,	0.38,	1.03,	0.00,	0.00,	0.00,	0.00
214,	4.91,	5.13,	0.00,	3.85,	3.69,	15.32
215,	0.54,	16.96,	8.58,	0.00,	0.00,	0.04
216,	0.54,	16.96,	0.00,	0.00,	0.00,	0.04
217,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
218,	0.52,	16.96,	7.45,	0.00,	0.00,	0.04
219,	0.52,	16.96,	0.00,	0.00,	0.00,	0.04
220,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
221,	0.54,	16.96,	8.58,	0.00,	0.00,	0.04
222,	0.54,	16.96,	0.00,	0.00,	0.00,	0.04
223,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
224,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
225,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
226,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
227,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
228,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
229,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
230,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
231,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
232,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
233,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
234,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
235,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
236,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
237,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
238,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
239,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
240,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
241,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
242,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
243,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
244,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
245,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
246,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
247,	0.00,	4.61,	0.00,	0.00,	0.00,	0.00
248,	0.06,	0.00,	0.00,	0.00,	0.09,	0.00
249,	0.00,	4.61,	0.00,	0.00,	0.00,	0.00
250,	0.04,	0.00,	0.00,	0.00,	0.05,	0.00
251,	0.00,	3.57,	0.00,	0.00,	0.00,	0.00
252,	0.00,	3.57,	0.00,	0.00,	0.00,	0.00
253,	0.03,	0.00,	0.00,	0.00,	0.05,	0.00
254,	0.00,	2.55,	0.00,	0.00,	0.00,	0.00
255,	0.00,	2.55,	0.00,	0.00,	0.00,	0.00
256,	0.03,	0.00,	0.00,	0.00,	0.05,	0.00
257,	0.00,	1.53,	0.00,	0.00,	0.00,	0.00
258,	0.00,	1.53,	0.00,	0.00,	0.00,	0.00
259,	0.00,	0.95,	0.00,	0.00,	0.00,	0.00
260,	0.00,	0.31,	0.00,	0.20,	0.00,	0.00
261,	0.00,	1.53,	0.00,	0.00,	0.00,	0.00
262,	0.03,	0.00,	0.00,	0.00,	0.05,	0.00
263,	0.00,	1.53,	0.00,	0.00,	0.00,	0.00
264,	0.00,	2.54,	0.00,	0.00,	0.00,	0.00
265,	0.04,	0.00,	0.00,	0.00,	0.06,	0.00
266,	0.00,	2.54,	0.00,	0.00,	0.00,	0.00
267,	0.00,	3.76,	0.00,	0.00,	0.00,	0.00
268,	0.08,	0.00,	0.00,	0.00,	0.12,	0.00
269,	0.00,	3.76,	0.00,	0.00,	0.00,	0.00
270,	0.07,	0.00,	0.00,	0.00,	0.10,	0.00
271,	0.00,	5.28,	0.00,	0.00,	0.00,	0.00
272,	0.00,	5.28,	0.00,	0.00,	0.00,	0.00
273,	0.03,	0.25,	0.00,	0.38,	0.04,	0.00
274,	0.03,	0.25,	0.00,	0.37,	0.04,	0.00
275,	3.39,	162.87,	0.00,	244.31,	5.09,	0.09
276,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
277,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
278,	5.88,	215.57,	0.00,	388.02,	10.58,	0.00
279,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
280,	49.80,	913.17,	0.00,	273.95,	14.94,	0.00
281,	5.88,	215.56,	0.00,	388.02,	10.58,	0.00
282,	0.01,	0.03,	0.00,	0.09,	0.03,	0.04
283,	0.01,	0.04,	0.00,	0.11,	0.04,	0.06

284,	0.01,	0.03,	0.00,	0.08,	0.03,	0.01
285,	0.01,	0.04,	0.00,	0.11,	0.04,	0.06
286,	0.01,	0.03,	0.00,	0.08,	0.03,	0.01
287,	0.01,	0.03,	0.00,	0.09,	0.03,	0.04
288,	0.00,	0.40,	0.00,	0.46,	0.00,	0.00
289,	0.00,	0.95,	0.00,	0.00,	0.00,	0.00
290,	0.00,	0.31,	0.00,	0.20,	0.00,	0.00
291,	0.00,	0.40,	0.00,	0.46,	0.00,	0.00
292,	0.01,	0.04,	0.00,	0.11,	0.04,	0.06
293,	0.01,	0.03,	0.00,	0.07,	0.03,	0.01
294,	0.01,	0.03,	0.00,	0.08,	0.03,	0.04
295,	0.01,	0.03,	0.00,	0.07,	0.03,	0.01
296,	0.00,	0.30,	0.00,	0.19,	0.00,	0.00
297,	0.00,	0.39,	0.00,	0.44,	0.00,	0.00
298,	0.00,	0.91,	0.00,	0.00,	0.00,	0.00
299,	0.00,	0.39,	0.00,	0.44,	0.00,	0.00
300,	0.00,	0.30,	0.00,	0.19,	0.00,	0.00
301,	0.00,	0.91,	0.00,	0.00,	0.00,	0.00
302,	0.01,	0.04,	0.00,	0.11,	0.04,	0.06
303,	0.01,	0.03,	0.00,	0.08,	0.03,	0.04
304,	0.01,	0.05,	0.00,	0.00,	0.00,	0.00
305,	0.01,	0.03,	0.00,	0.04,	0.01,	0.00
306,	0.02,	0.05,	0.00,	0.00,	0.00,	0.00
307,	0.01,	0.01,	0.00,	0.01,	0.01,	0.00
308,	0.02,	0.05,	0.00,	0.00,	0.00,	0.00
309,	0.01,	0.01,	0.00,	0.01,	0.01,	0.00
310,	0.01,	0.05,	0.00,	0.00,	0.00,	0.00
311,	0.01,	0.03,	0.00,	0.04,	0.01,	0.00
312,	0.02,	0.05,	0.00,	0.00,	0.00,	0.00
313,	0.01,	0.01,	0.00,	0.01,	0.01,	0.00
314,	0.01,	0.05,	0.00,	0.00,	0.00,	0.00
315,	0.01,	0.03,	0.00,	0.04,	0.01,	0.00
316,	0.01,	0.05,	0.00,	0.00,	0.00,	0.00
317,	0.01,	0.03,	0.00,	0.04,	0.01,	0.00
318,	0.02,	0.05,	0.00,	0.00,	0.00,	0.00
319,	0.01,	0.01,	0.00,	0.01,	0.01,	0.00
324,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
325,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
326,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
327,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
328,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
329,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
330,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
331,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
332,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
333,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
334,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
335,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
336,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
337,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
338,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
339,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
340,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
341,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
342,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
343,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
344,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
345,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
346,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
347,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
348,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
349,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00

374, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 375, 145.48, 129.98, 0.00, 0.00, 0.00, 336.63
 376, 64.43, 59.13, 0.00, 0.00, 0.00, 149.70

Risultati Analisi Sismica Dinamica Modale - SLU di salvaguardia della Vita (SLV)
 Effetti statici e sismici valutati secondo combinazione del §2.5.3, nella forma:
 Estat ± Esism, dove:
 Esism = E; Estat = G,1 + G,2 + P + Somma(i)[(psi),2i * Q,ki]
 Esism: spostamenti amplificati per (m)d (§7.3.3.3). (m)d=11.000

--> Spostamenti dei Nodi (u=sX, v=sY, w=sZ, fiX, fiY, fiZ) (XYZ=assi globali) [mm, mrad]

1,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.795E+00 ± 4.160E+00,	1.556E-05 ± 8.567E-01,	-6.877E-03 ±
1.081E-01,	0.000E+00 ± 0.000E+00				
2,	-2.175E-03 ± 8.190E-01,	-9.421E-05 ± 5.244E+00,	-6.850E+00 ± 4.197E+00,	2.351E-05 ± 8.615E-01,	-3.855E-04 ±
9.602E-02,	1.645E-07 ± 1.169E-02				
3,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.789E+00 ± 4.132E+00,	1.556E-05 ± 8.567E-01,	-6.877E-03 ±
1.081E-01,	0.000E+00 ± 0.000E+00				
4,	-2.175E-03 ± 8.190E-01,	-9.435E-05 ± 5.255E+00,	-6.850E+00 ± 4.223E+00,	2.089E-05 ± 8.615E-01,	-3.856E-04 ±
9.602E-02,	1.645E-07 ± 1.169E-02				
5,	-2.175E-03 ± 8.190E-01,	-9.406E-05 ± 5.234E+00,	-6.849E+00 ± 4.171E+00,	2.612E-05 ± 8.615E-01,	-3.852E-04 ±
9.603E-02,	1.645E-07 ± 1.169E-02				
6,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.768E+00 ± 3.979E+00,	3.928E-03 ± 9.818E-01,	-9.268E-03 ±
1.014E-01,	0.000E+00 ± 0.000E+00				
7,	-2.175E-03 ± 8.190E-01,	-9.354E-05 ± 5.198E+00,	-6.848E+00 ± 4.079E+00,	3.530E-05 ± 8.615E-01,	-3.825E-04 ±
9.604E-02,	1.645E-07 ± 1.169E-02				
8,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.776E+00 ± 4.016E+00,	3.928E-03 ± 9.818E-01,	-9.268E-03 ±
1.014E-01,	0.000E+00 ± 0.000E+00				
9,	-2.175E-03 ± 8.190E-01,	-9.369E-05 ± 5.208E+00,	-6.849E+00 ± 4.105E+00,	3.272E-05 ± 8.615E-01,	-3.837E-04 ±
9.604E-02,	1.645E-07 ± 1.169E-02				
10,	-2.175E-03 ± 8.190E-01,	-9.340E-05 ± 5.188E+00,	-6.848E+00 ± 4.054E+00,	3.788E-05 ± 8.616E-01,	-3.809E-04 ±
9.604E-02,	1.645E-07 ± 1.169E-02				
11,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.752E+00 ± 3.906E+00,	3.929E-03 ± 9.818E-01,	-9.304E-03 ±
1.014E-01,	0.000E+00 ± 0.000E+00				
12,	-2.175E-03 ± 8.190E-01,	-9.325E-05 ± 5.178E+00,	-6.848E+00 ± 4.028E+00,	4.046E-05 ± 8.616E-01,	-3.791E-04 ±
9.604E-02,	1.645E-07 ± 1.169E-02				
13,	-2.175E-03 ± 8.190E-01,	-9.311E-05 ± 5.168E+00,	-6.847E+00 ± 4.003E+00,	4.304E-05 ± 8.616E-01,	-3.769E-04 ±
9.604E-02,	1.645E-07 ± 1.169E-02				
14,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.768E+00 ± 3.791E+00,	2.701E-02 ± 9.738E-01,	7.698E-03 ±
9.929E-02,	0.000E+00 ± 0.000E+00				
15,	-2.175E-03 ± 8.190E-01,	-9.259E-05 ± 5.132E+00,	-6.846E+00 ± 3.911E+00,	5.223E-05 ± 8.616E-01,	-3.662E-04 ±
9.604E-02,	1.645E-07 ± 1.169E-02				
16,	-2.175E-03 ± 8.190E-01,	-9.273E-05 ± 5.142E+00,	-6.846E+00 ± 3.937E+00,	4.965E-05 ± 8.616E-01,	-3.698E-04 ±
9.604E-02,	1.645E-07 ± 1.169E-02				
17,	-2.175E-03 ± 8.190E-01,	-9.244E-05 ± 5.122E+00,	-6.846E+00 ± 3.886E+00,	5.481E-05 ± 8.616E-01,	-3.620E-04 ±
9.604E-02,	1.645E-07 ± 1.169E-02				
18,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.782E+00 ± 3.758E+00,	2.702E-02 ± 9.738E-01,	7.635E-03 ±
9.931E-02,	0.000E+00 ± 0.000E+00				
19,	-2.175E-03 ± 8.190E-01,	-9.230E-05 ± 5.112E+00,	-6.845E+00 ± 3.860E+00,	5.740E-05 ± 8.616E-01,	-3.572E-04 ±
9.604E-02,	1.645E-07 ± 1.169E-02				
20,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.788E+00 ± 3.744E+00,	2.702E-02 ± 9.738E-01,	7.635E-03 ±
9.931E-02,	0.000E+00 ± 0.000E+00				
21,	-2.175E-03 ± 8.190E-01,	-9.215E-05 ± 5.102E+00,	-6.845E+00 ± 3.834E+00,	5.999E-05 ± 8.617E-01,	-3.519E-04 ±
9.604E-02,	1.645E-07 ± 1.169E-02				
22,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.741E+00 ± 3.680E+00,	5.891E-02 ± 8.540E-01,	-5.943E-02 ±
1.006E-01,	0.000E+00 ± 0.000E+00				
23,	-2.175E-03 ± 8.190E-01,	-9.173E-05 ± 5.073E+00,	-6.844E+00 ± 3.760E+00,	6.753E-05 ± 8.617E-01,	-3.330E-04 ±
9.604E-02,	1.645E-07 ± 1.169E-02				
24,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.760E+00 ± 3.695E+00,	5.891E-02 ± 8.540E-01,	-5.943E-02 ±
1.006E-01,	0.000E+00 ± 0.000E+00				
25,	-2.175E-03 ± 8.190E-01,	-9.178E-05 ± 5.076E+00,	-6.844E+00 ± 3.769E+00,	6.662E-05 ± 8.617E-01,	-3.356E-04 ±
9.604E-02,	1.645E-07 ± 1.169E-02				
26,	-2.175E-03 ± 8.190E-01,	-9.168E-05 ± 5.069E+00,	-6.844E+00 ± 3.751E+00,	6.844E-05 ± 8.617E-01,	-3.304E-04 ±
9.604E-02,	1.645E-07 ± 1.169E-02				
27,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.650E+00 ± 3.607E+00,	5.922E-02 ± 8.541E-01,	-5.955E-02 ±
1.006E-01,	0.000E+00 ± 0.000E+00				
28,	-2.175E-03 ± 8.190E-01,	-9.148E-05 ± 5.055E+00,	-6.844E+00 ± 3.715E+00,	6.934E-05 ± 8.617E-01,	-3.194E-04 ±
9.604E-02,	1.645E-07 ± 1.169E-02				
29,	-2.175E-03 ± 8.190E-01,	-9.127E-05 ± 5.041E+00,	-6.843E+00 ± 3.680E+00,	7.027E-05 ± 8.617E-01,	-3.085E-04 ±
9.603E-02,	1.645E-07 ± 1.169E-02				
30,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.562E+00 ± 3.537E+00,	5.953E-02 ± 8.541E-01,	-5.962E-02 ±
1.006E-01,	0.000E+00 ± 0.000E+00				
31,	-2.175E-03 ± 8.190E-01,	-9.123E-05 ± 5.038E+00,	-6.843E+00 ± 3.673E+00,	7.046E-05 ± 8.617E-01,	-3.062E-04 ±
9.603E-02,	1.645E-07 ± 1.169E-02				
32,	-2.175E-03 ± 8.190E-01,	-9.119E-05 ± 5.035E+00,	-6.843E+00 ± 3.665E+00,	7.065E-05 ± 8.617E-01,	-3.039E-04 ±
9.603E-02,	1.645E-07 ± 1.169E-02				
33,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.544E+00 ± 3.504E+00,	7.318E-02 ± 8.588E-01,	8.223E-02 ±
1.042E-01,	0.000E+00 ± 0.000E+00				
34,	-2.175E-03 ± 8.190E-01,	-9.077E-05 ± 5.009E+00,	-6.842E+00 ± 3.653E+00,	7.249E-05 ± 8.617E-01,	-2.818E-04 ±
9.603E-02,	1.645E-07 ± 1.169E-02				
35,	-2.175E-03 ± 8.190E-01,	-9.082E-05 ± 5.010E+00,	-6.842E+00 ± 3.646E+00,	7.230E-05 ± 8.617E-01,	-2.841E-04 ±
9.603E-02,	1.645E-07 ± 1.169E-02				
36,	-2.175E-03 ± 8.190E-01,	-9.073E-05 ± 5.010E+00,	-6.842E+00 ± 3.660E+00,	7.268E-05 ± 8.617E-01,	-2.796E-04 ±
9.603E-02,	1.645E-07 ± 1.169E-02				

37,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.666E+00 ± 3.593E+00,	7.288E-02 ± 8.588E-01,	8.220E-02 ±
1.042E-01,	0.000E+00 ± 0.000E+00				
38,	-2.175E-03 ± 8.190E-01,	-9.053E-05 ± 5.013E+00,	-6.842E+00 ± 3.694E+00,	7.353E-05 ± 8.618E-01,	-2.689E-04 ±
9.603E-02,	1.645E-07 ± 1.169E-02				
39,	-2.175E-03 ± 8.190E-01,	-9.033E-05 ± 5.016E+00,	-6.842E+00 ± 3.729E+00,	7.441E-05 ± 8.618E-01,	-2.585E-04 ±
9.602E-02,	1.645E-07 ± 1.169E-02				
40,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.776E+00 ± 3.675E+00,	6.241E-02 ± 8.866E-01,	1.929E-02 ±
9.415E-02,	0.000E+00 ± 0.000E+00				
41,	-2.175E-03 ± 8.190E-01,	-9.030E-05 ± 5.016E+00,	-6.842E+00 ± 3.734E+00,	7.422E-05 ± 8.618E-01,	-2.570E-04 ±
9.602E-02,	1.645E-07 ± 1.169E-02				
42,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.779E+00 ± 3.680E+00,	6.241E-02 ± 8.866E-01,	1.929E-02 ±
9.415E-02,	0.000E+00 ± 0.000E+00				
43,	-2.175E-03 ± 8.190E-01,	-9.027E-05 ± 5.017E+00,	-6.842E+00 ± 3.739E+00,	7.403E-05 ± 8.618E-01,	-2.555E-04 ±
9.602E-02,	1.645E-07 ± 1.169E-02				
44,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.771E+00 ± 3.727E+00,	2.761E-02 ± 9.822E-01,	-1.058E-02 ±
1.002E-01,	0.000E+00 ± 0.000E+00				
45,	-2.175E-03 ± 8.190E-01,	-8.973E-05 ± 5.025E+00,	-6.841E+00 ± 3.832E+00,	7.069E-05 ± 8.618E-01,	-2.337E-04 ±
9.602E-02,	1.645E-07 ± 1.169E-02				
46,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.781E+00 ± 3.711E+00,	2.761E-02 ± 9.822E-01,	-1.058E-02 ±
1.002E-01,	0.000E+00 ± 0.000E+00				
47,	-2.175E-03 ± 8.190E-01,	-8.989E-05 ± 5.022E+00,	-6.841E+00 ± 3.804E+00,	7.170E-05 ± 8.618E-01,	-2.395E-04 ±
9.602E-02,	1.645E-07 ± 1.169E-02				
48,	-2.175E-03 ± 8.190E-01,	-8.957E-05 ± 5.027E+00,	-6.841E+00 ± 3.860E+00,	6.968E-05 ± 8.618E-01,	-2.285E-04 ±
9.602E-02,	1.645E-07 ± 1.169E-02				
49,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.750E+00 ± 3.763E+00,	2.760E-02 ± 9.822E-01,	-1.064E-02 ±
1.002E-01,	0.000E+00 ± 0.000E+00				
50,	-2.175E-03 ± 8.190E-01,	-8.941E-05 ± 5.030E+00,	-6.840E+00 ± 3.888E+00,	6.867E-05 ± 8.618E-01,	-2.240E-04 ±
9.601E-02,	1.645E-07 ± 1.169E-02				
51,	-2.175E-03 ± 8.190E-01,	-8.925E-05 ± 5.032E+00,	-6.840E+00 ± 3.917E+00,	6.767E-05 ± 8.618E-01,	-2.201E-04 ±
9.601E-02,	1.645E-07 ± 1.169E-02				
52,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.742E+00 ± 3.873E+00,	5.995E-03 ± 9.886E-01,	1.008E-02 ±
1.027E-01,	0.000E+00 ± 0.000E+00				
53,	-2.175E-03 ± 8.190E-01,	-8.871E-05 ± 5.040E+00,	-6.839E+00 ± 4.010E+00,	6.437E-05 ± 8.618E-01,	-2.112E-04 ±
9.601E-02,	1.645E-07 ± 1.169E-02				
54,	-2.175E-03 ± 8.190E-01,	-8.887E-05 ± 5.038E+00,	-6.840E+00 ± 3.982E+00,	6.537E-05 ± 8.618E-01,	-2.134E-04 ±
9.601E-02,	1.645E-07 ± 1.169E-02				
55,	-2.175E-03 ± 8.190E-01,	-8.855E-05 ± 5.043E+00,	-6.839E+00 ± 4.038E+00,	6.337E-05 ± 8.618E-01,	-2.092E-04 ±
9.601E-02,	1.645E-07 ± 1.169E-02				
56,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.762E+00 ± 3.958E+00,	5.994E-03 ± 9.886E-01,	1.003E-02 ±
1.027E-01,	0.000E+00 ± 0.000E+00				
57,	-2.175E-03 ± 8.190E-01,	-8.839E-05 ± 5.045E+00,	-6.839E+00 ± 4.066E+00,	6.238E-05 ± 8.618E-01,	-2.077E-04 ±
9.601E-02,	1.645E-07 ± 1.169E-02				
58,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.772E+00 ± 4.001E+00,	5.994E-03 ± 9.886E-01,	1.003E-02 ±
1.027E-01,	0.000E+00 ± 0.000E+00				
59,	-2.175E-03 ± 8.190E-01,	-8.823E-05 ± 5.048E+00,	-6.839E+00 ± 4.094E+00,	6.138E-05 ± 8.618E-01,	-2.065E-04 ±
9.601E-02,	1.645E-07 ± 1.169E-02				
60,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.791E+00 ± 4.191E+00,	5.059E-03 ± 8.980E-01,	7.747E-03 ±
1.201E-01,	0.000E+00 ± 0.000E+00				
61,	-2.175E-03 ± 8.190E-01,	-8.772E-05 ± 5.056E+00,	-6.838E+00 ± 4.182E+00,	5.828E-05 ± 8.618E-01,	-2.052E-04 ±
9.601E-02,	1.645E-07 ± 1.169E-02				
62,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.785E+00 ± 4.136E+00,	5.059E-03 ± 8.980E-01,	7.747E-03 ±
1.201E-01,	0.000E+00 ± 0.000E+00				
63,	-2.175E-03 ± 8.190E-01,	-8.785E-05 ± 5.054E+00,	-6.838E+00 ± 4.159E+00,	5.908E-05 ± 8.618E-01,	-2.053E-04 ±
9.601E-02,	1.645E-07 ± 1.169E-02				
64,	-2.175E-03 ± 8.190E-01,	-8.759E-05 ± 5.058E+00,	-6.838E+00 ± 4.205E+00,	5.747E-05 ± 8.618E-01,	-2.051E-04 ±
9.601E-02,	1.645E-07 ± 1.169E-02				
65,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.789E+00 ± 2.869E+00,	5.066E-03 ± 8.980E-01,	7.744E-03 ±
1.201E-01,	0.000E+00 ± 0.000E+00				
66,	-2.175E-03 ± 8.119E-01,	-8.759E-05 ± 5.058E+00,	-6.838E+00 ± 2.880E+00,	5.703E-05 ± 8.618E-01,	-2.051E-04 ±
9.601E-02,	1.645E-07 ± 1.169E-02				
67,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.781E+00 ± 2.177E+00,	5.066E-03 ± 8.980E-01,	7.744E-03 ±
1.201E-01,	0.000E+00 ± 0.000E+00				
68,	-2.175E-03 ± 8.048E-01,	-8.759E-05 ± 5.058E+00,	-6.838E+00 ± 2.246E+00,	5.696E-05 ± 8.618E-01,	-2.051E-04 ±
9.601E-02,	1.645E-07 ± 1.169E-02				
69,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.789E+00 ± 2.869E+00,	-5.033E-03 ± 8.980E-01,	7.742E-03 ±
1.201E-01,	0.000E+00 ± 0.000E+00				
70,	-2.176E-03 ± 8.119E-01,	-8.759E-05 ± 5.058E+00,	-6.838E+00 ± 2.880E+00,	-2.277E-05 ± 8.618E-01,	-2.052E-04 ±
9.600E-02,	1.645E-07 ± 1.169E-02				
71,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.781E+00 ± 2.176E+00,	-5.033E-03 ± 8.980E-01,	7.742E-03 ±
1.201E-01,	0.000E+00 ± 0.000E+00				
72,	-2.176E-03 ± 8.048E-01,	-8.759E-05 ± 5.058E+00,	-6.838E+00 ± 2.246E+00,	-2.270E-05 ± 8.618E-01,	-2.052E-04 ±
9.600E-02,	1.645E-07 ± 1.169E-02				
73,	-2.176E-03 ± 8.191E-01,	-8.759E-05 ± 5.058E+00,	-6.838E+00 ± 4.205E+00,	-2.321E-05 ± 8.618E-01,	-2.052E-04 ±
9.600E-02,	1.645E-07 ± 1.169E-02				
74,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.791E+00 ± 4.191E+00,	-5.025E-03 ± 8.980E-01,	7.745E-03 ±
1.201E-01,	0.000E+00 ± 0.000E+00				
75,	-2.176E-03 ± 8.191E-01,	-8.772E-05 ± 5.056E+00,	-6.838E+00 ± 4.182E+00,	-2.402E-05 ± 8.618E-01,	-2.052E-04 ±
9.600E-02,	1.645E-07 ± 1.169E-02				
76,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.784E+00 ± 4.136E+00,	-5.025E-03 ± 8.980E-01,	7.745E-03 ±
1.201E-01,	0.000E+00 ± 0.000E+00				
77,	-2.176E-03 ± 8.191E-01,	-8.785E-05 ± 5.054E+00,	-6.838E+00 ± 4.160E+00,	-2.483E-05 ± 8.618E-01,	-2.054E-04 ±
9.600E-02,	1.645E-07 ± 1.169E-02				
78,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.762E+00 ± 3.958E+00,	-5.959E-03 ± 9.886E-01,	1.003E-02 ±
1.027E-01,	0.000E+00 ± 0.000E+00				
79,	-2.176E-03 ± 8.191E-01,	-8.839E-05 ± 5.045E+00,	-6.839E+00 ± 4.066E+00,	-2.812E-05 ± 8.618E-01,	-2.077E-04 ±
9.600E-02,	1.645E-07 ± 1.169E-02				

80,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.771E+00 ± 4.001E+00,	-5.959E-03 ± 9.886E-01,	1.003E-02 ±
1.027E-01,	0.000E+00 ± 0.000E+00				
81,	-2.176E-03 ± 8.191E-01,	-8.823E-05 ± 5.048E+00,	-6.839E+00 ± 4.095E+00,	-2.712E-05 ± 8.618E-01,	-2.066E-04 ±
9.600E-02,	1.645E-07 ± 1.169E-02				
82,	-2.176E-03 ± 8.191E-01,	-8.855E-05 ± 5.043E+00,	-6.839E+00 ± 4.038E+00,	-2.912E-05 ± 8.618E-01,	-2.093E-04 ±
9.600E-02,	1.645E-07 ± 1.169E-02				
83,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.742E+00 ± 3.873E+00,	-5.960E-03 ± 9.886E-01,	1.008E-02 ±
1.027E-01,	0.000E+00 ± 0.000E+00				
84,	-2.176E-03 ± 8.191E-01,	-8.871E-05 ± 5.040E+00,	-6.839E+00 ± 4.010E+00,	-3.012E-05 ± 8.618E-01,	-2.112E-04 ±
9.601E-02,	1.645E-07 ± 1.169E-02				
85,	-2.176E-03 ± 8.191E-01,	-8.887E-05 ± 5.038E+00,	-6.839E+00 ± 3.982E+00,	-3.112E-05 ± 8.618E-01,	-2.135E-04 ±
9.601E-02,	1.645E-07 ± 1.169E-02				
86,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.750E+00 ± 3.763E+00,	-2.756E-02 ± 9.822E-01,	-1.064E-02 ±
1.002E-01,	0.000E+00 ± 0.000E+00				
87,	-2.176E-03 ± 8.191E-01,	-8.941E-05 ± 5.030E+00,	-6.840E+00 ± 3.889E+00,	-3.442E-05 ± 8.618E-01,	-2.240E-04 ±
9.601E-02,	1.645E-07 ± 1.169E-02				
88,	-2.176E-03 ± 8.191E-01,	-8.925E-05 ± 5.032E+00,	-6.840E+00 ± 3.917E+00,	-3.342E-05 ± 8.618E-01,	-2.201E-04 ±
9.601E-02,	1.645E-07 ± 1.169E-02				
89,	-2.176E-03 ± 8.191E-01,	-8.957E-05 ± 5.027E+00,	-6.840E+00 ± 3.860E+00,	-3.543E-05 ± 8.618E-01,	-2.286E-04 ±
9.601E-02,	1.645E-07 ± 1.169E-02				
90,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.770E+00 ± 3.727E+00,	-2.757E-02 ± 9.822E-01,	-1.058E-02 ±
1.002E-01,	0.000E+00 ± 0.000E+00				
91,	-2.176E-03 ± 8.191E-01,	-8.973E-05 ± 5.025E+00,	-6.841E+00 ± 3.832E+00,	-3.644E-05 ± 8.618E-01,	-2.337E-04 ±
9.601E-02,	1.645E-07 ± 1.169E-02				
92,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.781E+00 ± 3.711E+00,	-2.757E-02 ± 9.822E-01,	-1.058E-02 ±
1.002E-01,	0.000E+00 ± 0.000E+00				
93,	-2.176E-03 ± 8.191E-01,	-8.989E-05 ± 5.022E+00,	-6.841E+00 ± 3.804E+00,	-3.745E-05 ± 8.618E-01,	-2.395E-04 ±
9.601E-02,	1.645E-07 ± 1.169E-02				
94,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.775E+00 ± 3.675E+00,	-6.236E-02 ± 8.866E-01,	1.929E-02 ±
9.414E-02,	0.000E+00 ± 0.000E+00				
95,	-2.176E-03 ± 8.191E-01,	-9.030E-05 ± 5.016E+00,	-6.841E+00 ± 3.734E+00,	-3.998E-05 ± 8.618E-01,	-2.570E-04 ±
9.602E-02,	1.645E-07 ± 1.169E-02				
96,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.779E+00 ± 3.680E+00,	-6.236E-02 ± 8.866E-01,	1.929E-02 ±
9.414E-02,	0.000E+00 ± 0.000E+00				
97,	-2.176E-03 ± 8.191E-01,	-9.027E-05 ± 5.017E+00,	-6.841E+00 ± 3.739E+00,	-3.979E-05 ± 8.618E-01,	-2.555E-04 ±
9.602E-02,	1.645E-07 ± 1.169E-02				
98,	-2.176E-03 ± 8.191E-01,	-9.033E-05 ± 5.016E+00,	-6.842E+00 ± 3.729E+00,	-4.017E-05 ± 8.618E-01,	-2.585E-04 ±
9.602E-02,	1.645E-07 ± 1.169E-02				
99,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.666E+00 ± 3.593E+00,	-7.283E-02 ± 8.588E-01,	8.220E-02 ±
1.042E-01,	0.000E+00 ± 0.000E+00				
100,	-2.176E-03 ± 8.191E-01,	-9.053E-05 ± 5.013E+00,	-6.842E+00 ± 3.694E+00,	-3.928E-05 ± 8.618E-01,	-2.690E-04 ±
9.602E-02,	1.645E-07 ± 1.169E-02				
101,	-2.176E-03 ± 8.191E-01,	-9.073E-05 ± 5.010E+00,	-6.842E+00 ± 3.660E+00,	-3.843E-05 ± 8.617E-01,	-2.796E-04 ±
9.602E-02,	1.645E-07 ± 1.169E-02				
102,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.544E+00 ± 3.504E+00,	-7.314E-02 ± 8.588E-01,	8.223E-02 ±
1.042E-01,	0.000E+00 ± 0.000E+00				
103,	-2.176E-03 ± 8.191E-01,	-9.077E-05 ± 5.009E+00,	-6.842E+00 ± 3.652E+00,	-3.823E-05 ± 8.617E-01,	-2.819E-04 ±
9.602E-02,	1.645E-07 ± 1.169E-02				
104,	-2.176E-03 ± 8.191E-01,	-9.082E-05 ± 5.010E+00,	-6.842E+00 ± 3.646E+00,	-3.804E-05 ± 8.617E-01,	-2.842E-04 ±
9.603E-02,	1.645E-07 ± 1.169E-02				
105,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.562E+00 ± 3.537E+00,	-5.949E-02 ± 8.541E-01,	-5.962E-02 ±
1.006E-01,	0.000E+00 ± 0.000E+00				
106,	-2.176E-03 ± 8.191E-01,	-9.123E-05 ± 5.038E+00,	-6.843E+00 ± 3.673E+00,	-3.620E-05 ± 8.617E-01,	-3.062E-04 ±
9.603E-02,	1.645E-07 ± 1.169E-02				
107,	-2.176E-03 ± 8.191E-01,	-9.119E-05 ± 5.035E+00,	-6.843E+00 ± 3.665E+00,	-3.639E-05 ± 8.617E-01,	-3.039E-04 ±
9.603E-02,	1.645E-07 ± 1.169E-02				
108,	-2.176E-03 ± 8.191E-01,	-9.127E-05 ± 5.041E+00,	-6.843E+00 ± 3.680E+00,	-3.601E-05 ± 8.617E-01,	-3.086E-04 ±
9.603E-02,	1.645E-07 ± 1.169E-02				
109,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.650E+00 ± 3.607E+00,	-5.917E-02 ± 8.541E-01,	-5.955E-02 ±
1.006E-01,	0.000E+00 ± 0.000E+00				
110,	-2.176E-03 ± 8.191E-01,	-9.148E-05 ± 5.055E+00,	-6.844E+00 ± 3.715E+00,	-3.508E-05 ± 8.617E-01,	-3.195E-04 ±
9.603E-02,	1.645E-07 ± 1.169E-02				
111,	-2.176E-03 ± 8.191E-01,	-9.168E-05 ± 5.069E+00,	-6.844E+00 ± 3.750E+00,	-3.417E-05 ± 8.617E-01,	-3.304E-04 ±
9.603E-02,	1.645E-07 ± 1.169E-02				
112,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.741E+00 ± 3.680E+00,	-5.886E-02 ± 8.540E-01,	-5.943E-02 ±
1.006E-01,	0.000E+00 ± 0.000E+00				
113,	-2.176E-03 ± 8.191E-01,	-9.173E-05 ± 5.073E+00,	-6.844E+00 ± 3.759E+00,	-3.327E-05 ± 8.617E-01,	-3.331E-04 ±
9.604E-02,	1.645E-07 ± 1.169E-02				
114,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.760E+00 ± 3.695E+00,	-5.886E-02 ± 8.540E-01,	-5.943E-02 ±
1.006E-01,	0.000E+00 ± 0.000E+00				
115,	-2.176E-03 ± 8.191E-01,	-9.178E-05 ± 5.076E+00,	-6.844E+00 ± 3.768E+00,	-3.236E-05 ± 8.617E-01,	-3.357E-04 ±
9.604E-02,	1.645E-07 ± 1.169E-02				
116,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.781E+00 ± 3.758E+00,	-2.698E-02 ± 9.738E-01,	7.628E-03 ±
9.932E-02,	0.000E+00 ± 0.000E+00				
117,	-2.176E-03 ± 8.191E-01,	-9.230E-05 ± 5.112E+00,	-6.845E+00 ± 3.860E+00,	-2.312E-05 ± 8.616E-01,	-3.573E-04 ±
9.604E-02,	1.645E-07 ± 1.169E-02				
118,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.788E+00 ± 3.743E+00,	-2.698E-02 ± 9.738E-01,	7.627E-03 ±
9.932E-02,	0.000E+00 ± 0.000E+00				
119,	-2.176E-03 ± 8.191E-01,	-9.215E-05 ± 5.102E+00,	-6.845E+00 ± 3.834E+00,	-2.571E-05 ± 8.617E-01,	-3.520E-04 ±
9.604E-02,	1.645E-07 ± 1.169E-02				
120,	-2.176E-03 ± 8.191E-01,	-9.244E-05 ± 5.122E+00,	-6.846E+00 ± 3.885E+00,	-2.053E-05 ± 8.616E-01,	-3.620E-04 ±
9.604E-02,	1.645E-07 ± 1.169E-02				
121,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-6.768E+00 ± 3.790E+00,	-2.697E-02 ± 9.738E-01,	7.690E-03 ±
9.930E-02,	0.000E+00 ± 0.000E+00				
122,	-2.176E-03 ± 8.191E-01,	-9.259E-05 ± 5.132E+00,	-6.846E+00 ± 3.911E+00,	-1.794E-05 ± 8.616E-01,	-3.662E-04 ±
9.604E-02,	1.645E-07 ± 1.169E-02				

123, -2.176E-03 ± 8.191E-01, -9.273E-05 ± 5.142E+00, -6.846E+00 ± 3.936E+00, -1.536E-05 ± 8.616E-01, -3.699E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
 124, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.752E+00 ± 3.906E+00, -3.891E-03 ± 9.818E-01, -9.307E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00
 125, -2.176E-03 ± 8.191E-01, -9.325E-05 ± 5.178E+00, -6.847E+00 ± 4.028E+00, -6.158E-06 ± 8.616E-01, -3.791E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
 126, -2.176E-03 ± 8.191E-01, -9.311E-05 ± 5.168E+00, -6.847E+00 ± 4.002E+00, -8.741E-06 ± 8.616E-01, -3.770E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
 127, -2.176E-03 ± 8.191E-01, -9.340E-05 ± 5.188E+00, -6.848E+00 ± 4.053E+00, -3.575E-06 ± 8.616E-01, -3.810E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
 128, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.768E+00 ± 3.979E+00, -3.889E-03 ± 9.818E-01, -9.271E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00
 129, -2.176E-03 ± 8.191E-01, -9.354E-05 ± 5.198E+00, -6.848E+00 ± 4.079E+00, -9.920E-07 ± 8.615E-01, -3.825E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 130, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.776E+00 ± 4.015E+00, -3.889E-03 ± 9.818E-01, -9.271E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00
 131, -2.176E-03 ± 8.191E-01, -9.369E-05 ± 5.208E+00, -6.848E+00 ± 4.105E+00, 1.590E-06 ± 8.615E-01, -3.837E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 132, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.795E+00 ± 4.159E+00, 1.852E-05 ± 8.567E-01, -6.877E-03 ± 1.081E-01, 0.000E+00 ± 0.000E+00
 133, -2.176E-03 ± 8.191E-01, -9.421E-05 ± 5.245E+00, -6.850E+00 ± 4.196E+00, 1.083E-05 ± 8.615E-01, -3.855E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 134, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.788E+00 ± 4.132E+00, 1.852E-05 ± 8.567E-01, -6.877E-03 ± 1.081E-01, 0.000E+00 ± 0.000E+00
 135, -2.176E-03 ± 8.191E-01, -9.406E-05 ± 5.234E+00, -6.849E+00 ± 4.170E+00, 8.206E-06 ± 8.615E-01, -3.853E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 136, -2.176E-03 ± 8.191E-01, -9.435E-05 ± 5.255E+00, -6.850E+00 ± 4.222E+00, 1.345E-05 ± 8.615E-01, -3.856E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 137, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.650E+00 ± 2.291E+00, -7.250E-02 ± 8.587E-01, 8.216E-02 ± 1.042E-01, 0.000E+00 ± 0.000E+00
 138, -2.016E-03 ± 7.768E-01, -1.157E-04 ± 4.483E+00, -6.841E+00 ± 2.346E+00, -4.090E-05 ± 8.618E-01, -2.586E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 139, -2.016E-03 ± 7.844E-01, -1.155E-04 ± 4.483E+00, -6.842E+00 ± 3.729E+00, -4.061E-05 ± 8.618E-01, -2.585E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 140, -2.016E-03 ± 7.693E-01, -1.157E-04 ± 4.483E+00, -6.841E+00 ± 9.639E-01, -4.086E-05 ± 8.618E-01, -2.586E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 141, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.650E+00 ± 2.292E+00, 7.255E-02 ± 8.587E-01, 8.216E-02 ± 1.042E-01, 0.000E+00 ± 0.000E+00
 142, -2.015E-03 ± 7.768E-01, -4.374E-05 ± 4.483E+00, -6.842E+00 ± 2.347E+00, 7.515E-05 ± 8.618E-01, -2.585E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 143, -2.015E-03 ± 7.693E-01, -4.376E-05 ± 4.483E+00, -6.841E+00 ± 9.639E-01, 7.510E-05 ± 8.618E-01, -2.585E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 144, -2.015E-03 ± 7.844E-01, -4.392E-05 ± 4.483E+00, -6.842E+00 ± 3.729E+00, 7.485E-05 ± 8.618E-01, -2.585E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 145, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.629E+00 ± 2.296E+00, 5.888E-02 ± 8.540E-01, -5.946E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00
 146, -1.970E-03 ± 7.768E-01, -4.865E-05 ± 4.537E+00, -6.844E+00 ± 2.369E+00, 6.940E-05 ± 8.617E-01, -3.304E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
 147, -1.970E-03 ± 7.844E-01, -4.891E-05 ± 4.537E+00, -6.844E+00 ± 3.751E+00, 6.898E-05 ± 8.617E-01, -3.304E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
 148, -1.971E-03 ± 7.693E-01, -4.867E-05 ± 4.537E+00, -6.844E+00 ± 9.857E-01, 6.936E-05 ± 8.617E-01, -3.304E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
 149, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.628E+00 ± 2.295E+00, -5.884E-02 ± 8.540E-01, -5.946E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00
 150, -1.971E-03 ± 7.769E-01, -1.135E-04 ± 4.537E+00, -6.844E+00 ± 2.367E+00, -3.514E-05 ± 8.617E-01, -3.304E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 151, -1.971E-03 ± 7.693E-01, -1.134E-04 ± 4.537E+00, -6.844E+00 ± 9.855E-01, -3.510E-05 ± 8.617E-01, -3.304E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 152, -1.972E-03 ± 7.844E-01, -1.132E-04 ± 4.537E+00, -6.844E+00 ± 3.750E+00, -3.472E-05 ± 8.617E-01, -3.304E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 153, -2.176E-03 ± 8.191E-01, -9.388E-05 ± 5.222E+00, -6.849E+00 ± 4.138E+00, 4.937E-06 ± 8.615E-01, -3.847E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 154, -2.265E-03 ± 8.400E-01, -9.905E-05 ± 5.483E+00, -6.850E+00 ± 4.136E+00, 1.911E-05 ± 8.607E-01, -3.182E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 155, -2.265E-03 ± 8.400E-01, -9.857E-05 ± 5.450E+00, -6.850E+00 ± 4.052E+00, 1.986E-05 ± 8.606E-01, -3.166E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 156, -2.265E-03 ± 8.400E-01, -9.953E-05 ± 5.517E+00, -6.851E+00 ± 4.219E+00, 1.822E-05 ± 8.607E-01, -3.189E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 157, -2.176E-03 ± 8.191E-01, -9.292E-05 ± 5.155E+00, -6.847E+00 ± 3.969E+00, -1.205E-05 ± 8.616E-01, -3.738E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
 158, -2.265E-03 ± 8.400E-01, -9.809E-05 ± 5.417E+00, -6.849E+00 ± 3.968E+00, 2.047E-05 ± 8.606E-01, -3.138E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 159, -2.265E-03 ± 8.400E-01, -9.761E-05 ± 5.384E+00, -6.848E+00 ± 3.884E+00, 2.094E-05 ± 8.606E-01, -3.100E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 160, -2.176E-03 ± 8.191E-01, -9.206E-05 ± 5.096E+00, -6.845E+00 ± 3.818E+00, -2.735E-05 ± 8.617E-01, -3.484E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
 161, -2.265E-03 ± 8.400E-01, -9.723E-05 ± 5.357E+00, -6.847E+00 ± 3.818E+00, 2.118E-05 ± 8.606E-01, -3.063E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 162, -2.265E-03 ± 8.400E-01, -9.684E-05 ± 5.331E+00, -6.846E+00 ± 3.751E+00, 2.133E-05 ± 8.606E-01, -3.022E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 163, -2.265E-03 ± 8.400E-01, -9.664E-05 ± 5.317E+00, -6.846E+00 ± 3.715E+00, 2.137E-05 ± 8.606E-01, -2.999E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 164, -2.265E-03 ± 8.400E-01, -9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.680E+00, 2.141E-05 ± 8.606E-01, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 165, -2.176E-03 ± 8.191E-01, -9.100E-05 ± 5.023E+00, -6.843E+00 ± 3.635E+00, -3.722E-05 ± 8.617E-01, -2.940E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02

166, -2.265E-03 ± 8.400E-01, -9.617E-05 ± 5.284E+00, -6.845E+00 ± 3.636E+00, 2.142E-05 ± 8.606E-01, -2.942E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 167, -2.265E-03 ± 8.400E-01, -9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, 2.142E-05 ± 8.606E-01, -2.909E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 168, -2.265E-03 ± 8.400E-01, -9.569E-05 ± 5.274E+00, -6.844E+00 ± 3.695E+00, 2.138E-05 ± 8.606E-01, -2.885E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 169, -2.265E-03 ± 8.400E-01, -9.549E-05 ± 5.277E+00, -6.844E+00 ± 3.730E+00, 2.135E-05 ± 8.605E-01, -2.861E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 170, -2.176E-03 ± 8.191E-01, -8.995E-05 ± 5.021E+00, -6.841E+00 ± 3.794E+00, -3.780E-05 ± 8.618E-01, -2.416E-04 ±
 9.602E-02, 1.645E-07 ± 1.169E-02
 171, -2.265E-03 ± 8.400E-01, -9.511E-05 ± 5.283E+00, -6.843E+00 ± 3.796E+00, 2.122E-05 ± 8.605E-01, -2.820E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 172, -2.265E-03 ± 8.400E-01, -9.473E-05 ± 5.289E+00, -6.843E+00 ± 3.862E+00, 2.099E-05 ± 8.605E-01, -2.782E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 173, -2.176E-03 ± 8.191E-01, -8.906E-05 ± 5.035E+00, -6.840E+00 ± 3.949E+00, -3.227E-05 ± 8.618E-01, -2.165E-04 ±
 9.601E-02, 1.645E-07 ± 1.169E-02
 174, -2.265E-03 ± 8.400E-01, -9.422E-05 ± 5.297E+00, -6.842E+00 ± 3.952E+00, 2.051E-05 ± 8.605E-01, -2.740E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 175, -2.265E-03 ± 8.400E-01, -9.371E-05 ± 5.305E+00, -6.841E+00 ± 4.041E+00, 1.987E-05 ± 8.605E-01, -2.709E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 176, -2.176E-03 ± 8.191E-01, -8.807E-05 ± 5.050E+00, -6.838E+00 ± 4.122E+00, -2.617E-05 ± 8.618E-01, -2.059E-04 ±
 9.600E-02, 1.645E-07 ± 1.169E-02
 177, -2.265E-03 ± 8.400E-01, -9.323E-05 ± 5.312E+00, -6.840E+00 ± 4.125E+00, 1.912E-05 ± 8.605E-01, -2.692E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 178, -2.265E-03 ± 8.400E-01, -9.275E-05 ± 5.320E+00, -6.839E+00 ± 4.209E+00, 1.827E-05 ± 8.605E-01, -2.685E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 179, -2.175E-03 ± 8.190E-01, -8.807E-05 ± 5.050E+00, -6.839E+00 ± 4.122E+00, 6.042E-05 ± 8.618E-01, -2.059E-04 ±
 9.601E-02, 1.645E-07 ± 1.169E-02
 180, -2.263E-03 ± 8.400E-01, -9.323E-05 ± 5.312E+00, -6.840E+00 ± 4.125E+00, 1.557E-05 ± 8.605E-01, -2.692E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 181, -2.263E-03 ± 8.400E-01, -9.371E-05 ± 5.305E+00, -6.841E+00 ± 4.041E+00, 1.482E-05 ± 8.605E-01, -2.709E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 182, -2.263E-03 ± 8.400E-01, -9.275E-05 ± 5.320E+00, -6.839E+00 ± 4.208E+00, 1.643E-05 ± 8.605E-01, -2.685E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 183, -2.175E-03 ± 8.190E-01, -8.906E-05 ± 5.035E+00, -6.840E+00 ± 3.949E+00, 6.652E-05 ± 8.618E-01, -2.165E-04 ±
 9.601E-02, 1.645E-07 ± 1.169E-02
 184, -2.263E-03 ± 8.400E-01, -9.422E-05 ± 5.297E+00, -6.842E+00 ± 3.952E+00, 1.417E-05 ± 8.605E-01, -2.740E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 185, -2.263E-03 ± 8.400E-01, -9.473E-05 ± 5.289E+00, -6.843E+00 ± 3.862E+00, 1.369E-05 ± 8.605E-01, -2.782E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 186, -2.175E-03 ± 8.190E-01, -8.995E-05 ± 5.021E+00, -6.841E+00 ± 3.795E+00, 7.204E-05 ± 8.618E-01, -2.416E-04 ±
 9.602E-02, 1.645E-07 ± 1.169E-02
 187, -2.263E-03 ± 8.400E-01, -9.511E-05 ± 5.283E+00, -6.843E+00 ± 3.796E+00, 1.345E-05 ± 8.605E-01, -2.820E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 188, -2.263E-03 ± 8.400E-01, -9.549E-05 ± 5.277E+00, -6.844E+00 ± 3.730E+00, 1.333E-05 ± 8.605E-01, -2.861E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 189, -2.263E-03 ± 8.400E-01, -9.569E-05 ± 5.274E+00, -6.844E+00 ± 3.695E+00, 1.329E-05 ± 8.606E-01, -2.885E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 190, -2.263E-03 ± 8.400E-01, -9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, 1.325E-05 ± 8.606E-01, -2.909E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 191, -2.175E-03 ± 8.190E-01, -9.100E-05 ± 5.023E+00, -6.843E+00 ± 3.635E+00, 7.147E-05 ± 8.617E-01, -2.939E-04 ±
 9.603E-02, 1.645E-07 ± 1.169E-02
 192, -2.263E-03 ± 8.400E-01, -9.617E-05 ± 5.284E+00, -6.845E+00 ± 3.636E+00, 1.325E-05 ± 8.606E-01, -2.942E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 193, -2.263E-03 ± 8.400E-01, -9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.681E+00, 1.325E-05 ± 8.606E-01, -2.975E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 194, -2.263E-03 ± 8.400E-01, -9.664E-05 ± 5.317E+00, -6.846E+00 ± 3.716E+00, 1.329E-05 ± 8.606E-01, -2.999E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 195, -2.263E-03 ± 8.400E-01, -9.684E-05 ± 5.331E+00, -6.846E+00 ± 3.751E+00, 1.333E-05 ± 8.606E-01, -3.022E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 196, -2.175E-03 ± 8.190E-01, -9.206E-05 ± 5.096E+00, -6.845E+00 ± 3.818E+00, 6.162E-05 ± 8.617E-01, -3.483E-04 ±
 9.604E-02, 1.645E-07 ± 1.169E-02
 197, -2.263E-03 ± 8.400E-01, -9.723E-05 ± 5.357E+00, -6.847E+00 ± 3.818E+00, 1.348E-05 ± 8.606E-01, -3.063E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 198, -2.263E-03 ± 8.400E-01, -9.761E-05 ± 5.384E+00, -6.848E+00 ± 3.885E+00, 1.371E-05 ± 8.606E-01, -3.100E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 199, -2.175E-03 ± 8.190E-01, -9.292E-05 ± 5.155E+00, -6.847E+00 ± 3.970E+00, 4.634E-05 ± 8.616E-01, -3.737E-04 ±
 9.604E-02, 1.645E-07 ± 1.169E-02
 200, -2.263E-03 ± 8.400E-01, -9.809E-05 ± 5.417E+00, -6.849E+00 ± 3.968E+00, 1.418E-05 ± 8.606E-01, -3.138E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 201, -2.263E-03 ± 8.400E-01, -9.857E-05 ± 5.450E+00, -6.850E+00 ± 4.052E+00, 1.478E-05 ± 8.606E-01, -3.166E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 202, -2.175E-03 ± 8.190E-01, -9.388E-05 ± 5.222E+00, -6.849E+00 ± 4.138E+00, 2.939E-05 ± 8.615E-01, -3.847E-04 ±
 9.603E-02, 1.645E-07 ± 1.169E-02
 203, -2.263E-03 ± 8.400E-01, -9.905E-05 ± 5.483E+00, -6.851E+00 ± 4.136E+00, 1.553E-05 ± 8.607E-01, -3.182E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 204, -2.263E-03 ± 8.400E-01, -9.953E-05 ± 5.517E+00, -6.852E+00 ± 4.220E+00, 1.642E-05 ± 8.607E-01, -3.189E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 205, -2.175E-03 ± 8.093E-01, -8.759E-05 ± 5.058E+00, -6.838E+00 ± 2.497E+00, 5.698E-05 ± 8.618E-01, -2.051E-04 ±
 9.601E-02, 1.645E-07 ± 1.169E-02
 206, -2.465E-03 ± 8.773E-01, -1.054E-04 ± 5.963E+00, -6.839E+00 ± 2.500E+00, 1.692E-05 ± 8.605E-01, -2.685E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 207, -2.667E-03 ± 9.182E-01, -1.188E-04 ± 6.606E+00, -6.839E+00 ± 1.957E+00, 1.735E-05 ± 8.605E-01, -2.685E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 208, -2.176E-03 ± 8.093E-01, -8.759E-05 ± 5.058E+00, -6.838E+00 ± 2.497E+00, -2.272E-05 ± 8.618E-01, -2.052E-04 ±
 9.600E-02, 1.645E-07 ± 1.169E-02

209, -2.466E-03 ± 8.773E-01, -1.061E-04 ± 5.963E+00, -6.839E+00 ± 2.500E+00, 1.778E-05 ± 8.605E-01, -2.685E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 210, -2.176E-03 ± 8.093E-01, -9.435E-05 ± 5.255E+00, -6.850E+00 ± 2.533E+00, 1.555E-05 ± 8.615E-01, -3.856E-04 ±
 9.599E-02, 1.645E-07 ± 1.169E-02
 211, -2.503E-03 ± 8.773E-01, -1.128E-04 ± 6.160E+00, -6.851E+00 ± 2.534E+00, 1.774E-05 ± 8.607E-01, -3.189E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 212, -2.742E-03 ± 9.182E-01, -1.255E-04 ± 6.805E+00, -6.851E+00 ± 1.990E+00, 1.732E-05 ± 8.607E-01, -3.189E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 213, -2.175E-03 ± 8.093E-01, -9.435E-05 ± 5.255E+00, -6.850E+00 ± 2.533E+00, 1.879E-05 ± 8.615E-01, -3.856E-04 ±
 9.599E-02, 1.645E-07 ± 1.169E-02
 214, -2.503E-03 ± 8.773E-01, -1.122E-04 ± 6.160E+00, -6.852E+00 ± 2.534E+00, 1.690E-05 ± 8.607E-01, -3.189E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 215, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.801E+00 ± 2.986E+00, 1.534E-05 ± 8.567E-01, -6.873E-03 ±
 1.079E-01, 0.000E+00 ± 0.000E+00
 216, -2.176E-03 ± 8.126E-01, -9.435E-05 ± 5.255E+00, -6.850E+00 ± 3.014E+00, 1.495E-05 ± 8.615E-01, -3.856E-04 ±
 9.600E-02, 1.645E-07 ± 1.169E-02
 217, -2.176E-03 ± 8.060E-01, -9.435E-05 ± 5.255E+00, -6.850E+00 ± 2.352E+00, 1.611E-05 ± 8.615E-01, -3.856E-04 ±
 9.598E-02, 1.645E-07 ± 1.169E-02
 218, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.801E+00 ± 1.943E+00, 1.704E-05 ± 8.566E-01, -6.872E-03 ±
 1.077E-01, 0.000E+00 ± 0.000E+00
 219, -2.176E-03 ± 7.995E-01, -9.435E-05 ± 5.255E+00, -6.850E+00 ± 1.989E+00, 1.717E-05 ± 8.615E-01, -3.856E-04 ±
 9.597E-02, 1.645E-07 ± 1.169E-02
 220, -2.175E-03 ± 8.060E-01, -9.435E-05 ± 5.255E+00, -6.850E+00 ± 2.352E+00, 1.823E-05 ± 8.615E-01, -3.856E-04 ±
 9.598E-02, 1.645E-07 ± 1.169E-02
 221, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.801E+00 ± 2.986E+00, 1.875E-05 ± 8.567E-01, -6.872E-03 ±
 1.080E-01, 0.000E+00 ± 0.000E+00
 222, -2.175E-03 ± 8.125E-01, -9.435E-05 ± 5.255E+00, -6.850E+00 ± 3.014E+00, 1.939E-05 ± 8.615E-01, -3.856E-04 ±
 9.600E-02, 1.645E-07 ± 1.169E-02
 223, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.801E+00 ± 4.188E+00, 1.508E-05 ± 8.566E-01, -6.874E-03 ±
 1.081E-01, 0.000E+00 ± 0.000E+00
 224, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.744E+00 ± 3.870E+00, 3.930E-03 ± 9.818E-01, -9.314E-03 ±
 1.014E-01, 0.000E+00 ± 0.000E+00
 225, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.761E+00 ± 3.808E+00, 2.701E-02 ± 9.738E-01, 7.713E-03 ±
 9.929E-02, 0.000E+00 ± 0.000E+00
 226, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.723E+00 ± 3.665E+00, 5.891E-02 ± 8.540E-01, -5.946E-02 ±
 1.006E-01, 0.000E+00 ± 0.000E+00
 227, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.577E+00 ± 3.549E+00, 5.953E-02 ± 8.541E-01, -5.962E-02 ±
 1.006E-01, 0.000E+00 ± 0.000E+00
 228, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.546E+00 ± 3.525E+00, 5.953E-02 ± 8.541E-01, -5.962E-02 ±
 1.006E-01, 0.000E+00 ± 0.000E+00
 229, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.522E+00 ± 3.490E+00, 7.318E-02 ± 8.588E-01, 8.223E-02 ±
 1.042E-01, 0.000E+00 ± 0.000E+00
 230, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.565E+00 ± 3.519E+00, 7.318E-02 ± 8.588E-01, 8.223E-02 ±
 1.042E-01, 0.000E+00 ± 0.000E+00
 231, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.766E+00 ± 3.668E+00, 7.258E-02 ± 8.587E-01, 8.216E-02 ±
 1.042E-01, 0.000E+00 ± 0.000E+00
 232, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.739E+00 ± 3.782E+00, 2.760E-02 ± 9.822E-01, -1.066E-02 ±
 1.001E-01, 0.000E+00 ± 0.000E+00
 233, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.732E+00 ± 3.831E+00, 5.996E-03 ± 9.886E-01, 1.009E-02 ±
 1.027E-01, 0.000E+00 ± 0.000E+00
 234, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.797E+00 ± 4.245E+00, 5.059E-03 ± 8.980E-01, 7.745E-03 ±
 1.201E-01, 0.000E+00 ± 0.000E+00
 235, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.797E+00 ± 4.245E+00, -5.025E-03 ± 8.980E-01, 7.743E-03 ±
 1.201E-01, 0.000E+00 ± 0.000E+00
 236, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.732E+00 ± 3.831E+00, -5.961E-03 ± 9.886E-01, 1.009E-02 ±
 1.027E-01, 0.000E+00 ± 0.000E+00
 237, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.739E+00 ± 3.782E+00, -2.756E-02 ± 9.822E-01, -1.066E-02 ±
 1.001E-01, 0.000E+00 ± 0.000E+00
 238, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.766E+00 ± 3.668E+00, -7.253E-02 ± 8.587E-01, 8.216E-02 ±
 1.042E-01, 0.000E+00 ± 0.000E+00
 239, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.565E+00 ± 3.519E+00, -7.314E-02 ± 8.588E-01, 8.223E-02 ±
 1.042E-01, 0.000E+00 ± 0.000E+00
 240, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.522E+00 ± 3.490E+00, -7.314E-02 ± 8.588E-01, 8.223E-02 ±
 1.042E-01, 0.000E+00 ± 0.000E+00
 241, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.546E+00 ± 3.525E+00, -5.949E-02 ± 8.541E-01, -5.962E-02 ±
 1.006E-01, 0.000E+00 ± 0.000E+00
 242, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.577E+00 ± 3.549E+00, -5.949E-02 ± 8.541E-01, -5.962E-02 ±
 1.006E-01, 0.000E+00 ± 0.000E+00
 243, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.723E+00 ± 3.665E+00, -5.887E-02 ± 8.540E-01, -5.946E-02 ±
 1.006E-01, 0.000E+00 ± 0.000E+00
 244, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.761E+00 ± 3.808E+00, -2.697E-02 ± 9.738E-01, 7.705E-03 ±
 9.929E-02, 0.000E+00 ± 0.000E+00
 245, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.743E+00 ± 3.869E+00, -3.892E-03 ± 9.818E-01, -9.317E-03 ±
 1.014E-01, 0.000E+00 ± 0.000E+00
 246, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.801E+00 ± 4.187E+00, 1.900E-05 ± 8.566E-01, -6.874E-03 ±
 1.081E-01, 0.000E+00 ± 0.000E+00
 247, -2.265E-03 ± 8.400E-01, -9.888E-05 ± 5.472E+00, -6.850E+00 ± 4.106E+00, 1.942E-05 ± 8.607E-01, -3.177E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 248, 1.346E-03 ± 9.207E-01, -1.239E-04 ± 6.759E+00, -8.071E+00 ± 2.685E+00, 1.667E-05 ± 8.607E-01, 2.407E-03 ±
 9.704E-02, 1.648E-07 ± 1.174E-02
 249, -2.263E-03 ± 8.400E-01, -9.888E-05 ± 5.472E+00, -6.850E+00 ± 4.106E+00, 1.522E-05 ± 8.607E-01, -3.177E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 250, 4.839E-05 ± 9.254E-01, -1.236E-04 ± 6.717E+00, -8.077E+00 ± 2.090E+00, 1.688E-05 ± 8.607E-01, 1.542E-03 ±
 9.951E-02, 1.648E-07 ± 1.174E-02
 251, -2.263E-03 ± 8.400E-01, -9.827E-05 ± 5.429E+00, -6.849E+00 ± 3.999E+00, 1.435E-05 ± 8.606E-01, -3.150E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02

252, -2.265E-03 ± 8.400E-01, -9.827E-05 ± 5.429E+00, -6.849E+00 ± 3.999E+00, 2.029E-05 ± 8.606E-01, -3.150E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 253, -1.211E-03 ± 9.290E-01, -1.233E-04 ± 6.675E+00, -8.076E+00 ± 1.495E+00, 1.708E-05 ± 8.606E-01, 7.016E-04 ±
 1.017E-01, 1.648E-07 ± 1.174E-02
 254, -2.263E-03 ± 8.400E-01, -9.766E-05 ± 5.387E+00, -6.848E+00 ± 3.893E+00, 1.374E-05 ± 8.606E-01, -3.104E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 255, -2.265E-03 ± 8.400E-01, -9.766E-05 ± 5.387E+00, -6.848E+00 ± 3.892E+00, 2.092E-05 ± 8.606E-01, -3.104E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 256, -2.392E-03 ± 9.313E-01, -1.162E-04 ± 6.633E+00, -8.068E+00 ± 8.999E-01, 1.274E-05 ± 8.606E-01, -8.541E-05 ±
 1.033E-01, 1.648E-07 ± 1.174E-02
 257, -2.263E-03 ± 8.400E-01, -9.705E-05 ± 5.345E+00, -6.847E+00 ± 3.786E+00, 1.337E-05 ± 8.606E-01, -3.044E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 258, -2.265E-03 ± 8.400E-01, -9.705E-05 ± 5.345E+00, -6.847E+00 ± 3.786E+00, 2.129E-05 ± 8.606E-01, -3.044E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 259, -2.265E-03 ± 8.400E-01, -9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.680E+00, 2.141E-05 ± 8.606E-01, -2.975E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 260, 2.887E-04 ± 8.767E-01, -2.894E-01 ± 5.834E+00, -8.164E+00 ± 2.365E+00, 4.485E-01 ± 8.710E-01, 3.958E-03 ±
 1.023E-01, 1.648E-07 ± 1.174E-02
 261, -2.265E-03 ± 8.400E-01, -9.523E-05 ± 5.281E+00, -6.843E+00 ± 3.775E+00, 2.130E-05 ± 8.605E-01, -2.833E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 262, -3.940E-03 ± 9.307E-01, -1.210E-04 ± 6.569E+00, -8.121E+00 ± 8.831E-01, 1.714E-05 ± 8.605E-01, -1.118E-03 ±
 1.031E-01, 1.648E-07 ± 1.174E-02
 263, -2.263E-03 ± 8.400E-01, -9.523E-05 ± 5.281E+00, -6.844E+00 ± 3.775E+00, 1.338E-05 ± 8.605E-01, -2.833E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 264, -2.265E-03 ± 8.400E-01, -9.462E-05 ± 5.290E+00, -6.842E+00 ± 3.882E+00, 2.092E-05 ± 8.605E-01, -2.773E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 265, -5.571E-03 ± 9.281E-01, -1.200E-04 ± 6.578E+00, -8.072E+00 ± 1.470E+00, 1.689E-05 ± 8.605E-01, -2.205E-03 ±
 1.014E-01, 1.648E-07 ± 1.174E-02
 266, -2.263E-03 ± 8.400E-01, -9.462E-05 ± 5.290E+00, -6.843E+00 ± 3.882E+00, 1.376E-05 ± 8.605E-01, -2.773E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 267, -2.265E-03 ± 8.400E-01, -9.401E-05 ± 5.300E+00, -6.841E+00 ± 3.988E+00, 2.030E-05 ± 8.605E-01, -2.725E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 268, -7.009E-03 ± 9.244E-01, -1.190E-04 ± 6.587E+00, -8.066E+00 ± 2.118E+00, 1.666E-05 ± 8.605E-01, -3.163E-03 ±
 9.930E-02, 1.648E-07 ± 1.174E-02
 269, -2.263E-03 ± 8.400E-01, -9.401E-05 ± 5.300E+00, -6.842E+00 ± 3.988E+00, 1.439E-05 ± 8.605E-01, -2.725E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 270, -7.593E-03 ± 9.201E-01, -1.183E-04 ± 6.596E+00, -7.881E+00 ± 2.817E+00, 1.657E-05 ± 8.605E-01, -3.553E-03 ±
 9.695E-02, 1.648E-07 ± 1.174E-02
 271, -2.263E-03 ± 8.400E-01, -9.340E-05 ± 5.309E+00, -6.841E+00 ± 4.095E+00, 1.526E-05 ± 8.605E-01, -2.697E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 272, -2.265E-03 ± 8.400E-01, -9.340E-05 ± 5.309E+00, -6.840E+00 ± 4.095E+00, 1.942E-05 ± 8.605E-01, -2.697E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 273, -2.657E-03 ± 9.323E-01, -1.099E-04 ± 6.607E+00, -7.906E+00 ± 2.786E-01, 8.964E-06 ± 8.711E-01, -2.619E-04 ±
 1.041E-01, 1.648E-07 ± 1.174E-02
 274, -2.228E-03 ± 9.322E-01, -1.202E-04 ± 6.576E+00, -7.966E+00 ± 2.214E-01, 1.621E-05 ± 8.717E-01, 2.422E-05 ±
 1.040E-01, 1.648E-07 ± 1.174E-02
 275, -2.667E-03 ± 9.182E-01, -1.188E-04 ± 6.606E+00, -6.839E+00 ± 1.957E+00, 1.735E-05 ± 8.605E-01, -2.685E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 276, -2.360E-03 ± 8.584E-01, -1.050E-04 ± 5.774E+00, -6.851E+00 ± 4.219E+00, 1.823E-05 ± 8.607E-01, -3.189E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 277, -2.345E-03 ± 8.584E-01, -9.824E-05 ± 5.577E+00, -6.839E+00 ± 4.209E+00, 1.828E-05 ± 8.605E-01, -2.685E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 278, -2.747E-03 ± 9.392E-01, -1.240E-04 ± 6.864E+00, -6.839E+00 ± 1.957E+00, 1.735E-05 ± 8.605E-01, -2.685E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 279, -2.344E-03 ± 8.583E-01, -9.768E-05 ± 5.577E+00, -6.839E+00 ± 4.208E+00, 1.642E-05 ± 8.605E-01, -2.685E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 280, -2.359E-03 ± 8.583E-01, -1.044E-04 ± 5.774E+00, -6.852E+00 ± 4.220E+00, 1.641E-05 ± 8.607E-01, -3.189E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 281, -2.838E-03 ± 9.392E-01, -1.307E-04 ± 7.062E+00, -6.851E+00 ± 1.990E+00, 1.732E-05 ± 8.607E-01, -3.189E-04 ±
 9.602E-02, 1.648E-07 ± 1.174E-02
 282, -1.404E-03 ± 7.004E-01, 8.446E-05 ± 2.898E+00, -6.843E+00 ± 3.680E+00, 7.029E-05 ± 8.617E-01, -3.085E-04 ±
 9.603E-02, 1.645E-07 ± 1.169E-02
 283, -2.725E-02 ± 4.440E-01, 4.625E-03 ± 2.891E+00, -6.202E+00 ± 2.009E+00, 1.886E-03 ± 8.641E-01, 1.003E-02 ±
 1.475E-01, 1.645E-07 ± 1.169E-02
 284, -3.114E-02 ± 4.048E-01, 2.738E-03 ± 2.890E+00, -5.901E+00 ± 8.467E-01, 1.132E-03 ± 8.647E-01, 1.158E-02 ±
 1.597E-01, 1.645E-07 ± 1.169E-02
 285, -2.725E-02 ± 4.440E-01, -4.722E-03 ± 2.891E+00, -6.202E+00 ± 2.009E+00, -1.852E-03 ± 8.641E-01, 1.003E-02 ±
 1.475E-01, 1.645E-07 ± 1.169E-02
 286, -3.114E-02 ± 4.049E-01, -2.835E-03 ± 2.890E+00, -5.901E+00 ± 8.466E-01, -1.097E-03 ± 8.647E-01, 1.158E-02 ±
 1.597E-01, 1.645E-07 ± 1.169E-02
 287, -1.405E-03 ± 7.004E-01, -1.814E-04 ± 2.898E+00, -6.843E+00 ± 3.680E+00, -3.604E-05 ± 8.617E-01, -3.085E-04 ±
 9.603E-02, 1.645E-07 ± 1.169E-02
 288, -1.767E-03 ± 9.088E-01, -1.642E-01 ± 6.287E+00, -8.166E+00 ± 1.041E+00, 1.434E-01 ± 8.637E-01, 4.344E-04 ±
 1.038E-01, 1.648E-07 ± 1.174E-02
 289, -2.263E-03 ± 8.400E-01, -9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.681E+00, 1.325E-05 ± 8.606E-01, -2.975E-04 ±
 9.603E-02, 1.648E-07 ± 1.174E-02
 290, 2.892E-04 ± 8.766E-01, 2.891E-01 ± 5.834E+00, -8.164E+00 ± 2.366E+00, -4.484E-01 ± 8.710E-01, 3.958E-03 ±
 1.023E-01, 1.648E-07 ± 1.174E-02
 291, -1.767E-03 ± 9.087E-01, 1.640E-01 ± 6.287E+00, -8.166E+00 ± 1.041E+00, -1.434E-01 ± 8.637E-01, 4.343E-04 ±
 1.038E-01, 1.648E-07 ± 1.174E-02
 292, 3.520E-02 ± 4.452E-01, 4.767E-03 ± 2.860E+00, -6.173E+00 ± 1.981E+00, 1.943E-03 ± 8.639E-01, -1.495E-02 ±
 1.476E-01, 1.645E-07 ± 1.169E-02
 293, 4.072E-02 ± 4.051E-01, 2.816E-03 ± 2.859E+00, -5.867E+00 ± 8.247E-01, 1.163E-03 ± 8.645E-01, -1.716E-02 ±
 1.601E-01, 1.645E-07 ± 1.169E-02
 294, -1.476E-03 ± 7.004E-01, 9.102E-05 ± 2.866E+00, -6.842E+00 ± 3.660E+00, 7.270E-05 ± 8.617E-01, -2.796E-04 ±
 9.603E-02, 1.645E-07 ± 1.169E-02

295, 4.072E-02 ± 4.052E-01, -2.912E-03 ± 2.859E+00, -5.867E+00 ± 8.246E-01, -1.129E-03 ± 8.645E-01, -1.716E-02 ± 1.601E-01, 1.645E-07 ± 1.169E-02
 296, -4.941E-03 ± 8.766E-01, 3.069E-01 ± 5.801E+00, -8.243E+00 ± 2.351E+00, -4.759E-01 ± 8.634E-01, -4.152E-03 ± 1.024E-01, 1.648E-07 ± 1.174E-02
 297, -1.434E-03 ± 9.087E-01, 1.739E-01 ± 6.256E+00, -8.243E+00 ± 1.027E+00, -1.521E-01 ± 8.635E-01, 7.254E-04 ± 1.037E-01, 1.648E-07 ± 1.174E-02
 298, -2.263E-03 ± 8.400E-01, -9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, 1.325E-05 ± 8.606E-01, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 299, -1.434E-03 ± 9.087E-01, -1.742E-01 ± 6.255E+00, -8.243E+00 ± 1.027E+00, 1.522E-01 ± 8.635E-01, 7.254E-04 ± 1.037E-01, 1.648E-07 ± 1.174E-02
 300, -4.942E-03 ± 8.766E-01, -3.071E-01 ± 5.801E+00, -8.243E+00 ± 2.351E+00, 4.759E-01 ± 8.634E-01, -4.152E-03 ± 1.024E-01, 1.648E-07 ± 1.174E-02
 301, -2.265E-03 ± 8.400E-01, -9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, 2.142E-05 ± 8.606E-01, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 302, 3.520E-02 ± 4.452E-01, -4.863E-03 ± 2.860E+00, -6.173E+00 ± 1.981E+00, -1.909E-03 ± 8.639E-01, -1.495E-02 ± 1.476E-01, 1.645E-07 ± 1.169E-02
 303, -1.477E-03 ± 7.004E-01, -1.869E-04 ± 2.866E+00, -6.842E+00 ± 3.660E+00, -3.845E-05 ± 8.617E-01, -2.796E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 304, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.852E+00 ± 8.455E-01, 1.579E-01 ± 8.055E-01, -5.886E-02 ± 9.641E-02, 0.000E+00 ± 0.000E+00
 305, 1.520E-02 ± 1.044E+00, -1.789E-03 ± 6.336E+00, -5.901E+00 ± 8.467E-01, 1.132E-03 ± 8.647E-01, 1.158E-02 ± 1.597E-01, 1.645E-07 ± 1.169E-02
 306, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.180E+00 ± 1.998E+00, 2.828E-01 ± 8.431E-01, -5.906E-02 ± 9.832E-02, 0.000E+00 ± 0.000E+00
 307, 7.853E-03 ± 9.578E-01, -1.978E-03 ± 5.903E+00, -6.202E+00 ± 2.009E+00, 1.886E-03 ± 8.641E-01, 1.003E-02 ± 1.475E-01, 1.645E-07 ± 1.169E-02
 308, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.180E+00 ± 1.998E+00, -2.828E-01 ± 8.431E-01, -5.906E-02 ± 9.831E-02, 0.000E+00 ± 0.000E+00
 309, 7.852E-03 ± 9.578E-01, 1.761E-03 ± 5.903E+00, -6.202E+00 ± 2.009E+00, -1.852E-03 ± 8.641E-01, 1.003E-02 ± 1.475E-01, 1.645E-07 ± 1.169E-02
 310, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.852E+00 ± 8.453E-01, -1.579E-01 ± 8.055E-01, -5.886E-02 ± 9.641E-02, 0.000E+00 ± 0.000E+00
 311, 1.520E-02 ± 1.044E+00, 1.555E-03 ± 6.336E+00, -5.901E+00 ± 8.466E-01, -1.097E-03 ± 8.647E-01, 1.158E-02 ± 1.597E-01, 1.645E-07 ± 1.169E-02
 312, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.151E+00 ± 1.969E+00, 2.886E-01 ± 8.392E-01, 8.146E-02 ± 1.001E-01, 0.000E+00 ± 0.000E+00
 313, -1.713E-02 ± 9.573E-01, -2.034E-03 ± 5.871E+00, -6.173E+00 ± 1.981E+00, 1.943E-03 ± 8.639E-01, -1.495E-02 ± 1.476E-01, 1.645E-07 ± 1.169E-02
 314, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.818E+00 ± 8.236E-01, 1.599E-01 ± 7.993E-01, 8.118E-02 ± 9.688E-02, 0.000E+00 ± 0.000E+00
 315, -2.791E-02 ± 1.044E+00, -1.835E-03 ± 6.303E+00, -5.867E+00 ± 8.247E-01, 1.163E-03 ± 8.645E-01, -1.716E-02 ± 1.601E-01, 1.645E-07 ± 1.169E-02
 316, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.818E+00 ± 8.235E-01, -1.599E-01 ± 7.993E-01, 8.118E-02 ± 9.688E-02, 0.000E+00 ± 0.000E+00
 317, -2.791E-02 ± 1.044E+00, 1.602E-03 ± 6.303E+00, -5.867E+00 ± 8.246E-01, -1.129E-03 ± 8.645E-01, -1.716E-02 ± 1.601E-01, 1.645E-07 ± 1.169E-02
 318, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.151E+00 ± 1.969E+00, -2.885E-01 ± 8.392E-01, 8.146E-02 ± 1.001E-01, 0.000E+00 ± 0.000E+00
 319, -1.713E-02 ± 9.573E-01, 1.818E-03 ± 5.871E+00, -6.173E+00 ± 1.981E+00, -1.909E-03 ± 8.639E-01, -1.495E-02 ± 1.476E-01, 1.645E-07 ± 1.169E-02
 320, -1.350E-03 ± 6.848E-01, 8.171E-05 ± 2.926E+00, -6.844E+00 ± 9.857E-01, 6.935E-05 ± 8.617E-01, -3.304E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
 321, -1.350E-03 ± 6.848E-01, -1.794E-04 ± 2.926E+00, -6.844E+00 ± 9.855E-01, -3.509E-05 ± 8.617E-01, -3.304E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 322, -1.529E-03 ± 6.848E-01, -1.925E-04 ± 2.873E+00, -6.841E+00 ± 9.639E-01, -4.085E-05 ± 8.618E-01, -2.586E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 323, -1.529E-03 ± 6.848E-01, 9.742E-05 ± 2.873E+00, -6.841E+00 ± 9.639E-01, 7.509E-05 ± 8.618E-01, -2.585E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 324, -2.360E-03 ± 8.584E-01, -1.045E-04 ± 5.708E+00, -6.850E+00 ± 4.052E+00, 1.986E-05 ± 8.606E-01, -3.166E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 325, -2.358E-03 ± 8.584E-01, -1.039E-04 ± 5.641E+00, -6.848E+00 ± 3.884E+00, 2.094E-05 ± 8.606E-01, -3.100E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 326, -2.355E-03 ± 8.584E-01, -1.032E-04 ± 5.588E+00, -6.846E+00 ± 3.751E+00, 2.133E-05 ± 8.606E-01, -3.022E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 327, -2.354E-03 ± 8.584E-01, -1.029E-04 ± 5.560E+00, -6.846E+00 ± 3.680E+00, 2.141E-05 ± 8.606E-01, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 328, -2.352E-03 ± 8.584E-01, -1.023E-04 ± 5.528E+00, -6.845E+00 ± 3.661E+00, 2.142E-05 ± 8.606E-01, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 329, -2.350E-03 ± 8.584E-01, -1.019E-04 ± 5.534E+00, -6.844E+00 ± 3.730E+00, 2.135E-05 ± 8.605E-01, -2.861E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 330, -2.348E-03 ± 8.584E-01, -1.010E-04 ± 5.546E+00, -6.843E+00 ± 3.862E+00, 2.099E-05 ± 8.605E-01, -2.782E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 331, -2.346E-03 ± 8.584E-01, -9.967E-05 ± 5.562E+00, -6.841E+00 ± 4.041E+00, 1.987E-05 ± 8.605E-01, -2.709E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 332, -2.344E-03 ± 8.583E-01, -9.816E-05 ± 5.562E+00, -6.841E+00 ± 4.041E+00, 1.482E-05 ± 8.605E-01, -2.709E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 333, -2.347E-03 ± 8.583E-01, -9.884E-05 ± 5.546E+00, -6.843E+00 ± 3.862E+00, 1.369E-05 ± 8.605E-01, -2.782E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 334, -2.349E-03 ± 8.583E-01, -9.949E-05 ± 5.534E+00, -6.844E+00 ± 3.730E+00, 1.333E-05 ± 8.605E-01, -2.861E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 335, -2.350E-03 ± 8.583E-01, -9.987E-05 ± 5.528E+00, -6.845E+00 ± 3.661E+00, 1.325E-05 ± 8.606E-01, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 336, -2.352E-03 ± 8.583E-01, -1.004E-04 ± 5.560E+00, -6.846E+00 ± 3.681E+00, 1.325E-05 ± 8.606E-01, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 337, -2.354E-03 ± 8.583E-01, -1.008E-04 ± 5.588E+00, -6.846E+00 ± 3.751E+00, 1.333E-05 ± 8.606E-01, -3.022E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

338, -2.356E-03 ± 8.583E-01, -1.017E-04 ± 5.641E+00, -6.848E+00 ± 3.885E+00, 1.371E-05 ± 8.606E-01, -3.100E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

339, -2.358E-03 ± 8.583E-01, -1.030E-04 ± 5.708E+00, -6.850E+00 ± 4.052E+00, 1.478E-05 ± 8.606E-01, -3.166E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

340, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.760E+00 ± 3.943E+00, 3.928E-03 ± 9.818E-01, -9.288E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00

341, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.775E+00 ± 3.773E+00, 2.702E-02 ± 9.738E-01, 7.672E-03 ± 9.930E-02, 0.000E+00 ± 0.000E+00

342, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.760E+00 ± 3.744E+00, 2.761E-02 ± 9.822E-01, -1.062E-02 ± 1.002E-01, 0.000E+00 ± 0.000E+00

343, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.752E+00 ± 3.916E+00, 5.995E-03 ± 9.886E-01, 1.006E-02 ± 1.027E-01, 0.000E+00 ± 0.000E+00

344, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.752E+00 ± 3.916E+00, -5.959E-03 ± 9.886E-01, 1.006E-02 ± 1.027E-01, 0.000E+00 ± 0.000E+00

345, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.760E+00 ± 3.744E+00, -2.757E-02 ± 9.822E-01, -1.061E-02 ± 1.002E-01, 0.000E+00 ± 0.000E+00

346, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.775E+00 ± 3.773E+00, -2.698E-02 ± 9.738E-01, 7.664E-03 ± 9.931E-02, 0.000E+00 ± 0.000E+00

347, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.760E+00 ± 3.942E+00, -3.890E-03 ± 9.818E-01, -9.291E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00

348, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.534E+00 ± 9.153E-01, -7.251E-02 ± 8.587E-01, 8.216E-02 ± 1.042E-01, 0.000E+00 ± 0.000E+00

349, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.534E+00 ± 9.154E-01, 7.255E-02 ± 8.587E-01, 8.216E-02 ± 1.042E-01, 0.000E+00 ± 0.000E+00

350, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.534E+00 ± 9.286E-01, 5.889E-02 ± 8.540E-01, -5.946E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00

351, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.534E+00 ± 9.285E-01, -5.885E-02 ± 8.540E-01, -5.946E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00

352, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.801E+00 ± 2.304E+00, 1.528E-05 ± 8.566E-01, -6.872E-03 ± 1.078E-01, 0.000E+00 ± 0.000E+00

353, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.801E+00 ± 2.304E+00, 1.880E-05 ± 8.566E-01, -6.872E-03 ± 1.078E-01, 0.000E+00 ± 0.000E+00

354, -2.359E-03 ± 8.583E-01, -1.045E-04 ± 5.774E+00, -6.852E+00 ± 4.220E+00, 1.642E-05 ± 8.607E-01, -3.189E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02

355, -2.360E-03 ± 8.584E-01, -1.047E-04 ± 5.729E+00, -6.850E+00 ± 4.106E+00, 1.942E-05 ± 8.607E-01, -3.177E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02

356, -2.359E-03 ± 8.583E-01, -1.034E-04 ± 5.729E+00, -6.850E+00 ± 4.106E+00, 1.522E-05 ± 8.607E-01, -3.177E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

357, -2.358E-03 ± 8.583E-01, -1.026E-04 ± 5.687E+00, -6.849E+00 ± 3.999E+00, 1.435E-05 ± 8.606E-01, -3.150E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

358, -2.359E-03 ± 8.584E-01, -1.044E-04 ± 5.687E+00, -6.849E+00 ± 3.999E+00, 2.029E-05 ± 8.606E-01, -3.150E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02

359, -2.356E-03 ± 8.583E-01, -1.018E-04 ± 5.644E+00, -6.848E+00 ± 3.893E+00, 1.374E-05 ± 8.606E-01, -3.104E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

360, -2.358E-03 ± 8.584E-01, -1.039E-04 ± 5.644E+00, -6.848E+00 ± 3.892E+00, 2.092E-05 ± 8.606E-01, -3.104E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

361, -2.355E-03 ± 8.583E-01, -1.011E-04 ± 5.602E+00, -6.847E+00 ± 3.786E+00, 1.337E-05 ± 8.606E-01, -3.044E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

362, -2.356E-03 ± 8.584E-01, -1.034E-04 ± 5.602E+00, -6.847E+00 ± 3.786E+00, 2.129E-05 ± 8.606E-01, -3.044E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

363, -2.354E-03 ± 8.584E-01, -1.029E-04 ± 5.560E+00, -6.846E+00 ± 3.680E+00, 2.141E-05 ± 8.606E-01, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

364, -2.350E-03 ± 8.584E-01, -1.016E-04 ± 5.538E+00, -6.843E+00 ± 3.775E+00, 2.130E-05 ± 8.605E-01, -2.833E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

365, -2.348E-03 ± 8.583E-01, -9.925E-05 ± 5.538E+00, -6.844E+00 ± 3.775E+00, 1.338E-05 ± 8.605E-01, -2.833E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

366, -2.348E-03 ± 8.584E-01, -1.009E-04 ± 5.548E+00, -6.842E+00 ± 3.882E+00, 2.092E-05 ± 8.605E-01, -2.773E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02

367, -2.346E-03 ± 8.583E-01, -9.875E-05 ± 5.548E+00, -6.843E+00 ± 3.882E+00, 1.376E-05 ± 8.605E-01, -2.773E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

368, -2.346E-03 ± 8.584E-01, -1.001E-04 ± 5.557E+00, -6.841E+00 ± 3.988E+00, 2.030E-05 ± 8.605E-01, -2.725E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02

369, -2.345E-03 ± 8.583E-01, -9.833E-05 ± 5.557E+00, -6.842E+00 ± 3.988E+00, 1.439E-05 ± 8.605E-01, -2.725E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02

370, -2.344E-03 ± 8.583E-01, -9.798E-05 ± 5.567E+00, -6.841E+00 ± 4.095E+00, 1.526E-05 ± 8.605E-01, -2.697E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02

371, -2.346E-03 ± 8.584E-01, -9.923E-05 ± 5.567E+00, -6.840E+00 ± 4.095E+00, 1.942E-05 ± 8.605E-01, -2.697E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02

372, -2.352E-03 ± 8.583E-01, -1.004E-04 ± 5.560E+00, -6.846E+00 ± 3.681E+00, 1.325E-05 ± 8.606E-01, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

373, -2.350E-03 ± 8.583E-01, -9.987E-05 ± 5.528E+00, -6.845E+00 ± 3.661E+00, 1.325E-05 ± 8.606E-01, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

374, -2.352E-03 ± 8.584E-01, -1.023E-04 ± 5.528E+00, -6.845E+00 ± 3.661E+00, 2.142E-05 ± 8.606E-01, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

375, -2.176E-03 ± 7.995E-01, -9.102E-05 ± 5.024E+00, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.645E-07 ± 1.169E-02

376, -2.264E-03 ± 8.205E-01, -9.614E-05 ± 5.282E+00, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 0.000E+00, 1.648E-07 ± 1.174E-02

--> Sollecitazioni nelle Aste (N, Ty, Tz, Mx, My, Mz) [kN, kN m]

1 (1-i'-j'-2) [l=500 cm] [Piano XZ: 184 rig.-288 def.-28 rig.] [in i' j': N=Nxy,Nxz] - M.

1, 107.07 ± 5.70, 0.00 ± 0.64, 4.69 ± 10.50, 0.00 ± 0.03, -17.54 ± 33.14, 0.00 ± 1.61

i', 107.07 ± 5.70, 70.84 ± 5.70, 0.00 ± 0.64, 4.69 ± 10.50, 0.00 ± 0.03, -8.92 ± 13.86, 0.00 ± 1.61

j', 8.45 ± 5.70, 14.03 ± 5.70, 0.00 ± 0.64, 4.69 ± 10.50, 0.00 ± 0.03, 4.59 ± 16.37, 0.00 ± 1.61

2, 8.45 ± 5.70, 0.00 ± 0.64, 4.69 ± 10.50, 0.00 ± 0.03, 5.92 ± 19.34, 0.00 ± 1.61

2 (1-3) [l=90 cm] - K.
1, 0.00 ± 0.00, 0.00 ± 0.00, -22.08 ± 9.51, -0.49 ± 1.55, 39.14 ± 28.83, 0.00 ± 0.00
3, 0.00 ± 0.00, 0.00 ± 0.00, -22.08 ± 9.51, -0.49 ± 1.55, 19.36 ± 20.44, 0.00 ± 0.00

3 (4-2) [l=90 cm] - K.
4, 0.00 ± 0.00, 0.00 ± 0.00, -68.73 ± 62.85, -379.14 ± 214.64, -0.35 ± 502.27, 0.00 ± 0.00
2, 0.00 ± 0.00, 0.00 ± 0.00, -68.73 ± 62.85, -379.14 ± 214.64, -62.00 ± 447.77, 0.00 ± 0.00

4 (2-5) [l=90 cm] - K.
2, 0.00 ± 0.00, 0.00 ± 0.00, -60.28 ± 63.48, -379.14 ± 213.50, -56.08 ± 455.12, 0.00 ± 0.00
5, 0.00 ± 0.00, 0.00 ± 0.00, -60.28 ± 63.48, -379.14 ± 213.50, -110.10 ± 400.34, 0.00 ± 0.00

5 (6-i'-j'-7) [l=500 cm] [Piano XZ: 185 rig.-287 def.-29 rig.] [in i' j': N=Nxy,Nxz] - M.
6, 128.09 ± 8.79, -0.07 ± 0.40, 6.34 ± 11.84, 0.00 ± 0.03, -23.67 ± 38.34, -0.23 ± 0.81
i', 128.09 ± 8.79, 92.12 ± 8.79, -0.07 ± 0.40, 6.34 ± 11.84, 0.00 ± 0.03, -11.94 ± 16.43, -0.23 ± 0.81
j', 30.86 ± 8.79, 36.40 ± 8.79, -0.07 ± 0.40, 6.34 ± 11.84, 0.00 ± 0.03, 6.23 ± 17.50, 0.11 ± 1.17
7, 30.86 ± 8.79, -0.07 ± 0.40, 6.34 ± 11.84, 0.00 ± 0.03, 8.03 ± 20.87, 0.11 ± 1.17

6 (8-6) [l=88 cm] - K.
8, 0.00 ± 0.00, 0.00 ± 0.00, 31.72 ± 8.20, -0.49 ± 1.55, 37.28 ± 9.11, 0.00 ± 0.00
6, 0.00 ± 0.00, 0.00 ± 0.00, 31.72 ± 8.20, -0.49 ± 1.55, 65.32 ± 16.26, 0.00 ± 0.00

7 (9-7) [l=88 cm] - K.
9, 0.00 ± 0.00, 0.00 ± 0.00, -159.84 ± 51.93, -379.16 ± 213.12, -352.97 ± 275.69, 0.00 ± 0.00
7, 0.00 ± 0.00, 0.00 ± 0.00, -159.84 ± 51.93, -379.16 ± 213.12, -494.26 ± 230.66, 0.00 ± 0.00

8 (7-10) [l=88 cm] - K.
7, 0.00 ± 0.00, 0.00 ± 0.00, -128.97 ± 46.51, -379.27 ± 212.25, -486.23 ± 239.40, 0.00 ± 0.00
10, 0.00 ± 0.00, 0.00 ± 0.00, -128.97 ± 46.51, -379.27 ± 212.25, -600.24 ± 198.32, 0.00 ± 0.00

9 (3-8) [l=227 cm] - F.
3, 0.00 ± 0.00, 0.00 ± 0.00, 4.96 ± 8.14, -0.34 ± 1.06, 0.04 ± 14.30, 0.00 ± 0.00
8, 0.00 ± 0.00, 0.00 ± 0.00, 4.96 ± 8.14, -0.34 ± 1.06, 11.27 ± 4.31, 0.00 ± 0.00

10 (5-9) [l=227 cm] - S.
5, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
9, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00

11 (11-j'-12) [l=500 cm] [Piano XZ: 464 def.-36 rig.] [in j': N=Nxy,Nxz] - M.
11, 117.04 ± 8.95, -0.07 ± 0.38, 1.57 ± 4.28, 0.00 ± 0.02, -5.42 ± 9.60, -0.23 ± 0.78
j', 19.81 ± 8.95, 26.76 ± 8.95, -0.07 ± 0.38, 1.57 ± 4.28, 0.00 ± 0.02, 1.88 ± 10.26, 0.11 ± 1.14
12, 19.81 ± 8.95, -0.07 ± 0.38, 1.57 ± 4.28, 0.00 ± 0.02, 2.44 ± 11.79, 0.11 ± 1.14

12 (10-12) [l=88 cm] - K.
10, 0.00 ± 0.00, 0.00 ± 0.00, -128.97 ± 46.51, -379.27 ± 212.25, -600.24 ± 198.32, 0.00 ± 0.00
12, 0.00 ± 0.00, 0.00 ± 0.00, -128.97 ± 46.51, -379.27 ± 212.25, -714.25 ± 157.24, 0.00 ± 0.00

13 (12-13) [l=88 cm] - K.
12, 0.00 ± 0.00, 0.00 ± 0.00, -109.16 ± 42.29, -379.38 ± 211.37, -711.81 ± 161.89, 0.00 ± 0.00
13, 0.00 ± 0.00, 0.00 ± 0.00, -109.16 ± 42.29, -379.38 ± 211.37, -808.31 ± 124.60, 0.00 ± 0.00

14 (14-j'-15) [l=500 cm] [Piano XZ: 464 def.-36 rig.] [in j': N=Nxy,Nxz] - M.
14, 104.06 ± 8.52, -0.46 ± 0.37, -1.47 ± 4.13, 0.00 ± 0.02, 5.00 ± 9.19, -1.56 ± 0.75
j', 6.86 ± 8.52, 13.80 ± 8.52, -0.46 ± 0.37, -1.47 ± 4.13, 0.00 ± 0.02, -1.80 ± 10.04, 0.76 ± 1.09
15, 6.86 ± 8.52, -0.46 ± 0.37, -1.47 ± 4.13, 0.00 ± 0.02, -2.33 ± 11.51, 0.76 ± 1.09

15 (16-15) [l=88 cm] - K.
16, 0.00 ± 0.00, 0.00 ± 0.00, -222.93 ± 36.62, -379.41 ± 210.95, -1177.92 ± 50.28, 0.00 ± 0.00
15, 0.00 ± 0.00, 0.00 ± 0.00, -222.93 ± 36.62, -379.41 ± 210.95, -1374.77 ± 45.45, 0.00 ± 0.00

16 (15-17) [l=88 cm] - K.
15, 0.00 ± 0.00, 0.00 ± 0.00, -216.07 ± 30.02, -380.17 ± 210.05, -1377.10 ± 56.84, 0.00 ± 0.00
17, 0.00 ± 0.00, 0.00 ± 0.00, -216.07 ± 30.02, -380.17 ± 210.05, -1568.10 ± 68.88, 0.00 ± 0.00

17 (13-16) [l=227 cm] - S.
13, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
16, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00

18 (18-i'-j'-19) [l=500 cm] [Piano XZ: 185 rig.-287 def.-28 rig.] [in i' j': N=Nxy,Nxz] - M.
18, 113.58 ± 8.55, -0.46 ± 0.35, -5.84 ± 11.35, 0.00 ± 0.03, 21.73 ± 36.61, -1.56 ± 0.72
i', 113.58 ± 8.55, 77.60 ± 8.55, -0.46 ± 0.35, -5.84 ± 11.35, 0.00 ± 0.03, 10.93 ± 15.60, -1.56 ± 0.72
j', 16.38 ± 8.55, 21.90 ± 8.55, -0.46 ± 0.35, -5.84 ± 11.35, 0.00 ± 0.03, -5.80 ± 16.92, 0.76 ± 1.05
19, 16.38 ± 8.55, -0.46 ± 0.35, -5.84 ± 11.35, 0.00 ± 0.03, -7.45 ± 20.14, 0.76 ± 1.05

19 (18-20) [l=88 cm] - K.
18, 0.00 ± 0.00, 0.00 ± 0.00, -2.25 ± 5.81, -4.03 ± 1.49, 148.13 ± 19.05, 0.00 ± 0.00
20, 0.00 ± 0.00, 0.00 ± 0.00, -2.25 ± 5.81, -4.03 ± 1.49, 146.14 ± 13.95, 0.00 ± 0.00

20 (17-19) [l=88 cm] - K.
17, 0.00 ± 0.00, 0.00 ± 0.00, -216.07 ± 30.02, -380.17 ± 210.05, -1568.10 ± 68.88, 0.00 ± 0.00
19, 0.00 ± 0.00, 0.00 ± 0.00, -216.07 ± 30.02, -380.17 ± 210.05, -1758.89 ± 90.94, 0.00 ± 0.00

21 (19-21) [l=88 cm] - K.
19, 0.00 ± 0.00, 0.00 ± 0.00, -199.69 ± 24.52, -380.94 ± 209.15, -1766.34 ± 97.95, 0.00 ± 0.00
21, 0.00 ± 0.00, 0.00 ± 0.00, -199.69 ± 24.52, -380.94 ± 209.15, -1942.86 ± 114.21, 0.00 ± 0.00

22 (22-i'-j'-23) [l=500 cm] [Piano XZ: 255 rig.-191 def.-55 rig.] [in i' j': N=Nxy,Nxz] - M.
22, 57.17 ± 2.86, -0.35 ± 0.19, 10.65 ± 2.97, 0.00 ± 0.01, -38.51 ± 10.39, -1.19 ± 0.47
i', 57.17 ± 2.86, 39.88 ± 2.86, -0.35 ± 0.19, 10.65 ± 2.97, 0.00 ± 0.01, -11.39 ± 2.83, -1.19 ± 0.47
j', 23.21 ± 2.86, 26.91 ± 2.86, -0.35 ± 0.19, 10.65 ± 2.97, 0.00 ± 0.01, 8.95 ± 2.85, 0.58 ± 0.46
23, 23.21 ± 2.86, -0.35 ± 0.19, 10.65 ± 2.97, 0.00 ± 0.01, 14.76 ± 4.47, 0.58 ± 0.46

23 (24-22) [l=31 cm] - K.
24, 0.00 ± 0.00, 0.00 ± 0.00, 13.45 ± 2.19, -4.03 ± 1.49, 233.37 ± 13.94, 0.00 ± 0.00
22, 0.00 ± 0.00, 0.00 ± 0.00, 13.45 ± 2.19, -4.03 ± 1.49, 237.53 ± 14.58, 0.00 ± 0.00

24 (25-23) [l=31 cm] - K.
25, 0.00 ± 0.00, 0.00 ± 0.00, -304.83 ± 23.55, -380.97 ± 208.78, -2557.10 ± 153.58, 0.00 ± 0.00
23, 0.00 ± 0.00, 0.00 ± 0.00, -304.83 ± 23.55, -380.97 ± 208.78, -2651.29 ± 159.08, 0.00 ± 0.00

25 (23-26) [l=31 cm] - K.
23, 0.00 ± 0.00, 0.00 ± 0.00, -281.62 ± 21.88, -381.56 ± 208.36, -2636.53 ± 159.95, 0.00 ± 0.00
26, 0.00 ± 0.00, 0.00 ± 0.00, -281.62 ± 21.88, -381.56 ± 208.36, -2723.55 ± 164.83, 0.00 ± 0.00

26 (20-24) [l=227 cm] - F.
20, 0.00 ± 0.00, 0.00 ± 0.00, 24.08 ± 5.78, -2.75 ± 1.02, 131.42 ± 10.09, 0.00 ± 0.00
24, 0.00 ± 0.00, 0.00 ± 0.00, 24.08 ± 5.78, -2.75 ± 1.02, 185.98 ± 9.72, 0.00 ± 0.00

27 (21-25) [l=227 cm] - S.
21, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
25, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00

28 (27-28) [l=500 cm] - M.
 27, 257.09 ± 10.75, -1.41 ± 0.72, 20.18 ± 7.95, 0.00 ± 0.03, -79.48 ± 19.60, -4.73 ± 1.82
 28, 122.34 ± 10.75, -1.41 ± 0.72, 20.18 ± 7.95, 0.00 ± 0.03, 21.40 ± 20.12, 2.32 ± 1.80
 29 (26-28) [l=123 cm] - K.
 26, 0.00 ± 0.00, 0.00 ± 0.00, -66.37 ± 16.06, -96.23 ± 130.80, -2722.12 ± 164.84, 0.00 ± 0.00
 28, 0.00 ± 0.00, 0.00 ± 0.00, -66.37 ± 16.06, -96.23 ± 130.80, -2803.41 ± 176.08, 0.00 ± 0.00
 30 (28-29) [l=123 cm] - K.
 28, 0.00 ± 0.00, 0.00 ± 0.00, 12.58 ± 14.57, -98.57 ± 128.93, -2781.85 ± 181.36, 0.00 ± 0.00
 29, 0.00 ± 0.00, 0.00 ± 0.00, 12.58 ± 14.57, -98.57 ± 128.93, -2766.44 ± 182.96, 0.00 ± 0.00
 31 (30-j'-31) [l=500 cm] [Piano XZ: 436 def.-64 rig.] [in j': N=Nxy,Nxz] - M.
 30, 75.66 ± 3.11, -0.30 ± 0.15, 0.41 ± 0.19, 0.00 ± 0.00, -1.22 ± 0.41, -1.01 ± 0.38
 j', 47.19 ± 3.11, 50.86 ± 3.11, -0.30 ± 0.15, 0.41 ± 0.19, 0.00 ± 0.00, 0.59 ± 0.41, 0.49 ± 0.37
 31, 47.19 ± 3.11, -0.30 ± 0.15, 0.41 ± 0.19, 0.00 ± 0.00, 0.85 ± 0.53, 0.49 ± 0.37
 32 (29-31) [l=26 cm] - K.
 29, 0.00 ± 0.00, 0.00 ± 0.00, 13.89 ± 14.58, -94.19 ± 128.57, -2766.32 ± 183.00, 0.00 ± 0.00
 31, 0.00 ± 0.00, 0.00 ± 0.00, 13.89 ± 14.58, -94.19 ± 128.57, -2762.73 ± 183.35, 0.00 ± 0.00
 33 (31-32) [l=26 cm] - K.
 31, 0.00 ± 0.00, 0.00 ± 0.00, 61.08 ± 14.91, -94.68 ± 128.21, -2761.88 ± 183.48, 0.00 ± 0.00
 32, 0.00 ± 0.00, 0.00 ± 0.00, 61.08 ± 14.91, -94.68 ± 128.21, -2746.06 ± 183.18, 0.00 ± 0.00
 34 (33-j'-34) [l=500 cm] [Piano XZ: 436 def.-64 rig.] [in j': N=Nxy,Nxz] - M.
 33, 79.77 ± 3.30, -0.37 ± 0.14, -0.59 ± 0.19, 0.00 ± 0.00, 1.73 ± 0.42, -1.24 ± 0.36
 j', 51.17 ± 3.30, 54.85 ± 3.30, -0.37 ± 0.14, -0.59 ± 0.19, 0.00 ± 0.00, -0.84 ± 0.42, 0.61 ± 0.36
 34, 51.17 ± 3.30, -0.37 ± 0.14, -0.59 ± 0.19, 0.00 ± 0.00, -1.22 ± 0.54, 0.61 ± 0.36
 35 (35-34) [l=26 cm] - K.
 35, 0.00 ± 0.00, 0.00 ± 0.00, -24.42 ± 15.38, -94.72 ± 127.93, -2704.46 ± 193.03, 0.00 ± 0.00
 34, 0.00 ± 0.00, 0.00 ± 0.00, -24.42 ± 15.38, -94.72 ± 127.93, -2710.81 ± 195.26, 0.00 ± 0.00
 36 (34-36) [l=26 cm] - K.
 34, 0.00 ± 0.00, 0.00 ± 0.00, 26.75 ± 13.88, -95.33 ± 127.57, -2712.03 ± 195.16, 0.00 ± 0.00
 36, 0.00 ± 0.00, 0.00 ± 0.00, 26.75 ± 13.88, -95.33 ± 127.57, -2705.07 ± 196.71, 0.00 ± 0.00
 37 (32-35) [l=227 cm] - S.
 32, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 35, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 38 (37-38) [l=500 cm] - M.
 37, 239.79 ± 9.99, -1.73 ± 0.68, -28.24 ± 8.03, 0.00 ± 0.03, 110.88 ± 20.16, -5.82 ± 1.70
 38, 105.18 ± 9.99, -1.73 ± 0.68, -28.24 ± 8.03, 0.00 ± 0.03, -30.32 ± 20.00, 2.85 ± 1.70
 39 (36-38) [l=122 cm] - K.
 36, 0.00 ± 0.00, 0.00 ± 0.00, 28.17 ± 13.87, -90.77 ± 127.22, -2705.25 ± 196.68, 0.00 ± 0.00
 38, 0.00 ± 0.00, 0.00 ± 0.00, 28.17 ± 13.87, -90.77 ± 127.22, -2670.77 ± 203.98, 0.00 ± 0.00
 40 (38-39) [l=122 cm] - K.
 38, 0.00 ± 0.00, 0.00 ± 0.00, 90.03 ± 11.10, -93.65 ± 125.31, -2701.25 ± 199.57, 0.00 ± 0.00
 39, 0.00 ± 0.00, 0.00 ± 0.00, 90.03 ± 11.10, -93.65 ± 125.31, -2591.05 ± 200.47, 0.00 ± 0.00
 41 (40-i'-j'-41) [l=500 cm] [Piano XZ: 276 rig.-160 def.-64 rig.] [in i' j': N=Nxy,Nxz] - M.
 40, 26.98 ± 1.44, -0.22 ± 0.09, -1.49 ± 1.24, 0.00 ± 0.00, 5.42 ± 4.40, -0.75 ± 0.22
 i', 26.98 ± 1.44, 15.81 ± 1.44, -0.22 ± 0.09, -1.49 ± 1.24, 0.00 ± 0.00, 1.29 ± 0.99, -0.75 ± 0.22
 j', 6.77 ± 1.44, 9.36 ± 1.44, -0.22 ± 0.09, -1.49 ± 1.24, 0.00 ± 0.00, -1.09 ± 0.99, 0.37 ± 0.24
 41, 6.77 ± 1.44, -0.22 ± 0.09, -1.49 ± 1.24, 0.00 ± 0.00, -2.05 ± 1.78, 0.37 ± 0.24
 42 (40-42) [l=18 cm] - K.
 40, 0.00 ± 0.00, 0.00 ± 0.00, -29.96 ± 8.92, 4.43 ± 1.23, 112.21 ± 7.50, 0.00 ± 0.00
 42, 0.00 ± 0.00, 0.00 ± 0.00, -29.96 ± 8.92, 4.43 ± 1.23, 106.70 ± 6.02, 0.00 ± 0.00
 43 (39-41) [l=18 cm] - K.
 39, 0.00 ± 0.00, 0.00 ± 0.00, 275.24 ± 11.38, 134.32 ± 50.77, -2593.08 ± 200.52, 0.00 ± 0.00
 41, 0.00 ± 0.00, 0.00 ± 0.00, 275.24 ± 11.38, 134.32 ± 50.77, -2542.71 ± 199.86, 0.00 ± 0.00
 44 (41-43) [l=18 cm] - K.
 41, 0.00 ± 0.00, 0.00 ± 0.00, 282.01 ± 11.32, 133.96 ± 50.54, -2544.76 ± 199.35, 0.00 ± 0.00
 43, 0.00 ± 0.00, 0.00 ± 0.00, 282.01 ± 11.32, 133.96 ± 50.54, -2492.87 ± 198.56, 0.00 ± 0.00
 45 (44-i'-j'-45) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.] [in i' j': N=Nxy,Nxz] - M.
 44, 131.31 ± 9.81, -0.53 ± 0.32, 8.11 ± 13.10, 0.00 ± 0.03, -30.64 ± 41.47, -1.77 ± 0.59
 i', 131.31 ± 9.81, 93.53 ± 9.81, -0.53 ± 0.32, 8.11 ± 13.10, 0.00 ± 0.03, -16.49 ± 18.60, -1.77 ± 0.59
 j', 23.10 ± 9.81, 29.03 ± 9.81, -0.53 ± 0.32, 8.11 ± 13.10, 0.00 ± 0.03, 7.67 ± 20.42, 0.87 ± 1.01
 45, 23.10 ± 9.81, -0.53 ± 0.32, 8.11 ± 13.10, 0.00 ± 0.03, 9.89 ± 24.01, 0.87 ± 1.01
 46 (46-44) [l=98 cm] - K.
 46, 0.00 ± 0.00, 0.00 ± 0.00, 23.19 ± 6.20, 4.40 ± 1.22, 84.62 ± 14.40, 0.00 ± 0.00
 44, 0.00 ± 0.00, 0.00 ± 0.00, 23.19 ± 6.20, 4.40 ± 1.22, 107.44 ± 20.49, 0.00 ± 0.00
 47 (47-45) [l=98 cm] - K.
 47, 0.00 ± 0.00, 0.00 ± 0.00, 177.64 ± 9.08, 133.91 ± 50.11, -1912.11 ± 190.16, 0.00 ± 0.00
 45, 0.00 ± 0.00, 0.00 ± 0.00, 177.64 ± 9.08, 133.91 ± 50.11, -1737.31 ± 190.44, 0.00 ± 0.00
 48 (45-48) [l=98 cm] - K.
 45, 0.00 ± 0.00, 0.00 ± 0.00, 200.74 ± 10.98, 133.04 ± 49.11, -1727.42 ± 182.98, 0.00 ± 0.00
 48, 0.00 ± 0.00, 0.00 ± 0.00, 200.74 ± 10.98, 133.04 ± 49.11, -1529.89 ± 175.82, 0.00 ± 0.00
 49 (42-46) [l=227 cm] - F.
 42, 0.00 ± 0.00, 0.00 ± 0.00, -6.43 ± 5.42, 3.00 ± 0.83, 77.97 ± 3.37, 0.00 ± 0.00
 46, 0.00 ± 0.00, 0.00 ± 0.00, -6.43 ± 5.42, 3.00 ± 0.83, 63.41 ± 10.58, 0.00 ± 0.00
 50 (43-47) [l=227 cm] - S.
 43, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 47, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 51 (49-j'-50) [l=500 cm] [Piano XZ: 465 def.-35 rig.] [in j': N=Nxy,Nxz] - M.
 49, 126.14 ± 9.97, -0.53 ± 0.32, 2.29 ± 5.37, 0.00 ± 0.02, -8.16 ± 11.90, -1.77 ± 0.61
 j', 17.93 ± 9.97, 25.53 ± 9.97, -0.53 ± 0.32, 2.29 ± 5.37, 0.00 ± 0.02, 2.47 ± 13.07, 0.87 ± 1.02
 50, 17.93 ± 9.97, -0.53 ± 0.32, 2.29 ± 5.37, 0.00 ± 0.02, 3.27 ± 14.96, 0.87 ± 1.02
 52 (48-50) [l=98 cm] - K.
 48, 0.00 ± 0.00, 0.00 ± 0.00, 200.74 ± 10.98, 133.04 ± 49.11, -1529.89 ± 175.82, 0.00 ± 0.00
 50, 0.00 ± 0.00, 0.00 ± 0.00, 200.74 ± 10.98, 133.04 ± 49.11, -1332.56 ± 168.69, 0.00 ± 0.00
 53 (50-51) [l=98 cm] - K.
 50, 0.00 ± 0.00, 0.00 ± 0.00, 218.67 ± 18.92, 132.17 ± 48.09, -1329.29 ± 164.34, 0.00 ± 0.00
 51, 0.00 ± 0.00, 0.00 ± 0.00, 218.67 ± 18.92, 132.17 ± 48.09, -1114.12 ± 150.46, 0.00 ± 0.00
 54 (52-j'-53) [l=500 cm] [Piano XZ: 465 def.-35 rig.] [in j': N=Nxy,Nxz] - M.

52, 131.72 ± 10.96, -0.12 ± 0.33, -2.47 ± 5.35, 0.00 ± 0.02, 8.55 ± 11.94, -0.39 ± 0.61
j', 23.50 ± 10.96, 31.10 ± 10.96, -0.12 ± 0.33, -2.47 ± 5.35, 0.00 ± 0.02, -2.93 ± 12.95, 0.19 ± 1.03
53, 23.50 ± 10.96, -0.12 ± 0.33, -2.47 ± 5.35, 0.00 ± 0.02, -3.80 ± 14.83, 0.19 ± 1.03
55 (54-53) [l=98 cm] - K.
54, 0.00 ± 0.00, 0.00 ± 0.00, 98.73 ± 10.16, 132.11 ± 47.47, -762.26 ± 125.91, 0.00 ± 0.00
53, 0.00 ± 0.00, 0.00 ± 0.00, 98.73 ± 10.16, 132.11 ± 47.47, -665.11 ± 119.45, 0.00 ± 0.00
56 (53-55) [l=98 cm] - K.
53, 0.00 ± 0.00, 0.00 ± 0.00, 122.24 ± 15.95, 131.92 ± 46.44, -668.90 ± 116.01, 0.00 ± 0.00
55, 0.00 ± 0.00, 0.00 ± 0.00, 122.24 ± 15.95, 131.92 ± 46.44, -548.62 ± 100.76, 0.00 ± 0.00
57 (51-54) [l=227 cm] - S.
51, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
54, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
58 (56-i'-j'-57) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.] [in i' j': N=Nxy,Nxz] - M.
56, 138.30 ± 10.32, -0.12 ± 0.33, -8.55 ± 13.11, 0.00 ± 0.03, 32.03 ± 41.65, -0.38 ± 0.62
i', 138.30 ± 10.32, 100.51 ± 10.32, -0.12 ± 0.33, -8.55 ± 13.11, 0.00 ± 0.03, 17.10 ± 18.76, -0.38 ± 0.62
j', 30.08 ± 10.32, 36.01 ± 10.32, -0.12 ± 0.33, -8.55 ± 13.11, 0.00 ± 0.03, -8.38 ± 20.33, 0.19 ± 1.05
57, 30.08 ± 10.32, -0.12 ± 0.33, -8.55 ± 13.11, 0.00 ± 0.03, -10.72 ± 23.92, 0.19 ± 1.05
59 (56-58) [l=98 cm] - K.
56, 0.00 ± 0.00, 0.00 ± 0.00, -36.27 ± 9.10, 0.12 ± 1.20, 73.44 ± 18.16, 0.00 ± 0.00
58, 0.00 ± 0.00, 0.00 ± 0.00, -36.27 ± 9.10, 0.12 ± 1.20, 37.76 ± 10.86, 0.00 ± 0.00
60 (55-57) [l=98 cm] - K.
55, 0.00 ± 0.00, 0.00 ± 0.00, 122.24 ± 15.95, 131.92 ± 46.44, -548.62 ± 100.76, 0.00 ± 0.00
57, 0.00 ± 0.00, 0.00 ± 0.00, 122.24 ± 15.95, 131.92 ± 46.44, -428.47 ± 85.51, 0.00 ± 0.00
61 (57-59) [l=98 cm] - K.
57, 0.00 ± 0.00, 0.00 ± 0.00, 152.32 ± 22.74, 131.73 ± 45.40, -439.18 ± 80.74, 0.00 ± 0.00
59, 0.00 ± 0.00, 0.00 ± 0.00, 152.32 ± 22.74, 131.73 ± 45.40, -289.31 ± 58.99, 0.00 ± 0.00
62 (60-i'-j'-61) [l=500 cm] [Piano XZ: 195 rig.-276 def.-29 rig.] [in i' j': N=Nxy,Nxz] - M.
60, 90.02 ± 6.68, -0.08 ± 0.43, -5.31 ± 9.56, 0.00 ± 0.02, 19.61 ± 31.17, -0.26 ± 1.02
i', 90.02 ± 6.68, 55.91 ± 6.68, -0.08 ± 0.43, -5.31 ± 9.56, 0.00 ± 0.02, 9.26 ± 12.55, -0.26 ± 1.02
j', 2.46 ± 6.68, 7.61 ± 6.68, -0.08 ± 0.43, -5.31 ± 9.56, 0.00 ± 0.02, -5.38 ± 13.83, 0.13 ± 1.11
61, 2.46 ± 6.68, -0.08 ± 0.43, -5.31 ± 9.56, 0.00 ± 0.02, -6.95 ± 16.64, 0.13 ± 1.11
63 (62-60) [l=80 cm] - K.
62, 0.00 ± 0.00, 0.00 ± 0.00, 18.06 ± 8.07, 0.12 ± 1.20, 18.09 ± 17.42, 0.00 ± 0.00
60, 0.00 ± 0.00, 0.00 ± 0.00, 18.06 ± 8.07, 0.12 ± 1.20, 32.47 ± 22.20, 0.00 ± 0.00
64 (63-61) [l=80 cm] - K.
63, 0.00 ± 0.00, 0.00 ± 0.00, 52.49 ± 13.95, 131.68 ± 44.76, -78.12 ± 26.09, 0.00 ± 0.00
61, 0.00 ± 0.00, 0.00 ± 0.00, 52.49 ± 13.95, 131.68 ± 44.76, -36.34 ± 20.32, 0.00 ± 0.00
65 (61-64) [l=80 cm] - K.
61, 0.00 ± 0.00, 0.00 ± 0.00, 54.95 ± 8.77, 131.55 ± 43.66, -43.28 ± 7.26, 0.00 ± 0.00
64, 0.00 ± 0.00, 0.00 ± 0.00, 54.95 ± 8.77, 131.55 ± 43.66, 0.46 ± 1.80, 0.00 ± 0.00
66 (58-62) [l=227 cm] - F.
58, 0.00 ± 0.00, 0.00 ± 0.00, -5.80 ± 7.42, 0.08 ± 0.82, 11.97 ± 7.79, 0.00 ± 0.00
62, 0.00 ± 0.00, 0.00 ± 0.00, -5.80 ± 7.42, 0.08 ± 0.82, -1.17 ± 12.91, 0.00 ± 0.00
67 (59-63) [l=227 cm] - S.
59, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
63, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
68 (65-i'-j'-66) [l=500 cm] [Piano XZ: 127 rig.-350 def.-23 rig.] [in i' j': N=Nxy,Nxz] - M.
65, 164.14 ± 11.42, -0.25 ± 0.62, 6.26 ± 27.45, 0.00 ± 0.05, -25.85 ± 78.04, -0.83 ± 1.47
i', 164.14 ± 11.42, 121.20 ± 11.42, -0.25 ± 0.62, 6.26 ± 27.45, 0.00 ± 0.05, -17.91 ± 43.21, -0.83 ± 1.47
j', -5.06 ± 11.42, 2.62 ± 11.42, -0.25 ± 0.62, 6.26 ± 27.45, 0.00 ± 0.05, 4.04 ± 53.03, 0.42 ± 1.61
66, -5.06 ± 11.42, -0.25 ± 0.62, 6.26 ± 27.45, 0.00 ± 0.05, 5.46 ± 59.26, 0.42 ± 1.61
69 (65-67) [l=154 cm] - K.
65, 0.00 ± 0.00, 0.00 ± 0.00, -47.13 ± 18.46, 0.00 ± 0.95, 63.36 ± 55.19, 0.00 ± 0.00
67, 0.00 ± 0.00, 0.00 ± 0.00, -47.13 ± 18.46, 0.00 ± 0.95, -9.12 ± 27.67, 0.00 ± 0.00
70 (64-66) [l=154 cm] - K.
64, 0.00 ± 0.00, 0.00 ± 0.00, 54.95 ± 8.77, 0.46 ± 1.80, -131.55 ± 43.66, 0.00 ± 0.00
66, 0.00 ± 0.00, 0.00 ± 0.00, 54.95 ± 8.77, 0.46 ± 1.80, -47.04 ± 55.21, 0.00 ± 0.00
71 (69-i'-j'-70) [l=500 cm] [Piano XZ: 127 rig.-350 def.-23 rig.] [in i' j': N=Nxy,Nxz] - M.
69, 164.15 ± 11.42, -0.25 ± 0.62, -6.27 ± 27.46, 0.00 ± 0.05, 25.86 ± 78.05, -0.83 ± 1.47
i', 164.15 ± 11.42, 121.20 ± 11.42, -0.25 ± 0.62, -6.27 ± 27.46, 0.00 ± 0.05, 17.91 ± 43.22, -0.83 ± 1.47
j', -5.06 ± 11.42, 2.62 ± 11.42, -0.25 ± 0.62, -6.27 ± 27.46, 0.00 ± 0.05, -4.04 ± 53.03, 0.42 ± 1.61
70, -5.06 ± 11.42, -0.25 ± 0.62, -6.27 ± 27.46, 0.00 ± 0.05, -5.46 ± 59.26, 0.42 ± 1.61
72 (71-69) [l=154 cm] - K.
71, 0.00 ± 0.00, 0.00 ± 0.00, 47.13 ± 18.46, 0.00 ± 0.95, -9.18 ± 27.66, 0.00 ± 0.00
69, 0.00 ± 0.00, 0.00 ± 0.00, 47.13 ± 18.46, 0.00 ± 0.95, 63.35 ± 55.20, 0.00 ± 0.00
73 (70-73) [l=154 cm] - K.
70, 0.00 ± 0.00, 0.00 ± 0.00, -54.96 ± 8.77, -0.46 ± 1.80, -47.11 ± 55.21, 0.00 ± 0.00
73, 0.00 ± 0.00, 0.00 ± 0.00, -54.96 ± 8.77, -0.46 ± 1.80, -131.64 ± 43.65, 0.00 ± 0.00
74 (67-71) [l=227 cm] - F.
67, 0.00 ± 0.00, 0.00 ± 0.00, -0.01 ± 14.85, 0.00 ± 0.65, -23.88 ± 18.42, 0.00 ± 0.00
71, 0.00 ± 0.00, 0.00 ± 0.00, -0.01 ± 14.85, 0.00 ± 0.65, -23.91 ± 18.41, 0.00 ± 0.00
75 (68-72) [l=227 cm] - S.
68, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.23, 0.00 ± 0.00, -0.01 ± 0.26, 0.00 ± 0.00
72, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.23, 0.00 ± 0.00, -0.01 ± 0.26, 0.00 ± 0.00
76 (74-i'-j'-75) [l=500 cm] [Piano XZ: 195 rig.-276 def.-29 rig.] [in i' j': N=Nxy,Nxz] - M.
74, 90.02 ± 6.68, 0.08 ± 0.43, -5.31 ± 9.56, 0.00 ± 0.02, 19.60 ± 31.17, 0.26 ± 1.02
i', 90.02 ± 6.68, 55.91 ± 6.68, 0.08 ± 0.43, -5.31 ± 9.56, 0.00 ± 0.02, 9.26 ± 12.55, 0.26 ± 1.02
j', 2.47 ± 6.68, 7.61 ± 6.68, 0.08 ± 0.43, -5.31 ± 9.56, 0.00 ± 0.02, -5.38 ± 13.83, -0.13 ± 1.11
75, 2.47 ± 6.68, 0.08 ± 0.43, -5.31 ± 9.56, 0.00 ± 0.02, -6.94 ± 16.64, -0.13 ± 1.11
77 (74-76) [l=80 cm] - K.
74, 0.00 ± 0.00, 0.00 ± 0.00, -18.06 ± 8.07, -0.12 ± 1.20, 32.47 ± 22.20, 0.00 ± 0.00
76, 0.00 ± 0.00, 0.00 ± 0.00, -18.06 ± 8.07, -0.12 ± 1.20, 18.09 ± 17.42, 0.00 ± 0.00
78 (73-75) [l=80 cm] - K.
73, 0.00 ± 0.00, 0.00 ± 0.00, -54.96 ± 8.77, -131.64 ± 43.65, 0.46 ± 1.80, 0.00 ± 0.00
75, 0.00 ± 0.00, 0.00 ± 0.00, -54.96 ± 8.77, -131.64 ± 43.65, -43.29 ± 7.27, 0.00 ± 0.00
79 (75-77) [l=80 cm] - K.

75, 0.00 ± 0.00, 0.00 ± 0.00, -52.49 ± 13.95, -131.77 ± 44.76, -36.34 ± 20.32, 0.00 ± 0.00
77, 0.00 ± 0.00, 0.00 ± 0.00, -52.49 ± 13.95, -131.77 ± 44.76, -78.13 ± 26.09, 0.00 ± 0.00
80 (78-i'-j'-79) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.] [in i' j': N=Nxy,Nxz] - M.
78, 138.29 ± 10.32, 0.12 ± 0.33, -8.55 ± 13.11, 0.00 ± 0.03, 32.03 ± 41.65, 0.38 ± 0.62
i', 138.29 ± 10.32, 100.50 ± 10.32, 0.12 ± 0.33, -8.55 ± 13.11, 0.00 ± 0.03, 17.10 ± 18.76, 0.38 ± 0.62
j', 30.08 ± 10.32, 36.01 ± 10.32, 0.12 ± 0.33, -8.55 ± 13.11, 0.00 ± 0.03, -8.38 ± 20.33, -0.19 ± 1.05
79, 30.08 ± 10.32, 0.12 ± 0.33, -8.55 ± 13.11, 0.00 ± 0.03, -10.72 ± 23.92, -0.19 ± 1.05
81 (80-78) [l=98 cm] - K.
80, 0.00 ± 0.00, 0.00 ± 0.00, 36.27 ± 9.10, -0.12 ± 1.20, 37.76 ± 10.86, 0.00 ± 0.00
78, 0.00 ± 0.00, 0.00 ± 0.00, 36.27 ± 9.10, -0.12 ± 1.20, 73.44 ± 18.15, 0.00 ± 0.00
82 (81-79) [l=98 cm] - K.
81, 0.00 ± 0.00, 0.00 ± 0.00, -152.35 ± 22.74, -131.81 ± 45.39, -289.36 ± 58.99, 0.00 ± 0.00
79, 0.00 ± 0.00, 0.00 ± 0.00, -152.35 ± 22.74, -131.81 ± 45.39, -439.27 ± 80.74, 0.00 ± 0.00
83 (79-82) [l=98 cm] - K.
79, 0.00 ± 0.00, 0.00 ± 0.00, -122.27 ± 15.95, -132.00 ± 46.44, -428.55 ± 85.51, 0.00 ± 0.00
82, 0.00 ± 0.00, 0.00 ± 0.00, -122.27 ± 15.95, -132.00 ± 46.44, -548.74 ± 100.75, 0.00 ± 0.00
84 (76-80) [l=227 cm] - F.
76, 0.00 ± 0.00, 0.00 ± 0.00, 5.80 ± 7.42, -0.08 ± 0.82, -1.16 ± 12.91, 0.00 ± 0.00
80, 0.00 ± 0.00, 0.00 ± 0.00, 5.80 ± 7.42, -0.08 ± 0.82, 11.97 ± 7.79, 0.00 ± 0.00
85 (77-81) [l=227 cm] - S.
77, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
81, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
86 (83-j'-84) [l=500 cm] [Piano XZ: 465 def.-35 rig.] [in j': N=Nxy,Nxz] - M.
83, 131.71 ± 10.96, 0.12 ± 0.33, -2.47 ± 5.35, 0.00 ± 0.02, 8.55 ± 11.94, 0.39 ± 0.61
j', 23.50 ± 10.96, 31.09 ± 10.96, 0.12 ± 0.33, -2.47 ± 5.35, 0.00 ± 0.02, -2.93 ± 12.95, -0.19 ± 1.03
84, 23.50 ± 10.96, 0.12 ± 0.33, -2.47 ± 5.35, 0.00 ± 0.02, -3.80 ± 14.83, -0.19 ± 1.03
87 (82-84) [l=98 cm] - K.
82, 0.00 ± 0.00, 0.00 ± 0.00, -122.27 ± 15.95, -132.00 ± 46.44, -548.74 ± 100.75, 0.00 ± 0.00
84, 0.00 ± 0.00, 0.00 ± 0.00, -122.27 ± 15.95, -132.00 ± 46.44, -669.06 ± 116.01, 0.00 ± 0.00
88 (84-85) [l=98 cm] - K.
84, 0.00 ± 0.00, 0.00 ± 0.00, -98.77 ± 10.16, -132.19 ± 47.47, -665.26 ± 119.45, 0.00 ± 0.00
85, 0.00 ± 0.00, 0.00 ± 0.00, -98.77 ± 10.16, -132.19 ± 47.47, -762.46 ± 125.90, 0.00 ± 0.00
89 (86-j'-87) [l=500 cm] [Piano XZ: 465 def.-35 rig.] [in j': N=Nxy,Nxz] - M.
86, 126.14 ± 9.97, 0.53 ± 0.32, 2.28 ± 5.37, 0.00 ± 0.02, -8.16 ± 11.90, 1.77 ± 0.61
j', 17.93 ± 9.97, 25.52 ± 9.97, 0.53 ± 0.32, 2.28 ± 5.37, 0.00 ± 0.02, 2.46 ± 13.07, -0.87 ± 1.02
87, 17.93 ± 9.97, 0.53 ± 0.32, 2.28 ± 5.37, 0.00 ± 0.02, 3.27 ± 14.96, -0.87 ± 1.02
90 (88-87) [l=98 cm] - K.
88, 0.00 ± 0.00, 0.00 ± 0.00, -218.73 ± 18.92, -132.25 ± 48.09, -1114.43 ± 150.45, 0.00 ± 0.00
87, 0.00 ± 0.00, 0.00 ± 0.00, -218.73 ± 18.92, -132.25 ± 48.09, -1329.66 ± 164.33, 0.00 ± 0.00
91 (87-89) [l=98 cm] - K.
87, 0.00 ± 0.00, 0.00 ± 0.00, -200.81 ± 10.98, -133.12 ± 49.10, -1332.93 ± 168.68, 0.00 ± 0.00
89, 0.00 ± 0.00, 0.00 ± 0.00, -200.81 ± 10.98, -133.12 ± 49.10, -1530.32 ± 175.81, 0.00 ± 0.00
92 (85-88) [l=227 cm] - S.
85, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
88, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
93 (90-i'-j'-91) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.] [in i' j': N=Nxy,Nxz] - M.
90, 131.31 ± 9.81, 0.53 ± 0.32, 8.10 ± 13.10, 0.00 ± 0.03, -30.64 ± 41.47, 1.77 ± 0.59
i', 131.31 ± 9.81, 93.53 ± 9.81, 0.53 ± 0.32, 8.10 ± 13.10, 0.00 ± 0.03, -16.49 ± 18.60, 1.77 ± 0.59
j', 23.10 ± 9.81, 29.03 ± 9.81, 0.53 ± 0.32, 8.10 ± 13.10, 0.00 ± 0.03, 7.66 ± 20.42, -0.87 ± 1.01
91, 23.10 ± 9.81, 0.53 ± 0.32, 8.10 ± 13.10, 0.00 ± 0.03, 9.88 ± 24.01, -0.87 ± 1.01
94 (90-92) [l=98 cm] - K.
90, 0.00 ± 0.00, 0.00 ± 0.00, -23.19 ± 6.20, -4.40 ± 1.22, 107.45 ± 20.49, 0.00 ± 0.00
92, 0.00 ± 0.00, 0.00 ± 0.00, -23.19 ± 6.20, -4.40 ± 1.22, 84.63 ± 14.40, 0.00 ± 0.00
95 (89-91) [l=98 cm] - K.
89, 0.00 ± 0.00, 0.00 ± 0.00, -200.81 ± 10.98, -133.12 ± 49.10, -1530.32 ± 175.81, 0.00 ± 0.00
91, 0.00 ± 0.00, 0.00 ± 0.00, -200.81 ± 10.98, -133.12 ± 49.10, -1727.92 ± 182.96, 0.00 ± 0.00
96 (91-93) [l=98 cm] - K.
91, 0.00 ± 0.00, 0.00 ± 0.00, -177.71 ± 9.08, -133.99 ± 50.10, -1737.80 ± 190.43, 0.00 ± 0.00
93, 0.00 ± 0.00, 0.00 ± 0.00, -177.71 ± 9.08, -133.99 ± 50.10, -1912.66 ± 190.14, 0.00 ± 0.00
97 (94-i'-j'-95) [l=500 cm] [Piano XZ: 276 rig.-160 def.-64 rig.] [in i' j': N=Nxy,Nxz] - M.
94, 26.98 ± 1.44, 0.22 ± 0.09, -1.49 ± 1.24, 0.00 ± 0.00, 5.42 ± 4.40, 0.75 ± 0.22
i', 26.98 ± 1.44, 15.81 ± 1.44, 0.22 ± 0.09, -1.49 ± 1.24, 0.00 ± 0.00, 1.29 ± 0.99, 0.75 ± 0.22
j', 6.77 ± 1.44, 9.36 ± 1.44, 0.22 ± 0.09, -1.49 ± 1.24, 0.00 ± 0.00, -1.09 ± 0.99, -0.37 ± 0.24
95, 6.77 ± 1.44, 0.22 ± 0.09, -1.49 ± 1.24, 0.00 ± 0.00, -2.05 ± 1.78, -0.37 ± 0.24
98 (96-94) [l=18 cm] - K.
96, 0.00 ± 0.00, 0.00 ± 0.00, 29.95 ± 8.92, -4.43 ± 1.23, 106.69 ± 6.02, 0.00 ± 0.00
94, 0.00 ± 0.00, 0.00 ± 0.00, 29.95 ± 8.92, -4.43 ± 1.23, 112.20 ± 7.50, 0.00 ± 0.00
99 (97-95) [l=18 cm] - K.
97, 0.00 ± 0.00, 0.00 ± 0.00, -282.09 ± 11.32, -134.04 ± 50.53, -2493.53 ± 198.53, 0.00 ± 0.00
95, 0.00 ± 0.00, 0.00 ± 0.00, -282.09 ± 11.32, -134.04 ± 50.53, -2545.43 ± 199.32, 0.00 ± 0.00
100 (95-98) [l=18 cm] - K.
95, 0.00 ± 0.00, 0.00 ± 0.00, -275.32 ± 11.38, -134.40 ± 50.77, -2543.39 ± 199.84, 0.00 ± 0.00
98, 0.00 ± 0.00, 0.00 ± 0.00, -275.32 ± 11.38, -134.40 ± 50.77, -2593.77 ± 200.49, 0.00 ± 0.00
101 (92-96) [l=227 cm] - F.
92, 0.00 ± 0.00, 0.00 ± 0.00, 6.43 ± 5.42, -3.00 ± 0.83, 63.42 ± 10.58, 0.00 ± 0.00
96, 0.00 ± 0.00, 0.00 ± 0.00, 6.43 ± 5.42, -3.00 ± 0.83, 77.97 ± 3.36, 0.00 ± 0.00
102 (93-97) [l=227 cm] - S.
93, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
97, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
103 (99-100) [l=500 cm] - M.
99, 239.78 ± 10.00, 1.73 ± 0.68, -28.24 ± 8.03, 0.00 ± 0.03, 110.87 ± 20.16, 5.81 ± 1.70
100, 105.21 ± 10.00, 1.73 ± 0.68, -28.24 ± 8.03, 0.00 ± 0.03, -30.32 ± 20.00, -2.85 ± 1.70
104 (98-100) [l=122 cm] - K.
98, 0.00 ± 0.00, 0.00 ± 0.00, -90.04 ± 11.10, 93.89 ± 125.31, -2591.74 ± 200.45, 0.00 ± 0.00
100, 0.00 ± 0.00, 0.00 ± 0.00, -90.04 ± 11.10, 93.89 ± 125.31, -2701.95 ± 199.54, 0.00 ± 0.00
105 (100-101) [l=122 cm] - K.

100, 0.00 ± 0.00, 0.00 ± 0.00, -28.15 ± 13.87, 91.01 ± 127.22, -2671.47 ± 203.96, 0.00 ± 0.00
 101, 0.00 ± 0.00, 0.00 ± 0.00, -28.15 ± 13.87, 91.01 ± 127.22, -2705.92 ± 196.65, 0.00 ± 0.00
 106 (102-j'-103) [l=500 cm] [Piano XZ: 436 def.-64 rig.] [in j': N=Nxy,Nxz] - M.
 102, 79.77 ± 3.30, 0.37 ± 0.14, -0.59 ± 0.19, 0.00 ± 0.00, 1.73 ± 0.42, 1.24 ± 0.36
 j', 51.17 ± 3.30, 54.85 ± 3.30, 0.37 ± 0.14, -0.59 ± 0.19, 0.00 ± 0.00, -0.84 ± 0.42, -0.61 ± 0.36
 103, 51.17 ± 3.30, 0.37 ± 0.14, -0.59 ± 0.19, 0.00 ± 0.00, -1.22 ± 0.54, -0.61 ± 0.36
 107 (101-103) [l=26 cm] - K.
 101, 0.00 ± 0.00, 0.00 ± 0.00, -26.73 ± 13.88, 95.56 ± 127.57, -2705.75 ± 196.68, 0.00 ± 0.00
 103, 0.00 ± 0.00, 0.00 ± 0.00, -26.73 ± 13.88, 95.56 ± 127.57, -2712.69 ± 195.13, 0.00 ± 0.00
 108 (103-104) [l=26 cm] - K.
 103, 0.00 ± 0.00, 0.00 ± 0.00, 24.44 ± 15.38, 94.96 ± 127.93, -2711.48 ± 195.23, 0.00 ± 0.00
 104, 0.00 ± 0.00, 0.00 ± 0.00, 24.44 ± 15.38, 94.96 ± 127.93, -2705.12 ± 193.00, 0.00 ± 0.00
 109 (105-j'-106) [l=500 cm] [Piano XZ: 436 def.-64 rig.] [in j': N=Nxy,Nxz] - M.
 105, 75.66 ± 3.11, 0.30 ± 0.15, 0.41 ± 0.19, 0.00 ± 0.00, -1.22 ± 0.41, 1.01 ± 0.38
 j', 47.20 ± 3.11, 50.86 ± 3.11, 0.30 ± 0.15, 0.41 ± 0.19, 0.00 ± 0.00, 0.59 ± 0.41, -0.49 ± 0.37
 106, 47.20 ± 3.11, 0.30 ± 0.15, 0.41 ± 0.19, 0.00 ± 0.00, 0.85 ± 0.53, -0.49 ± 0.37
 110 (107-106) [l=26 cm] - K.
 107, 0.00 ± 0.00, 0.00 ± 0.00, -61.06 ± 14.91, 94.92 ± 128.21, -2746.67 ± 183.14, 0.00 ± 0.00
 106, 0.00 ± 0.00, 0.00 ± 0.00, -61.06 ± 14.91, 94.92 ± 128.21, -2762.49 ± 183.44, 0.00 ± 0.00
 111 (106-108) [l=26 cm] - K.
 106, 0.00 ± 0.00, 0.00 ± 0.00, -13.86 ± 14.58, 94.43 ± 128.57, -2763.34 ± 183.31, 0.00 ± 0.00
 108, 0.00 ± 0.00, 0.00 ± 0.00, -13.86 ± 14.58, 94.43 ± 128.57, -2766.92 ± 182.96, 0.00 ± 0.00
 112 (104-107) [l=227 cm] - S.
 104, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 107, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 113 (109-110) [l=500 cm] - M.
 109, 257.10 ± 10.75, 1.41 ± 0.72, 20.18 ± 7.95, 0.00 ± 0.03, -79.47 ± 19.60, 4.73 ± 1.82
 110, 122.35 ± 10.75, 1.41 ± 0.72, 20.18 ± 7.95, 0.00 ± 0.03, 21.40 ± 20.12, -2.32 ± 1.80
 114 (108-110) [l=123 cm] - K.
 108, 0.00 ± 0.00, 0.00 ± 0.00, -12.55 ± 14.57, 98.81 ± 128.92, -2767.04 ± 182.92, 0.00 ± 0.00
 110, 0.00 ± 0.00, 0.00 ± 0.00, -12.55 ± 14.57, 98.81 ± 128.92, -2782.42 ± 181.31, 0.00 ± 0.00
 115 (110-111) [l=123 cm] - K.
 110, 0.00 ± 0.00, 0.00 ± 0.00, 66.40 ± 16.07, 96.47 ± 130.80, -2803.99 ± 176.04, 0.00 ± 0.00
 111, 0.00 ± 0.00, 0.00 ± 0.00, 66.40 ± 16.07, 96.47 ± 130.80, -2722.64 ± 164.79, 0.00 ± 0.00
 116 (112-i'-j'-113) [l=500 cm] [Piano XZ: 255 rig.-191 def.-55 rig.] [in i' j': N=Nxy,Nxz] - M.
 112, 57.17 ± 2.86, 0.35 ± 0.19, 10.65 ± 2.97, 0.00 ± 0.01, -38.51 ± 10.39, 1.19 ± 0.47
 i', 57.17 ± 2.86, 39.88 ± 2.86, 0.35 ± 0.19, 10.65 ± 2.97, 0.00 ± 0.01, -11.39 ± 2.83, 1.19 ± 0.47
 j', 23.21 ± 2.86, 26.91 ± 2.86, 0.35 ± 0.19, 10.65 ± 2.97, 0.00 ± 0.01, 8.95 ± 2.85, -0.58 ± 0.46
 113, 23.21 ± 2.86, 0.35 ± 0.19, 10.65 ± 2.97, 0.00 ± 0.01, 14.76 ± 4.47, -0.58 ± 0.46
 117 (112-114) [l=31 cm] - K.
 112, 0.00 ± 0.00, 0.00 ± 0.00, -13.44 ± 2.19, 4.03 ± 1.49, 237.51 ± 14.57, 0.00 ± 0.00
 114, 0.00 ± 0.00, 0.00 ± 0.00, -13.44 ± 2.19, 4.03 ± 1.49, 233.35 ± 13.94, 0.00 ± 0.00
 118 (111-113) [l=31 cm] - K.
 111, 0.00 ± 0.00, 0.00 ± 0.00, 281.72 ± 21.88, 382.12 ± 208.36, -2724.08 ± 164.79, 0.00 ± 0.00
 113, 0.00 ± 0.00, 0.00 ± 0.00, 281.72 ± 21.88, 382.12 ± 208.36, -2637.03 ± 159.90, 0.00 ± 0.00
 119 (113-115) [l=31 cm] - K.
 113, 0.00 ± 0.00, 0.00 ± 0.00, 304.93 ± 23.55, 381.54 ± 208.78, -2651.78 ± 159.04, 0.00 ± 0.00
 115, 0.00 ± 0.00, 0.00 ± 0.00, 304.93 ± 23.55, 381.54 ± 208.78, -2557.56 ± 153.54, 0.00 ± 0.00
 120 (116-i'-j'-117) [l=500 cm] [Piano XZ: 185 rig.-287 def.-28 rig.] [in i' j': N=Nxy,Nxz] - M.
 116, 113.58 ± 8.55, 0.46 ± 0.35, -5.83 ± 11.35, 0.00 ± 0.03, 21.71 ± 36.61, 1.56 ± 0.72
 i', 113.58 ± 8.55, 77.59 ± 8.55, 0.46 ± 0.35, -5.83 ± 11.35, 0.00 ± 0.03, 10.92 ± 15.60, 1.56 ± 0.72
 j', 16.38 ± 8.55, 21.90 ± 8.55, 0.46 ± 0.35, -5.83 ± 11.35, 0.00 ± 0.03, -5.79 ± 16.92, -0.76 ± 1.05
 117, 16.38 ± 8.55, 0.46 ± 0.35, -5.83 ± 11.35, 0.00 ± 0.03, -7.45 ± 20.14, -0.76 ± 1.05
 121 (118-116) [l=88 cm] - K.
 118, 0.00 ± 0.00, 0.00 ± 0.00, 2.25 ± 5.81, 4.03 ± 1.49, 146.12 ± 13.96, 0.00 ± 0.00
 116, 0.00 ± 0.00, 0.00 ± 0.00, 2.25 ± 5.81, 4.03 ± 1.49, 148.11 ± 19.05, 0.00 ± 0.00
 122 (119-117) [l=88 cm] - K.
 119, 0.00 ± 0.00, 0.00 ± 0.00, 199.80 ± 24.52, 381.50 ± 209.15, -1943.09 ± 114.17, 0.00 ± 0.00
 117, 0.00 ± 0.00, 0.00 ± 0.00, 199.80 ± 24.52, 381.50 ± 209.15, -1766.47 ± 97.91, 0.00 ± 0.00
 123 (117-120) [l=88 cm] - K.
 117, 0.00 ± 0.00, 0.00 ± 0.00, 216.18 ± 30.02, 380.73 ± 210.05, -1759.02 ± 90.89, 0.00 ± 0.00
 120, 0.00 ± 0.00, 0.00 ± 0.00, 216.18 ± 30.02, 380.73 ± 210.05, -1568.14 ± 68.84, 0.00 ± 0.00
 124 (114-118) [l=227 cm] - F.
 114, 0.00 ± 0.00, 0.00 ± 0.00, -24.08 ± 5.78, 2.75 ± 1.02, 185.95 ± 9.71, 0.00 ± 0.00
 118, 0.00 ± 0.00, 0.00 ± 0.00, -24.08 ± 5.78, 2.75 ± 1.02, 131.41 ± 10.10, 0.00 ± 0.00
 125 (115-119) [l=227 cm] - S.
 115, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 119, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 126 (121-j'-122) [l=500 cm] [Piano XZ: 464 def.-36 rig.] [in j': N=Nxy,Nxz] - M.
 121, 104.04 ± 8.52, 0.46 ± 0.37, -1.46 ± 4.13, 0.00 ± 0.02, 4.99 ± 9.19, 1.56 ± 0.75
 j', 6.84 ± 8.52, 13.78 ± 8.52, 0.46 ± 0.37, -1.46 ± 4.13, 0.00 ± 0.02, -1.80 ± 10.04, -0.76 ± 1.09
 122, 6.84 ± 8.52, 0.46 ± 0.37, -1.46 ± 4.13, 0.00 ± 0.02, -2.33 ± 11.51, -0.76 ± 1.09
 127 (120-122) [l=88 cm] - K.
 120, 0.00 ± 0.00, 0.00 ± 0.00, 216.18 ± 30.02, 380.73 ± 210.05, -1568.14 ± 68.84, 0.00 ± 0.00
 122, 0.00 ± 0.00, 0.00 ± 0.00, 216.18 ± 30.02, 380.73 ± 210.05, -1377.04 ± 56.83, 0.00 ± 0.00
 128 (122-123) [l=88 cm] - K.
 122, 0.00 ± 0.00, 0.00 ± 0.00, 223.02 ± 36.62, 379.97 ± 210.95, -1374.71 ± 45.44, 0.00 ± 0.00
 123, 0.00 ± 0.00, 0.00 ± 0.00, 223.02 ± 36.62, 379.97 ± 210.95, -1177.79 ± 50.30, 0.00 ± 0.00
 129 (124-j'-125) [l=500 cm] [Piano XZ: 464 def.-36 rig.] [in j': N=Nxy,Nxz] - M.
 124, 117.05 ± 8.95, 0.07 ± 0.38, 1.57 ± 4.28, 0.00 ± 0.02, -5.42 ± 9.60, 0.23 ± 0.78
 j', 19.82 ± 8.95, 26.76 ± 8.95, 0.07 ± 0.38, 1.57 ± 4.28, 0.00 ± 0.02, 1.88 ± 10.26, -0.11 ± 1.14
 125, 19.82 ± 8.95, 0.07 ± 0.38, 1.57 ± 4.28, 0.00 ± 0.02, 2.44 ± 11.79, -0.11 ± 1.14
 130 (126-125) [l=88 cm] - K.
 126, 0.00 ± 0.00, 0.00 ± 0.00, 109.28 ± 42.28, 379.94 ± 211.37, -807.93 ± 124.65, 0.00 ± 0.00
 125, 0.00 ± 0.00, 0.00 ± 0.00, 109.28 ± 42.28, 379.94 ± 211.37, -711.32 ± 161.93, 0.00 ± 0.00
 131 (125-127) [l=88 cm] - K.

125, 0.00 ± 0.00, 0.00 ± 0.00, 129.10 ± 46.50, 379.83 ± 212.25, -713.77 ± 157.28, 0.00 ± 0.00
 127, 0.00 ± 0.00, 0.00 ± 0.00, 129.10 ± 46.50, 379.83 ± 212.25, -599.64 ± 198.36, 0.00 ± 0.00
 132 (123-126) [l=227 cm] - S.
 123, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 126, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 133 (128-i'-j'-129) [l=500 cm] [Piano XZ: 185 rig.-287 def.-29 rig.] [in i' j': N=Nxy,Nxz] - M.
 128, 128.10 ± 8.79, 0.07 ± 0.40, 6.34 ± 11.84, 0.00 ± 0.03, -23.68 ± 38.34, 0.23 ± 0.81
 i', 128.10 ± 8.79, 92.12 ± 8.79, 0.07 ± 0.40, 6.34 ± 11.84, 0.00 ± 0.03, -11.94 ± 16.43, 0.23 ± 0.81
 j', 30.87 ± 8.79, 36.41 ± 8.79, 0.07 ± 0.40, 6.34 ± 11.84, 0.00 ± 0.03, 6.23 ± 17.50, -0.11 ± 1.17
 129, 30.87 ± 8.79, 0.07 ± 0.40, 6.34 ± 11.84, 0.00 ± 0.03, 8.04 ± 20.87, -0.11 ± 1.17
 134 (128-130) [l=88 cm] - K.
 128, 0.00 ± 0.00, 0.00 ± 0.00, -31.72 ± 8.20, 0.49 ± 1.55, 65.33 ± 16.27, 0.00 ± 0.00
 130, 0.00 ± 0.00, 0.00 ± 0.00, -31.72 ± 8.20, 0.49 ± 1.55, 37.29 ± 9.11, 0.00 ± 0.00
 135 (127-129) [l=88 cm] - K.
 127, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 129.10 ± 46.50, 379.83 ± 212.25, -599.64 ± 198.36, 0.00 ± 0.00
 129, 0.00 ± 0.00, 0.00 ± 0.00, 129.10 ± 46.50, 379.83 ± 212.25, -485.51 ± 239.44, 0.00 ± 0.00
 136 (129-131) [l=88 cm] - K.
 129, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 159.97 ± 51.93, 379.72 ± 213.12, -493.55 ± 230.70, 0.00 ± 0.00
 131, 0.00 ± 0.00, 0.00 ± 0.00, 159.97 ± 51.93, 379.72 ± 213.12, -352.14 ± 275.73, 0.00 ± 0.00
 137 (132-i'-j'-133) [l=500 cm] [Piano XZ: 184 rig.-288 def.-28 rig.] [in i' j': N=Nxy,Nxz] - M.
 132, 107.17 ± 5.70, 0.00 ± 0.64, 4.70 ± 10.51, 0.00 ± 0.03, -17.56 ± 33.16, 0.00 ± 1.61
 i', 107.17 ± 5.70, 70.91 ± 5.70, 0.00 ± 0.64, 4.70 ± 10.51, 0.00 ± 0.03, -8.94 ± 13.88, 0.00 ± 1.61
 j', 8.43 ± 5.70, 14.00 ± 5.70, 0.00 ± 0.64, 4.70 ± 10.51, 0.00 ± 0.03, 4.59 ± 16.40, 0.00 ± 1.61
 133, 8.43 ± 5.70, 0.00 ± 0.64, 4.70 ± 10.51, 0.00 ± 0.03, 5.92 ± 19.36, 0.00 ± 1.61
 138 (134-132) [l=90 cm] - K.
 134, 0.00 ± 0.00, 0.00 ± 0.00, 22.14 ± 9.53, 0.49 ± 1.55, 19.35 ± 20.44, 0.00 ± 0.00
 132, 0.00 ± 0.00, 0.00 ± 0.00, 22.14 ± 9.53, 0.49 ± 1.55, 39.23 ± 28.86, 0.00 ± 0.00
 139 (135-133) [l=90 cm] - K.
 135, 0.00 ± 0.00, 0.00 ± 0.00, 60.44 ± 63.47, 379.70 ± 213.50, -108.89 ± 400.35, 0.00 ± 0.00
 133, 0.00 ± 0.00, 0.00 ± 0.00, 60.44 ± 63.47, 379.70 ± 213.50, -54.62 ± 455.25, 0.00 ± 0.00
 140 (133-136) [l=90 cm] - K.
 133, 0.00 ± 0.00, 0.00 ± 0.00, 68.86 ± 62.85, 379.70 ± 214.64, -60.54 ± 447.90, 0.00 ± 0.00
 136, 0.00 ± 0.00, 0.00 ± 0.00, 68.86 ± 62.85, 379.70 ± 214.64, 1.23 ± 502.40, 0.00 ± 0.00
 141 (130-134) [l=227 cm] - F.
 130, 0.00 ± 0.00, 0.00 ± 0.00, -4.96 ± 8.14, 0.34 ± 1.06, 11.28 ± 4.31, 0.00 ± 0.00
 134, 0.00 ± 0.00, 0.00 ± 0.00, -4.96 ± 8.14, 0.34 ± 1.06, 0.05 ± 14.30, 0.00 ± 0.00
 142 (131-135) [l=227 cm] - S.
 131, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 135, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 143 (137-j'-138) [l=438 cm] [Piano XZ: 372 def.-66 rig.] [in j': N=Nxy,Nxz] - M.
 137, 276.42 ± 6.67, -0.98 ± 0.31, -42.62 ± 22.65, 0.00 ± 0.02, 164.56 ± 42.14, -2.86 ± 0.69
 j', 200.52 ± 6.67, 211.89 ± 6.67, -0.98 ± 0.31, -42.62 ± 22.65, 0.00 ± 0.02, 5.84 ± 42.28, 1.42 ± 0.69
 138, 200.52 ± 6.67, -0.98 ± 0.31, -42.62 ± 22.65, 0.00 ± 0.02, -22.12 ± 57.12, 1.42 ± 0.69
 144 (139-138) [l=161 cm] - K.
 139, -35.43 ± 32.59, -0.85 ± 0.08, -185.29 ± 5.14, -1.50 ± 0.13, 206.33 ± 56.00, -0.68 ± 0.06
 138, -35.43 ± 32.59, -0.85 ± 0.08, -187.13 ± 5.14, -1.50 ± 0.13, -92.54 ± 49.35, 0.68 ± 0.06
 145 (138-140) [l=160 cm] - K.
 138, 5.27 ± 0.65, 0.00 ± 0.30, 13.39 ± 0.59, 0.00 ± 0.54, -18.75 ± 1.50, 0.00 ± 0.24
 140, 5.27 ± 0.65, 0.00 ± 0.30, 11.56 ± 0.59, 0.00 ± 0.54, 1.26 ± 0.67, 0.00 ± 0.24
 146 (141-j'-142) [l=438 cm] [Piano XZ: 372 def.-66 rig.] [in j': N=Nxy,Nxz] - M.
 141, 276.34 ± 6.67, -0.98 ± 0.31, 42.63 ± 22.65, 0.00 ± 0.02, -164.58 ± 42.14, -2.86 ± 0.69
 j', 200.44 ± 6.67, 211.81 ± 6.67, -0.98 ± 0.31, 42.63 ± 22.65, 0.00 ± 0.02, -5.84 ± 42.28, 1.42 ± 0.69
 142, 200.44 ± 6.67, -0.98 ± 0.31, 42.63 ± 22.65, 0.00 ± 0.02, 22.12 ± 57.12, 1.42 ± 0.69
 147 (143-142) [l=161 cm] - K.
 143, 5.27 ± 0.65, 0.00 ± 0.30, -11.55 ± 0.59, 0.00 ± 0.54, 1.26 ± 0.67, 0.00 ± 0.24
 142, 5.27 ± 0.65, 0.00 ± 0.30, -13.39 ± 0.59, 0.00 ± 0.54, -18.76 ± 1.50, 0.00 ± 0.24
 148 (142-144) [l=160 cm] - K.
 142, -35.35 ± 32.59, 0.85 ± 0.08, 187.05 ± 5.14, 1.50 ± 0.13, -92.50 ± 49.35, 0.68 ± 0.06
 144, -35.35 ± 32.59, 0.85 ± 0.08, 185.21 ± 5.14, 1.50 ± 0.13, 206.05 ± 55.99, -0.68 ± 0.06
 149 (140-143) [l=200 cm] - S.
 140, 0.11 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.49, 0.00 ± 0.00, -0.05 ± 0.49, 0.00 ± 0.00
 143, 0.11 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.49, 0.00 ± 0.00, -0.05 ± 0.49, 0.00 ± 0.00
 150 (145-j'-146) [l=438 cm] [Piano XZ: 372 def.-66 rig.] [in j': N=Nxy,Nxz] - M.
 145, 306.39 ± 8.50, 0.70 ± 0.31, 34.60 ± 24.29, 0.00 ± 0.02, -133.58 ± 45.75, 2.04 ± 0.67
 j', 230.56 ± 8.50, 241.87 ± 8.50, 0.70 ± 0.31, 34.60 ± 24.29, 0.00 ± 0.02, -4.73 ± 44.79, -1.01 ± 0.68
 146, 230.50 ± 8.50, 0.70 ± 0.31, 34.60 ± 24.29, 0.00 ± 0.02, 17.97 ± 60.70, -1.01 ± 0.68
 151 (147-146) [l=160 cm] - K.
 147, -50.25 ± 35.50, -0.60 ± 0.07, -215.26 ± 7.15, -1.06 ± 0.13, 254.17 ± 62.37, -0.48 ± 0.06
 146, -50.25 ± 35.50, -0.60 ± 0.07, -217.10 ± 7.15, -1.06 ± 0.13, -92.58 ± 52.42, 0.48 ± 0.06
 152 (146-148) [l=161 cm] - K.
 146, 5.26 ± 0.54, 0.00 ± 0.30, 13.40 ± 0.46, 0.00 ± 0.54, -18.74 ± 1.21, 0.00 ± 0.24
 148, 5.26 ± 0.54, 0.00 ± 0.30, 11.56 ± 0.46, 0.00 ± 0.54, 1.29 ± 0.59, 0.00 ± 0.24
 153 (149-j'-150) [l=438 cm] [Piano XZ: 372 def.-66 rig.] [in j': N=Nxy,Nxz] - M.
 149, 306.46 ± 8.50, 0.70 ± 0.31, -34.60 ± 24.29, 0.00 ± 0.02, 133.56 ± 45.75, 2.04 ± 0.67
 j', 230.56 ± 8.50, 241.93 ± 8.50, 0.70 ± 0.31, -34.60 ± 24.29, 0.00 ± 0.02, 4.72 ± 44.79, -1.01 ± 0.68
 150, 230.56 ± 8.50, 0.70 ± 0.31, -34.60 ± 24.29, 0.00 ± 0.02, -17.98 ± 60.70, -1.01 ± 0.68
 154 (151-150) [l=160 cm] - K.
 151, 5.26 ± 0.54, 0.00 ± 0.30, -11.56 ± 0.46, 0.00 ± 0.54, 1.28 ± 0.59, 0.00 ± 0.24
 150, 5.26 ± 0.54, 0.00 ± 0.30, -13.40 ± 0.46, 0.00 ± 0.54, -18.73 ± 1.21, 0.00 ± 0.24
 155 (150-152) [l=161 cm] - K.
 150, -50.32 ± 35.50, 0.60 ± 0.07, 217.16 ± 7.15, 1.06 ± 0.13, -92.62 ± 52.42, 0.48 ± 0.06
 152, -50.32 ± 35.50, 0.60 ± 0.07, 215.32 ± 7.15, 1.06 ± 0.13, 254.45 ± 62.37, -0.48 ± 0.06
 156 (148-151) [l=200 cm] - S.
 148, 0.10 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.34, 0.00 ± 0.00, -0.05 ± 0.34, 0.00 ± 0.00
 151, 0.10 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.34, 0.00 ± 0.00, -0.05 ± 0.34, 0.00 ± 0.00
 157 (153-154) [l=30 cm] - M.

153, 73.12 ± 13.16, 0.02 ± 4.76, 0.22 ± 4.59, 0.00 ± 0.01, -7.35 ± 2.32, 0.01 ± 0.64
 154, 53.89 ± 13.16, 0.02 ± 4.76, 0.22 ± 4.59, 0.00 ± 0.01, -7.28 ± 2.44, 0.01 ± 0.79
 158 (154-156) [l=291 cm] - K.
 154, 0.00 ± 0.00, 0.00 ± 0.00, 52.55 ± 15.33, -39.48 ± 66.76, -146.48 ± 71.09, 0.00 ± 0.00
 156, 0.00 ± 0.00, 0.00 ± 0.00, 52.55 ± 15.33, -39.48 ± 66.76, 6.65 ± 27.00, 0.00 ± 0.00
 159 (157-158) [l=30 cm] - M.
 157, 87.33 ± 8.14, 0.04 ± 4.47, 0.19 ± 4.57, 0.00 ± 0.01, -6.52 ± 2.53, 0.03 ± 0.59
 158, 68.19 ± 8.14, 0.04 ± 4.47, 0.19 ± 4.57, 0.00 ± 0.01, -6.47 ± 2.60, 0.02 ± 0.75
 160 (160-161) [l=30 cm] - M.
 160, 78.72 ± 3.31, 0.06 ± 3.39, 0.10 ± 3.66, 0.00 ± 0.01, -2.37 ± 1.29, 0.04 ± 0.44
 161, 63.38 ± 3.31, 0.06 ± 3.39, 0.10 ± 3.66, 0.00 ± 0.01, -2.33 ± 1.30, 0.02 ± 0.58
 161 (161-159) [l=233 cm] - K.
 161, 0.00 ± 0.00, 0.00 ± 0.00, 50.92 ± 6.16, -13.11 ± 68.28, -551.20 ± 49.89, 0.00 ± 0.00
 159, 0.00 ± 0.00, 0.00 ± 0.00, 50.92 ± 6.16, -13.11 ± 68.28, -432.82 ± 63.53, 0.00 ± 0.00
 162 (110-163) [l=30 cm] - M.
 110, 43.39 ± 1.16, 0.04 ± 1.72, 0.03 ± 1.92, 0.00 ± 0.00, -0.16 ± 0.32, 0.02 ± 0.22
 163, 35.31 ± 1.16, 0.04 ± 1.72, 0.03 ± 1.92, 0.00 ± 0.00, -0.16 ± 0.34, 0.01 ± 0.30
 163 (163-162) [l=123 cm] - K.
 163, 0.00 ± 0.00, 0.00 ± 0.00, 27.32 ± 8.91, -4.40 ± 68.86, -606.95 ± 18.66, 0.00 ± 0.00
 162, 0.00 ± 0.00, 0.00 ± 0.00, 27.32 ± 8.91, -4.40 ± 68.86, -573.48 ± 28.85, 0.00 ± 0.00
 164 (165-166) [l=30 cm] - M.
 165, 59.09 ± 1.87, 0.05 ± 2.25, 0.00 ± 2.60, 0.00 ± 0.00, 0.00 ± 0.48, 0.03 ± 0.28
 166, 48.19 ± 1.87, 0.05 ± 2.25, 0.00 ± 2.60, 0.00 ± 0.00, 0.00 ± 0.52, 0.02 ± 0.39
 165 (166-164) [l=165 cm] - K.
 166, 0.00 ± 0.00, 0.00 ± 0.00, 24.92 ± 9.49, -0.29 ± 69.11, -639.50 ± 15.25, 0.00 ± 0.00
 164, 0.00 ± 0.00, 0.00 ± 0.00, 24.92 ± 9.49, -0.29 ± 69.11, -598.37 ± 9.09, 0.00 ± 0.00
 166 (100-168) [l=30 cm] - M.
 100, 43.32 ± 1.93, 0.04 ± 1.72, -0.02 ± 1.92, 0.00 ± 0.00, 0.16 ± 0.32, 0.03 ± 0.22
 168, 35.24 ± 1.93, 0.04 ± 1.72, -0.02 ± 1.92, 0.00 ± 0.00, 0.16 ± 0.33, 0.01 ± 0.30
 167 (169-168) [l=122 cm] - K.
 169, 0.00 ± 0.00, 0.00 ± 0.00, -23.80 ± 7.53, 4.05 ± 69.75, -583.96 ± 45.08, 0.00 ± 0.00
 168, 0.00 ± 0.00, 0.00 ± 0.00, -23.80 ± 7.53, 4.05 ± 69.75, -613.07 ± 36.24, 0.00 ± 0.00
 168 (168-167) [l=122 cm] - K.
 168, 0.00 ± 0.00, 0.00 ± 0.00, 11.44 ± 8.98, 4.06 ± 69.46, -613.22 ± 36.10, 0.00 ± 0.00
 167, 0.00 ± 0.00, 0.00 ± 0.00, 11.44 ± 8.98, 4.06 ± 69.46, -599.22 ± 25.62, 0.00 ± 0.00
 169 (170-171) [l=30 cm] - M.
 170, 77.98 ± 5.17, 0.07 ± 3.40, -0.10 ± 3.62, 0.00 ± 0.01, 2.20 ± 0.94, 0.05 ± 0.43
 171, 62.80 ± 5.17, 0.07 ± 3.40, -0.10 ± 3.62, 0.00 ± 0.01, 2.17 ± 0.95, 0.03 ± 0.59
 170 (172-171) [l=230 cm] - K.
 172, 0.00 ± 0.00, 0.00 ± 0.00, -44.96 ± 3.69, 13.16 ± 70.27, -454.71 ± 71.08, 0.00 ± 0.00
 171, 0.00 ± 0.00, 0.00 ± 0.00, -44.96 ± 3.69, 13.16 ± 70.27, -558.15 ± 63.20, 0.00 ± 0.00
 171 (173-174) [l=30 cm] - M.
 173, 93.55 ± 10.13, 0.09 ± 4.90, -0.20 ± 4.88, 0.00 ± 0.01, 7.64 ± 1.97, 0.06 ± 0.63
 174, 73.09 ± 10.13, 0.09 ± 4.90, -0.20 ± 4.88, 0.00 ± 0.01, 7.58 ± 2.08, 0.03 ± 0.84
 172 (176-177) [l=30 cm] - M.
 176, 73.44 ± 12.84, 0.07 ± 4.94, -0.22 ± 4.59, 0.00 ± 0.01, 6.98 ± 1.63, 0.05 ± 0.64
 177, 54.22 ± 12.84, 0.07 ± 4.94, -0.22 ± 4.59, 0.00 ± 0.01, 6.91 ± 1.76, 0.03 ± 0.85
 173 (178-177) [l=291 cm] - K.
 178, 0.00 ± 0.00, 0.00 ± 0.00, -55.50 ± 16.21, 38.10 ± 71.55, 6.54 ± 12.96, 0.00 ± 0.00
 177, 0.00 ± 0.00, 0.00 ± 0.00, -55.50 ± 16.21, 38.10 ± 71.55, -155.07 ± 57.98, 0.00 ± 0.00
 174 (179-180) [l=30 cm] - M.
 179, 73.42 ± 12.84, -0.07 ± 4.94, -0.22 ± 4.59, 0.00 ± 0.01, 6.98 ± 1.63, -0.05 ± 0.64
 180, 54.20 ± 12.84, -0.07 ± 4.94, -0.22 ± 4.59, 0.00 ± 0.01, 6.92 ± 1.76, -0.03 ± 0.85
 175 (180-182) [l=291 cm] - K.
 180, 0.00 ± 0.00, 0.00 ± 0.00, 55.47 ± 16.21, -38.28 ± 71.56, -154.99 ± 57.98, 0.00 ± 0.00
 182, 0.00 ± 0.00, 0.00 ± 0.00, 55.47 ± 16.21, -38.28 ± 71.56, 6.52 ± 12.96, 0.00 ± 0.00
 176 (183-184) [l=30 cm] - M.
 183, 93.53 ± 10.13, -0.09 ± 4.90, -0.20 ± 4.88, 0.00 ± 0.01, 7.65 ± 1.97, -0.06 ± 0.63
 184, 73.07 ± 10.13, -0.09 ± 4.90, -0.20 ± 4.88, 0.00 ± 0.01, 7.59 ± 2.08, -0.03 ± 0.84
 177 (186-187) [l=30 cm] - M.
 186, 77.95 ± 5.17, -0.07 ± 3.39, -0.10 ± 3.62, 0.00 ± 0.01, 2.20 ± 0.94, -0.05 ± 0.43
 187, 62.77 ± 5.17, -0.07 ± 3.39, -0.10 ± 3.62, 0.00 ± 0.01, 2.17 ± 0.95, -0.03 ± 0.59
 178 (187-185) [l=230 cm] - K.
 187, 0.00 ± 0.00, 0.00 ± 0.00, 44.97 ± 3.69, -13.35 ± 70.27, -557.91 ± 63.20, 0.00 ± 0.00
 185, 0.00 ± 0.00, 0.00 ± 0.00, 44.97 ± 3.69, -13.35 ± 70.27, -454.47 ± 71.08, 0.00 ± 0.00
 179 (188-189) [l=30 cm] - M.
 188, 43.32 ± 1.93, -0.04 ± 1.72, -0.02 ± 1.92, 0.00 ± 0.00, 0.16 ± 0.32, -0.03 ± 0.22
 189, 35.24 ± 1.93, -0.04 ± 1.72, -0.02 ± 1.92, 0.00 ± 0.00, 0.16 ± 0.33, -0.01 ± 0.30
 180 (190-189) [l=122 cm] - K.
 190, 0.00 ± 0.00, 0.00 ± 0.00, -11.40 ± 8.98, -4.24 ± 69.47, -599.06 ± 25.61, 0.00 ± 0.00
 189, 0.00 ± 0.00, 0.00 ± 0.00, -11.40 ± 8.98, -4.24 ± 69.47, -613.01 ± 36.09, 0.00 ± 0.00
 181 (189-188) [l=122 cm] - K.
 189, 0.00 ± 0.00, 0.00 ± 0.00, 23.84 ± 7.53, -4.23 ± 69.75, -612.86 ± 36.23, 0.00 ± 0.00
 188, 0.00 ± 0.00, 0.00 ± 0.00, 23.84 ± 7.53, -4.23 ± 69.75, -583.68 ± 45.08, 0.00 ± 0.00
 182 (191-192) [l=30 cm] - M.
 191, 59.09 ± 1.87, -0.05 ± 2.25, 0.00 ± 2.60, 0.00 ± 0.00, 0.01 ± 0.48, -0.03 ± 0.28
 192, 48.19 ± 1.87, -0.05 ± 2.25, 0.00 ± 2.60, 0.00 ± 0.00, 0.00 ± 0.52, -0.02 ± 0.39
 183 (193-192) [l=165 cm] - K.
 193, 0.00 ± 0.00, 0.00 ± 0.00, -24.88 ± 9.49, 0.11 ± 69.11, -598.31 ± 9.10, 0.00 ± 0.00
 192, 0.00 ± 0.00, 0.00 ± 0.00, -24.88 ± 9.49, 0.11 ± 69.11, -639.39 ± 15.24, 0.00 ± 0.00
 184 (28-194) [l=30 cm] - M.
 28, 43.40 ± 1.16, -0.04 ± 1.72, 0.03 ± 1.92, 0.00 ± 0.00, -0.16 ± 0.32, -0.02 ± 0.22
 194, 35.31 ± 1.16, -0.04 ± 1.72, 0.03 ± 1.92, 0.00 ± 0.00, -0.16 ± 0.34, -0.01 ± 0.30
 185 (195-194) [l=123 cm] - K.
 195, 0.00 ± 0.00, 0.00 ± 0.00, -27.30 ± 8.92, 4.21 ± 68.86, -573.49 ± 28.86, 0.00 ± 0.00
 194, 0.00 ± 0.00, 0.00 ± 0.00, -27.30 ± 8.92, 4.21 ± 68.86, -606.93 ± 18.67, 0.00 ± 0.00

186 (196-197) [l=30 cm] - M.
196, 78.73 ± 3.31, -0.06 ± 3.39, 0.10 ± 3.66, 0.00 ± 0.01, -2.36 ± 1.29, -0.04 ± 0.44
197, 63.39 ± 3.31, -0.06 ± 3.39, 0.10 ± 3.66, 0.00 ± 0.01, -2.33 ± 1.30, -0.02 ± 0.58
187 (198-197) [l=233 cm] - K.
198, 0.00 ± 0.00, 0.00 ± 0.00, -50.91 ± 6.16, 12.93 ± 68.28, -432.95 ± 63.55, 0.00 ± 0.00
197, 0.00 ± 0.00, 0.00 ± 0.00, -50.91 ± 6.16, 12.93 ± 68.28, -551.32 ± 49.90, 0.00 ± 0.00
188 (199-200) [l=30 cm] - M.
199, 87.36 ± 8.14, -0.04 ± 4.47, 0.19 ± 4.57, 0.00 ± 0.01, -6.52 ± 2.54, -0.03 ± 0.59
200, 68.22 ± 8.14, -0.04 ± 4.47, 0.19 ± 4.57, 0.00 ± 0.01, -6.46 ± 2.60, -0.02 ± 0.75
189 (202-203) [l=30 cm] - M.
202, 73.14 ± 13.16, -0.02 ± 4.75, 0.22 ± 4.59, 0.00 ± 0.01, -7.33 ± 2.32, -0.01 ± 0.64
203, 53.92 ± 13.16, -0.02 ± 4.75, 0.22 ± 4.59, 0.00 ± 0.01, -7.27 ± 2.43, -0.01 ± 0.79
190 (204-203) [l=291 cm] - K.
204, 0.00 ± 0.00, 0.00 ± 0.00, -52.60 ± 15.33, 39.30 ± 66.76, 6.51 ± 27.03, 0.00 ± 0.00
203, 0.00 ± 0.00, 0.00 ± 0.00, -52.60 ± 15.33, 39.30 ± 66.76, -146.72 ± 71.10, 0.00 ± 0.00
191 (205-206) [l=105 cm] - M.
205, 36.68 ± 5.36, -0.04 ± 0.38, 0.05 ± 1.03, 0.00 ± 0.00, -0.50 ± 1.41, -0.03 ± 0.20
206, -11.93 ± 5.36, -0.04 ± 0.38, 0.05 ± 1.03, 0.00 ± 0.00, -0.45 ± 2.11, 0.01 ± 0.20
192 (182-206) [l=223 cm] - K.
182, 45.18 ± 4.14, -0.21 ± 3.24, 19.28 ± 17.48, 0.61 ± 9.56, 47.75 ± 71.56, -0.75 ± 11.75
206, 43.93 ± 4.14, -0.21 ± 3.24, 15.77 ± 17.48, 0.61 ± 9.56, 86.89 ± 33.77, -0.29 ± 4.51
193 (206-207) [l=223 cm] - K.
206, 65.51 ± 2.82, -0.36 ± 5.55, -4.58 ± 20.32, 0.36 ± 5.46, 66.03 ± 38.36, -0.71 ± 10.85
207, 64.26 ± 2.82, -0.36 ± 5.55, -8.08 ± 20.32, 0.36 ± 5.46, 51.89 ± 7.94, 0.10 ± 1.56
194 (208-209) [l=105 cm] - M.
208, 36.70 ± 5.36, -0.04 ± 0.38, -0.06 ± 1.03, 0.00 ± 0.00, 0.51 ± 1.41, -0.03 ± 0.20
209, -11.92 ± 5.36, -0.04 ± 0.38, -0.06 ± 1.03, 0.00 ± 0.00, 0.45 ± 2.11, 0.01 ± 0.20
195 (207-209) [l=223 cm] - K.
207, 64.26 ± 2.82, 0.37 ± 5.55, 8.04 ± 20.32, -0.37 ± 5.46, 51.91 ± 7.93, 0.10 ± 1.56
209, 65.51 ± 2.82, 0.37 ± 5.55, 4.54 ± 20.32, -0.37 ± 5.46, 65.96 ± 38.35, -0.73 ± 10.85
196 (209-178) [l=223 cm] - K.
209, 43.92 ± 4.14, 0.21 ± 3.24, -15.82 ± 17.48, -0.63 ± 9.57, 86.83 ± 33.76, -0.30 ± 4.51
178, 45.17 ± 4.14, 0.21 ± 3.24, -19.32 ± 17.48, -0.63 ± 9.57, 47.56 ± 71.55, -0.77 ± 11.75
197 (210-211) [l=105 cm] - M.
210, 35.90 ± 1.73, -0.05 ± 0.38, 0.00 ± 1.03, 0.00 ± 0.00, -0.03 ± 0.59, -0.04 ± 0.20
211, -12.71 ± 1.73, -0.05 ± 0.38, 0.00 ± 1.03, 0.00 ± 0.00, -0.02 ± 1.54, 0.01 ± 0.20
198 (156-211) [l=223 cm] - K.
156, 45.08 ± 2.98, -0.24 ± 6.76, 20.17 ± 16.95, 0.71 ± 19.94, 46.34 ± 66.76, -0.87 ± 24.49
211, 43.21 ± 2.98, -0.24 ± 6.76, 14.92 ± 16.95, 0.71 ± 19.94, 85.54 ± 30.12, -0.33 ± 9.39
199 (211-212) [l=223 cm] - K.
211, 62.68 ± 2.55, -0.44 ± 11.58, -5.52 ± 16.92, 0.44 ± 11.38, 66.62 ± 32.06, -0.87 ± 22.61
212, 60.80 ± 2.55, -0.44 ± 11.58, -10.77 ± 16.92, 0.44 ± 11.38, 48.43 ± 6.66, 0.13 ± 3.25
200 (213-214) [l=105 cm] - M.
213, 35.91 ± 1.73, -0.05 ± 0.38, 0.00 ± 1.03, 0.00 ± 0.00, 0.02 ± 0.59, -0.04 ± 0.20
214, -12.70 ± 1.73, -0.05 ± 0.38, 0.00 ± 1.03, 0.00 ± 0.00, 0.02 ± 1.54, 0.01 ± 0.20
201 (212-214) [l=223 cm] - K.
212, 60.81 ± 2.54, 0.38 ± 11.58, 10.71 ± 16.93, -0.37 ± 11.39, 48.44 ± 6.66, 0.11 ± 3.26
214, 62.68 ± 2.54, 0.38 ± 11.58, 5.46 ± 16.93, -0.37 ± 11.39, 66.51 ± 32.08, -0.73 ± 22.61
202 (214-204) [l=223 cm] - K.
214, 43.21 ± 2.99, 0.20 ± 6.76, -14.96 ± 16.96, -0.59 ± 19.93, 85.44 ± 30.15, -0.28 ± 9.40
204, 45.08 ± 2.99, 0.20 ± 6.76, -20.22 ± 16.96, -0.59 ± 19.93, 46.15 ± 66.78, -0.73 ± 24.49
203 (215-216) [l=500 cm] - M.
215, 132.39 ± 8.58, -0.17 ± 0.54, 0.00 ± 16.96, 0.00 ± 0.04, -0.01 ± 42.49, -0.59 ± 1.25
216, -21.94 ± 8.58, -0.17 ± 0.54, 0.00 ± 16.96, 0.00 ± 0.04, 0.01 ± 42.34, 0.28 ± 1.43
204 (136-216) [l=140 cm] - K.
136, 0.00 ± 0.00, 0.00 ± 0.00, 68.86 ± 62.85, 1.23 ± 502.40, -379.70 ± 214.64, 0.00 ± 0.00
216, 0.00 ± 0.00, 0.00 ± 0.00, 68.86 ± 62.85, 1.23 ± 502.40, -283.09 ± 130.20, 0.00 ± 0.00
205 (218-219) [l=500 cm] - M.
218, 132.40 ± 7.45, -0.17 ± 0.52, 0.00 ± 16.96, 0.00 ± 0.04, 0.00 ± 42.48, -0.59 ± 1.22
219, -21.93 ± 7.45, -0.17 ± 0.52, 0.00 ± 16.96, 0.00 ± 0.04, 0.00 ± 42.34, 0.28 ± 1.40
206 (217-219) [l=140 cm] - K.
217, 0.00 ± 0.00, 0.00 ± 0.00, 11.02 ± 62.96, 0.90 ± 501.77, -242.38 ± 73.12, 0.00 ± 0.00
219, 0.00 ± 0.00, 0.00 ± 0.00, 11.02 ± 62.96, 0.90 ± 501.77, -226.92 ± 22.82, 0.00 ± 0.00
207 (219-220) [l=140 cm] - K.
219, 0.00 ± 0.00, 0.00 ± 0.00, -10.90 ± 62.96, 0.62 ± 501.77, -226.91 ± 22.84, 0.00 ± 0.00
220, 0.00 ± 0.00, 0.00 ± 0.00, -10.90 ± 62.96, 0.62 ± 501.77, -242.21 ± 73.12, 0.00 ± 0.00
208 (221-222) [l=500 cm] - M.
221, 132.40 ± 8.58, -0.17 ± 0.54, 0.00 ± 16.96, 0.00 ± 0.04, 0.00 ± 42.48, -0.59 ± 1.25
222, -21.92 ± 8.58, -0.17 ± 0.54, 0.00 ± 16.96, 0.00 ± 0.04, 0.00 ± 42.33, 0.28 ± 1.43
209 (222-4) [l=140 cm] - K.
222, 0.00 ± 0.00, 0.00 ± 0.00, -68.73 ± 62.85, 0.35 ± 502.27, -282.71 ± 130.20, 0.00 ± 0.00
4, 0.00 ± 0.00, 0.00 ± 0.00, -68.73 ± 62.85, 0.35 ± 502.27, -379.14 ± 214.64, 0.00 ± 0.00
210 (3-8) [l=227 cm] - Z.
3, 0.00 ± 0.00, 0.00 ± 0.00, -53.56 ± 5.81, -0.16 ± 0.50, 18.91 ± 4.84, 0.00 ± 0.00
8, 0.00 ± 0.00, 0.00 ± 0.00, 57.94 ± 4.51, -0.16 ± 0.50, 23.90 ± 3.68, 0.00 ± 0.00
211 (224-225) [l=226 cm] - Z.
224, 0.00 ± 0.00, 0.00 ± 0.00, -48.39 ± 7.08, -0.95 ± 0.03, 10.44 ± 6.97, 0.00 ± 0.00
225, 0.00 ± 0.00, 0.00 ± 0.00, 62.32 ± 7.20, -0.95 ± 0.03, 26.12 ± 7.17, 0.00 ± 0.00
212 (20-24) [l=227 cm] - Z.
20, 0.00 ± 0.00, 0.00 ± 0.00, -45.10 ± 3.46, -1.31 ± 0.49, 19.15 ± 3.06, 0.00 ± 0.00
24, 0.00 ± 0.00, 0.00 ± 0.00, 66.48 ± 5.13, -1.31 ± 0.49, 43.45 ± 3.51, 0.00 ± 0.00
213 (228-229) [l=227 cm] - Z.
228, 0.00 ± 0.00, 0.00 ± 0.00, -70.50 ± 5.64, -0.56 ± 0.04, 18.27 ± 4.48, 0.00 ± 0.00
229, 0.00 ± 0.00, 0.00 ± 0.00, 35.01 ± 4.19, -0.56 ± 0.04, -21.78 ± 4.07, 0.00 ± 0.00
214 (42-46) [l=227 cm] - Z.
42, 0.00 ± 0.00, 0.00 ± 0.00, -58.64 ± 4.83, 1.43 ± 0.40, 28.86 ± 2.83, 0.00 ± 0.00

46, 0.00 ± 0.00, 0.00 ± 0.00, 52.91 ± 3.72, 1.43 ± 0.40, 22.37 ± 3.10, 0.00 ± 0.00
 215 (232-233) [l=227 cm] - Z.
 232, 0.00 ± 0.00, 0.00 ± 0.00, -57.55 ± 7.65, 0.89 ± 0.04, 20.31 ± 7.68, 0.00 ± 0.00
 233, 0.00 ± 0.00, 0.00 ± 0.00, 52.84 ± 7.31, 0.89 ± 0.04, 15.01 ± 7.27, 0.00 ± 0.00
 216 (67-71) [l=227 cm] - Z.
 67, 0.00 ± 0.00, 0.00 ± 0.00, -55.72 ± 6.82, 0.00 ± 0.31, 19.49 ± 7.61, 0.00 ± 0.00
 71, 0.00 ± 0.00, 0.00 ± 0.00, 55.70 ± 6.82, 0.00 ± 0.31, 19.48 ± 7.61, 0.00 ± 0.00
 217 (76-80) [l=227 cm] - Z.
 76, 0.00 ± 0.00, 0.00 ± 0.00, -53.14 ± 4.94, -0.04 ± 0.39, 18.45 ± 4.25, 0.00 ± 0.00
 80, 0.00 ± 0.00, 0.00 ± 0.00, 58.26 ± 4.68, -0.04 ± 0.39, 24.29 ± 3.79, 0.00 ± 0.00
 218 (236-237) [l=227 cm] - Z.
 236, 0.00 ± 0.00, 0.00 ± 0.00, -52.84 ± 7.31, -0.89 ± 0.04, 15.01 ± 7.27, 0.00 ± 0.00
 237, 0.00 ± 0.00, 0.00 ± 0.00, 57.55 ± 7.65, -0.89 ± 0.04, 20.31 ± 7.68, 0.00 ± 0.00
 219 (92-96) [l=227 cm] - Z.
 92, 0.00 ± 0.00, 0.00 ± 0.00, -52.91 ± 3.72, -1.43 ± 0.40, 22.37 ± 3.10, 0.00 ± 0.00
 96, 0.00 ± 0.00, 0.00 ± 0.00, 58.64 ± 4.83, -1.43 ± 0.40, 28.86 ± 2.83, 0.00 ± 0.00
 220 (240-241) [l=227 cm] - Z.
 240, 0.00 ± 0.00, 0.00 ± 0.00, -35.01 ± 4.19, 0.56 ± 0.04, -21.78 ± 4.07, 0.00 ± 0.00
 241, 0.00 ± 0.00, 0.00 ± 0.00, 70.50 ± 5.64, 0.56 ± 0.04, 18.27 ± 4.48, 0.00 ± 0.00
 221 (114-118) [l=227 cm] - Z.
 114, 0.00 ± 0.00, 0.00 ± 0.00, -66.48 ± 5.13, 1.31 ± 0.49, 43.45 ± 3.51, 0.00 ± 0.00
 118, 0.00 ± 0.00, 0.00 ± 0.00, 45.10 ± 3.46, 1.31 ± 0.49, 19.15 ± 3.06, 0.00 ± 0.00
 222 (244-245) [l=227 cm] - Z.
 244, 0.00 ± 0.00, 0.00 ± 0.00, -62.36 ± 7.19, 0.95 ± 0.03, 26.16 ± 7.17, 0.00 ± 0.00
 245, 0.00 ± 0.00, 0.00 ± 0.00, 48.40 ± 7.07, 0.95 ± 0.03, 10.44 ± 6.97, 0.00 ± 0.00
 223 (130-134) [l=227 cm] - Z.
 130, 0.00 ± 0.00, 0.00 ± 0.00, -57.94 ± 4.51, 0.16 ± 0.50, 23.90 ± 3.68, 0.00 ± 0.00
 134, 0.00 ± 0.00, 0.00 ± 0.00, 53.56 ± 5.81, 0.16 ± 0.50, 18.90 ± 4.84, 0.00 ± 0.00
 224 (247-248) [l=447 cm] - T.
 247, 39.16 ± 4.90, 0.00 ± 0.00, 11.32 ± 0.04, 0.00 ± 0.00, -8.85 ± 0.09, 0.00 ± 0.00
 248, 31.29 ± 4.90, 0.00 ± 0.00, -10.76 ± 0.04, 0.00 ± 0.00, -7.59 ± 0.09, 0.00 ± 0.00
 225 (248-249) [l=447 cm] - T.
 248, 31.29 ± 4.90, 0.00 ± 0.00, 10.76 ± 0.04, 0.00 ± 0.00, -7.59 ± 0.09, 0.00 ± 0.00
 249, 39.16 ± 4.90, 0.00 ± 0.00, -11.32 ± 0.04, 0.00 ± 0.00, -8.85 ± 0.09, 0.00 ± 0.00
 226 (250-251) [l=447 cm] - T.
 250, 31.55 ± 3.80, 0.00 ± 0.00, 10.64 ± 0.03, 0.00 ± 0.00, -7.50 ± 0.07, 0.00 ± 0.00
 251, 39.33 ± 3.80, 0.00 ± 0.00, -11.21 ± 0.03, 0.00 ± 0.00, -8.77 ± 0.07, 0.00 ± 0.00
 227 (252-250) [l=447 cm] - T.
 252, 39.33 ± 3.80, 0.00 ± 0.00, 11.21 ± 0.03, 0.00 ± 0.00, -8.77 ± 0.07, 0.00 ± 0.00
 250, 31.55 ± 3.80, 0.00 ± 0.00, -10.64 ± 0.03, 0.00 ± 0.00, -7.50 ± 0.07, 0.00 ± 0.00
 228 (253-254) [l=447 cm] - T.
 253, 31.55 ± 2.71, 0.00 ± 0.00, 10.64 ± 0.02, 0.00 ± 0.00, -7.50 ± 0.05, 0.00 ± 0.00
 254, 39.33 ± 2.71, 0.00 ± 0.00, -11.21 ± 0.02, 0.00 ± 0.00, -8.77 ± 0.05, 0.00 ± 0.00
 229 (255-253) [l=447 cm] - T.
 255, 39.33 ± 2.71, 0.00 ± 0.00, 11.21 ± 0.02, 0.00 ± 0.00, -8.77 ± 0.05, 0.00 ± 0.00
 253, 31.55 ± 2.71, 0.00 ± 0.00, -10.64 ± 0.02, 0.00 ± 0.00, -7.50 ± 0.05, 0.00 ± 0.00
 230 (256-257) [l=447 cm] - T.
 256, 31.35 ± 1.63, 0.00 ± 0.00, 10.60 ± 0.01, 0.00 ± 0.00, -7.48 ± 0.03, 0.00 ± 0.00
 257, 39.10 ± 1.63, 0.00 ± 0.00, -11.17 ± 0.01, 0.00 ± 0.00, -8.74 ± 0.03, 0.00 ± 0.00
 231 (258-256) [l=447 cm] - T.
 258, 39.11 ± 1.63, 0.00 ± 0.00, 11.17 ± 0.01, 0.00 ± 0.00, -8.74 ± 0.03, 0.00 ± 0.00
 256, 31.35 ± 1.63, 0.00 ± 0.00, -10.61 ± 0.01, 0.00 ± 0.00, -7.48 ± 0.03, 0.00 ± 0.00
 232 (259-260) [l=192 cm] - T.
 259, 35.29 ± 1.05, 0.00 ± 0.00, 6.14 ± 0.12, 0.00 ± 0.00, -4.12 ± 0.14, 0.00 ± 0.00
 260, 32.83 ± 1.05, 0.00 ± 0.00, -0.76 ± 0.12, 0.00 ± 0.00, 1.05 ± 0.09, 0.00 ± 0.00
 233 (261-262) [l=447 cm] - T.
 261, 40.92 ± 1.63, 0.00 ± 0.00, 11.69 ± 0.01, 0.00 ± 0.00, -9.14 ± 0.03, 0.00 ± 0.00
 262, 32.80 ± 1.63, 0.00 ± 0.00, -11.10 ± 0.01, 0.00 ± 0.00, -7.82 ± 0.03, 0.00 ± 0.00
 234 (262-263) [l=447 cm] - T.
 262, 32.80 ± 1.63, 0.00 ± 0.00, 11.10 ± 0.01, 0.00 ± 0.00, -7.82 ± 0.03, 0.00 ± 0.00
 263, 40.92 ± 1.63, 0.00 ± 0.00, -11.69 ± 0.01, 0.00 ± 0.00, -9.14 ± 0.03, 0.00 ± 0.00
 235 (264-265) [l=447 cm] - T.
 264, 39.36 ± 2.71, 0.00 ± 0.00, 11.21 ± 0.02, 0.00 ± 0.00, -8.77 ± 0.05, 0.00 ± 0.00
 265, 31.58 ± 2.71, 0.00 ± 0.00, -10.64 ± 0.02, 0.00 ± 0.00, -7.50 ± 0.05, 0.00 ± 0.00
 236 (265-266) [l=447 cm] - T.
 265, 31.58 ± 2.71, 0.00 ± 0.00, 10.64 ± 0.02, 0.00 ± 0.00, -7.50 ± 0.05, 0.00 ± 0.00
 266, 39.36 ± 2.71, 0.00 ± 0.00, -11.21 ± 0.02, 0.00 ± 0.00, -8.77 ± 0.05, 0.00 ± 0.00
 237 (267-268) [l=447 cm] - T.
 267, 39.22 ± 4.00, 0.00 ± 0.00, 11.21 ± 0.03, 0.00 ± 0.00, -8.77 ± 0.07, 0.00 ± 0.00
 268, 31.44 ± 4.00, 0.00 ± 0.00, -10.64 ± 0.03, 0.00 ± 0.00, -7.50 ± 0.07, 0.00 ± 0.00
 238 (268-269) [l=447 cm] - T.
 268, 31.44 ± 4.00, 0.00 ± 0.00, 10.64 ± 0.03, 0.00 ± 0.00, -7.50 ± 0.07, 0.00 ± 0.00
 269, 39.22 ± 4.00, 0.00 ± 0.00, -11.21 ± 0.03, 0.00 ± 0.00, -8.77 ± 0.07, 0.00 ± 0.00
 239 (270-271) [l=447 cm] - T.
 270, 26.70 ± 5.62, 0.00 ± 0.00, 9.05 ± 0.05, 0.00 ± 0.00, -6.38 ± 0.10, 0.00 ± 0.00
 271, 33.33 ± 5.62, 0.00 ± 0.00, -9.53 ± 0.05, 0.00 ± 0.00, -7.46 ± 0.10, 0.00 ± 0.00
 240 (272-270) [l=447 cm] - T.
 272, 33.33 ± 5.62, 0.00 ± 0.00, 9.53 ± 0.05, 0.00 ± 0.00, -7.46 ± 0.10, 0.00 ± 0.00
 270, 26.70 ± 5.62, 0.00 ± 0.00, -9.05 ± 0.05, 0.00 ± 0.00, -6.38 ± 0.10, 0.00 ± 0.00
 241 (212-248) [l=395 cm] - T.
 212, -0.40 ± 0.06, 0.00 ± 0.00, 1.04 ± 0.06, 0.00 ± 0.00, -1.25 ± 0.12, 0.00 ± 0.00
 248, -0.40 ± 0.06, 0.00 ± 0.00, -0.18 ± 0.06, 0.00 ± 0.00, 0.45 ± 0.12, 0.00 ± 0.00
 242 (248-250) [l=370 cm] - T.
 248, 0.13 ± 0.12, 0.00 ± 0.00, 0.57 ± 0.02, 0.00 ± 0.00, -0.35 ± 0.03, 0.00 ± 0.00
 250, 0.13 ± 0.12, 0.00 ± 0.00, -0.57 ± 0.02, 0.00 ± 0.00, -0.35 ± 0.03, 0.00 ± 0.00
 243 (250-253) [l=370 cm] - T.

250, 0.13 ± 0.09, 0.00 ± 0.00, 0.57 ± 0.01, 0.00 ± 0.00, -0.35 ± 0.03, 0.00 ± 0.00
 253, 0.13 ± 0.09, 0.00 ± 0.00, -0.57 ± 0.01, 0.00 ± 0.00, -0.35 ± 0.03, 0.00 ± 0.00
 244 (253-256) [l=370 cm] - T.
 253, 0.12 ± 0.06, 0.00 ± 0.00, 0.56 ± 0.01, 0.00 ± 0.00, -0.34 ± 0.02, 0.00 ± 0.00
 256, 0.12 ± 0.06, 0.00 ± 0.00, -0.57 ± 0.01, 0.00 ± 0.00, -0.36 ± 0.02, 0.00 ± 0.00
 245 (256-273) [l=368 cm] - T.
 256, 0.03 ± 0.02, 0.00 ± 0.00, 0.49 ± 0.02, 0.00 ± 0.00, -0.22 ± 0.03, 0.00 ± 0.00
 273, 0.03 ± 0.02, 0.00 ± 0.00, -0.63 ± 0.02, 0.00 ± 0.00, -0.48 ± 0.03, 0.00 ± 0.00
 246 (273-274) [l=330 cm] - T.
 273, -0.05 ± 0.01, 0.00 ± 0.00, 0.54 ± 0.01, 0.00 ± 0.00, -0.34 ± 0.02, 0.00 ± 0.00
 274, -0.05 ± 0.01, 0.00 ± 0.00, -0.47 ± 0.01, 0.00 ± 0.00, -0.22 ± 0.02, 0.00 ± 0.00
 247 (274-262) [l=402 cm] - T.
 274, 0.16 ± 0.04, 0.00 ± 0.00, 0.67 ± 0.01, 0.00 ± 0.00, -0.52 ± 0.03, 0.00 ± 0.00
 262, 0.16 ± 0.04, 0.00 ± 0.00, -0.56 ± 0.01, 0.00 ± 0.00, -0.31 ± 0.03, 0.00 ± 0.00
 248 (265-262) [l=370 cm] - T.
 265, 0.17 ± 0.07, 0.00 ± 0.00, 0.59 ± 0.02, 0.00 ± 0.00, -0.38 ± 0.03, 0.00 ± 0.00
 262, 0.17 ± 0.07, 0.00 ± 0.00, -0.55 ± 0.02, 0.00 ± 0.00, -0.32 ± 0.03, 0.00 ± 0.00
 249 (268-265) [l=370 cm] - T.
 268, 0.15 ± 0.10, 0.00 ± 0.00, 0.57 ± 0.02, 0.00 ± 0.00, -0.35 ± 0.04, 0.00 ± 0.00
 265, 0.15 ± 0.10, 0.00 ± 0.00, -0.57 ± 0.02, 0.00 ± 0.00, -0.35 ± 0.04, 0.00 ± 0.00
 250 (275-270) [l=395 cm] - T.
 275, -0.48 ± 0.08, 0.00 ± 0.00, 0.97 ± 0.07, 0.00 ± 0.00, -1.12 ± 0.14, 0.00 ± 0.00
 270, -0.48 ± 0.08, 0.00 ± 0.00, -0.24 ± 0.07, 0.00 ± 0.00, 0.32 ± 0.14, 0.00 ± 0.00
 251 (270-268) [l=370 cm] - T.
 270, 0.06 ± 0.12, 0.00 ± 0.00, 0.64 ± 0.07, 0.00 ± 0.00, -0.49 ± 0.13, 0.00 ± 0.00
 268, 0.06 ± 0.12, 0.00 ± 0.00, -0.49 ± 0.07, 0.00 ± 0.00, -0.21 ± 0.13, 0.00 ± 0.00
 252 (277-278) [l=447 cm] - T.
 277, 4.53 ± 0.00, 0.00 ± 0.00, 12.71 ± 0.00, 0.00 ± 0.00, -9.47 ± 0.00, 0.00 ± 0.00
 278, -4.53 ± 0.00, 0.00 ± 0.00, -12.71 ± 0.00, 0.00 ± 0.00, -9.47 ± 0.00, 0.00 ± 0.00
 253 (279-278) [l=447 cm] - T.
 279, 4.53 ± 0.00, 0.00 ± 0.00, 12.71 ± 0.00, 0.00 ± 0.00, -9.47 ± 0.00, 0.00 ± 0.00
 278, -4.53 ± 0.00, 0.00 ± 0.00, -12.71 ± 0.00, 0.00 ± 0.00, -9.47 ± 0.00, 0.00 ± 0.00
 254 (280-281) [l=447 cm] - T.
 280, 3.28 ± 0.00, 0.00 ± 0.00, 9.21 ± 0.00, 0.00 ± 0.00, -6.86 ± 0.00, 0.00 ± 0.00
 281, -3.28 ± 0.00, 0.00 ± 0.00, -9.21 ± 0.00, 0.00 ± 0.00, -6.86 ± 0.00, 0.00 ± 0.00
 255 (276-281) [l=447 cm] - T.
 276, 3.28 ± 0.00, 0.00 ± 0.00, 9.21 ± 0.00, 0.00 ± 0.00, -6.86 ± 0.00, 0.00 ± 0.00
 281, -3.28 ± 0.00, 0.00 ± 0.00, -9.21 ± 0.00, 0.00 ± 0.00, -6.86 ± 0.00, 0.00 ± 0.00
 256 (282-j'-283) [l=181 cm][173 def.-8 rig.] [in j': N=Nxy,Nxz] - T.
 282, -1.01 ± 0.14, -0.05 ± 0.05, -1.31 ± 0.04, 0.00 ± 0.00, 1.86 ± 0.04, -0.04 ± 0.04
 j', -1.01 ± 0.14, -1.01 ± 0.14, -0.05 ± 0.05, -3.83 ± 0.04, 0.00 ± 0.00, -2.58 ± 0.04, 0.04 ± 0.04
 283, -1.01 ± 0.14, -0.05 ± 0.05, -3.94 ± 0.04, 0.00 ± 0.00, -2.89 ± 0.04, 0.05 ± 0.04
 257 (283-i'-j'-284) [l=140 cm][8 rig.-124 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 283, 0.58 ± 0.06, -0.02 ± 0.02, -2.06 ± 0.05, 0.00 ± 0.00, 1.89 ± 0.04, -0.01 ± 0.01
 i', 0.58 ± 0.06, 0.58 ± 0.06, -0.02 ± 0.02, -2.17 ± 0.05, 0.00 ± 0.00, 1.72 ± 0.03, -0.01 ± 0.01
 j', 0.58 ± 0.06, 0.58 ± 0.06, -0.02 ± 0.02, -3.98 ± 0.05, 0.00 ± 0.00, -2.09 ± 0.03, 0.01 ± 0.01
 284, 0.58 ± 0.06, -0.02 ± 0.02, -4.09 ± 0.05, 0.00 ± 0.00, -2.42 ± 0.04, 0.01 ± 0.01
 258 (285-i'-j'-286) [l=140 cm][8 rig.-124 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 285, 0.58 ± 0.06, 0.02 ± 0.02, -2.06 ± 0.05, 0.00 ± 0.00, 1.89 ± 0.04, 0.01 ± 0.01
 i', 0.58 ± 0.06, 0.58 ± 0.06, 0.02 ± 0.02, -2.17 ± 0.05, 0.00 ± 0.00, 1.72 ± 0.03, 0.01 ± 0.01
 j', 0.58 ± 0.06, 0.58 ± 0.06, 0.02 ± 0.02, -3.98 ± 0.05, 0.00 ± 0.00, -2.09 ± 0.03, -0.01 ± 0.01
 286, 0.58 ± 0.06, 0.02 ± 0.02, -4.09 ± 0.05, 0.00 ± 0.00, -2.42 ± 0.04, -0.01 ± 0.01
 259 (287-j'-285) [l=181 cm][173 def.-8 rig.] [in j': N=Nxy,Nxz] - T.
 287, -1.01 ± 0.14, 0.05 ± 0.05, -1.31 ± 0.04, 0.00 ± 0.00, 1.86 ± 0.04, 0.04 ± 0.04
 j', -1.01 ± 0.14, -1.01 ± 0.14, 0.05 ± 0.05, -3.83 ± 0.04, 0.00 ± 0.00, -2.58 ± 0.04, -0.04 ± 0.04
 285, -1.01 ± 0.14, 0.05 ± 0.05, -3.94 ± 0.04, 0.00 ± 0.00, -2.89 ± 0.04, -0.05 ± 0.04
 260 (286-i'-j'-284) [l=200 cm][8 rig.-184 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 286, 1.16 ± 0.00, 0.00 ± 0.00, 1.46 ± 0.04, 0.00 ± 0.00, -0.52 ± 0.04, 0.00 ± 0.00
 i', 1.16 ± 0.00, 1.16 ± 0.00, 0.00 ± 0.00, 1.34 ± 0.04, 0.00 ± 0.00, -0.41 ± 0.04, 0.00 ± 0.00
 j', 1.16 ± 0.00, 1.16 ± 0.00, 0.00 ± 0.00, -1.34 ± 0.04, 0.00 ± 0.00, -0.41 ± 0.04, 0.00 ± 0.00
 284, 1.16 ± 0.00, 0.00 ± 0.00, -1.46 ± 0.04, 0.00 ± 0.00, -0.52 ± 0.04, 0.00 ± 0.00
 261 (288-273) [l=106 cm] - T.
 288, 25.09 ± 0.34, 0.01 ± 0.00, -4.01 ± 0.41, 0.00 ± 0.00, 3.05 ± 0.23, 0.00 ± 0.00
 273, 23.73 ± 0.34, 0.01 ± 0.00, -7.82 ± 0.41, 0.00 ± 0.00, -3.23 ± 0.20, 0.00 ± 0.00
 262 (260-288) [l=149 cm] - T.
 260, 31.55 ± 0.55, 0.01 ± 0.00, -0.30 ± 0.35, 0.00 ± 0.00, 1.92 ± 0.29, 0.01 ± 0.00
 288, 29.65 ± 0.55, 0.01 ± 0.00, -5.64 ± 0.35, 0.00 ± 0.00, -2.49 ± 0.23, -0.01 ± 0.00
 263 (289-290) [l=192 cm] - T.
 289, 35.29 ± 1.05, 0.00 ± 0.00, 6.14 ± 0.12, 0.00 ± 0.00, -4.12 ± 0.14, 0.00 ± 0.00
 290, 32.83 ± 1.05, 0.00 ± 0.00, -0.76 ± 0.12, 0.00 ± 0.00, 1.05 ± 0.09, 0.00 ± 0.00
 264 (290-291) [l=149 cm] - T.
 290, 31.55 ± 0.55, -0.01 ± 0.00, -0.30 ± 0.35, 0.00 ± 0.00, 1.92 ± 0.29, -0.01 ± 0.00
 291, 29.65 ± 0.55, -0.01 ± 0.00, -5.64 ± 0.35, 0.00 ± 0.00, -2.49 ± 0.23, 0.01 ± 0.00
 265 (291-273) [l=106 cm] - T.
 291, 25.09 ± 0.34, -0.01 ± 0.00, -4.01 ± 0.41, 0.00 ± 0.00, 3.05 ± 0.23, 0.00 ± 0.00
 273, 23.73 ± 0.34, -0.01 ± 0.00, -7.82 ± 0.41, 0.00 ± 0.00, -3.23 ± 0.20, 0.00 ± 0.00
 266 (292-i'-j'-293) [l=140 cm][8 rig.-124 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 292, 0.60 ± 0.05, 0.03 ± 0.02, -2.11 ± 0.06, 0.00 ± 0.00, 1.93 ± 0.04, 0.02 ± 0.01
 i', 0.60 ± 0.05, 0.60 ± 0.05, 0.03 ± 0.02, -2.23 ± 0.06, 0.00 ± 0.00, 1.75 ± 0.03, 0.02 ± 0.01
 j', 0.60 ± 0.05, 0.60 ± 0.05, 0.03 ± 0.02, -4.03 ± 0.06, 0.00 ± 0.00, -2.13 ± 0.03, -0.02 ± 0.01
 293, 0.60 ± 0.05, 0.03 ± 0.02, -4.15 ± 0.06, 0.00 ± 0.00, -2.45 ± 0.04, -0.02 ± 0.01
 267 (294-j'-292) [l=181 cm][173 def.-8 rig.] [in j': N=Nxy,Nxz] - T.
 294, -1.04 ± 0.13, 0.07 ± 0.05, -1.42 ± 0.05, 0.01 ± 0.00, 1.95 ± 0.04, 0.06 ± 0.04
 j', -1.04 ± 0.13, -1.04 ± 0.13, 0.07 ± 0.05, -3.93 ± 0.05, 0.01 ± 0.00, -2.67 ± 0.04, -0.06 ± 0.04
 292, -1.04 ± 0.13, 0.07 ± 0.05, -4.05 ± 0.05, 0.01 ± 0.00, -2.99 ± 0.04, -0.06 ± 0.04
 268 (295-i'-j'-293) [l=200 cm][8 rig.-184 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.

295, 1.20 ± 0.00, 0.00 ± 0.00, 1.45 ± 0.04, 0.00 ± 0.00, -0.52 ± 0.04, 0.00 ± 0.00
 i', 1.20 ± 0.00, 1.20 ± 0.00, 0.00 ± 0.00, 1.34 ± 0.04, 0.00 ± 0.00, -0.41 ± 0.04, 0.00 ± 0.00
 j', 1.20 ± 0.00, 1.20 ± 0.00, 0.00 ± 0.00, -1.34 ± 0.04, 0.00 ± 0.00, -0.41 ± 0.04, 0.00 ± 0.00
 293, 1.20 ± 0.00, 0.00 ± 0.00, -1.45 ± 0.04, 0.00 ± 0.00, -0.52 ± 0.04, 0.00 ± 0.00
 269 (296-297) [l=149 cm] - T.
 296, 33.38 ± 0.54, 0.01 ± 0.00, -0.32 ± 0.33, 0.00 ± 0.00, 2.05 ± 0.28, 0.01 ± 0.00
 297, 31.35 ± 0.54, 0.01 ± 0.00, -6.00 ± 0.33, 0.00 ± 0.00, -2.65 ± 0.22, -0.01 ± 0.00
 270 (298-296) [l=192 cm] - T.
 298, 37.36 ± 1.01, 0.00 ± 0.00, 6.52 ± 0.11, 0.00 ± 0.00, -4.37 ± 0.13, 0.00 ± 0.00
 296, 34.75 ± 1.01, 0.00 ± 0.00, -0.81 ± 0.11, 0.00 ± 0.00, 1.11 ± 0.08, 0.00 ± 0.00
 271 (297-274) [l=106 cm] - T.
 297, 26.50 ± 0.33, -0.01 ± 0.00, -4.26 ± 0.40, 0.00 ± 0.00, 3.24 ± 0.22, 0.00 ± 0.00
 274, 25.06 ± 0.33, -0.01 ± 0.00, -8.31 ± 0.40, 0.00 ± 0.00, -3.43 ± 0.20, 0.00 ± 0.00
 272 (299-274) [l=106 cm] - T.
 299, 26.50 ± 0.33, 0.01 ± 0.00, -4.26 ± 0.40, 0.00 ± 0.00, 3.24 ± 0.22, 0.00 ± 0.00
 274, 25.06 ± 0.33, 0.01 ± 0.00, -8.32 ± 0.40, 0.00 ± 0.00, -3.43 ± 0.20, 0.00 ± 0.00
 273 (300-299) [l=149 cm] - T.
 300, 33.38 ± 0.54, -0.01 ± 0.00, -0.32 ± 0.33, 0.00 ± 0.00, 2.05 ± 0.28, -0.01 ± 0.00
 299, 31.35 ± 0.54, -0.01 ± 0.00, -6.00 ± 0.33, 0.00 ± 0.00, -2.65 ± 0.22, 0.01 ± 0.00
 274 (301-300) [l=192 cm] - T.
 301, 37.36 ± 1.01, 0.00 ± 0.00, 6.52 ± 0.11, 0.00 ± 0.00, -4.37 ± 0.13, 0.00 ± 0.00
 300, 34.75 ± 1.01, 0.00 ± 0.00, -0.81 ± 0.11, 0.00 ± 0.00, 1.11 ± 0.08, 0.00 ± 0.00
 275 (302-i'-j'-295) [l=140 cm][8 rig.-124 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 302, 0.60 ± 0.05, -0.03 ± 0.02, -2.11 ± 0.06, 0.00 ± 0.00, 1.93 ± 0.04, -0.02 ± 0.03
 i', 0.60 ± 0.05, 0.60 ± 0.05, -0.03 ± 0.02, -2.23 ± 0.06, 0.00 ± 0.00, 1.75 ± 0.03, -0.02 ± 0.01
 j', 0.60 ± 0.05, 0.60 ± 0.05, -0.03 ± 0.02, -4.03 ± 0.06, 0.00 ± 0.00, -2.13 ± 0.03, 0.02 ± 0.01
 295, 0.60 ± 0.05, -0.03 ± 0.02, -4.15 ± 0.06, 0.00 ± 0.00, -2.45 ± 0.04, 0.02 ± 0.01
 276 (303-j'-302) [l=181 cm][173 def.-8 rig.] [in j': N=Nxy,Nxz] - T.
 303, -1.04 ± 0.13, -0.07 ± 0.05, -1.42 ± 0.05, -0.01 ± 0.00, 1.95 ± 0.04, -0.06 ± 0.04
 j', -1.04 ± 0.13, -1.04 ± 0.13, -0.07 ± 0.05, -3.93 ± 0.05, -0.01 ± 0.00, -2.67 ± 0.04, 0.06 ± 0.04
 302, -1.04 ± 0.13, -0.07 ± 0.05, -4.05 ± 0.05, -0.01 ± 0.00, -2.99 ± 0.04, 0.06 ± 0.04
 277 (304-j'-305) [l=650 cm][226 def.-424 rig.] [in j': N=Nxy,Nxz] -
 304, 7.21 ± 0.03, 0.13 ± 0.05, -0.02 ± 0.01, 0.00 ± 0.00, 0.06 ± 0.02, 0.19 ± 0.06
 j', 6.63 ± 0.03, 6.63 ± 0.03, 0.13 ± 0.05, -0.02 ± 0.01, 0.00 ± 0.00, 0.01 ± 0.01, -0.10 ± 0.06
 305, 5.55 ± 0.03, 0.13 ± 0.05, -0.02 ± 0.01, 0.00 ± 0.00, -0.08 ± 0.07, -0.64 ± 0.29
 278 (306-j'-307) [l=600 cm][226 def.-374 rig.] [in j': N=Nxy,Nxz] -
 306, 3.42 ± 0.16, 0.23 ± 0.05, -0.03 ± 0.02, 0.00 ± 0.00, 0.06 ± 0.03, 0.34 ± 0.06
 j', 2.84 ± 0.16, 2.84 ± 0.16, 0.23 ± 0.05, -0.03 ± 0.02, 0.00 ± 0.00, 0.00 ± 0.02, -0.17 ± 0.06
 307, 1.88 ± 0.16, 0.23 ± 0.05, -0.03 ± 0.02, 0.00 ± 0.00, -0.10 ± 0.09, -1.03 ± 0.25
 279 (308-j'-309) [l=600 cm][226 def.-374 rig.] [in j': N=Nxy,Nxz] -
 308, 3.42 ± 0.16, 0.23 ± 0.05, 0.03 ± 0.02, 0.00 ± 0.00, -0.06 ± 0.03, 0.34 ± 0.06
 j', 2.84 ± 0.16, 2.84 ± 0.16, 0.23 ± 0.05, 0.03 ± 0.02, 0.00 ± 0.00, 0.00 ± 0.02, -0.17 ± 0.06
 309, 1.88 ± 0.16, 0.23 ± 0.05, 0.03 ± 0.02, 0.00 ± 0.00, 0.10 ± 0.09, -1.03 ± 0.25
 280 (310-j'-311) [l=650 cm][226 def.-424 rig.] [in j': N=Nxy,Nxz] -
 310, 7.21 ± 0.03, 0.13 ± 0.05, 0.02 ± 0.01, 0.00 ± 0.00, -0.06 ± 0.02, 0.19 ± 0.06
 j', 6.63 ± 0.03, 6.63 ± 0.03, 0.13 ± 0.05, 0.02 ± 0.01, 0.00 ± 0.00, -0.01 ± 0.01, -0.10 ± 0.06
 311, 5.55 ± 0.03, 0.13 ± 0.05, 0.02 ± 0.01, 0.00 ± 0.00, 0.08 ± 0.07, -0.64 ± 0.29
 281 (312-j'-313) [l=600 cm][226 def.-374 rig.] [in j': N=Nxy,Nxz] -
 312, 3.47 ± 0.16, 0.23 ± 0.05, 0.04 ± 0.02, 0.00 ± 0.00, -0.09 ± 0.03, 0.35 ± 0.06
 j', 2.90 ± 0.16, 2.90 ± 0.16, 0.23 ± 0.05, 0.04 ± 0.02, 0.00 ± 0.00, 0.00 ± 0.02, -0.18 ± 0.06
 313, 1.94 ± 0.16, 0.23 ± 0.05, 0.04 ± 0.02, 0.00 ± 0.00, 0.15 ± 0.09, -1.05 ± 0.25
 282 (314-j'-315) [l=650 cm][226 def.-424 rig.] [in j': N=Nxy,Nxz] -
 314, 7.26 ± 0.03, 0.13 ± 0.05, 0.03 ± 0.01, 0.00 ± 0.00, -0.08 ± 0.02, 0.19 ± 0.06
 j', 6.69 ± 0.03, 6.69 ± 0.03, 0.13 ± 0.05, 0.03 ± 0.01, 0.00 ± 0.00, -0.01 ± 0.01, -0.10 ± 0.06
 315, 5.60 ± 0.03, 0.13 ± 0.05, 0.03 ± 0.01, 0.00 ± 0.00, 0.11 ± 0.07, -0.65 ± 0.28
 283 (316-j'-317) [l=650 cm][226 def.-424 rig.] [in j': N=Nxy,Nxz] -
 316, 7.26 ± 0.03, 0.13 ± 0.05, -0.03 ± 0.01, 0.00 ± 0.00, 0.08 ± 0.02, 0.19 ± 0.06
 j', 6.69 ± 0.03, 6.69 ± 0.03, 0.13 ± 0.05, -0.03 ± 0.01, 0.00 ± 0.00, 0.01 ± 0.01, -0.10 ± 0.06
 317, 5.60 ± 0.03, 0.13 ± 0.05, -0.03 ± 0.01, 0.00 ± 0.00, -0.11 ± 0.07, -0.65 ± 0.28
 284 (318-j'-319) [l=600 cm][226 def.-374 rig.] [in j': N=Nxy,Nxz] -
 318, 3.47 ± 0.16, 0.23 ± 0.05, -0.04 ± 0.02, 0.00 ± 0.00, 0.09 ± 0.03, 0.35 ± 0.06
 j', 2.90 ± 0.16, 2.90 ± 0.16, 0.23 ± 0.05, -0.04 ± 0.02, 0.00 ± 0.00, 0.00 ± 0.02, -0.18 ± 0.06
 319, 1.94 ± 0.16, 0.23 ± 0.05, -0.04 ± 0.02, 0.00 ± 0.00, -0.15 ± 0.09, -1.05 ± 0.25
 285 (320-148) [l=188 cm] - K.
 320, -4.93 ± 0.08, -0.09 ± 0.24, 0.00 ± 0.29, 0.00 ± 0.00, 0.00 ± 0.00, 1.64 ± 0.00
 148, -4.93 ± 0.08, -0.09 ± 0.24, 0.00 ± 0.29, 0.00 ± 0.00, 0.00 ± 0.54, 1.81 ± 0.45
 286 (321-151) [l=188 cm] - K.
 321, -4.93 ± 0.08, 0.09 ± 0.24, 0.00 ± 0.29, 0.00 ± 0.00, 0.00 ± 0.00, -1.64 ± 0.00
 151, -4.93 ± 0.08, 0.09 ± 0.24, 0.00 ± 0.29, 0.00 ± 0.00, 0.00 ± 0.54, -1.81 ± 0.45
 287 (320-321) [l=200 cm] - W_3117_24_-1_-1.
 320, 0.09 ± 0.00, 0.00 ± 0.00, 4.93 ± 0.00, 0.00 ± 0.00, -1.64 ± 0.00, 0.00 ± 0.00
 321, 0.09 ± 0.00, 0.00 ± 0.00, -4.93 ± 0.00, 0.00 ± 0.00, -1.64 ± 0.00, 0.00 ± 0.00
 288 (322-140) [l=188 cm] - K.
 322, -4.93 ± 0.08, 0.10 ± 0.24, 0.00 ± 0.29, 0.00 ± 0.00, 0.00 ± 0.00, -1.64 ± 0.00
 140, -4.93 ± 0.08, 0.10 ± 0.24, 0.00 ± 0.29, 0.00 ± 0.00, 0.00 ± 0.54, -1.83 ± 0.46
 289 (323-143) [l=188 cm] - K.
 323, -4.93 ± 0.08, -0.10 ± 0.24, 0.00 ± 0.29, 0.00 ± 0.00, 0.00 ± 0.00, 1.64 ± 0.00
 143, -4.93 ± 0.08, -0.10 ± 0.24, 0.00 ± 0.29, 0.00 ± 0.00, 0.00 ± 0.54, 1.83 ± 0.46
 290 (322-323) [l=200 cm] - W_3118_24_-1_-1.
 322, 0.10 ± 0.00, 0.00 ± 0.00, 4.93 ± 0.00, 0.00 ± 0.00, -1.64 ± 0.00, 0.00 ± 0.00
 323, 0.10 ± 0.00, 0.00 ± 0.00, -4.93 ± 0.00, 0.00 ± 0.00, -1.64 ± 0.00, 0.00 ± 0.00
 291 (98-139) [l=62 cm] - K.
 98, 185.29 ± 5.10, 28.16 ± 9.40, -0.25 ± 0.02, 0.00 ± 0.00, 2.03 ± 0.18, 228.29 ± 76.19
 139, 185.29 ± 5.10, 28.16 ± 9.40, -0.25 ± 0.02, 0.00 ± 0.00, 1.87 ± 0.17, 210.83 ± 70.36
 292 (276-156) [l=30 cm] - K.
 276, 18.42 ± 1.30, -0.43 ± 0.00, 0.35 ± 0.00, 0.00 ± 0.00, 5.58 ± 0.00, 6.73 ± 0.00

156, 18.42 ± 1.30, -0.43 ± 0.00, 0.35 ± 0.00, 0.00 ± 0.00, 5.69 ± 0.00, 6.86 ± 0.00
 293 (155-324) [l=30 cm] - K.
 155, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 324, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 294 (159-325) [l=30 cm] - K.
 159, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 325, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 295 (162-326) [l=30 cm] - K.
 162, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 326, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 296 (164-259) [l=0 cm] - K.
 164, 0.00 ± 0.00, 0.00 ± 0.00, 12.46 ± 4.75, -0.15 ± 34.55, -299.18 ± 4.54, 0.00 ± 0.00
 259, 0.00 ± 0.00, 0.00 ± 0.00, 12.46 ± 4.75, -0.15 ± 34.55, -299.15 ± 4.55, 0.00 ± 0.00
 297 (164-327) [l=30 cm] - K.
 164, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 327, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 298 (167-328) [l=30 cm] - K.
 167, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 328, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 299 (167-301) [l=0 cm] - K.
 167, 0.00 ± 0.00, 0.00 ± 0.00, 5.72 ± 4.49, 2.03 ± 34.73, -299.61 ± 12.81, 0.00 ± 0.00
 301, 0.00 ± 0.00, 0.00 ± 0.00, 5.72 ± 4.49, 2.03 ± 34.73, -299.60 ± 12.80, 0.00 ± 0.00
 300 (169-329) [l=30 cm] - K.
 169, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 329, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 301 (172-330) [l=30 cm] - K.
 172, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 330, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 302 (175-331) [l=30 cm] - K.
 175, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 331, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 303 (182-279) [l=30 cm] - K.
 182, 22.14 ± 1.57, -0.59 ± 0.00, -0.35 ± 0.00, 0.00 ± 0.00, 5.69 ± 0.00, -9.47 ± 0.00
 279, 22.14 ± 1.57, -0.59 ± 0.00, -0.35 ± 0.00, 0.00 ± 0.00, 5.59 ± 0.00, -9.29 ± 0.00
 304 (181-332) [l=30 cm] - K.
 181, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 332, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 305 (185-333) [l=30 cm] - K.
 185, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 333, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 306 (188-334) [l=30 cm] - K.
 188, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 334, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 307 (190-298) [l=0 cm] - K.
 190, 0.00 ± 0.00, 0.00 ± 0.00, 5.70 ± 4.49, -2.12 ± 34.73, -299.53 ± 12.81, 0.00 ± 0.00
 298, 0.00 ± 0.00, 0.00 ± 0.00, 5.70 ± 4.49, -2.12 ± 34.73, -299.52 ± 12.80, 0.00 ± 0.00
 308 (190-335) [l=30 cm] - K.
 190, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 335, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 309 (193-289) [l=0 cm] - K.
 193, 0.00 ± 0.00, 0.00 ± 0.00, 12.44 ± 4.75, 0.05 ± 34.56, -299.15 ± 4.55, 0.00 ± 0.00
 289, 0.00 ± 0.00, 0.00 ± 0.00, 12.44 ± 4.75, 0.05 ± 34.56, -299.12 ± 4.56, 0.00 ± 0.00
 310 (193-336) [l=30 cm] - K.
 193, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 336, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 311 (195-337) [l=30 cm] - K.
 195, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 337, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 312 (198-338) [l=30 cm] - K.
 198, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 338, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 313 (204-280) [l=30 cm] - K.
 204, 10.38 ± 17.11, -0.28 ± 913.21, 1.82 ± 49.81, 0.00 ± 0.00, 0.00 ± 0.02, -6.86 ± 0.01
 280, 10.38 ± 17.11, -0.28 ± 913.21, 1.82 ± 49.81, 0.00 ± 0.00, 0.54 ± 14.92, -6.77 ± 273.94
 314 (201-339) [l=30 cm] - K.
 201, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 339, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 315 (275-207) [l=0 cm] - K.
 275, -0.67 ± 5.82, 0.03 ± 175.04, 123.77 ± 4492.77, -0.02 ± 116.69, -0.51 ± 1.63, 0.00 ± 0.09
 207, -0.67 ± 5.82, 0.03 ± 175.04, 123.77 ± 4492.77, -0.02 ± 116.69, -0.39 ± 6.12, 0.00 ± 0.09
 316 (207-278) [l=30 cm] - K.
 207, 151.73 ± 4491.53, 0.02 ± 122.35, -0.10 ± 3.34, 0.00 ± 0.00, 0.17 ± 5.34, 0.03 ± 195.73
 278, 151.73 ± 4491.53, 0.02 ± 122.35, -0.10 ± 3.34, 0.00 ± 0.00, 0.13 ± 4.34, 0.02 ± 159.03
 317 (281-212) [l=30 cm] - K.
 281, 19.55 ± 1.10, -0.03 ± 215.57, 0.21 ± 5.88, 0.00 ± 0.00, -0.39 ± 10.58, -0.06 ± 388.01
 212, 19.55 ± 1.10, -0.03 ± 215.57, 0.21 ± 5.88, 0.00 ± 0.00, -0.32 ± 8.82, -0.05 ± 323.34
 318 (275-278) [l=30 cm] - K.
 275, -124.74 ± 4492.71, -0.05 ± 337.92, 0.28 ± 9.22, 0.00 ± 0.00, 0.11 ± 3.47, 0.02 ± 127.62
 278, -124.74 ± 4492.71, -0.05 ± 337.92, 0.28 ± 9.22, 0.00 ± 0.00, 0.19 ± 6.24, 0.04 ± 228.99
 319 (277-178) [l=30 cm] - K.
 277, 22.14 ± 1.57, -0.59 ± 0.00, -0.35 ± 0.00, 0.00 ± 0.00, -5.58 ± 0.00, 9.29 ± 0.00
 178, 22.14 ± 1.57, -0.59 ± 0.00, -0.35 ± 0.00, 0.00 ± 0.00, -5.69 ± 0.00, 9.47 ± 0.00
 320 (153-131) [l=115 cm] - K.
 153, 0.00 ± 0.00, 0.00 ± 0.00, -146.76 ± 51.59, 379.72 ± 213.12, -183.95 ± 333.77, 0.00 ± 0.00
 131, 0.00 ± 0.00, 0.00 ± 0.00, -146.76 ± 51.59, 379.72 ± 213.12, -352.14 ± 275.73, 0.00 ± 0.00
 321 (153-135) [l=112 cm] - K.

153, 0.00 ± 0.00, 0.00 ± 0.00, 73.64 ± 63.50, 379.70 ± 213.50, -191.29 ± 331.59, 0.00 ± 0.00
 135, 0.00 ± 0.00, 0.00 ± 0.00, 73.64 ± 63.50, 379.70 ± 213.50, -108.89 ± 400.35, 0.00 ± 0.00
 322 (157-123) [l=113 cm] - K.
 157, 0.00 ± 0.00, 0.00 ± 0.00, -209.82 ± 36.26, 379.97 ± 210.95, -940.06 ± 79.06, 0.00 ± 0.00
 123, 0.00 ± 0.00, 0.00 ± 0.00, -209.82 ± 36.26, 379.97 ± 210.95, -1177.78 ± 50.30, 0.00 ± 0.00
 323 (157-126) [l=113 cm] - K.
 157, 0.00 ± 0.00, 0.00 ± 0.00, 122.49 ± 42.56, 379.94 ± 211.37, -946.59 ± 76.63, 0.00 ± 0.00
 126, 0.00 ± 0.00, 0.00 ± 0.00, 122.49 ± 42.56, 379.94 ± 211.37, -807.93 ± 124.65, 0.00 ± 0.00
 324 (160-115) [l=171 cm] - K.
 160, 0.00 ± 0.00, 0.00 ± 0.00, -291.72 ± 23.19, 381.54 ± 208.78, -2059.58 ± 123.76, 0.00 ± 0.00
 115, 0.00 ± 0.00, 0.00 ± 0.00, -291.72 ± 23.19, 381.54 ± 208.78, -2557.56 ± 153.54, 0.00 ± 0.00
 325 (160-119) [l=56 cm] - K.
 160, 0.00 ± 0.00, 0.00 ± 0.00, 213.00 ± 24.81, 381.50 ± 209.15, -2061.95 ± 124.56, 0.00 ± 0.00
 119, 0.00 ± 0.00, 0.00 ± 0.00, 213.00 ± 24.81, 381.50 ± 209.15, -1943.09 ± 114.17, 0.00 ± 0.00
 326 (165-104) [l=113 cm] - K.
 165, 0.00 ± 0.00, 0.00 ± 0.00, -11.24 ± 15.30, 94.96 ± 127.93, -2692.41 ± 183.93, 0.00 ± 0.00
 104, 0.00 ± 0.00, 0.00 ± 0.00, -11.24 ± 15.30, 94.96 ± 127.93, -2705.12 ± 193.00, 0.00 ± 0.00
 327 (165-107) [l=113 cm] - K.
 165, 0.00 ± 0.00, 0.00 ± 0.00, -47.85 ± 14.95, 94.92 ± 128.21, -2692.41 ± 184.25, 0.00 ± 0.00
 107, 0.00 ± 0.00, 0.00 ± 0.00, -47.85 ± 14.95, 94.92 ± 128.21, -2746.67 ± 183.14, 0.00 ± 0.00
 328 (170-93) [l=33 cm] - K.
 170, 0.00 ± 0.00, 0.00 ± 0.00, 190.91 ± 9.29, -133.99 ± 50.10, -1976.23 ± 190.11, 0.00 ± 0.00
 93, 0.00 ± 0.00, 0.00 ± 0.00, 190.91 ± 9.29, -133.99 ± 50.10, -1912.66 ± 190.14, 0.00 ± 0.00
 329 (170-97) [l=193 cm] - K.
 170, 0.00 ± 0.00, 0.00 ± 0.00, -268.89 ± 11.08, -134.04 ± 50.53, -1974.04 ± 190.77, 0.00 ± 0.00
 97, 0.00 ± 0.00, 0.00 ± 0.00, -268.89 ± 11.08, -134.04 ± 50.53, -2493.53 ± 198.53, 0.00 ± 0.00
 330 (173-85) [l=113 cm] - K.
 173, 0.00 ± 0.00, 0.00 ± 0.00, 111.98 ± 10.35, -132.19 ± 47.47, -889.21 ± 133.51, 0.00 ± 0.00
 85, 0.00 ± 0.00, 0.00 ± 0.00, 111.98 ± 10.35, -132.19 ± 47.47, -762.46 ± 125.90, 0.00 ± 0.00
 331 (173-88) [l=113 cm] - K.
 173, 0.00 ± 0.00, 0.00 ± 0.00, -205.53 ± 18.53, -132.25 ± 48.09, -881.57 ± 134.70, 0.00 ± 0.00
 88, 0.00 ± 0.00, 0.00 ± 0.00, -205.53 ± 18.53, -132.25 ± 48.09, -1114.43 ± 150.45, 0.00 ± 0.00
 332 (176-77) [l=132 cm] - K.
 176, 0.00 ± 0.00, 0.00 ± 0.00, 65.70 ± 13.90, -131.77 ± 44.76, -164.85 ± 37.45, 0.00 ± 0.00
 77, 0.00 ± 0.00, 0.00 ± 0.00, 65.70 ± 13.90, -131.77 ± 44.76, -78.13 ± 26.09, 0.00 ± 0.00
 333 (176-81) [l=95 cm] - K.
 176, 0.00 ± 0.00, 0.00 ± 0.00, -139.14 ± 22.41, -131.81 ± 45.39, -157.87 ± 38.33, 0.00 ± 0.00
 81, 0.00 ± 0.00, 0.00 ± 0.00, -139.14 ± 22.41, -131.81 ± 45.39, -289.36 ± 58.99, 0.00 ± 0.00
 334 (179-59) [l=95 cm] - K.
 179, 0.00 ± 0.00, 0.00 ± 0.00, -139.11 ± 22.41, 131.73 ± 45.40, -157.85 ± 38.33, 0.00 ± 0.00
 59, 0.00 ± 0.00, 0.00 ± 0.00, -139.11 ± 22.41, 131.73 ± 45.40, -289.31 ± 58.99, 0.00 ± 0.00
 335 (179-63) [l=132 cm] - K.
 179, 0.00 ± 0.00, 0.00 ± 0.00, 65.69 ± 13.90, 131.68 ± 44.76, -164.83 ± 37.44, 0.00 ± 0.00
 63, 0.00 ± 0.00, 0.00 ± 0.00, 65.69 ± 13.90, 131.68 ± 44.76, -78.12 ± 26.09, 0.00 ± 0.00
 336 (183-51) [l=113 cm] - K.
 183, 0.00 ± 0.00, 0.00 ± 0.00, -205.47 ± 18.53, 132.17 ± 48.09, -881.32 ± 134.71, 0.00 ± 0.00
 51, 0.00 ± 0.00, 0.00 ± 0.00, -205.47 ± 18.53, 132.17 ± 48.09, -1114.12 ± 150.46, 0.00 ± 0.00
 337 (183-54) [l=113 cm] - K.
 183, 0.00 ± 0.00, 0.00 ± 0.00, 111.94 ± 10.35, 132.11 ± 47.47, -888.97 ± 133.51, 0.00 ± 0.00
 54, 0.00 ± 0.00, 0.00 ± 0.00, 111.94 ± 10.35, 132.11 ± 47.47, -762.26 ± 125.91, 0.00 ± 0.00
 338 (186-43) [l=193 cm] - K.
 186, 0.00 ± 0.00, 0.00 ± 0.00, -268.80 ± 11.08, 133.96 ± 50.54, -1973.27 ± 190.78, 0.00 ± 0.00
 43, 0.00 ± 0.00, 0.00 ± 0.00, -268.80 ± 11.08, 133.96 ± 50.54, -2492.87 ± 198.56, 0.00 ± 0.00
 339 (186-47) [l=33 cm] - K.
 186, 0.00 ± 0.00, 0.00 ± 0.00, 190.85 ± 9.29, 133.91 ± 50.11, -1975.47 ± 190.13, 0.00 ± 0.00
 47, 0.00 ± 0.00, 0.00 ± 0.00, 190.85 ± 9.29, 133.91 ± 50.11, -1912.11 ± 190.16, 0.00 ± 0.00
 340 (191-32) [l=113 cm] - K.
 191, 0.00 ± 0.00, 0.00 ± 0.00, -47.88 ± 14.95, -94.68 ± 128.21, -2691.77 ± 184.28, 0.00 ± 0.00
 32, 0.00 ± 0.00, 0.00 ± 0.00, -47.88 ± 14.95, -94.68 ± 128.21, -2746.06 ± 183.18, 0.00 ± 0.00
 341 (191-35) [l=113 cm] - K.
 191, 0.00 ± 0.00, 0.00 ± 0.00, -11.22 ± 15.30, -94.72 ± 127.93, -2691.77 ± 183.96, 0.00 ± 0.00
 35, 0.00 ± 0.00, 0.00 ± 0.00, -11.22 ± 15.30, -94.72 ± 127.93, -2704.46 ± 193.03, 0.00 ± 0.00
 342 (196-21) [l=56 cm] - K.
 196, 0.00 ± 0.00, 0.00 ± 0.00, 212.89 ± 24.81, -380.94 ± 209.15, -2061.66 ± 124.60, 0.00 ± 0.00
 21, 0.00 ± 0.00, 0.00 ± 0.00, 212.89 ± 24.81, -380.94 ± 209.15, -1942.86 ± 114.21, 0.00 ± 0.00
 343 (196-25) [l=171 cm] - K.
 196, 0.00 ± 0.00, 0.00 ± 0.00, -291.62 ± 23.19, -380.97 ± 208.78, -2059.29 ± 123.80, 0.00 ± 0.00
 25, 0.00 ± 0.00, 0.00 ± 0.00, -291.62 ± 23.19, -380.97 ± 208.78, -2557.09 ± 153.58, 0.00 ± 0.00
 344 (199-13) [l=113 cm] - K.
 199, 0.00 ± 0.00, 0.00 ± 0.00, 122.36 ± 42.56, -379.38 ± 211.37, -946.83 ± 76.58, 0.00 ± 0.00
 13, 0.00 ± 0.00, 0.00 ± 0.00, 122.36 ± 42.56, -379.38 ± 211.37, -808.31 ± 124.60, 0.00 ± 0.00
 345 (199-16) [l=113 cm] - K.
 199, 0.00 ± 0.00, 0.00 ± 0.00, -209.72 ± 36.26, -379.41 ± 210.95, -940.31 ± 79.01, 0.00 ± 0.00
 16, 0.00 ± 0.00, 0.00 ± 0.00, -209.72 ± 36.26, -379.41 ± 210.95, -1177.92 ± 50.28, 0.00 ± 0.00
 346 (202-5) [l=112 cm] - K.
 202, 0.00 ± 0.00, 0.00 ± 0.00, 73.49 ± 63.51, -379.14 ± 213.50, -192.41 ± 331.51, 0.00 ± 0.00
 5, 0.00 ± 0.00, 0.00 ± 0.00, 73.49 ± 63.51, -379.14 ± 213.50, -110.10 ± 400.33, 0.00 ± 0.00
 347 (202-9) [l=115 cm] - K.
 202, 0.00 ± 0.00, 0.00 ± 0.00, -146.63 ± 51.60, -379.16 ± 213.12, -185.07 ± 333.70, 0.00 ± 0.00
 9, 0.00 ± 0.00, 0.00 ± 0.00, -146.63 ± 51.60, -379.16 ± 213.12, -352.97 ± 275.69, 0.00 ± 0.00
 348 (66-205) [l=57 cm] - K.
 66, 0.00 ± 0.00, 0.00 ± 0.00, 49.89 ± 6.53, 0.03 ± 0.20, -41.58 ± 5.82, 0.00 ± 0.00
 205, 0.00 ± 0.00, 0.00 ± 0.00, 49.89 ± 6.53, 0.03 ± 0.20, -13.34 ± 2.14, 0.00 ± 0.00
 349 (205-68) [l=97 cm] - K.
 205, 0.00 ± 0.00, 0.00 ± 0.00, 13.20 ± 0.84, 0.00 ± 0.00, -12.84 ± 0.89, 0.00 ± 0.00
 68, 0.00 ± 0.00, 0.00 ± 0.00, 13.20 ± 0.84, 0.00 ± 0.00, -0.01 ± 0.26, 0.00 ± 0.00

350 (72-208) [l=97 cm] - K.
72, 0.00 ± 0.00, 0.00 ± 0.00, -13.21 ± 0.84, 0.00 ± 0.00, -0.01 ± 0.26, 0.00 ± 0.00
208, 0.00 ± 0.00, 0.00 ± 0.00, -13.21 ± 0.84, 0.00 ± 0.00, -12.84 ± 0.89, 0.00 ± 0.00

351 (208-70) [l=57 cm] - K.
208, 0.00 ± 0.00, 0.00 ± 0.00, -49.90 ± 6.53, -0.03 ± 0.20, -13.35 ± 2.14, 0.00 ± 0.00
70, 0.00 ± 0.00, 0.00 ± 0.00, -49.90 ± 6.53, -0.03 ± 0.20, -41.65 ± 5.83, 0.00 ± 0.00

352 (216-210) [l=70 cm] - K.
216, 0.00 ± 0.00, 0.00 ± 0.00, 46.93 ± 61.59, 0.95 ± 501.90, -283.08 ± 159.46, 0.00 ± 0.00
210, 0.00 ± 0.00, 0.00 ± 0.00, 46.93 ± 61.59, 0.95 ± 501.90, -250.14 ± 116.67, 0.00 ± 0.00

353 (210-217) [l=70 cm] - K.
210, 0.00 ± 0.00, 0.00 ± 0.00, 11.02 ± 62.96, 0.56 ± 501.67, -250.11 ± 116.77, 0.00 ± 0.00
217, 0.00 ± 0.00, 0.00 ± 0.00, 11.02 ± 62.96, 0.56 ± 501.67, -242.38 ± 73.77, 0.00 ± 0.00

354 (220-213) [l=70 cm] - K.
220, 0.00 ± 0.00, 0.00 ± 0.00, -10.90 ± 62.96, 0.62 ± 501.77, -242.21 ± 73.12, 0.00 ± 0.00
213, 0.00 ± 0.00, 0.00 ± 0.00, -10.90 ± 62.96, 0.62 ± 501.77, -249.87 ± 116.18, 0.00 ± 0.00

355 (213-222) [l=70 cm] - K.
213, 0.00 ± 0.00, 0.00 ± 0.00, -46.81 ± 61.60, 0.23 ± 501.99, -249.89 ± 116.08, 0.00 ± 0.00
222, 0.00 ± 0.00, 0.00 ± 0.00, -46.81 ± 61.60, 0.23 ± 501.99, -282.71 ± 158.81, 0.00 ± 0.00

356 (223-1) [l=90 cm] - Z.
223, 0.00 ± 0.00, 0.00 ± 0.00, 9.53 ± 14.68, -0.50 ± 3.17, 0.84 ± 23.19, 0.00 ± 0.00
1, 0.00 ± 0.00, 0.00 ± 0.00, 53.85 ± 12.15, -0.50 ± 3.17, 29.27 ± 15.90, 0.00 ± 0.00

357 (1-3) [l=90 cm] - Z.
1, 0.00 ± 0.00, 0.00 ± 0.00, -31.14 ± 4.95, 0.00 ± 0.01, 7.67 ± 2.09, 0.00 ± 0.00
3, 0.00 ± 0.00, 0.00 ± 0.00, 13.09 ± 3.42, 0.00 ± 0.01, -0.41 ± 1.39, 0.00 ± 0.00

358 (8-6) [l=88 cm] - Z.
8, 0.00 ± 0.00, 0.00 ± 0.00, -8.44 ± 3.46, 0.00 ± 0.01, -2.11 ± 1.32, 0.00 ± 0.00
6, 0.00 ± 0.00, 0.00 ± 0.00, 35.03 ± 4.02, 0.00 ± 0.01, 9.65 ± 1.74, 0.00 ± 0.00

359 (6-340) [l=88 cm] - Z.
6, 0.00 ± 0.00, 0.00 ± 0.00, -61.34 ± 10.90, -0.72 ± 0.75, 98.65 ± 21.71, 0.00 ± 0.00
340, 0.00 ± 0.00, 0.00 ± 0.00, -17.94 ± 10.03, -0.72 ± 0.75, 63.61 ± 12.49, 0.00 ± 0.00

360 (340-11) [l=88 cm] - Z.
340, 0.00 ± 0.00, 0.00 ± 0.00, -17.94 ± 10.03, -0.72 ± 0.75, 63.61 ± 12.49, 0.00 ± 0.00
11, 0.00 ± 0.00, 0.00 ± 0.00, 25.39 ± 10.06, -0.72 ± 0.75, 66.91 ± 5.03, 0.00 ± 0.00

361 (11-224) [l=88 cm] - Z.
11, 0.00 ± 0.00, 0.00 ± 0.00, -91.65 ± 8.16, -0.95 ± 0.03, 72.33 ± 13.62, 0.00 ± 0.00
224, 0.00 ± 0.00, 0.00 ± 0.00, -48.39 ± 7.08, -0.95 ± 0.03, 10.44 ± 6.97, 0.00 ± 0.00

362 (225-14) [l=88 cm] - Z.
225, 0.00 ± 0.00, 0.00 ± 0.00, 62.32 ± 7.20, -0.95 ± 0.03, 26.12 ± 7.17, 0.00 ± 0.00
14, 0.00 ± 0.00, 0.00 ± 0.00, 105.73 ± 8.38, -0.95 ± 0.03, 100.40 ± 13.94, 0.00 ± 0.00

363 (14-341) [l=88 cm] - Z.
14, 0.00 ± 0.00, 0.00 ± 0.00, 1.67 ± 8.70, -2.51 ± 0.78, 95.40 ± 6.40, 0.00 ± 0.00
341, 0.00 ± 0.00, 0.00 ± 0.00, 45.13 ± 8.85, -2.51 ± 0.78, 116.08 ± 12.22, 0.00 ± 0.00

364 (341-18) [l=88 cm] - Z.
341, 0.00 ± 0.00, 0.00 ± 0.00, 45.13 ± 8.85, -2.51 ± 0.78, 116.08 ± 12.22, 0.00 ± 0.00
18, 0.00 ± 0.00, 0.00 ± 0.00, 88.60 ± 9.72, -2.51 ± 0.78, 175.12 ± 20.40, 0.00 ± 0.00

365 (18-20) [l=88 cm] - Z.
18, 0.00 ± 0.00, 0.00 ± 0.00, -22.73 ± 2.88, -0.03 ± 0.01, 5.27 ± 1.32, 0.00 ± 0.00
20, 0.00 ± 0.00, 0.00 ± 0.00, 20.85 ± 2.45, -0.03 ± 0.01, 4.43 ± 0.85, 0.00 ± 0.00

366 (24-22) [l=31 cm] - Z.
24, 0.00 ± 0.00, 0.00 ± 0.00, 37.50 ± 7.21, -0.03 ± 0.01, -3.95 ± 1.02, 0.00 ± 0.00
22, 0.00 ± 0.00, 0.00 ± 0.00, 52.63 ± 7.60, -0.03 ± 0.01, 9.98 ± 1.28, 0.00 ± 0.00

367 (22-226) [l=31 cm] - Z.
22, 0.00 ± 0.00, 0.00 ± 0.00, 8.91 ± 8.72, -5.25 ± 1.97, 286.02 ± 16.11, 0.00 ± 0.00
226, 0.00 ± 0.00, 0.00 ± 0.00, 23.98 ± 9.00, -5.25 ± 1.97, 291.10 ± 17.28, 0.00 ± 0.00

368 (226-27) [l=123 cm] - Z.
226, 0.00 ± 0.00, 0.00 ± 0.00, -66.24 ± 8.73, -233.94 ± 4.47, 293.14 ± 18.13, 0.00 ± 0.00
27, 0.00 ± 0.00, 0.00 ± 0.00, -7.01 ± 7.73, -233.94 ± 4.47, 248.36 ± 14.92, 0.00 ± 0.00

369 (27-227) [l=123 cm] - Z.
27, 0.00 ± 0.00, 0.00 ± 0.00, -264.10 ± 13.21, -238.67 ± 2.81, 327.84 ± 19.28, 0.00 ± 0.00
227, 0.00 ± 0.00, 0.00 ± 0.00, -205.73 ± 9.45, -238.67 ± 2.81, 40.16 ± 6.60, 0.00 ± 0.00

370 (227-30) [l=26 cm] - Z.
227, 0.00 ± 0.00, 0.00 ± 0.00, -19.22 ± 5.36, 0.44 ± 0.40, 40.28 ± 6.70, 0.00 ± 0.00
30, 0.00 ± 0.00, 0.00 ± 0.00, -7.04 ± 5.12, 0.44 ± 0.40, 36.89 ± 5.35, 0.00 ± 0.00

371 (30-228) [l=26 cm] - Z.
30, 0.00 ± 0.00, 0.00 ± 0.00, -82.70 ± 6.43, -0.56 ± 0.04, 38.11 ± 5.76, 0.00 ± 0.00
228, 0.00 ± 0.00, 0.00 ± 0.00, -70.50 ± 5.64, -0.56 ± 0.04, 18.27 ± 4.48, 0.00 ± 0.00

372 (229-33) [l=26 cm] - Z.
229, 0.00 ± 0.00, 0.00 ± 0.00, 35.01 ± 4.19, -0.56 ± 0.04, -21.78 ± 4.07, 0.00 ± 0.00
33, 0.00 ± 0.00, 0.00 ± 0.00, 47.20 ± 4.43, -0.56 ± 0.04, -11.10 ± 4.84, 0.00 ± 0.00

373 (33-230) [l=26 cm] - Z.
33, 0.00 ± 0.00, 0.00 ± 0.00, -32.57 ± 4.26, -1.80 ± 0.36, -12.82 ± 4.45, 0.00 ± 0.00
230, 0.00 ± 0.00, 0.00 ± 0.00, -20.33 ± 4.48, -1.80 ± 0.36, -19.70 ± 5.53, 0.00 ± 0.00

374 (230-37) [l=122 cm] - Z.
230, 0.00 ± 0.00, 0.00 ± 0.00, 164.94 ± 6.91, 232.79 ± 2.30, -19.87 ± 5.51, 0.00 ± 0.00
37, 0.00 ± 0.00, 0.00 ± 0.00, 223.28 ± 10.66, 232.79 ± 2.30, 217.60 ± 13.32, 0.00 ± 0.00

375 (37-231) [l=122 cm] - Z.
37, 0.00 ± 0.00, 0.00 ± 0.00, -16.51 ± 6.98, 226.98 ± 3.80, 106.73 ± 10.06, 0.00 ± 0.00
231, 0.00 ± 0.00, 0.00 ± 0.00, 43.02 ± 7.75, 226.98 ± 3.80, 122.83 ± 8.49, 0.00 ± 0.00

376 (231-40) [l=18 cm] - Z.
231, 0.00 ± 0.00, 0.00 ± 0.00, -16.53 ± 8.63, 5.18 ± 1.45, 119.97 ± 7.35, 0.00 ± 0.00
40, 0.00 ± 0.00, 0.00 ± 0.00, -7.54 ± 8.46, 5.18 ± 1.45, 117.77 ± 6.10, 0.00 ± 0.00

377 (40-42) [l=18 cm] - Z.
40, 0.00 ± 0.00, 0.00 ± 0.00, -4.56 ± 0.30, 0.00 ± 0.00, 0.14 ± 0.01, 0.00 ± 0.00
42, 0.00 ± 0.00, 0.00 ± 0.00, 4.50 ± 0.29, 0.00 ± 0.00, 0.14 ± 0.01, 0.00 ± 0.00

378 (46-44) [l=98 cm] - Z.
46, 0.00 ± 0.00, 0.00 ± 0.00, -16.32 ± 2.06, 0.03 ± 0.01, 1.16 ± 0.77, 0.00 ± 0.00

44, 0.00 ± 0.00 , 0.00 ± 0.00 , 32.10 ± 2.97 , 0.03 ± 0.01 , 8.93 ± 1.31 , 0.00 ± 0.00
 379 (44-342) [l=98 cm] - Z.
 44, 0.00 ± 0.00 , 0.00 ± 0.00 , -76.02 ± 10.27 , 2.66 ± 0.64 , 147.01 ± 22.14 , 0.00 ± 0.00
 342, 0.00 ± 0.00 , 0.00 ± 0.00 , -27.70 ± 9.32 , 2.66 ± 0.64 , 95.99 ± 12.51 , 0.00 ± 0.00
 380 (342-49) [l=98 cm] - Z.
 342, 0.00 ± 0.00 , 0.00 ± 0.00 , -27.70 ± 9.32 , 2.66 ± 0.64 , 95.99 ± 12.51 , 0.00 ± 0.00
 49, 0.00 ± 0.00 , 0.00 ± 0.00 , 20.47 ± 9.50 , 2.66 ± 0.64 , 92.45 ± 6.61 , 0.00 ± 0.00
 381 (49-232) [l=98 cm] - Z.
 49, 0.00 ± 0.00 , 0.00 ± 0.00 , -105.67 ± 9.16 , 0.89 ± 0.04 , 100.60 ± 15.71 , 0.00 ± 0.00
 232, 0.00 ± 0.00 , 0.00 ± 0.00 , -57.55 ± 7.65 , 0.89 ± 0.04 , 20.31 ± 7.68 , 0.00 ± 0.00
 382 (232-52) [l=98 cm] - Z.
 232, 0.00 ± 0.00 , 0.00 ± 0.00 , 52.84 ± 7.31 , 0.89 ± 0.04 , 15.01 ± 7.27 , 0.00 ± 0.00
 52, 0.00 ± 0.00 , 0.00 ± 0.00 , 100.89 ± 8.50 , 0.89 ± 0.04 , 90.64 ± 14.95 , 0.00 ± 0.00
 383 (52-343) [l=98 cm] - Z.
 52, 0.00 ± 0.00 , 0.00 ± 0.00 , -30.83 ± 11.36 , 0.50 ± 0.59 , 82.08 ± 5.17 , 0.00 ± 0.00
 343, 0.00 ± 0.00 , 0.00 ± 0.00 , 17.32 ± 10.43 , 0.50 ± 0.59 , 75.43 ± 12.65 , 0.00 ± 0.00
 384 (343-56) [l=98 cm] - Z.
 343, 0.00 ± 0.00 , 0.00 ± 0.00 , 17.32 ± 10.43 , 0.50 ± 0.59 , 75.43 ± 12.65 , 0.00 ± 0.00
 56, 0.00 ± 0.00 , 0.00 ± 0.00 , 65.51 ± 11.11 , 0.50 ± 0.59 , 116.14 ± 23.05 , 0.00 ± 0.00
 385 (56-58) [l=98 cm] - Z.
 56, 0.00 ± 0.00 , 0.00 ± 0.00 , -36.51 ± 3.78 , 0.00 ± 0.01 , 10.66 ± 1.77 , 0.00 ± 0.00
 58, 0.00 ± 0.00 , 0.00 ± 0.00 , 11.82 ± 2.78 , 0.00 ± 0.01 , -1.49 ± 1.29 , 0.00 ± 0.00
 386 (58-62) [l=227 cm] - Z.
 58, 0.00 ± 0.00 , 0.00 ± 0.00 , -58.26 ± 4.68 , 0.04 ± 0.39 , 24.29 ± 3.79 , 0.00 ± 0.00
 62, 0.00 ± 0.00 , 0.00 ± 0.00 , 53.14 ± 4.94 , 0.04 ± 0.39 , 18.45 ± 4.25 , 0.00 ± 0.00
 387 (62-60) [l=80 cm] - Z.
 62, 0.00 ± 0.00 , 0.00 ± 0.00 , -10.33 ± 3.74 , 0.00 ± 0.01 , -0.81 ± 1.38 , 0.00 ± 0.00
 60, 0.00 ± 0.00 , 0.00 ± 0.00 , 28.93 ± 4.68 , 0.00 ± 0.01 , 6.59 ± 1.93 , 0.00 ± 0.00
 388 (60-234) [l=80 cm] - Z.
 60, 0.00 ± 0.00 , 0.00 ± 0.00 , -43.03 ± 13.03 , -0.14 ± 2.22 , 19.45 ± 9.46 , 0.00 ± 0.00
 234, 0.00 ± 0.00 , 0.00 ± 0.00 , -3.73 ± 15.18 , -0.14 ± 2.22 , 0.83 ± 1.77 , 0.00 ± 0.00
 389 (234-65) [l=154 cm] - Z.
 234, 0.00 ± 0.00 , 0.00 ± 0.00 , -3.73 ± 15.18 , 0.83 ± 1.77 , 0.14 ± 2.22 , 0.00 ± 0.00
 65, 0.00 ± 0.00 , 0.00 ± 0.00 , 72.21 ± 18.95 , 0.83 ± 1.77 , 52.82 ± 24.17 , 0.00 ± 0.00
 390 (65-67) [l=154 cm] - Z.
 65, 0.00 ± 0.00 , 0.00 ± 0.00 , -44.80 ± 2.17 , 0.00 ± 0.01 , 15.31 ± 2.36 , 0.00 ± 0.00
 67, 0.00 ± 0.00 , 0.00 ± 0.00 , 31.02 ± 3.63 , 0.00 ± 0.01 , 4.73 ± 1.79 , 0.00 ± 0.00
 391 (71-69) [l=154 cm] - Z.
 71, 0.00 ± 0.00 , 0.00 ± 0.00 , -31.05 ± 3.63 , 0.00 ± 0.01 , 4.74 ± 1.79 , 0.00 ± 0.00
 69, 0.00 ± 0.00 , 0.00 ± 0.00 , 44.82 ± 2.17 , 0.00 ± 0.01 , 15.32 ± 2.36 , 0.00 ± 0.00
 392 (69-235) [l=154 cm] - Z.
 69, 0.00 ± 0.00 , 0.00 ± 0.00 , -72.20 ± 18.95 , -0.83 ± 1.77 , 52.81 ± 24.17 , 0.00 ± 0.00
 235, 0.00 ± 0.00 , 0.00 ± 0.00 , 3.73 ± 15.18 , -0.83 ± 1.77 , 0.14 ± 2.22 , 0.00 ± 0.00
 393 (235-74) [l=80 cm] - Z.
 235, 0.00 ± 0.00 , 0.00 ± 0.00 , 3.73 ± 15.18 , 0.14 ± 2.22 , 0.83 ± 1.77 , 0.00 ± 0.00
 74, 0.00 ± 0.00 , 0.00 ± 0.00 , 43.04 ± 13.03 , 0.14 ± 2.22 , 19.45 ± 9.46 , 0.00 ± 0.00
 394 (74-76) [l=80 cm] - Z.
 74, 0.00 ± 0.00 , 0.00 ± 0.00 , -28.93 ± 4.68 , 0.00 ± 0.01 , 6.58 ± 1.93 , 0.00 ± 0.00
 76, 0.00 ± 0.00 , 0.00 ± 0.00 , 10.33 ± 3.74 , 0.00 ± 0.01 , -0.81 ± 1.38 , 0.00 ± 0.00
 395 (80-78) [l=98 cm] - Z.
 80, 0.00 ± 0.00 , 0.00 ± 0.00 , -11.82 ± 2.78 , 0.00 ± 0.01 , -1.49 ± 1.29 , 0.00 ± 0.00
 78, 0.00 ± 0.00 , 0.00 ± 0.00 , 36.51 ± 3.78 , 0.00 ± 0.01 , 10.66 ± 1.77 , 0.00 ± 0.00
 396 (78-344) [l=98 cm] - Z.
 78, 0.00 ± 0.00 , 0.00 ± 0.00 , -65.51 ± 11.11 , -0.50 ± 0.59 , 116.14 ± 23.05 , 0.00 ± 0.00
 344, 0.00 ± 0.00 , 0.00 ± 0.00 , -17.27 ± 10.43 , -0.50 ± 0.59 , 75.41 ± 12.64 , 0.00 ± 0.00
 397 (344-83) [l=98 cm] - Z.
 344, 0.00 ± 0.00 , 0.00 ± 0.00 , -17.27 ± 10.43 , -0.50 ± 0.59 , 75.41 ± 12.64 , 0.00 ± 0.00
 83, 0.00 ± 0.00 , 0.00 ± 0.00 , 30.82 ± 11.36 , -0.50 ± 0.59 , 82.08 ± 5.17 , 0.00 ± 0.00
 398 (83-236) [l=98 cm] - Z.
 83, 0.00 ± 0.00 , 0.00 ± 0.00 , -100.89 ± 8.50 , -0.89 ± 0.04 , 90.64 ± 14.95 , 0.00 ± 0.00
 236, 0.00 ± 0.00 , 0.00 ± 0.00 , -52.84 ± 7.31 , -0.89 ± 0.04 , 15.01 ± 7.27 , 0.00 ± 0.00
 399 (237-86) [l=98 cm] - Z.
 237, 0.00 ± 0.00 , 0.00 ± 0.00 , 57.55 ± 7.65 , -0.89 ± 0.04 , 20.31 ± 7.68 , 0.00 ± 0.00
 86, 0.00 ± 0.00 , 0.00 ± 0.00 , 105.67 ± 9.16 , -0.89 ± 0.04 , 100.60 ± 15.71 , 0.00 ± 0.00
 400 (86-345) [l=98 cm] - Z.
 86, 0.00 ± 0.00 , 0.00 ± 0.00 , -20.47 ± 9.50 , -2.66 ± 0.64 , 92.45 ± 6.61 , 0.00 ± 0.00
 345, 0.00 ± 0.00 , 0.00 ± 0.00 , 27.75 ± 9.33 , -2.66 ± 0.64 , 96.02 ± 12.52 , 0.00 ± 0.00
 401 (345-90) [l=98 cm] - Z.
 345, 0.00 ± 0.00 , 0.00 ± 0.00 , 27.75 ± 9.33 , -2.66 ± 0.64 , 96.02 ± 12.52 , 0.00 ± 0.00
 90, 0.00 ± 0.00 , 0.00 ± 0.00 , 76.02 ± 10.27 , -2.66 ± 0.64 , 147.01 ± 22.14 , 0.00 ± 0.00
 402 (90-92) [l=98 cm] - Z.
 90, 0.00 ± 0.00 , 0.00 ± 0.00 , -32.10 ± 2.97 , -0.03 ± 0.01 , 8.93 ± 1.31 , 0.00 ± 0.00
 92, 0.00 ± 0.00 , 0.00 ± 0.00 , 16.32 ± 2.06 , -0.03 ± 0.01 , 1.16 ± 0.77 , 0.00 ± 0.00
 403 (96-94) [l=18 cm] - Z.
 96, 0.00 ± 0.00 , 0.00 ± 0.00 , -4.50 ± 0.29 , 0.00 ± 0.00 , 0.14 ± 0.01 , 0.00 ± 0.00
 94, 0.00 ± 0.00 , 0.00 ± 0.00 , 4.56 ± 0.30 , 0.00 ± 0.00 , 0.14 ± 0.01 , 0.00 ± 0.00
 404 (94-238) [l=18 cm] - Z.
 94, 0.00 ± 0.00 , 0.00 ± 0.00 , 7.53 ± 8.46 , -5.18 ± 1.45 , 117.76 ± 6.10 , 0.00 ± 0.00
 238, 0.00 ± 0.00 , 0.00 ± 0.00 , 16.52 ± 8.63 , -5.18 ± 1.45 , 119.96 ± 7.35 , 0.00 ± 0.00
 405 (238-99) [l=122 cm] - Z.
 238, 0.00 ± 0.00 , 0.00 ± 0.00 , -43.02 ± 7.75 , -226.98 ± 3.80 , 122.82 ± 8.49 , 0.00 ± 0.00
 99, 0.00 ± 0.00 , 0.00 ± 0.00 , 16.50 ± 6.98 , -226.98 ± 3.80 , 106.72 ± 10.06 , 0.00 ± 0.00
 406 (99-239) [l=122 cm] - Z.
 99, 0.00 ± 0.00 , 0.00 ± 0.00 , -223.28 ± 10.66 , -232.80 ± 2.30 , 217.59 ± 13.32 , 0.00 ± 0.00
 239, 0.00 ± 0.00 , 0.00 ± 0.00 , -164.93 ± 6.91 , -232.80 ± 2.30 , -19.87 ± 5.51 , 0.00 ± 0.00
 407 (239-102) [l=26 cm] - Z.

239, 0.00 ± 0.00, 0.00 ± 0.00, 20.33 ± 4.48, 1.80 ± 0.36, -19.70 ± 5.53, 0.00 ± 0.00
 102, 0.00 ± 0.00, 0.00 ± 0.00, 32.57 ± 4.26, 1.80 ± 0.36, -12.82 ± 4.45, 0.00 ± 0.00
 408 (102-240) [l=26 cm] - Z.
 102, 0.00 ± 0.00, 0.00 ± 0.00, -47.20 ± 4.43, 0.56 ± 0.04, -11.10 ± 4.84, 0.00 ± 0.00
 240, 0.00 ± 0.00, 0.00 ± 0.00, -35.01 ± 4.19, 0.56 ± 0.04, -21.78 ± 4.07, 0.00 ± 0.00
 409 (241-105) [l=26 cm] - Z.
 241, 0.00 ± 0.00, 0.00 ± 0.00, 70.50 ± 5.64, 0.56 ± 0.04, 18.27 ± 4.48, 0.00 ± 0.00
 105, 0.00 ± 0.00, 0.00 ± 0.00, 82.69 ± 6.43, 0.56 ± 0.04, 38.11 ± 5.76, 0.00 ± 0.00
 410 (105-242) [l=26 cm] - Z.
 105, 0.00 ± 0.00, 0.00 ± 0.00, 7.03 ± 5.12, -0.44 ± 0.40, 36.89 ± 5.35, 0.00 ± 0.00
 242, 0.00 ± 0.00, 0.00 ± 0.00, 19.22 ± 5.36, -0.44 ± 0.40, 40.28 ± 6.70, 0.00 ± 0.00
 411 (242-109) [l=123 cm] - Z.
 242, 0.00 ± 0.00, 0.00 ± 0.00, 205.72 ± 9.45, 238.67 ± 2.81, 40.15 ± 6.60, 0.00 ± 0.00
 109, 0.00 ± 0.00, 0.00 ± 0.00, 264.09 ± 13.21, 238.67 ± 2.81, 327.83 ± 19.28, 0.00 ± 0.00
 412 (109-243) [l=123 cm] - Z.
 109, 0.00 ± 0.00, 0.00 ± 0.00, 6.99 ± 7.73, 233.94 ± 4.47, 248.36 ± 14.92, 0.00 ± 0.00
 243, 0.00 ± 0.00, 0.00 ± 0.00, 66.22 ± 8.73, 233.94 ± 4.47, 293.11 ± 18.13, 0.00 ± 0.00
 413 (243-112) [l=31 cm] - Z.
 243, 0.00 ± 0.00, 0.00 ± 0.00, -23.98 ± 9.00, 5.25 ± 1.97, 291.07 ± 17.28, 0.00 ± 0.00
 112, 0.00 ± 0.00, 0.00 ± 0.00, -8.90 ± 8.72, 5.25 ± 1.97, 285.99 ± 16.10, 0.00 ± 0.00
 414 (112-114) [l=31 cm] - Z.
 112, 0.00 ± 0.00, 0.00 ± 0.00, -52.63 ± 7.60, 0.03 ± 0.01, 9.98 ± 1.28, 0.00 ± 0.00
 114, 0.00 ± 0.00, 0.00 ± 0.00, -37.50 ± 7.21, 0.03 ± 0.01, -3.95 ± 1.02, 0.00 ± 0.00
 415 (118-116) [l=88 cm] - Z.
 118, 0.00 ± 0.00, 0.00 ± 0.00, -20.85 ± 2.45, 0.03 ± 0.01, 4.43 ± 0.85, 0.00 ± 0.00
 116, 0.00 ± 0.00, 0.00 ± 0.00, 22.73 ± 2.88, 0.03 ± 0.01, 5.27 ± 1.32, 0.00 ± 0.00
 416 (116-346) [l=88 cm] - Z.
 116, 0.00 ± 0.00, 0.00 ± 0.00, -88.60 ± 9.72, 2.51 ± 0.78, 175.08 ± 20.39, 0.00 ± 0.00
 346, 0.00 ± 0.00, 0.00 ± 0.00, -45.13 ± 8.85, 2.51 ± 0.78, 116.05 ± 12.21, 0.00 ± 0.00
 417 (346-121) [l=88 cm] - Z.
 346, 0.00 ± 0.00, 0.00 ± 0.00, -45.13 ± 8.85, 2.51 ± 0.78, 116.05 ± 12.21, 0.00 ± 0.00
 121, 0.00 ± 0.00, 0.00 ± 0.00, -1.67 ± 8.70, 2.51 ± 0.78, 95.36 ± 6.40, 0.00 ± 0.00
 418 (121-244) [l=88 cm] - Z.
 121, 0.00 ± 0.00, 0.00 ± 0.00, -105.71 ± 8.38, 0.95 ± 0.03, 100.36 ± 13.93, 0.00 ± 0.00
 244, 0.00 ± 0.00, 0.00 ± 0.00, -62.36 ± 7.19, 0.95 ± 0.03, 26.16 ± 7.17, 0.00 ± 0.00
 419 (245-124) [l=88 cm] - Z.
 245, 0.00 ± 0.00, 0.00 ± 0.00, 48.40 ± 7.07, 0.95 ± 0.03, 10.44 ± 6.97, 0.00 ± 0.00
 124, 0.00 ± 0.00, 0.00 ± 0.00, 91.66 ± 8.16, 0.95 ± 0.03, 72.35 ± 13.62, 0.00 ± 0.00
 420 (124-347) [l=88 cm] - Z.
 124, 0.00 ± 0.00, 0.00 ± 0.00, -25.39 ± 10.06, 0.72 ± 0.75, 66.92 ± 5.03, 0.00 ± 0.00
 347, 0.00 ± 0.00, 0.00 ± 0.00, 17.94 ± 10.03, 0.72 ± 0.75, 63.63 ± 12.48, 0.00 ± 0.00
 421 (347-128) [l=88 cm] - Z.
 347, 0.00 ± 0.00, 0.00 ± 0.00, 17.94 ± 10.03, 0.72 ± 0.75, 63.63 ± 12.48, 0.00 ± 0.00
 128, 0.00 ± 0.00, 0.00 ± 0.00, 61.34 ± 10.90, 0.72 ± 0.75, 98.67 ± 21.71, 0.00 ± 0.00
 422 (128-130) [l=88 cm] - Z.
 128, 0.00 ± 0.00, 0.00 ± 0.00, -35.03 ± 4.02, 0.00 ± 0.01, 9.65 ± 1.74, 0.00 ± 0.00
 130, 0.00 ± 0.00, 0.00 ± 0.00, 8.44 ± 3.46, 0.00 ± 0.01, -2.11 ± 1.32, 0.00 ± 0.00
 423 (134-132) [l=90 cm] - Z.
 134, 0.00 ± 0.00, 0.00 ± 0.00, -13.15 ± 3.41, 0.00 ± 0.01, -0.40 ± 1.39, 0.00 ± 0.00
 132, 0.00 ± 0.00, 0.00 ± 0.00, 31.17 ± 4.94, 0.00 ± 0.01, 7.69 ± 2.09, 0.00 ± 0.00
 424 (132-246) [l=90 cm] - Z.
 132, 0.00 ± 0.00, 0.00 ± 0.00, -53.87 ± 12.16, 0.50 ± 3.17, 29.36 ± 15.91, 0.00 ± 0.00
 246, 0.00 ± 0.00, 0.00 ± 0.00, -9.54 ± 14.69, 0.50 ± 3.17, 0.92 ± 23.23, 0.00 ± 0.00
 425 (348-137) [l=160 cm] - Z.
 348, 0.00 ± 0.00, 0.00 ± 0.00, 50.52 ± 11.01, 0.00 ± 1.22, -40.71 ± 11.22, 0.00 ± 0.00
 137, 0.00 ± 0.00, 0.00 ± 0.00, 132.77 ± 9.35, 0.00 ± 1.22, 106.06 ± 27.66, 0.00 ± 0.00
 426 (137-238) [l=161 cm] - Z.
 137, 0.00 ± 0.00, 0.00 ± 0.00, -143.64 ± 14.28, -2.86 ± 1.53, -58.50 ± 14.91, 0.00 ± 0.00
 238, 0.00 ± 0.00, 0.00 ± 0.00, -59.55 ± 10.37, -2.86 ± 1.53, -221.80 ± 5.16, 0.00 ± 0.00
 427 (231-141) [l=160 cm] - Z.
 231, 0.00 ± 0.00, 0.00 ± 0.00, 59.55 ± 10.37, 2.86 ± 1.53, -221.80 ± 5.16, 0.00 ± 0.00
 141, 0.00 ± 0.00, 0.00 ± 0.00, 143.60 ± 14.28, 2.86 ± 1.53, -58.63 ± 14.90, 0.00 ± 0.00
 428 (349-348) [l=200 cm] - Z.
 349, 0.00 ± 0.00, 0.00 ± 0.00, -50.43 ± 11.01, 0.00 ± 1.22, -40.80 ± 11.23, 0.00 ± 0.00
 348, 0.00 ± 0.00, 0.00 ± 0.00, 50.52 ± 11.01, 0.00 ± 1.22, -40.71 ± 11.22, 0.00 ± 0.00
 429 (141-349) [l=161 cm] - Z.
 141, 0.00 ± 0.00, 0.00 ± 0.00, -132.74 ± 9.34, 0.00 ± 1.22, 105.96 ± 27.67, 0.00 ± 0.00
 349, 0.00 ± 0.00, 0.00 ± 0.00, -50.43 ± 11.01, 0.00 ± 1.22, -40.80 ± 11.23, 0.00 ± 0.00
 430 (350-145) [l=161 cm] - Z.
 350, 0.00 ± 0.00, 0.00 ± 0.00, 50.48 ± 11.41, 0.00 ± 0.73, -29.94 ± 11.61, 0.00 ± 0.00
 145, 0.00 ± 0.00, 0.00 ± 0.00, 132.62 ± 9.76, 0.00 ± 0.73, 116.81 ± 28.72, 0.00 ± 0.00
 431 (145-226) [l=160 cm] - Z.
 145, 0.00 ± 0.00, 0.00 ± 0.00, -173.77 ± 16.66, -2.04 ± 1.00, -16.77 ± 17.49, 0.00 ± 0.00
 226, 0.00 ± 0.00, 0.00 ± 0.00, -90.22 ± 12.71, -2.04 ± 1.00, -228.69 ± 6.37, 0.00 ± 0.00
 432 (243-149) [l=161 cm] - Z.
 243, 0.00 ± 0.00, 0.00 ± 0.00, 90.20 ± 12.71, 2.04 ± 1.00, -228.69 ± 6.37, 0.00 ± 0.00
 149, 0.00 ± 0.00, 0.00 ± 0.00, 173.80 ± 16.66, 2.04 ± 1.00, -16.64 ± 17.51, 0.00 ± 0.00
 433 (351-350) [l=200 cm] - Z.
 351, 0.00 ± 0.00, 0.00 ± 0.00, -50.57 ± 11.41, 0.00 ± 0.73, -29.84 ± 11.61, 0.00 ± 0.00
 350, 0.00 ± 0.00, 0.00 ± 0.00, 50.48 ± 11.41, 0.00 ± 0.73, -29.94 ± 11.61, 0.00 ± 0.00
 434 (149-351) [l=160 cm] - Z.
 149, 0.00 ± 0.00, 0.00 ± 0.00, -132.66 ± 9.76, 0.00 ± 0.73, 116.91 ± 28.71, 0.00 ± 0.00
 351, 0.00 ± 0.00, 0.00 ± 0.00, -50.57 ± 11.41, 0.00 ± 0.73, -29.84 ± 11.61, 0.00 ± 0.00
 435 (246-215) [l=140 cm] - Z.
 246, 0.00 ± 0.00, 0.00 ± 0.00, -9.54 ± 14.69, 0.92 ± 23.23, -0.50 ± 3.17, 0.00 ± 0.00
 215, 0.00 ± 0.00, 0.00 ± 0.00, 59.84 ± 18.25, 0.92 ± 23.23, 34.79 ± 20.06, 0.00 ± 0.00

436 (215-352) [l=140 cm] - Z.
 215, 0.00 ± 0.00, 0.00 ± 0.00, -72.55 ± 16.26, 0.36 ± 22.76, 34.80 ± 29.97, 0.00 ± 0.00
 352, 0.00 ± 0.00, 0.00 ± 0.00, -3.18 ± 18.02, 0.36 ± 22.76, -18.33 ± 17.58, 0.00 ± 0.00
 437 (352-218) [l=140 cm] - Z.
 352, 0.00 ± 0.00, 0.00 ± 0.00, -3.18 ± 18.02, 0.37 ± 22.76, -18.33 ± 17.58, 0.00 ± 0.00
 218, 0.00 ± 0.00, 0.00 ± 0.00, 66.20 ± 18.90, 0.37 ± 22.76, 25.88 ± 27.54, 0.00 ± 0.00
 438 (218-353) [l=140 cm] - Z.
 218, 0.00 ± 0.00, 0.00 ± 0.00, -66.20 ± 18.90, -0.22 ± 22.76, 25.89 ± 27.54, 0.00 ± 0.00
 353, 0.00 ± 0.00, 0.00 ± 0.00, 3.18 ± 18.02, -0.22 ± 22.76, -18.32 ± 17.58, 0.00 ± 0.00
 439 (353-221) [l=140 cm] - Z.
 353, 0.00 ± 0.00, 0.00 ± 0.00, 3.18 ± 18.02, -0.23 ± 22.76, -18.32 ± 17.57, 0.00 ± 0.00
 221, 0.00 ± 0.00, 0.00 ± 0.00, 72.55 ± 16.26, -0.23 ± 22.76, 34.80 ± 29.94, 0.00 ± 0.00
 440 (221-223) [l=140 cm] - Z.
 221, 0.00 ± 0.00, 0.00 ± 0.00, -59.85 ± 18.25, -0.84 ± 23.19, 34.80 ± 20.06, 0.00 ± 0.00
 223, 0.00 ± 0.00, 0.00 ± 0.00, 9.53 ± 14.68, -0.84 ± 23.19, -0.50 ± 3.17, 0.00 ± 0.00
 441 (227-306) [l=181 cm] - Z.
 227, 0.00 ± 0.00, 0.00 ± 0.00, -186.51 ± 4.82, -0.12 ± 0.19, 239.11 ± 2.48, 0.00 ± 0.00
 306, 0.00 ± 0.00, 0.00 ± 0.00, -96.88 ± 0.45, -0.12 ± 0.19, -16.12 ± 1.98, 0.00 ± 0.00
 442 (306-304) [l=140 cm] - Z.
 306, 0.00 ± 0.00, 0.00 ± 0.00, -100.30 ± 0.61, -0.06 ± 0.18, -15.78 ± 2.03, 0.00 ± 0.00
 304, 0.00 ± 0.00, 0.00 ± 0.00, -36.44 ± 1.22, -0.06 ± 0.18, -110.98 ± 1.46, 0.00 ± 0.00
 443 (308-242) [l=181 cm] - Z.
 308, 0.00 ± 0.00, 0.00 ± 0.00, 96.88 ± 0.45, 0.12 ± 0.19, -16.12 ± 1.98, 0.00 ± 0.00
 242, 0.00 ± 0.00, 0.00 ± 0.00, 186.51 ± 4.82, 0.12 ± 0.19, 239.12 ± 2.48, 0.00 ± 0.00
 444 (304-310) [l=200 cm] - Z.
 304, 0.00 ± 0.00, 0.00 ± 0.00, -43.66 ± 1.22, 0.00 ± 0.17, -110.79 ± 1.52, 0.00 ± 0.00
 310, 0.00 ± 0.00, 0.00 ± 0.00, 43.66 ± 1.22, 0.00 ± 0.17, -110.78 ± 1.52, 0.00 ± 0.00
 445 (310-308) [l=140 cm] - Z.
 310, 0.00 ± 0.00, 0.00 ± 0.00, 36.45 ± 1.22, 0.06 ± 0.18, -110.98 ± 1.46, 0.00 ± 0.00
 308, 0.00 ± 0.00, 0.00 ± 0.00, 100.30 ± 0.61, 0.06 ± 0.18, -15.78 ± 2.03, 0.00 ± 0.00
 446 (312-230) [l=181 cm] - Z.
 312, 0.00 ± 0.00, 0.00 ± 0.00, 96.01 ± 0.33, 0.17 ± 0.31, -18.69 ± 2.19, 0.00 ± 0.00
 230, 0.00 ± 0.00, 0.00 ± 0.00, 185.27 ± 4.64, 0.17 ± 0.31, 234.60 ± 2.02, 0.00 ± 0.00
 447 (314-312) [l=140 cm] - Z.
 314, 0.00 ± 0.00, 0.00 ± 0.00, 36.06 ± 1.29, 0.08 ± 0.29, -112.69 ± 1.51, 0.00 ± 0.00
 312, 0.00 ± 0.00, 0.00 ± 0.00, 99.48 ± 0.49, 0.08 ± 0.29, -18.34 ± 2.24, 0.00 ± 0.00
 448 (316-314) [l=200 cm] - Z.
 316, 0.00 ± 0.00, 0.00 ± 0.00, -43.33 ± 1.29, 0.00 ± 0.29, -112.50 ± 1.57, 0.00 ± 0.00
 314, 0.00 ± 0.00, 0.00 ± 0.00, 43.33 ± 1.29, 0.00 ± 0.29, -112.50 ± 1.57, 0.00 ± 0.00
 449 (239-318) [l=181 cm] - Z.
 239, 0.00 ± 0.00, 0.00 ± 0.00, -185.27 ± 4.64, -0.17 ± 0.31, 234.60 ± 2.02, 0.00 ± 0.00
 318, 0.00 ± 0.00, 0.00 ± 0.00, -96.01 ± 0.33, -0.17 ± 0.31, -18.69 ± 2.19, 0.00 ± 0.00
 450 (318-316) [l=140 cm] - Z.
 318, 0.00 ± 0.00, 0.00 ± 0.00, -99.49 ± 0.49, -0.08 ± 0.29, -18.34 ± 2.24, 0.00 ± 0.00
 316, 0.00 ± 0.00, 0.00 ± 0.00, -36.06 ± 1.29, -0.08 ± 0.29, -112.69 ± 1.51, 0.00 ± 0.00
 451 (26-147) [l=62 cm] - K.
 26, 215.26 ± 7.12, -35.20 ± 10.41, 0.18 ± 0.02, 0.00 ± 0.00, -1.44 ± 0.17, -285.32 ± 84.37
 147, 215.26 ± 7.12, -35.20 ± 10.41, 0.18 ± 0.02, 0.00 ± 0.00, -1.33 ± 0.16, -263.50 ± 77.91
 452 (29-282) [l=250 cm] - K.
 29, 1.31 ± 0.05, -1.23 ± 0.11, 0.03 ± 0.03, 0.00 ± 0.00, -0.12 ± 0.12, -4.38 ± 0.38
 282, 1.31 ± 0.05, -1.23 ± 0.11, 0.03 ± 0.03, 0.00 ± 0.00, -0.04 ± 0.04, -1.32 ± 0.11
 453 (36-294) [l=250 cm] - K.
 36, 1.42 ± 0.05, -1.27 ± 0.10, -0.05 ± 0.03, 0.00 ± 0.00, 0.17 ± 0.12, -4.55 ± 0.36
 294, 1.42 ± 0.05, -1.27 ± 0.10, -0.05 ± 0.03, 0.00 ± 0.00, 0.05 ± 0.04, -1.37 ± 0.11
 454 (39-144) [l=62 cm] - K.
 39, 185.21 ± 5.11, -28.12 ± 9.40, -0.25 ± 0.02, 0.00 ± 0.00, 2.03 ± 0.18, -227.97 ± 76.19
 144, 185.21 ± 5.11, -28.12 ± 9.40, -0.25 ± 0.02, 0.00 ± 0.00, 1.87 ± 0.17, -210.53 ± 70.36
 455 (101-303) [l=250 cm] - K.
 101, 1.42 ± 0.05, 1.27 ± 0.10, -0.05 ± 0.03, 0.00 ± 0.00, 0.17 ± 0.12, 4.55 ± 0.36
 303, 1.42 ± 0.05, 1.27 ± 0.10, -0.05 ± 0.03, 0.00 ± 0.00, 0.05 ± 0.04, 1.37 ± 0.11
 456 (108-287) [l=250 cm] - K.
 108, 1.31 ± 0.05, 1.23 ± 0.11, 0.03 ± 0.03, 0.00 ± 0.00, -0.12 ± 0.12, 4.38 ± 0.38
 287, 1.31 ± 0.05, 1.23 ± 0.11, 0.03 ± 0.03, 0.00 ± 0.00, -0.04 ± 0.04, 1.32 ± 0.11
 457 (111-152) [l=62 cm] - K.
 111, 215.32 ± 7.12, 35.24 ± 10.41, 0.18 ± 0.02, 0.00 ± 0.00, -1.44 ± 0.17, 285.65 ± 84.37
 152, 215.32 ± 7.12, 35.24 ± 10.41, 0.18 ± 0.02, 0.00 ± 0.00, -1.33 ± 0.16, 263.80 ± 77.92
 458 (280-354) [l=0 cm] - T.
 280, 0.00 ± 0.01, 0.00 ± 0.04, 0.61 ± 16.52, 0.00 ± 0.00, 0.00 ± 0.02, 0.00 ± 0.00
 354, 0.00 ± 0.01, 0.00 ± 0.04, 0.60 ± 16.52, 0.00 ± 0.00, 0.00 ± 0.02, 0.00 ± 0.00
 459 (204-354) [l=30 cm] - K.
 204, 8.04 ± 16.26, 0.00 ± 0.00, 0.35 ± 0.00, 0.00 ± 0.00, -5.69 ± 0.01, 0.00 ± 0.01
 354, 8.04 ± 16.26, 0.00 ± 0.00, 0.35 ± 0.00, 0.00 ± 0.00, -5.58 ± 0.01, 0.00 ± 0.01
 460 (155-247) [l=188 cm] - K.
 155, 0.00 ± 0.00, 0.00 ± 0.00, 39.21 ± 2.41, -30.64 ± 67.54, -226.69 ± 75.84, 0.00 ± 0.00
 247, 0.00 ± 0.00, 0.00 ± 0.00, 39.21 ± 2.41, -30.64 ± 67.54, -153.07 ± 71.46, 0.00 ± 0.00
 461 (247-154) [l=104 cm] - K.
 247, 0.00 ± 0.00, 0.00 ± 0.00, -1.34 ± 3.33, -39.49 ± 67.55, -152.37 ± 71.46, 0.00 ± 0.00
 154, 0.00 ± 0.00, 0.00 ± 0.00, -1.34 ± 3.33, -39.49 ± 67.55, -153.76 ± 68.70, 0.00 ± 0.00
 462 (276-355) [l=395 cm] - T.
 276, 0.00 ± 0.00, 0.00 ± 0.00, 8.64 ± 0.00, 0.00 ± 0.00, -5.69 ± 0.00, 0.00 ± 0.00
 355, 0.00 ± 0.00, 0.00 ± 0.00, -8.64 ± 0.00, 0.00 ± 0.00, -5.69 ± 0.00, 0.00 ± 0.00
 463 (247-355) [l=30 cm] - K.
 247, 16.73 ± 1.04, 0.00 ± 0.00, -0.04 ± 0.00, 0.00 ± 0.00, 0.70 ± 0.00, 0.00 ± 0.00
 355, 16.73 ± 1.04, 0.00 ± 0.00, -0.04 ± 0.00, 0.00 ± 0.00, 0.68 ± 0.00, 0.00 ± 0.00
 464 (203-249) [l=104 cm] - K.
 203, 0.00 ± 0.00, 0.00 ± 0.00, 1.32 ± 3.33, 39.30 ± 67.55, -153.98 ± 68.71, 0.00 ± 0.00

249, 0.00 ± 0.00, 0.00 ± 0.00, 1.32 ± 3.33, 39.30 ± 67.55, -152.62 ± 71.48, 0.00 ± 0.00
 465 (249-201) [l=188 cm] - K.
 249, 0.00 ± 0.00, 0.00 ± 0.00, -39.23 ± 2.42, 30.45 ± 67.54, -153.32 ± 71.48, 0.00 ± 0.00
 201, 0.00 ± 0.00, 0.00 ± 0.00, -39.23 ± 2.42, 30.45 ± 67.54, -226.91 ± 75.85, 0.00 ± 0.00
 466 (354-356) [l=395 cm] - T.
 354, 0.00 ± 0.00, 0.00 ± 0.00, 8.64 ± 0.00, 0.00 ± 0.00, -5.69 ± 0.00, 0.00 ± 0.00
 356, 0.00 ± 0.00, 0.00 ± 0.00, -8.64 ± 0.00, 0.00 ± 0.00, -5.69 ± 0.00, 0.00 ± 0.00
 467 (249-356) [l=30 cm] - K.
 249, 16.73 ± 1.04, 0.00 ± 0.00, -0.04 ± 0.00, 0.00 ± 0.00, 0.70 ± 0.00, 0.00 ± 0.00
 356, 16.73 ± 1.04, 0.00 ± 0.00, -0.04 ± 0.00, 0.00 ± 0.00, 0.68 ± 0.00, 0.00 ± 0.00
 468 (201-251) [l=182 cm] - K.
 201, 0.00 ± 0.00, 0.00 ± 0.00, -39.23 ± 2.42, 30.45 ± 67.54, -226.91 ± 75.85, 0.00 ± 0.00
 251, 0.00 ± 0.00, 0.00 ± 0.00, -39.23 ± 2.42, 30.45 ± 67.54, -298.47 ± 80.12, 0.00 ± 0.00
 469 (251-200) [l=108 cm] - K.
 251, 0.00 ± 0.00, 0.00 ± 0.00, -79.18 ± 2.98, 21.68 ± 67.53, -298.47 ± 80.12, 0.00 ± 0.00
 200, 0.00 ± 0.00, 0.00 ± 0.00, -79.18 ± 2.98, 21.68 ± 67.53, -383.67 ± 82.25, 0.00 ± 0.00
 470 (356-357) [l=370 cm] - T.
 356, 0.00 ± 0.00, 0.00 ± 0.00, 8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 357, 0.00 ± 0.00, 0.00 ± 0.00, -8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 471 (251-357) [l=30 cm] - K.
 251, 16.19 ± 0.96, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 357, 16.19 ± 0.96, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 472 (158-252) [l=108 cm] - K.
 158, 0.00 ± 0.00, 0.00 ± 0.00, 79.15 ± 2.98, -21.86 ± 67.53, -383.45 ± 82.23, 0.00 ± 0.00
 252, 0.00 ± 0.00, 0.00 ± 0.00, 79.15 ± 2.98, -21.86 ± 67.53, -298.12 ± 80.09, 0.00 ± 0.00
 473 (252-155) [l=182 cm] - K.
 252, 0.00 ± 0.00, 0.00 ± 0.00, 39.21 ± 2.41, -30.64 ± 67.54, -298.13 ± 80.09, 0.00 ± 0.00
 155, 0.00 ± 0.00, 0.00 ± 0.00, 39.21 ± 2.41, -30.64 ± 67.54, -226.69 ± 75.84, 0.00 ± 0.00
 474 (355-358) [l=370 cm] - T.
 355, 0.00 ± 0.00, 0.00 ± 0.00, 8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 358, 0.00 ± 0.00, 0.00 ± 0.00, -8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 475 (252-358) [l=30 cm] - K.
 252, 16.19 ± 0.96, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 358, 16.19 ± 0.96, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 476 (200-254) [l=262 cm] - K.
 200, 0.00 ± 0.00, 0.00 ± 0.00, -10.96 ± 5.64, 21.70 ± 68.29, -390.13 ± 79.72, 0.00 ± 0.00
 254, 0.00 ± 0.00, 0.00 ± 0.00, -10.96 ± 5.64, 21.70 ± 68.29, -418.90 ± 65.18, 0.00 ± 0.00
 477 (254-198) [l=28 cm] - K.
 254, 0.00 ± 0.00, 0.00 ± 0.00, -50.91 ± 6.16, 12.93 ± 68.28, -418.90 ± 65.18, 0.00 ± 0.00
 198, 0.00 ± 0.00, 0.00 ± 0.00, -50.91 ± 6.16, 12.93 ± 68.28, -432.95 ± 63.55, 0.00 ± 0.00
 478 (357-359) [l=370 cm] - T.
 357, 0.00 ± 0.00, 0.00 ± 0.00, 8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 359, 0.00 ± 0.00, 0.00 ± 0.00, -8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 479 (254-359) [l=30 cm] - K.
 254, 16.19 ± 0.91, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 359, 16.19 ± 0.91, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 480 (159-255) [l=28 cm] - K.
 159, 0.00 ± 0.00, 0.00 ± 0.00, 50.92 ± 6.16, -13.11 ± 68.28, -432.82 ± 63.53, 0.00 ± 0.00
 255, 0.00 ± 0.00, 0.00 ± 0.00, 50.92 ± 6.16, -13.11 ± 68.28, -418.67 ± 65.18, 0.00 ± 0.00
 481 (255-158) [l=262 cm] - K.
 255, 0.00 ± 0.00, 0.00 ± 0.00, 10.97 ± 5.64, -21.88 ± 68.28, -418.67 ± 65.18, 0.00 ± 0.00
 158, 0.00 ± 0.00, 0.00 ± 0.00, 10.97 ± 5.64, -21.88 ± 68.28, -389.92 ± 79.71, 0.00 ± 0.00
 482 (358-360) [l=370 cm] - T.
 358, 0.00 ± 0.00, 0.00 ± 0.00, 8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 360, 0.00 ± 0.00, 0.00 ± 0.00, -8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 483 (255-360) [l=30 cm] - K.
 255, 16.19 ± 0.91, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 360, 16.19 ± 0.91, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 484 (197-257) [l=110 cm] - K.
 197, 0.00 ± 0.00, 0.00 ± 0.00, 12.48 ± 8.49, 12.95 ± 68.86, -553.66 ± 48.68, 0.00 ± 0.00
 257, 0.00 ± 0.00, 0.00 ± 0.00, 12.48 ± 8.49, 12.95 ± 68.86, -539.94 ± 39.44, 0.00 ± 0.00
 485 (257-195) [l=123 cm] - K.
 257, 0.00 ± 0.00, 0.00 ± 0.00, -27.30 ± 8.92, 4.21 ± 68.86, -540.02 ± 39.44, 0.00 ± 0.00
 195, 0.00 ± 0.00, 0.00 ± 0.00, -27.30 ± 8.92, 4.21 ± 68.86, -573.49 ± 28.86, 0.00 ± 0.00
 486 (359-361) [l=370 cm] - T.
 359, 0.00 ± 0.00, 0.00 ± 0.00, 8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 361, 0.00 ± 0.00, 0.00 ± 0.00, -8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 487 (257-361) [l=30 cm] - K.
 257, 16.13 ± 0.86, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.07 ± 0.00, 0.00 ± 0.00
 361, 16.13 ± 0.86, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.07 ± 0.00, 0.00 ± 0.00
 488 (162-258) [l=123 cm] - K.
 162, 0.00 ± 0.00, 0.00 ± 0.00, 27.32 ± 8.91, -4.40 ± 68.86, -573.48 ± 28.85, 0.00 ± 0.00
 258, 0.00 ± 0.00, 0.00 ± 0.00, 27.32 ± 8.91, -4.40 ± 68.86, -539.93 ± 39.44, 0.00 ± 0.00
 489 (258-161) [l=110 cm] - K.
 258, 0.00 ± 0.00, 0.00 ± 0.00, -12.46 ± 8.49, -13.14 ± 68.86, -539.87 ± 39.44, 0.00 ± 0.00
 161, 0.00 ± 0.00, 0.00 ± 0.00, -12.46 ± 8.49, -13.14 ± 68.86, -553.54 ± 48.66, 0.00 ± 0.00
 490 (360-362) [l=370 cm] - T.
 360, 0.00 ± 0.00, 0.00 ± 0.00, 8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 362, 0.00 ± 0.00, 0.00 ± 0.00, -8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 491 (258-362) [l=30 cm] - K.
 258, 16.13 ± 0.86, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.07 ± 0.00, 0.00 ± 0.00
 362, 16.13 ± 0.86, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.07 ± 0.00, 0.00 ± 0.00
 492 (164-259) [l=0 cm] - K.
 164, 0.00 ± 0.00, 0.00 ± 0.00, 12.46 ± 4.75, -0.15 ± 34.55, -299.18 ± 4.54, 0.00 ± 0.00
 259, 0.00 ± 0.00, 0.00 ± 0.00, 12.46 ± 4.75, -0.15 ± 34.55, -299.15 ± 4.55, 0.00 ± 0.00
 493 (259-163) [l=122 cm] - K.

259, 0.00 ± 0.00, 0.00 ± 0.00, -7.99 ± 9.02, -4.41 ± 69.15, -597.35 ± 9.11, 0.00 ± 0.00
 163, 0.00 ± 0.00, 0.00 ± 0.00, -7.99 ± 9.02, -4.41 ± 69.15, -607.11 ± 18.48, 0.00 ± 0.00
 494 (362-363) [l=368 cm] - T.
 362, 0.00 ± 0.00, 0.00 ± 0.00, 8.04 ± 0.00, 0.00 ± 0.00, -4.92 ± 0.00, 0.00 ± 0.00
 363, 0.00 ± 0.00, 0.00 ± 0.00, -8.04 ± 0.00, 0.00 ± 0.00, -4.92 ± 0.00, 0.00 ± 0.00
 495 (259-363) [l=30 cm] - K.
 259, 15.26 ± 0.77, 0.00 ± 0.00, -0.06 ± 0.00, 0.00 ± 0.00, 0.95 ± 0.00, 0.00 ± 0.00
 363, 15.26 ± 0.77, 0.00 ± 0.00, -0.06 ± 0.00, 0.00 ± 0.00, 0.93 ± 0.00, 0.00 ± 0.00
 496 (171-261) [l=73 cm] - K.
 171, 0.00 ± 0.00, 0.00 ± 0.00, 17.84 ± 8.03, 13.19 ± 69.75, -560.32 ± 62.35, 0.00 ± 0.00
 261, 0.00 ± 0.00, 0.00 ± 0.00, 17.84 ± 8.03, 13.19 ± 69.75, -547.39 ± 56.63, 0.00 ± 0.00
 497 (261-169) [l=158 cm] - K.
 261, 0.00 ± 0.00, 0.00 ± 0.00, -23.80 ± 7.53, 4.05 ± 69.75, -546.47 ± 56.63, 0.00 ± 0.00
 169, 0.00 ± 0.00, 0.00 ± 0.00, -23.80 ± 7.53, 4.05 ± 69.75, -583.96 ± 45.08, 0.00 ± 0.00
 498 (261-364) [l=30 cm] - K.
 261, 16.90 ± 0.90, 0.00 ± 0.00, -0.06 ± 0.00, 0.00 ± 0.00, 0.91 ± 0.00, 0.00 ± 0.00
 364, 16.90 ± 0.90, 0.00 ± 0.00, -0.06 ± 0.00, 0.00 ± 0.00, 0.90 ± 0.00, 0.00 ± 0.00
 499 (188-263) [l=157 cm] - K.
 188, 0.00 ± 0.00, 0.00 ± 0.00, 23.84 ± 7.53, -4.23 ± 69.75, -583.68 ± 45.08, 0.00 ± 0.00
 263, 0.00 ± 0.00, 0.00 ± 0.00, 23.84 ± 7.53, -4.23 ± 69.75, -546.21 ± 56.61, 0.00 ± 0.00
 500 (263-187) [l=73 cm] - K.
 263, 0.00 ± 0.00, 0.00 ± 0.00, -17.80 ± 8.03, -13.37 ± 69.75, -547.12 ± 56.61, 0.00 ± 0.00
 187, 0.00 ± 0.00, 0.00 ± 0.00, -17.80 ± 8.03, -13.37 ± 69.75, -560.08 ± 62.35, 0.00 ± 0.00
 501 (263-365) [l=30 cm] - K.
 263, 16.89 ± 0.90, 0.00 ± 0.00, -0.06 ± 0.00, 0.00 ± 0.00, 0.91 ± 0.00, 0.00 ± 0.00
 365, 16.89 ± 0.90, 0.00 ± 0.00, -0.06 ± 0.00, 0.00 ± 0.00, 0.89 ± 0.00, 0.00 ± 0.00
 502 (174-264) [l=243 cm] - K.
 174, 0.00 ± 0.00, 0.00 ± 0.00, -5.00 ± 4.11, 21.93 ± 70.27, -412.29 ± 82.90, 0.00 ± 0.00
 264, 0.00 ± 0.00, 0.00 ± 0.00, -5.00 ± 4.11, 21.93 ± 70.27, -424.41 ± 73.42, 0.00 ± 0.00
 503 (264-172) [l=67 cm] - K.
 264, 0.00 ± 0.00, 0.00 ± 0.00, -44.96 ± 3.69, 13.16 ± 70.27, -424.41 ± 73.42, 0.00 ± 0.00
 172, 0.00 ± 0.00, 0.00 ± 0.00, -44.96 ± 3.69, 13.16 ± 70.27, -454.71 ± 71.08, 0.00 ± 0.00
 504 (364-366) [l=370 cm] - T.
 364, 0.00 ± 0.00, 0.00 ± 0.00, 8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 366, 0.00 ± 0.00, 0.00 ± 0.00, -8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 505 (264-366) [l=30 cm] - K.
 264, 16.19 ± 0.91, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 366, 16.19 ± 0.91, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 506 (185-266) [l=67 cm] - K.
 185, 0.00 ± 0.00, 0.00 ± 0.00, 44.97 ± 3.69, -13.35 ± 70.27, -454.47 ± 71.08, 0.00 ± 0.00
 266, 0.00 ± 0.00, 0.00 ± 0.00, 44.97 ± 3.69, -13.35 ± 70.27, -424.24 ± 73.41, 0.00 ± 0.00
 507 (266-184) [l=243 cm] - K.
 266, 0.00 ± 0.00, 0.00 ± 0.00, 5.01 ± 4.12, -22.12 ± 70.28, -424.24 ± 73.41, 0.00 ± 0.00
 184, 0.00 ± 0.00, 0.00 ± 0.00, 5.01 ± 4.12, -22.12 ± 70.28, -412.07 ± 82.90, 0.00 ± 0.00
 508 (365-367) [l=370 cm] - T.
 365, 0.00 ± 0.00, 0.00 ± 0.00, 8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 367, 0.00 ± 0.00, 0.00 ± 0.00, -8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 509 (266-367) [l=30 cm] - K.
 266, 16.19 ± 0.91, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 367, 16.19 ± 0.91, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 510 (175-267) [l=183 cm] - K.
 175, 0.00 ± 0.00, 0.00 ± 0.00, -38.17 ± 4.89, 30.67 ± 70.95, -235.53 ± 69.49, 0.00 ± 0.00
 267, 0.00 ± 0.00, 0.00 ± 0.00, -38.17 ± 4.89, 30.67 ± 70.95, -305.23 ± 78.20, 0.00 ± 0.00
 511 (267-174) [l=127 cm] - K.
 267, 0.00 ± 0.00, 0.00 ± 0.00, -78.08 ± 5.78, 21.90 ± 70.94, -305.23 ± 78.20, 0.00 ± 0.00
 174, 0.00 ± 0.00, 0.00 ± 0.00, -78.08 ± 5.78, 21.90 ± 70.94, -404.71 ± 84.87, 0.00 ± 0.00
 512 (366-368) [l=370 cm] - T.
 366, 0.00 ± 0.00, 0.00 ± 0.00, 8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 368, 0.00 ± 0.00, 0.00 ± 0.00, -8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 513 (267-368) [l=30 cm] - K.
 267, 16.19 ± 0.96, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 368, 16.19 ± 0.96, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 514 (184-269) [l=127 cm] - K.
 184, 0.00 ± 0.00, 0.00 ± 0.00, 78.08 ± 5.78, -22.08 ± 70.95, -404.48 ± 84.87, 0.00 ± 0.00
 269, 0.00 ± 0.00, 0.00 ± 0.00, 78.08 ± 5.78, -22.08 ± 70.95, -305.16 ± 78.22, 0.00 ± 0.00
 515 (269-181) [l=183 cm] - K.
 269, 0.00 ± 0.00, 0.00 ± 0.00, 38.17 ± 4.89, -30.85 ± 70.96, -305.16 ± 78.22, 0.00 ± 0.00
 181, 0.00 ± 0.00, 0.00 ± 0.00, 38.17 ± 4.89, -30.85 ± 70.96, -235.39 ± 69.50, 0.00 ± 0.00
 516 (367-369) [l=370 cm] - T.
 367, 0.00 ± 0.00, 0.00 ± 0.00, 8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 369, 0.00 ± 0.00, 0.00 ± 0.00, -8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 517 (269-369) [l=30 cm] - K.
 269, 16.19 ± 0.96, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 369, 16.19 ± 0.96, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 518 (181-271) [l=187 cm] - K.
 181, 0.00 ± 0.00, 0.00 ± 0.00, 38.17 ± 4.89, -30.85 ± 70.96, -235.39 ± 69.50, 0.00 ± 0.00
 271, 0.00 ± 0.00, 0.00 ± 0.00, 38.17 ± 4.89, -30.85 ± 70.96, -163.93 ± 60.67, 0.00 ± 0.00
 519 (271-180) [l=104 cm] - K.
 271, 0.00 ± 0.00, 0.00 ± 0.00, 1.27 ± 4.76, -38.31 ± 70.96, -163.23 ± 60.67, 0.00 ± 0.00
 180, 0.00 ± 0.00, 0.00 ± 0.00, 1.27 ± 4.76, -38.31 ± 70.96, -161.91 ± 56.26, 0.00 ± 0.00
 520 (369-370) [l=370 cm] - T.
 369, 0.00 ± 0.00, 0.00 ± 0.00, 8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 370, 0.00 ± 0.00, 0.00 ± 0.00, -8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 521 (370-279) [l=395 cm] - T.
 370, 0.00 ± 0.00, 0.00 ± 0.00, 8.65 ± 0.00, 0.00 ± 0.00, -5.69 ± 0.00, 0.00 ± 0.00
 279, 0.00 ± 0.00, 0.00 ± 0.00, -8.64 ± 0.00, 0.00 ± 0.00, -5.69 ± 0.00, 0.00 ± 0.00

522 (271-370) [l=30 cm] - K.
 271, 16.74 ± 1.04, 0.00 ± 0.00, 0.04 ± 0.00, 0.00 ± 0.00, -0.70 ± 0.00, 0.00 ± 0.00
 370, 16.74 ± 1.04, 0.00 ± 0.00, 0.04 ± 0.00, 0.00 ± 0.00, -0.69 ± 0.00, 0.00 ± 0.00
 523 (177-272) [l=104 cm] - K.
 177, 0.00 ± 0.00, 0.00 ± 0.00, -1.27 ± 4.76, 38.12 ± 70.96, -161.98 ± 56.25, 0.00 ± 0.00
 272, 0.00 ± 0.00, 0.00 ± 0.00, -1.27 ± 4.76, 38.12 ± 70.96, -163.30 ± 60.66, 0.00 ± 0.00
 524 (272-175) [l=187 cm] - K.
 272, 0.00 ± 0.00, 0.00 ± 0.00, -38.17 ± 4.89, 30.67 ± 70.95, -164.00 ± 60.66, 0.00 ± 0.00
 175, 0.00 ± 0.00, 0.00 ± 0.00, -38.17 ± 4.89, 30.67 ± 70.95, -235.53 ± 69.49, 0.00 ± 0.00
 525 (368-371) [l=370 cm] - T.
 368, 0.00 ± 0.00, 0.00 ± 0.00, 8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 371, 0.00 ± 0.00, 0.00 ± 0.00, -8.09 ± 0.00, 0.00 ± 0.00, -4.99 ± 0.00, 0.00 ± 0.00
 526 (371-277) [l=395 cm] - T.
 371, 0.00 ± 0.00, 0.00 ± 0.00, 8.64 ± 0.00, 0.00 ± 0.00, -5.69 ± 0.00, 0.00 ± 0.00
 277, 0.00 ± 0.00, 0.00 ± 0.00, -8.64 ± 0.00, 0.00 ± 0.00, -5.69 ± 0.00, 0.00 ± 0.00
 527 (272-371) [l=30 cm] - K.
 272, 16.73 ± 1.04, 0.00 ± 0.00, 0.04 ± 0.00, 0.00 ± 0.00, -0.70 ± 0.00, 0.00 ± 0.00
 371, 16.73 ± 1.04, 0.00 ± 0.00, 0.04 ± 0.00, 0.00 ± 0.00, -0.68 ± 0.00, 0.00 ± 0.00
 528 (194-289) [l=122 cm] - K.
 194, 0.00 ± 0.00, 0.00 ± 0.00, 8.01 ± 9.02, 4.23 ± 69.16, -607.09 ± 18.50, 0.00 ± 0.00
 289, 0.00 ± 0.00, 0.00 ± 0.00, 8.01 ± 9.02, 4.23 ± 69.16, -597.30 ± 9.12, 0.00 ± 0.00
 529 (289-193) [l=0 cm] - K.
 289, 0.00 ± 0.00, 0.00 ± 0.00, -12.44 ± 4.75, 0.05 ± 34.56, -299.12 ± 4.56, 0.00 ± 0.00
 193, 0.00 ± 0.00, 0.00 ± 0.00, -12.44 ± 4.75, 0.05 ± 34.56, -299.15 ± 4.55, 0.00 ± 0.00
 530 (361-372) [l=367 cm] - T.
 361, 0.00 ± 0.00, 0.00 ± 0.00, 8.03 ± 0.00, 0.00 ± 0.00, -4.92 ± 0.00, 0.00 ± 0.00
 372, 0.00 ± 0.00, 0.00 ± 0.00, -8.03 ± 0.00, 0.00 ± 0.00, -4.92 ± 0.00, 0.00 ± 0.00
 531 (289-372) [l=30 cm] - K.
 289, 15.26 ± 0.77, 0.00 ± 0.00, -0.06 ± 0.00, 0.00 ± 0.00, 0.94 ± 0.00, 0.00 ± 0.00
 372, 15.26 ± 0.77, 0.00 ± 0.00, -0.06 ± 0.00, 0.00 ± 0.00, 0.92 ± 0.00, 0.00 ± 0.00
 532 (192-298) [l=165 cm] - K.
 192, 0.00 ± 0.00, 0.00 ± 0.00, 23.31 ± 8.54, 0.13 ± 69.51, -639.39 ± 15.49, 0.00 ± 0.00
 298, 0.00 ± 0.00, 0.00 ± 0.00, 23.31 ± 8.54, 0.13 ± 69.51, -600.95 ± 25.60, 0.00 ± 0.00
 533 (298-190) [l=0 cm] - K.
 298, 0.00 ± 0.00, 0.00 ± 0.00, -5.70 ± 4.49, -2.12 ± 34.73, -299.52 ± 12.80, 0.00 ± 0.00
 190, 0.00 ± 0.00, 0.00 ± 0.00, -5.70 ± 4.49, -2.12 ± 34.73, -299.53 ± 12.81, 0.00 ± 0.00
 534 (372-373) [l=330 cm] - T.
 372, 0.00 ± 0.00, 0.00 ± 0.00, 7.23 ± 0.00, 0.00 ± 0.00, -3.98 ± 0.00, 0.00 ± 0.00
 373, 0.00 ± 0.00, 0.00 ± 0.00, -7.23 ± 0.00, 0.00 ± 0.00, -3.98 ± 0.00, 0.00 ± 0.00
 535 (373-365) [l=402 cm] - T.
 373, 0.00 ± 0.00, 0.00 ± 0.00, 8.80 ± 0.00, 0.00 ± 0.00, -5.90 ± 0.00, 0.00 ± 0.00
 365, 0.00 ± 0.00, 0.00 ± 0.00, -8.80 ± 0.00, 0.00 ± 0.00, -5.90 ± 0.00, 0.00 ± 0.00
 536 (298-373) [l=30 cm] - K.
 298, 16.02 ± 0.80, 0.00 ± 0.00, 0.12 ± 0.00, 0.00 ± 0.00, -1.92 ± 0.00, 0.00 ± 0.00
 373, 16.02 ± 0.80, 0.00 ± 0.00, 0.12 ± 0.00, 0.00 ± 0.00, -1.88 ± 0.00, 0.00 ± 0.00
 537 (167-301) [l=0 cm] - K.
 167, 0.00 ± 0.00, 0.00 ± 0.00, 5.72 ± 4.49, 2.03 ± 34.73, -299.61 ± 12.81, 0.00 ± 0.00
 301, 0.00 ± 0.00, 0.00 ± 0.00, 5.72 ± 4.49, 2.03 ± 34.73, -299.60 ± 12.80, 0.00 ± 0.00
 538 (301-166) [l=165 cm] - K.
 301, 0.00 ± 0.00, 0.00 ± 0.00, -23.28 ± 8.54, -0.31 ± 69.50, -601.12 ± 25.61, 0.00 ± 0.00
 166, 0.00 ± 0.00, 0.00 ± 0.00, -23.28 ± 8.54, -0.31 ± 69.50, -639.50 ± 15.50, 0.00 ± 0.00
 539 (363-374) [l=330 cm] - T.
 363, 0.00 ± 0.00, 0.00 ± 0.00, 7.23 ± 0.00, 0.00 ± 0.00, -3.98 ± 0.00, 0.00 ± 0.00
 374, 0.00 ± 0.00, 0.00 ± 0.00, -7.23 ± 0.00, 0.00 ± 0.00, -3.98 ± 0.00, 0.00 ± 0.00
 540 (374-364) [l=402 cm] - T.
 374, 0.00 ± 0.00, 0.00 ± 0.00, 8.80 ± 0.00, 0.00 ± 0.00, -5.90 ± 0.00, 0.00 ± 0.00
 364, 0.00 ± 0.00, 0.00 ± 0.00, -8.80 ± 0.00, 0.00 ± 0.00, -5.90 ± 0.00, 0.00 ± 0.00
 541 (301-374) [l=30 cm] - K.
 301, 16.03 ± 0.80, 0.00 ± 0.00, 0.12 ± 0.00, 0.00 ± 0.00, -1.93 ± 0.00, 0.00 ± 0.00
 374, 16.03 ± 0.80, 0.00 ± 0.00, 0.12 ± 0.00, 0.00 ± 0.00, -1.89 ± 0.00, 0.00 ± 0.00
 542 (305-284) [l=400 cm] - K.
 305, -5.55 ± 0.03, -0.06 ± 0.03, -0.01 ± 0.01, 0.00 ± 0.00, 0.06 ± 0.06, -0.53 ± 0.25
 284, -5.55 ± 0.03, -0.06 ± 0.03, -0.01 ± 0.01, 0.00 ± 0.00, 0.03 ± 0.03, -0.31 ± 0.14
 543 (307-283) [l=350 cm] - K.
 307, -1.88 ± 0.14, -0.15 ± 0.04, -0.01 ± 0.01, 0.00 ± 0.00, 0.09 ± 0.09, -0.95 ± 0.24
 283, -1.88 ± 0.14, -0.15 ± 0.04, -0.01 ± 0.01, 0.00 ± 0.00, 0.04 ± 0.04, -0.42 ± 0.11
 544 (309-285) [l=350 cm] - K.
 309, -1.88 ± 0.14, 0.15 ± 0.04, -0.01 ± 0.01, 0.00 ± 0.00, 0.09 ± 0.09, 0.95 ± 0.24
 285, -1.88 ± 0.14, 0.15 ± 0.04, -0.01 ± 0.01, 0.00 ± 0.00, 0.04 ± 0.04, 0.42 ± 0.11
 545 (311-286) [l=400 cm] - K.
 311, -5.55 ± 0.03, 0.06 ± 0.03, -0.01 ± 0.01, 0.00 ± 0.00, 0.06 ± 0.06, 0.53 ± 0.25
 286, -5.55 ± 0.03, 0.06 ± 0.03, -0.01 ± 0.01, 0.00 ± 0.00, 0.03 ± 0.03, 0.31 ± 0.14
 546 (313-292) [l=350 cm] - K.
 313, -1.94 ± 0.15, -0.15 ± 0.04, 0.02 ± 0.01, 0.00 ± 0.00, -0.13 ± 0.09, -0.97 ± 0.23
 292, -1.94 ± 0.15, -0.15 ± 0.04, 0.02 ± 0.01, 0.00 ± 0.00, -0.06 ± 0.04, -0.43 ± 0.10
 547 (315-293) [l=400 cm] - K.
 315, -5.60 ± 0.03, -0.06 ± 0.03, 0.01 ± 0.01, 0.00 ± 0.00, -0.08 ± 0.06, -0.54 ± 0.24
 293, -5.60 ± 0.03, -0.06 ± 0.03, 0.01 ± 0.01, 0.00 ± 0.00, -0.05 ± 0.03, -0.31 ± 0.14
 548 (317-295) [l=400 cm] - K.
 317, -5.60 ± 0.03, 0.06 ± 0.03, 0.01 ± 0.01, 0.00 ± 0.00, -0.08 ± 0.06, 0.54 ± 0.24
 295, -5.60 ± 0.03, 0.06 ± 0.03, 0.01 ± 0.01, 0.00 ± 0.00, -0.05 ± 0.03, 0.31 ± 0.14
 549 (319-302) [l=350 cm] - K.
 319, -1.94 ± 0.15, 0.15 ± 0.04, 0.02 ± 0.01, 0.00 ± 0.00, -0.13 ± 0.09, 0.97 ± 0.23
 302, -1.94 ± 0.15, 0.15 ± 0.04, 0.02 ± 0.01, 0.00 ± 0.00, -0.06 ± 0.04, 0.43 ± 0.10

--> Deformazioni nelle Aste (v=sy, w=sz, fiy, fiz) (yz=assi locali) [mm, mrad]

1 (1-i'-j'-2) [l=500 cm] [Piano XZ: 184 rig.-288 def.-28 rig.] - M.
1, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.877E-03 ± 1.081E-01, -1.556E-05 ± 8.567E-01
i', 0.000E+00 ± 0.000E+00, 1.263E-02 ± 1.985E-01, -6.877E-03 ± 1.081E-01, -1.556E-05 ± 8.567E-01
j', -9.421E-05 ± 5.244E+00, 2.066E-03 ± 8.028E-01, -3.855E-04 ± 9.602E-02, -2.351E-05 ± 8.615E-01
2, -9.421E-05 ± 5.244E+00, 2.175E-03 ± 8.190E-01, -3.855E-04 ± 9.602E-02, -2.351E-05 ± 8.615E-01

2 (1-3) [l=90 cm][90 def.] - K.
1, 0.000E+00 ± 0.000E+00, -6.795E+00 ± 4.160E+00, -6.877E-03 ± 1.081E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -6.795E+00 ± 4.160E+00, -6.877E-03 ± 1.081E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -6.789E+00 ± 4.132E+00, -6.877E-03 ± 1.081E-01, 0.000E+00 ± 0.000E+00 - K.
3, 0.000E+00 ± 0.000E+00, -6.789E+00 ± 4.132E+00, -6.877E-03 ± 1.081E-01, 0.000E+00 ± 0.000E+00
3 (4-2) [l=90 cm][90 def.]
4, -9.435E-05 ± 5.255E+00, -6.850E+00 ± 4.223E+00, -3.856E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
i', -9.435E-05 ± 5.255E+00, -6.850E+00 ± 4.223E+00, -3.856E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - K.
j', -9.421E-05 ± 5.244E+00, -6.850E+00 ± 4.197E+00, -3.855E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
2, -9.421E-05 ± 5.244E+00, -6.850E+00 ± 4.197E+00, -3.855E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02

4 (2-5) [l=90 cm][90 def.]
2, -9.421E-05 ± 5.244E+00, -6.850E+00 ± 4.197E+00, -3.855E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - M.
i', -9.421E-05 ± 5.244E+00, -6.850E+00 ± 4.197E+00, -3.855E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
j', -9.406E-05 ± 5.234E+00, -6.849E+00 ± 4.171E+00, -3.852E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
5, -9.406E-05 ± 5.234E+00, -6.849E+00 ± 4.171E+00, -3.852E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - K.
5 (6-i'-j'-7) [l=500 cm] [Piano XZ: 185 rig.-287 def.-29 rig.]
6, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -9.268E-03 ± 1.014E-01, -3.928E-03 ± 9.818E-01
i', 0.000E+00 ± 0.000E+00, 1.715E-02 ± 1.876E-01, -9.268E-03 ± 1.014E-01, -3.928E-03 ± 9.818E-01 - K.
j', -9.354E-05 ± 5.198E+00, 2.066E-03 ± 8.027E-01, -3.825E-04 ± 9.604E-02, -3.530E-05 ± 8.615E-01
7, -9.354E-05 ± 5.198E+00, 2.175E-03 ± 8.190E-01, -3.825E-04 ± 9.604E-02, -3.530E-05 ± 8.615E-01

6 (8-6) [l=88 cm][88 def.]
8, 0.000E+00 ± 0.000E+00, -6.776E+00 ± 4.016E+00, -9.268E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00 - K.
i', 0.000E+00 ± 0.000E+00, -6.776E+00 ± 4.016E+00, -9.268E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -6.768E+00 ± 3.979E+00, -9.268E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00
6, 0.000E+00 ± 0.000E+00, -6.768E+00 ± 3.979E+00, -9.268E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00 - F.
7 (9-7) [l=88 cm][88 def.]
9, -9.369E-05 ± 5.208E+00, -6.849E+00 ± 4.105E+00, -3.837E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
i', -9.369E-05 ± 5.208E+00, -6.849E+00 ± 4.105E+00, -3.837E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - S.
j', -9.354E-05 ± 5.198E+00, -6.848E+00 ± 4.079E+00, -3.825E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
7, -9.354E-05 ± 5.198E+00, -6.848E+00 ± 4.079E+00, -3.825E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02

8 (7-10) [l=88 cm][88 def.]
7, -9.354E-05 ± 5.198E+00, -6.848E+00 ± 4.079E+00, -3.825E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - M.
i', -9.354E-05 ± 5.198E+00, -6.848E+00 ± 4.079E+00, -3.825E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
j', -9.340E-05 ± 5.188E+00, -6.848E+00 ± 4.054E+00, -3.809E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
10, -9.340E-05 ± 5.188E+00, -6.848E+00 ± 4.054E+00, -3.809E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
9 (3-8) [l=227 cm][227 def.]
3, 0.000E+00 ± 0.000E+00, -6.789E+00 ± 4.132E+00, -6.877E-03 ± 1.081E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -6.789E+00 ± 4.132E+00, -6.877E-03 ± 1.081E-01, 0.000E+00 ± 0.000E+00 - K.
j', 0.000E+00 ± 0.000E+00, -6.776E+00 ± 4.016E+00, -9.268E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00
8, 0.000E+00 ± 0.000E+00, -6.776E+00 ± 4.016E+00, -9.268E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00

10 (5-9) [l=227 cm][227 def.]
5, -9.406E-05 ± 5.234E+00, -6.849E+00 ± 4.171E+00, -3.852E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - M.
i', -9.406E-05 ± 5.234E+00, -6.849E+00 ± 4.171E+00, -3.852E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
j', -9.369E-05 ± 5.208E+00, -6.849E+00 ± 4.105E+00, -3.837E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
9, -9.369E-05 ± 5.208E+00, -6.849E+00 ± 4.105E+00, -3.837E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.

11 (11-j'-12) [l=500 cm] [Piano XZ: 464 def.-36 rig.]
11, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -9.304E-03 ± 1.014E-01, -3.929E-03 ± 9.818E-01
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -9.304E-03 ± 1.014E-01, -3.929E-03 ± 9.818E-01 - K.
j', -9.325E-05 ± 5.178E+00, 2.040E-03 ± 7.987E-01, -3.791E-04 ± 9.604E-02, -4.046E-05 ± 8.616E-01
12, -9.325E-05 ± 5.178E+00, 2.175E-03 ± 8.190E-01, -3.791E-04 ± 9.604E-02, -4.046E-05 ± 8.616E-01

12 (10-12) [l=88 cm][88 def.]
10, -9.340E-05 ± 5.188E+00, -6.848E+00 ± 4.054E+00, -3.809E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - S.
i', -9.340E-05 ± 5.188E+00, -6.848E+00 ± 4.054E+00, -3.809E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
j', -9.325E-05 ± 5.178E+00, -6.848E+00 ± 4.028E+00, -3.791E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
12, -9.325E-05 ± 5.178E+00, -6.848E+00 ± 4.028E+00, -3.791E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - M.

13 (12-13) [l=88 cm][88 def.]
12, -9.325E-05 ± 5.178E+00, -6.848E+00 ± 4.028E+00, -3.791E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
i', -9.325E-05 ± 5.178E+00, -6.848E+00 ± 4.028E+00, -3.791E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
j', -9.311E-05 ± 5.168E+00, -6.847E+00 ± 4.003E+00, -3.769E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
13, -9.311E-05 ± 5.168E+00, -6.847E+00 ± 4.003E+00, -3.769E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02

14 (14-j'-15) [l=500 cm] [Piano XZ: 464 def.-36 rig.]
14, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 7.698E-03 ± 9.929E-02, -2.701E-02 ± 9.738E-01 - K.
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 7.698E-03 ± 9.929E-02, -2.701E-02 ± 9.738E-01
j', -9.259E-05 ± 5.132E+00, 2.044E-03 ± 7.987E-01, -3.662E-04 ± 9.604E-02, -5.223E-05 ± 8.616E-01
15, -9.259E-05 ± 5.132E+00, 2.175E-03 ± 8.190E-01, -3.662E-04 ± 9.604E-02, -5.223E-05 ± 8.616E-01 - K.

15 (16-15) [l=88 cm][88 def.]
16, -9.273E-05 ± 5.142E+00, -6.846E+00 ± 3.937E+00, -3.698E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
i', -9.273E-05 ± 5.142E+00, -6.846E+00 ± 3.937E+00, -3.698E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - M.
j', -9.259E-05 ± 5.132E+00, -6.846E+00 ± 3.911E+00, -3.662E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
15, -9.259E-05 ± 5.132E+00, -6.846E+00 ± 3.911E+00, -3.662E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02

16 (15-17) [l=88 cm][88 def.]
15, -9.259E-05 ± 5.132E+00, -6.846E+00 ± 3.911E+00, -3.662E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
i', -9.259E-05 ± 5.132E+00, -6.846E+00 ± 3.911E+00, -3.662E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
j', -9.244E-05 ± 5.122E+00, -6.846E+00 ± 3.886E+00, -3.620E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
17, -9.244E-05 ± 5.122E+00, -6.846E+00 ± 3.886E+00, -3.620E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.

17 (13-16) [l=227 cm][227 def.]
13, -9.311E-05 ± 5.168E+00, -6.847E+00 ± 4.003E+00, -3.769E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
i', -9.311E-05 ± 5.168E+00, -6.847E+00 ± 4.003E+00, -3.769E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
j', -9.273E-05 ± 5.142E+00, -6.846E+00 ± 3.937E+00, -3.698E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
16, -9.273E-05 ± 5.142E+00, -6.846E+00 ± 3.937E+00, -3.698E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02

18 (18-i'-j'-19) [l=500 cm] [Piano XZ: 185 rig.-287 def.-28 rig.]
18, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 7.635E-03 ± 9.931E-02, -2.702E-02 ± 9.738E-01 - F.
i', 0.000E+00 ± 0.000E+00, -1.413E-02 ± 1.838E-01, 7.635E-03 ± 9.931E-02, -2.702E-02 ± 9.738E-01
j', -9.230E-05 ± 5.112E+00, 2.074E-03 ± 8.028E-01, -3.572E-04 ± 9.604E-02, -5.740E-05 ± 8.616E-01
19, -9.230E-05 ± 5.112E+00, 2.175E-03 ± 8.190E-01, -3.572E-04 ± 9.604E-02, -5.740E-05 ± 8.616E-01 - S.
19 (18-20) [l=88 cm][88 def.]
18, 0.000E+00 ± 0.000E+00, -6.782E+00 ± 3.758E+00, 7.635E-03 ± 9.931E-02, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -6.782E+00 ± 3.758E+00, 7.635E-03 ± 9.931E-02, 0.000E+00 ± 0.000E+00 - M.
j', 0.000E+00 ± 0.000E+00, -6.788E+00 ± 3.744E+00, 7.635E-03 ± 9.931E-02, 0.000E+00 ± 0.000E+00
20, 0.000E+00 ± 0.000E+00, -6.788E+00 ± 3.744E+00, 7.635E-03 ± 9.931E-02, 0.000E+00 ± 0.000E+00
20 (17-19) [l=88 cm][88 def.]
17, -9.244E-05 ± 5.122E+00, -6.846E+00 ± 3.886E+00, -3.620E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
i', -9.244E-05 ± 5.122E+00, -6.846E+00 ± 3.886E+00, -3.620E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
j', -9.230E-05 ± 5.112E+00, -6.845E+00 ± 3.860E+00, -3.572E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
19, -9.230E-05 ± 5.112E+00, -6.845E+00 ± 3.860E+00, -3.572E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
21 (19-21) [l=88 cm][88 def.]
19, -9.230E-05 ± 5.112E+00, -6.845E+00 ± 3.860E+00, -3.572E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
i', -9.230E-05 ± 5.112E+00, -6.845E+00 ± 3.860E+00, -3.572E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - M.
j', -9.215E-05 ± 5.102E+00, -6.845E+00 ± 3.834E+00, -3.519E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
21, -9.215E-05 ± 5.102E+00, -6.845E+00 ± 3.834E+00, -3.519E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
22 (22-i'-j'-23) [l=500 cm] [Piano XZ: 255 rig.-191 def.-55 rig.]
22, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.943E-02 ± 1.006E-01, -5.891E-02 ± 8.540E-01 - K.
i', 0.000E+00 ± 0.000E+00, 1.513E-01 ± 2.560E-01, -5.943E-02 ± 1.006E-01, -5.891E-02 ± 8.540E-01
j', -9.173E-05 ± 5.073E+00, 1.993E-03 ± 7.884E-01, -3.330E-04 ± 9.604E-02, -6.753E-05 ± 8.617E-01
23, -9.173E-05 ± 5.073E+00, 2.175E-03 ± 8.190E-01, -3.330E-04 ± 9.604E-02, -6.753E-05 ± 8.617E-01 - K.
23 (24-22) [l=31 cm][31 def.]
24, 0.000E+00 ± 0.000E+00, -6.760E+00 ± 3.695E+00, -5.943E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -6.760E+00 ± 3.695E+00, -5.943E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00 - M.
j', 0.000E+00 ± 0.000E+00, -6.741E+00 ± 3.680E+00, -5.943E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00
22, 0.000E+00 ± 0.000E+00, -6.741E+00 ± 3.680E+00, -5.943E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00
24 (25-23) [l=31 cm][31 def.]
25, -9.178E-05 ± 5.076E+00, -6.844E+00 ± 3.769E+00, -3.356E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
i', -9.178E-05 ± 5.076E+00, -6.844E+00 ± 3.769E+00, -3.356E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
j', -9.173E-05 ± 5.073E+00, -6.844E+00 ± 3.760E+00, -3.330E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
23, -9.173E-05 ± 5.073E+00, -6.844E+00 ± 3.760E+00, -3.330E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
25 (23-26) [l=31 cm][31 def.]
23, -9.173E-05 ± 5.073E+00, -6.844E+00 ± 3.760E+00, -3.330E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
i', -9.173E-05 ± 5.073E+00, -6.844E+00 ± 3.760E+00, -3.330E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - S.
j', -9.168E-05 ± 5.069E+00, -6.844E+00 ± 3.751E+00, -3.304E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
26, -9.168E-05 ± 5.069E+00, -6.844E+00 ± 3.751E+00, -3.304E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
26 (20-24) [l=227 cm][227 def.]
20, 0.000E+00 ± 0.000E+00, -6.788E+00 ± 3.744E+00, 7.635E-03 ± 9.931E-02, 0.000E+00 ± 0.000E+00 - M.
i', 0.000E+00 ± 0.000E+00, -6.788E+00 ± 3.744E+00, 7.635E-03 ± 9.931E-02, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -6.760E+00 ± 3.695E+00, -5.943E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00
24, 0.000E+00 ± 0.000E+00, -6.760E+00 ± 3.695E+00, -5.943E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00 - K.
27 (21-25) [l=227 cm][227 def.]
21, -9.215E-05 ± 5.102E+00, -6.845E+00 ± 3.834E+00, -3.519E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
i', -9.215E-05 ± 5.102E+00, -6.845E+00 ± 3.834E+00, -3.519E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
j', -9.178E-05 ± 5.076E+00, -6.844E+00 ± 3.769E+00, -3.356E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
25, -9.178E-05 ± 5.076E+00, -6.844E+00 ± 3.769E+00, -3.356E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
28 (27-28) [l=500 cm][500 def.]
27, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.955E-02 ± 1.006E-01, -5.922E-02 ± 8.541E-01 - M.
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.955E-02 ± 1.006E-01, -5.922E-02 ± 8.541E-01
j', -9.148E-05 ± 5.055E+00, 2.175E-03 ± 8.190E-01, -3.194E-04 ± 9.604E-02, -6.934E-05 ± 8.617E-01
28, -9.148E-05 ± 5.055E+00, 2.175E-03 ± 8.190E-01, -3.194E-04 ± 9.604E-02, -6.934E-05 ± 8.617E-01 - K.
29 (26-28) [l=123 cm][123 def.]
26, -9.168E-05 ± 5.069E+00, -6.844E+00 ± 3.751E+00, -3.304E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
i', -9.168E-05 ± 5.069E+00, -6.844E+00 ± 3.751E+00, -3.304E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
j', -9.148E-05 ± 5.055E+00, -6.844E+00 ± 3.715E+00, -3.194E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
28, -9.148E-05 ± 5.055E+00, -6.844E+00 ± 3.715E+00, -3.194E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
30 (28-29) [l=123 cm][123 def.]
28, -9.148E-05 ± 5.055E+00, -6.844E+00 ± 3.715E+00, -3.194E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
i', -9.148E-05 ± 5.055E+00, -6.844E+00 ± 3.715E+00, -3.194E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
j', -9.127E-05 ± 5.041E+00, -6.843E+00 ± 3.680E+00, -3.085E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
29, -9.127E-05 ± 5.041E+00, -6.843E+00 ± 3.680E+00, -3.085E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - M.
31 (30-j'-31) [l=500 cm] [Piano XZ: 436 def.-64 rig.]
30, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.962E-02 ± 1.006E-01, -5.953E-02 ± 8.541E-01
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.962E-02 ± 1.006E-01, -5.953E-02 ± 8.541E-01 - K.
j', -9.123E-05 ± 5.038E+00, 1.978E-03 ± 7.831E-01, -3.062E-04 ± 9.603E-02, -7.046E-05 ± 8.617E-01
31, -9.123E-05 ± 5.038E+00, 2.175E-03 ± 8.190E-01, -3.062E-04 ± 9.603E-02, -7.046E-05 ± 8.617E-01
32 (29-31) [l=26 cm][26 def.]
29, -9.127E-05 ± 5.041E+00, -6.843E+00 ± 3.680E+00, -3.085E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - K.
i', -9.127E-05 ± 5.041E+00, -6.843E+00 ± 3.680E+00, -3.085E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
j', -9.123E-05 ± 5.038E+00, -6.843E+00 ± 3.673E+00, -3.062E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
31, -9.123E-05 ± 5.038E+00, -6.843E+00 ± 3.673E+00, -3.062E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - K.
33 (31-32) [l=26 cm][26 def.]
31, -9.123E-05 ± 5.038E+00, -6.843E+00 ± 3.673E+00, -3.062E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
i', -9.123E-05 ± 5.038E+00, -6.843E+00 ± 3.673E+00, -3.062E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - F.
j', -9.119E-05 ± 5.035E+00, -6.843E+00 ± 3.665E+00, -3.039E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
32, -9.119E-05 ± 5.035E+00, -6.843E+00 ± 3.665E+00, -3.039E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
34 (33-j'-34) [l=500 cm] [Piano XZ: 436 def.-64 rig.]
33, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 8.223E-02 ± 1.042E-01, -7.318E-02 ± 8.588E-01 - S.
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 8.223E-02 ± 1.042E-01, -7.318E-02 ± 8.588E-01
j', -9.077E-05 ± 5.009E+00, 1.994E-03 ± 7.831E-01, -2.818E-04 ± 9.603E-02, -7.249E-05 ± 8.617E-01
34, -9.077E-05 ± 5.009E+00, 2.175E-03 ± 8.190E-01, -2.818E-04 ± 9.603E-02, -7.249E-05 ± 8.617E-01 - M.
35 (35-34) [l=26 cm][26 def.]

35, -9.082E-05 ± 5.010E+00, -6.842E+00 ± 3.646E+00, -2.841E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
i', -9.082E-05 ± 5.010E+00, -6.842E+00 ± 3.646E+00, -2.841E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - K.
j', -9.077E-05 ± 5.009E+00, -6.842E+00 ± 3.653E+00, -2.818E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
34, -9.077E-05 ± 5.009E+00, -6.842E+00 ± 3.653E+00, -2.818E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
36 (34-36) [l=26 cm][26 def.]
34, -9.077E-05 ± 5.009E+00, -6.842E+00 ± 3.653E+00, -2.818E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - K.
i', -9.077E-05 ± 5.009E+00, -6.842E+00 ± 3.653E+00, -2.818E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
j', -9.073E-05 ± 5.010E+00, -6.842E+00 ± 3.660E+00, -2.796E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
36, -9.073E-05 ± 5.010E+00, -6.842E+00 ± 3.660E+00, -2.796E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - M.
37 (32-35) [l=227 cm][227 def.]
32, -9.119E-05 ± 5.035E+00, -6.843E+00 ± 3.665E+00, -3.039E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
i', -9.119E-05 ± 5.035E+00, -6.843E+00 ± 3.665E+00, -3.039E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - K.
j', -9.082E-05 ± 5.010E+00, -6.842E+00 ± 3.646E+00, -2.841E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
35, -9.082E-05 ± 5.010E+00, -6.842E+00 ± 3.646E+00, -2.841E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
38 (37-38) [l=500 cm][500 def.]
37, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 8.220E-02 ± 1.042E-01, -7.288E-02 ± 8.588E-01 - K.
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 8.220E-02 ± 1.042E-01, -7.288E-02 ± 8.588E-01
j', -9.053E-05 ± 5.013E+00, 2.175E-03 ± 8.190E-01, -2.689E-04 ± 9.603E-02, -7.353E-05 ± 8.618E-01
38, -9.053E-05 ± 5.013E+00, 2.175E-03 ± 8.190E-01, -2.689E-04 ± 9.603E-02, -7.353E-05 ± 8.618E-01 - S.
39 (36-38) [l=122 cm][122 def.]
36, -9.073E-05 ± 5.010E+00, -6.842E+00 ± 3.660E+00, -2.796E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
i', -9.073E-05 ± 5.010E+00, -6.842E+00 ± 3.660E+00, -2.796E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - M.
j', -9.053E-05 ± 5.013E+00, -6.842E+00 ± 3.694E+00, -2.689E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
38, -9.053E-05 ± 5.013E+00, -6.842E+00 ± 3.694E+00, -2.689E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
40 (38-39) [l=122 cm][122 def.]
38, -9.053E-05 ± 5.013E+00, -6.842E+00 ± 3.694E+00, -2.689E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - K.
i', -9.053E-05 ± 5.013E+00, -6.842E+00 ± 3.694E+00, -2.689E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
j', -9.033E-05 ± 5.016E+00, -6.842E+00 ± 3.729E+00, -2.585E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
39, -9.033E-05 ± 5.016E+00, -6.842E+00 ± 3.729E+00, -2.585E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - K.
41 (40-i'-j'-41) [l=500 cm] [Piano XZ: 276 rig.-160 def.-64 rig.]
40, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.929E-02 ± 9.415E-02, -6.241E-02 ± 8.866E-01
i', 0.000E+00 ± 0.000E+00, -5.331E-02 ± 2.601E-01, 1.929E-02 ± 9.415E-02, -6.241E-02 ± 8.866E-01 - K.
j', -9.030E-05 ± 5.016E+00, 2.010E-03 ± 7.832E-01, -2.570E-04 ± 9.602E-02, -7.422E-05 ± 8.618E-01
41, -9.030E-05 ± 5.016E+00, 2.175E-03 ± 8.190E-01, -2.570E-04 ± 9.602E-02, -7.422E-05 ± 8.618E-01
42 (40-42) [l=18 cm][18 def.]
40, 0.000E+00 ± 0.000E+00, -6.776E+00 ± 3.675E+00, 1.929E-02 ± 9.415E-02, 0.000E+00 ± 0.000E+00 - M.
i', 0.000E+00 ± 0.000E+00, -6.776E+00 ± 3.675E+00, 1.929E-02 ± 9.415E-02, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -6.779E+00 ± 3.680E+00, 1.929E-02 ± 9.415E-02, 0.000E+00 ± 0.000E+00
42, 0.000E+00 ± 0.000E+00, -6.779E+00 ± 3.680E+00, 1.929E-02 ± 9.415E-02, 0.000E+00 ± 0.000E+00 - K.
43 (39-41) [l=18 cm][18 def.]
39, -9.033E-05 ± 5.016E+00, -6.842E+00 ± 3.729E+00, -2.585E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
i', -9.033E-05 ± 5.016E+00, -6.842E+00 ± 3.729E+00, -2.585E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - K.
j', -9.030E-05 ± 5.016E+00, -6.842E+00 ± 3.734E+00, -2.570E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
41, -9.030E-05 ± 5.016E+00, -6.842E+00 ± 3.734E+00, -2.570E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
44 (41-43) [l=18 cm][18 def.]
41, -9.030E-05 ± 5.016E+00, -6.842E+00 ± 3.734E+00, -2.570E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - K.
i', -9.030E-05 ± 5.016E+00, -6.842E+00 ± 3.734E+00, -2.570E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
j', -9.027E-05 ± 5.017E+00, -6.842E+00 ± 3.739E+00, -2.555E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
43, -9.027E-05 ± 5.017E+00, -6.842E+00 ± 3.739E+00, -2.555E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - F.
45 (44-i'-j'-45) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.]
44, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -1.058E-02 ± 1.002E-01, -2.761E-02 ± 9.822E-01
i', 0.000E+00 ± 0.000E+00, 1.848E-02 ± 1.749E-01, -1.058E-02 ± 1.002E-01, -2.761E-02 ± 9.822E-01 - S.
j', -8.973E-05 ± 5.025E+00, 2.111E-03 ± 8.034E-01, -2.337E-04 ± 9.602E-02, -7.069E-05 ± 8.618E-01
45, -8.973E-05 ± 5.025E+00, 2.175E-03 ± 8.190E-01, -2.337E-04 ± 9.602E-02, -7.069E-05 ± 8.618E-01
46 (46-44) [l=98 cm][98 def.]
46, 0.000E+00 ± 0.000E+00, -6.781E+00 ± 3.711E+00, -1.058E-02 ± 1.002E-01, 0.000E+00 ± 0.000E+00 - M.
i', 0.000E+00 ± 0.000E+00, -6.781E+00 ± 3.711E+00, -1.058E-02 ± 1.002E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -6.771E+00 ± 3.727E+00, -1.058E-02 ± 1.002E-01, 0.000E+00 ± 0.000E+00
44, 0.000E+00 ± 0.000E+00, -6.771E+00 ± 3.727E+00, -1.058E-02 ± 1.002E-01, 0.000E+00 ± 0.000E+00 - K.
47 (47-45) [l=98 cm][98 def.]
47, -8.989E-05 ± 5.022E+00, -6.841E+00 ± 3.804E+00, -2.395E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
i', -8.989E-05 ± 5.022E+00, -6.841E+00 ± 3.804E+00, -2.395E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - K.
j', -8.973E-05 ± 5.025E+00, -6.841E+00 ± 3.832E+00, -2.337E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
45, -8.973E-05 ± 5.025E+00, -6.841E+00 ± 3.832E+00, -2.337E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
48 (45-48) [l=98 cm][98 def.]
45, -8.973E-05 ± 5.025E+00, -6.841E+00 ± 3.832E+00, -2.337E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - M.
i', -8.973E-05 ± 5.025E+00, -6.841E+00 ± 3.832E+00, -2.337E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
j', -8.957E-05 ± 5.027E+00, -6.841E+00 ± 3.860E+00, -2.285E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
48, -8.957E-05 ± 5.027E+00, -6.841E+00 ± 3.860E+00, -2.285E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - K.
49 (42-46) [l=227 cm][227 def.]
42, 0.000E+00 ± 0.000E+00, -6.779E+00 ± 3.680E+00, 1.929E-02 ± 9.415E-02, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -6.779E+00 ± 3.680E+00, 1.929E-02 ± 9.415E-02, 0.000E+00 ± 0.000E+00 - K.
j', 0.000E+00 ± 0.000E+00, -6.781E+00 ± 3.711E+00, -1.058E-02 ± 1.002E-01, 0.000E+00 ± 0.000E+00
46, 0.000E+00 ± 0.000E+00, -6.781E+00 ± 3.711E+00, -1.058E-02 ± 1.002E-01, 0.000E+00 ± 0.000E+00
50 (43-47) [l=227 cm][227 def.]
43, -9.027E-05 ± 5.017E+00, -6.842E+00 ± 3.739E+00, -2.555E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - F.
i', -9.027E-05 ± 5.017E+00, -6.842E+00 ± 3.739E+00, -2.555E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
j', -8.989E-05 ± 5.022E+00, -6.841E+00 ± 3.804E+00, -2.395E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
47, -8.989E-05 ± 5.022E+00, -6.841E+00 ± 3.804E+00, -2.395E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - S.
51 (49-j'-50) [l=500 cm] [Piano XZ: 465 def.-35 rig.]
49, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -1.064E-02 ± 1.002E-01, -2.760E-02 ± 9.822E-01
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -1.064E-02 ± 1.002E-01, -2.760E-02 ± 9.822E-01 - M.
j', -8.941E-05 ± 5.030E+00, 2.096E-03 ± 7.990E-01, -2.240E-04 ± 9.601E-02, -6.867E-05 ± 8.618E-01
50, -8.941E-05 ± 5.030E+00, 2.175E-03 ± 8.190E-01, -2.240E-04 ± 9.601E-02, -6.867E-05 ± 8.618E-01
52 (48-50) [l=98 cm][98 def.]
48, -8.957E-05 ± 5.027E+00, -6.841E+00 ± 3.860E+00, -2.285E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - K.

i' , -8.957E-05 ± 5.027E+00, -6.841E+00 ± 3.860E+00, -2.285E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 j' , -8.941E-05 ± 5.030E+00, -6.840E+00 ± 3.888E+00, -2.240E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
50, -8.941E-05 ± 5.030E+00, -6.840E+00 ± 3.888E+00, -2.240E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
53 (50-51) [l=98 cm][98 def.]
50, -8.941E-05 ± 5.030E+00, -6.840E+00 ± 3.888E+00, -2.240E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 i' , -8.941E-05 ± 5.030E+00, -6.840E+00 ± 3.888E+00, -2.240E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
 j' , -8.925E-05 ± 5.032E+00, -6.840E+00 ± 3.917E+00, -2.201E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
51, -8.925E-05 ± 5.032E+00, -6.840E+00 ± 3.917E+00, -2.201E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
54 (52-j'-53) [l=500 cm] [Piano XZ: 465 def.-35 rig.]
52, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.008E-02 ± 1.027E-01, -5.995E-03 ± 9.886E-01 - M.
 i' , 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.008E-02 ± 1.027E-01, -5.995E-03 ± 9.886E-01
 j' , -8.871E-05 ± 5.040E+00, 2.101E-03 ± 7.990E-01, -2.112E-04 ± 9.601E-02, -6.437E-05 ± 8.618E-01
53, -8.871E-05 ± 5.040E+00, 2.175E-03 ± 8.190E-01, -2.112E-04 ± 9.601E-02, -6.437E-05 ± 8.618E-01 - K.
55 (54-53) [l=98 cm][98 def.]
54, -8.887E-05 ± 5.038E+00, -6.840E+00 ± 3.982E+00, -2.134E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 i' , -8.887E-05 ± 5.038E+00, -6.840E+00 ± 3.982E+00, -2.134E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
 j' , -8.871E-05 ± 5.040E+00, -6.839E+00 ± 4.010E+00, -2.112E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
53, -8.871E-05 ± 5.040E+00, -6.839E+00 ± 4.010E+00, -2.112E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
56 (53-55) [l=98 cm][98 def.]
53, -8.871E-05 ± 5.040E+00, -6.839E+00 ± 4.010E+00, -2.112E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
 i' , -8.871E-05 ± 5.040E+00, -6.839E+00 ± 4.010E+00, -2.112E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 j' , -8.855E-05 ± 5.043E+00, -6.839E+00 ± 4.038E+00, -2.092E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
55, -8.855E-05 ± 5.043E+00, -6.839E+00 ± 4.038E+00, -2.092E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - F.
57 (51-54) [l=227 cm][227 def.]
51, -8.925E-05 ± 5.032E+00, -6.840E+00 ± 3.917E+00, -2.201E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 i' , -8.925E-05 ± 5.032E+00, -6.840E+00 ± 3.917E+00, -2.201E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - S.
 j' , -8.887E-05 ± 5.038E+00, -6.840E+00 ± 3.982E+00, -2.134E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
54, -8.887E-05 ± 5.038E+00, -6.840E+00 ± 3.982E+00, -2.134E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
58 (56-i'-j'-57) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.]
56, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.003E-02 ± 1.027E-01, -5.994E-03 ± 9.886E-01 - M.
 i' , 0.000E+00 ± 0.000E+00, -1.751E-02 ± 1.794E-01, 1.003E-02 ± 1.027E-01, -5.994E-03 ± 9.886E-01
 j' , -8.839E-05 ± 5.045E+00, 2.118E-03 ± 8.032E-01, -2.077E-04 ± 9.601E-02, -6.238E-05 ± 8.618E-01
57, -8.839E-05 ± 5.045E+00, 2.175E-03 ± 8.190E-01, -2.077E-04 ± 9.601E-02, -6.238E-05 ± 8.618E-01 - K.
59 (56-58) [l=98 cm][98 def.]
56, 0.000E+00 ± 0.000E+00, -6.762E+00 ± 3.958E+00, 1.003E-02 ± 1.027E-01, 0.000E+00 ± 0.000E+00
 i' , 0.000E+00 ± 0.000E+00, -6.762E+00 ± 3.958E+00, 1.003E-02 ± 1.027E-01, 0.000E+00 ± 0.000E+00 - K.
 j' , 0.000E+00 ± 0.000E+00, -6.772E+00 ± 4.001E+00, 1.003E-02 ± 1.027E-01, 0.000E+00 ± 0.000E+00
58, 0.000E+00 ± 0.000E+00, -6.772E+00 ± 4.001E+00, 1.003E-02 ± 1.027E-01, 0.000E+00 ± 0.000E+00
60 (55-57) [l=98 cm][98 def.]
55, -8.855E-05 ± 5.043E+00, -6.839E+00 ± 4.038E+00, -2.092E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - M.
 i' , -8.855E-05 ± 5.043E+00, -6.839E+00 ± 4.038E+00, -2.092E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 j' , -8.839E-05 ± 5.045E+00, -6.839E+00 ± 4.066E+00, -2.077E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
57, -8.839E-05 ± 5.045E+00, -6.839E+00 ± 4.066E+00, -2.077E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
61 (57-59) [l=98 cm][98 def.]
57, -8.839E-05 ± 5.045E+00, -6.839E+00 ± 4.066E+00, -2.077E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 i' , -8.839E-05 ± 5.045E+00, -6.839E+00 ± 4.066E+00, -2.077E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
 j' , -8.823E-05 ± 5.048E+00, -6.839E+00 ± 4.094E+00, -2.065E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
59, -8.823E-05 ± 5.048E+00, -6.839E+00 ± 4.094E+00, -2.065E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
62 (60-i'-j'-61) [l=500 cm] [Piano XZ: 195 rig.-276 def.-29 rig.]
60, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 7.747E-03 ± 1.201E-01, -5.059E-03 ± 8.980E-01 - S.
 i' , 0.000E+00 ± 0.000E+00, -1.509E-02 ± 2.339E-01, 7.747E-03 ± 1.201E-01, -5.059E-03 ± 8.980E-01
 j' , -8.772E-05 ± 5.056E+00, 2.115E-03 ± 8.022E-01, -2.052E-04 ± 9.601E-02, -5.828E-05 ± 8.618E-01
61, -8.772E-05 ± 5.056E+00, 2.175E-03 ± 8.190E-01, -2.052E-04 ± 9.601E-02, -5.828E-05 ± 8.618E-01 - M.
63 (62-60) [l=80 cm][80 def.]
62, 0.000E+00 ± 0.000E+00, -6.785E+00 ± 4.136E+00, 7.747E-03 ± 1.201E-01, 0.000E+00 ± 0.000E+00
 i' , 0.000E+00 ± 0.000E+00, -6.785E+00 ± 4.136E+00, 7.747E-03 ± 1.201E-01, 0.000E+00 ± 0.000E+00 - K.
 j' , 0.000E+00 ± 0.000E+00, -6.791E+00 ± 4.191E+00, 7.747E-03 ± 1.201E-01, 0.000E+00 ± 0.000E+00
60, 0.000E+00 ± 0.000E+00, -6.791E+00 ± 4.191E+00, 7.747E-03 ± 1.201E-01, 0.000E+00 ± 0.000E+00
64 (63-61) [l=80 cm][80 def.]
63, -8.785E-05 ± 5.054E+00, -6.838E+00 ± 4.159E+00, -2.053E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
 i' , -8.785E-05 ± 5.054E+00, -6.838E+00 ± 4.159E+00, -2.053E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 j' , -8.772E-05 ± 5.056E+00, -6.838E+00 ± 4.182E+00, -2.052E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
61, -8.772E-05 ± 5.056E+00, -6.838E+00 ± 4.182E+00, -2.052E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
65 (61-64) [l=80 cm][80 def.]
61, -8.772E-05 ± 5.056E+00, -6.838E+00 ± 4.182E+00, -2.052E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 i' , -8.772E-05 ± 5.056E+00, -6.838E+00 ± 4.182E+00, -2.052E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - M.
 j' , -8.759E-05 ± 5.058E+00, -6.838E+00 ± 4.205E+00, -2.051E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
64, -8.759E-05 ± 5.058E+00, -6.838E+00 ± 4.205E+00, -2.051E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
66 (58-62) [l=227 cm][227 def.]
58, 0.000E+00 ± 0.000E+00, -6.772E+00 ± 4.001E+00, 1.003E-02 ± 1.027E-01, 0.000E+00 ± 0.000E+00 - K.
 i' , 0.000E+00 ± 0.000E+00, -6.772E+00 ± 4.001E+00, 1.003E-02 ± 1.027E-01, 0.000E+00 ± 0.000E+00
 j' , 0.000E+00 ± 0.000E+00, -6.785E+00 ± 4.136E+00, 7.747E-03 ± 1.201E-01, 0.000E+00 ± 0.000E+00
62, 0.000E+00 ± 0.000E+00, -6.785E+00 ± 4.136E+00, 7.747E-03 ± 1.201E-01, 0.000E+00 ± 0.000E+00 - K.
67 (59-63) [l=227 cm][227 def.]
59, -8.823E-05 ± 5.048E+00, -6.839E+00 ± 4.094E+00, -2.065E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 i' , -8.823E-05 ± 5.048E+00, -6.839E+00 ± 4.094E+00, -2.065E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
 j' , -8.785E-05 ± 5.054E+00, -6.838E+00 ± 4.159E+00, -2.053E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
63, -8.785E-05 ± 5.054E+00, -6.838E+00 ± 4.159E+00, -2.053E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
68 (65-i'-j'-66) [l=500 cm] [Piano XZ: 127 rig.-350 def.-23 rig.]
65, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.066E-03 ± 8.980E-01, -7.744E-03 ± 1.201E-01 - F.
 i' , 0.000E+00 ± 0.000E+00, 6.429E-03 ± 1.140E+00, -5.066E-03 ± 8.980E-01, -7.744E-03 ± 1.201E-01
 j' , 2.175E-03 ± 8.119E-01, 7.465E-05 ± 4.863E+00, -5.703E-05 ± 8.618E-01, 2.051E-04 ± 9.601E-02
66, 2.175E-03 ± 8.119E-01, 8.759E-05 ± 5.058E+00, -5.703E-05 ± 8.618E-01, 2.051E-04 ± 9.601E-02 - S.
69 (65-67) [l=154 cm][154 def.]
65, 0.000E+00 ± 0.000E+00, -6.789E+00 ± 2.869E+00, -5.066E-03 ± 8.980E-01, 0.000E+00 ± 0.000E+00
 i' , 0.000E+00 ± 0.000E+00, -6.789E+00 ± 2.869E+00, -5.066E-03 ± 8.980E-01, 0.000E+00 ± 0.000E+00 - M.

j' , $0.000E+00 \pm 0.000E+00, -6.781E+00 \pm 2.177E+00, -5.066E-03 \pm 8.980E-01, 0.000E+00 \pm 0.000E+00$
67, $0.000E+00 \pm 0.000E+00, -6.781E+00 \pm 2.177E+00, -5.066E-03 \pm 8.980E-01, 0.000E+00 \pm 0.000E+00$
70 (64-66) [l=154 cm][154 def.]
64, $2.175E-03 \pm 8.190E-01, -6.838E+00 \pm 4.205E+00, -5.747E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02 - K.$
 i' , $2.175E-03 \pm 8.190E-01, -6.838E+00 \pm 4.205E+00, -5.747E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02$
 j' , $2.175E-03 \pm 8.119E-01, -6.838E+00 \pm 2.880E+00, -5.703E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02$
66, $2.175E-03 \pm 8.119E-01, -6.838E+00 \pm 2.880E+00, -5.703E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02 - K.$
71 (69-i'-j'-70) [l=500 cm] [Piano XZ: 127 rig.-350 def.-23 rig.]
69, $0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, 5.033E-03 \pm 8.980E-01, -7.742E-03 \pm 1.201E-01$
 i' , $0.000E+00 \pm 0.000E+00, -6.387E-03 \pm 1.140E+00, 5.033E-03 \pm 8.980E-01, -7.742E-03 \pm 1.201E-01 - M.$
 j' , $2.176E-03 \pm 8.119E-01, 9.276E-05 \pm 4.863E+00, 2.277E-05 \pm 8.618E-01, 2.052E-04 \pm 9.600E-02$
70, $2.176E-03 \pm 8.119E-01, 8.759E-05 \pm 5.058E+00, 2.277E-05 \pm 8.618E-01, 2.052E-04 \pm 9.600E-02$
72 (71-69) [l=154 cm][154 def.]
71, $0.000E+00 \pm 0.000E+00, -6.781E+00 \pm 2.176E+00, 5.033E-03 \pm 8.980E-01, 0.000E+00 \pm 0.000E+00 - K.$
 i' , $0.000E+00 \pm 0.000E+00, -6.781E+00 \pm 2.176E+00, 5.033E-03 \pm 8.980E-01, 0.000E+00 \pm 0.000E+00$
 j' , $0.000E+00 \pm 0.000E+00, -6.789E+00 \pm 2.869E+00, 5.033E-03 \pm 8.980E-01, 0.000E+00 \pm 0.000E+00$
69, $0.000E+00 \pm 0.000E+00, -6.789E+00 \pm 2.869E+00, 5.033E-03 \pm 8.980E-01, 0.000E+00 \pm 0.000E+00 - K.$
73 (70-73) [l=154 cm][154 def.]
70, $2.176E-03 \pm 8.119E-01, -6.838E+00 \pm 2.880E+00, 2.277E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02$
 i' , $2.176E-03 \pm 8.119E-01, -6.838E+00 \pm 2.880E+00, 2.277E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02 - M.$
 j' , $2.176E-03 \pm 8.191E-01, -6.838E+00 \pm 4.205E+00, 2.321E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02$
73, $2.176E-03 \pm 8.191E-01, -6.838E+00 \pm 4.205E+00, 2.321E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02$
74 (67-71) [l=227 cm][227 def.]
67, $0.000E+00 \pm 0.000E+00, -6.781E+00 \pm 2.177E+00, -5.066E-03 \pm 8.980E-01, 0.000E+00 \pm 0.000E+00 - K.$
 i' , $0.000E+00 \pm 0.000E+00, -6.781E+00 \pm 2.177E+00, -5.066E-03 \pm 8.980E-01, 0.000E+00 \pm 0.000E+00$
 j' , $0.000E+00 \pm 0.000E+00, -6.781E+00 \pm 2.176E+00, 5.033E-03 \pm 8.980E-01, 0.000E+00 \pm 0.000E+00$
71, $0.000E+00 \pm 0.000E+00, -6.781E+00 \pm 2.176E+00, 5.033E-03 \pm 8.980E-01, 0.000E+00 \pm 0.000E+00 - K.$
75 (68-72) [l=227 cm][227 def.]
68, $2.175E-03 \pm 8.048E-01, -6.838E+00 \pm 2.246E+00, -5.696E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02$
 i' , $2.175E-03 \pm 8.048E-01, -6.838E+00 \pm 2.246E+00, -5.696E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02 - S.$
 j' , $2.176E-03 \pm 8.048E-01, -6.838E+00 \pm 2.246E+00, 2.270E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02$
72, $2.176E-03 \pm 8.048E-01, -6.838E+00 \pm 2.246E+00, 2.270E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02$
76 (74-i'-j'-75) [l=500 cm] [Piano XZ: 195 rig.-276 def.-29 rig.]
74, $0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, 7.745E-03 \pm 1.201E-01, 5.025E-03 \pm 8.980E-01 - M.$
 i' , $0.000E+00 \pm 0.000E+00, -1.509E-02 \pm 2.339E-01, 7.745E-03 \pm 1.201E-01, 5.025E-03 \pm 8.980E-01$
 j' , $-8.772E-05 \pm 5.056E+00, 2.116E-03 \pm 8.022E-01, -2.052E-04 \pm 9.600E-02, 2.402E-05 \pm 8.618E-01$
75, $-8.772E-05 \pm 5.056E+00, 2.176E-03 \pm 8.191E-01, -2.052E-04 \pm 9.600E-02, 2.402E-05 \pm 8.618E-01 - K.$
77 (74-76) [l=80 cm][80 def.]
74, $0.000E+00 \pm 0.000E+00, -6.791E+00 \pm 4.191E+00, -7.745E-03 \pm 1.201E-01, 0.000E+00 \pm 0.000E+00$
 i' , $0.000E+00 \pm 0.000E+00, -6.791E+00 \pm 4.191E+00, -7.745E-03 \pm 1.201E-01, 0.000E+00 \pm 0.000E+00 - K.$
 j' , $0.000E+00 \pm 0.000E+00, -6.784E+00 \pm 4.136E+00, -7.745E-03 \pm 1.201E-01, 0.000E+00 \pm 0.000E+00$
76, $0.000E+00 \pm 0.000E+00, -6.784E+00 \pm 4.136E+00, -7.745E-03 \pm 1.201E-01, 0.000E+00 \pm 0.000E+00$
78 (73-75) [l=80 cm][80 def.]
73, $8.759E-05 \pm 5.058E+00, -6.838E+00 \pm 4.205E+00, 2.052E-04 \pm 9.600E-02, 1.645E-07 \pm 1.169E-02 - M.$
 i' , $8.759E-05 \pm 5.058E+00, -6.838E+00 \pm 4.205E+00, 2.052E-04 \pm 9.600E-02, 1.645E-07 \pm 1.169E-02$
 j' , $8.772E-05 \pm 5.056E+00, -6.838E+00 \pm 4.182E+00, 2.052E-04 \pm 9.600E-02, 1.645E-07 \pm 1.169E-02$
75, $8.772E-05 \pm 5.056E+00, -6.838E+00 \pm 4.182E+00, 2.052E-04 \pm 9.600E-02, 1.645E-07 \pm 1.169E-02 - K.$
79 (75-77) [l=80 cm][80 def.]
75, $8.772E-05 \pm 5.056E+00, -6.838E+00 \pm 4.182E+00, 2.052E-04 \pm 9.600E-02, 1.645E-07 \pm 1.169E-02$
 i' , $8.772E-05 \pm 5.056E+00, -6.838E+00 \pm 4.182E+00, 2.052E-04 \pm 9.600E-02, 1.645E-07 \pm 1.169E-02 - K.$
 j' , $8.785E-05 \pm 5.054E+00, -6.838E+00 \pm 4.160E+00, 2.054E-04 \pm 9.600E-02, 1.645E-07 \pm 1.169E-02$
77, $8.785E-05 \pm 5.054E+00, -6.838E+00 \pm 4.160E+00, 2.054E-04 \pm 9.600E-02, 1.645E-07 \pm 1.169E-02$
80 (78-i'-j'-79) [l=500 cm] [Piano XZ: 175 rig.-298 def.-27 rig.]
78, $0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, 1.003E-02 \pm 1.027E-01, 5.959E-03 \pm 9.886E-01 - K.$
 i' , $0.000E+00 \pm 0.000E+00, -1.751E-02 \pm 1.794E-01, 1.003E-02 \pm 1.027E-01, 5.959E-03 \pm 9.886E-01$
 j' , $-8.839E-05 \pm 5.045E+00, 2.119E-03 \pm 8.034E-01, -2.077E-04 \pm 9.600E-02, 2.812E-05 \pm 8.618E-01$
79, $-8.839E-05 \pm 5.045E+00, 2.176E-03 \pm 8.191E-01, -2.077E-04 \pm 9.600E-02, 2.812E-05 \pm 8.618E-01 - M.$
81 (80-78) [l=98 cm][98 def.]
80, $0.000E+00 \pm 0.000E+00, -6.771E+00 \pm 4.001E+00, -1.003E-02 \pm 1.027E-01, 0.000E+00 \pm 0.000E+00$
 i' , $0.000E+00 \pm 0.000E+00, -6.771E+00 \pm 4.001E+00, -1.003E-02 \pm 1.027E-01, 0.000E+00 \pm 0.000E+00 - K.$
 j' , $0.000E+00 \pm 0.000E+00, -6.762E+00 \pm 3.958E+00, -1.003E-02 \pm 1.027E-01, 0.000E+00 \pm 0.000E+00$
78, $0.000E+00 \pm 0.000E+00, -6.762E+00 \pm 3.958E+00, -1.003E-02 \pm 1.027E-01, 0.000E+00 \pm 0.000E+00$
82 (81-79) [l=98 cm][98 def.]
81, $8.823E-05 \pm 5.048E+00, -6.839E+00 \pm 4.095E+00, 2.066E-04 \pm 9.600E-02, 1.645E-07 \pm 1.169E-02 - K.$
 i' , $8.823E-05 \pm 5.048E+00, -6.839E+00 \pm 4.095E+00, 2.066E-04 \pm 9.600E-02, 1.645E-07 \pm 1.169E-02$
 j' , $8.839E-05 \pm 5.045E+00, -6.839E+00 \pm 4.066E+00, 2.077E-04 \pm 9.600E-02, 1.645E-07 \pm 1.169E-02$
79, $8.839E-05 \pm 5.045E+00, -6.839E+00 \pm 4.066E+00, 2.077E-04 \pm 9.600E-02, 1.645E-07 \pm 1.169E-02 - K.$
83 (79-82) [l=98 cm][98 def.]
79, $8.839E-05 \pm 5.045E+00, -6.839E+00 \pm 4.066E+00, 2.077E-04 \pm 9.600E-02, 1.645E-07 \pm 1.169E-02$
 i' , $8.839E-05 \pm 5.045E+00, -6.839E+00 \pm 4.066E+00, 2.077E-04 \pm 9.600E-02, 1.645E-07 \pm 1.169E-02 - F.$
 j' , $8.855E-05 \pm 5.043E+00, -6.839E+00 \pm 4.038E+00, 2.093E-04 \pm 9.600E-02, 1.645E-07 \pm 1.169E-02$
82, $8.855E-05 \pm 5.043E+00, -6.839E+00 \pm 4.038E+00, 2.093E-04 \pm 9.600E-02, 1.645E-07 \pm 1.169E-02$
84 (76-80) [l=227 cm][227 def.]
76, $0.000E+00 \pm 0.000E+00, -6.784E+00 \pm 4.136E+00, -7.745E-03 \pm 1.201E-01, 0.000E+00 \pm 0.000E+00 - S.$
 i' , $0.000E+00 \pm 0.000E+00, -6.784E+00 \pm 4.136E+00, -7.745E-03 \pm 1.201E-01, 0.000E+00 \pm 0.000E+00$
 j' , $0.000E+00 \pm 0.000E+00, -6.771E+00 \pm 4.001E+00, -1.003E-02 \pm 1.027E-01, 0.000E+00 \pm 0.000E+00$
80, $0.000E+00 \pm 0.000E+00, -6.771E+00 \pm 4.001E+00, -1.003E-02 \pm 1.027E-01, 0.000E+00 \pm 0.000E+00 - M.$
85 (77-81) [l=227 cm][227 def.]
77, $8.785E-05 \pm 5.054E+00, -6.838E+00 \pm 4.160E+00, 2.054E-04 \pm 9.600E-02, 1.645E-07 \pm 1.169E-02$
 i' , $8.785E-05 \pm 5.054E+00, -6.838E+00 \pm 4.160E+00, 2.054E-04 \pm 9.600E-02, 1.645E-07 \pm 1.169E-02 - K.$
 j' , $8.823E-05 \pm 5.048E+00, -6.839E+00 \pm 4.095E+00, 2.066E-04 \pm 9.600E-02, 1.645E-07 \pm 1.169E-02$
81, $8.823E-05 \pm 5.048E+00, -6.839E+00 \pm 4.095E+00, 2.066E-04 \pm 9.600E-02, 1.645E-07 \pm 1.169E-02$
86 (83-j'-84) [l=500 cm] [Piano XZ: 465 def.-35 rig.]
83, $0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, 1.008E-02 \pm 1.027E-01, 5.960E-03 \pm 9.886E-01 - K.$
 i' , $0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, 1.008E-02 \pm 1.027E-01, 5.960E-03 \pm 9.886E-01$
 j' , $-8.871E-05 \pm 5.040E+00, 2.102E-03 \pm 7.991E-01, -2.112E-04 \pm 9.601E-02, 3.012E-05 \pm 8.618E-01$

84, -8.871E-05 ± 5.040E+00, 2.176E-03 ± 8.191E-01, -2.112E-04 ± 9.601E-02, 3.012E-05 ± 8.618E-01 - M.
87 (82-84) [l=98 cm][98 def.]
82, 8.855E-05 ± 5.043E+00, -6.839E+00 ± 4.038E+00, 2.093E-04 ± 9.600E-02, 1.645E-07 ± 1.169E-02
i', 8.855E-05 ± 5.043E+00, -6.839E+00 ± 4.038E+00, 2.093E-04 ± 9.600E-02, 1.645E-07 ± 1.169E-02 - K.
j', 8.871E-05 ± 5.040E+00, -6.839E+00 ± 4.010E+00, 2.112E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
84, 8.871E-05 ± 5.040E+00, -6.839E+00 ± 4.010E+00, 2.112E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
88 (84-85) [l=98 cm][98 def.]
84, 8.871E-05 ± 5.040E+00, -6.839E+00 ± 4.010E+00, 2.112E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
i', 8.871E-05 ± 5.040E+00, -6.839E+00 ± 4.010E+00, 2.112E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
j', 8.887E-05 ± 5.038E+00, -6.839E+00 ± 3.982E+00, 2.135E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
85, 8.887E-05 ± 5.038E+00, -6.839E+00 ± 3.982E+00, 2.135E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - S.
89 (86-j'-87) [l=500 cm][Piano XZ: 465 def.-35 rig.]
86, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -1.064E-02 ± 1.002E-01, 2.756E-02 ± 9.822E-01
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -1.064E-02 ± 1.002E-01, 2.756E-02 ± 9.822E-01 - M.
j', -8.941E-05 ± 5.030E+00, 2.098E-03 ± 7.991E-01, -2.240E-04 ± 9.601E-02, 3.442E-05 ± 8.618E-01
87, -8.941E-05 ± 5.030E+00, 2.176E-03 ± 8.191E-01, -2.240E-04 ± 9.601E-02, 3.442E-05 ± 8.618E-01
90 (88-87) [l=98 cm][98 def.]
88, 8.925E-05 ± 5.032E+00, -6.840E+00 ± 3.917E+00, 2.201E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
i', 8.925E-05 ± 5.032E+00, -6.840E+00 ± 3.917E+00, 2.201E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
j', 8.941E-05 ± 5.030E+00, -6.840E+00 ± 3.889E+00, 2.240E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
87, 8.941E-05 ± 5.030E+00, -6.840E+00 ± 3.889E+00, 2.240E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
91 (87-89) [l=98 cm][98 def.]
87, 8.941E-05 ± 5.030E+00, -6.840E+00 ± 3.889E+00, 2.240E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
i', 8.941E-05 ± 5.030E+00, -6.840E+00 ± 3.889E+00, 2.240E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
j', 8.957E-05 ± 5.027E+00, -6.840E+00 ± 3.860E+00, 2.286E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
89, 8.957E-05 ± 5.027E+00, -6.840E+00 ± 3.860E+00, 2.286E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
92 (85-88) [l=227 cm][227 def.]
85, 8.887E-05 ± 5.038E+00, -6.839E+00 ± 3.982E+00, 2.135E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - M.
i', 8.887E-05 ± 5.038E+00, -6.839E+00 ± 3.982E+00, 2.135E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
j', 8.925E-05 ± 5.032E+00, -6.840E+00 ± 3.917E+00, 2.201E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
88, 8.925E-05 ± 5.032E+00, -6.840E+00 ± 3.917E+00, 2.201E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
93 (90-i'-j'-91) [l=500 cm][Piano XZ: 175 rig.-298 def.-27 rig.]
90, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -1.058E-02 ± 1.002E-01, 2.757E-02 ± 9.822E-01
i', 0.000E+00 ± 0.000E+00, 1.847E-02 ± 1.749E-01, -1.058E-02 ± 1.002E-01, 2.757E-02 ± 9.822E-01 - K.
j', -8.973E-05 ± 5.025E+00, 2.112E-03 ± 8.034E-01, -2.337E-04 ± 9.601E-02, 3.644E-05 ± 8.618E-01
91, -8.973E-05 ± 5.025E+00, 2.176E-03 ± 8.191E-01, -2.337E-04 ± 9.601E-02, 3.644E-05 ± 8.618E-01
94 (90-92) [l=98 cm][98 def.]
90, 0.000E+00 ± 0.000E+00, -6.770E+00 ± 3.727E+00, 1.058E-02 ± 1.002E-01, 0.000E+00 ± 0.000E+00 - K.
i', 0.000E+00 ± 0.000E+00, -6.770E+00 ± 3.727E+00, 1.058E-02 ± 1.002E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -6.781E+00 ± 3.711E+00, 1.058E-02 ± 1.002E-01, 0.000E+00 ± 0.000E+00
92, 0.000E+00 ± 0.000E+00, -6.781E+00 ± 3.711E+00, 1.058E-02 ± 1.002E-01, 0.000E+00 ± 0.000E+00 - F.
95 (89-91) [l=98 cm][98 def.]
89, 8.957E-05 ± 5.027E+00, -6.840E+00 ± 3.860E+00, 2.286E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
i', 8.957E-05 ± 5.027E+00, -6.840E+00 ± 3.860E+00, 2.286E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - S.
j', 8.973E-05 ± 5.025E+00, -6.841E+00 ± 3.832E+00, 2.337E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
91, 8.973E-05 ± 5.025E+00, -6.841E+00 ± 3.832E+00, 2.337E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
96 (91-93) [l=98 cm][98 def.]
91, 8.973E-05 ± 5.025E+00, -6.841E+00 ± 3.832E+00, 2.337E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - M.
i', 8.973E-05 ± 5.025E+00, -6.841E+00 ± 3.832E+00, 2.337E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
j', 8.989E-05 ± 5.022E+00, -6.841E+00 ± 3.804E+00, 2.395E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
93, 8.989E-05 ± 5.022E+00, -6.841E+00 ± 3.804E+00, 2.395E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
97 (94-i'-j'-95) [l=500 cm][Piano XZ: 276 rig.-160 def.-64 rig.]
94, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.929E-02 ± 9.414E-02, 6.236E-02 ± 8.866E-01
i', 0.000E+00 ± 0.000E+00, -5.331E-02 ± 2.601E-01, 1.929E-02 ± 9.414E-02, 6.236E-02 ± 8.866E-01 - K.
j', -9.030E-05 ± 5.016E+00, 2.011E-03 ± 7.832E-01, -2.570E-04 ± 9.602E-02, 3.998E-05 ± 8.618E-01
95, -9.030E-05 ± 5.016E+00, 2.176E-03 ± 8.191E-01, -2.570E-04 ± 9.602E-02, 3.998E-05 ± 8.618E-01
98 (96-94) [l=18 cm][18 def.]
96, 0.000E+00 ± 0.000E+00, -6.779E+00 ± 3.680E+00, -1.929E-02 ± 9.414E-02, 0.000E+00 ± 0.000E+00 - M.
i', 0.000E+00 ± 0.000E+00, -6.779E+00 ± 3.680E+00, -1.929E-02 ± 9.414E-02, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -6.775E+00 ± 3.675E+00, -1.929E-02 ± 9.414E-02, 0.000E+00 ± 0.000E+00
94, 0.000E+00 ± 0.000E+00, -6.775E+00 ± 3.675E+00, -1.929E-02 ± 9.414E-02, 0.000E+00 ± 0.000E+00 - K.
99 (97-95) [l=18 cm][18 def.]
97, 9.027E-05 ± 5.017E+00, -6.841E+00 ± 3.739E+00, 2.555E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
i', 9.027E-05 ± 5.017E+00, -6.841E+00 ± 3.739E+00, 2.555E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - K.
j', 9.030E-05 ± 5.016E+00, -6.841E+00 ± 3.734E+00, 2.570E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
95, 9.030E-05 ± 5.016E+00, -6.841E+00 ± 3.734E+00, 2.570E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
100 (95-98) [l=18 cm][18 def.]
95, 9.030E-05 ± 5.016E+00, -6.841E+00 ± 3.734E+00, 2.570E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - S.
i', 9.030E-05 ± 5.016E+00, -6.841E+00 ± 3.734E+00, 2.570E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
j', 9.033E-05 ± 5.016E+00, -6.842E+00 ± 3.729E+00, 2.585E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
98, 9.033E-05 ± 5.016E+00, -6.842E+00 ± 3.729E+00, 2.585E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - M.
101 (92-96) [l=227 cm][227 def.]
92, 0.000E+00 ± 0.000E+00, -6.781E+00 ± 3.711E+00, 1.058E-02 ± 1.002E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -6.781E+00 ± 3.711E+00, 1.058E-02 ± 1.002E-01, 0.000E+00 ± 0.000E+00 - K.
j', 0.000E+00 ± 0.000E+00, -6.779E+00 ± 3.680E+00, -1.929E-02 ± 9.414E-02, 0.000E+00 ± 0.000E+00
96, 0.000E+00 ± 0.000E+00, -6.779E+00 ± 3.680E+00, -1.929E-02 ± 9.414E-02, 0.000E+00 ± 0.000E+00
102 (93-97) [l=227 cm][227 def.]
93, 8.989E-05 ± 5.022E+00, -6.841E+00 ± 3.804E+00, 2.395E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
i', 8.989E-05 ± 5.022E+00, -6.841E+00 ± 3.804E+00, 2.395E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
j', 9.027E-05 ± 5.017E+00, -6.841E+00 ± 3.739E+00, 2.555E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
97, 9.027E-05 ± 5.017E+00, -6.841E+00 ± 3.739E+00, 2.555E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - M.
103 (99-100) [l=500 cm][500 def.]
99, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 8.220E-02 ± 1.042E-01, 7.283E-02 ± 8.588E-01
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 8.220E-02 ± 1.042E-01, 7.283E-02 ± 8.588E-01 - K.
j', -9.053E-05 ± 5.013E+00, 2.176E-03 ± 8.191E-01, -2.690E-04 ± 9.602E-02, 3.928E-05 ± 8.618E-01
100, -9.053E-05 ± 5.013E+00, 2.176E-03 ± 8.191E-01, -2.690E-04 ± 9.602E-02, 3.928E-05 ± 8.618E-01

104 (98-100) [l=122 cm][122 def.]
 98, 9.033E-05 ± 5.016E+00, -6.842E+00 ± 3.729E+00, 2.585E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - K.
 i', 9.033E-05 ± 5.016E+00, -6.842E+00 ± 3.729E+00, 2.585E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 j', 9.053E-05 ± 5.013E+00, -6.842E+00 ± 3.694E+00, 2.690E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 100, 9.053E-05 ± 5.013E+00, -6.842E+00 ± 3.694E+00, 2.690E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - S.
 105 (100-101) [l=122 cm][122 def.]
 100, 9.053E-05 ± 5.013E+00, -6.842E+00 ± 3.694E+00, 2.690E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 i', 9.053E-05 ± 5.013E+00, -6.842E+00 ± 3.694E+00, 2.690E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - M.
 j', 9.073E-05 ± 5.010E+00, -6.842E+00 ± 3.660E+00, 2.796E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 101, 9.073E-05 ± 5.010E+00, -6.842E+00 ± 3.660E+00, 2.796E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 106 (102-j'-103) [l=500 cm] [Piano XZ: 436 def.-64 rig.]
 102, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 8.223E-02 ± 1.042E-01, 7.314E-02 ± 8.588E-01 - K.
 i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 8.223E-02 ± 1.042E-01, 7.314E-02 ± 8.588E-01
 j', -9.077E-05 ± 5.009E+00, 1.995E-03 ± 7.832E-01, -2.819E-04 ± 9.602E-02, 3.823E-05 ± 8.617E-01
 103, -9.077E-05 ± 5.009E+00, 2.176E-03 ± 8.191E-01, -2.819E-04 ± 9.602E-02, 3.823E-05 ± 8.617E-01 - M.
 107 (101-103) [l=26 cm][26 def.]
 101, 9.073E-05 ± 5.010E+00, -6.842E+00 ± 3.660E+00, 2.796E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 i', 9.073E-05 ± 5.010E+00, -6.842E+00 ± 3.660E+00, 2.796E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - M.
 j', 9.077E-05 ± 5.009E+00, -6.842E+00 ± 3.652E+00, 2.819E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 103, 9.077E-05 ± 5.009E+00, -6.842E+00 ± 3.652E+00, 2.819E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 108 (103-104) [l=26 cm][26 def.]
 103, 9.077E-05 ± 5.009E+00, -6.842E+00 ± 3.652E+00, 2.819E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - K.
 i', 9.077E-05 ± 5.009E+00, -6.842E+00 ± 3.652E+00, 2.819E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 j', 9.082E-05 ± 5.010E+00, -6.842E+00 ± 3.646E+00, 2.842E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 104, 9.082E-05 ± 5.010E+00, -6.842E+00 ± 3.646E+00, 2.842E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - M.
 109 (105-j'-106) [l=500 cm] [Piano XZ: 436 def.-64 rig.]
 105, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.962E-02 ± 1.006E-01, 5.949E-02 ± 8.541E-01
 i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.962E-02 ± 1.006E-01, 5.949E-02 ± 8.541E-01 - K.
 j', -9.123E-05 ± 5.038E+00, 1.979E-03 ± 7.831E-01, -3.062E-04 ± 9.603E-02, 3.620E-05 ± 8.617E-01
 106, -9.123E-05 ± 5.038E+00, 2.176E-03 ± 8.191E-01, -3.062E-04 ± 9.603E-02, 3.620E-05 ± 8.617E-01
 110 (107-106) [l=26 cm][26 def.]
 107, 9.119E-05 ± 5.035E+00, -6.843E+00 ± 3.665E+00, 3.039E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - M.
 i', 9.119E-05 ± 5.035E+00, -6.843E+00 ± 3.665E+00, 3.039E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 j', 9.123E-05 ± 5.038E+00, -6.843E+00 ± 3.673E+00, 3.062E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 106, 9.123E-05 ± 5.038E+00, -6.843E+00 ± 3.673E+00, 3.062E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - K.
 111 (106-108) [l=26 cm][26 def.]
 106, 9.123E-05 ± 5.038E+00, -6.843E+00 ± 3.673E+00, 3.062E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 i', 9.123E-05 ± 5.038E+00, -6.843E+00 ± 3.673E+00, 3.062E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - M.
 j', 9.127E-05 ± 5.041E+00, -6.843E+00 ± 3.680E+00, 3.086E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 108, 9.127E-05 ± 5.041E+00, -6.843E+00 ± 3.680E+00, 3.086E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 112 (104-107) [l=227 cm][227 def.]
 104, 9.082E-05 ± 5.010E+00, -6.842E+00 ± 3.646E+00, 2.842E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - K.
 i', 9.082E-05 ± 5.010E+00, -6.842E+00 ± 3.646E+00, 2.842E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 j', 9.119E-05 ± 5.035E+00, -6.843E+00 ± 3.665E+00, 3.039E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 107, 9.119E-05 ± 5.035E+00, -6.843E+00 ± 3.665E+00, 3.039E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - K.
 113 (109-110) [l=500 cm][500 def.]
 109, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.955E-02 ± 1.006E-01, 5.917E-02 ± 8.541E-01
 i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.955E-02 ± 1.006E-01, 5.917E-02 ± 8.541E-01 - M.
 j', -9.148E-05 ± 5.055E+00, 2.176E-03 ± 8.191E-01, -3.195E-04 ± 9.603E-02, 3.508E-05 ± 8.617E-01
 110, -9.148E-05 ± 5.055E+00, 2.176E-03 ± 8.191E-01, -3.195E-04 ± 9.603E-02, 3.508E-05 ± 8.617E-01
 114 (108-110) [l=123 cm][123 def.]
 108, 9.127E-05 ± 5.041E+00, -6.843E+00 ± 3.680E+00, 3.086E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - K.
 i', 9.127E-05 ± 5.041E+00, -6.843E+00 ± 3.680E+00, 3.086E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 j', 9.148E-05 ± 5.055E+00, -6.844E+00 ± 3.715E+00, 3.195E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 110, 9.148E-05 ± 5.055E+00, -6.844E+00 ± 3.715E+00, 3.195E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - M.
 115 (110-111) [l=123 cm][123 def.]
 110, 9.148E-05 ± 5.055E+00, -6.844E+00 ± 3.715E+00, 3.195E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 i', 9.148E-05 ± 5.055E+00, -6.844E+00 ± 3.715E+00, 3.195E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - M.
 j', 9.168E-05 ± 5.069E+00, -6.844E+00 ± 3.750E+00, 3.304E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 111, 9.168E-05 ± 5.069E+00, -6.844E+00 ± 3.750E+00, 3.304E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 116 (112-i'-j'-113) [l=500 cm] [Piano XZ: 255 rig.-191 def.-55 rig.]
 112, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.943E-02 ± 1.006E-01, 5.886E-02 ± 8.540E-01 - K.
 i', 0.000E+00 ± 0.000E+00, 1.513E-01 ± 2.560E-01, -5.943E-02 ± 1.006E-01, 5.886E-02 ± 8.540E-01
 j', -9.173E-05 ± 5.073E+00, 1.995E-03 ± 7.788E-01, -3.331E-04 ± 9.604E-02, 3.327E-05 ± 8.617E-01
 113, -9.173E-05 ± 5.073E+00, 2.176E-03 ± 8.191E-01, -3.331E-04 ± 9.604E-02, 3.327E-05 ± 8.617E-01 - M.
 117 (112-114) [l=31 cm][31 def.]
 112, 0.000E+00 ± 0.000E+00, -6.741E+00 ± 3.680E+00, 5.943E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00
 i', 0.000E+00 ± 0.000E+00, -6.741E+00 ± 3.680E+00, 5.943E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00 - K.
 j', 0.000E+00 ± 0.000E+00, -6.760E+00 ± 3.695E+00, 5.943E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00
 114, 0.000E+00 ± 0.000E+00, -6.760E+00 ± 3.695E+00, 5.943E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00
 118 (111-113) [l=31 cm][31 def.]
 111, 9.168E-05 ± 5.069E+00, -6.844E+00 ± 3.750E+00, 3.304E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - M.
 i', 9.168E-05 ± 5.069E+00, -6.844E+00 ± 3.750E+00, 3.304E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 j', 9.173E-05 ± 5.073E+00, -6.844E+00 ± 3.759E+00, 3.331E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
 113, 9.173E-05 ± 5.073E+00, -6.844E+00 ± 3.759E+00, 3.331E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - M.
 119 (113-115) [l=31 cm][31 def.]
 113, 9.173E-05 ± 5.073E+00, -6.844E+00 ± 3.759E+00, 3.331E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
 i', 9.173E-05 ± 5.073E+00, -6.844E+00 ± 3.759E+00, 3.331E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
 j', 9.178E-05 ± 5.076E+00, -6.844E+00 ± 3.768E+00, 3.357E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
 115, 9.178E-05 ± 5.076E+00, -6.844E+00 ± 3.768E+00, 3.357E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
 120 (116-i'-j'-117) [l=500 cm] [Piano XZ: 185 rig.-287 def.-28 rig.]
 116, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 7.628E-03 ± 9.932E-02, 2.698E-02 ± 9.738E-01 - M.
 i', 0.000E+00 ± 0.000E+00, -1.412E-02 ± 1.838E-01, 7.628E-03 ± 9.932E-02, 2.698E-02 ± 9.738E-01
 j', -9.230E-05 ± 5.112E+00, 2.075E-03 ± 8.028E-01, -3.573E-04 ± 9.604E-02, 2.312E-05 ± 8.616E-01
 117, -9.230E-05 ± 5.112E+00, 2.176E-03 ± 8.191E-01, -3.573E-04 ± 9.604E-02, 2.312E-05 ± 8.616E-01 - K.
 121 (118-116) [l=88 cm][88 def.]

118, 0.000E+00 ± 0.000E+00, -6.788E+00 ± 3.743E+00, -7.627E-03 ± 9.932E-02, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -6.788E+00 ± 3.743E+00, -7.627E-03 ± 9.932E-02, 0.000E+00 ± 0.000E+00 - K.
j', 0.000E+00 ± 0.000E+00, -6.781E+00 ± 3.758E+00, -7.628E-03 ± 9.932E-02, 0.000E+00 ± 0.000E+00
116, 0.000E+00 ± 0.000E+00, -6.781E+00 ± 3.758E+00, -7.628E-03 ± 9.932E-02, 0.000E+00 ± 0.000E+00
122 (119-117) [l=88 cm][88 def.]
119, 9.215E-05 ± 5.102E+00, -6.845E+00 ± 3.834E+00, 3.520E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - M.
i', 9.215E-05 ± 5.102E+00, -6.845E+00 ± 3.834E+00, 3.520E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
j', 9.230E-05 ± 5.112E+00, -6.845E+00 ± 3.860E+00, 3.573E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
117, 9.230E-05 ± 5.112E+00, -6.845E+00 ± 3.860E+00, 3.573E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
123 (117-120) [l=88 cm][88 def.]
117, 9.230E-05 ± 5.112E+00, -6.845E+00 ± 3.860E+00, 3.573E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
i', 9.230E-05 ± 5.112E+00, -6.845E+00 ± 3.860E+00, 3.573E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - M.
j', 9.244E-05 ± 5.122E+00, -6.846E+00 ± 3.885E+00, 3.620E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
120, 9.244E-05 ± 5.122E+00, -6.846E+00 ± 3.885E+00, 3.620E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
124 (114-118) [l=227 cm][227 def.]
114, 0.000E+00 ± 0.000E+00, -6.760E+00 ± 3.695E+00, 5.943E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00 - K.
i', 0.000E+00 ± 0.000E+00, -6.760E+00 ± 3.695E+00, 5.943E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -6.788E+00 ± 3.743E+00, -7.627E-03 ± 9.932E-02, 0.000E+00 ± 0.000E+00
118, 0.000E+00 ± 0.000E+00, -6.788E+00 ± 3.743E+00, -7.627E-03 ± 9.932E-02, 0.000E+00 ± 0.000E+00 - M.
125 (115-119) [l=227 cm][227 def.]
115, 9.178E-05 ± 5.076E+00, -6.844E+00 ± 3.768E+00, 3.357E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
i', 9.178E-05 ± 5.076E+00, -6.844E+00 ± 3.768E+00, 3.357E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
j', 9.215E-05 ± 5.102E+00, -6.845E+00 ± 3.834E+00, 3.520E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
119, 9.215E-05 ± 5.102E+00, -6.845E+00 ± 3.834E+00, 3.520E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
126 (121-j'-122) [l=500 cm] [Piano XZ: 464 def.-36 rig.]
121, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 7.690E-03 ± 9.930E-02, 2.697E-02 ± 9.738E-01 - M.
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 7.690E-03 ± 9.930E-02, 2.697E-02 ± 9.738E-01
j', -9.259E-05 ± 5.132E+00, 2.046E-03 ± 7.987E-01, -3.662E-04 ± 9.604E-02, 1.794E-05 ± 8.616E-01
122, -9.259E-05 ± 5.132E+00, 2.176E-03 ± 8.191E-01, -3.662E-04 ± 9.604E-02, 1.794E-05 ± 8.616E-01 - M.
127 (120-122) [l=88 cm][88 def.]
120, 9.244E-05 ± 5.122E+00, -6.846E+00 ± 3.885E+00, 3.620E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
i', 9.244E-05 ± 5.122E+00, -6.846E+00 ± 3.885E+00, 3.620E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
j', 9.259E-05 ± 5.132E+00, -6.846E+00 ± 3.911E+00, 3.662E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
122, 9.259E-05 ± 5.132E+00, -6.846E+00 ± 3.911E+00, 3.662E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
128 (122-123) [l=88 cm][88 def.]
122, 9.259E-05 ± 5.132E+00, -6.846E+00 ± 3.911E+00, 3.662E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - M.
i', 9.259E-05 ± 5.132E+00, -6.846E+00 ± 3.911E+00, 3.662E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
j', 9.273E-05 ± 5.142E+00, -6.846E+00 ± 3.936E+00, 3.699E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
123, 9.273E-05 ± 5.142E+00, -6.846E+00 ± 3.936E+00, 3.699E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
129 (124-j'-125) [l=500 cm] [Piano XZ: 464 def.-36 rig.]
124, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -9.307E-03 ± 1.014E-01, 3.891E-03 ± 9.818E-01
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -9.307E-03 ± 1.014E-01, 3.891E-03 ± 9.818E-01 - K.
j', -9.325E-05 ± 5.178E+00, 2.041E-03 ± 7.987E-01, -3.791E-04 ± 9.604E-02, 6.158E-06 ± 8.616E-01
125, -9.325E-05 ± 5.178E+00, 2.176E-03 ± 8.191E-01, -3.791E-04 ± 9.604E-02, 6.158E-06 ± 8.616E-01
130 (126-125) [l=88 cm][88 def.]
126, 9.311E-05 ± 5.168E+00, -6.847E+00 ± 4.002E+00, 3.770E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - M.
i', 9.311E-05 ± 5.168E+00, -6.847E+00 ± 4.002E+00, 3.770E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
j', 9.325E-05 ± 5.178E+00, -6.847E+00 ± 4.028E+00, 3.791E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
125, 9.325E-05 ± 5.178E+00, -6.847E+00 ± 4.028E+00, 3.791E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
131 (125-127) [l=88 cm][88 def.]
125, 9.325E-05 ± 5.178E+00, -6.847E+00 ± 4.028E+00, 3.791E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
i', 9.325E-05 ± 5.178E+00, -6.847E+00 ± 4.028E+00, 3.791E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
j', 9.340E-05 ± 5.188E+00, -6.848E+00 ± 4.053E+00, 3.810E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
127, 9.340E-05 ± 5.188E+00, -6.848E+00 ± 4.053E+00, 3.810E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
132 (123-126) [l=227 cm][227 def.]
123, 9.273E-05 ± 5.142E+00, -6.846E+00 ± 3.936E+00, 3.699E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - M.
i', 9.273E-05 ± 5.142E+00, -6.846E+00 ± 3.936E+00, 3.699E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
j', 9.311E-05 ± 5.168E+00, -6.847E+00 ± 4.002E+00, 3.770E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
126, 9.311E-05 ± 5.168E+00, -6.847E+00 ± 4.002E+00, 3.770E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
133 (128-i'-j'-129) [l=500 cm] [Piano XZ: 185 rig.-287 def.-29 rig.]
128, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -9.271E-03 ± 1.014E-01, 3.889E-03 ± 9.818E-01
i', 0.000E+00 ± 0.000E+00, 1.715E-02 ± 1.876E-01, -9.271E-03 ± 1.014E-01, 3.889E-03 ± 9.818E-01 - K.
j', -9.354E-05 ± 5.198E+00, 2.067E-03 ± 8.028E-01, -3.825E-04 ± 9.603E-02, 9.920E-07 ± 8.615E-01
129, -9.354E-05 ± 5.198E+00, 2.176E-03 ± 8.191E-01, -3.825E-04 ± 9.603E-02, 9.920E-07 ± 8.615E-01
134 (128-130) [l=88 cm][88 def.]
128, 0.000E+00 ± 0.000E+00, -6.768E+00 ± 3.979E+00, 9.271E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00 - M.
i', 0.000E+00 ± 0.000E+00, -6.768E+00 ± 3.979E+00, 9.271E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -6.776E+00 ± 4.015E+00, 9.271E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00
130, 0.000E+00 ± 0.000E+00, -6.776E+00 ± 4.015E+00, 9.271E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00 - K.
135 (127-129) [l=88 cm][88 def.]
127, 9.340E-05 ± 5.188E+00, -6.848E+00 ± 4.053E+00, 3.810E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
i', 9.340E-05 ± 5.188E+00, -6.848E+00 ± 4.053E+00, 3.810E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
j', 9.354E-05 ± 5.198E+00, -6.848E+00 ± 4.079E+00, 3.825E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
129, 9.354E-05 ± 5.198E+00, -6.848E+00 ± 4.079E+00, 3.825E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
136 (129-131) [l=88 cm][88 def.]
129, 9.354E-05 ± 5.198E+00, -6.848E+00 ± 4.079E+00, 3.825E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - M.
i', 9.354E-05 ± 5.198E+00, -6.848E+00 ± 4.079E+00, 3.825E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
j', 9.369E-05 ± 5.208E+00, -6.848E+00 ± 4.105E+00, 3.837E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
131, 9.369E-05 ± 5.208E+00, -6.848E+00 ± 4.105E+00, 3.837E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - K.
137 (132-i'-j'-133) [l=500 cm] [Piano XZ: 184 rig.-288 def.-28 rig.]
132, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.877E-03 ± 1.081E-01, -1.852E-05 ± 8.567E-01
i', 0.000E+00 ± 0.000E+00, 1.263E-02 ± 1.984E-01, -6.877E-03 ± 1.081E-01, -1.852E-05 ± 8.567E-01 - M.
j', -9.421E-05 ± 5.245E+00, 2.068E-03 ± 8.029E-01, -3.855E-04 ± 9.602E-02, -1.083E-05 ± 8.615E-01
133, -9.421E-05 ± 5.245E+00, 2.176E-03 ± 8.191E-01, -3.855E-04 ± 9.602E-02, -1.083E-05 ± 8.615E-01
138 (134-132) [l=90 cm][90 def.]
134, 0.000E+00 ± 0.000E+00, -6.788E+00 ± 4.132E+00, 6.877E-03 ± 1.081E-01, 0.000E+00 ± 0.000E+00 - K.

i' , 0.000E+00 ± 0.000E+00, -6.788E+00 ± 4.132E+00, 6.877E-03 ± 1.081E-01, 0.000E+00 ± 0.000E+00
 j' , 0.000E+00 ± 0.000E+00, -6.795E+00 ± 4.159E+00, 6.877E-03 ± 1.081E-01, 0.000E+00 ± 0.000E+00
132, 0.000E+00 ± 0.000E+00, -6.795E+00 ± 4.159E+00, 6.877E-03 ± 1.081E-01, 0.000E+00 ± 0.000E+00 - K.
139 (135-133) [l=90 cm][90 def.]
135, 9.406E-05 ± 5.234E+00, -6.849E+00 ± 4.170E+00, 3.853E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 i' , 9.406E-05 ± 5.234E+00, -6.849E+00 ± 4.170E+00, 3.853E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - M.
 j' , 9.421E-05 ± 5.245E+00, -6.850E+00 ± 4.196E+00, 3.855E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
133, 9.421E-05 ± 5.245E+00, -6.850E+00 ± 4.196E+00, 3.855E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
140 (133-136) [l=90 cm][90 def.]
133, 9.421E-05 ± 5.245E+00, -6.850E+00 ± 4.196E+00, 3.855E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - K.
 i' , 9.421E-05 ± 5.245E+00, -6.850E+00 ± 4.196E+00, 3.855E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 j' , 9.435E-05 ± 5.255E+00, -6.850E+00 ± 4.222E+00, 3.856E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
136, 9.435E-05 ± 5.255E+00, -6.850E+00 ± 4.222E+00, 3.856E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - Z.
141 (130-134) [l=227 cm][227 def.]
130, 0.000E+00 ± 0.000E+00, -6.776E+00 ± 4.015E+00, 9.271E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00
 i' , 0.000E+00 ± 0.000E+00, -6.776E+00 ± 4.015E+00, 9.271E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00 - Z.
 j' , 0.000E+00 ± 0.000E+00, -6.788E+00 ± 4.132E+00, 6.877E-03 ± 1.081E-01, 0.000E+00 ± 0.000E+00
134, 0.000E+00 ± 0.000E+00, -6.788E+00 ± 4.132E+00, 6.877E-03 ± 1.081E-01, 0.000E+00 ± 0.000E+00
142 (131-135) [l=227 cm][227 def.]
131, 9.369E-05 ± 5.208E+00, -6.848E+00 ± 4.105E+00, 3.837E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - Z.
 i' , 9.369E-05 ± 5.208E+00, -6.848E+00 ± 4.105E+00, 3.837E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 j' , 9.406E-05 ± 5.234E+00, -6.849E+00 ± 4.170E+00, 3.853E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
135, 9.406E-05 ± 5.234E+00, -6.849E+00 ± 4.170E+00, 3.853E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - Z.
143 (137-j'-138) [l=438 cm] [Piano XZ: 372 def.-66 rig.]
137, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 7.250E-02 ± 8.587E-01, -8.216E-02 ± 1.042E-01
 i' , 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 7.250E-02 ± 8.587E-01, -8.216E-02 ± 1.042E-01 - Z.
 j' , 2.016E-03 ± 7.768E-01, 1.425E-04 ± 3.920E+00, 4.090E-05 ± 8.618E-01, 2.586E-04 ± 9.602E-02
138, 2.016E-03 ± 7.768E-01, 1.157E-04 ± 4.483E+00, 4.090E-05 ± 8.618E-01, 2.586E-04 ± 9.602E-02
144 (139-138) [l=161 cm][161 def.]
139, -2.016E-03 ± 7.844E-01, -6.842E+00 ± 3.729E+00, -4.061E-05 ± 8.618E-01, 1.645E-07 ± 1.169E-02 - Z.
 i' , -2.016E-03 ± 7.844E-01, -6.842E+00 ± 3.729E+00, -4.061E-05 ± 8.618E-01, 1.645E-07 ± 1.169E-02
 j' , -2.016E-03 ± 7.768E-01, -6.841E+00 ± 2.346E+00, -4.090E-05 ± 8.618E-01, 1.645E-07 ± 1.169E-02
138, -2.016E-03 ± 7.768E-01, -6.841E+00 ± 2.346E+00, -4.090E-05 ± 8.618E-01, 1.645E-07 ± 1.169E-02 - Z.
145 (138-140) [l=160 cm][160 def.]
138, -2.016E-03 ± 7.768E-01, -6.841E+00 ± 2.346E+00, -4.090E-05 ± 8.618E-01, 1.645E-07 ± 1.169E-02
 i' , -2.016E-03 ± 7.768E-01, -6.841E+00 ± 2.346E+00, -4.090E-05 ± 8.618E-01, 1.645E-07 ± 1.169E-02 - Z.
 j' , -2.016E-03 ± 7.693E-01, -6.841E+00 ± 9.639E-01, -4.086E-05 ± 8.618E-01, 1.645E-07 ± 1.169E-02
140, -2.016E-03 ± 7.693E-01, -6.841E+00 ± 9.639E-01, -4.086E-05 ± 8.618E-01, 1.645E-07 ± 1.169E-02
146 (141-j'-142) [l=438 cm] [Piano XZ: 372 def.-66 rig.]
141, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.255E-02 ± 8.587E-01, -8.216E-02 ± 1.042E-01 - Z.
 i' , 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.255E-02 ± 8.587E-01, -8.216E-02 ± 1.042E-01
 j' , 2.015E-03 ± 7.768E-01, -5.560E-06 ± 3.920E+00, -7.515E-05 ± 8.618E-01, 2.585E-04 ± 9.602E-02
142, 2.015E-03 ± 7.768E-01, 4.374E-05 ± 4.483E+00, -7.515E-05 ± 8.618E-01, 2.585E-04 ± 9.602E-02 - Z.
147 (143-142) [l=161 cm][161 def.]
143, -2.015E-03 ± 7.693E-01, -6.841E+00 ± 9.639E-01, 7.510E-05 ± 8.618E-01, 1.645E-07 ± 1.169E-02
 i' , -2.015E-03 ± 7.693E-01, -6.841E+00 ± 9.639E-01, 7.510E-05 ± 8.618E-01, 1.645E-07 ± 1.169E-02 - Z.
 j' , -2.015E-03 ± 7.768E-01, -6.842E+00 ± 2.347E+00, 7.515E-05 ± 8.618E-01, 1.645E-07 ± 1.169E-02
142, -2.015E-03 ± 7.768E-01, -6.842E+00 ± 2.347E+00, 7.515E-05 ± 8.618E-01, 1.645E-07 ± 1.169E-02
148 (142-144) [l=160 cm][160 def.]
142, -2.015E-03 ± 7.768E-01, -6.842E+00 ± 2.347E+00, 7.515E-05 ± 8.618E-01, 1.645E-07 ± 1.169E-02 - Z.
 i' , -2.015E-03 ± 7.768E-01, -6.842E+00 ± 2.347E+00, 7.515E-05 ± 8.618E-01, 1.645E-07 ± 1.169E-02
 j' , -2.015E-03 ± 7.844E-01, -6.842E+00 ± 3.729E+00, 7.485E-05 ± 8.618E-01, 1.645E-07 ± 1.169E-02
144, -2.015E-03 ± 7.844E-01, -6.842E+00 ± 3.729E+00, 7.485E-05 ± 8.618E-01, 1.645E-07 ± 1.169E-02 - Z.
149 (140-143) [l=200 cm][200 def.]
140, -2.016E-03 ± 7.693E-01, -6.841E+00 ± 9.639E-01, -4.086E-05 ± 8.618E-01, 1.645E-07 ± 1.169E-02
 i' , -2.016E-03 ± 7.693E-01, -6.841E+00 ± 9.639E-01, -4.086E-05 ± 8.618E-01, 1.645E-07 ± 1.169E-02 - Z.
 j' , -2.015E-03 ± 7.693E-01, -6.841E+00 ± 9.639E-01, 7.510E-05 ± 8.618E-01, 1.645E-07 ± 1.169E-02
143, -2.015E-03 ± 7.693E-01, -6.841E+00 ± 9.639E-01, 7.510E-05 ± 8.618E-01, 1.645E-07 ± 1.169E-02
150 (145-j'-146) [l=438 cm] [Piano XZ: 372 def.-66 rig.]
145, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.888E-02 ± 8.540E-01, 5.946E-02 ± 1.006E-01 - T.
 i' , 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.888E-02 ± 8.540E-01, 5.946E-02 ± 1.006E-01
 j' , 1.970E-03 ± 7.768E-01, 3.117E-06 ± 3.974E+00, -6.940E-05 ± 8.617E-01, 3.304E-04 ± 9.604E-02
146, 1.970E-03 ± 7.768E-01, 4.865E-05 ± 4.537E+00, -6.940E-05 ± 8.617E-01, 3.304E-04 ± 9.604E-02 - T.
151 (147-146) [l=160 cm][160 def.]
147, 1.970E-03 ± 7.844E-01, -6.844E+00 ± 3.751E+00, -6.898E-05 ± 8.617E-01, 1.645E-07 ± 1.169E-02
 i' , 1.970E-03 ± 7.844E-01, -6.844E+00 ± 3.751E+00, -6.898E-05 ± 8.617E-01, 1.645E-07 ± 1.169E-02 - T.
 j' , 1.970E-03 ± 7.768E-01, -6.844E+00 ± 2.369E+00, -6.940E-05 ± 8.617E-01, 1.645E-07 ± 1.169E-02
146, 1.970E-03 ± 7.768E-01, -6.844E+00 ± 2.369E+00, -6.940E-05 ± 8.617E-01, 1.645E-07 ± 1.169E-02
152 (146-148) [l=161 cm][161 def.]
146, 1.970E-03 ± 7.768E-01, -6.844E+00 ± 2.369E+00, -6.940E-05 ± 8.617E-01, 1.645E-07 ± 1.169E-02 - T.
 i' , 1.970E-03 ± 7.768E-01, -6.844E+00 ± 2.369E+00, -6.940E-05 ± 8.617E-01, 1.645E-07 ± 1.169E-02
 j' , 1.971E-03 ± 7.693E-01, -6.844E+00 ± 9.857E-01, -6.936E-05 ± 8.617E-01, 1.645E-07 ± 1.169E-02
148, 1.971E-03 ± 7.693E-01, -6.844E+00 ± 9.857E-01, -6.936E-05 ± 8.617E-01, 1.645E-07 ± 1.169E-02 - T.
153 (149-j'-150) [l=438 cm] [Piano XZ: 372 def.-66 rig.]
149, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 5.884E-02 ± 8.540E-01, 5.946E-02 ± 1.006E-01
 i' , 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 5.884E-02 ± 8.540E-01, 5.946E-02 ± 1.006E-01 - T.
 j' , 1.971E-03 ± 7.769E-01, 1.365E-04 ± 3.974E+00, 3.514E-05 ± 8.617E-01, 3.304E-04 ± 9.603E-02
150, 1.971E-03 ± 7.769E-01, 1.135E-04 ± 4.537E+00, 3.514E-05 ± 8.617E-01, 3.304E-04 ± 9.603E-02
154 (151-150) [l=160 cm][160 def.]
151, 1.971E-03 ± 7.693E-01, -6.844E+00 ± 9.855E-01, 3.510E-05 ± 8.617E-01, 1.645E-07 ± 1.169E-02 - T.
 i' , 1.971E-03 ± 7.693E-01, -6.844E+00 ± 9.855E-01, 3.510E-05 ± 8.617E-01, 1.645E-07 ± 1.169E-02
 j' , 1.971E-03 ± 7.769E-01, -6.844E+00 ± 2.367E+00, 3.514E-05 ± 8.617E-01, 1.645E-07 ± 1.169E-02
150, 1.971E-03 ± 7.769E-01, -6.844E+00 ± 2.367E+00, 3.514E-05 ± 8.617E-01, 1.645E-07 ± 1.169E-02 - T.
155 (150-152) [l=161 cm][161 def.]
150, 1.971E-03 ± 7.769E-01, -6.844E+00 ± 2.367E+00, 3.514E-05 ± 8.617E-01, 1.645E-07 ± 1.169E-02
 i' , 1.971E-03 ± 7.769E-01, -6.844E+00 ± 2.367E+00, 3.514E-05 ± 8.617E-01, 1.645E-07 ± 1.169E-02 - T.

j' , $1.972E-03 \pm 7.844E-01, -6.844E+00 \pm 3.750E+00, 3.472E-05 \pm 8.617E-01, 1.645E-07 \pm 1.169E-02$
 152, $1.972E-03 \pm 7.844E-01, -6.844E+00 \pm 3.750E+00, 3.472E-05 \pm 8.617E-01, 1.645E-07 \pm 1.169E-02$
 156 (148-151) [l=200 cm][200 def.]
 148, $1.971E-03 \pm 7.693E-01, -6.844E+00 \pm 9.857E-01, -6.936E-05 \pm 8.617E-01, 1.645E-07 \pm 1.169E-02 - T.$
 i' , $1.971E-03 \pm 7.693E-01, -6.844E+00 \pm 9.857E-01, -6.936E-05 \pm 8.617E-01, 1.645E-07 \pm 1.169E-02$
 j' , $1.971E-03 \pm 7.693E-01, -6.844E+00 \pm 9.855E-01, 3.510E-05 \pm 8.617E-01, 1.645E-07 \pm 1.169E-02$
 151, $1.971E-03 \pm 7.693E-01, -6.844E+00 \pm 9.855E-01, 3.510E-05 \pm 8.617E-01, 1.645E-07 \pm 1.169E-02 - T.$
 157 (153-154) [l=30 cm][30 def.]
 153, $-9.388E-05 \pm 5.222E+00, 2.176E-03 \pm 8.191E-01, -3.847E-04 \pm 9.603E-02, -4.937E-06 \pm 8.615E-01$
 i' , $-9.388E-05 \pm 5.222E+00, 2.176E-03 \pm 8.191E-01, -3.847E-04 \pm 9.603E-02, -4.937E-06 \pm 8.615E-01 - T.$
 j' , $-9.905E-05 \pm 5.483E+00, 2.265E-03 \pm 8.400E-01, -3.182E-04 \pm 9.602E-02, -1.911E-05 \pm 8.607E-01$
 154, $-9.905E-05 \pm 5.483E+00, 2.265E-03 \pm 8.400E-01, -3.182E-04 \pm 9.602E-02, -1.911E-05 \pm 8.607E-01$
 158 (154-156) [l=291 cm][291 def.]
 154, $9.905E-05 \pm 5.483E+00, -6.850E+00 \pm 4.136E+00, 3.182E-04 \pm 9.602E-02, 1.648E-07 \pm 1.174E-02 - T.$
 i' , $9.905E-05 \pm 5.483E+00, -6.850E+00 \pm 4.136E+00, 3.182E-04 \pm 9.602E-02, 1.648E-07 \pm 1.174E-02$
 j' , $9.953E-05 \pm 5.517E+00, -6.851E+00 \pm 4.219E+00, 3.189E-04 \pm 9.602E-02, 1.648E-07 \pm 1.174E-02$
 156, $9.953E-05 \pm 5.517E+00, -6.851E+00 \pm 4.219E+00, 3.189E-04 \pm 9.602E-02, 1.648E-07 \pm 1.174E-02 - T.$
 159 (157-158) [l=30 cm][30 def.]
 157, $-9.292E-05 \pm 5.155E+00, 2.176E-03 \pm 8.191E-01, -3.738E-04 \pm 9.604E-02, 1.205E-05 \pm 8.616E-01$
 i' , $-9.292E-05 \pm 5.155E+00, 2.176E-03 \pm 8.191E-01, -3.738E-04 \pm 9.604E-02, 1.205E-05 \pm 8.616E-01 - T.$
 j' , $-9.809E-05 \pm 5.417E+00, 2.265E-03 \pm 8.400E-01, -3.138E-04 \pm 9.602E-02, -2.047E-05 \pm 8.606E-01$
 158, $-9.809E-05 \pm 5.417E+00, 2.265E-03 \pm 8.400E-01, -3.138E-04 \pm 9.602E-02, -2.047E-05 \pm 8.606E-01$
 160 (160-161) [l=30 cm][30 def.]
 160, $-9.206E-05 \pm 5.096E+00, 2.176E-03 \pm 8.191E-01, -3.484E-04 \pm 9.604E-02, 2.735E-05 \pm 8.617E-01 - T.$
 i' , $-9.206E-05 \pm 5.096E+00, 2.176E-03 \pm 8.191E-01, -3.484E-04 \pm 9.604E-02, 2.735E-05 \pm 8.617E-01$
 j' , $-9.723E-05 \pm 5.357E+00, 2.265E-03 \pm 8.400E-01, -3.063E-04 \pm 9.603E-02, -2.118E-05 \pm 8.606E-01$
 161, $-9.723E-05 \pm 5.357E+00, 2.265E-03 \pm 8.400E-01, -3.063E-04 \pm 9.603E-02, -2.118E-05 \pm 8.606E-01 - T.$
 161 (161-159) [l=233 cm][233 def.]
 161, $9.723E-05 \pm 5.357E+00, -6.847E+00 \pm 3.818E+00, 3.063E-04 \pm 9.603E-02, 1.648E-07 \pm 1.174E-02$
 i' , $9.723E-05 \pm 5.357E+00, -6.847E+00 \pm 3.818E+00, 3.063E-04 \pm 9.603E-02, 1.648E-07 \pm 1.174E-02 - T.$
 j' , $9.761E-05 \pm 5.384E+00, -6.848E+00 \pm 3.884E+00, 3.100E-04 \pm 9.603E-02, 1.648E-07 \pm 1.174E-02$
 159, $9.761E-05 \pm 5.384E+00, -6.848E+00 \pm 3.884E+00, 3.100E-04 \pm 9.603E-02, 1.648E-07 \pm 1.174E-02$
 162 (110-163) [l=30 cm][30 def.]
 110, $-9.148E-05 \pm 5.055E+00, 2.176E-03 \pm 8.191E-01, -3.195E-04 \pm 9.603E-02, 3.508E-05 \pm 8.617E-01 - T.$
 i' , $-9.148E-05 \pm 5.055E+00, 2.176E-03 \pm 8.191E-01, -3.195E-04 \pm 9.603E-02, 3.508E-05 \pm 8.617E-01$
 j' , $-9.664E-05 \pm 5.317E+00, 2.265E-03 \pm 8.400E-01, -2.999E-04 \pm 9.603E-02, -2.137E-05 \pm 8.606E-01$
 163, $-9.664E-05 \pm 5.317E+00, 2.265E-03 \pm 8.400E-01, -2.999E-04 \pm 9.603E-02, -2.137E-05 \pm 8.606E-01 - T.$
 163 (163-162) [l=123 cm][123 def.]
 163, $9.664E-05 \pm 5.317E+00, -6.846E+00 \pm 3.715E+00, 2.999E-04 \pm 9.603E-02, 1.648E-07 \pm 1.174E-02$
 i' , $9.664E-05 \pm 5.317E+00, -6.846E+00 \pm 3.715E+00, 2.999E-04 \pm 9.603E-02, 1.648E-07 \pm 1.174E-02 - T.$
 j' , $9.684E-05 \pm 5.331E+00, -6.846E+00 \pm 3.751E+00, 3.022E-04 \pm 9.603E-02, 1.648E-07 \pm 1.174E-02$
 162, $9.684E-05 \pm 5.331E+00, -6.846E+00 \pm 3.751E+00, 3.022E-04 \pm 9.603E-02, 1.648E-07 \pm 1.174E-02$
 164 (165-166) [l=30 cm][30 def.]
 165, $-9.100E-05 \pm 5.023E+00, 2.176E-03 \pm 8.191E-01, -2.940E-04 \pm 9.603E-02, 3.722E-05 \pm 8.617E-01 - T.$
 i' , $-9.100E-05 \pm 5.023E+00, 2.176E-03 \pm 8.191E-01, -2.940E-04 \pm 9.603E-02, 3.722E-05 \pm 8.617E-01$
 j' , $-9.617E-05 \pm 5.284E+00, 2.265E-03 \pm 8.400E-01, -2.942E-04 \pm 9.603E-02, -2.142E-05 \pm 8.606E-01$
 166, $-9.617E-05 \pm 5.284E+00, 2.265E-03 \pm 8.400E-01, -2.942E-04 \pm 9.603E-02, -2.142E-05 \pm 8.606E-01 - T.$
 165 (166-164) [l=165 cm][165 def.]
 166, $9.617E-05 \pm 5.284E+00, -6.845E+00 \pm 3.636E+00, 2.942E-04 \pm 9.603E-02, 1.648E-07 \pm 1.174E-02$
 i' , $9.617E-05 \pm 5.284E+00, -6.845E+00 \pm 3.636E+00, 2.942E-04 \pm 9.603E-02, 1.648E-07 \pm 1.174E-02 - T.$
 j' , $9.644E-05 \pm 5.303E+00, -6.846E+00 \pm 3.680E+00, 2.975E-04 \pm 9.603E-02, 1.648E-07 \pm 1.174E-02$
 164, $9.644E-05 \pm 5.303E+00, -6.846E+00 \pm 3.680E+00, 2.975E-04 \pm 9.603E-02, 1.648E-07 \pm 1.174E-02$
 166 (100-168) [l=30 cm][30 def.]
 100, $-9.053E-05 \pm 5.013E+00, 2.176E-03 \pm 8.191E-01, -2.690E-04 \pm 9.602E-02, 3.928E-05 \pm 8.618E-01 - T.$
 i' , $-9.053E-05 \pm 5.013E+00, 2.176E-03 \pm 8.191E-01, -2.690E-04 \pm 9.602E-02, 3.928E-05 \pm 8.618E-01$
 j' , $-9.569E-05 \pm 5.274E+00, 2.265E-03 \pm 8.400E-01, -2.885E-04 \pm 9.603E-02, -2.138E-05 \pm 8.606E-01$
 168, $-9.569E-05 \pm 5.274E+00, 2.265E-03 \pm 8.400E-01, -2.885E-04 \pm 9.603E-02, -2.138E-05 \pm 8.606E-01 - T.$
 167 (169-168) [l=122 cm][122 def.]
 169, $9.549E-05 \pm 5.277E+00, -6.844E+00 \pm 3.730E+00, 2.861E-04 \pm 9.603E-02, 1.648E-07 \pm 1.174E-02$
 i' , $9.549E-05 \pm 5.277E+00, -6.844E+00 \pm 3.730E+00, 2.861E-04 \pm 9.603E-02, 1.648E-07 \pm 1.174E-02 - T.$
 j' , $9.569E-05 \pm 5.274E+00, -6.844E+00 \pm 3.695E+00, 2.885E-04 \pm 9.603E-02, 1.648E-07 \pm 1.174E-02$
 168, $9.569E-05 \pm 5.274E+00, -6.844E+00 \pm 3.695E+00, 2.885E-04 \pm 9.603E-02, 1.648E-07 \pm 1.174E-02$
 168 (168-167) [l=122 cm][122 def.]
 168, $9.569E-05 \pm 5.274E+00, -6.844E+00 \pm 3.695E+00, 2.885E-04 \pm 9.603E-02, 1.648E-07 \pm 1.174E-02 - T.$
 i' , $9.569E-05 \pm 5.274E+00, -6.844E+00 \pm 3.695E+00, 2.885E-04 \pm 9.603E-02, 1.648E-07 \pm 1.174E-02$
 j' , $9.590E-05 \pm 5.271E+00, -6.845E+00 \pm 3.661E+00, 2.909E-04 \pm 9.603E-02, 1.648E-07 \pm 1.174E-02$
 167, $9.590E-05 \pm 5.271E+00, -6.845E+00 \pm 3.661E+00, 2.909E-04 \pm 9.603E-02, 1.648E-07 \pm 1.174E-02 - T.$
 169 (170-171) [l=30 cm][30 def.]
 170, $-8.995E-05 \pm 5.021E+00, 2.176E-03 \pm 8.191E-01, -2.416E-04 \pm 9.602E-02, 3.780E-05 \pm 8.618E-01$
 i' , $-8.995E-05 \pm 5.021E+00, 2.176E-03 \pm 8.191E-01, -2.416E-04 \pm 9.602E-02, 3.780E-05 \pm 8.618E-01 - T.$
 j' , $-9.511E-05 \pm 5.283E+00, 2.265E-03 \pm 8.400E-01, -2.820E-04 \pm 9.602E-02, -2.122E-05 \pm 8.605E-01$
 171, $-9.511E-05 \pm 5.283E+00, 2.265E-03 \pm 8.400E-01, -2.820E-04 \pm 9.602E-02, -2.122E-05 \pm 8.605E-01$
 170 (172-171) [l=230 cm][230 def.]
 172, $9.473E-05 \pm 5.289E+00, -6.843E+00 \pm 3.862E+00, 2.782E-04 \pm 9.602E-02, 1.648E-07 \pm 1.174E-02 - T.$
 i' , $9.473E-05 \pm 5.289E+00, -6.843E+00 \pm 3.862E+00, 2.782E-04 \pm 9.602E-02, 1.648E-07 \pm 1.174E-02$
 j' , $9.511E-05 \pm 5.283E+00, -6.843E+00 \pm 3.796E+00, 2.820E-04 \pm 9.602E-02, 1.648E-07 \pm 1.174E-02$
 171, $9.511E-05 \pm 5.283E+00, -6.843E+00 \pm 3.796E+00, 2.820E-04 \pm 9.602E-02, 1.648E-07 \pm 1.174E-02 - T.$
 171 (173-174) [l=30 cm][30 def.]
 173, $-8.906E-05 \pm 5.035E+00, 2.176E-03 \pm 8.191E-01, -2.165E-04 \pm 9.601E-02, 3.227E-05 \pm 8.618E-01$
 i' , $-8.906E-05 \pm 5.035E+00, 2.176E-03 \pm 8.191E-01, -2.165E-04 \pm 9.601E-02, 3.227E-05 \pm 8.618E-01 - T.$
 j' , $-9.422E-05 \pm 5.297E+00, 2.265E-03 \pm 8.400E-01, -2.740E-04 \pm 9.602E-02, -2.051E-05 \pm 8.605E-01$
 174, $-9.422E-05 \pm 5.297E+00, 2.265E-03 \pm 8.400E-01, -2.740E-04 \pm 9.602E-02, -2.051E-05 \pm 8.605E-01$
 172 (176-177) [l=30 cm][30 def.]
 176, $-8.807E-05 \pm 5.050E+00, 2.176E-03 \pm 8.191E-01, -2.059E-04 \pm 9.600E-02, 2.617E-05 \pm 8.618E-01 - T.$
 i' , $-8.807E-05 \pm 5.050E+00, 2.176E-03 \pm 8.191E-01, -2.059E-04 \pm 9.600E-02, 2.617E-05 \pm 8.618E-01$
 j' , $-9.323E-05 \pm 5.312E+00, 2.265E-03 \pm 8.400E-01, -2.692E-04 \pm 9.602E-02, -1.912E-05 \pm 8.605E-01$

177, -9.323E-05 ± 5.312E+00, 2.265E-03 ± 8.400E-01, -2.692E-04 ± 9.602E-02, -1.912E-05 ± 8.605E-01 - T.
173 (178-177) [l=291 cm][291 def.]
178, 9.275E-05 ± 5.320E+00, -6.839E+00 ± 4.209E+00, 2.685E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
i', 9.275E-05 ± 5.320E+00, -6.839E+00 ± 4.209E+00, 2.685E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02 - T.
j', 9.323E-05 ± 5.312E+00, -6.840E+00 ± 4.125E+00, 2.692E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
177, 9.323E-05 ± 5.312E+00, -6.840E+00 ± 4.125E+00, 2.692E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
174 (179-180) [l=30 cm][30 def.]
179, -8.807E-05 ± 5.050E+00, 2.175E-03 ± 8.190E-01, -2.059E-04 ± 9.601E-02, -6.042E-05 ± 8.618E-01 - T.
i', -8.807E-05 ± 5.050E+00, 2.175E-03 ± 8.190E-01, -2.059E-04 ± 9.601E-02, -6.042E-05 ± 8.618E-01
j', -9.323E-05 ± 5.312E+00, 2.263E-03 ± 8.400E-01, -2.692E-04 ± 9.602E-02, -1.557E-05 ± 8.605E-01
180, -9.323E-05 ± 5.312E+00, 2.263E-03 ± 8.400E-01, -2.692E-04 ± 9.602E-02, -1.557E-05 ± 8.605E-01 - T.
175 (180-182) [l=291 cm][291 def.]
180, -9.323E-05 ± 5.312E+00, -6.840E+00 ± 4.125E+00, -2.692E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
i', -9.323E-05 ± 5.312E+00, -6.840E+00 ± 4.125E+00, -2.692E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02 - T.
j', -9.275E-05 ± 5.320E+00, -6.839E+00 ± 4.208E+00, -2.685E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
182, -9.275E-05 ± 5.320E+00, -6.839E+00 ± 4.208E+00, -2.685E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
176 (183-184) [l=30 cm][30 def.]
183, -8.906E-05 ± 5.035E+00, 2.175E-03 ± 8.190E-01, -2.165E-04 ± 9.601E-02, -6.652E-05 ± 8.618E-01 - T.
i', -8.906E-05 ± 5.035E+00, 2.175E-03 ± 8.190E-01, -2.165E-04 ± 9.601E-02, -6.652E-05 ± 8.618E-01
j', -9.422E-05 ± 5.297E+00, 2.263E-03 ± 8.400E-01, -2.740E-04 ± 9.603E-02, -1.417E-05 ± 8.605E-01
184, -9.422E-05 ± 5.297E+00, 2.263E-03 ± 8.400E-01, -2.740E-04 ± 9.603E-02, -1.417E-05 ± 8.605E-01 - T.
177 (186-187) [l=30 cm][30 def.]
186, -8.995E-05 ± 5.021E+00, 2.175E-03 ± 8.190E-01, -2.416E-04 ± 9.602E-02, -7.204E-05 ± 8.618E-01
i', -8.995E-05 ± 5.021E+00, 2.175E-03 ± 8.190E-01, -2.416E-04 ± 9.602E-02, -7.204E-05 ± 8.618E-01 - T.
j', -9.511E-05 ± 5.283E+00, 2.263E-03 ± 8.400E-01, -2.820E-04 ± 9.603E-02, -1.345E-05 ± 8.605E-01
187, -9.511E-05 ± 5.283E+00, 2.263E-03 ± 8.400E-01, -2.820E-04 ± 9.603E-02, -1.345E-05 ± 8.605E-01
178 (187-185) [l=230 cm][230 def.]
187, -9.511E-05 ± 5.283E+00, -6.843E+00 ± 3.796E+00, -2.820E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02 - T.
i', -9.511E-05 ± 5.283E+00, -6.843E+00 ± 3.796E+00, -2.820E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
j', -9.473E-05 ± 5.289E+00, -6.843E+00 ± 3.862E+00, -2.782E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
185, -9.473E-05 ± 5.289E+00, -6.843E+00 ± 3.862E+00, -2.782E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02 - T.
179 (38-189) [l=30 cm][30 def.]
38, -9.053E-05 ± 5.013E+00, 2.175E-03 ± 8.190E-01, -2.689E-04 ± 9.603E-02, -7.353E-05 ± 8.618E-01
i', -9.053E-05 ± 5.013E+00, 2.175E-03 ± 8.190E-01, -2.689E-04 ± 9.603E-02, -7.353E-05 ± 8.618E-01 - T.
j', -9.569E-05 ± 5.274E+00, 2.263E-03 ± 8.400E-01, -2.885E-04 ± 9.603E-02, -1.329E-05 ± 8.606E-01
189, -9.569E-05 ± 5.274E+00, 2.263E-03 ± 8.400E-01, -2.885E-04 ± 9.603E-02, -1.329E-05 ± 8.606E-01
180 (190-189) [l=122 cm][122 def.]
190, -9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02 - T.
i', -9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
j', -9.569E-05 ± 5.274E+00, -6.844E+00 ± 3.695E+00, -2.885E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
189, -9.569E-05 ± 5.274E+00, -6.844E+00 ± 3.695E+00, -2.885E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02 - T.
181 (189-188) [l=122 cm][122 def.]
189, -9.569E-05 ± 5.274E+00, -6.844E+00 ± 3.695E+00, -2.885E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
i', -9.569E-05 ± 5.274E+00, -6.844E+00 ± 3.695E+00, -2.885E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02 - T.
j', -9.549E-05 ± 5.277E+00, -6.844E+00 ± 3.730E+00, -2.861E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
188, -9.549E-05 ± 5.277E+00, -6.844E+00 ± 3.730E+00, -2.861E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
182 (191-192) [l=30 cm][30 def.]
191, -9.100E-05 ± 5.023E+00, 2.175E-03 ± 8.190E-01, -2.939E-04 ± 9.603E-02, -7.147E-05 ± 8.617E-01 - T.
i', -9.100E-05 ± 5.023E+00, 2.175E-03 ± 8.190E-01, -2.939E-04 ± 9.603E-02, -7.147E-05 ± 8.617E-01
j', -9.617E-05 ± 5.284E+00, 2.263E-03 ± 8.400E-01, -2.942E-04 ± 9.603E-02, -1.325E-05 ± 8.606E-01
192, -9.617E-05 ± 5.284E+00, 2.263E-03 ± 8.400E-01, -2.942E-04 ± 9.603E-02, -1.325E-05 ± 8.606E-01 - T.
183 (193-192) [l=165 cm][165 def.]
193, -9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.681E+00, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
i', -9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.681E+00, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02 - T.
j', -9.617E-05 ± 5.284E+00, -6.845E+00 ± 3.636E+00, -2.942E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
192, -9.617E-05 ± 5.284E+00, -6.845E+00 ± 3.636E+00, -2.942E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
184 (28-194) [l=30 cm][30 def.]
28, -9.148E-05 ± 5.055E+00, 2.175E-03 ± 8.190E-01, -3.194E-04 ± 9.604E-02, -6.934E-05 ± 8.617E-01 - T.
i', -9.148E-05 ± 5.055E+00, 2.175E-03 ± 8.190E-01, -3.194E-04 ± 9.604E-02, -6.934E-05 ± 8.617E-01
j', -9.664E-05 ± 5.317E+00, 2.263E-03 ± 8.400E-01, -2.999E-04 ± 9.603E-02, -1.329E-05 ± 8.606E-01
194, -9.664E-05 ± 5.317E+00, 2.263E-03 ± 8.400E-01, -2.999E-04 ± 9.603E-02, -1.329E-05 ± 8.606E-01 - T.
185 (195-194) [l=123 cm][123 def.]
195, -9.684E-05 ± 5.331E+00, -6.846E+00 ± 3.751E+00, -3.022E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
i', -9.684E-05 ± 5.331E+00, -6.846E+00 ± 3.751E+00, -3.022E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02 - T.
j', -9.664E-05 ± 5.317E+00, -6.846E+00 ± 3.716E+00, -2.999E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
194, -9.664E-05 ± 5.317E+00, -6.846E+00 ± 3.716E+00, -2.999E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
186 (196-197) [l=30 cm][30 def.]
196, -9.206E-05 ± 5.096E+00, 2.175E-03 ± 8.190E-01, -3.483E-04 ± 9.604E-02, -6.162E-05 ± 8.617E-01 - T.
i', -9.206E-05 ± 5.096E+00, 2.175E-03 ± 8.190E-01, -3.483E-04 ± 9.604E-02, -6.162E-05 ± 8.617E-01
j', -9.723E-05 ± 5.357E+00, 2.263E-03 ± 8.400E-01, -3.063E-04 ± 9.603E-02, -1.348E-05 ± 8.606E-01
197, -9.723E-05 ± 5.357E+00, 2.263E-03 ± 8.400E-01, -3.063E-04 ± 9.603E-02, -1.348E-05 ± 8.606E-01 - T.
187 (198-197) [l=233 cm][233 def.]
198, -9.761E-05 ± 5.384E+00, -6.848E+00 ± 3.885E+00, -3.100E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
i', -9.761E-05 ± 5.384E+00, -6.848E+00 ± 3.885E+00, -3.100E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02 - T.
j', -9.723E-05 ± 5.357E+00, -6.847E+00 ± 3.818E+00, -3.063E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
197, -9.723E-05 ± 5.357E+00, -6.847E+00 ± 3.818E+00, -3.063E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
188 (199-200) [l=30 cm][30 def.]
199, -9.292E-05 ± 5.155E+00, 2.175E-03 ± 8.190E-01, -3.737E-04 ± 9.604E-02, -4.634E-05 ± 8.616E-01 - T.
i', -9.292E-05 ± 5.155E+00, 2.175E-03 ± 8.190E-01, -3.737E-04 ± 9.604E-02, -4.634E-05 ± 8.616E-01
j', -9.809E-05 ± 5.417E+00, 2.263E-03 ± 8.400E-01, -3.138E-04 ± 9.603E-02, -1.418E-05 ± 8.606E-01
200, -9.809E-05 ± 5.417E+00, 2.263E-03 ± 8.400E-01, -3.138E-04 ± 9.603E-02, -1.418E-05 ± 8.606E-01 - T.
189 (202-203) [l=30 cm][30 def.]
202, -9.388E-05 ± 5.222E+00, 2.175E-03 ± 8.190E-01, -3.847E-04 ± 9.603E-02, -2.939E-05 ± 8.615E-01
i', -9.388E-05 ± 5.222E+00, 2.175E-03 ± 8.190E-01, -3.847E-04 ± 9.603E-02, -2.939E-05 ± 8.615E-01 - T.
j', -9.905E-05 ± 5.483E+00, 2.263E-03 ± 8.400E-01, -3.182E-04 ± 9.602E-02, -1.553E-05 ± 8.607E-01
203, -9.905E-05 ± 5.483E+00, 2.263E-03 ± 8.400E-01, -3.182E-04 ± 9.602E-02, -1.553E-05 ± 8.607E-01

190 (204-203) [l=291 cm][291 def.]
204, -9.953E-05 ± 5.517E+00, -6.852E+00 ± 4.220E+00, -3.189E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02 -
i', -9.953E-05 ± 5.517E+00, -6.852E+00 ± 4.220E+00, -3.189E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
j', -9.905E-05 ± 5.483E+00, -6.851E+00 ± 4.136E+00, -3.182E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
203, -9.905E-05 ± 5.483E+00, -6.851E+00 ± 4.136E+00, -3.182E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02 - K.
191 (205-206) [l=105 cm][105 def.]
205, 2.175E-03 ± 8.093E-01, 8.759E-05 ± 5.058E+00, -5.698E-05 ± 8.618E-01, 2.051E-04 ± 9.601E-02
i', 2.175E-03 ± 8.093E-01, 8.759E-05 ± 5.058E+00, -5.698E-05 ± 8.618E-01, 2.051E-04 ± 9.601E-02 - K.
j', 2.465E-03 ± 8.773E-01, 1.054E-04 ± 5.963E+00, -1.692E-05 ± 8.605E-01, 2.685E-04 ± 9.602E-02
206, 2.465E-03 ± 8.773E-01, 1.054E-04 ± 5.963E+00, -1.692E-05 ± 8.605E-01, 2.685E-04 ± 9.602E-02
192 (182-206) [l=223 cm][223 def.]
182, 2.263E-03 ± 8.400E-01, -6.442E+00 ± 2.359E+00, -1.643E-05 ± 8.605E-01, 9.030E-05 ± 3.549E-02 - W_3117_24_-
1_-1.
i', 2.263E-03 ± 8.400E-01, -6.442E+00 ± 2.359E+00, -1.643E-05 ± 8.605E-01, 9.030E-05 ± 3.549E-02
j', 2.465E-03 ± 8.773E-01, -6.442E+00 ± 1.941E+00, -1.692E-05 ± 8.605E-01, 9.031E-05 ± 3.549E-02
206, 2.465E-03 ± 8.773E-01, -6.442E+00 ± 1.941E+00, -1.692E-05 ± 8.605E-01, 9.031E-05 ± 3.549E-02 - K.
193 (206-207) [l=223 cm][223 def.]
206, 2.465E-03 ± 8.773E-01, -6.443E+00 ± 1.941E+00, -1.692E-05 ± 8.605E-01, 9.027E-05 ± 3.548E-02
i', 2.465E-03 ± 8.773E-01, -6.443E+00 ± 1.941E+00, -1.692E-05 ± 8.605E-01, 9.027E-05 ± 3.548E-02 - K.
j', 2.667E-03 ± 9.182E-01, -6.443E+00 ± 2.767E+00, -1.735E-05 ± 8.605E-01, 9.027E-05 ± 3.548E-02
207, 2.667E-03 ± 9.182E-01, -6.443E+00 ± 2.767E+00, -1.735E-05 ± 8.605E-01, 9.027E-05 ± 3.548E-02
194 (208-209) [l=105 cm][105 def.]
208, 2.176E-03 ± 8.093E-01, 8.759E-05 ± 5.058E+00, 2.272E-05 ± 8.618E-01, 2.052E-04 ± 9.600E-02 - W_3118_24_-
1_-1.
i', 2.176E-03 ± 8.093E-01, 8.759E-05 ± 5.058E+00, 2.272E-05 ± 8.618E-01, 2.052E-04 ± 9.600E-02
j', 2.466E-03 ± 8.773E-01, 1.061E-04 ± 5.963E+00, -1.778E-05 ± 8.605E-01, 2.685E-04 ± 9.602E-02
209, 2.466E-03 ± 8.773E-01, 1.061E-04 ± 5.963E+00, -1.778E-05 ± 8.605E-01, 2.685E-04 ± 9.602E-02 - K.
195 (207-209) [l=223 cm][223 def.]
207, 2.667E-03 ± 9.182E-01, -6.442E+00 ± 2.768E+00, -1.735E-05 ± 8.605E-01, -9.000E-05 ± 3.549E-02
i', 2.667E-03 ± 9.182E-01, -6.442E+00 ± 2.768E+00, -1.735E-05 ± 8.605E-01, -9.000E-05 ± 3.549E-02 - K.
j', 2.466E-03 ± 8.773E-01, -6.442E+00 ± 1.941E+00, -1.778E-05 ± 8.605E-01, -9.000E-05 ± 3.549E-02
209, 2.466E-03 ± 8.773E-01, -6.442E+00 ± 1.941E+00, -1.778E-05 ± 8.605E-01, -9.000E-05 ± 3.549E-02
196 (209-178) [l=223 cm][223 def.]
209, 2.466E-03 ± 8.773E-01, -6.443E+00 ± 1.941E+00, -1.778E-05 ± 8.605E-01, -8.996E-05 ± 3.548E-02 - K.
i', 2.466E-03 ± 8.773E-01, -6.443E+00 ± 1.941E+00, -1.778E-05 ± 8.605E-01, -8.996E-05 ± 3.548E-02
j', 2.265E-03 ± 8.400E-01, -6.443E+00 ± 2.360E+00, -1.827E-05 ± 8.605E-01, -8.996E-05 ± 3.548E-02
178, 2.265E-03 ± 8.400E-01, -6.443E+00 ± 2.360E+00, -1.827E-05 ± 8.605E-01, -8.996E-05 ± 3.548E-02 - K.
197 (210-211) [l=105 cm][105 def.]
210, -2.176E-03 ± 8.093E-01, -9.435E-05 ± 5.255E+00, 1.555E-05 ± 8.615E-01, -3.856E-04 ± 9.599E-02
i', -2.176E-03 ± 8.093E-01, -9.435E-05 ± 5.255E+00, 1.555E-05 ± 8.615E-01, -3.856E-04 ± 9.599E-02 - K.
j', -2.503E-03 ± 8.773E-01, -1.128E-04 ± 6.160E+00, 1.774E-05 ± 8.607E-01, -3.189E-04 ± 9.602E-02
211, -2.503E-03 ± 8.773E-01, -1.128E-04 ± 6.160E+00, 1.774E-05 ± 8.607E-01, -3.189E-04 ± 9.602E-02
198 (156-211) [l=223 cm][223 def.]
156, -2.265E-03 ± 8.400E-01, -6.454E+00 ± 2.374E+00, 1.822E-05 ± 8.607E-01, -1.069E-04 ± 3.548E-02 - K.
i', -2.265E-03 ± 8.400E-01, -6.454E+00 ± 2.374E+00, 1.822E-05 ± 8.607E-01, -1.069E-04 ± 3.548E-02
j', -2.503E-03 ± 8.773E-01, -6.454E+00 ± 1.990E+00, 1.774E-05 ± 8.607E-01, -1.069E-04 ± 3.548E-02
211, -2.503E-03 ± 8.773E-01, -6.454E+00 ± 1.990E+00, 1.774E-05 ± 8.607E-01, -1.069E-04 ± 3.548E-02 - K.
199 (211-212) [l=223 cm][223 def.]
211, -2.503E-03 ± 8.782E-01, -6.454E+00 ± 1.990E+00, 1.759E-05 ± 8.607E-01, -1.069E-04 ± 3.545E-02
i', -2.503E-03 ± 8.782E-01, -6.454E+00 ± 1.990E+00, 1.759E-05 ± 8.607E-01, -1.069E-04 ± 3.545E-02 - K.
j', -2.742E-03 ± 9.192E-01, -6.454E+00 ± 2.844E+00, 1.717E-05 ± 8.607E-01, -1.069E-04 ± 3.545E-02
212, -2.742E-03 ± 9.192E-01, -6.454E+00 ± 2.844E+00, 1.717E-05 ± 8.607E-01, -1.069E-04 ± 3.545E-02
200 (213-214) [l=105 cm][105 def.]
213, -2.175E-03 ± 8.093E-01, -9.435E-05 ± 5.255E+00, 1.879E-05 ± 8.615E-01, -3.856E-04 ± 9.599E-02 - K.
i', -2.175E-03 ± 8.093E-01, -9.435E-05 ± 5.255E+00, 1.879E-05 ± 8.615E-01, -3.856E-04 ± 9.599E-02
j', -2.503E-03 ± 8.773E-01, -1.122E-04 ± 6.160E+00, 1.690E-05 ± 8.607E-01, -3.189E-04 ± 9.602E-02
214, -2.503E-03 ± 8.773E-01, -1.122E-04 ± 6.160E+00, 1.690E-05 ± 8.607E-01, -3.189E-04 ± 9.602E-02 - K.
201 (212-214) [l=223 cm][223 def.]
212, -2.742E-03 ± 9.182E-01, -6.454E+00 ± 2.843E+00, 1.732E-05 ± 8.607E-01, 1.072E-04 ± 3.548E-02
i', -2.742E-03 ± 9.182E-01, -6.454E+00 ± 2.843E+00, 1.732E-05 ± 8.607E-01, 1.072E-04 ± 3.548E-02 - K.
j', -2.503E-03 ± 8.773E-01, -6.454E+00 ± 1.989E+00, 1.690E-05 ± 8.607E-01, 1.072E-04 ± 3.548E-02
214, -2.503E-03 ± 8.773E-01, -6.454E+00 ± 1.989E+00, 1.690E-05 ± 8.607E-01, 1.072E-04 ± 3.548E-02
202 (214-204) [l=223 cm][223 def.]
214, -2.503E-03 ± 8.765E-01, -6.454E+00 ± 1.990E+00, 1.674E-05 ± 8.607E-01, 1.072E-04 ± 3.553E-02 - K.
i', -2.503E-03 ± 8.765E-01, -6.454E+00 ± 1.990E+00, 1.674E-05 ± 8.607E-01, 1.072E-04 ± 3.553E-02
j', -2.263E-03 ± 8.392E-01, -6.454E+00 ± 2.374E+00, 1.626E-05 ± 8.607E-01, 1.072E-04 ± 3.553E-02
204, -2.263E-03 ± 8.392E-01, -6.454E+00 ± 2.374E+00, 1.626E-05 ± 8.607E-01, 1.072E-04 ± 3.553E-02 - K.
203 (215-216) [l=500 cm][500 def.]
215, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.534E-05 ± 8.567E-01, -6.873E-03 ± 1.079E-01
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.534E-05 ± 8.567E-01, -6.873E-03 ± 1.079E-01 - K.
j', -2.176E-03 ± 8.126E-01, -9.435E-05 ± 5.255E+00, 1.495E-05 ± 8.615E-01, -3.856E-04 ± 9.600E-02
216, -2.176E-03 ± 8.126E-01, -9.435E-05 ± 5.255E+00, 1.495E-05 ± 8.615E-01, -3.856E-04 ± 9.600E-02
204 (136-216) [l=140 cm][140 def.]
136, -2.176E-03 ± 8.191E-01, -6.850E+00 ± 4.222E+00, 1.345E-05 ± 8.615E-01, 1.645E-07 ± 1.169E-02 - K.
i', -2.176E-03 ± 8.191E-01, -6.850E+00 ± 4.222E+00, 1.345E-05 ± 8.615E-01, 1.645E-07 ± 1.169E-02
j', -2.176E-03 ± 8.126E-01, -6.850E+00 ± 3.014E+00, 1.495E-05 ± 8.615E-01, 1.645E-07 ± 1.169E-02
216, -2.176E-03 ± 8.126E-01, -6.850E+00 ± 3.014E+00, 1.495E-05 ± 8.615E-01, 1.645E-07 ± 1.169E-02 - K.
205 (218-219) [l=500 cm][500 def.]
218, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.704E-05 ± 8.566E-01, -6.872E-03 ± 1.077E-01
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.704E-05 ± 8.566E-01, -6.872E-03 ± 1.077E-01 - K.
j', -2.176E-03 ± 7.995E-01, -9.435E-05 ± 5.255E+00, 1.717E-05 ± 8.615E-01, -3.856E-04 ± 9.597E-02
219, -2.176E-03 ± 7.995E-01, -9.435E-05 ± 5.255E+00, 1.717E-05 ± 8.615E-01, -3.856E-04 ± 9.597E-02
206 (217-219) [l=140 cm][140 def.]
217, -2.176E-03 ± 8.060E-01, -6.850E+00 ± 2.352E+00, 1.611E-05 ± 8.615E-01, 1.645E-07 ± 1.169E-02 - K.
i', -2.176E-03 ± 8.060E-01, -6.850E+00 ± 2.352E+00, 1.611E-05 ± 8.615E-01, 1.645E-07 ± 1.169E-02
j', -2.176E-03 ± 7.995E-01, -6.850E+00 ± 1.989E+00, 1.717E-05 ± 8.615E-01, 1.645E-07 ± 1.169E-02

219, -2.176E-03 ± 7.995E-01, -6.850E+00 ± 1.989E+00, 1.717E-05 ± 8.615E-01, 1.645E-07 ± 1.169E-02 - K.
207 (219-220) [l=140 cm][140 def.]
219, -2.176E-03 ± 7.995E-01, -6.850E+00 ± 1.989E+00, 1.717E-05 ± 8.615E-01, 1.645E-07 ± 1.169E-02
i', -2.176E-03 ± 7.995E-01, -6.850E+00 ± 1.989E+00, 1.717E-05 ± 8.615E-01, 1.645E-07 ± 1.169E-02 - K.
j', -2.175E-03 ± 8.060E-01, -6.850E+00 ± 2.352E+00, 1.823E-05 ± 8.615E-01, 1.645E-07 ± 1.169E-02
220, -2.175E-03 ± 8.060E-01, -6.850E+00 ± 2.352E+00, 1.823E-05 ± 8.615E-01, 1.645E-07 ± 1.169E-02
208 (221-222) [l=500 cm][500 def.]
221, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.875E-05 ± 8.567E-01, -6.872E-03 ± 1.080E-01 - K.
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.875E-05 ± 8.567E-01, -6.872E-03 ± 1.080E-01
j', -2.175E-03 ± 8.125E-01, -9.435E-05 ± 5.255E+00, 1.939E-05 ± 8.615E-01, -3.856E-04 ± 9.600E-02
222, -2.175E-03 ± 8.125E-01, -9.435E-05 ± 5.255E+00, 1.939E-05 ± 8.615E-01, -3.856E-04 ± 9.600E-02 - K.
209 (222-4) [l=140 cm][140 def.]
222, -2.175E-03 ± 8.125E-01, -6.850E+00 ± 3.014E+00, 1.939E-05 ± 8.615E-01, 1.645E-07 ± 1.169E-02
i', -2.175E-03 ± 8.125E-01, -6.850E+00 ± 3.014E+00, 1.939E-05 ± 8.615E-01, 1.645E-07 ± 1.169E-02 - K.
j', -2.175E-03 ± 8.190E-01, -6.850E+00 ± 4.223E+00, 2.089E-05 ± 8.615E-01, 1.645E-07 ± 1.169E-02
4, -2.175E-03 ± 8.190E-01, -6.850E+00 ± 4.223E+00, 2.089E-05 ± 8.615E-01, 1.645E-07 ± 1.169E-02
210 (3-8) [l=227 cm][227 def.]
3, 0.000E+00 ± 0.000E+00, -6.789E+00 ± 4.132E+00, -6.877E-03 ± 1.081E-01, 0.000E+00 ± 0.000E+00 - K.
i', 0.000E+00 ± 0.000E+00, -6.789E+00 ± 4.132E+00, -6.877E-03 ± 1.081E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -6.776E+00 ± 4.016E+00, -9.268E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00
8, 0.000E+00 ± 0.000E+00, -6.776E+00 ± 4.016E+00, -9.268E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00 - K.
211 (224-225) [l=226 cm][226 def.]
224, 0.000E+00 ± 0.000E+00, -6.744E+00 ± 3.870E+00, -9.314E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -6.744E+00 ± 3.870E+00, -9.314E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00 - K.
j', 0.000E+00 ± 0.000E+00, -6.761E+00 ± 3.808E+00, 7.713E-03 ± 9.929E-02, 0.000E+00 ± 0.000E+00
225, 0.000E+00 ± 0.000E+00, -6.761E+00 ± 3.808E+00, 7.713E-03 ± 9.929E-02, 0.000E+00 ± 0.000E+00
212 (20-24) [l=227 cm][227 def.]
20, 0.000E+00 ± 0.000E+00, -6.788E+00 ± 3.744E+00, 7.635E-03 ± 9.931E-02, 0.000E+00 ± 0.000E+00 - K.
i', 0.000E+00 ± 0.000E+00, -6.788E+00 ± 3.744E+00, 7.635E-03 ± 9.931E-02, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -6.760E+00 ± 3.695E+00, -5.943E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00
24, 0.000E+00 ± 0.000E+00, -6.760E+00 ± 3.695E+00, -5.943E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00 - K.
213 (228-229) [l=227 cm][227 def.]
228, 0.000E+00 ± 0.000E+00, -6.546E+00 ± 3.525E+00, -5.962E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -6.546E+00 ± 3.525E+00, -5.962E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00 - K.
j', 0.000E+00 ± 0.000E+00, -6.522E+00 ± 3.490E+00, 8.223E-02 ± 1.042E-01, 0.000E+00 ± 0.000E+00
229, 0.000E+00 ± 0.000E+00, -6.522E+00 ± 3.490E+00, 8.223E-02 ± 1.042E-01, 0.000E+00 ± 0.000E+00
214 (42-46) [l=227 cm][227 def.]
42, 0.000E+00 ± 0.000E+00, -6.779E+00 ± 3.680E+00, 1.929E-02 ± 9.415E-02, 0.000E+00 ± 0.000E+00 - K.
i', 0.000E+00 ± 0.000E+00, -6.779E+00 ± 3.680E+00, 1.929E-02 ± 9.415E-02, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -6.781E+00 ± 3.711E+00, -1.058E-02 ± 1.002E-01, 0.000E+00 ± 0.000E+00
46, 0.000E+00 ± 0.000E+00, -6.781E+00 ± 3.711E+00, -1.058E-02 ± 1.002E-01, 0.000E+00 ± 0.000E+00 - K.
215 (232-233) [l=227 cm][227 def.]
232, 0.000E+00 ± 0.000E+00, -6.739E+00 ± 3.782E+00, -1.066E-02 ± 1.001E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -6.739E+00 ± 3.782E+00, -1.066E-02 ± 1.001E-01, 0.000E+00 ± 0.000E+00 - K.
j', 0.000E+00 ± 0.000E+00, -6.732E+00 ± 3.831E+00, 1.009E-02 ± 1.027E-01, 0.000E+00 ± 0.000E+00
233, 0.000E+00 ± 0.000E+00, -6.732E+00 ± 3.831E+00, 1.009E-02 ± 1.027E-01, 0.000E+00 ± 0.000E+00
216 (67-71) [l=227 cm][227 def.]
67, 0.000E+00 ± 0.000E+00, -6.781E+00 ± 2.177E+00, -5.066E-03 ± 8.980E-01, 0.000E+00 ± 0.000E+00 - K.
i', 0.000E+00 ± 0.000E+00, -6.781E+00 ± 2.177E+00, -5.066E-03 ± 8.980E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -6.781E+00 ± 2.176E+00, 5.033E-03 ± 8.980E-01, 0.000E+00 ± 0.000E+00
71, 0.000E+00 ± 0.000E+00, -6.781E+00 ± 2.176E+00, 5.033E-03 ± 8.980E-01, 0.000E+00 ± 0.000E+00 - K.
217 (76-80) [l=227 cm][227 def.]
76, 0.000E+00 ± 0.000E+00, -6.784E+00 ± 4.136E+00, -7.745E-03 ± 1.201E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -6.784E+00 ± 4.136E+00, -7.745E-03 ± 1.201E-01, 0.000E+00 ± 0.000E+00 - K.
j', 0.000E+00 ± 0.000E+00, -6.771E+00 ± 4.001E+00, -1.003E-02 ± 1.027E-01, 0.000E+00 ± 0.000E+00
80, 0.000E+00 ± 0.000E+00, -6.771E+00 ± 4.001E+00, -1.003E-02 ± 1.027E-01, 0.000E+00 ± 0.000E+00
218 (236-237) [l=227 cm][227 def.]
236, 0.000E+00 ± 0.000E+00, -6.732E+00 ± 3.831E+00, -1.009E-02 ± 1.027E-01, 0.000E+00 ± 0.000E+00 - K.
i', 0.000E+00 ± 0.000E+00, -6.732E+00 ± 3.831E+00, -1.009E-02 ± 1.027E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -6.739E+00 ± 3.782E+00, 1.066E-02 ± 1.001E-01, 0.000E+00 ± 0.000E+00
237, 0.000E+00 ± 0.000E+00, -6.739E+00 ± 3.782E+00, 1.066E-02 ± 1.001E-01, 0.000E+00 ± 0.000E+00 - K.
219 (92-96) [l=227 cm][227 def.]
92, 0.000E+00 ± 0.000E+00, -6.781E+00 ± 3.711E+00, 1.058E-02 ± 1.002E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -6.781E+00 ± 3.711E+00, 1.058E-02 ± 1.002E-01, 0.000E+00 ± 0.000E+00 - K.
j', 0.000E+00 ± 0.000E+00, -6.779E+00 ± 3.680E+00, -1.929E-02 ± 9.414E-02, 0.000E+00 ± 0.000E+00
96, 0.000E+00 ± 0.000E+00, -6.779E+00 ± 3.680E+00, -1.929E-02 ± 9.414E-02, 0.000E+00 ± 0.000E+00
220 (240-241) [l=227 cm][227 def.]
240, 0.000E+00 ± 0.000E+00, -6.522E+00 ± 3.490E+00, -8.223E-02 ± 1.042E-01, 0.000E+00 ± 0.000E+00 - K.
i', 0.000E+00 ± 0.000E+00, -6.522E+00 ± 3.490E+00, -8.223E-02 ± 1.042E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -6.546E+00 ± 3.525E+00, 5.962E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00
241, 0.000E+00 ± 0.000E+00, -6.546E+00 ± 3.525E+00, 5.962E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00 - K.
221 (114-118) [l=227 cm][227 def.]
114, 0.000E+00 ± 0.000E+00, -6.760E+00 ± 3.695E+00, 5.943E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -6.760E+00 ± 3.695E+00, 5.943E-02 ± 1.006E-01, 0.000E+00 ± 0.000E+00 - K.
j', 0.000E+00 ± 0.000E+00, -6.788E+00 ± 3.743E+00, -7.627E-03 ± 9.932E-02, 0.000E+00 ± 0.000E+00
118, 0.000E+00 ± 0.000E+00, -6.788E+00 ± 3.743E+00, -7.627E-03 ± 9.932E-02, 0.000E+00 ± 0.000E+00
222 (244-245) [l=227 cm][227 def.]
244, 0.000E+00 ± 0.000E+00, -6.761E+00 ± 3.808E+00, -7.705E-03 ± 9.929E-02, 0.000E+00 ± 0.000E+00 - K.
i', 0.000E+00 ± 0.000E+00, -6.761E+00 ± 3.808E+00, -7.705E-03 ± 9.929E-02, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -6.743E+00 ± 3.869E+00, 9.317E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00
245, 0.000E+00 ± 0.000E+00, -6.743E+00 ± 3.869E+00, 9.317E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00 - K.
223 (130-134) [l=227 cm][227 def.]
130, 0.000E+00 ± 0.000E+00, -6.776E+00 ± 4.015E+00, 9.271E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -6.776E+00 ± 4.015E+00, 9.271E-03 ± 1.014E-01, 0.000E+00 ± 0.000E+00 - K.
j', 0.000E+00 ± 0.000E+00, -6.788E+00 ± 4.132E+00, 6.877E-03 ± 1.081E-01, 0.000E+00 ± 0.000E+00
134, 0.000E+00 ± 0.000E+00, -6.788E+00 ± 4.132E+00, 6.877E-03 ± 1.081E-01, 0.000E+00 ± 0.000E+00

224 (247-248) [l=447 cm][447 def.]
 247, -2.265E-03 ± 8.404E-01, -6.453E+00 ± 2.117E+00, 1.935E-05 ± 8.607E-01, -1.065E-04 ± 3.547E-02 - K.
 i', -2.265E-03 ± 8.404E-01, -6.453E+00 ± 2.117E+00, 1.935E-05 ± 8.607E-01, -1.065E-04 ± 3.547E-02
 j', 1.346E-03 ± 9.212E-01, -7.603E+00 ± 3.211E+00, 1.725E-05 ± 8.607E-01, 8.081E-04 ± 3.583E-02
 248, 1.346E-03 ± 9.212E-01, -7.603E+00 ± 3.211E+00, 1.725E-05 ± 8.607E-01, 8.081E-04 ± 3.583E-02 - K.
 225 (248-249) [l=447 cm][447 def.]
 248, 1.346E-03 ± 9.212E-01, -7.603E+00 ± 3.211E+00, 1.725E-05 ± 8.607E-01, -8.078E-04 ± 3.587E-02
 i', 1.346E-03 ± 9.212E-01, -7.603E+00 ± 3.211E+00, 1.725E-05 ± 8.607E-01, -8.078E-04 ± 3.587E-02 - K.
 j', -2.263E-03 ± 8.396E-01, -6.453E+00 ± 2.117E+00, 1.515E-05 ± 8.607E-01, 1.068E-04 ± 3.551E-02
 249, -2.263E-03 ± 8.396E-01, -6.453E+00 ± 2.117E+00, 1.515E-05 ± 8.607E-01, 1.068E-04 ± 3.551E-02
 226 (250-251) [l=447 cm][447 def.]
 250, 4.836E-05 ± 9.259E-01, -7.609E+00 ± 2.844E+00, 1.725E-05 ± 8.607E-01, -5.173E-04 ± 3.673E-02 - K.
 i', 4.836E-05 ± 9.259E-01, -7.609E+00 ± 2.844E+00, 1.725E-05 ± 8.607E-01, -5.173E-04 ± 3.673E-02
 j', -2.263E-03 ± 8.396E-01, -6.452E+00 ± 2.015E+00, 1.428E-05 ± 8.606E-01, 1.059E-04 ± 3.551E-02
 251, -2.263E-03 ± 8.396E-01, -6.452E+00 ± 2.015E+00, 1.428E-05 ± 8.606E-01, 1.059E-04 ± 3.551E-02 - K.
 227 (252-250) [l=447 cm][447 def.]
 252, -2.265E-03 ± 8.404E-01, -6.452E+00 ± 2.014E+00, 2.022E-05 ± 8.606E-01, -1.056E-04 ± 3.547E-02
 i', -2.265E-03 ± 8.404E-01, -6.452E+00 ± 2.014E+00, 2.022E-05 ± 8.606E-01, -1.056E-04 ± 3.547E-02 - K.
 j', 4.836E-05 ± 9.259E-01, -7.609E+00 ± 2.844E+00, 1.725E-05 ± 8.607E-01, 5.176E-04 ± 3.669E-02
 250, 4.836E-05 ± 9.259E-01, -7.609E+00 ± 2.844E+00, 1.725E-05 ± 8.607E-01, 5.176E-04 ± 3.669E-02
 228 (253-254) [l=447 cm][447 def.]
 253, -1.212E-03 ± 9.294E-01, -7.608E+00 ± 2.662E+00, 1.724E-05 ± 8.606E-01, -2.354E-04 ± 3.751E-02 - K.
 i', -1.212E-03 ± 9.294E-01, -7.608E+00 ± 2.662E+00, 1.724E-05 ± 8.606E-01, -2.354E-04 ± 3.751E-02
 j', -2.263E-03 ± 8.396E-01, -6.451E+00 ± 1.912E+00, 1.366E-05 ± 8.606E-01, 1.044E-04 ± 3.551E-02
 254, -2.263E-03 ± 8.396E-01, -6.451E+00 ± 1.912E+00, 1.366E-05 ± 8.606E-01, 1.044E-04 ± 3.551E-02 - K.
 229 (255-253) [l=447 cm][447 def.]
 255, -2.265E-03 ± 8.404E-01, -6.450E+00 ± 1.912E+00, 2.084E-05 ± 8.606E-01, -1.041E-04 ± 3.547E-02
 i', -2.265E-03 ± 8.404E-01, -6.450E+00 ± 1.912E+00, 2.084E-05 ± 8.606E-01, -1.041E-04 ± 3.547E-02 - K.
 j', -1.212E-03 ± 9.294E-01, -7.608E+00 ± 2.662E+00, 1.724E-05 ± 8.606E-01, 2.357E-04 ± 3.747E-02
 253, -1.212E-03 ± 9.294E-01, -7.608E+00 ± 2.662E+00, 1.724E-05 ± 8.606E-01, 2.357E-04 ± 3.747E-02
 230 (256-257) [l=447 cm][447 def.]
 256, -2.392E-03 ± 9.317E-01, -7.600E+00 ± 2.480E+00, 1.272E-05 ± 8.606E-01, 2.883E-05 ± 3.806E-02 - K.
 i', -2.392E-03 ± 9.317E-01, -7.600E+00 ± 2.480E+00, 1.272E-05 ± 8.606E-01, 2.883E-05 ± 3.806E-02
 j', -2.263E-03 ± 8.396E-01, -6.449E+00 ± 1.810E+00, 1.330E-05 ± 8.606E-01, 1.023E-04 ± 3.551E-02
 257, -2.263E-03 ± 8.396E-01, -6.449E+00 ± 1.810E+00, 1.330E-05 ± 8.606E-01, 1.023E-04 ± 3.551E-02 - K.
 231 (258-256) [l=447 cm][447 def.]
 258, -2.265E-03 ± 8.404E-01, -6.449E+00 ± 1.810E+00, 2.122E-05 ± 8.606E-01, -1.020E-04 ± 3.547E-02
 i', -2.265E-03 ± 8.404E-01, -6.449E+00 ± 1.810E+00, 2.122E-05 ± 8.606E-01, -1.020E-04 ± 3.547E-02 - K.
 j', -2.392E-03 ± 9.317E-01, -7.600E+00 ± 2.480E+00, 1.272E-05 ± 8.606E-01, -2.852E-05 ± 3.802E-02
 256, -2.392E-03 ± 9.317E-01, -7.600E+00 ± 2.480E+00, 1.272E-05 ± 8.606E-01, -2.852E-05 ± 3.802E-02
 232 (259-260) [l=192 cm][192 def.]
 259, -2.265E-03 ± 8.409E-01, -6.448E+00 ± 1.708E+00, 2.125E-05 ± 8.606E-01, -9.976E-05 ± 3.546E-02 - K.
 i', -2.265E-03 ± 8.409E-01, -6.448E+00 ± 1.708E+00, 2.125E-05 ± 8.606E-01, -9.976E-05 ± 3.546E-02
 j', 1.287E-04 ± 8.776E-01, -7.787E+00 ± 7.007E-01, 4.485E-01 ± 8.710E-01, 1.246E-03 ± 3.750E-02
 260, 1.287E-04 ± 8.776E-01, -7.787E+00 ± 7.007E-01, 4.485E-01 ± 8.710E-01, 1.246E-03 ± 3.750E-02 - K.
 233 (261-262) [l=447 cm][447 def.]
 261, -2.265E-03 ± 8.396E-01, -6.446E+00 ± 1.813E+00, 2.136E-05 ± 8.605E-01, -9.494E-05 ± 3.551E-02
 i', -2.265E-03 ± 8.396E-01, -6.446E+00 ± 1.813E+00, 2.136E-05 ± 8.605E-01, -9.494E-05 ± 3.551E-02 - K.
 j', -3.940E-03 ± 9.311E-01, -7.650E+00 ± 2.454E+00, 1.741E-05 ± 8.605E-01, -3.750E-04 ± 3.796E-02
 262, -3.940E-03 ± 9.311E-01, -7.650E+00 ± 2.454E+00, 1.741E-05 ± 8.605E-01, -3.750E-04 ± 3.796E-02
 234 (262-263) [l=447 cm][447 def.]
 262, -3.940E-03 ± 9.311E-01, -7.650E+00 ± 2.454E+00, 1.741E-05 ± 8.605E-01, 3.753E-04 ± 3.792E-02 - K.
 i', -3.940E-03 ± 9.311E-01, -7.650E+00 ± 2.454E+00, 1.741E-05 ± 8.605E-01, 3.753E-04 ± 3.792E-02
 j', -2.263E-03 ± 8.403E-01, -6.446E+00 ± 1.813E+00, 1.344E-05 ± 8.605E-01, 9.525E-05 ± 3.547E-02
 263, -2.263E-03 ± 8.403E-01, -6.446E+00 ± 1.813E+00, 1.344E-05 ± 8.605E-01, 9.525E-05 ± 3.547E-02 - K.
 235 (264-265) [l=447 cm][447 def.]
 264, -2.265E-03 ± 8.396E-01, -6.445E+00 ± 1.926E+00, 2.099E-05 ± 8.605E-01, -9.292E-05 ± 3.551E-02
 i', -2.265E-03 ± 8.396E-01, -6.445E+00 ± 1.926E+00, 2.099E-05 ± 8.605E-01, -9.292E-05 ± 3.551E-02 - K.
 j', -5.571E-03 ± 9.286E-01, -7.604E+00 ± 2.623E+00, 1.741E-05 ± 8.605E-01, -7.399E-04 ± 3.740E-02
 265, -5.571E-03 ± 9.286E-01, -7.604E+00 ± 2.623E+00, 1.741E-05 ± 8.605E-01, -7.399E-04 ± 3.740E-02
 236 (265-266) [l=447 cm][447 def.]
 265, -5.571E-03 ± 9.286E-01, -7.604E+00 ± 2.623E+00, 1.741E-05 ± 8.605E-01, 7.403E-04 ± 3.736E-02 - K.
 i', -5.571E-03 ± 9.286E-01, -7.604E+00 ± 2.623E+00, 1.741E-05 ± 8.605E-01, 7.403E-04 ± 3.736E-02
 j', -2.263E-03 ± 8.403E-01, -6.445E+00 ± 1.926E+00, 1.382E-05 ± 8.605E-01, 9.323E-05 ± 3.547E-02
 266, -2.263E-03 ± 8.403E-01, -6.445E+00 ± 1.926E+00, 1.382E-05 ± 8.605E-01, 9.323E-05 ± 3.547E-02 - K.
 237 (267-268) [l=447 cm][447 def.]
 267, -2.265E-03 ± 8.397E-01, -6.444E+00 ± 2.039E+00, 2.036E-05 ± 8.605E-01, -9.133E-05 ± 3.550E-02
 i', -2.265E-03 ± 8.397E-01, -6.444E+00 ± 2.039E+00, 2.036E-05 ± 8.605E-01, -9.133E-05 ± 3.550E-02 - K.
 j', -7.009E-03 ± 9.248E-01, -7.598E+00 ± 2.808E+00, 1.741E-05 ± 8.605E-01, -1.062E-03 ± 3.665E-02
 268, -7.009E-03 ± 9.248E-01, -7.598E+00 ± 2.808E+00, 1.741E-05 ± 8.605E-01, -1.062E-03 ± 3.665E-02
 238 (268-269) [l=447 cm][447 def.]
 268, -7.009E-03 ± 9.248E-01, -7.598E+00 ± 2.808E+00, 1.741E-05 ± 8.605E-01, 1.062E-03 ± 3.661E-02 - Z.
 i', -7.009E-03 ± 9.248E-01, -7.598E+00 ± 2.808E+00, 1.741E-05 ± 8.605E-01, 1.062E-03 ± 3.661E-02
 j', -2.263E-03 ± 8.403E-01, -6.445E+00 ± 2.039E+00, 1.445E-05 ± 8.605E-01, 9.164E-05 ± 3.547E-02
 269, -2.263E-03 ± 8.403E-01, -6.445E+00 ± 2.039E+00, 1.445E-05 ± 8.605E-01, 9.164E-05 ± 3.547E-02 - Z.
 239 (270-271) [l=447 cm][447 def.]
 270, -7.593E-03 ± 9.206E-01, -7.424E+00 ± 3.318E+00, 1.741E-05 ± 8.605E-01, 1.193E-03 ± 3.579E-02
 i', -7.593E-03 ± 9.206E-01, -7.424E+00 ± 3.318E+00, 1.741E-05 ± 8.605E-01, 1.193E-03 ± 3.579E-02 - Z.
 j', -2.263E-03 ± 8.403E-01, -6.444E+00 ± 2.153E+00, 1.533E-05 ± 8.605E-01, 9.070E-05 ± 3.547E-02
 271, -2.263E-03 ± 8.403E-01, -6.444E+00 ± 2.153E+00, 1.533E-05 ± 8.605E-01, 9.070E-05 ± 3.547E-02
 240 (272-270) [l=447 cm][447 def.]
 272, -2.265E-03 ± 8.397E-01, -6.443E+00 ± 2.153E+00, 1.949E-05 ± 8.605E-01, -9.039E-05 ± 3.550E-02 - Z.
 i', -2.265E-03 ± 8.397E-01, -6.443E+00 ± 2.153E+00, 1.949E-05 ± 8.605E-01, -9.039E-05 ± 3.550E-02
 j', -7.593E-03 ± 9.206E-01, -7.424E+00 ± 3.318E+00, 1.741E-05 ± 8.605E-01, -1.192E-03 ± 3.583E-02
 270, -7.593E-03 ± 9.206E-01, -7.424E+00 ± 3.318E+00, 1.741E-05 ± 8.605E-01, -1.192E-03 ± 3.583E-02 - Z.
 241 (212-248) [l=395 cm][395 def.]

212, -1.255E-04 ± 6.805E+00, -6.851E+00 ± 1.990E+00, -3.189E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
i', -1.255E-04 ± 6.805E+00, -6.851E+00 ± 1.990E+00, -3.189E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02 - Z.
j', -1.239E-04 ± 6.759E+00, -8.071E+00 ± 2.685E+00, 2.407E-03 ± 9.704E-02, 1.648E-07 ± 1.174E-02
248, -1.239E-04 ± 6.759E+00, -8.071E+00 ± 2.685E+00, 2.407E-03 ± 9.704E-02, 1.648E-07 ± 1.174E-02
242 (248-250) [l=370 cm][370 def.]
248, -1.239E-04 ± 6.759E+00, -8.071E+00 ± 2.685E+00, 2.407E-03 ± 9.704E-02, 1.648E-07 ± 1.174E-02 - Z.
i', -1.239E-04 ± 6.759E+00, -8.071E+00 ± 2.685E+00, 2.407E-03 ± 9.704E-02, 1.648E-07 ± 1.174E-02
j', -1.236E-04 ± 6.717E+00, -8.077E+00 ± 2.090E+00, 1.542E-03 ± 9.951E-02, 1.648E-07 ± 1.174E-02
250, -1.236E-04 ± 6.717E+00, -8.077E+00 ± 2.090E+00, 1.542E-03 ± 9.951E-02, 1.648E-07 ± 1.174E-02 - Z.
243 (250-253) [l=370 cm][370 def.]
250, -1.236E-04 ± 6.717E+00, -8.077E+00 ± 2.090E+00, 1.542E-03 ± 9.951E-02, 1.648E-07 ± 1.174E-02
i', -1.236E-04 ± 6.717E+00, -8.077E+00 ± 2.090E+00, 1.542E-03 ± 9.951E-02, 1.648E-07 ± 1.174E-02 - Z.
j', -1.233E-04 ± 6.675E+00, -8.076E+00 ± 1.495E+00, 7.016E-04 ± 1.017E-01, 1.648E-07 ± 1.174E-02
253, -1.233E-04 ± 6.675E+00, -8.076E+00 ± 1.495E+00, 7.016E-04 ± 1.017E-01, 1.648E-07 ± 1.174E-02
244 (253-256) [l=370 cm][370 def.]
253, -1.233E-04 ± 6.675E+00, -8.076E+00 ± 1.495E+00, 7.016E-04 ± 1.017E-01, 1.648E-07 ± 1.174E-02 - Z.
i', -1.233E-04 ± 6.675E+00, -8.076E+00 ± 1.495E+00, 7.016E-04 ± 1.017E-01, 1.648E-07 ± 1.174E-02
j', -1.162E-04 ± 6.633E+00, -8.068E+00 ± 8.999E-01, -8.541E-05 ± 1.033E-01, 1.648E-07 ± 1.174E-02
256, -1.162E-04 ± 6.633E+00, -8.068E+00 ± 8.999E-01, -8.541E-05 ± 1.033E-01, 1.648E-07 ± 1.174E-02 - Z.
245 (256-273) [l=368 cm][368 def.]
256, -1.162E-04 ± 6.633E+00, -8.068E+00 ± 8.999E-01, -8.541E-05 ± 1.033E-01, 1.648E-07 ± 1.174E-02
i', -1.162E-04 ± 6.633E+00, -8.068E+00 ± 8.999E-01, -8.541E-05 ± 1.033E-01, 1.648E-07 ± 1.174E-02 - Z.
j', -1.099E-04 ± 6.607E+00, -7.906E+00 ± 2.786E-01, -2.619E-04 ± 1.041E-01, 1.648E-07 ± 1.174E-02
273, -1.099E-04 ± 6.607E+00, -7.906E+00 ± 2.786E-01, -2.619E-04 ± 1.041E-01, 1.648E-07 ± 1.174E-02
246 (273-274) [l=330 cm][330 def.]
273, -1.099E-04 ± 6.607E+00, -7.906E+00 ± 2.786E-01, -2.619E-04 ± 1.041E-01, 1.648E-07 ± 1.174E-02 - Z.
i', -1.099E-04 ± 6.607E+00, -7.906E+00 ± 2.786E-01, -2.619E-04 ± 1.041E-01, 1.648E-07 ± 1.174E-02
j', -1.022E-04 ± 6.576E+00, -7.966E+00 ± 2.214E-01, 2.422E-05 ± 1.040E-01, 1.648E-07 ± 1.174E-02
274, -1.022E-04 ± 6.576E+00, -7.966E+00 ± 2.214E-01, 2.422E-05 ± 1.040E-01, 1.648E-07 ± 1.174E-02 - Z.
247 (274-262) [l=402 cm][402 def.]
274, -1.022E-04 ± 6.576E+00, -7.966E+00 ± 2.214E-01, 2.422E-05 ± 1.040E-01, 1.648E-07 ± 1.174E-02
i', -1.022E-04 ± 6.576E+00, -7.966E+00 ± 2.214E-01, 2.422E-05 ± 1.040E-01, 1.648E-07 ± 1.174E-02 - Z.
j', -1.210E-04 ± 6.569E+00, -8.121E+00 ± 8.831E-01, -1.118E-03 ± 1.031E-01, 1.648E-07 ± 1.174E-02
262, -1.210E-04 ± 6.569E+00, -8.121E+00 ± 8.831E-01, -1.118E-03 ± 1.031E-01, 1.648E-07 ± 1.174E-02
248 (265-262) [l=370 cm][370 def.]
265, 1.200E-04 ± 6.578E+00, -8.072E+00 ± 1.470E+00, 2.205E-03 ± 1.014E-01, 1.648E-07 ± 1.174E-02 - Z.
i', 1.200E-04 ± 6.578E+00, -8.072E+00 ± 1.470E+00, 2.205E-03 ± 1.014E-01, 1.648E-07 ± 1.174E-02
j', 1.210E-04 ± 6.569E+00, -8.121E+00 ± 8.831E-01, -1.118E-03 ± 1.031E-01, 1.648E-07 ± 1.174E-02
262, 1.210E-04 ± 6.569E+00, -8.121E+00 ± 8.831E-01, -1.118E-03 ± 1.031E-01, 1.648E-07 ± 1.174E-02 - Z.
249 (268-265) [l=370 cm][370 def.]
268, 1.190E-04 ± 6.587E+00, -8.066E+00 ± 2.118E+00, 3.163E-03 ± 9.930E-02, 1.648E-07 ± 1.174E-02
i', 1.190E-04 ± 6.587E+00, -8.066E+00 ± 2.118E+00, 3.163E-03 ± 9.930E-02, 1.648E-07 ± 1.174E-02 - Z.
j', 1.200E-04 ± 6.578E+00, -8.072E+00 ± 1.470E+00, 2.205E-03 ± 1.014E-01, 1.648E-07 ± 1.174E-02
265, 1.200E-04 ± 6.578E+00, -8.072E+00 ± 1.470E+00, 2.205E-03 ± 1.014E-01, 1.648E-07 ± 1.174E-02
250 (275-270) [l=395 cm][395 def.]
275, 1.188E-04 ± 6.606E+00, -6.839E+00 ± 1.957E+00, 2.685E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02 - Z.
i', 1.188E-04 ± 6.606E+00, -6.839E+00 ± 1.957E+00, 2.685E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
j', 1.183E-04 ± 6.596E+00, -7.881E+00 ± 2.817E+00, 3.553E-03 ± 9.695E-02, 1.648E-07 ± 1.174E-02
270, 1.183E-04 ± 6.596E+00, -7.881E+00 ± 2.817E+00, 3.553E-03 ± 9.695E-02, 1.648E-07 ± 1.174E-02 - Z.
251 (270-268) [l=370 cm][370 def.]
270, 1.183E-04 ± 6.596E+00, -7.881E+00 ± 2.817E+00, 3.553E-03 ± 9.695E-02, 1.648E-07 ± 1.174E-02
i', 1.183E-04 ± 6.596E+00, -7.881E+00 ± 2.817E+00, 3.553E-03 ± 9.695E-02, 1.648E-07 ± 1.174E-02 - Z.
j', 1.190E-04 ± 6.587E+00, -8.066E+00 ± 2.118E+00, 3.163E-03 ± 9.930E-02, 1.648E-07 ± 1.174E-02
268, 1.190E-04 ± 6.587E+00, -8.066E+00 ± 2.118E+00, 3.163E-03 ± 9.930E-02, 1.648E-07 ± 1.174E-02
252 (277-278) [l=447 cm][447 def.]
277, -2.345E-03 ± 8.584E-01, -6.442E+00 ± 2.334E+00, 1.828E-05 ± 8.605E-01, -8.998E-05 ± 3.548E-02 - Z.
i', -2.345E-03 ± 8.584E-01, -6.442E+00 ± 2.334E+00, 1.828E-05 ± 8.605E-01, -8.998E-05 ± 3.548E-02
j', -2.747E-03 ± 9.392E-01, -6.443E+00 ± 2.854E+00, 1.735E-05 ± 8.605E-01, -8.998E-05 ± 3.548E-02
278, -2.747E-03 ± 9.392E-01, -6.443E+00 ± 2.854E+00, 1.735E-05 ± 8.605E-01, -8.998E-05 ± 3.548E-02 - Z.
253 (279-278) [l=447 cm][447 def.]
279, 2.344E-03 ± 8.583E-01, -6.443E+00 ± 2.334E+00, -1.642E-05 ± 8.605E-01, 9.029E-05 ± 3.549E-02
i', 2.344E-03 ± 8.583E-01, -6.443E+00 ± 2.334E+00, -1.642E-05 ± 8.605E-01, 9.029E-05 ± 3.549E-02 - Z.
j', 2.747E-03 ± 9.392E-01, -6.442E+00 ± 2.854E+00, -1.735E-05 ± 8.605E-01, 9.029E-05 ± 3.549E-02
278, 2.747E-03 ± 9.392E-01, -6.442E+00 ± 2.854E+00, -1.735E-05 ± 8.605E-01, 9.029E-05 ± 3.549E-02
254 (280-281) [l=447 cm][447 def.]
280, 2.359E-03 ± 8.583E-01, -6.454E+00 ± 2.348E+00, -1.641E-05 ± 8.607E-01, 1.072E-04 ± 3.549E-02 - Z.
i', 2.359E-03 ± 8.583E-01, -6.454E+00 ± 2.348E+00, -1.641E-05 ± 8.607E-01, 1.072E-04 ± 3.549E-02
j', 2.838E-03 ± 9.392E-01, -6.454E+00 ± 2.930E+00, -1.732E-05 ± 8.607E-01, 1.072E-04 ± 3.549E-02
281, 2.838E-03 ± 9.392E-01, -6.454E+00 ± 2.930E+00, -1.732E-05 ± 8.607E-01, 1.072E-04 ± 3.549E-02 - Z.
255 (276-281) [l=447 cm][447 def.]
276, -2.360E-03 ± 8.584E-01, -6.454E+00 ± 2.348E+00, 1.823E-05 ± 8.607E-01, -1.069E-04 ± 3.548E-02
i', -2.360E-03 ± 8.584E-01, -6.454E+00 ± 2.348E+00, 1.823E-05 ± 8.607E-01, -1.069E-04 ± 3.548E-02 - Z.
j', -2.838E-03 ± 9.392E-01, -6.454E+00 ± 2.930E+00, 1.732E-05 ± 8.607E-01, -1.069E-04 ± 3.548E-02
281, -2.838E-03 ± 9.392E-01, -6.454E+00 ± 2.930E+00, 1.732E-05 ± 8.607E-01, -1.069E-04 ± 3.548E-02
256 (282-j'-283) [l=181 cm][173 def.-8 rig.]
282, 1.404E-03 ± 7.004E-01, -6.843E+00 ± 3.680E+00, -7.029E-05 ± 8.617E-01, 1.645E-07 ± 1.169E-02 - Z.
i', 1.404E-03 ± 7.004E-01, -6.843E+00 ± 3.680E+00, -7.029E-05 ± 8.617E-01, 1.645E-07 ± 1.169E-02
j', 2.725E-02 ± 4.443E-01, -6.202E+00 ± 2.078E+00, -1.886E-03 ± 8.641E-01, 1.645E-07 ± 1.169E-02
283, 2.725E-02 ± 4.440E-01, -6.202E+00 ± 2.009E+00, -1.886E-03 ± 8.641E-01, 1.645E-07 ± 1.169E-02 - Z.
257 (283-i'-j'-284) [l=140 cm][8 rig.-124 def.-8 rig.]
283, 2.725E-02 ± 4.440E-01, -6.202E+00 ± 2.009E+00, -1.886E-03 ± 8.641E-01, 1.645E-07 ± 1.169E-02
i', 2.725E-02 ± 4.436E-01, -6.202E+00 ± 1.940E+00, -1.886E-03 ± 8.641E-01, 1.645E-07 ± 1.169E-02 - Z.
j', 3.114E-02 ± 4.052E-01, -5.901E+00 ± 9.159E-01, -1.132E-03 ± 8.647E-01, 1.645E-07 ± 1.169E-02
284, 3.114E-02 ± 4.048E-01, -5.901E+00 ± 8.467E-01, -1.132E-03 ± 8.647E-01, 1.645E-07 ± 1.169E-02
258 (285-i'-j'-286) [l=140 cm][8 rig.-124 def.-8 rig.]
285, -2.725E-02 ± 4.440E-01, -6.202E+00 ± 2.009E+00, -1.852E-03 ± 8.641E-01, 1.645E-07 ± 1.169E-02 - Z.

i' , $-2.725E-02 \pm 4.436E-01, -6.202E+00 \pm 1.940E+00, -1.852E-03 \pm 8.641E-01, 1.645E-07 \pm 1.169E-02$
 j' , $-3.114E-02 \pm 4.052E-01, -5.901E+00 \pm 9.157E-01, -1.097E-03 \pm 8.647E-01, 1.645E-07 \pm 1.169E-02$
286, $-3.114E-02 \pm 4.049E-01, -5.901E+00 \pm 8.466E-01, -1.097E-03 \pm 8.647E-01, 1.645E-07 \pm 1.169E-02 - Z.$
259 (287-j'-285) [l=181 cm][173 def.-8 rig.]
287, $-1.405E-03 \pm 7.004E-01, -6.843E+00 \pm 3.680E+00, -3.604E-05 \pm 8.617E-01, 1.645E-07 \pm 1.169E-02$
 i' , $-1.405E-03 \pm 7.004E-01, -6.843E+00 \pm 3.680E+00, -3.604E-05 \pm 8.617E-01, 1.645E-07 \pm 1.169E-02 - Z.$
 j' , $-2.725E-02 \pm 4.444E-01, -6.202E+00 \pm 2.078E+00, -1.852E-03 \pm 8.641E-01, 1.645E-07 \pm 1.169E-02$
285, $-2.725E-02 \pm 4.440E-01, -6.202E+00 \pm 2.009E+00, -1.852E-03 \pm 8.641E-01, 1.645E-07 \pm 1.169E-02$
260 (286-i'-j'-284) [l=200 cm][8 rig.-184 def.-8 rig.]
286, $-3.114E-02 \pm 4.049E-01, -5.901E+00 \pm 8.466E-01, -1.097E-03 \pm 8.647E-01, 1.645E-07 \pm 1.169E-02 - Z.$
 i' , $-3.114E-02 \pm 4.046E-01, -5.900E+00 \pm 7.774E-01, -1.097E-03 \pm 8.647E-01, 1.645E-07 \pm 1.169E-02$
 j' , $-3.114E-02 \pm 4.046E-01, -5.900E+00 \pm 7.775E-01, 1.132E-03 \pm 8.647E-01, 1.645E-07 \pm 1.169E-02$
284, $-3.114E-02 \pm 4.048E-01, -5.901E+00 \pm 8.467E-01, 1.132E-03 \pm 8.647E-01, 1.645E-07 \pm 1.169E-02 - Z.$
261 (288-273) [l=106 cm][106 def.]
288, $-1.767E-03 \pm 9.088E-01, -7.748E+00 \pm 1.354E+00, 1.434E-01 \pm 8.637E-01, 1.458E-04 \pm 3.813E-02$
 i' , $-1.767E-03 \pm 9.088E-01, -7.748E+00 \pm 1.354E+00, 1.434E-01 \pm 8.637E-01, 1.458E-04 \pm 3.813E-02 - Z.$
 j' , $-2.657E-03 \pm 9.323E-01, -7.448E+00 \pm 2.294E+00, 8.964E-06 \pm 8.711E-01, -8.766E-05 \pm 3.826E-02$
273, $-2.657E-03 \pm 9.323E-01, -7.448E+00 \pm 2.294E+00, 8.964E-06 \pm 8.711E-01, -8.766E-05 \pm 3.826E-02$
262 (260-288) [l=149 cm][149 def.]
260, $2.887E-04 \pm 8.767E-01, -7.787E+00 \pm 7.009E-01, 4.485E-01 \pm 8.710E-01, 1.329E-03 \pm 3.753E-02 - Z.$
 i' , $2.887E-04 \pm 8.767E-01, -7.787E+00 \pm 7.009E-01, 4.485E-01 \pm 8.710E-01, 1.329E-03 \pm 3.753E-02$
 j' , $-1.767E-03 \pm 9.088E-01, -7.747E+00 \pm 1.356E+00, 1.434E-01 \pm 8.637E-01, 1.460E-04 \pm 3.816E-02$
288, $-1.767E-03 \pm 9.088E-01, -7.747E+00 \pm 1.356E+00, 1.434E-01 \pm 8.637E-01, 1.460E-04 \pm 3.816E-02 - Z.$
263 (289-290) [l=192 cm][192 def.]
289, $2.263E-03 \pm 8.408E-01, -6.448E+00 \pm 1.708E+00, -1.341E-05 \pm 8.606E-01, 1.001E-04 \pm 3.546E-02$
 i' , $2.263E-03 \pm 8.408E-01, -6.448E+00 \pm 1.708E+00, -1.341E-05 \pm 8.606E-01, 1.001E-04 \pm 3.546E-02 - Z.$
 j' , $-1.294E-04 \pm 8.776E-01, -7.787E+00 \pm 7.009E-01, 4.484E-01 \pm 8.710E-01, -1.246E-03 \pm 3.751E-02$
290, $-1.294E-04 \pm 8.776E-01, -7.787E+00 \pm 7.009E-01, 4.484E-01 \pm 8.710E-01, -1.246E-03 \pm 3.751E-02$
264 (290-291) [l=149 cm][149 def.]
290, $-2.892E-04 \pm 8.766E-01, -7.787E+00 \pm 7.011E-01, 4.484E-01 \pm 8.710E-01, -1.329E-03 \pm 3.753E-02 - Z.$
 i' , $-2.892E-04 \pm 8.766E-01, -7.787E+00 \pm 7.011E-01, 4.484E-01 \pm 8.710E-01, -1.329E-03 \pm 3.753E-02$
 j' , $1.767E-03 \pm 9.087E-01, -7.747E+00 \pm 1.356E+00, 1.434E-01 \pm 8.637E-01, -1.457E-04 \pm 3.817E-02$
291, $1.767E-03 \pm 9.087E-01, -7.747E+00 \pm 1.356E+00, 1.434E-01 \pm 8.637E-01, -1.457E-04 \pm 3.817E-02 - Z.$
265 (291-273) [l=106 cm][106 def.]
291, $1.767E-03 \pm 9.087E-01, -7.748E+00 \pm 1.354E+00, 1.434E-01 \pm 8.637E-01, -1.455E-04 \pm 3.813E-02$
 i' , $1.767E-03 \pm 9.087E-01, -7.748E+00 \pm 1.354E+00, 1.434E-01 \pm 8.637E-01, -1.455E-04 \pm 3.813E-02 - Z.$
 j' , $2.657E-03 \pm 9.323E-01, -7.448E+00 \pm 2.294E+00, -8.964E-06 \pm 8.711E-01, 8.798E-05 \pm 3.826E-02$
273, $2.657E-03 \pm 9.323E-01, -7.448E+00 \pm 2.294E+00, -8.964E-06 \pm 8.711E-01, 8.798E-05 \pm 3.826E-02$
266 (292-i'-j'-293) [l=140 cm][8 rig.-124 def.-8 rig.]
292, $-3.520E-02 \pm 4.452E-01, -6.173E+00 \pm 1.981E+00, -1.943E-03 \pm 8.639E-01, 1.645E-07 \pm 1.169E-02 - Z.$
 i' , $-3.520E-02 \pm 4.448E-01, -6.173E+00 \pm 1.912E+00, -1.943E-03 \pm 8.639E-01, 1.645E-07 \pm 1.169E-02$
 j' , $-4.072E-02 \pm 4.055E-01, -5.867E+00 \pm 8.939E-01, -1.163E-03 \pm 8.645E-01, 1.645E-07 \pm 1.169E-02$
293, $-4.072E-02 \pm 4.051E-01, -5.867E+00 \pm 8.247E-01, -1.163E-03 \pm 8.645E-01, 1.645E-07 \pm 1.169E-02 - Z.$
267 (294-j'-292) [l=181 cm][173 def.-8 rig.]
294, $1.476E-03 \pm 7.004E-01, -6.842E+00 \pm 3.660E+00, -7.270E-05 \pm 8.617E-01, 1.645E-07 \pm 1.169E-02$
 i' , $1.476E-03 \pm 7.004E-01, -6.842E+00 \pm 3.660E+00, -7.270E-05 \pm 8.617E-01, 1.645E-07 \pm 1.169E-02 - Z.$
 j' , $-3.520E-02 \pm 4.455E-01, -6.174E+00 \pm 2.050E+00, -1.943E-03 \pm 8.639E-01, 1.645E-07 \pm 1.169E-02$
292, $-3.520E-02 \pm 4.452E-01, -6.173E+00 \pm 1.981E+00, -1.943E-03 \pm 8.639E-01, 1.645E-07 \pm 1.169E-02$
268 (295-i'-j'-293) [l=200 cm][8 rig.-184 def.-8 rig.]
295, $4.072E-02 \pm 4.052E-01, -5.867E+00 \pm 8.246E-01, -1.129E-03 \pm 8.645E-01, 1.645E-07 \pm 1.169E-02 - Z.$
 i' , $4.072E-02 \pm 4.048E-01, -5.867E+00 \pm 7.555E-01, -1.129E-03 \pm 8.645E-01, 1.645E-07 \pm 1.169E-02$
 j' , $4.072E-02 \pm 4.048E-01, -5.867E+00 \pm 7.556E-01, 1.163E-03 \pm 8.645E-01, 1.645E-07 \pm 1.169E-02$
293, $4.072E-02 \pm 4.051E-01, -5.867E+00 \pm 8.247E-01, 1.163E-03 \pm 8.645E-01, 1.645E-07 \pm 1.169E-02 - Z.$
269 (296-297) [l=149 cm][149 def.]
296, $5.160E-03 \pm 8.777E-01, -7.867E+00 \pm 6.553E-01, 4.759E-01 \pm 8.634E-01, 1.508E-03 \pm 3.756E-02$
 i' , $5.160E-03 \pm 8.777E-01, -7.867E+00 \pm 6.553E-01, 4.759E-01 \pm 8.634E-01, 1.508E-03 \pm 3.756E-02 - Z.$
 j' , $1.558E-03 \pm 9.100E-01, -7.823E+00 \pm 1.326E+00, 1.521E-01 \pm 8.635E-01, -2.069E-04 \pm 3.811E-02$
297, $1.558E-03 \pm 9.100E-01, -7.823E+00 \pm 1.326E+00, 1.521E-01 \pm 8.635E-01, -2.069E-04 \pm 3.811E-02$
270 (298-296) [l=192 cm][192 def.]
298, $2.263E-03 \pm 8.400E-01, -6.447E+00 \pm 1.689E+00, -1.325E-05 \pm 8.606E-01, 9.785E-05 \pm 3.550E-02 - Z.$
 i' , $2.263E-03 \pm 8.400E-01, -6.447E+00 \pm 1.689E+00, -1.325E-05 \pm 8.606E-01, 9.785E-05 \pm 3.550E-02$
 j' , $4.941E-03 \pm 8.766E-01, -7.867E+00 \pm 6.551E-01, 4.759E-01 \pm 8.634E-01, 1.394E-03 \pm 3.763E-02$
296, $4.941E-03 \pm 8.766E-01, -7.867E+00 \pm 6.551E-01, 4.759E-01 \pm 8.634E-01, 1.394E-03 \pm 3.763E-02 - Z.$
271 (297-274) [l=106 cm][106 def.]
297, $1.434E-03 \pm 9.087E-01, -7.824E+00 \pm 1.324E+00, 1.521E-01 \pm 8.635E-01, -2.431E-04 \pm 3.814E-02$
 i' , $1.434E-03 \pm 9.087E-01, -7.824E+00 \pm 1.324E+00, 1.521E-01 \pm 8.635E-01, -2.431E-04 \pm 3.814E-02 - Z.$
 j' , $2.228E-03 \pm 9.322E-01, -7.505E+00 \pm 2.268E+00, -1.621E-05 \pm 8.717E-01, -7.969E-06 \pm 3.823E-02$
274, $2.228E-03 \pm 9.322E-01, -7.505E+00 \pm 2.268E+00, -1.621E-05 \pm 8.717E-01, -7.969E-06 \pm 3.823E-02$
272 (299-274) [l=106 cm][106 def.]
299, $-1.434E-03 \pm 9.087E-01, -7.824E+00 \pm 1.324E+00, 1.522E-01 \pm 8.635E-01, 2.435E-04 \pm 3.814E-02 - Z.$
 i' , $-1.434E-03 \pm 9.087E-01, -7.824E+00 \pm 1.324E+00, 1.522E-01 \pm 8.635E-01, 2.435E-04 \pm 3.814E-02$
 j' , $-2.228E-03 \pm 9.322E-01, -7.505E+00 \pm 2.268E+00, 1.621E-05 \pm 8.717E-01, 8.280E-06 \pm 3.823E-02$
274, $-2.228E-03 \pm 9.322E-01, -7.505E+00 \pm 2.268E+00, 1.621E-05 \pm 8.717E-01, 8.280E-06 \pm 3.823E-02 - Z.$
273 (300-299) [l=149 cm][149 def.]
300, $-5.161E-03 \pm 8.778E-01, -7.867E+00 \pm 6.553E-01, 4.759E-01 \pm 8.634E-01, -1.508E-03 \pm 3.756E-02$
 i' , $-5.161E-03 \pm 8.778E-01, -7.867E+00 \pm 6.553E-01, 4.759E-01 \pm 8.634E-01, -1.508E-03 \pm 3.756E-02 - Z.$
 j' , $-1.559E-03 \pm 9.100E-01, -7.823E+00 \pm 1.327E+00, 1.522E-01 \pm 8.635E-01, 2.072E-04 \pm 3.811E-02$
299, $-1.559E-03 \pm 9.100E-01, -7.823E+00 \pm 1.327E+00, 1.522E-01 \pm 8.635E-01, 2.072E-04 \pm 3.811E-02$
274 (301-300) [l=192 cm][192 def.]
301, $-2.265E-03 \pm 8.400E-01, -6.447E+00 \pm 1.689E+00, 2.142E-05 \pm 8.606E-01, -9.754E-05 \pm 3.550E-02 - Z.$
 i' , $-2.265E-03 \pm 8.400E-01, -6.447E+00 \pm 1.689E+00, 2.142E-05 \pm 8.606E-01, -9.754E-05 \pm 3.550E-02$
 j' , $-4.942E-03 \pm 8.766E-01, -7.867E+00 \pm 6.551E-01, 4.759E-01 \pm 8.634E-01, -1.394E-03 \pm 3.763E-02$
300, $-4.942E-03 \pm 8.766E-01, -7.867E+00 \pm 6.551E-01, 4.759E-01 \pm 8.634E-01, -1.394E-03 \pm 3.763E-02 - Z.$
275 (302-i'-j'-295) [l=140 cm][8 rig.-124 def.-8 rig.]
302, $3.520E-02 \pm 4.452E-01, -6.173E+00 \pm 1.981E+00, -1.909E-03 \pm 8.639E-01, 1.645E-07 \pm 1.169E-02$
 i' , $3.520E-02 \pm 4.448E-01, -6.173E+00 \pm 1.911E+00, -1.909E-03 \pm 8.639E-01, 1.645E-07 \pm 1.169E-02 - Z.$

j' , $4.072E-02 \pm 4.055E-01, -5.867E+00 \pm 8.938E-01, -1.129E-03 \pm 8.645E-01, 1.645E-07 \pm 1.169E-02$
 295, $4.072E-02 \pm 4.052E-01, -5.867E+00 \pm 8.246E-01, -1.129E-03 \pm 8.645E-01, 1.645E-07 \pm 1.169E-02$
 276 (303-j'-302) [l=181 cm][173 def.-8 rig.]
 $303, -1.477E-03 \pm 7.004E-01, -6.842E+00 \pm 3.660E+00, -3.845E-05 \pm 8.617E-01, 1.645E-07 \pm 1.169E-02 - Z.$
 $i', -1.477E-03 \pm 7.004E-01, -6.842E+00 \pm 3.660E+00, -3.845E-05 \pm 8.617E-01, 1.645E-07 \pm 1.169E-02$
 $j', 3.520E-02 \pm 4.455E-01, -6.174E+00 \pm 2.050E+00, -1.909E-03 \pm 8.639E-01, 1.645E-07 \pm 1.169E-02$
 $302, 3.520E-02 \pm 4.452E-01, -6.173E+00 \pm 1.981E+00, -1.909E-03 \pm 8.639E-01, 1.645E-07 \pm 1.169E-02 - Z.$
 277 (304-j'-305) [l=650 cm][226 def.-424 rig.]
 $304, 0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, 5.886E-02 \pm 9.641E-02, 1.579E-01 \pm 8.055E-01$
 $i', 0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, 5.886E-02 \pm 9.641E-02, 1.579E-01 \pm 8.055E-01 - Z.$
 $j', -3.010E-03 \pm 2.684E+00, -3.392E-02 \pm 3.667E-01, -1.158E-02 \pm 1.597E-01, 1.132E-03 \pm 8.647E-01$
 $305, 1.789E-03 \pm 6.336E+00, 1.520E-02 \pm 1.044E+00, -1.158E-02 \pm 1.597E-01, 1.132E-03 \pm 8.647E-01$
 278 (306-j'-307) [l=600 cm][226 def.-374 rig.]
 $306, 0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, 5.906E-02 \pm 9.832E-02, 2.828E-01 \pm 8.431E-01 - Z.$
 $i', 0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, 5.906E-02 \pm 9.832E-02, 2.828E-01 \pm 8.431E-01$
 $j', -5.078E-03 \pm 2.686E+00, -2.965E-02 \pm 4.090E-01, -1.003E-02 \pm 1.475E-01, 1.886E-03 \pm 8.641E-01$
 $307, 1.978E-03 \pm 5.903E+00, 7.853E-03 \pm 9.578E-01, -1.003E-02 \pm 1.475E-01, 1.886E-03 \pm 8.641E-01 - Z.$
 279 (308-j'-309) [l=600 cm][226 def.-374 rig.]
 $308, 0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, -5.906E-02 \pm 9.831E-02, 2.828E-01 \pm 8.431E-01$
 $i', 0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, -5.906E-02 \pm 9.831E-02, 2.828E-01 \pm 8.431E-01 - Z.$
 $j', -5.166E-03 \pm 2.686E+00, 2.965E-02 \pm 4.090E-01, 1.003E-02 \pm 1.475E-01, 1.852E-03 \pm 8.641E-01$
 $309, 1.761E-03 \pm 5.903E+00, -7.852E-03 \pm 9.578E-01, 1.003E-02 \pm 1.475E-01, 1.852E-03 \pm 8.641E-01$
 280 (310-j'-311) [l=650 cm][226 def.-424 rig.]
 $310, 0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, -5.886E-02 \pm 9.641E-02, 1.579E-01 \pm 8.055E-01 - Z.$
 $i', 0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, -5.886E-02 \pm 9.641E-02, 1.579E-01 \pm 8.055E-01$
 $j', -3.098E-03 \pm 2.684E+00, 3.392E-02 \pm 3.667E-01, 1.158E-02 \pm 1.597E-01, 1.097E-03 \pm 8.647E-01$
 $311, 1.555E-03 \pm 6.336E+00, -1.520E-02 \pm 1.044E+00, 1.158E-02 \pm 1.597E-01, 1.097E-03 \pm 8.647E-01 - Z.$
 281 (312-j'-313) [l=600 cm][226 def.-374 rig.]
 $312, 0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, -8.146E-02 \pm 1.001E-01, 2.886E-01 \pm 8.392E-01$
 $i', 0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, -8.146E-02 \pm 1.001E-01, 2.886E-01 \pm 8.392E-01 - Z.$
 $j', -5.233E-03 \pm 2.655E+00, 3.879E-02 \pm 4.103E-01, 1.495E-02 \pm 1.476E-01, 1.943E-03 \pm 8.639E-01$
 $313, 2.034E-03 \pm 5.871E+00, -1.713E-02 \pm 9.573E-01, 1.495E-02 \pm 1.476E-01, 1.943E-03 \pm 8.639E-01$
 282 (314-j'-315) [l=650 cm][226 def.-424 rig.]
 $314, 0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, -8.118E-02 \pm 9.688E-02, 1.599E-01 \pm 7.993E-01 - Z.$
 $i', 0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, -8.118E-02 \pm 9.688E-02, 1.599E-01 \pm 7.993E-01$
 $j', -3.096E-03 \pm 2.653E+00, 4.484E-02 \pm 3.668E-01, 1.716E-02 \pm 1.601E-01, 1.163E-03 \pm 8.645E-01$
 $315, 1.835E-03 \pm 6.303E+00, -2.791E-02 \pm 1.044E+00, 1.716E-02 \pm 1.601E-01, 1.163E-03 \pm 8.645E-01 - Z.$
 283 (316-j'-317) [l=650 cm][226 def.-424 rig.]
 $316, 0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, 8.118E-02 \pm 9.688E-02, 1.599E-01 \pm 7.993E-01$
 $i', 0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, 8.118E-02 \pm 9.688E-02, 1.599E-01 \pm 7.993E-01 - Z.$
 $j', -3.183E-03 \pm 2.653E+00, -4.484E-02 \pm 3.669E-01, -1.716E-02 \pm 1.601E-01, 1.129E-03 \pm 8.645E-01$
 $317, 1.602E-03 \pm 6.303E+00, 2.791E-02 \pm 1.044E+00, -1.716E-02 \pm 1.601E-01, 1.129E-03 \pm 8.645E-01$
 284 (318-j'-319) [l=600 cm][226 def.-374 rig.]
 $318, 0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, 8.146E-02 \pm 1.001E-01, 2.885E-01 \pm 8.392E-01 - Z.$
 $i', 0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, 8.146E-02 \pm 1.001E-01, 2.885E-01 \pm 8.392E-01$
 $j', -5.321E-03 \pm 2.655E+00, -3.879E-02 \pm 4.103E-01, -1.495E-02 \pm 1.476E-01, 1.909E-03 \pm 8.639E-01$
 $319, 1.818E-03 \pm 5.871E+00, 1.713E-02 \pm 9.573E-01, -1.495E-02 \pm 1.476E-01, 1.909E-03 \pm 8.639E-01 - Z.$
 285 (320-148) [l=188 cm][188 def.]
 $320, 8.171E-05 \pm 2.926E+00, 1.350E-03 \pm 6.848E-01, -3.304E-04 \pm 9.604E-02, -6.935E-05 \pm 8.617E-01$
 $i', 8.171E-05 \pm 2.926E+00, 1.350E-03 \pm 6.848E-01, -3.304E-04 \pm 9.604E-02, -6.935E-05 \pm 8.617E-01 - Z.$
 $j', -4.867E-05 \pm 4.537E+00, 1.971E-03 \pm 7.693E-01, -3.304E-04 \pm 9.604E-02, -6.936E-05 \pm 8.617E-01$
 $148, -4.867E-05 \pm 4.537E+00, 1.971E-03 \pm 7.693E-01, -3.304E-04 \pm 9.604E-02, -6.936E-05 \pm 8.617E-01$
 286 (321-151) [l=188 cm][188 def.]
 $321, -1.794E-04 \pm 2.926E+00, 1.350E-03 \pm 6.848E-01, -3.304E-04 \pm 9.603E-02, 3.509E-05 \pm 8.617E-01 - Z.$
 $i', -1.794E-04 \pm 2.926E+00, 1.350E-03 \pm 6.848E-01, -3.304E-04 \pm 9.603E-02, 3.509E-05 \pm 8.617E-01$
 $j', -1.134E-04 \pm 4.537E+00, 1.971E-03 \pm 7.693E-01, -3.304E-04 \pm 9.603E-02, 3.510E-05 \pm 8.617E-01$
 $151, -1.134E-04 \pm 4.537E+00, 1.971E-03 \pm 7.693E-01, -3.304E-04 \pm 9.603E-02, 3.510E-05 \pm 8.617E-01 - Z.$
 287 (320-321) [l=200 cm][200 def.]
 $320, 1.350E-03 \pm 6.848E-01, -6.844E+00 \pm 9.857E-01, -6.935E-05 \pm 8.617E-01, 1.645E-07 \pm 1.169E-02$
 $i', 1.350E-03 \pm 6.848E-01, -6.844E+00 \pm 9.857E-01, -6.935E-05 \pm 8.617E-01, 1.645E-07 \pm 1.169E-02 - Z.$
 $j', 1.350E-03 \pm 6.848E-01, -6.844E+00 \pm 9.855E-01, 3.509E-05 \pm 8.617E-01, 1.645E-07 \pm 1.169E-02$
 $321, 1.350E-03 \pm 6.848E-01, -6.844E+00 \pm 9.855E-01, 3.509E-05 \pm 8.617E-01, 1.645E-07 \pm 1.169E-02$
 288 (322-140) [l=188 cm][188 def.]
 $322, -1.925E-04 \pm 2.873E+00, 1.529E-03 \pm 6.848E-01, -2.586E-04 \pm 9.602E-02, 4.085E-05 \pm 8.618E-01 - Z.$
 $i', -1.925E-04 \pm 2.873E+00, 1.529E-03 \pm 6.848E-01, -2.586E-04 \pm 9.602E-02, 4.085E-05 \pm 8.618E-01$
 $j', -1.157E-04 \pm 4.483E+00, 2.016E-03 \pm 7.693E-01, -2.586E-04 \pm 9.602E-02, 4.086E-05 \pm 8.618E-01$
 $140, -1.157E-04 \pm 4.483E+00, 2.016E-03 \pm 7.693E-01, -2.586E-04 \pm 9.602E-02, 4.086E-05 \pm 8.618E-01 - Z.$
 289 (323-143) [l=188 cm][188 def.]
 $323, 9.742E-05 \pm 2.873E+00, 1.529E-03 \pm 6.848E-01, -2.585E-04 \pm 9.602E-02, -7.509E-05 \pm 8.618E-01$
 $i', 9.742E-05 \pm 2.873E+00, 1.529E-03 \pm 6.848E-01, -2.585E-04 \pm 9.602E-02, -7.509E-05 \pm 8.618E-01 - Z.$
 $j', -4.376E-05 \pm 4.483E+00, 2.015E-03 \pm 7.693E-01, -2.585E-04 \pm 9.602E-02, -7.510E-05 \pm 8.618E-01$
 $143, -4.376E-05 \pm 4.483E+00, 2.015E-03 \pm 7.693E-01, -2.585E-04 \pm 9.602E-02, -7.510E-05 \pm 8.618E-01$
 290 (322-323) [l=200 cm][200 def.]
 $322, -1.529E-03 \pm 6.848E-01, -6.841E+00 \pm 9.639E-01, -4.085E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02 - Z.$
 $i', -1.529E-03 \pm 6.848E-01, -6.841E+00 \pm 9.639E-01, -4.085E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02$
 $j', -1.529E-03 \pm 6.848E-01, -6.841E+00 \pm 9.639E-01, 7.509E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02$
 $323, -1.529E-03 \pm 6.848E-01, -6.841E+00 \pm 9.639E-01, 7.509E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02 - Z.$
 291 (98-139) [l=62 cm][62 def.]
 $98, -9.033E-05 \pm 5.016E+00, -2.176E-03 \pm 8.191E-01, -2.585E-04 \pm 9.602E-02, -4.017E-05 \pm 8.618E-01$
 $i', -9.033E-05 \pm 5.016E+00, -2.176E-03 \pm 8.191E-01, -2.585E-04 \pm 9.602E-02, -4.017E-05 \pm 8.618E-01 - Z.$
 $j', -1.155E-04 \pm 4.483E+00, -2.016E-03 \pm 7.844E-01, -2.585E-04 \pm 9.602E-02, -4.061E-05 \pm 8.618E-01$
 $139, -1.155E-04 \pm 4.483E+00, -2.016E-03 \pm 7.844E-01, -2.585E-04 \pm 9.602E-02, -4.061E-05 \pm 8.618E-01$
 292 (276-156) [l=30 cm][30 def.]
 $276, -1.050E-04 \pm 5.774E+00, -2.360E-03 \pm 8.584E-01, -3.189E-04 \pm 9.602E-02, 1.823E-05 \pm 8.607E-01 - Z.$
 $i', -1.050E-04 \pm 5.774E+00, -2.360E-03 \pm 8.584E-01, -3.189E-04 \pm 9.602E-02, 1.823E-05 \pm 8.607E-01$
 $j', -9.953E-05 \pm 5.517E+00, -2.265E-03 \pm 8.400E-01, -3.189E-04 \pm 9.602E-02, 1.822E-05 \pm 8.607E-01$

156, -9.953E-05 ± 5.517E+00, -2.265E-03 ± 8.400E-01, -3.189E-04 ± 9.602E-02, 1.822E-05 ± 8.607E-01 - Z.
293 (155-324) [l=30 cm][30 def.]
155, -9.857E-05 ± 5.450E+00, 2.265E-03 ± 8.400E-01, -3.166E-04 ± 9.602E-02, -1.986E-05 ± 8.606E-01
i', -9.857E-05 ± 5.450E+00, 2.265E-03 ± 8.400E-01, -3.166E-04 ± 9.602E-02, -1.986E-05 ± 8.606E-01 - Z.
j', -1.045E-04 ± 5.708E+00, 2.360E-03 ± 8.584E-01, -3.166E-04 ± 9.602E-02, -1.986E-05 ± 8.606E-01
324, -1.045E-04 ± 5.708E+00, 2.360E-03 ± 8.584E-01, -3.166E-04 ± 9.602E-02, -1.986E-05 ± 8.606E-01
294 (159-325) [l=30 cm][30 def.]
159, -9.761E-05 ± 5.384E+00, 2.265E-03 ± 8.400E-01, -3.100E-04 ± 9.603E-02, -2.094E-05 ± 8.606E-01 - Z.
i', -9.761E-05 ± 5.384E+00, 2.265E-03 ± 8.400E-01, -3.100E-04 ± 9.603E-02, -2.094E-05 ± 8.606E-01
j', -1.039E-04 ± 5.641E+00, 2.358E-03 ± 8.584E-01, -3.100E-04 ± 9.603E-02, -2.094E-05 ± 8.606E-01
325, -1.039E-04 ± 5.641E+00, 2.358E-03 ± 8.584E-01, -3.100E-04 ± 9.603E-02, -2.094E-05 ± 8.606E-01 - Z.
295 (162-326) [l=30 cm][30 def.]
162, -9.684E-05 ± 5.331E+00, 2.265E-03 ± 8.400E-01, -3.022E-04 ± 9.603E-02, -2.133E-05 ± 8.606E-01
i', -9.684E-05 ± 5.331E+00, 2.265E-03 ± 8.400E-01, -3.022E-04 ± 9.603E-02, -2.133E-05 ± 8.606E-01 - Z.
j', -1.032E-04 ± 5.588E+00, 2.355E-03 ± 8.584E-01, -3.022E-04 ± 9.603E-02, -2.133E-05 ± 8.606E-01
326, -1.032E-04 ± 5.588E+00, 2.355E-03 ± 8.584E-01, -3.022E-04 ± 9.603E-02, -2.133E-05 ± 8.606E-01
296 (164-259) [l=0 cm][0 def.]
164, 9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.680E+00, 2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02 - Z.
i', 9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.680E+00, 2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
j', 9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.680E+00, 2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
259, 9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.680E+00, 2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02 - Z.
297 (164-327) [l=30 cm][30 def.]
164, -9.644E-05 ± 5.303E+00, 2.265E-03 ± 8.400E-01, -2.975E-04 ± 9.603E-02, -2.141E-05 ± 8.606E-01
i', -9.644E-05 ± 5.303E+00, 2.265E-03 ± 8.400E-01, -2.975E-04 ± 9.603E-02, -2.141E-05 ± 8.606E-01 - Z.
j', -1.029E-04 ± 5.560E+00, 2.354E-03 ± 8.584E-01, -2.975E-04 ± 9.603E-02, -2.141E-05 ± 8.606E-01
327, -1.029E-04 ± 5.560E+00, 2.354E-03 ± 8.584E-01, -2.975E-04 ± 9.603E-02, -2.141E-05 ± 8.606E-01
298 (167-328) [l=30 cm][30 def.]
167, -9.590E-05 ± 5.271E+00, 2.265E-03 ± 8.400E-01, -2.909E-04 ± 9.603E-02, -2.142E-05 ± 8.606E-01 - Z.
i', -9.590E-05 ± 5.271E+00, 2.265E-03 ± 8.400E-01, -2.909E-04 ± 9.603E-02, -2.142E-05 ± 8.606E-01
j', -1.023E-04 ± 5.528E+00, 2.352E-03 ± 8.584E-01, -2.909E-04 ± 9.603E-02, -2.142E-05 ± 8.606E-01
328, -1.023E-04 ± 5.528E+00, 2.352E-03 ± 8.584E-01, -2.909E-04 ± 9.603E-02, -2.142E-05 ± 8.606E-01 - Z.
299 (167-301) [l=0 cm][0 def.]
167, 9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, 2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
i', 9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, 2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02 - Z.
j', 9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, 2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
301, 9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, 2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
300 (169-329) [l=30 cm][30 def.]
169, -9.549E-05 ± 5.277E+00, 2.265E-03 ± 8.400E-01, -2.861E-04 ± 9.603E-02, -2.135E-05 ± 8.605E-01 - Z.
i', -9.549E-05 ± 5.277E+00, 2.265E-03 ± 8.400E-01, -2.861E-04 ± 9.603E-02, -2.135E-05 ± 8.605E-01
j', -1.019E-04 ± 5.534E+00, 2.350E-03 ± 8.584E-01, -2.861E-04 ± 9.603E-02, -2.135E-05 ± 8.605E-01
329, -1.019E-04 ± 5.534E+00, 2.350E-03 ± 8.584E-01, -2.861E-04 ± 9.603E-02, -2.135E-05 ± 8.605E-01 - Z.
301 (172-330) [l=30 cm][30 def.]
172, -9.473E-05 ± 5.289E+00, 2.265E-03 ± 8.400E-01, -2.782E-04 ± 9.602E-02, -2.099E-05 ± 8.605E-01
i', -9.473E-05 ± 5.289E+00, 2.265E-03 ± 8.400E-01, -2.782E-04 ± 9.602E-02, -2.099E-05 ± 8.605E-01 - K.
j', -1.010E-04 ± 5.546E+00, 2.348E-03 ± 8.584E-01, -2.782E-04 ± 9.602E-02, -2.099E-05 ± 8.605E-01
330, -1.010E-04 ± 5.546E+00, 2.348E-03 ± 8.584E-01, -2.782E-04 ± 9.602E-02, -2.099E-05 ± 8.605E-01
302 (175-331) [l=30 cm][30 def.]
175, -9.371E-05 ± 5.305E+00, 2.265E-03 ± 8.400E-01, -2.709E-04 ± 9.602E-02, -1.987E-05 ± 8.605E-01 - K.
i', -9.371E-05 ± 5.305E+00, 2.265E-03 ± 8.400E-01, -2.709E-04 ± 9.602E-02, -1.987E-05 ± 8.605E-01
j', -9.967E-05 ± 5.562E+00, 2.346E-03 ± 8.584E-01, -2.709E-04 ± 9.602E-02, -1.987E-05 ± 8.605E-01
331, -9.967E-05 ± 5.562E+00, 2.346E-03 ± 8.584E-01, -2.709E-04 ± 9.602E-02, -1.987E-05 ± 8.605E-01 - K.
303 (182-279) [l=30 cm][30 def.]
182, -9.275E-05 ± 5.320E+00, 2.263E-03 ± 8.400E-01, -2.685E-04 ± 9.602E-02, -1.643E-05 ± 8.605E-01
i', -9.275E-05 ± 5.320E+00, 2.263E-03 ± 8.400E-01, -2.685E-04 ± 9.602E-02, -1.643E-05 ± 8.605E-01 - K.
j', -9.768E-05 ± 5.577E+00, 2.344E-03 ± 8.583E-01, -2.685E-04 ± 9.602E-02, -1.642E-05 ± 8.605E-01
279, -9.768E-05 ± 5.577E+00, 2.344E-03 ± 8.583E-01, -2.685E-04 ± 9.602E-02, -1.642E-05 ± 8.605E-01
304 (181-332) [l=30 cm][30 def.]
181, -9.371E-05 ± 5.305E+00, 2.263E-03 ± 8.400E-01, -2.709E-04 ± 9.602E-02, -1.482E-05 ± 8.605E-01 - K.
i', -9.371E-05 ± 5.305E+00, 2.263E-03 ± 8.400E-01, -2.709E-04 ± 9.602E-02, -1.482E-05 ± 8.605E-01
j', -9.816E-05 ± 5.562E+00, 2.344E-03 ± 8.583E-01, -2.709E-04 ± 9.602E-02, -1.482E-05 ± 8.605E-01
332, -9.816E-05 ± 5.562E+00, 2.344E-03 ± 8.583E-01, -2.709E-04 ± 9.602E-02, -1.482E-05 ± 8.605E-01 - K.
305 (185-333) [l=30 cm][30 def.]
185, -9.473E-05 ± 5.289E+00, 2.263E-03 ± 8.400E-01, -2.782E-04 ± 9.603E-02, -1.369E-05 ± 8.605E-01
i', -9.473E-05 ± 5.289E+00, 2.263E-03 ± 8.400E-01, -2.782E-04 ± 9.603E-02, -1.369E-05 ± 8.605E-01 - K.
j', -9.884E-05 ± 5.546E+00, 2.347E-03 ± 8.583E-01, -2.782E-04 ± 9.603E-02, -1.369E-05 ± 8.605E-01
333, -9.884E-05 ± 5.546E+00, 2.347E-03 ± 8.583E-01, -2.782E-04 ± 9.603E-02, -1.369E-05 ± 8.605E-01
306 (188-334) [l=30 cm][30 def.]
188, -9.549E-05 ± 5.277E+00, 2.263E-03 ± 8.400E-01, -2.861E-04 ± 9.603E-02, -1.333E-05 ± 8.605E-01 - T.
i', -9.549E-05 ± 5.277E+00, 2.263E-03 ± 8.400E-01, -2.861E-04 ± 9.603E-02, -1.333E-05 ± 8.605E-01
j', -9.949E-05 ± 5.534E+00, 2.349E-03 ± 8.583E-01, -2.861E-04 ± 9.603E-02, -1.333E-05 ± 8.605E-01
334, -9.949E-05 ± 5.534E+00, 2.349E-03 ± 8.583E-01, -2.861E-04 ± 9.603E-02, -1.333E-05 ± 8.605E-01 - K.
307 (190-298) [l=0 cm][0 def.]
190, 9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, 2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
i', 9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, 2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02 - K.
j', 9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, 2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
298, 9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, 2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
308 (190-335) [l=30 cm][30 def.]
190, -9.590E-05 ± 5.271E+00, 2.263E-03 ± 8.400E-01, -2.909E-04 ± 9.603E-02, -1.325E-05 ± 8.606E-01 - K.
i', -9.590E-05 ± 5.271E+00, 2.263E-03 ± 8.400E-01, -2.909E-04 ± 9.603E-02, -1.325E-05 ± 8.606E-01
j', -9.987E-05 ± 5.528E+00, 2.350E-03 ± 8.583E-01, -2.909E-04 ± 9.603E-02, -1.325E-05 ± 8.606E-01
335, -9.987E-05 ± 5.528E+00, 2.350E-03 ± 8.583E-01, -2.909E-04 ± 9.603E-02, -1.325E-05 ± 8.606E-01 - T.
309 (193-289) [l=0 cm][0 def.]
193, 9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.681E+00, 2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
i', 9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.681E+00, 2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02 - K.
j', 9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.681E+00, 2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
289, 9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.681E+00, 2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

310 (193-336) [l=30 cm][30 def.]
193, -9.644E-05 ± 5.303E+00, 2.263E-03 ± 8.400E-01, -2.975E-04 ± 9.603E-02, -1.325E-05 ± 8.606E-01 - K.
i', -9.644E-05 ± 5.303E+00, 2.263E-03 ± 8.400E-01, -2.975E-04 ± 9.603E-02, -1.325E-05 ± 8.606E-01
j', -1.004E-04 ± 5.560E+00, 2.352E-03 ± 8.583E-01, -2.975E-04 ± 9.603E-02, -1.325E-05 ± 8.606E-01
336, -1.004E-04 ± 5.560E+00, 2.352E-03 ± 8.583E-01, -2.975E-04 ± 9.603E-02, -1.325E-05 ± 8.606E-01 - K.
311 (195-337) [l=30 cm][30 def.]
195, -9.684E-05 ± 5.331E+00, 2.263E-03 ± 8.400E-01, -3.022E-04 ± 9.603E-02, -1.333E-05 ± 8.606E-01
i', -9.684E-05 ± 5.331E+00, 2.263E-03 ± 8.400E-01, -3.022E-04 ± 9.603E-02, -1.333E-05 ± 8.606E-01 - T.
j', -1.008E-04 ± 5.588E+00, 2.354E-03 ± 8.583E-01, -3.022E-04 ± 9.603E-02, -1.333E-05 ± 8.606E-01
337, -1.008E-04 ± 5.588E+00, 2.354E-03 ± 8.583E-01, -3.022E-04 ± 9.603E-02, -1.333E-05 ± 8.606E-01
312 (198-338) [l=30 cm][30 def.]
198, -9.761E-05 ± 5.384E+00, 2.263E-03 ± 8.400E-01, -3.100E-04 ± 9.603E-02, -1.371E-05 ± 8.606E-01 - K.
i', -9.761E-05 ± 5.384E+00, 2.263E-03 ± 8.400E-01, -3.100E-04 ± 9.603E-02, -1.371E-05 ± 8.606E-01
j', -1.017E-04 ± 5.641E+00, 2.356E-03 ± 8.583E-01, -3.100E-04 ± 9.603E-02, -1.371E-05 ± 8.606E-01
338, -1.017E-04 ± 5.641E+00, 2.356E-03 ± 8.583E-01, -3.100E-04 ± 9.603E-02, -1.371E-05 ± 8.606E-01 - K.
313 (204-280) [l=30 cm][30 def.]
204, -9.953E-05 ± 5.517E+00, 2.263E-03 ± 8.400E-01, -3.189E-04 ± 9.602E-02, -1.641E-05 ± 8.607E-01
i', -9.953E-05 ± 5.517E+00, 2.263E-03 ± 8.400E-01, -3.189E-04 ± 9.602E-02, -1.641E-05 ± 8.607E-01 - K.
j', -1.044E-04 ± 5.774E+00, 2.359E-03 ± 8.583E-01, -3.189E-04 ± 9.602E-02, -1.641E-05 ± 8.607E-01
280, -1.044E-04 ± 5.774E+00, 2.359E-03 ± 8.583E-01, -3.189E-04 ± 9.602E-02, -1.641E-05 ± 8.607E-01
314 (201-339) [l=30 cm][30 def.]
201, -9.857E-05 ± 5.450E+00, 2.263E-03 ± 8.400E-01, -3.166E-04 ± 9.603E-02, -1.478E-05 ± 8.606E-01 - T.
i', -9.857E-05 ± 5.450E+00, 2.263E-03 ± 8.400E-01, -3.166E-04 ± 9.603E-02, -1.478E-05 ± 8.606E-01
j', -1.030E-04 ± 5.708E+00, 2.358E-03 ± 8.583E-01, -3.166E-04 ± 9.603E-02, -1.478E-05 ± 8.606E-01
339, -1.030E-04 ± 5.708E+00, 2.358E-03 ± 8.583E-01, -3.166E-04 ± 9.603E-02, -1.478E-05 ± 8.606E-01 - K.
315 (275-207) [l=0 cm][0 def.]
275, -1.188E-04 ± 6.606E+00, -6.839E+00 ± 1.957E+00, -2.685E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
i', -1.188E-04 ± 6.606E+00, -6.839E+00 ± 1.957E+00, -2.685E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02 - K.
j', -1.188E-04 ± 6.606E+00, -6.839E+00 ± 1.957E+00, -2.685E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
207, -1.188E-04 ± 6.606E+00, -6.839E+00 ± 1.957E+00, -2.685E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
316 (207-278) [l=30 cm][30 def.]
207, -1.188E-04 ± 6.606E+00, 2.667E-03 ± 9.182E-01, -2.685E-04 ± 9.602E-02, -1.735E-05 ± 8.605E-01 - K.
i', -1.188E-04 ± 6.606E+00, 2.667E-03 ± 9.182E-01, -2.685E-04 ± 9.602E-02, -1.735E-05 ± 8.605E-01
j', -1.240E-04 ± 6.864E+00, 2.747E-03 ± 9.392E-01, -2.685E-04 ± 9.602E-02, -1.735E-05 ± 8.605E-01
278, -1.240E-04 ± 6.864E+00, 2.747E-03 ± 9.392E-01, -2.685E-04 ± 9.602E-02, -1.735E-05 ± 8.605E-01 - T.
317 (281-212) [l=30 cm][30 def.]
281, -1.307E-04 ± 7.062E+00, -2.838E-03 ± 9.392E-01, -3.189E-04 ± 9.602E-02, 1.732E-05 ± 8.607E-01
i', -1.307E-04 ± 7.062E+00, -2.838E-03 ± 9.392E-01, -3.189E-04 ± 9.602E-02, 1.732E-05 ± 8.607E-01 - K.
j', -1.255E-04 ± 6.805E+00, -2.742E-03 ± 9.182E-01, -3.189E-04 ± 9.602E-02, 1.732E-05 ± 8.607E-01
212, -1.255E-04 ± 6.805E+00, -2.742E-03 ± 9.182E-01, -3.189E-04 ± 9.602E-02, 1.732E-05 ± 8.607E-01
318 (275-278) [l=30 cm][30 def.]
275, -1.188E-04 ± 6.606E+00, 2.667E-03 ± 9.182E-01, -2.685E-04 ± 9.602E-02, -1.735E-05 ± 8.605E-01 - K.
i', -1.188E-04 ± 6.606E+00, 2.667E-03 ± 9.182E-01, -2.685E-04 ± 9.602E-02, -1.735E-05 ± 8.605E-01
j', -1.240E-04 ± 6.864E+00, 2.747E-03 ± 9.392E-01, -2.685E-04 ± 9.602E-02, -1.735E-05 ± 8.605E-01
278, -1.240E-04 ± 6.864E+00, 2.747E-03 ± 9.392E-01, -2.685E-04 ± 9.602E-02, -1.735E-05 ± 8.605E-01 - K.
319 (277-178) [l=30 cm][30 def.]
277, -9.824E-05 ± 5.577E+00, -2.345E-03 ± 8.584E-01, -2.685E-04 ± 9.602E-02, 1.828E-05 ± 8.605E-01
i', -9.824E-05 ± 5.577E+00, -2.345E-03 ± 8.584E-01, -2.685E-04 ± 9.602E-02, 1.828E-05 ± 8.605E-01 - T.
j', -9.275E-05 ± 5.320E+00, -2.265E-03 ± 8.400E-01, -2.685E-04 ± 9.602E-02, 1.827E-05 ± 8.605E-01
178, -9.275E-05 ± 5.320E+00, -2.265E-03 ± 8.400E-01, -2.685E-04 ± 9.602E-02, 1.827E-05 ± 8.605E-01
320 (153-131) [l=115 cm][115 def.]
153, -9.388E-05 ± 5.222E+00, -6.849E+00 ± 4.138E+00, -3.847E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - K.
i', -9.388E-05 ± 5.222E+00, -6.849E+00 ± 4.138E+00, -3.847E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
j', -9.369E-05 ± 5.208E+00, -6.848E+00 ± 4.105E+00, -3.837E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
131, -9.369E-05 ± 5.208E+00, -6.848E+00 ± 4.105E+00, -3.837E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - K.
321 (153-135) [l=112 cm][112 def.]
153, 9.388E-05 ± 5.222E+00, -6.849E+00 ± 4.138E+00, 3.847E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
i', 9.388E-05 ± 5.222E+00, -6.849E+00 ± 4.138E+00, 3.847E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - K.
j', 9.406E-05 ± 5.234E+00, -6.849E+00 ± 4.170E+00, 3.853E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
135, 9.406E-05 ± 5.234E+00, -6.849E+00 ± 4.170E+00, 3.853E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
322 (157-123) [l=113 cm][113 def.]
157, -9.292E-05 ± 5.155E+00, -6.847E+00 ± 3.969E+00, -3.738E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - T.
i', -9.292E-05 ± 5.155E+00, -6.847E+00 ± 3.969E+00, -3.738E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
j', -9.273E-05 ± 5.142E+00, -6.846E+00 ± 3.936E+00, -3.699E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
123, -9.273E-05 ± 5.142E+00, -6.846E+00 ± 3.936E+00, -3.699E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
323 (157-126) [l=113 cm][113 def.]
157, 9.292E-05 ± 5.155E+00, -6.847E+00 ± 3.969E+00, 3.738E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
i', 9.292E-05 ± 5.155E+00, -6.847E+00 ± 3.969E+00, 3.738E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
j', 9.311E-05 ± 5.168E+00, -6.847E+00 ± 4.002E+00, 3.770E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
126, 9.311E-05 ± 5.168E+00, -6.847E+00 ± 4.002E+00, 3.770E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
324 (160-115) [l=171 cm][171 def.]
160, -9.206E-05 ± 5.096E+00, -6.845E+00 ± 3.818E+00, -3.484E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
i', -9.206E-05 ± 5.096E+00, -6.845E+00 ± 3.818E+00, -3.484E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
j', -9.178E-05 ± 5.076E+00, -6.844E+00 ± 3.768E+00, -3.357E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
115, -9.178E-05 ± 5.076E+00, -6.844E+00 ± 3.768E+00, -3.357E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - T.
325 (160-119) [l=56 cm][56 def.]
160, 9.206E-05 ± 5.096E+00, -6.845E+00 ± 3.818E+00, 3.484E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
i', 9.206E-05 ± 5.096E+00, -6.845E+00 ± 3.818E+00, 3.484E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
j', 9.215E-05 ± 5.102E+00, -6.845E+00 ± 3.834E+00, 3.520E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
119, 9.215E-05 ± 5.102E+00, -6.845E+00 ± 3.834E+00, 3.520E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
326 (165-104) [l=113 cm][113 def.]
165, -9.100E-05 ± 5.023E+00, -6.843E+00 ± 3.635E+00, -2.940E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - K.
i', -9.100E-05 ± 5.023E+00, -6.843E+00 ± 3.635E+00, -2.940E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
j', -9.082E-05 ± 5.010E+00, -6.842E+00 ± 3.646E+00, -2.842E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
104, -9.082E-05 ± 5.010E+00, -6.842E+00 ± 3.646E+00, -2.842E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - K.
327 (165-107) [l=113 cm][113 def.]

165, 9.100E-05 ± 5.023E+00, -6.843E+00 ± 3.635E+00, 2.940E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 i', 9.100E-05 ± 5.023E+00, -6.843E+00 ± 3.635E+00, 2.940E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - T.
 j', 9.119E-05 ± 5.035E+00, -6.843E+00 ± 3.665E+00, 3.039E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 107, 9.119E-05 ± 5.035E+00, -6.843E+00 ± 3.665E+00, 3.039E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 328 (170-93) [l=33 cm][33 def.]
 170, -8.995E-05 ± 5.021E+00, -6.841E+00 ± 3.794E+00, -2.416E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - K.
 i', -8.995E-05 ± 5.021E+00, -6.841E+00 ± 3.794E+00, -2.416E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 j', -8.989E-05 ± 5.022E+00, -6.841E+00 ± 3.804E+00, -2.395E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 93, -8.989E-05 ± 5.022E+00, -6.841E+00 ± 3.804E+00, -2.395E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
 329 (170-97) [l=193 cm][193 def.]
 170, 8.995E-05 ± 5.021E+00, -6.841E+00 ± 3.794E+00, 2.416E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 i', 8.995E-05 ± 5.021E+00, -6.841E+00 ± 3.794E+00, 2.416E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - K.
 j', 9.027E-05 ± 5.017E+00, -6.841E+00 ± 3.739E+00, 2.555E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 97, 9.027E-05 ± 5.017E+00, -6.841E+00 ± 3.739E+00, 2.555E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 330 (173-85) [l=113 cm][113 def.]
 173, -8.906E-05 ± 5.035E+00, -6.840E+00 ± 3.949E+00, -2.165E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - T.
 i', -8.906E-05 ± 5.035E+00, -6.840E+00 ± 3.949E+00, -2.165E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 j', -8.887E-05 ± 5.038E+00, -6.839E+00 ± 3.982E+00, -2.135E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 85, -8.887E-05 ± 5.038E+00, -6.839E+00 ± 3.982E+00, -2.135E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
 331 (173-88) [l=113 cm][113 def.]
 173, 8.906E-05 ± 5.035E+00, -6.840E+00 ± 3.949E+00, 2.165E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 i', 8.906E-05 ± 5.035E+00, -6.840E+00 ± 3.949E+00, 2.165E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
 j', 8.925E-05 ± 5.032E+00, -6.840E+00 ± 3.917E+00, 2.201E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 88, 8.925E-05 ± 5.032E+00, -6.840E+00 ± 3.917E+00, 2.201E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 332 (176-77) [l=132 cm][132 def.]
 176, -8.807E-05 ± 5.050E+00, -6.838E+00 ± 4.122E+00, -2.059E-04 ± 9.600E-02, 1.645E-07 ± 1.169E-02 - K.
 i', -8.807E-05 ± 5.050E+00, -6.838E+00 ± 4.122E+00, -2.059E-04 ± 9.600E-02, 1.645E-07 ± 1.169E-02
 j', -8.785E-05 ± 5.054E+00, -6.838E+00 ± 4.160E+00, -2.054E-04 ± 9.600E-02, 1.645E-07 ± 1.169E-02
 77, -8.785E-05 ± 5.054E+00, -6.838E+00 ± 4.160E+00, -2.054E-04 ± 9.600E-02, 1.645E-07 ± 1.169E-02 - K.
 333 (176-81) [l=95 cm][95 def.]
 176, 8.807E-05 ± 5.050E+00, -6.838E+00 ± 4.122E+00, 2.059E-04 ± 9.600E-02, 1.645E-07 ± 1.169E-02
 i', 8.807E-05 ± 5.050E+00, -6.838E+00 ± 4.122E+00, 2.059E-04 ± 9.600E-02, 1.645E-07 ± 1.169E-02 - K.
 j', 8.823E-05 ± 5.048E+00, -6.839E+00 ± 4.095E+00, 2.066E-04 ± 9.600E-02, 1.645E-07 ± 1.169E-02
 81, 8.823E-05 ± 5.048E+00, -6.839E+00 ± 4.095E+00, 2.066E-04 ± 9.600E-02, 1.645E-07 ± 1.169E-02
 334 (179-59) [l=95 cm][95 def.]
 179, 8.807E-05 ± 5.050E+00, -6.839E+00 ± 4.122E+00, 2.059E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
 i', 8.807E-05 ± 5.050E+00, -6.839E+00 ± 4.122E+00, 2.059E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 j', 8.823E-05 ± 5.048E+00, -6.839E+00 ± 4.094E+00, 2.065E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 59, 8.823E-05 ± 5.048E+00, -6.839E+00 ± 4.094E+00, 2.065E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
 335 (179-63) [l=132 cm][132 def.]
 179, -8.807E-05 ± 5.050E+00, -6.839E+00 ± 4.122E+00, -2.059E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 i', -8.807E-05 ± 5.050E+00, -6.839E+00 ± 4.122E+00, -2.059E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
 j', -8.785E-05 ± 5.054E+00, -6.838E+00 ± 4.159E+00, -2.053E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 63, -8.785E-05 ± 5.054E+00, -6.838E+00 ± 4.159E+00, -2.053E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 336 (183-51) [l=113 cm][113 def.]
 183, 8.906E-05 ± 5.035E+00, -6.840E+00 ± 3.949E+00, 2.165E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
 i', 8.906E-05 ± 5.035E+00, -6.840E+00 ± 3.949E+00, 2.165E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 j', 8.925E-05 ± 5.032E+00, -6.840E+00 ± 3.917E+00, 2.201E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 51, 8.925E-05 ± 5.032E+00, -6.840E+00 ± 3.917E+00, 2.201E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - T.
 337 (183-54) [l=113 cm][113 def.]
 183, -8.906E-05 ± 5.035E+00, -6.840E+00 ± 3.949E+00, -2.165E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 i', -8.906E-05 ± 5.035E+00, -6.840E+00 ± 3.949E+00, -2.165E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02 - K.
 j', -8.887E-05 ± 5.038E+00, -6.840E+00 ± 3.982E+00, -2.134E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 54, -8.887E-05 ± 5.038E+00, -6.840E+00 ± 3.982E+00, -2.134E-04 ± 9.601E-02, 1.645E-07 ± 1.169E-02
 338 (186-43) [l=193 cm][193 def.]
 186, 8.995E-05 ± 5.021E+00, -6.841E+00 ± 3.795E+00, 2.416E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - K.
 i', 8.995E-05 ± 5.021E+00, -6.841E+00 ± 3.795E+00, 2.416E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 j', 9.027E-05 ± 5.017E+00, -6.842E+00 ± 3.739E+00, 2.555E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 43, 9.027E-05 ± 5.017E+00, -6.842E+00 ± 3.739E+00, 2.555E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - K.
 339 (186-47) [l=33 cm][33 def.]
 186, -8.995E-05 ± 5.021E+00, -6.841E+00 ± 3.795E+00, -2.416E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 i', -8.995E-05 ± 5.021E+00, -6.841E+00 ± 3.795E+00, -2.416E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02 - T.
 j', -8.989E-05 ± 5.022E+00, -6.841E+00 ± 3.804E+00, -2.395E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 47, -8.989E-05 ± 5.022E+00, -6.841E+00 ± 3.804E+00, -2.395E-04 ± 9.602E-02, 1.645E-07 ± 1.169E-02
 340 (191-32) [l=113 cm][113 def.]
 191, 9.100E-05 ± 5.023E+00, -6.843E+00 ± 3.635E+00, 2.939E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - K.
 i', 9.100E-05 ± 5.023E+00, -6.843E+00 ± 3.635E+00, 2.939E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 j', 9.119E-05 ± 5.035E+00, -6.843E+00 ± 3.665E+00, 3.039E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 32, 9.119E-05 ± 5.035E+00, -6.843E+00 ± 3.665E+00, 3.039E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - K.
 341 (191-35) [l=113 cm][113 def.]
 191, -9.100E-05 ± 5.023E+00, -6.843E+00 ± 3.635E+00, -2.939E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 i', -9.100E-05 ± 5.023E+00, -6.843E+00 ± 3.635E+00, -2.939E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02 - K.
 j', -9.082E-05 ± 5.010E+00, -6.842E+00 ± 3.646E+00, -2.841E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 35, -9.082E-05 ± 5.010E+00, -6.842E+00 ± 3.646E+00, -2.841E-04 ± 9.603E-02, 1.645E-07 ± 1.169E-02
 342 (196-21) [l=56 cm][56 def.]
 196, 9.206E-05 ± 5.096E+00, -6.845E+00 ± 3.818E+00, 3.483E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - T.
 i', 9.206E-05 ± 5.096E+00, -6.845E+00 ± 3.818E+00, 3.483E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
 j', 9.215E-05 ± 5.102E+00, -6.845E+00 ± 3.834E+00, 3.519E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
 21, 9.215E-05 ± 5.102E+00, -6.845E+00 ± 3.834E+00, 3.519E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
 343 (196-25) [l=171 cm][171 def.]
 196, -9.206E-05 ± 5.096E+00, -6.845E+00 ± 3.818E+00, -3.483E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
 i', -9.206E-05 ± 5.096E+00, -6.845E+00 ± 3.818E+00, -3.483E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.
 j', -9.178E-05 ± 5.076E+00, -6.844E+00 ± 3.769E+00, -3.356E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
 25, -9.178E-05 ± 5.076E+00, -6.844E+00 ± 3.769E+00, -3.356E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02
 344 (199-13) [l=113 cm][113 def.]
 199, 9.292E-05 ± 5.155E+00, -6.847E+00 ± 3.970E+00, 3.737E-04 ± 9.604E-02, 1.645E-07 ± 1.169E-02 - K.

i' , $9.292E-05 \pm 5.155E+00, -6.847E+00 \pm 3.970E+00, 3.737E-04 \pm 9.604E-02, 1.645E-07 \pm 1.169E-02$
 j' , $9.311E-05 \pm 5.168E+00, -6.847E+00 \pm 4.003E+00, 3.769E-04 \pm 9.604E-02, 1.645E-07 \pm 1.169E-02$
 13, $9.311E-05 \pm 5.168E+00, -6.847E+00 \pm 4.003E+00, 3.769E-04 \pm 9.604E-02, 1.645E-07 \pm 1.169E-02 - T.$
 345 (199-16) [l=113 cm][113 def.]
 199, $-9.292E-05 \pm 5.155E+00, -6.847E+00 \pm 3.970E+00, -3.737E-04 \pm 9.604E-02, 1.645E-07 \pm 1.169E-02$
 i' , $-9.292E-05 \pm 5.155E+00, -6.847E+00 \pm 3.970E+00, -3.737E-04 \pm 9.604E-02, 1.645E-07 \pm 1.169E-02 - K.$
 j' , $-9.273E-05 \pm 5.142E+00, -6.846E+00 \pm 3.937E+00, -3.698E-04 \pm 9.604E-02, 1.645E-07 \pm 1.169E-02$
 16, $-9.273E-05 \pm 5.142E+00, -6.846E+00 \pm 3.937E+00, -3.698E-04 \pm 9.604E-02, 1.645E-07 \pm 1.169E-02$
 346 (202-5) [l=112 cm][112 def.]
 202, $9.388E-05 \pm 5.222E+00, -6.849E+00 \pm 4.138E+00, 3.847E-04 \pm 9.603E-02, 1.645E-07 \pm 1.169E-02 - K.$
 i' , $9.388E-05 \pm 5.222E+00, -6.849E+00 \pm 4.138E+00, 3.847E-04 \pm 9.603E-02, 1.645E-07 \pm 1.169E-02$
 j' , $9.406E-05 \pm 5.234E+00, -6.849E+00 \pm 4.171E+00, 3.852E-04 \pm 9.603E-02, 1.645E-07 \pm 1.169E-02$
 5, $9.406E-05 \pm 5.234E+00, -6.849E+00 \pm 4.171E+00, 3.852E-04 \pm 9.603E-02, 1.645E-07 \pm 1.169E-02 - K.$
 347 (202-9) [l=115 cm][115 def.]
 202, $-9.388E-05 \pm 5.222E+00, -6.849E+00 \pm 4.138E+00, -3.847E-04 \pm 9.603E-02, 1.645E-07 \pm 1.169E-02$
 i' , $-9.388E-05 \pm 5.222E+00, -6.849E+00 \pm 4.138E+00, -3.847E-04 \pm 9.603E-02, 1.645E-07 \pm 1.169E-02 - T.$
 j' , $-9.369E-05 \pm 5.208E+00, -6.849E+00 \pm 4.105E+00, -3.837E-04 \pm 9.604E-02, 1.645E-07 \pm 1.169E-02$
 9, $-9.369E-05 \pm 5.208E+00, -6.849E+00 \pm 4.105E+00, -3.837E-04 \pm 9.604E-02, 1.645E-07 \pm 1.169E-02$
 348 (66-205) [l=57 cm][57 def.]
 66, $2.175E-03 \pm 8.119E-01, -6.838E+00 \pm 2.880E+00, -5.703E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02 - T.$
 i' , $2.175E-03 \pm 8.119E-01, -6.838E+00 \pm 2.880E+00, -5.703E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02$
 j' , $2.175E-03 \pm 8.093E-01, -6.838E+00 \pm 2.497E+00, -5.698E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02$
 205, $2.175E-03 \pm 8.093E-01, -6.838E+00 \pm 2.497E+00, -5.698E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02 - K.$
 349 (205-68) [l=97 cm][97 def.]
 205, $2.175E-03 \pm 8.093E-01, -6.838E+00 \pm 2.497E+00, -5.698E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02$
 i' , $2.175E-03 \pm 8.093E-01, -6.838E+00 \pm 2.497E+00, -5.698E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02 - K.$
 j' , $2.175E-03 \pm 8.048E-01, -6.838E+00 \pm 2.246E+00, -5.696E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02$
 68, $2.175E-03 \pm 8.048E-01, -6.838E+00 \pm 2.246E+00, -5.696E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02$
 350 (72-208) [l=97 cm][97 def.]
 72, $2.176E-03 \pm 8.048E-01, -6.838E+00 \pm 2.246E+00, 2.270E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02 - K.$
 i' , $2.176E-03 \pm 8.048E-01, -6.838E+00 \pm 2.246E+00, 2.270E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02$
 j' , $2.176E-03 \pm 8.093E-01, -6.838E+00 \pm 2.497E+00, 2.272E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02$
 208, $2.176E-03 \pm 8.093E-01, -6.838E+00 \pm 2.497E+00, 2.272E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02 - T.$
 351 (208-70) [l=57 cm][57 def.]
 208, $2.176E-03 \pm 8.093E-01, -6.838E+00 \pm 2.497E+00, 2.272E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02$
 i' , $2.176E-03 \pm 8.093E-01, -6.838E+00 \pm 2.497E+00, 2.272E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02 - T.$
 j' , $2.176E-03 \pm 8.119E-01, -6.838E+00 \pm 2.880E+00, 2.277E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02$
 70, $2.176E-03 \pm 8.119E-01, -6.838E+00 \pm 2.880E+00, 2.277E-05 \pm 8.618E-01, 1.645E-07 \pm 1.169E-02$
 352 (216-210) [l=70 cm][70 def.]
 216, $-2.176E-03 \pm 8.126E-01, -6.850E+00 \pm 3.014E+00, 1.495E-05 \pm 8.615E-01, 1.645E-07 \pm 1.169E-02 - K.$
 i' , $-2.176E-03 \pm 8.126E-01, -6.850E+00 \pm 3.014E+00, 1.495E-05 \pm 8.615E-01, 1.645E-07 \pm 1.169E-02$
 j' , $-2.176E-03 \pm 8.093E-01, -6.850E+00 \pm 2.533E+00, 1.555E-05 \pm 8.615E-01, 1.645E-07 \pm 1.169E-02$
 210, $-2.176E-03 \pm 8.093E-01, -6.850E+00 \pm 2.533E+00, 1.555E-05 \pm 8.615E-01, 1.645E-07 \pm 1.169E-02 - K.$
 353 (210-217) [l=70 cm][70 def.]
 210, $-2.176E-03 \pm 8.115E-01, -6.850E+00 \pm 2.533E+00, 1.500E-05 \pm 8.615E-01, 1.645E-07 \pm 1.169E-02$
 i' , $-2.176E-03 \pm 8.115E-01, -6.850E+00 \pm 2.533E+00, 1.500E-05 \pm 8.615E-01, 1.645E-07 \pm 1.169E-02 - K.$
 j' , $-2.176E-03 \pm 8.083E-01, -6.850E+00 \pm 2.352E+00, 1.556E-05 \pm 8.615E-01, 1.645E-07 \pm 1.169E-02$
 217, $-2.176E-03 \pm 8.083E-01, -6.850E+00 \pm 2.352E+00, 1.556E-05 \pm 8.615E-01, 1.645E-07 \pm 1.169E-02$
 354 (220-213) [l=70 cm][70 def.]
 220, $-2.175E-03 \pm 8.060E-01, -6.850E+00 \pm 2.352E+00, 1.823E-05 \pm 8.615E-01, 1.645E-07 \pm 1.169E-02 - T.$
 i' , $-2.175E-03 \pm 8.060E-01, -6.850E+00 \pm 2.352E+00, 1.823E-05 \pm 8.615E-01, 1.645E-07 \pm 1.169E-02$
 j' , $-2.175E-03 \pm 8.093E-01, -6.850E+00 \pm 2.533E+00, 1.879E-05 \pm 8.615E-01, 1.645E-07 \pm 1.169E-02$
 213, $-2.175E-03 \pm 8.093E-01, -6.850E+00 \pm 2.533E+00, 1.879E-05 \pm 8.615E-01, 1.645E-07 \pm 1.169E-02 - K.$
 355 (213-222) [l=70 cm][70 def.]
 213, $-2.175E-03 \pm 8.071E-01, -6.850E+00 \pm 2.533E+00, 1.824E-05 \pm 8.615E-01, 1.645E-07 \pm 1.169E-02$
 i' , $-2.175E-03 \pm 8.071E-01, -6.850E+00 \pm 2.533E+00, 1.824E-05 \pm 8.615E-01, 1.645E-07 \pm 1.169E-02 - K.$
 j' , $-2.175E-03 \pm 8.103E-01, -6.850E+00 \pm 3.014E+00, 1.884E-05 \pm 8.615E-01, 1.645E-07 \pm 1.169E-02$
 222, $-2.175E-03 \pm 8.103E-01, -6.850E+00 \pm 3.014E+00, 1.884E-05 \pm 8.615E-01, 1.645E-07 \pm 1.169E-02$
 356 (223-1) [l=90 cm][90 def.]
 223, $0.000E+00 \pm 0.000E+00, -6.801E+00 \pm 4.188E+00, -6.874E-03 \pm 1.081E-01, 0.000E+00 \pm 0.000E+00 - K.$
 i' , $0.000E+00 \pm 0.000E+00, -6.801E+00 \pm 4.188E+00, -6.874E-03 \pm 1.081E-01, 0.000E+00 \pm 0.000E+00$
 j' , $0.000E+00 \pm 0.000E+00, -6.795E+00 \pm 4.160E+00, -6.877E-03 \pm 1.081E-01, 0.000E+00 \pm 0.000E+00$
 1, $0.000E+00 \pm 0.000E+00, -6.795E+00 \pm 4.160E+00, -6.877E-03 \pm 1.081E-01, 0.000E+00 \pm 0.000E+00 - T.$
 357 (1-3) [l=90 cm][90 def.]
 1, $0.000E+00 \pm 0.000E+00, -6.795E+00 \pm 4.160E+00, -6.877E-03 \pm 1.081E-01, 0.000E+00 \pm 0.000E+00$
 i' , $0.000E+00 \pm 0.000E+00, -6.795E+00 \pm 4.160E+00, -6.877E-03 \pm 1.081E-01, 0.000E+00 \pm 0.000E+00 - T.$
 j' , $0.000E+00 \pm 0.000E+00, -6.789E+00 \pm 4.132E+00, -6.877E-03 \pm 1.081E-01, 0.000E+00 \pm 0.000E+00$
 3, $0.000E+00 \pm 0.000E+00, -6.789E+00 \pm 4.132E+00, -6.877E-03 \pm 1.081E-01, 0.000E+00 \pm 0.000E+00$
 358 (8-6) [l=88 cm][88 def.]
 8, $0.000E+00 \pm 0.000E+00, -6.776E+00 \pm 4.016E+00, -9.268E-03 \pm 1.014E-01, 0.000E+00 \pm 0.000E+00 - K.$
 i' , $0.000E+00 \pm 0.000E+00, -6.776E+00 \pm 4.016E+00, -9.268E-03 \pm 1.014E-01, 0.000E+00 \pm 0.000E+00$
 j' , $0.000E+00 \pm 0.000E+00, -6.768E+00 \pm 3.979E+00, -9.268E-03 \pm 1.014E-01, 0.000E+00 \pm 0.000E+00$
 6, $0.000E+00 \pm 0.000E+00, -6.768E+00 \pm 3.979E+00, -9.268E-03 \pm 1.014E-01, 0.000E+00 \pm 0.000E+00 - K.$
 359 (6-340) [l=88 cm][88 def.]
 6, $0.000E+00 \pm 0.000E+00, -6.768E+00 \pm 3.979E+00, -9.268E-03 \pm 1.014E-01, 0.000E+00 \pm 0.000E+00$
 i' , $0.000E+00 \pm 0.000E+00, -6.768E+00 \pm 3.979E+00, -9.268E-03 \pm 1.014E-01, 0.000E+00 \pm 0.000E+00 - K.$
 j' , $0.000E+00 \pm 0.000E+00, -6.760E+00 \pm 3.943E+00, -9.288E-03 \pm 1.014E-01, 0.000E+00 \pm 0.000E+00$
 340, $0.000E+00 \pm 0.000E+00, -6.760E+00 \pm 3.943E+00, -9.288E-03 \pm 1.014E-01, 0.000E+00 \pm 0.000E+00$
 360 (340-11) [l=88 cm][88 def.]
 340, $0.000E+00 \pm 0.000E+00, -6.760E+00 \pm 3.943E+00, -9.288E-03 \pm 1.014E-01, 0.000E+00 \pm 0.000E+00 - T.$
 i' , $0.000E+00 \pm 0.000E+00, -6.760E+00 \pm 3.943E+00, -9.288E-03 \pm 1.014E-01, 0.000E+00 \pm 0.000E+00$
 j' , $0.000E+00 \pm 0.000E+00, -6.752E+00 \pm 3.906E+00, -9.304E-03 \pm 1.014E-01, 0.000E+00 \pm 0.000E+00$
 11, $0.000E+00 \pm 0.000E+00, -6.752E+00 \pm 3.906E+00, -9.304E-03 \pm 1.014E-01, 0.000E+00 \pm 0.000E+00 - T.$
 361 (11-224) [l=88 cm][88 def.]
 11, $0.000E+00 \pm 0.000E+00, -6.752E+00 \pm 3.906E+00, -9.304E-03 \pm 1.014E-01, 0.000E+00 \pm 0.000E+00$
 i' , $0.000E+00 \pm 0.000E+00, -6.752E+00 \pm 3.906E+00, -9.304E-03 \pm 1.014E-01, 0.000E+00 \pm 0.000E+00 - K.$

379	(44-342)	44,	0.000E+00 ±	0.000E+00,	-6.771E+00 ±	3.727E+00,	-1.058E-02 ±	1.002E-01,	0.000E+00 ±	0.000E+00	
		[l=98 cm][98 def.]									
		i',	0.000E+00 ±	0.000E+00,	-6.771E+00 ±	3.727E+00,	-1.058E-02 ±	1.002E-01,	0.000E+00 ±	0.000E+00	
		j',	0.000E+00 ±	0.000E+00,	-6.760E+00 ±	3.744E+00,	-1.062E-02 ±	1.002E-01,	0.000E+00 ±	0.000E+00	
380	(342-49)	342,	0.000E+00 ±	0.000E+00,	-6.760E+00 ±	3.744E+00,	-1.062E-02 ±	1.002E-01,	0.000E+00 ±	0.000E+00	
		[l=98 cm][98 def.]									
		i',	0.000E+00 ±	0.000E+00,	-6.760E+00 ±	3.744E+00,	-1.062E-02 ±	1.002E-01,	0.000E+00 ±	0.000E+00	
		j',	0.000E+00 ±	0.000E+00,	-6.750E+00 ±	3.763E+00,	-1.064E-02 ±	1.002E-01,	0.000E+00 ±	0.000E+00	
381	(49-232)	49,	0.000E+00 ±	0.000E+00,	-6.750E+00 ±	3.763E+00,	-1.064E-02 ±	1.002E-01,	0.000E+00 ±	0.000E+00	
		[l=98 cm][98 def.]									
		i',	0.000E+00 ±	0.000E+00,	-6.750E+00 ±	3.763E+00,	-1.064E-02 ±	1.002E-01,	0.000E+00 ±	0.000E+00	
		j',	0.000E+00 ±	0.000E+00,	-6.739E+00 ±	3.782E+00,	-1.066E-02 ±	1.001E-01,	0.000E+00 ±	0.000E+00	
382	(233-52)	232,	0.000E+00 ±	0.000E+00,	-6.739E+00 ±	3.782E+00,	-1.066E-02 ±	1.001E-01,	0.000E+00 ±	0.000E+00	
		[l=98 cm][98 def.]									
		i',	0.000E+00 ±	0.000E+00,	-6.732E+00 ±	3.831E+00,	1.009E-02 ±	1.027E-01,	0.000E+00 ±	0.000E+00	
		j',	0.000E+00 ±	0.000E+00,	-6.742E+00 ±	3.873E+00,	1.008E-02 ±	1.027E-01,	0.000E+00 ±	0.000E+00	
383	(52-343)	52,	0.000E+00 ±	0.000E+00,	-6.742E+00 ±	3.873E+00,	1.008E-02 ±	1.027E-01,	0.000E+00 ±	0.000E+00	
		[l=98 cm][98 def.]									
		i',	0.000E+00 ±	0.000E+00,	-6.742E+00 ±	3.873E+00,	1.008E-02 ±	1.027E-01,	0.000E+00 ±	0.000E+00	
		j',	0.000E+00 ±	0.000E+00,	-6.752E+00 ±	3.916E+00,	1.006E-02 ±	1.027E-01,	0.000E+00 ±	0.000E+00	
384	(343-56)	343,	0.000E+00 ±	0.000E+00,	-6.752E+00 ±	3.916E+00,	1.006E-02 ±	1.027E-01,	0.000E+00 ±	0.000E+00	
		[l=98 cm][98 def.]									
		i',	0.000E+00 ±	0.000E+00,	-6.752E+00 ±	3.916E+00,	1.006E-02 ±	1.027E-01,	0.000E+00 ±	0.000E+00	
		j',	0.000E+00 ±	0.000E+00,	-6.762E+00 ±	3.958E+00,	1.003E-02 ±	1.027E-01,	0.000E+00 ±	0.000E+00	
385	(56-58)	56,	0.000E+00 ±	0.000E+00,	-6.762E+00 ±	3.958E+00,	1.003E-02 ±	1.027E-01,	0.000E+00 ±	0.000E+00	
		[l=98 cm][98 def.]									
		i',	0.000E+00 ±	0.000E+00,	-6.762E+00 ±	3.958E+00,	1.003E-02 ±	1.027E-01,	0.000E+00 ±	0.000E+00	
		j',	0.000E+00 ±	0.000E+00,	-6.772E+00 ±	4.001E+00,	1.003E-02 ±	1.027E-01,	0.000E+00 ±	0.000E+00	
386	(58-62)	58,	0.000E+00 ±	0.000E+00,	-6.772E+00 ±	4.001E+00,	1.003E-02 ±	1.027E-01,	0.000E+00 ±	0.000E+00	
		[l=227 cm][227 def.]									
		i',	0.000E+00 ±	0.000E+00,	-6.772E+00 ±	4.001E+00,	1.003E-02 ±	1.027E-01,	0.000E+00 ±	0.000E+00	
		j',	0.000E+00 ±	0.000E+00,	-6.785E+00 ±	4.136E+00,	7.747E-03 ±	1.201E-01,	0.000E+00 ±	0.000E+00	
387	(62-60)	62,	0.000E+00 ±	0.000E+00,	-6.785E+00 ±	4.136E+00,	7.747E-03 ±	1.201E-01,	0.000E+00 ±	0.000E+00	
		[l=80 cm][80 def.]									
		i',	0.000E+00 ±	0.000E+00,	-6.785E+00 ±	4.136E+00,	7.747E-03 ±	1.201E-01,	0.000E+00 ±	0.000E+00	
		j',	0.000E+00 ±	0.000E+00,	-6.791E+00 ±	4.191E+00,	7.747E-03 ±	1.201E-01,	0.000E+00 ±	0.000E+00	
388	(60-234)	60,	0.000E+00 ±	0.000E+00,	-6.791E+00 ±	4.191E+00,	7.747E-03 ±	1.201E-01,	0.000E+00 ±	0.000E+00	
		[l=80 cm][80 def.]									
		i',	0.000E+00 ±	0.000E+00,	-6.791E+00 ±	4.191E+00,</					

[illegible]

414	(112-114)	[l=31 cm][31 def.]	243,	0.000E+00 ± 0.000E+00,	-6.723E+00 ± 3.665E+00,	5.946E-02 ± 1.006E-01,	0.000E+00 ± 0.000E+00
			i',	0.000E+00 ± 0.000E+00,	-6.723E+00 ± 3.665E+00,	5.946E-02 ± 1.006E-01,	0.000E+00 ± 0.000E+00
			j',	0.000E+00 ± 0.000E+00,	-6.741E+00 ± 3.680E+00,	5.943E-02 ± 1.006E-01,	0.000E+00 ± 0.000E+00
			112,	0.000E+00 ± 0.000E+00,	-6.741E+00 ± 3.680E+00,	5.943E-02 ± 1.006E-01,	0.000E+00 ± 0.000E+00
415	(118-116)	[l=88 cm][88 def.]	112,	0.000E+00 ± 0.000E+00,	-6.741E+00 ± 3.680E+00,	5.943E-02 ± 1.006E-01,	0.000E+00 ± 0.000E+00
			i',	0.000E+00 ± 0.000E+00,	-6.741E+00 ± 3.680E+00,	5.943E-02 ± 1.006E-01,	0.000E+00 ± 0.000E+00
			j',	0.000E+00 ± 0.000E+00,	-6.760E+00 ± 3.695E+00,	5.943E-02 ± 1.006E-01,	0.000E+00 ± 0.000E+00
			114,	0.000E+00 ± 0.000E+00,	-6.760E+00 ± 3.695E+00,	5.943E-02 ± 1.006E-01,	0.000E+00 ± 0.000E+00
416	(116-346)	[l=88 cm][88 def.]	118,	0.000E+00 ± 0.000E+00,	-6.788E+00 ± 3.743E+00,	-7.627E-03 ± 9.932E-02,	0.000E+00 ± 0.000E+00
			i',	0.000E+00 ± 0.000E+00,	-6.788E+00 ± 3.743E+00,	-7.627E-03 ± 9.932E-02,	0.000E+00 ± 0.000E+00
			j',	0.000E+00 ± 0.000E+00,	-6.781E+00 ± 3.758E+00,	-7.628E-03 ± 9.932E-02,	0.000E+00 ± 0.000E+00
			116,	0.000E+00 ± 0.000E+00,	-6.781E+00 ± 3.758E+00,	-7.628E-03 ± 9.932E-02,	0.000E+00 ± 0.000E+00
417	(346-121)	[l=88 cm][88 def.]	116,	0.000E+00 ± 0.000E+00,	-6.781E+00 ± 3.758E+00,	-7.628E-03 ± 9.932E-02,	0.000E+00 ± 0.000E+00
			i',	0.000E+00 ± 0.000E+00,	-6.781E+00 ± 3.758E+00,	-7.628E-03 ± 9.932E-02,	0.000E+00 ± 0.000E+00
			j',	0.000E+00 ± 0.000E+00,	-6.775E+00 ± 3.773E+00,	-7.664E-03 ± 9.931E-02,	0.000E+00 ± 0.000E+00
			346,	0.000E+00 ± 0.000E+00,	-6.775E+00 ± 3.773E+00,	-7.664E-03 ± 9.931E-02,	0.000E+00 ± 0.000E+00
418	(121-244)	[l=88 cm][88 def.]	346,	0.000E+00 ± 0.000E+00,	-6.775E+00 ± 3.773E+00,	-7.664E-03 ± 9.931E-02,	0.000E+00 ± 0.000E+00
			i',	0.000E+00 ± 0.000E+00,	-6.775E+00 ± 3.773E+00,	-7.664E-03 ± 9.931E-02,	0.000E+00 ± 0.000E+00
			j',	0.000E+00 ± 0.000E+00,	-6.768E+00 ± 3.790E+00,	-7.690E-03 ± 9.930E-02,	0.000E+00 ± 0.000E+00
			121,	0.000E+00 ± 0.000E+00,	-6.768E+00 ± 3.790E+00,	-7.690E-03 ± 9.930E-02,	0.000E+00 ± 0.000E+00
419	(245-124)	[l=88 cm][88 def.]	121,	0.000E+00 ± 0.000E+00,	-6.768E+00 ± 3.790E+00,	-7.690E-03 ± 9.930E-02,	0.000E+00 ± 0.000E+00
			i',	0.000E+00 ± 0.000E+00,	-6.768E+00 ± 3.790E+00,	-7.690E-03 ± 9.930E-02,	0.000E+00 ± 0.000E+00
			j',	0.000E+00 ± 0.000E+00,	-6.761E+00 ± 3.808E+00,	-7.705E-03 ± 9.929E-02,	0.000E+00 ± 0.000E+00
			244,	0.000E+00 ± 0.000E+00,	-6.761E+00 ± 3.808E+00,	-7.705E-03 ± 9.929E-02,	0.000E+00 ± 0.000E+00
420	(124-347)	[l=88 cm][88 def.]	245,	0.000E+00 ± 0.000E+00,	-6.743E+00 ± 3.869E+00,	9.317E-03 ± 1.014E-01,	0.000E+00 ± 0.000E+00
			i',	0.000E+00 ± 0.000E+00,	-6.743E+00 ± 3.869E+00,	9.317E-03 ± 1.014E-01,	0.000E+00 ± 0.000E+00
			j',	0.000E+00 ± 0.000E+00,	-6.752E+00 ± 3.906E+00,	9.307E-03 ± 1.014E-01,	0.000E+00 ± 0.000E+00
			124,	0.000E+00 ± 0.000E+00,	-6.752E+00 ± 3.906E+00,	9.307E-03 ± 1.014E-01,	0.000E+00 ± 0.000E+00
421	(347-128)	[l=88 cm][88 def.]	124,	0.000E+00 ± 0.000E+00,	-6.752E+00 ± 3.906E+00,	9.307E-03 ± 1.014E-01,	0.000E+00 ± 0.000E+00
			i',	0.000E+00 ± 0.000E+00,	-6.752E+00 ± 3.906E+00,	9.307E-03 ± 1.014E-01,	0.000E+00 ± 0.000E+00
			j',	0.000E+00 ± 0.000E+00,	-6.760E+00 ± 3.942E+00,	9.291E-03 ± 1.014E-01,	0.000E+00 ± 0.000E+00
			347,	0.000E+00 ± 0.000E+00,	-6.760E+00 ± 3.942E+00,	9.291E-03 ± 1.014E-01,	0.000E+00 ± 0.000E+00
422	(128-130)	[l=88 cm][88 def.]	347,	0.000E+00 ± 0.000E+00,	-6.760E+00 ± 3.942E+00,	9.291E-03 ± 1.014E-01,	0.000E+00 ± 0.000E+00
			i',	0.000E+00 ± 0.00			

431	(145-226)	[l=160 cm][160 def.]	i',	0.000E+00 ±	0.000E+00,	-6.534E+00 ±	9.286E-01,	5.889E-02 ±	8.540E-01,	0.000E+00 ±	0.000E+00
			j',	0.000E+00 ±	0.000E+00,	-6.629E+00 ±	2.296E+00,	5.888E-02 ±	8.540E-01,	0.000E+00 ±	0.000E+00
			145,	0.000E+00 ±	0.000E+00,	-6.629E+00 ±	2.296E+00,	5.888E-02 ±	8.540E-01,	0.000E+00 ±	0.000E+00
			145,	0.000E+00 ±	0.000E+00,	-6.629E+00 ±	2.296E+00,	5.888E-02 ±	8.540E-01,	0.000E+00 ±	0.000E+00
432	(243-149)	[l=161 cm][161 def.]	145,	0.000E+00 ±	0.000E+00,	-6.629E+00 ±	2.296E+00,	5.888E-02 ±	8.540E-01,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-6.629E+00 ±	2.296E+00,	5.888E-02 ±	8.540E-01,	0.000E+00 ±	0.000E+00
			j',	0.000E+00 ±	0.000E+00,	-6.723E+00 ±	3.665E+00,	5.891E-02 ±	8.540E-01,	0.000E+00 ±	0.000E+00
			226,	0.000E+00 ±	0.000E+00,	-6.723E+00 ±	3.665E+00,	5.891E-02 ±	8.540E-01,	0.000E+00 ±	0.000E+00
433	(351-350)	[l=200 cm][200 def.]	243,	0.000E+00 ±	0.000E+00,	-6.723E+00 ±	3.665E+00,	-5.887E-02 ±	8.540E-01,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-6.723E+00 ±	3.665E+00,	-5.887E-02 ±	8.540E-01,	0.000E+00 ±	0.000E+00
			j',	0.000E+00 ±	0.000E+00,	-6.628E+00 ±	2.295E+00,	-5.884E-02 ±	8.540E-01,	0.000E+00 ±	0.000E+00
			149,	0.000E+00 ±	0.000E+00,	-6.628E+00 ±	2.295E+00,	-5.884E-02 ±	8.540E-01,	0.000E+00 ±	0.000E+00
434	(149-351)	[l=160 cm][160 def.]	351,	0.000E+00 ±	0.000E+00,	-6.534E+00 ±	9.285E-01,	-5.885E-02 ±	8.540E-01,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-6.534E+00 ±	9.285E-01,	-5.885E-02 ±	8.540E-01,	0.000E+00 ±	0.000E+00
			j',	0.000E+00 ±	0.000E+00,	-6.534E+00 ±	9.286E-01,	5.889E-02 ±	8.540E-01,	0.000E+00 ±	0.000E+00
			350,	0.000E+00 ±	0.000E+00,	-6.534E+00 ±	9.286E-01,	5.889E-02 ±	8.540E-01,	0.000E+00 ±	0.000E+00
434	(149-351)	[l=160 cm][160 def.]	149,	0.000E+00 ±	0.000E+00,	-6.628E+00 ±	2.295E+00,	-5.884E-02 ±	8.540E-01,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-6.628E+00 ±	2.295E+00,	-5.884E-02 ±	8.540E-01,	0.000E+00 ±	0.000E+00
			j',	0.000E+00 ±	0.000E+00,	-6.534E+00 ±	9.285E-01,	-5.885E-02 ±	8.540E-01,	0.000E+00 ±	0.000E+00
			351,	0.000E+00 ±	0.000E+00,	-6.534E+00 ±	9.285E-01,	-5.885E-02 ±	8.540E-01,	0.000E+00 ±	0.000E+00
435	(246-215)	[l=140 cm][140 def.]	246,	0.000E+00 ±	0.000E+00,	-6.801E+00 ±	4.187E+00,	1.900E-05 ±	8.566E-01,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-6.801E+00 ±	4.187E+00,	1.900E-05 ±	8.566E-01,	0.000E+00 ±	0.000E+00
			j',	0.000E+00 ±	0.000E+00,	-6.801E+00 ±	2.986E+00,	1.534E-05 ±	8.567E-01,	0.000E+00 ±	0.000E+00
			215,	0.000E+00 ±	0.000E+00,	-6.801E+00 ±	2.986E+00,	1.534E-05 ±	8.567E-01,	0.000E+00 ±	0.000E+00
436	(215-352)	[l=140 cm][140 def.]	215,	0.000E+00 ±	0.000E+00,	-6.801E+00 ±	2.986E+00,	1.044E-05 ±	8.567E-01,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-6.801E+00 ±	2.986E+00,	1.044E-05 ±	8.567E-01,	0.000E+00 ±	0.000E+00
			j',	0.000E+00 ±	0.000E+00,	-6.801E+00 ±	2.304E+00,	1.039E-05 ±	8.566E-01,	0.000E+00 ±	0.000E+00
			352,	0.000E+00 ±	0.000E+00,	-6.801E+00 ±	2.304E+00,	1.039E-05 ±	8.566E-01,	0.000E+00 ±	0.000E+00
437	(352-218)	[l=140 cm][140 def.]	352,	0.000E+00 ±	0.000E+00,	-6.801E+00 ±	2.304E+00,	1.528E-05 ±	8.566E-01,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00						

j', 0.000E+00 ± 0.000E+00, -6.151E+00 ± 1.969E+00, 2.886E-01 ± 8.392E-01, 0.000E+00 ± 0.000E+00
312, 0.000E+00 ± 0.000E+00, -6.151E+00 ± 1.969E+00, 2.886E-01 ± 8.392E-01, 0.000E+00 ± 0.000E+00
448 (316-314) [l=200 cm][200 def.]
316, 0.000E+00 ± 0.000E+00, -5.818E+00 ± 8.235E-01, -1.599E-01 ± 7.993E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -5.818E+00 ± 8.235E-01, -1.599E-01 ± 7.993E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -5.818E+00 ± 8.236E-01, 1.599E-01 ± 7.993E-01, 0.000E+00 ± 0.000E+00
314, 0.000E+00 ± 0.000E+00, -5.818E+00 ± 8.236E-01, 1.599E-01 ± 7.993E-01, 0.000E+00 ± 0.000E+00
449 (239-318) [l=181 cm][181 def.]
239, 0.000E+00 ± 0.000E+00, -6.565E+00 ± 3.519E+00, -7.314E-02 ± 8.588E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -6.565E+00 ± 3.519E+00, -7.314E-02 ± 8.588E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -6.151E+00 ± 1.969E+00, -2.885E-01 ± 8.392E-01, 0.000E+00 ± 0.000E+00
318, 0.000E+00 ± 0.000E+00, -6.151E+00 ± 1.969E+00, -2.885E-01 ± 8.392E-01, 0.000E+00 ± 0.000E+00
450 (318-316) [l=140 cm][140 def.]
318, 0.000E+00 ± 0.000E+00, -6.151E+00 ± 1.969E+00, -2.885E-01 ± 8.392E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -6.151E+00 ± 1.969E+00, -2.885E-01 ± 8.392E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -5.818E+00 ± 8.235E-01, -1.599E-01 ± 7.993E-01, 0.000E+00 ± 0.000E+00
316, 0.000E+00 ± 0.000E+00, -5.818E+00 ± 8.235E-01, -1.599E-01 ± 7.993E-01, 0.000E+00 ± 0.000E+00
451 (26-147) [l=62 cm][62 def.]
26, -9.168E-05 ± 5.069E+00, -2.175E-03 ± 8.190E-01, -3.304E-04 ± 9.604E-02, 6.844E-05 ± 8.617E-01
i', -9.168E-05 ± 5.069E+00, -2.175E-03 ± 8.190E-01, -3.304E-04 ± 9.604E-02, 6.844E-05 ± 8.617E-01
j', -4.891E-05 ± 4.537E+00, -1.970E-03 ± 7.844E-01, -3.304E-04 ± 9.604E-02, 6.898E-05 ± 8.617E-01
147, -4.891E-05 ± 4.537E+00, -1.970E-03 ± 7.844E-01, -3.304E-04 ± 9.604E-02, 6.898E-05 ± 8.617E-01
452 (29-282) [l=250 cm][250 def.]
29, -9.127E-05 ± 5.041E+00, -2.175E-03 ± 8.190E-01, -3.085E-04 ± 9.603E-02, 7.027E-05 ± 8.617E-01
i', -9.127E-05 ± 5.041E+00, -2.175E-03 ± 8.190E-01, -3.085E-04 ± 9.603E-02, 7.027E-05 ± 8.617E-01
j', 8.446E-05 ± 2.898E+00, -1.404E-03 ± 7.004E-01, -3.085E-04 ± 9.603E-02, 7.029E-05 ± 8.617E-01
282, 8.446E-05 ± 2.898E+00, -1.404E-03 ± 7.004E-01, -3.085E-04 ± 9.603E-02, 7.029E-05 ± 8.617E-01
453 (36-294) [l=250 cm][250 def.]
36, -9.073E-05 ± 5.010E+00, -2.175E-03 ± 8.190E-01, -2.796E-04 ± 9.603E-02, 7.268E-05 ± 8.617E-01
i', -9.073E-05 ± 5.010E+00, -2.175E-03 ± 8.190E-01, -2.796E-04 ± 9.603E-02, 7.268E-05 ± 8.617E-01
j', 9.102E-05 ± 2.866E+00, -1.476E-03 ± 7.004E-01, -2.796E-04 ± 9.603E-02, 7.270E-05 ± 8.617E-01
294, 9.102E-05 ± 2.866E+00, -1.476E-03 ± 7.004E-01, -2.796E-04 ± 9.603E-02, 7.270E-05 ± 8.617E-01
454 (39-144) [l=62 cm][62 def.]
39, -9.033E-05 ± 5.016E+00, -2.175E-03 ± 8.190E-01, -2.585E-04 ± 9.602E-02, 7.441E-05 ± 8.618E-01
i', -9.033E-05 ± 5.016E+00, -2.175E-03 ± 8.190E-01, -2.585E-04 ± 9.602E-02, 7.441E-05 ± 8.618E-01
j', -4.392E-05 ± 4.483E+00, -2.015E-03 ± 7.844E-01, -2.585E-04 ± 9.602E-02, 7.485E-05 ± 8.618E-01
144, -4.392E-05 ± 4.483E+00, -2.015E-03 ± 7.844E-01, -2.585E-04 ± 9.602E-02, 7.485E-05 ± 8.618E-01
455 (101-303) [l=250 cm][250 def.]
101, -9.073E-05 ± 5.010E+00, -2.176E-03 ± 8.191E-01, -2.796E-04 ± 9.602E-02, -3.843E-05 ± 8.617E-01
i', -9.073E-05 ± 5.010E+00, -2.176E-03 ± 8.191E-01, -2.796E-04 ± 9.602E-02, -3.843E-05 ± 8.617E-01
j', -1.869E-04 ± 2.866E+00, -1.477E-03 ± 7.004E-01, -2.796E-04 ± 9.602E-02, -3.845E-05 ± 8.617E-01
303, -1.869E-04 ± 2.866E+00, -1.477E-03 ± 7.004E-01, -2.796E-04 ± 9.602E-02, -3.845E-05 ± 8.617E-01
456 (108-287) [l=250 cm][250 def.]
108, -9.127E-05 ± 5.041E+00, -2.176E-03 ± 8.191E-01, -3.086E-04 ± 9.603E-02, -3.601E-05 ± 8.617E-01
i', -9.127E-05 ± 5.041E+00, -2.176E-03 ± 8.191E-01, -3.086E-04 ± 9.603E-02, -3.601E-05 ± 8.617E-01
j', -1.814E-04 ± 2.898E+00, -1.405E-03 ± 7.004E-01, -3.085E-04 ± 9.603E-02, -3.604E-05 ± 8.617E-01
287, -1.814E-04 ± 2.898E+00, -1.405E-03 ± 7.004E-01, -3.085E-04 ± 9.603E-02, -3.604E-05 ± 8.617E-01
457 (111-152) [l=62 cm][62 def.]
111, -9.168E-05 ± 5.069E+00, -2.176E-03 ± 8.191E-01, -3.304E-04 ± 9.603E-02, -3.417E-05 ± 8.617E-01
i', -9.168E-05 ± 5.069E+00, -2.176E-03 ± 8.191E-01, -3.304E-04 ± 9.603E-02, -3.417E-05 ± 8.617E-01
j', -1.132E-04 ± 4.537E+00, -1.972E-03 ± 7.844E-01, -3.304E-04 ± 9.603E-02, -3.472E-05 ± 8.617E-01
152, -1.132E-04 ± 4.537E+00, -1.972E-03 ± 7.844E-01, -3.304E-04 ± 9.603E-02, -3.472E-05 ± 8.617E-01
458 (280-354) [l=0 cm][0 def.]
280, -1.044E-04 ± 5.774E+00, -6.852E+00 ± 4.220E+00, -3.189E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
i', -1.044E-04 ± 5.774E+00, -6.852E+00 ± 4.220E+00, -3.189E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
j', -1.045E-04 ± 5.774E+00, -6.852E+00 ± 4.220E+00, -3.189E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
354, -1.045E-04 ± 5.774E+00, -6.852E+00 ± 4.220E+00, -3.189E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
459 (204-354) [l=30 cm][30 def.]
204, -9.953E-05 ± 5.517E+00, 2.263E-03 ± 8.400E-01, -3.189E-04 ± 9.602E-02, -1.642E-05 ± 8.607E-01
i', -9.953E-05 ± 5.517E+00, 2.263E-03 ± 8.400E-01, -3.189E-04 ± 9.602E-02, -1.642E-05 ± 8.607E-01
j', -1.045E-04 ± 5.774E+00, 2.359E-03 ± 8.583E-01, -3.189E-04 ± 9.602E-02, -1.642E-05 ± 8.607E-01
354, -1.045E-04 ± 5.774E+00, 2.359E-03 ± 8.583E-01, -3.189E-04 ± 9.602E-02, -1.642E-05 ± 8.607E-01
460 (155-247) [l=188 cm][188 def.]
155, 9.857E-05 ± 5.450E+00, -6.850E+00 ± 4.052E+00, 3.166E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
i', 9.857E-05 ± 5.450E+00, -6.850E+00 ± 4.052E+00, 3.166E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
j', 9.888E-05 ± 5.472E+00, -6.850E+00 ± 4.106E+00, 3.177E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
247, 9.888E-05 ± 5.472E+00, -6.850E+00 ± 4.106E+00, 3.177E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
461 (247-154) [l=104 cm][104 def.]
247, 9.888E-05 ± 5.472E+00, -6.850E+00 ± 4.106E+00, 3.177E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
i', 9.888E-05 ± 5.472E+00, -6.850E+00 ± 4.106E+00, 3.177E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
j', 9.905E-05 ± 5.483E+00, -6.850E+00 ± 4.136E+00, 3.182E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
154, 9.905E-05 ± 5.483E+00, -6.850E+00 ± 4.136E+00, 3.182E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
462 (276-355) [l=395 cm][395 def.]
276, -1.050E-04 ± 5.774E+00, -6.851E+00 ± 4.219E+00, -3.189E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
i', -1.050E-04 ± 5.774E+00, -6.851E+00 ± 4.219E+00, -3.189E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
j', -1.047E-04 ± 5.729E+00, -6.850E+00 ± 4.106E+00, -3.177E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
355, -1.047E-04 ± 5.729E+00, -6.850E+00 ± 4.106E+00, -3.177E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
463 (247-355) [l=30 cm][30 def.]
247, -9.888E-05 ± 5.472E+00, 2.265E-03 ± 8.400E-01, -3.177E-04 ± 9.602E-02, -1.942E-05 ± 8.607E-01
i', -9.888E-05 ± 5.472E+00, 2.265E-03 ± 8.400E-01, -3.177E-04 ± 9.602E-02, -1.942E-05 ± 8.607E-01
j', -1.047E-04 ± 5.729E+00, 2.360E-03 ± 8.584E-01, -3.177E-04 ± 9.602E-02, -1.942E-05 ± 8.607E-01
355, -1.047E-04 ± 5.729E+00, 2.360E-03 ± 8.584E-01, -3.177E-04 ± 9.602E-02, -1.942E-05 ± 8.607E-01
464 (203-249) [l=104 cm][104 def.]
203, -9.905E-05 ± 5.483E+00, -6.851E+00 ± 4.136E+00, -3.182E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
i', -9.905E-05 ± 5.483E+00, -6.851E+00 ± 4.136E+00, -3.182E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
j', -9.888E-05 ± 5.472E+00, -6.850E+00 ± 4.106E+00, -3.177E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

482 (358-360) [l=370 cm][370 def.]
 358, -1.044E-04 ± 5.687E+00, -6.849E+00 ± 3.999E+00, -3.150E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 i', -1.044E-04 ± 5.687E+00, -6.849E+00 ± 3.999E+00, -3.150E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 j', -1.039E-04 ± 5.644E+00, -6.848E+00 ± 3.892E+00, -3.104E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 360, -1.039E-04 ± 5.644E+00, -6.848E+00 ± 3.892E+00, -3.104E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

483 (255-360) [l=30 cm][30 def.]
 255, -9.766E-05 ± 5.387E+00, 2.265E-03 ± 8.400E-01, -3.104E-04 ± 9.603E-02, -2.092E-05 ± 8.606E-01
 i', -9.766E-05 ± 5.387E+00, 2.265E-03 ± 8.400E-01, -3.104E-04 ± 9.603E-02, -2.092E-05 ± 8.606E-01
 j', -1.039E-04 ± 5.644E+00, 2.358E-03 ± 8.584E-01, -3.104E-04 ± 9.603E-02, -2.092E-05 ± 8.606E-01
 360, -1.039E-04 ± 5.644E+00, 2.358E-03 ± 8.584E-01, -3.104E-04 ± 9.603E-02, -2.092E-05 ± 8.606E-01

484 (197-257) [l=110 cm][110 def.]
 197, -9.723E-05 ± 5.357E+00, -6.847E+00 ± 3.818E+00, -3.063E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -9.723E-05 ± 5.357E+00, -6.847E+00 ± 3.818E+00, -3.063E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -9.705E-05 ± 5.345E+00, -6.847E+00 ± 3.786E+00, -3.044E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 257, -9.705E-05 ± 5.345E+00, -6.847E+00 ± 3.786E+00, -3.044E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

485 (257-195) [l=123 cm][123 def.]
 257, -9.705E-05 ± 5.345E+00, -6.847E+00 ± 3.786E+00, -3.044E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -9.705E-05 ± 5.345E+00, -6.847E+00 ± 3.786E+00, -3.044E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -9.684E-05 ± 5.331E+00, -6.846E+00 ± 3.751E+00, -3.022E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 195, -9.684E-05 ± 5.331E+00, -6.846E+00 ± 3.751E+00, -3.022E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

486 (359-361) [l=370 cm][370 def.]
 359, -1.018E-04 ± 5.644E+00, -6.848E+00 ± 3.893E+00, -3.104E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -1.018E-04 ± 5.644E+00, -6.848E+00 ± 3.893E+00, -3.104E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -1.011E-04 ± 5.602E+00, -6.847E+00 ± 3.786E+00, -3.044E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 361, -1.011E-04 ± 5.602E+00, -6.847E+00 ± 3.786E+00, -3.044E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

487 (257-361) [l=30 cm][30 def.]
 257, -9.705E-05 ± 5.345E+00, 2.263E-03 ± 8.400E-01, -3.044E-04 ± 9.603E-02, -1.337E-05 ± 8.606E-01
 i', -9.705E-05 ± 5.345E+00, 2.263E-03 ± 8.400E-01, -3.044E-04 ± 9.603E-02, -1.337E-05 ± 8.606E-01
 j', -1.011E-04 ± 5.602E+00, 2.355E-03 ± 8.583E-01, -3.044E-04 ± 9.603E-02, -1.337E-05 ± 8.606E-01
 361, -1.011E-04 ± 5.602E+00, 2.355E-03 ± 8.583E-01, -3.044E-04 ± 9.603E-02, -1.337E-05 ± 8.606E-01

488 (162-258) [l=123 cm][123 def.]
 162, 9.684E-05 ± 5.331E+00, -6.846E+00 ± 3.751E+00, 3.022E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', 9.684E-05 ± 5.331E+00, -6.846E+00 ± 3.751E+00, 3.022E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', 9.705E-05 ± 5.345E+00, -6.847E+00 ± 3.786E+00, 3.044E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 258, 9.705E-05 ± 5.345E+00, -6.847E+00 ± 3.786E+00, 3.044E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

489 (258-161) [l=110 cm][110 def.]
 258, 9.705E-05 ± 5.345E+00, -6.847E+00 ± 3.786E+00, 3.044E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', 9.705E-05 ± 5.345E+00, -6.847E+00 ± 3.786E+00, 3.044E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', 9.723E-05 ± 5.357E+00, -6.847E+00 ± 3.818E+00, 3.063E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 161, 9.723E-05 ± 5.357E+00, -6.847E+00 ± 3.818E+00, 3.063E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

490 (360-362) [l=370 cm][370 def.]
 360, -1.039E-04 ± 5.644E+00, -6.848E+00 ± 3.892E+00, -3.104E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -1.039E-04 ± 5.644E+00, -6.848E+00 ± 3.892E+00, -3.104E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -1.034E-04 ± 5.602E+00, -6.847E+00 ± 3.786E+00, -3.044E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 362, -1.034E-04 ± 5.602E+00, -6.847E+00 ± 3.786E+00, -3.044E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

491 (258-362) [l=30 cm][30 def.]
 258, -9.705E-05 ± 5.345E+00, 2.265E-03 ± 8.400E-01, -3.044E-04 ± 9.603E-02, -2.129E-05 ± 8.606E-01
 i', -9.705E-05 ± 5.345E+00, 2.265E-03 ± 8.400E-01, -3.044E-04 ± 9.603E-02, -2.129E-05 ± 8.606E-01
 j', -1.034E-04 ± 5.602E+00, 2.356E-03 ± 8.584E-01, -3.044E-04 ± 9.603E-02, -2.129E-05 ± 8.606E-01
 362, -1.034E-04 ± 5.602E+00, 2.356E-03 ± 8.584E-01, -3.044E-04 ± 9.603E-02, -2.129E-05 ± 8.606E-01

492 (164-259) [l=0 cm][0 def.]
 164, 9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.680E+00, 2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', 9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.680E+00, 2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', 9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.680E+00, 2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 259, 9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.680E+00, 2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

493 (259-163) [l=122 cm][122 def.]
 259, 9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.680E+00, 2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', 9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.680E+00, 2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', 9.664E-05 ± 5.317E+00, -6.846E+00 ± 3.715E+00, 2.999E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 163, 9.664E-05 ± 5.317E+00, -6.846E+00 ± 3.715E+00, 2.999E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

494 (362-363) [l=368 cm][368 def.]
 362, -1.034E-04 ± 5.602E+00, -6.847E+00 ± 3.786E+00, -3.044E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -1.034E-04 ± 5.602E+00, -6.847E+00 ± 3.786E+00, -3.044E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -1.029E-04 ± 5.560E+00, -6.846E+00 ± 3.680E+00, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 363, -1.029E-04 ± 5.560E+00, -6.846E+00 ± 3.680E+00, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

495 (259-363) [l=30 cm][30 def.]
 259, -9.644E-05 ± 5.303E+00, 2.265E-03 ± 8.400E-01, -2.975E-04 ± 9.603E-02, -2.141E-05 ± 8.606E-01
 i', -9.644E-05 ± 5.303E+00, 2.265E-03 ± 8.400E-01, -2.975E-04 ± 9.603E-02, -2.141E-05 ± 8.606E-01
 j', -1.029E-04 ± 5.560E+00, 2.354E-03 ± 8.584E-01, -2.975E-04 ± 9.603E-02, -2.141E-05 ± 8.606E-01
 363, -1.029E-04 ± 5.560E+00, 2.354E-03 ± 8.584E-01, -2.975E-04 ± 9.603E-02, -2.141E-05 ± 8.606E-01

496 (171-261) [l=73 cm][73 def.]
 171, 9.511E-05 ± 5.283E+00, -6.843E+00 ± 3.796E+00, 2.820E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 i', 9.511E-05 ± 5.283E+00, -6.843E+00 ± 3.796E+00, 2.820E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 j', 9.523E-05 ± 5.281E+00, -6.843E+00 ± 3.775E+00, 2.833E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 261, 9.523E-05 ± 5.281E+00, -6.843E+00 ± 3.775E+00, 2.833E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

497 (261-169) [l=158 cm][158 def.]
 261, 9.523E-05 ± 5.281E+00, -6.843E+00 ± 3.775E+00, 2.833E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', 9.523E-05 ± 5.281E+00, -6.843E+00 ± 3.775E+00, 2.833E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', 9.549E-05 ± 5.277E+00, -6.844E+00 ± 3.730E+00, 2.861E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 169, 9.549E-05 ± 5.277E+00, -6.844E+00 ± 3.730E+00, 2.861E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

498 (261-364) [l=30 cm][30 def.]
 261, -9.523E-05 ± 5.281E+00, 2.265E-03 ± 8.400E-01, -2.833E-04 ± 9.603E-02, -2.130E-05 ± 8.605E-01
 i', -9.523E-05 ± 5.281E+00, 2.265E-03 ± 8.400E-01, -2.833E-04 ± 9.603E-02, -2.130E-05 ± 8.605E-01
 j', -1.016E-04 ± 5.538E+00, 2.350E-03 ± 8.584E-01, -2.833E-04 ± 9.603E-02, -2.130E-05 ± 8.605E-01
 364, -1.016E-04 ± 5.538E+00, 2.350E-03 ± 8.584E-01, -2.833E-04 ± 9.603E-02, -2.130E-05 ± 8.605E-01

499 (188-263) [l=157 cm][157 def.]

188, -9.549E-05 ± 5.277E+00, -6.844E+00 ± 3.730E+00, -2.861E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -9.549E-05 ± 5.277E+00, -6.844E+00 ± 3.730E+00, -2.861E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -9.523E-05 ± 5.281E+00, -6.844E+00 ± 3.775E+00, -2.833E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 263, -9.523E-05 ± 5.281E+00, -6.844E+00 ± 3.775E+00, -2.833E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 500 (263-187) [l=73 cm][73 def.]
 263, -9.523E-05 ± 5.281E+00, -6.844E+00 ± 3.775E+00, -2.833E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -9.523E-05 ± 5.281E+00, -6.844E+00 ± 3.775E+00, -2.833E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -9.511E-05 ± 5.283E+00, -6.843E+00 ± 3.796E+00, -2.820E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 187, -9.511E-05 ± 5.283E+00, -6.843E+00 ± 3.796E+00, -2.820E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 501 (263-365) [l=30 cm][30 def.]
 263, -9.523E-05 ± 5.281E+00, 2.263E-03 ± 8.400E-01, -2.833E-04 ± 9.603E-02, -1.338E-05 ± 8.605E-01
 i', -9.523E-05 ± 5.281E+00, 2.263E-03 ± 8.400E-01, -2.833E-04 ± 9.603E-02, -1.338E-05 ± 8.605E-01
 j', -9.925E-05 ± 5.538E+00, 2.348E-03 ± 8.583E-01, -2.833E-04 ± 9.603E-02, -1.338E-05 ± 8.605E-01
 365, -9.925E-05 ± 5.538E+00, 2.348E-03 ± 8.583E-01, -2.833E-04 ± 9.603E-02, -1.338E-05 ± 8.605E-01
 502 (174-264) [l=243 cm][243 def.]
 174, 9.422E-05 ± 5.297E+00, -6.842E+00 ± 3.952E+00, 2.740E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 i', 9.422E-05 ± 5.297E+00, -6.842E+00 ± 3.952E+00, 2.740E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 j', 9.462E-05 ± 5.290E+00, -6.842E+00 ± 3.882E+00, 2.773E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 264, 9.462E-05 ± 5.290E+00, -6.842E+00 ± 3.882E+00, 2.773E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 503 (264-172) [l=67 cm][67 def.]
 264, 9.462E-05 ± 5.290E+00, -6.842E+00 ± 3.882E+00, 2.773E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 i', 9.462E-05 ± 5.290E+00, -6.842E+00 ± 3.882E+00, 2.773E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 j', 9.473E-05 ± 5.289E+00, -6.843E+00 ± 3.862E+00, 2.782E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 172, 9.473E-05 ± 5.289E+00, -6.843E+00 ± 3.862E+00, 2.782E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 504 (364-366) [l=370 cm][370 def.]
 364, -1.016E-04 ± 5.538E+00, -6.843E+00 ± 3.775E+00, -2.833E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -1.016E-04 ± 5.538E+00, -6.843E+00 ± 3.775E+00, -2.833E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -1.009E-04 ± 5.548E+00, -6.842E+00 ± 3.882E+00, -2.773E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 366, -1.009E-04 ± 5.548E+00, -6.842E+00 ± 3.882E+00, -2.773E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 505 (264-366) [l=30 cm][30 def.]
 264, -9.462E-05 ± 5.290E+00, 2.265E-03 ± 8.400E-01, -2.773E-04 ± 9.602E-02, -2.092E-05 ± 8.605E-01
 i', -9.462E-05 ± 5.290E+00, 2.265E-03 ± 8.400E-01, -2.773E-04 ± 9.602E-02, -2.092E-05 ± 8.605E-01
 j', -1.009E-04 ± 5.548E+00, 2.348E-03 ± 8.584E-01, -2.773E-04 ± 9.602E-02, -2.092E-05 ± 8.605E-01
 366, -1.009E-04 ± 5.548E+00, 2.348E-03 ± 8.584E-01, -2.773E-04 ± 9.602E-02, -2.092E-05 ± 8.605E-01
 506 (185-266) [l=67 cm][67 def.]
 185, -9.473E-05 ± 5.289E+00, -6.843E+00 ± 3.862E+00, -2.782E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -9.473E-05 ± 5.289E+00, -6.843E+00 ± 3.862E+00, -2.782E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -9.462E-05 ± 5.290E+00, -6.843E+00 ± 3.882E+00, -2.773E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 266, -9.462E-05 ± 5.290E+00, -6.843E+00 ± 3.882E+00, -2.773E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 507 (266-184) [l=243 cm][243 def.]
 266, -9.462E-05 ± 5.290E+00, -6.843E+00 ± 3.882E+00, -2.773E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -9.462E-05 ± 5.290E+00, -6.843E+00 ± 3.882E+00, -2.773E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -9.422E-05 ± 5.297E+00, -6.842E+00 ± 3.952E+00, -2.740E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 184, -9.422E-05 ± 5.297E+00, -6.842E+00 ± 3.952E+00, -2.740E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 508 (365-367) [l=370 cm][370 def.]
 365, -9.925E-05 ± 5.538E+00, -6.844E+00 ± 3.775E+00, -2.833E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -9.925E-05 ± 5.538E+00, -6.844E+00 ± 3.775E+00, -2.833E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -9.875E-05 ± 5.548E+00, -6.843E+00 ± 3.882E+00, -2.773E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 367, -9.875E-05 ± 5.548E+00, -6.843E+00 ± 3.882E+00, -2.773E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 509 (266-367) [l=30 cm][30 def.]
 266, -9.462E-05 ± 5.290E+00, 2.263E-03 ± 8.400E-01, -2.773E-04 ± 9.603E-02, -1.376E-05 ± 8.605E-01
 i', -9.462E-05 ± 5.290E+00, 2.263E-03 ± 8.400E-01, -2.773E-04 ± 9.603E-02, -1.376E-05 ± 8.605E-01
 j', -9.875E-05 ± 5.548E+00, 2.346E-03 ± 8.583E-01, -2.773E-04 ± 9.603E-02, -1.376E-05 ± 8.605E-01
 367, -9.875E-05 ± 5.548E+00, 2.346E-03 ± 8.583E-01, -2.773E-04 ± 9.603E-02, -1.376E-05 ± 8.605E-01
 510 (175-267) [l=183 cm][183 def.]
 175, 9.371E-05 ± 5.305E+00, -6.841E+00 ± 4.041E+00, 2.709E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 i', 9.371E-05 ± 5.305E+00, -6.841E+00 ± 4.041E+00, 2.709E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 j', 9.401E-05 ± 5.300E+00, -6.841E+00 ± 3.988E+00, 2.725E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 267, 9.401E-05 ± 5.300E+00, -6.841E+00 ± 3.988E+00, 2.725E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 511 (267-174) [l=127 cm][127 def.]
 267, 9.401E-05 ± 5.300E+00, -6.841E+00 ± 3.988E+00, 2.725E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 i', 9.401E-05 ± 5.300E+00, -6.841E+00 ± 3.988E+00, 2.725E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 j', 9.422E-05 ± 5.297E+00, -6.842E+00 ± 3.952E+00, 2.740E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 174, 9.422E-05 ± 5.297E+00, -6.842E+00 ± 3.952E+00, 2.740E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 512 (366-368) [l=370 cm][370 def.]
 366, -1.009E-04 ± 5.548E+00, -6.842E+00 ± 3.882E+00, -2.773E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 i', -1.009E-04 ± 5.548E+00, -6.842E+00 ± 3.882E+00, -2.773E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 j', -1.001E-04 ± 5.557E+00, -6.841E+00 ± 3.988E+00, -2.725E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 368, -1.001E-04 ± 5.557E+00, -6.841E+00 ± 3.988E+00, -2.725E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 513 (267-368) [l=30 cm][30 def.]
 267, -9.401E-05 ± 5.300E+00, 2.265E-03 ± 8.400E-01, -2.725E-04 ± 9.602E-02, -2.030E-05 ± 8.605E-01
 i', -9.401E-05 ± 5.300E+00, 2.265E-03 ± 8.400E-01, -2.725E-04 ± 9.602E-02, -2.030E-05 ± 8.605E-01
 j', -1.001E-04 ± 5.557E+00, 2.346E-03 ± 8.584E-01, -2.725E-04 ± 9.602E-02, -2.030E-05 ± 8.605E-01
 368, -1.001E-04 ± 5.557E+00, 2.346E-03 ± 8.584E-01, -2.725E-04 ± 9.602E-02, -2.030E-05 ± 8.605E-01
 514 (184-269) [l=127 cm][127 def.]
 184, -9.422E-05 ± 5.297E+00, -6.842E+00 ± 3.952E+00, -2.740E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -9.422E-05 ± 5.297E+00, -6.842E+00 ± 3.952E+00, -2.740E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -9.401E-05 ± 5.300E+00, -6.842E+00 ± 3.988E+00, -2.725E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 269, -9.401E-05 ± 5.300E+00, -6.842E+00 ± 3.988E+00, -2.725E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 515 (269-181) [l=183 cm][183 def.]
 269, -9.401E-05 ± 5.300E+00, -6.842E+00 ± 3.988E+00, -2.725E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 i', -9.401E-05 ± 5.300E+00, -6.842E+00 ± 3.988E+00, -2.725E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 j', -9.371E-05 ± 5.305E+00, -6.841E+00 ± 4.041E+00, -2.709E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 181, -9.371E-05 ± 5.305E+00, -6.841E+00 ± 4.041E+00, -2.709E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 516 (367-369) [l=370 cm][370 def.]
 367, -9.875E-05 ± 5.548E+00, -6.843E+00 ± 3.882E+00, -2.773E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

i', -9.875E-05 ± 5.548E+00, -6.843E+00 ± 3.882E+00, -2.773E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -9.833E-05 ± 5.557E+00, -6.842E+00 ± 3.988E+00, -2.725E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 369, -9.833E-05 ± 5.557E+00, -6.842E+00 ± 3.988E+00, -2.725E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 517 (269-369) [l=30 cm][30 def.]
 269, -9.401E-05 ± 5.300E+00, 2.263E-03 ± 8.400E-01, -2.725E-04 ± 9.602E-02, -1.439E-05 ± 8.605E-01
 i', -9.401E-05 ± 5.300E+00, 2.263E-03 ± 8.400E-01, -2.725E-04 ± 9.602E-02, -1.439E-05 ± 8.605E-01
 j', -9.833E-05 ± 5.557E+00, 2.345E-03 ± 8.583E-01, -2.725E-04 ± 9.602E-02, -1.439E-05 ± 8.605E-01
 369, -9.833E-05 ± 5.557E+00, 2.345E-03 ± 8.583E-01, -2.725E-04 ± 9.602E-02, -1.439E-05 ± 8.605E-01
 518 (181-271) [l=187 cm][187 def.]
 181, -9.371E-05 ± 5.305E+00, -6.841E+00 ± 4.041E+00, -2.709E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 i', -9.371E-05 ± 5.305E+00, -6.841E+00 ± 4.041E+00, -2.709E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 j', -9.340E-05 ± 5.309E+00, -6.841E+00 ± 4.095E+00, -2.697E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 271, -9.340E-05 ± 5.309E+00, -6.841E+00 ± 4.095E+00, -2.697E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 519 (271-180) [l=104 cm][104 def.]
 271, -9.340E-05 ± 5.309E+00, -6.841E+00 ± 4.095E+00, -2.697E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 i', -9.340E-05 ± 5.309E+00, -6.841E+00 ± 4.095E+00, -2.697E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 j', -9.323E-05 ± 5.312E+00, -6.840E+00 ± 4.125E+00, -2.692E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 180, -9.323E-05 ± 5.312E+00, -6.840E+00 ± 4.125E+00, -2.692E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 520 (369-370) [l=370 cm][370 def.]
 369, -9.833E-05 ± 5.557E+00, -6.842E+00 ± 3.988E+00, -2.725E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 i', -9.833E-05 ± 5.557E+00, -6.842E+00 ± 3.988E+00, -2.725E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 j', -9.798E-05 ± 5.567E+00, -6.841E+00 ± 4.095E+00, -2.697E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 370, -9.798E-05 ± 5.567E+00, -6.841E+00 ± 4.095E+00, -2.697E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 521 (370-279) [l=395 cm][395 def.]
 370, -9.798E-05 ± 5.567E+00, -6.841E+00 ± 4.095E+00, -2.697E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 i', -9.798E-05 ± 5.567E+00, -6.841E+00 ± 4.095E+00, -2.697E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 j', -9.768E-05 ± 5.577E+00, -6.839E+00 ± 4.208E+00, -2.685E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 279, -9.768E-05 ± 5.577E+00, -6.839E+00 ± 4.208E+00, -2.685E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 522 (271-370) [l=30 cm][30 def.]
 271, -9.340E-05 ± 5.309E+00, 2.263E-03 ± 8.400E-01, -2.697E-04 ± 9.602E-02, -1.526E-05 ± 8.605E-01
 i', -9.340E-05 ± 5.309E+00, 2.263E-03 ± 8.400E-01, -2.697E-04 ± 9.602E-02, -1.526E-05 ± 8.605E-01
 j', -9.798E-05 ± 5.567E+00, 2.344E-03 ± 8.583E-01, -2.697E-04 ± 9.602E-02, -1.526E-05 ± 8.605E-01
 370, -9.798E-05 ± 5.567E+00, 2.344E-03 ± 8.583E-01, -2.697E-04 ± 9.602E-02, -1.526E-05 ± 8.605E-01
 523 (177-272) [l=104 cm][104 def.]
 177, 9.323E-05 ± 5.312E+00, -6.840E+00 ± 4.125E+00, 2.692E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 i', 9.323E-05 ± 5.312E+00, -6.840E+00 ± 4.125E+00, 2.692E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 j', 9.340E-05 ± 5.309E+00, -6.840E+00 ± 4.095E+00, 2.697E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 272, 9.340E-05 ± 5.309E+00, -6.840E+00 ± 4.095E+00, 2.697E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 524 (272-175) [l=187 cm][187 def.]
 272, 9.340E-05 ± 5.309E+00, -6.840E+00 ± 4.095E+00, 2.697E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 i', 9.340E-05 ± 5.309E+00, -6.840E+00 ± 4.095E+00, 2.697E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 j', 9.371E-05 ± 5.305E+00, -6.841E+00 ± 4.041E+00, 2.709E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 175, 9.371E-05 ± 5.305E+00, -6.841E+00 ± 4.041E+00, 2.709E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 525 (368-371) [l=370 cm][370 def.]
 368, -1.001E-04 ± 5.557E+00, -6.841E+00 ± 3.988E+00, -2.725E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 i', -1.001E-04 ± 5.557E+00, -6.841E+00 ± 3.988E+00, -2.725E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 j', -9.923E-05 ± 5.567E+00, -6.840E+00 ± 4.095E+00, -2.697E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 371, -9.923E-05 ± 5.567E+00, -6.840E+00 ± 4.095E+00, -2.697E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 526 (371-277) [l=395 cm][395 def.]
 371, -9.923E-05 ± 5.567E+00, -6.840E+00 ± 4.095E+00, -2.697E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 i', -9.923E-05 ± 5.567E+00, -6.840E+00 ± 4.095E+00, -2.697E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 j', -9.824E-05 ± 5.577E+00, -6.839E+00 ± 4.209E+00, -2.685E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 277, -9.824E-05 ± 5.577E+00, -6.839E+00 ± 4.209E+00, -2.685E-04 ± 9.602E-02, 1.648E-07 ± 1.174E-02
 527 (272-371) [l=30 cm][30 def.]
 272, -9.340E-05 ± 5.309E+00, 2.265E-03 ± 8.400E-01, -2.697E-04 ± 9.602E-02, -1.942E-05 ± 8.605E-01
 i', -9.340E-05 ± 5.309E+00, 2.265E-03 ± 8.400E-01, -2.697E-04 ± 9.602E-02, -1.942E-05 ± 8.605E-01
 j', -9.923E-05 ± 5.567E+00, 2.346E-03 ± 8.584E-01, -2.697E-04 ± 9.602E-02, -1.942E-05 ± 8.605E-01
 371, -9.923E-05 ± 5.567E+00, 2.346E-03 ± 8.584E-01, -2.697E-04 ± 9.602E-02, -1.942E-05 ± 8.605E-01
 528 (194-289) [l=122 cm][122 def.]
 194, -9.664E-05 ± 5.317E+00, -6.846E+00 ± 3.716E+00, -2.999E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -9.664E-05 ± 5.317E+00, -6.846E+00 ± 3.716E+00, -2.999E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.681E+00, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 289, -9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.681E+00, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 529 (289-193) [l=0 cm][0 def.]
 289, -9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.681E+00, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.681E+00, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.681E+00, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 193, -9.644E-05 ± 5.303E+00, -6.846E+00 ± 3.681E+00, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 530 (361-372) [l=367 cm][367 def.]
 361, -1.011E-04 ± 5.602E+00, -6.847E+00 ± 3.786E+00, -3.044E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -1.011E-04 ± 5.602E+00, -6.847E+00 ± 3.786E+00, -3.044E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -1.004E-04 ± 5.560E+00, -6.846E+00 ± 3.681E+00, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 372, -1.004E-04 ± 5.560E+00, -6.846E+00 ± 3.681E+00, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 531 (289-372) [l=30 cm][30 def.]
 289, -9.644E-05 ± 5.303E+00, 2.263E-03 ± 8.400E-01, -2.975E-04 ± 9.603E-02, -1.325E-05 ± 8.606E-01
 i', -9.644E-05 ± 5.303E+00, 2.263E-03 ± 8.400E-01, -2.975E-04 ± 9.603E-02, -1.325E-05 ± 8.606E-01
 j', -1.004E-04 ± 5.560E+00, 2.352E-03 ± 8.583E-01, -2.975E-04 ± 9.603E-02, -1.325E-05 ± 8.606E-01
 372, -1.004E-04 ± 5.560E+00, 2.352E-03 ± 8.583E-01, -2.975E-04 ± 9.603E-02, -1.325E-05 ± 8.606E-01
 532 (192-298) [l=165 cm][165 def.]
 192, -9.617E-05 ± 5.284E+00, -6.845E+00 ± 3.636E+00, -2.942E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -9.617E-05 ± 5.284E+00, -6.845E+00 ± 3.636E+00, -2.942E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 298, -9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 533 (298-190) [l=0 cm][0 def.]
 298, -9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02

j', -9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 190, -9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 534 (372-373) [l=330 cm][330 def.]
 372, -1.004E-04 ± 5.560E+00, -6.846E+00 ± 3.681E+00, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -1.004E-04 ± 5.560E+00, -6.846E+00 ± 3.681E+00, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -9.987E-05 ± 5.528E+00, -6.845E+00 ± 3.661E+00, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 373, -9.987E-05 ± 5.528E+00, -6.845E+00 ± 3.661E+00, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 535 (373-365) [l=402 cm][402 def.]
 373, -9.987E-05 ± 5.528E+00, -6.845E+00 ± 3.661E+00, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -9.987E-05 ± 5.528E+00, -6.845E+00 ± 3.661E+00, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -9.925E-05 ± 5.538E+00, -6.844E+00 ± 3.775E+00, -2.833E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 365, -9.925E-05 ± 5.538E+00, -6.844E+00 ± 3.775E+00, -2.833E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 536 (298-373) [l=30 cm][30 def.]
 298, -9.590E-05 ± 5.271E+00, 2.263E-03 ± 8.400E-01, -2.909E-04 ± 9.603E-02, -1.325E-05 ± 8.606E-01
 i', -9.590E-05 ± 5.271E+00, 2.263E-03 ± 8.400E-01, -2.909E-04 ± 9.603E-02, -1.325E-05 ± 8.606E-01
 j', -9.987E-05 ± 5.528E+00, 2.350E-03 ± 8.583E-01, -2.909E-04 ± 9.603E-02, -1.325E-05 ± 8.606E-01
 373, -9.987E-05 ± 5.528E+00, 2.350E-03 ± 8.583E-01, -2.909E-04 ± 9.603E-02, -1.325E-05 ± 8.606E-01
 537 (167-301) [l=0 cm][0 def.]
 167, 9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, 2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', 9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, 2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', 9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, 2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 301, 9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, 2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 538 (301-166) [l=165 cm][165 def.]
 301, 9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, 2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', 9.590E-05 ± 5.271E+00, -6.845E+00 ± 3.661E+00, 2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', 9.617E-05 ± 5.284E+00, -6.845E+00 ± 3.636E+00, 2.942E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 166, 9.617E-05 ± 5.284E+00, -6.845E+00 ± 3.636E+00, 2.942E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 539 (363-374) [l=330 cm][330 def.]
 363, -1.029E-04 ± 5.560E+00, -6.846E+00 ± 3.680E+00, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -1.029E-04 ± 5.560E+00, -6.846E+00 ± 3.680E+00, -2.975E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -1.023E-04 ± 5.528E+00, -6.845E+00 ± 3.661E+00, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 374, -1.023E-04 ± 5.528E+00, -6.845E+00 ± 3.661E+00, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 540 (374-364) [l=402 cm][402 def.]
 374, -1.023E-04 ± 5.528E+00, -6.845E+00 ± 3.661E+00, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 i', -1.023E-04 ± 5.528E+00, -6.845E+00 ± 3.661E+00, -2.909E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 j', -1.016E-04 ± 5.538E+00, -6.843E+00 ± 3.775E+00, -2.833E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 364, -1.016E-04 ± 5.538E+00, -6.843E+00 ± 3.775E+00, -2.833E-04 ± 9.603E-02, 1.648E-07 ± 1.174E-02
 541 (301-374) [l=30 cm][30 def.]
 301, -9.590E-05 ± 5.271E+00, 2.265E-03 ± 8.400E-01, -2.909E-04 ± 9.603E-02, -2.142E-05 ± 8.606E-01
 i', -9.590E-05 ± 5.271E+00, 2.265E-03 ± 8.400E-01, -2.909E-04 ± 9.603E-02, -2.142E-05 ± 8.606E-01
 j', -1.023E-04 ± 5.528E+00, 2.352E-03 ± 8.584E-01, -2.909E-04 ± 9.603E-02, -2.142E-05 ± 8.606E-01
 374, -1.023E-04 ± 5.528E+00, 2.352E-03 ± 8.584E-01, -2.909E-04 ± 9.603E-02, -2.142E-05 ± 8.606E-01
 542 (305-284) [l=400 cm][400 def.]
 305, -1.789E-03 ± 6.336E+00, 1.520E-02 ± 1.044E+00, 1.158E-02 ± 1.597E-01, 1.132E-03 ± 8.647E-01
 i', -1.789E-03 ± 6.336E+00, 1.520E-02 ± 1.044E+00, 1.158E-02 ± 1.597E-01, 1.132E-03 ± 8.647E-01
 j', 2.738E-03 ± 2.890E+00, -3.114E-02 ± 4.048E-01, 1.158E-02 ± 1.597E-01, 1.132E-03 ± 8.647E-01
 284, 2.738E-03 ± 2.890E+00, -3.114E-02 ± 4.048E-01, 1.158E-02 ± 1.597E-01, 1.132E-03 ± 8.647E-01
 543 (307-283) [l=350 cm][350 def.]
 307, -1.978E-03 ± 5.903E+00, 7.853E-03 ± 9.578E-01, 1.003E-02 ± 1.475E-01, 1.886E-03 ± 8.641E-01
 i', -1.978E-03 ± 5.903E+00, 7.853E-03 ± 9.578E-01, 1.003E-02 ± 1.475E-01, 1.886E-03 ± 8.641E-01
 j', 4.625E-03 ± 2.891E+00, -2.725E-02 ± 4.440E-01, 1.003E-02 ± 1.475E-01, 1.886E-03 ± 8.641E-01
 283, 4.625E-03 ± 2.891E+00, -2.725E-02 ± 4.440E-01, 1.003E-02 ± 1.475E-01, 1.886E-03 ± 8.641E-01
 544 (309-285) [l=350 cm][350 def.]
 309, 1.761E-03 ± 5.903E+00, 7.852E-03 ± 9.578E-01, 1.003E-02 ± 1.475E-01, -1.852E-03 ± 8.641E-01
 i', 1.761E-03 ± 5.903E+00, 7.852E-03 ± 9.578E-01, 1.003E-02 ± 1.475E-01, -1.852E-03 ± 8.641E-01
 j', -4.722E-03 ± 2.891E+00, -2.725E-02 ± 4.440E-01, 1.003E-02 ± 1.475E-01, -1.852E-03 ± 8.641E-01
 285, -4.722E-03 ± 2.891E+00, -2.725E-02 ± 4.440E-01, 1.003E-02 ± 1.475E-01, -1.852E-03 ± 8.641E-01
 545 (311-286) [l=400 cm][400 def.]
 311, 1.555E-03 ± 6.336E+00, 1.520E-02 ± 1.044E+00, 1.158E-02 ± 1.597E-01, -1.097E-03 ± 8.647E-01
 i', 1.555E-03 ± 6.336E+00, 1.520E-02 ± 1.044E+00, 1.158E-02 ± 1.597E-01, -1.097E-03 ± 8.647E-01
 j', -2.835E-03 ± 2.890E+00, -3.114E-02 ± 4.049E-01, 1.158E-02 ± 1.597E-01, -1.097E-03 ± 8.647E-01
 286, -2.835E-03 ± 2.890E+00, -3.114E-02 ± 4.049E-01, 1.158E-02 ± 1.597E-01, -1.097E-03 ± 8.647E-01
 546 (313-292) [l=350 cm][350 def.]
 313, -2.034E-03 ± 5.871E+00, -1.713E-02 ± 9.573E-01, -1.495E-02 ± 1.476E-01, 1.943E-03 ± 8.639E-01
 i', -2.034E-03 ± 5.871E+00, -1.713E-02 ± 9.573E-01, -1.495E-02 ± 1.476E-01, 1.943E-03 ± 8.639E-01
 j', 4.767E-03 ± 2.860E+00, 3.520E-02 ± 4.452E-01, -1.495E-02 ± 1.476E-01, 1.943E-03 ± 8.639E-01
 292, 4.767E-03 ± 2.860E+00, 3.520E-02 ± 4.452E-01, -1.495E-02 ± 1.476E-01, 1.943E-03 ± 8.639E-01
 547 (315-293) [l=400 cm][400 def.]
 315, -1.835E-03 ± 6.303E+00, -2.791E-02 ± 1.044E+00, -1.716E-02 ± 1.601E-01, 1.163E-03 ± 8.645E-01
 i', -1.835E-03 ± 6.303E+00, -2.791E-02 ± 1.044E+00, -1.716E-02 ± 1.601E-01, 1.163E-03 ± 8.645E-01
 j', 2.816E-03 ± 2.859E+00, 4.072E-02 ± 4.051E-01, -1.716E-02 ± 1.601E-01, 1.163E-03 ± 8.645E-01
 293, 2.816E-03 ± 2.859E+00, 4.072E-02 ± 4.051E-01, -1.716E-02 ± 1.601E-01, 1.163E-03 ± 8.645E-01
 548 (317-295) [l=400 cm][400 def.]
 317, 1.602E-03 ± 6.303E+00, -2.791E-02 ± 1.044E+00, -1.716E-02 ± 1.601E-01, -1.129E-03 ± 8.645E-01
 i', 1.602E-03 ± 6.303E+00, -2.791E-02 ± 1.044E+00, -1.716E-02 ± 1.601E-01, -1.129E-03 ± 8.645E-01
 j', -2.912E-03 ± 2.859E+00, 4.072E-02 ± 4.052E-01, -1.716E-02 ± 1.601E-01, -1.129E-03 ± 8.645E-01
 295, -2.912E-03 ± 2.859E+00, 4.072E-02 ± 4.052E-01, -1.716E-02 ± 1.601E-01, -1.129E-03 ± 8.645E-01
 549 (319-302) [l=350 cm][350 def.]
 319, 1.818E-03 ± 5.871E+00, -1.713E-02 ± 9.573E-01, -1.495E-02 ± 1.476E-01, -1.909E-03 ± 8.639E-01
 i', 1.818E-03 ± 5.871E+00, -1.713E-02 ± 9.573E-01, -1.495E-02 ± 1.476E-01, -1.909E-03 ± 8.639E-01
 j', -4.863E-03 ± 2.860E+00, 3.520E-02 ± 4.452E-01, -1.495E-02 ± 1.476E-01, -1.909E-03 ± 8.639E-01
 302, -4.863E-03 ± 2.860E+00, 3.520E-02 ± 4.452E-01, -1.495E-02 ± 1.476E-01, -1.909E-03 ± 8.639E-01

--> Reazioni Vincolari (RX, RY, RZ, MX, MY, MZ) [kN, kN m]

1, -4.69 ± 10.50, 0.00 ± 0.64, 107.07 ± 5.70, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03

2, 4.69 ± 10.50, 0.00 ± 0.64, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
 3, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 4, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 5, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 6, -6.34 ± 11.84, -0.07 ± 0.40, 128.09 ± 8.79, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
 7, 6.34 ± 11.84, 0.07 ± 0.40, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
 8, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 9, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 10, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 11, -1.57 ± 4.28, -0.07 ± 0.38, 117.04 ± 8.95, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
 12, 1.57 ± 4.28, 0.07 ± 0.38, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
 13, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 14, 1.47 ± 4.13, -0.46 ± 0.37, 104.06 ± 8.52, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
 15, -1.47 ± 4.13, 0.46 ± 0.37, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
 16, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 17, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 18, 5.84 ± 11.35, -0.46 ± 0.35, 113.58 ± 8.55, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
 19, -5.84 ± 11.35, 0.46 ± 0.35, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
 20, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 21, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 22, -10.65 ± 2.97, -0.35 ± 0.19, 57.17 ± 2.86, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
 23, 10.65 ± 2.97, 0.35 ± 0.19, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
 24, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 25, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 26, 0.18 ± 0.02, -35.20 ± 10.41, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 27, -20.18 ± 7.95, -1.41 ± 0.72, 257.09 ± 10.75, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
 28, 20.15 ± 6.02, 1.37 ± 1.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
 29, 0.03 ± 0.03, -1.23 ± 0.11, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 30, -0.41 ± 0.19, -0.30 ± 0.15, 75.66 ± 3.11, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 31, 0.41 ± 0.19, 0.30 ± 0.15, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 32, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 33, 0.59 ± 0.19, -0.37 ± 0.14, 79.77 ± 3.30, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 34, -0.59 ± 0.19, 0.37 ± 0.14, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 35, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 36, -0.05 ± 0.03, -1.27 ± 0.10, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 37, 28.24 ± 8.03, -1.73 ± 0.68, 239.79 ± 9.99, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
 38, -28.21 ± 6.11, 1.69 ± 1.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
 39, -0.25 ± 0.02, -28.12 ± 9.40, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 40, 1.49 ± 1.24, -0.22 ± 0.09, 26.98 ± 1.44, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 41, -1.49 ± 1.24, 0.22 ± 0.09, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 42, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 43, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 44, -8.11 ± 13.10, -0.53 ± 0.32, 131.31 ± 9.81, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
 45, 8.11 ± 13.10, 0.53 ± 0.32, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
 46, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 47, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 48, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 49, -2.29 ± 5.37, -0.53 ± 0.32, 126.14 ± 9.97, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
 50, 2.29 ± 5.37, 0.53 ± 0.32, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
 51, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 52, 2.47 ± 5.35, -0.12 ± 0.33, 131.72 ± 10.96, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
 53, -2.47 ± 5.35, 0.12 ± 0.33, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
 54, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 55, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 56, 8.55 ± 13.11, -0.12 ± 0.33, 138.30 ± 10.32, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
 57, -8.55 ± 13.11, 0.12 ± 0.33, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
 58, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 59, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 60, 5.31 ± 9.56, -0.08 ± 0.43, 90.02 ± 6.68, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
 61, -5.31 ± 9.56, 0.08 ± 0.43, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
 62, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 63, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 64, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 65, 0.25 ± 0.62, -6.26 ± 27.45, 164.14 ± 11.42, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.05
 66, -0.25 ± 0.62, 6.26 ± 27.45, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.05
 67, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 68, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 69, 0.25 ± 0.62, 6.27 ± 27.46, 164.15 ± 11.42, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.05
 70, -0.25 ± 0.62, -6.27 ± 27.46, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.05
 71, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 72, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 73, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 74, 5.31 ± 9.56, 0.08 ± 0.43, 90.02 ± 6.68, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
 75, -5.31 ± 9.56, -0.08 ± 0.43, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
 76, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 77, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 78, 8.55 ± 13.11, 0.12 ± 0.33, 138.29 ± 10.32, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
 79, -8.55 ± 13.11, -0.12 ± 0.33, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
 80, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 81, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 82, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 83, 2.47 ± 5.35, 0.12 ± 0.33, 131.71 ± 10.96, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
 84, -2.47 ± 5.35, -0.12 ± 0.33, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
 85, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 86, -2.28 ± 5.37, 0.53 ± 0.32, 126.14 ± 9.97, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
 87, 2.28 ± 5.37, -0.53 ± 0.32, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02

88, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
89, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
90, -8.10 ± 13.10, 0.53 ± 0.32, 131.31 ± 9.81, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
91, 8.10 ± 13.10, -0.53 ± 0.32, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
92, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
93, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
94, 1.49 ± 1.24, 0.22 ± 0.09, 26.98 ± 1.44, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
95, -1.49 ± 1.24, -0.22 ± 0.09, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
96, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
97, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
98, -0.25 ± 0.02, 28.16 ± 9.40, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
99, 28.24 ± 8.03, 1.73 ± 0.68, 239.78 ± 10.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
100, -28.21 ± 6.11, -1.69 ± 1.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
101, -0.05 ± 0.03, 1.27 ± 0.10, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
102, 0.59 ± 0.19, 0.37 ± 0.14, 79.77 ± 3.30, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
103, -0.59 ± 0.19, -0.37 ± 0.14, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
104, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
105, -0.41 ± 0.19, 0.30 ± 0.15, 75.66 ± 3.11, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
106, 0.41 ± 0.19, -0.30 ± 0.15, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
107, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
108, 0.03 ± 0.03, 1.23 ± 0.11, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
109, -20.18 ± 7.95, 1.41 ± 0.72, 257.10 ± 10.75, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
110, 20.15 ± 6.02, -1.37 ± 1.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
111, 0.18 ± 0.02, 35.24 ± 10.41, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
112, -10.65 ± 2.97, 0.35 ± 0.19, 57.17 ± 2.86, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
113, 10.65 ± 2.97, -0.35 ± 0.19, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
114, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
115, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
116, 5.83 ± 11.35, 0.46 ± 0.35, 113.58 ± 8.55, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
117, -5.83 ± 11.35, -0.46 ± 0.35, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
118, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
119, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
120, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
121, 1.46 ± 4.13, 0.46 ± 0.37, 104.04 ± 8.52, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
122, -1.46 ± 4.13, -0.46 ± 0.37, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
123, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
124, -1.57 ± 4.28, 0.07 ± 0.38, 117.05 ± 8.95, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
125, 1.57 ± 4.28, -0.07 ± 0.38, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
126, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
127, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
128, -6.34 ± 11.84, 0.07 ± 0.40, 128.10 ± 8.79, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
129, 6.34 ± 11.84, -0.07 ± 0.40, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
130, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
131, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
132, -4.70 ± 10.51, 0.00 ± 0.64, 107.17 ± 5.70, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
133, 4.70 ± 10.51, 0.00 ± 0.64, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
134, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
135, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
136, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
137, 0.98 ± 0.31, 42.62 ± 22.65, 276.42 ± 6.67, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
138, -0.13 ± 0.06, -83.32 ± 10.58, 0.00 ± 0.00, 51.66 ± 6.56, -0.08 ± 0.04, -0.68 ± 0.21
139, -0.60 ± 0.05, 7.26 ± 23.20, 0.00 ± 0.00, -4.50 ± 14.38, -0.37 ± 0.03, -0.68 ± 0.06
140, 0.00 ± 0.01, 5.06 ± 0.45, 0.00 ± 0.00, -3.14 ± 0.28, 0.00 ± 0.01, 0.00 ± 0.24
141, 0.98 ± 0.31, -42.63 ± 22.65, 276.34 ± 6.67, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
142, -0.13 ± 0.06, 83.25 ± 10.58, 0.00 ± 0.00, -51.62 ± 6.56, -0.08 ± 0.04, 0.68 ± 0.21
143, 0.00 ± 0.01, -5.07 ± 0.45, 0.00 ± 0.00, 3.14 ± 0.28, 0.00 ± 0.01, 0.00 ± 0.24
144, -0.60 ± 0.05, -7.23 ± 23.20, 0.00 ± 0.00, 4.48 ± 14.38, -0.37 ± 0.03, 0.68 ± 0.06
145, -0.70 ± 0.31, -34.60 ± 24.29, 306.39 ± 8.50, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
146, 0.09 ± 0.06, 90.11 ± 11.78, 0.00 ± 0.00, -55.87 ± 7.30, 0.06 ± 0.04, -0.48 ± 0.21
147, 0.43 ± 0.05, -15.05 ± 25.10, 0.00 ± 0.00, 9.33 ± 15.56, 0.26 ± 0.03, -0.48 ± 0.06
148, 0.00 ± 0.01, -5.07 ± 0.34, 0.00 ± 0.00, 3.14 ± 0.21, 0.00 ± 0.01, 0.00 ± 0.24
149, -0.70 ± 0.31, 34.60 ± 24.29, 306.46 ± 8.50, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
150, 0.09 ± 0.06, -90.17 ± 11.78, 0.00 ± 0.00, 55.91 ± 7.30, 0.06 ± 0.04, 0.48 ± 0.21
151, 0.00 ± 0.01, 5.07 ± 0.34, 0.00 ± 0.00, -3.14 ± 0.21, 0.00 ± 0.01, 0.00 ± 0.24
152, 0.43 ± 0.05, 15.08 ± 25.10, 0.00 ± 0.00, -9.35 ± 15.56, 0.26 ± 0.03, 0.48 ± 0.06
153, -0.22 ± 4.59, 0.02 ± 4.76, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
154, 0.22 ± 4.59, -0.02 ± 4.76, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
155, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
156, -0.59 ± 6.76, -35.27 ± 8.27, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.58 ± 16.38
157, -0.19 ± 4.57, 0.04 ± 4.47, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
158, 0.19 ± 4.57, -0.04 ± 4.47, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
159, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
160, -0.10 ± 3.66, 0.06 ± 3.39, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
161, 0.10 ± 3.66, -0.06 ± 3.39, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
162, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
163, 0.03 ± 1.92, -0.04 ± 1.72, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
164, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
165, 0.00 ± 2.60, 0.05 ± 2.25, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
166, 0.00 ± 2.60, -0.05 ± 2.25, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
167, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
168, -0.02 ± 1.92, -0.04 ± 1.72, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
169, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
170, 0.10 ± 3.62, 0.07 ± 3.40, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
171, -0.10 ± 3.62, -0.07 ± 3.40, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
172, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
173, 0.20 ± 4.88, 0.09 ± 4.90, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01

174, -0.20 ± 4.88, -0.09 ± 4.90, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
175, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
176, 0.22 ± 4.59, 0.07 ± 4.94, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
177, -0.22 ± 4.59, -0.07 ± 4.94, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
178, 0.57 ± 3.24, -35.47 ± 9.54, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.51 ± 7.86
179, 0.22 ± 4.59, -0.07 ± 4.94, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
180, -0.22 ± 4.59, 0.07 ± 4.94, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
181, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
182, 0.56 ± 3.24, 35.49 ± 9.54, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.50 ± 7.86
183, 0.20 ± 4.88, -0.09 ± 4.90, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
184, -0.20 ± 4.88, 0.09 ± 4.90, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
185, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
186, 0.10 ± 3.62, -0.07 ± 3.39, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
187, -0.10 ± 3.62, 0.07 ± 3.39, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
188, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
189, -0.02 ± 1.92, 0.04 ± 1.72, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
190, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
191, 0.00 ± 2.60, -0.05 ± 2.25, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
192, 0.00 ± 2.60, 0.05 ± 2.25, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
193, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
194, 0.03 ± 1.92, 0.04 ± 1.72, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
195, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
196, -0.10 ± 3.66, -0.06 ± 3.39, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
197, 0.10 ± 3.66, 0.06 ± 3.39, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
198, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
199, -0.19 ± 4.57, -0.04 ± 4.47, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
200, 0.19 ± 4.57, 0.04 ± 4.47, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
201, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
202, -0.22 ± 4.59, -0.02 ± 4.75, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
203, 0.22 ± 4.59, 0.02 ± 4.75, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
204, -2.39 ± 51.83, 35.39 ± 921.08, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.49 ± 16.38
205, 0.04 ± 0.38, -0.05 ± 1.03, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
206, 0.11 ± 2.36, 27.22 ± 4.03, 0.00 ± 0.00, 20.41 ± 3.02, -0.08 ± 1.77, -0.48 ± 7.35
207, 0.04 ± 0.55, -0.02 ± 43.34, 0.00 ± 0.00, -0.03 ± 65.02, -0.06 ± 0.82, 0.00 ± 6.41
208, 0.04 ± 0.38, 0.06 ± 1.03, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
209, 0.12 ± 2.36, -27.23 ± 4.03, 0.00 ± 0.00, -20.42 ± 3.03, -0.09 ± 1.77, 0.49 ± 7.35
210, -0.05 ± 0.38, 0.00 ± 1.03, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
211, -0.13 ± 4.92, -25.19 ± 5.14, 0.00 ± 0.00, -18.90 ± 3.85, 0.10 ± 3.69, -0.59 ± 15.32
212, 0.18 ± 5.87, 0.05 ± 207.65, 0.00 ± 0.00, 0.07 ± 311.48, -0.27 ± 8.80, -0.04 ± 13.78
213, -0.05 ± 0.38, 0.00 ± 1.03, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
214, -0.11 ± 4.91, 25.21 ± 5.13, 0.00 ± 0.00, 18.91 ± 3.85, 0.08 ± 3.69, 0.50 ± 15.32
215, -0.17 ± 0.54, 0.00 ± 16.96, 132.39 ± 8.58, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.04
216, 0.17 ± 0.54, 0.00 ± 16.96, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.04
217, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
218, -0.17 ± 0.52, 0.00 ± 16.96, 132.40 ± 7.45, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.04
219, 0.17 ± 0.52, 0.00 ± 16.96, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.04
220, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
221, -0.17 ± 0.54, 0.00 ± 16.96, 132.40 ± 8.58, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.04
222, 0.17 ± 0.54, 0.00 ± 16.96, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.04
223, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
224, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
225, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
226, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
227, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
228, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
229, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
230, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
231, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
232, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
233, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
234, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
235, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
236, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
237, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
238, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
239, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
240, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
241, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
242, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
243, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
244, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
245, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
246, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
247, 0.05 ± 0.00, -33.09 ± 4.61, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
248, 0.53 ± 0.06, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.80 ± 0.09, 0.00 ± 0.00
249, 0.04 ± 0.00, 33.09 ± 4.61, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
250, 0.00 ± 0.04, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.05, 0.00 ± 0.00
251, -0.01 ± 0.00, 33.29 ± 3.57, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
252, 0.01 ± 0.00, -33.29 ± 3.57, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
253, -0.01 ± 0.03, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.05, 0.00 ± 0.00
254, -0.01 ± 0.00, 33.29 ± 2.55, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
255, 0.01 ± 0.00, -33.29 ± 2.55, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
256, -0.09 ± 0.03, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.14 ± 0.05, 0.00 ± 0.00
257, 0.00 ± 0.00, 33.09 ± 1.53, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
258, 0.01 ± 0.00, -33.09 ± 1.53, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
259, 0.07 ± 0.00, -31.18 ± 0.95, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00

260, -0.01 ± 0.00, 1.36 ± 0.31, 0.00 ± 0.00, 0.87 ± 0.20, 0.00 ± 0.00, 0.00 ± 0.00
 261, 0.05 ± 0.00, -34.62 ± 1.53, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 262, 0.01 ± 0.03, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.01 ± 0.05, 0.00 ± 0.00
 263, 0.06 ± 0.00, 34.62 ± 1.53, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 264, -0.01 ± 0.00, -33.32 ± 2.54, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 265, -0.02 ± 0.04, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.03 ± 0.06, 0.00 ± 0.00
 266, 0.01 ± 0.00, 33.32 ± 2.54, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 267, -0.01 ± 0.00, -33.19 ± 3.76, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 268, -0.09 ± 0.08, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.13 ± 0.12, 0.00 ± 0.00
 269, 0.01 ± 0.00, 33.19 ± 3.76, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 270, -0.54 ± 0.07, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.81 ± 0.10, 0.00 ± 0.00
 271, -0.04 ± 0.00, 28.19 ± 5.28, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 272, -0.05 ± 0.00, -28.19 ± 5.28, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 273, -0.09 ± 0.03, 0.00 ± 0.25, 0.00 ± 0.00, 0.00 ± 0.38, 0.14 ± 0.04, 0.00 ± 0.00
 274, 0.20 ± 0.03, 0.00 ± 0.25, 0.00 ± 0.00, 0.00 ± 0.37, -0.30 ± 0.04, 0.00 ± 0.00
 275, -0.48 ± 3.39, -0.03 ± 162.87, 0.00 ± 0.00, -0.04 ± 244.31, 0.72 ± 5.09, 0.00 ± 0.09
 276, 0.35 ± 0.00, -0.43 ± 0.00, 0.00 ± 0.00, -0.13 ± 0.00, -0.11 ± 0.00, 0.00 ± 0.00
 277, -0.35 ± 0.00, -0.59 ± 0.00, 0.00 ± 0.00, -0.18 ± 0.00, 0.11 ± 0.00, 0.00 ± 0.00
 278, 0.18 ± 5.88, 0.03 ± 215.57, 0.00 ± 0.00, 0.06 ± 388.02, -0.33 ± 10.58, 0.00 ± 0.00
 279, -0.35 ± 0.00, 0.59 ± 0.00, 0.00 ± 0.00, 0.18 ± 0.00, 0.11 ± 0.00, 0.00 ± 0.00
 280, 1.81 ± 49.80, 0.29 ± 913.17, 0.00 ± 0.00, 0.09 ± 273.95, -0.54 ± 14.94, 0.00 ± 0.00
 281, 0.21 ± 5.88, -0.03 ± 215.56, 0.00 ± 0.00, -0.06 ± 388.02, -0.39 ± 10.58, 0.00 ± 0.00
 282, 0.01 ± 0.01, 0.22 ± 0.03, 0.00 ± 0.00, -0.54 ± 0.09, 0.03 ± 0.03, -0.04 ± 0.04
 283, -0.01 ± 0.01, 1.74 ± 0.04, 0.00 ± 0.00, -4.36 ± 0.11, -0.04 ± 0.04, -0.06 ± 0.06
 284, -0.01 ± 0.01, 0.63 ± 0.03, 0.00 ± 0.00, -1.59 ± 0.08, -0.03 ± 0.03, -0.01 ± 0.01
 285, -0.01 ± 0.01, -1.74 ± 0.04, 0.00 ± 0.00, 4.36 ± 0.11, -0.04 ± 0.04, 0.06 ± 0.06
 286, -0.01 ± 0.01, -0.63 ± 0.03, 0.00 ± 0.00, 1.59 ± 0.08, -0.03 ± 0.03, 0.01 ± 0.01
 287, 0.01 ± 0.01, -0.22 ± 0.03, 0.00 ± 0.00, 0.54 ± 0.09, 0.03 ± 0.03, 0.04 ± 0.04
 288, 0.00 ± 0.00, 4.84 ± 0.40, 0.00 ± 0.00, 5.54 ± 0.46, 0.00 ± 0.00, 0.01 ± 0.00
 289, 0.07 ± 0.00, 31.17 ± 0.95, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 290, -0.01 ± 0.00, -1.36 ± 0.31, 0.00 ± 0.00, -0.87 ± 0.20, 0.00 ± 0.00, 0.00 ± 0.00
 291, 0.00 ± 0.00, -4.84 ± 0.40, 0.00 ± 0.00, -5.54 ± 0.46, 0.00 ± 0.00, -0.01 ± 0.00
 292, 0.02 ± 0.01, 1.80 ± 0.04, 0.00 ± 0.00, -4.49 ± 0.11, 0.05 ± 0.04, 0.08 ± 0.06
 293, 0.02 ± 0.01, 0.65 ± 0.03, 0.00 ± 0.00, -1.62 ± 0.07, 0.05 ± 0.03, 0.02 ± 0.01
 294, -0.02 ± 0.01, 0.23 ± 0.03, 0.00 ± 0.00, -0.59 ± 0.08, -0.05 ± 0.03, 0.06 ± 0.04
 295, 0.02 ± 0.01, -0.65 ± 0.03, 0.00 ± 0.00, 1.62 ± 0.07, 0.05 ± 0.03, -0.02 ± 0.01
 296, 0.01 ± 0.00, -1.45 ± 0.30, 0.00 ± 0.00, -0.94 ± 0.19, 0.00 ± 0.00, 0.01 ± 0.00
 297, 0.00 ± 0.00, -5.15 ± 0.39, 0.00 ± 0.00, -5.89 ± 0.44, 0.00 ± 0.00, 0.01 ± 0.00
 298, -0.12 ± 0.00, 33.00 ± 0.91, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 299, 0.00 ± 0.00, 5.15 ± 0.39, 0.00 ± 0.00, 5.89 ± 0.44, 0.00 ± 0.00, -0.01 ± 0.00
 300, 0.01 ± 0.00, 1.45 ± 0.30, 0.00 ± 0.00, 0.94 ± 0.19, 0.00 ± 0.00, -0.01 ± 0.00
 301, -0.12 ± 0.00, -33.00 ± 0.91, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 302, 0.02 ± 0.01, -1.80 ± 0.04, 0.00 ± 0.00, 4.49 ± 0.11, 0.05 ± 0.04, -0.08 ± 0.06
 303, -0.02 ± 0.01, -0.23 ± 0.03, 0.00 ± 0.00, 0.59 ± 0.08, -0.05 ± 0.03, -0.06 ± 0.04
 304, -0.02 ± 0.01, -0.13 ± 0.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 305, 0.01 ± 0.01, 0.07 ± 0.03, 0.00 ± 0.00, 0.11 ± 0.04, -0.02 ± 0.01, 0.00 ± 0.00
 306, -0.03 ± 0.02, -0.23 ± 0.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 307, 0.01 ± 0.01, 0.08 ± 0.01, 0.00 ± 0.00, 0.08 ± 0.01, -0.01 ± 0.01, 0.00 ± 0.00
 308, -0.03 ± 0.02, 0.23 ± 0.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 309, 0.01 ± 0.01, -0.08 ± 0.01, 0.00 ± 0.00, -0.08 ± 0.01, -0.01 ± 0.01, 0.00 ± 0.00
 310, -0.02 ± 0.01, 0.13 ± 0.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 311, 0.01 ± 0.01, -0.07 ± 0.03, 0.00 ± 0.00, -0.11 ± 0.04, -0.02 ± 0.01, 0.00 ± 0.00
 312, 0.04 ± 0.02, -0.23 ± 0.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 313, -0.02 ± 0.01, 0.08 ± 0.01, 0.00 ± 0.00, 0.08 ± 0.01, 0.02 ± 0.01, 0.00 ± 0.00
 314, 0.03 ± 0.01, -0.13 ± 0.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 315, -0.02 ± 0.01, 0.07 ± 0.03, 0.00 ± 0.00, 0.11 ± 0.04, 0.03 ± 0.01, 0.00 ± 0.00
 316, 0.03 ± 0.01, 0.13 ± 0.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 317, -0.02 ± 0.01, -0.07 ± 0.03, 0.00 ± 0.00, -0.11 ± 0.04, 0.03 ± 0.01, 0.00 ± 0.00
 318, 0.04 ± 0.02, 0.23 ± 0.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 319, -0.02 ± 0.01, -0.08 ± 0.01, 0.00 ± 0.00, -0.08 ± 0.01, 0.02 ± 0.01, 0.00 ± 0.00
 324, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 325, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 326, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 327, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 328, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 329, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 330, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 331, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 332, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 333, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 334, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 335, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 336, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 337, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 338, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 339, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 340, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 341, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 342, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 343, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 344, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 345, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 346, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 347, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 348, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 349, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00

350, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
351, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
352, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
353, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
354, 0.36 ± 0.01, 0.00 ± 0.04, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01, -0.11 ± 0.00, 0.00 ± 0.00
355, -0.04 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
356, -0.04 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
357, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
358, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
359, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
360, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
361, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
362, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
363, -0.06 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.02 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
364, -0.06 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.02 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
365, -0.06 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.02 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
366, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
367, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
368, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
369, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
370, 0.04 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.01 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
371, 0.04 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.01 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
372, -0.06 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.02 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
373, 0.12 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.04 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
374, 0.12 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.04 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
375, 0.00 ± 145.48, 0.00 ± 129.98, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 336.63, 0.00 ± 336.63
376, 0.00 ± 64.43, 0.00 ± 59.13, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 149.70, 0.00 ± 149.70

12. SPOSTAMENTI DI INTERPIANO [SLD] (§7.3.7.2)

- Massimo rapporto (d,r/H): 0.116 < 2 (per mille)

H e d,r sono calcolati per ogni asta verticale (=parete) del piano; H è l'altezza della parete.

Nei risultati, si riporta per ogni piano l'asta corrispondente al massimo rapporto d,r/H.

H può non coincidere con l'altezza di piano: nel caso di quote sfalsate,

o nel caso di aste definite tra piani non consecutivi.

Lo spostamento d,r include per SLD l'amplificazione per il fattore di comportamento q [§7.3.6.1].

N.piano	H (m)	Asta	Spost. d,r (mm)	(d,r / H) (per mille)
1	5.000	203	0.6	0.116
2	0.300	157	0.0	0.096

13. DATI GEOMETRICI ELEMENTI IN MURATURA

Edificio Esistente

Coefficiente parziale di sicurezza dei materiali γ_M : analisi statica [§4.5.6.1] = 3.00

- analisi sismica [§7.8.1.1] = 2.40

N.	p.no	M/A	S/F	lunghezza l(base)	Piano Complanare (m)				Piano Ortogonale (m)				Xg (m)	Yg (m)	N° mat
					alt. H	alt. def.h	h/l	l/h	spess. t	alt. def.h	ho= r*h	ho/t			
1	1	X		1.79	5.00	2.88	1.606	0.623	0.50	5.00	5.00	10.000	0.899	0.000	3
5	1	X		1.77	5.00	2.87	1.620	0.617	0.50	5.00	5.00	10.000	4.944	0.000	3
9	0		X	3.18	2.26	2.27	0.712	1.404	0.50						3
10	1		X	1.06	2.26	2.27	2.137	0.468	0.50						3
11	1	X		1.77	5.00	4.64	2.626	0.381	0.50	5.00	5.00	10.000	6.712	0.000	3
14	1	X		1.77	5.00	4.64	2.628	0.381	0.50	5.00	5.00	10.000	10.744	0.000	3
17	1		X	1.06	2.26	2.27	2.137	0.468	0.50						3
18	1	X		1.77	5.00	2.87	1.621	0.617	0.50	5.00	5.00	10.000	12.511	0.000	3
22	1	X		0.62	5.00	1.91	3.089	0.324	0.50	5.00	5.00	10.000	15.969	0.000	3
26	0		X	3.18	2.26	2.27	0.712	1.404	0.50						3
27	1		X	1.06	2.26	2.27	2.137	0.468	0.50						3
28	1	X		2.45	5.00	5.00	2.041	0.490	0.50	5.00	5.00	10.000	17.503	0.000	3
31	1	X		0.52	5.00	4.36	8.409	0.119	0.50	5.00	5.00	10.000	18.986	0.000	3
34	1	X		0.52	5.00	4.36	8.379	0.119	0.50	5.00	5.00	10.000	21.770	0.000	3
37	1		X	1.06	2.26	2.27	2.137	0.468	0.50						3
38	1	X		2.45	5.00	5.00	2.043	0.489	0.50	5.00	5.00	10.000	23.254	0.000	3
41	1	X		0.37	5.00	1.60	4.334	0.231	0.50	5.00	5.00	10.000	24.661	0.000	3
45	1	X		1.97	5.00	2.98	1.514	0.660	0.50	5.00	5.00	10.000	28.094	0.000	3
49	0		X	3.18	2.27	2.27	0.712	1.404	0.50						3
50	1		X	1.06	2.27	2.27	2.137	0.468	0.50						3
51	1	X		1.97	5.00	4.65	2.362	0.423	0.50	5.00	5.00	10.000	30.061	0.000	3
54	1	X		1.97	5.00	4.65	2.362	0.423	0.50	5.00	5.00	10.000	34.294	0.000	3
57	1		X	1.06	2.27	2.27	2.137	0.468	0.50						3
58	1	X		1.97	5.00	2.98	1.514	0.660	0.50	5.00	5.00	10.000	36.261	0.000	3
62	1	X		1.59	5.00	2.76	1.732	0.577	0.50	5.00	5.00	10.000	40.306	0.000	3
66	0		X	3.18	2.26	2.27	0.712	1.404	0.50						3
67	1		X	1.06	2.26	2.27	2.137	0.468	0.50						3

B.1 = sezione di base, combinazione N+, T/M+
 B.2 = sezione di base, combinazione N+, T/M-
 B.3 = sezione di base, combinazione N-, T/M+
 B.4 = sezione di base, combinazione N-, T/M-
 e analogamente per la sezione S di sommità.

Le combinazioni B.2 e B.3 (N+, T/M-) e (N-, T/M+), vengono eseguite solo se il corrispondente parametro di calcolo è stato selezionato (finestra Parametri di Calcolo: scheda: Edifici in Muratura: Per Analisi Lineare: Considerare anche le combinazioni (N_{min} , T/M_{max}), (N_{max} , T/M_{min})).

Le combinazioni che generano risultati identici non vengono riportate. Un esempio di questo tipo è il caso di strutture con vincolamento shear-type, quindi composte da pareti con sforzo normale costante: le verifiche per le diverse combinazioni sono identiche, in quanto varia solamente il segno del momento e conseguentemente si inverte la zona reagente, ma i risultati sono invariati. In questo caso, nella tabella viene riportata, ad es. nella sezione di base, la sola verifica B.1

P = forza assiale positiva se di compressione

p = σ_o = tensione normale media riferita all'intera sezione

f_k/f_m = per i **maschi**: resistenza a compressione: f_k (caratteristica) per muratura nuova, f_m (media) per muratura esistente. Per le **fasce**, il parametro corrisponde a: f_{hk} (f_{hm}).

Edificio nuovo: **γ_m** = coefficiente parziale di sicurezza dei materiali γ_m

Edificio esistente: **γ_m** · **FC** = prodotto del coefficiente parziale di sicurezza dei materiali γ_m per il fattore di confidenza (dipendente dal livello di conoscenza LC1, LC2 o LC3)

f_d = valore di calcolo (o: di progetto) della resistenza a compressione. Per le fasce, corrisponde a f_{hd} .

N_u = sforzo normale ultimo per compressione semplice: $N_u = 0.85 f_d \cdot l \cdot t$. Per le fasce: $l=h$: l'altezza della sezione trasversale dell'elemento murario è infatti indicata in Normativa con: l per il maschio murario, e con: h per la fascia (per le fasce, l indica la luce dell'elemento).

M_u = momento di collasso per pressoflessione

M = momento di calcolo. Il momento può essere posto convenzionalmente pari a 0 nel caso di parete tozza, qualora sia attiva la limitazione della verifica a pressoflessione alle sole pareti snelle. In tal caso, la verifica si riconduce alla sola compressione.

C.Sic. = coefficiente di sicurezza dato dal rapporto M_u / M . La verifica è soddisfatta quando il coefficiente di sicurezza è ≥ 1

VERIFICHE SISMICHE DEGLI ELEMENTI IN CALCESTRUZZO ARMATO: VERIFICA A PRESSOFLESSIONE

(D.M.17.1.2018 (NTC18), §4.1.2.1, §7.4.4)

In strutture miste, gli elementi in c.a. (pareti e/o travi) possono essere soggetti a verifica di resistenza, in particolare nel caso in cui siano considerati collaboranti con gli elementi murari sotto azioni orizzontali. La legge di comportamento del calcestruzzo è di tipo parabolico-rettangolare (§4.1.2.1.2.1, Fig. 4.1.1(a)), mentre per l'acciaio si adotta la legge elastica-perfettamente plastica (§4.1.2.1.2.2, Fig. 4.1.3(b)). La deformazione ultima dell'acciaio, teoricamente indefinita, viene fissata dal valore scelto in input: la deformazione ϵ_{uk} dell'acciaio di classe C vale 0.075 (75 per mille); seguendo quanto indicato in EC2 (§3.2.7(2)), la massima deformazione di progetto dell'acciaio può essere assunta pari a: $\epsilon_{ud} = 0.9 \epsilon_{uk} = 0.0675$ (67.5 per mille) (le verifiche a stato limite ultimo del c.a. vengono spesso eseguite adottando come deformazione ultima 10 per mille; i momenti resistenti, tuttavia, non si modificano significativamente in dipendenza dalla deformazione ultima scelta). I valori di resistenza, i coefficienti parziali di sicurezza e i fattori di confidenza per edifici esistenti, sia per l'acciaio sia per il calcestruzzo, sono specificati nei dati sui materiali e nei parametri di calcolo.

Per gli elementi verticali (**pareti e pilastri**) viene eseguita la verifica a pressoflessione deviata, tenendo conto delle sollecitazioni flessionali in entrambi i piani locali xy e xz. Le verifiche vengono eseguite nelle sezioni di estremità della luce deformabile.

La sezione è armata secondo i dati specificati in input. Nel caso di strutture esistenti, saranno stati inseriti i valori di armatura stimati o rilevati; nel caso di strutture nuove, le armature progettate. Per i nuovi elementi in c.a. il rispetto delle armature minime di regolamento e delle eventuali condizioni sulle gerarchie delle resistenze, secondo le indicazioni normative, deve essere assicurato a priori. PCM esegue le verifiche di sicurezza utilizzando le armature in input e le sollecitazioni derivanti dal calcolo, indipendentemente dai controlli sulla conformità alla Normativa delle armature adottate.

La verifica a pressoflessione deviata viene svolta elaborando un dominio di resistenza tridimensionale e calcolando il momento resistente M_u in base allo sforzo normale N .

Per edifici esistenti, per la costruzione del dominio di resistenza nei campi a rottura fragile (crisi per compressione del calcestruzzo), diversamente dai campi a rottura duttile, le resistenze di calcolo (ottenute dai valori medi divisi per il fattore di confidenza) vengono ridotte applicando i coefficienti parziali di sicurezza γ_c e γ_s , conformemente a quanto indicato in Normativa (§C8.7.2.2). Nel caso degli edifici nuovi, le resistenze di progetto sono calcolate con riferimento alle formulazioni di Normativa (§4.1.2.1.1.1, §4.1.2.1.1.3) applicando sempre i coefficienti parziali di sicurezza γ_c e γ_s .

Il momento sollecitante M e il momento resistente M_u sono espressi per mezzo delle due componenti ortogonali, come segue: $M = \sqrt{(M_y^2 + M_z^2)}$,

$M_u = \sqrt{(M_{uy}^2 + M_{uz}^2)}$

Il coefficiente di sicurezza è direttamente espresso dal rapporto M_u/M .

Per gli elementi orizzontali (**travi in elevazione e di fondazione**) viene eseguita la verifica a pressoflessione semplice ($M=M_y$) nel piano locale xz, costruendo il dominio di resistenza N-M in base ai dati specificati in input. Le verifiche vengono eseguite nelle sezioni di estremità della luce deformabile (per eseguire verifiche di resistenza in mezzzeria o in altre sezioni intermedie poste lungo la luce della trave, è necessario che in fase di modellazione l'elemento sia stato suddiviso in più tratti inserendo nodi aggiuntivi in corrispondenza delle sezioni intermedie considerate; in tal modo tutte le verifiche sono comunque ricondotte alle estremità di ogni singolo tratto di trave). Il coefficiente di sicurezza è direttamente esprimibile dalla relazione: (M_u / M) .

Per quanto riguarda le travi di fondazione, viene controllato se permangono in fase elastica (§7.2.5), cioè se presentano comportamento non dissipativo.

Pertanto, il dominio di resistenza di questi elementi viene elaborato assumendo che la deformazione ultima dei materiali sia pari al limite elastico: $\epsilon_{cu} = \epsilon_{c2}$,

$\epsilon_{su} = \epsilon_{sy}$.

Simbologia utilizzata nel software PCM per i risultati dell'Analisi Lineare Sismica per elementi in cemento armato:

N. = numero progressivo dell'elemento

Tip. = tipologia: parete o pilastro (C), trave in elevazione (T), trave di fondazione (Z)

fcd = resistenza a compressione di progetto. I valori sono i seguenti:

Edifici nuovi: Calcestruzzo: $f_{cd} = 0.85 \cdot f_{ck} / \gamma_c$, Acciaio: $f_{yd} = f_{yk} / \gamma_s$;

Edifici esistenti: Calcestruzzo: $f_{cd} = f_{cm} / F_c$, Acciaio: $f_{yd} = f_{ym} / F_c$ ($/ \gamma_c$) (ai fini del calcolo del momento ultimo nei campi fragili, le resistenze sono ridotte dividendo anche per γ_c e γ_s)

P = forza assiale positiva se di compressione

N_u = sforzo normale ultimo per compressione semplice. Negli edifici nuovi si applicano le limitazioni fornite dal §7.4.4.2.1. secondo cui $N_u = 0.65 f_{cd} l t$ (ipotesi di struttura in CD "B")

M_y = componente y del momento sollecitante M (piano di flessione xz). Il valore è riportato con segno positivo o negativo secondo la convenzione di PCM

M_{uy} = componente y del momento resistente (piano di flessione xz)

M_z = componente z del momento sollecitante M (piano di flessione xy). Il valore è riportato con segno positivo o negativo secondo la convenzione di PCM

M_{uz} = componente z del momento resistente (piano di flessione xy)

C.Sic. = coefficiente di sicurezza dato dal rapporto M_u/M . Nel caso di elementi soggetti a compressione semplice il coefficiente di sicurezza è dato dal rapporto N_u/P

15. VERIFICA A PRESSOFLESSIONE NEL PIANO (§7.8.2.2.1) [SLV] - C.Sic: 1.215
(Analisi Sismica Dinamica Modale)

N.	Tip.	n/e	Sez. comb.	P (kN)	p (N/mm ²)	fk / fm (N/mm ²)	γ_m * FC	fd (N/mm ²)	Nu (kN)	Mu (kN m)	M (kN m)	C.Sic.
1	M	e	B.1	76.54	0.090	2.500	2.88	0.868	661.48	60.68	-22.78	2.664
1	M	e	B.4	65.14	0.070	2.500	2.88	0.868	661.48	52.65	4.94	>> 1
5	M	e	B.1	100.90	0.110	2.500	2.88	0.868	652.26	75.40	-28.37	2.658
5	M	e	B.4	83.33	0.090	2.500	2.88	0.868	652.26	64.25	4.49	>> 1
11	M	e	B.1	126.00	0.140	2.500	2.88	0.868	652.26	89.87	-15.03	5.979
11	M	e	B.4	108.09	0.120	2.500	2.88	0.868	652.26	79.72	4.18	>> 1
14	M	e	B.1	112.57	0.130	2.500	2.88	0.868	651.89	82.28	14.19	5.799
14	M	e	B.4	95.54	0.110	2.500	2.88	0.868	651.89	72.04	-4.19	>> 1
18	M	e	B.1	86.15	0.100	2.500	2.88	0.868	651.89	66.05	26.53	2.490
18	M	e	B.4	69.05	0.080	2.500	2.88	0.868	651.89	54.54	-4.68	>> 1
28	M	e	B.1	267.84	0.220	2.500	2.88	0.868	903.86	230.88	-99.08	2.330
28	M	e	B.4	246.35	0.200	2.500	2.88	0.868	903.86	219.53	-59.87	3.667
31	M	e	B.1	78.77	0.300	2.500	2.88	0.868	191.10	11.99	-1.63	7.357
31	M	e	B.4	72.55	0.280	2.500	2.88	0.868	191.10	11.66	-0.81	>> 1
34	M	e	B.1	83.07	0.320	2.500	2.88	0.868	191.84	12.25	2.14	5.722
34	M	e	B.4	76.47	0.290	2.500	2.88	0.868	191.84	11.96	1.31	9.127
38	M	e	B.1	249.79	0.200	2.500	2.88	0.868	902.76	221.05	131.03	1.687
38	M	e	B.4	229.80	0.190	2.500	2.88	0.868	902.76	209.59	90.72	2.310
41	M	e	B.1	17.25	0.090	2.500	2.88	0.868	135.76	2.77	2.28	1.215
41	M	e	B.4	14.37	0.080	2.500	2.88	0.868	135.76	2.36	0.31	7.627
45	M	e	B.1	103.34	0.110	2.500	2.88	0.868	726.04	87.21	-35.09	2.485
45	M	e	B.4	83.72	0.090	2.500	2.88	0.868	726.04	72.88	2.11	>> 1
51	M	e	B.1	136.12	0.140	2.500	2.88	0.868	726.04	108.83	-20.06	5.425
51	M	e	B.4	116.17	0.120	2.500	2.88	0.868	726.04	96.02	3.75	>> 1
54	M	e	B.1	142.68	0.150	2.500	2.88	0.868	726.04	112.81	20.49	5.505
54	M	e	B.4	120.76	0.120	2.500	2.88	0.868	726.04	99.06	-3.39	>> 1
58	M	e	B.1	110.83	0.110	2.500	2.88	0.868	726.04	92.41	35.86	2.577
58	M	e	B.4	90.18	0.090	2.500	2.88	0.868	726.04	77.72	-1.65	>> 1
62	M	e	B.1	62.59	0.080	2.500	2.88	0.868	587.33	44.51	21.81	2.041
62	M	e	B.4	49.22	0.060	2.500	2.88	0.868	587.33	35.90	-3.28	>> 1
68	M	e	B.1	132.62	0.090	2.500	2.88	0.868	1134.81	180.13	-61.12	2.947
68	M	e	B.4	109.78	0.070	2.500	2.88	0.868	1134.81	152.51	25.31	6.026
71	M	e	B.1	132.62	0.090	2.500	2.88	0.868	1134.81	180.13	61.13	2.947
71	M	e	B.4	109.78	0.070	2.500	2.88	0.868	1134.81	152.51	-25.31	6.026
76	M	e	B.1	62.59	0.080	2.500	2.88	0.868	587.33	44.51	21.81	2.041
76	M	e	B.4	49.23	0.060	2.500	2.88	0.868	587.33	35.90	-3.28	>> 1
80	M	e	B.1	110.83	0.110	2.500	2.88	0.868	726.04	92.41	35.86	2.577
80	M	e	B.4	90.18	0.090	2.500	2.88	0.868	726.04	77.72	-1.65	>> 1
86	M	e	B.1	142.67	0.140	2.500	2.88	0.868	726.04	112.80	20.49	5.505
86	M	e	B.4	120.75	0.120	2.500	2.88	0.868	726.04	99.06	-3.39	>> 1
89	M	e	B.1	136.12	0.140	2.500	2.88	0.868	726.04	108.83	-20.06	5.425
89	M	e	B.4	116.17	0.120	2.500	2.88	0.868	726.04	96.02	3.75	>> 1
93	M	e	B.1	103.34	0.110	2.500	2.88	0.868	726.04	87.21	-35.09	2.485
93	M	e	B.4	83.72	0.090	2.500	2.88	0.868	726.04	72.88	2.12	>> 1
97	M	e	B.1	17.25	0.090	2.500	2.88	0.868	135.76	2.77	2.28	1.215
97	M	e	B.4	14.37	0.080	2.500	2.88	0.868	135.76	2.36	0.31	7.627
103	M	e	B.1	249.78	0.200	2.500	2.88	0.868	902.76	221.05	131.03	1.687
103	M	e	B.4	229.79	0.190	2.500	2.88	0.868	902.76	209.58	90.72	2.310
106	M	e	B.1	83.07	0.320	2.500	2.88	0.868	191.84	12.25	2.14	5.722
106	M	e	B.4	76.48	0.290	2.500	2.88	0.868	191.84	11.96	1.31	9.128
109	M	e	B.1	78.77	0.300	2.500	2.88	0.868	191.10	11.99	-1.63	7.357
109	M	e	B.4	72.55	0.280	2.500	2.88	0.868	191.10	11.66	-0.81	>> 1
113	M	e	B.1	267.85	0.220	2.500	2.88	0.868	903.86	230.88	-99.08	2.330
113	M	e	B.4	246.35	0.200	2.500	2.88	0.868	903.86	219.53	-59.87	3.667
120	M	e	B.1	86.14	0.100	2.500	2.88	0.868	651.89	66.05	26.52	2.491
120	M	e	B.4	69.04	0.080	2.500	2.88	0.868	651.89	54.54	-4.69	>> 1
126	M	e	B.1	112.56	0.130	2.500	2.88	0.868	651.89	82.28	14.18	5.802
126	M	e	B.4	95.53	0.110	2.500	2.88	0.868	651.89	72.03	-4.20	>> 1
129	M	e	B.1	126.00	0.140	2.500	2.88	0.868	652.26	89.87	-15.03	5.979
129	M	e	B.4	108.10	0.120	2.500	2.88	0.868	652.26	79.72	4.18	>> 1
133	M	e	B.1	100.91	0.110	2.500	2.88	0.868	652.26	75.40	-28.38	2.657
133	M	e	B.4	83.34	0.090	2.500	2.88	0.868	652.26	64.26	4.49	>> 1
137	M	e	B.1	76.62	0.090	2.500	2.88	0.868	662.22	60.81	-22.81	2.666
137	M	e	B.4	65.21	0.070	2.500	2.88	0.868	662.22	52.76	4.94	>> 1
143	M	n	B.1	283.09	0.290	5.300	2.40	2.208	1807.07	383.06	206.70	1.853
143	M	n	B.4	269.75	0.280	5.300	2.40	2.208	1807.07	368.21	122.42	3.008
146	M	n	B.1	283.01	0.290	5.300	2.40	2.208	1807.07	382.97	-206.72	1.853
146	M	n	B.4	269.67	0.280	5.300	2.40	2.208	1807.07	368.12	-122.45	3.006
150	M	n	B.1	314.89	0.330	5.300	2.40	2.208	1807.07	417.20	-179.33	2.326
150	M	n	B.4	297.90	0.310	5.300	2.40	2.208	1807.07	399.18	-87.83	4.545
153	M	n	B.1	314.95	0.330	5.300	2.40	2.208	1807.07	417.26	179.31	2.327
153	M	n	B.4	297.96	0.310	5.300	2.40	2.208	1807.07	399.25	87.81	4.547
157	M	e	B.1	86.28	0.030	2.500	2.88	0.868	2150.09	241.33	0.00	>> 1
157	M	e	B.4	59.96	0.020	2.500	2.88	0.868	2150.09	169.85	0.00	>> 1
159	M	e	B.1	95.47	0.030	2.500	2.88	0.868	2139.76	264.51	0.00	>> 1

159	M	e	B.4	79.19	0.030	2.500	2.88	0.868	2139.76	221.15	0.00	>> 1
160	M	e	B.1	82.03	0.040	2.500	2.88	0.868	1715.49	181.60	0.00	>> 1
160	M	e	B.4	75.41	0.030	2.500	2.88	0.868	1715.49	167.62	0.00	>> 1
162	M	e	B.1	44.56	0.040	2.500	2.88	0.868	903.86	51.89	0.00	>> 1
162	M	e	B.4	42.23	0.030	2.500	2.88	0.868	903.86	49.31	0.00	>> 1
164	M	e	B.1	60.97	0.040	2.500	2.88	0.868	1218.55	95.65	0.00	>> 1
164	M	e	B.4	57.22	0.030	2.500	2.88	0.868	1218.55	90.06	0.00	>> 1
166	M	e	B.1	45.24	0.040	2.500	2.88	0.868	902.76	52.58	0.00	>> 1
166	M	e	B.4	41.39	0.030	2.500	2.88	0.868	902.76	48.32	0.00	>> 1
169	M	e	B.1	83.15	0.040	2.500	2.88	0.868	1697.42	181.92	0.00	>> 1
169	M	e	B.4	72.81	0.030	2.500	2.88	0.868	1697.42	160.31	0.00	>> 1
171	M	e	B.1	103.68	0.030	2.500	2.88	0.868	2287.33	306.84	0.00	>> 1
171	M	e	B.4	83.42	0.030	2.500	2.88	0.868	2287.33	249.17	0.00	>> 1
172	M	e	B.1	86.28	0.030	2.500	2.88	0.868	2148.61	241.16	0.00	>> 1
172	M	e	B.4	60.60	0.020	2.500	2.88	0.868	2148.61	171.49	0.00	>> 1
174	M	e	B.1	86.26	0.030	2.500	2.88	0.868	2148.61	241.10	0.00	>> 1
174	M	e	B.4	60.58	0.020	2.500	2.88	0.868	2148.61	171.44	0.00	>> 1
176	M	e	B.1	103.66	0.030	2.500	2.88	0.868	2287.33	306.78	0.00	>> 1
176	M	e	B.4	83.40	0.030	2.500	2.88	0.868	2287.33	249.11	0.00	>> 1
177	M	e	B.1	83.12	0.040	2.500	2.88	0.868	1697.05	181.81	0.00	>> 1
177	M	e	B.4	72.78	0.030	2.500	2.88	0.868	1697.05	160.22	0.00	>> 1
179	M	e	B.1	45.24	0.040	2.500	2.88	0.868	902.76	52.58	0.00	>> 1
179	M	e	B.4	41.39	0.030	2.500	2.88	0.868	902.76	48.32	0.00	>> 1
182	M	e	B.1	60.97	0.040	2.500	2.88	0.868	1218.55	95.65	0.00	>> 1
182	M	e	B.4	57.22	0.030	2.500	2.88	0.868	1218.55	90.06	0.00	>> 1
184	M	e	B.1	44.56	0.040	2.500	2.88	0.868	903.86	51.89	0.00	>> 1
184	M	e	B.4	42.23	0.030	2.500	2.88	0.868	903.86	49.31	0.00	>> 1
186	M	e	B.1	82.04	0.040	2.500	2.88	0.868	1715.49	181.62	0.00	>> 1
186	M	e	B.4	75.42	0.030	2.500	2.88	0.868	1715.49	167.64	0.00	>> 1
188	M	e	B.1	95.50	0.030	2.500	2.88	0.868	2139.76	264.59	0.00	>> 1
188	M	e	B.4	79.21	0.030	2.500	2.88	0.868	2139.76	221.21	0.00	>> 1
189	M	e	B.1	86.30	0.030	2.500	2.88	0.868	2149.35	241.30	0.00	>> 1
189	M	e	B.4	59.98	0.020	2.500	2.88	0.868	2149.35	169.85	0.00	>> 1
191	M	e	B.1	42.04	0.020	2.500	2.88	0.868	1552.80	86.08	0.00	>> 1
191	M	e	B.4	31.32	0.010	2.500	2.88	0.868	1552.80	64.58	0.00	>> 1
194	M	e	B.1	42.06	0.020	2.500	2.88	0.868	1552.80	86.12	0.00	>> 1
194	M	e	B.4	31.34	0.010	2.500	2.88	0.868	1552.80	64.62	0.00	>> 1
197	M	e	B.1	37.63	0.020	2.500	2.88	0.868	1552.80	77.27	0.00	>> 1
197	M	e	B.4	34.17	0.020	2.500	2.88	0.868	1552.80	70.33	0.00	>> 1
200	M	e	B.1	37.64	0.020	2.500	2.88	0.868	1552.80	77.29	0.00	>> 1
200	M	e	B.4	34.18	0.020	2.500	2.88	0.868	1552.80	70.35	0.00	>> 1
203	M	e	B.1	140.97	0.100	2.500	2.88	0.868	1035.20	170.85	-42.49	4.021
203	M	e	B.4	123.81	0.090	2.500	2.88	0.868	1035.20	152.93	42.48	3.600
205	M	e	B.1	139.84	0.100	2.500	2.88	0.868	1035.20	169.69	-42.49	3.994
205	M	e	B.4	124.95	0.090	2.500	2.88	0.868	1035.20	154.15	42.48	3.629
208	M	e	B.1	140.98	0.100	2.500	2.88	0.868	1035.20	170.86	-42.48	4.022
208	M	e	B.4	123.82	0.090	2.500	2.88	0.868	1035.20	152.94	42.48	3.600
287	W		I.1	0.09	0.030	-	1.05	223.809	734.10	34.59	1.65	>> 1
287	W		I.4	0.09	0.030	-	1.05	223.809	734.10	34.59	1.64	>> 1
287	W		J.1	0.09	0.030	-	1.05	223.809	734.10	34.59	1.65	>> 1
287	W		J.4	0.09	0.030	-	1.05	223.809	734.10	34.59	1.64	>> 1
290	W		I.1	0.10	0.030	-	1.05	223.809	734.10	34.59	1.65	>> 1
290	W		I.4	0.10	0.030	-	1.05	223.809	734.10	34.59	1.64	>> 1
290	W		J.1	0.10	0.030	-	1.05	223.809	734.10	34.59	1.65	>> 1
290	W		J.4	0.10	0.030	-	1.05	223.809	734.10	34.59	1.64	>> 1

16. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.215
(Analisi Sismica Dinamica Modale)

N.	Tip.	P (kN)	Nu	My	Mz (kN m)	Mu,y	Mu,z	C.Sic.
252	T	4.53	3246.97	-9.47		-91.18		9.628
252	T	-4.53	3246.97	-9.47		-89.89		9.493
253	T	4.53	3246.97	-9.47		-91.18		9.628
253	T	-4.53	3246.97	-9.47		-89.89		9.493
254	T	3.29	3246.97	-6.86		-91.00		>> 1
254	T	3.28	3246.97	-6.86		-91.00		>> 1
254	T	-3.28	3246.97	-6.86		-90.07		>> 1
255	T	3.29	3246.97	-6.86		-91.00		>> 1
255	T	3.28	3246.97	-6.86		-91.00		>> 1
255	T	-3.28	3246.97	-6.86		-90.07		>> 1
428	Z	0.00	8253.79	-57.22		-338.83		5.921
428	Z	0.00	8253.79	-32.53		-338.83		>> 1
428	Z	0.00	8253.79	-57.12		-338.83		5.932
428	Z	0.00	8253.79	-32.43		-338.83		>> 1
433	Z	0.00	8253.79	-45.60		-338.83		7.431
433	Z	0.00	8253.79	-20.05		-338.83		>> 1
433	Z	0.00	8253.79	-45.71		-338.83		7.413
433	Z	0.00	8253.79	-20.16		-338.83		>> 1
441	Z	0.00	8253.79	265.75		338.83		1.275
441	Z	0.00	8253.79	260.29		338.83		1.302
441	Z	0.00	8253.79	-19.91		-338.83		>> 1
441	Z	0.00	8253.79	-15.55		-338.83		>> 1

442	Z	0.00	8253.79	-19.59	-338.83	>> 1
442	Z	0.00	8253.79	-15.13	-338.83	>> 1
442	Z	0.00	8253.79	-123.68	-338.83	2.739
442	Z	0.00	8253.79	-120.46	-338.83	2.813
443	Z	0.00	8253.79	-19.90	-338.83	>> 1
443	Z	0.00	8253.79	-15.55	-338.83	>> 1
443	Z	0.00	8253.79	265.76	338.83	1.275
443	Z	0.00	8253.79	260.30	338.83	1.302
444	Z	0.00	8253.79	-123.54	-338.83	2.743
444	Z	0.00	8253.79	-120.19	-338.83	2.819
444	Z	0.00	8253.79	-123.53	-338.83	2.743
444	Z	0.00	8253.79	-120.19	-338.83	2.819
445	Z	0.00	8253.79	-123.68	-338.83	2.739
445	Z	0.00	8253.79	-120.46	-338.83	2.813
445	Z	0.00	8253.79	-19.59	-338.83	>> 1
445	Z	0.00	8253.79	-15.11	-338.83	>> 1
446	Z	0.00	8253.79	-22.97	-338.83	>> 1
446	Z	0.00	8253.79	-18.15	-338.83	>> 1
446	Z	0.00	8253.79	260.28	338.83	1.302
446	Z	0.00	8253.79	255.84	338.83	1.324
447	Z	0.00	8253.79	-125.63	-338.83	2.697
447	Z	0.00	8253.79	-122.30	-338.83	2.771
447	Z	0.00	8253.79	-22.64	-338.83	>> 1
447	Z	0.00	8253.79	-17.71	-338.83	>> 1
448	Z	0.00	8253.79	-125.48	-338.83	2.700
448	Z	0.00	8253.79	-122.02	-338.83	2.777
448	Z	0.00	8253.79	-125.48	-338.83	2.700
448	Z	0.00	8253.79	-122.02	-338.83	2.777
449	Z	0.00	8253.79	260.28	338.83	1.302
449	Z	0.00	8253.79	255.84	338.83	1.324
449	Z	0.00	8253.79	-22.96	-338.83	>> 1
449	Z	0.00	8253.79	-18.15	-338.83	>> 1
450	Z	0.00	8253.79	-22.64	-338.83	>> 1
450	Z	0.00	8253.79	-17.71	-338.83	>> 1
450	Z	0.00	8253.79	-125.62	-338.83	2.697
450	Z	0.00	8253.79	-122.30	-338.83	2.771
458	T	-0.01	3246.97	-0.02	-90.53	>> 1
458	T	0.00	3246.97	0.02	90.54	>> 1
458	T	-0.01	3246.97	0.02	90.53	>> 1
458	T	0.00	3246.97	-0.02	-90.54	>> 1
462	T	0.00	3246.97	-5.69	-90.54	>> 1
466	T	0.00	3246.97	-5.69	-90.54	>> 1
470	T	0.00	3246.97	-4.99	-90.54	>> 1
474	T	0.00	3246.97	-4.99	-90.54	>> 1
478	T	0.00	3246.97	-4.99	-90.54	>> 1
482	T	0.00	3246.97	-4.99	-90.54	>> 1
486	T	0.00	3246.97	-4.99	-90.54	>> 1
490	T	0.00	3246.97	-4.99	-90.54	>> 1
494	T	0.00	3246.97	-4.92	-90.54	>> 1
504	T	0.00	3246.97	-4.99	-90.54	>> 1
508	T	0.00	3246.97	-4.99	-90.54	>> 1
512	T	0.00	3246.97	-4.99	-90.54	>> 1
516	T	0.00	3246.97	-4.99	-90.54	>> 1
520	T	0.00	3246.97	-4.99	-90.54	>> 1
521	T	0.00	3246.97	-5.69	-90.54	>> 1
525	T	0.00	3246.97	-4.99	-90.54	>> 1
526	T	0.00	3246.97	-5.69	-90.54	>> 1
530	T	0.00	3246.97	-4.92	-90.54	>> 1
534	T	0.00	3246.97	-3.98	-90.54	>> 1
535	T	0.00	3246.97	-5.90	-90.54	>> 1
539	T	0.00	3246.97	-3.98	-90.54	>> 1
540	T	0.00	3246.97	-5.90	-90.54	>> 1

VERIFICHE SISMICHE DEGLI ELEMENTI IN MURATURA: VERIFICA A TAGLIO PER SCORRIMENTO (D.M.17.1.2018 (NTC18), §7.8.2.2.2)

La resistenza a taglio di ciascun elemento strutturale deve essere valutata per mezzo della relazione seguente:

$V_t = l' t f_{vd}$, dove:

l' = lunghezza della parte compressa della parete;

t = spessore della parete;

$f_{vd} = f_{vk} / \gamma_M$ è definito in §4.5.6.1: $f_{vk} = f_{vko} + 0.4 \sigma_n$, calcolando la tensione normale media sulla parte compressa della sezione: $\sigma_n = P / (l' \cdot t)$.

In Analisi Non Lineare, la resistenza di calcolo è data da: $f_{vd} = f_{vmo} + 0.4 \sigma_n$, dove f_{vmo} è la resistenza media a taglio della muratura (se f_{vmo} non è nota, si pone: $f_{vmo} = f_{vko} / 0.7$); inoltre, non si applica il coefficiente γ_M .

Per le verifiche sismiche viene utilizzato il coefficiente parziale di sicurezza γ_M definito in §7.8.1.1 dove si indica $\gamma_M \geq 2.0$.

La formulazione riportata in §7.8.2.2.2 fa diretto riferimento a muratura nuova.

Per la muratura esistente, il parametro descrittivo del comportamento a taglio del materiale è il valore medio f_{vo} , definito in base alla tipologia della muratura e ad opportuni fattori correttivi riguardanti le caratteristiche dell'organizzazione strutturale e degli eventuali interventi (§C8.5.3.1, Tab.C8.5.II). Pertanto, la formulazione del taglio resistente per scorrimento per la muratura esistente può essere ottenuta definendo un valore medio pari a: $f_{vm} = f_{vo} + 0.4 \sigma_n$. Al valore medio della resistenza a taglio deve inoltre essere applicato il coefficiente parziale di sicurezza dei materiali γ_M (solo per l'Analisi Lineare), ed il fattore di confidenza F_C (§8.5.4, §C.8.5.4); normalmente: $F_C = 1.35, 1.20, 1.00$ in corrispondenza dei livelli di conoscenza LC1,LC2,LC3 (si osservi che dal livello di conoscenza dipende anche il valore adottato per f_{vo}).

Si ha pertanto il seguente schema di valutazione della resistenza di calcolo (o: di progetto) f_{vd} :

Muratura nuova: f_{vko} è certamente nota; f_{vmo} : se non è nota, si pone: $f_{vmo} = f_{vko} / 0.7$.

in Analisi Lineare: $f_{vd} = f_{vk} / \gamma_M = (f_{vko} + 0.4 \sigma_n) / \gamma_M$ con $f_{vk} \leq f_{vk,lim} = 0.65 f_b$ (§7.8.2.2.2, §11.10.3.3);

in Analisi Non Lineare: $f_{vd} = f_{vm} = (f_{vmo} + 0.4 \sigma_n)$ con $f_{vm} \leq f_{v,lim} = 0.65 f_b / 0.7$ (§7.8.2.2.2, §11.10.3.3);

Muratura esistente: è nota $f_{vo} (=f_{vmo})$ (dipendente, fra l'altro, dal livello di conoscenza).

In Analisi Lineare: $f_{vd} = f_{vm} / \gamma_M / F_C = (f_{vmo} + 0.4 \sigma_n) / \gamma_M / F_C$ con $f_{vm} \leq f_{v,lim} = 0.065 f_b / 0.7$ [§C8.7.1.14],

in Analisi Non Lineare: $f_{vd} = f_{vm} / F_C = (f_{vmo} + 0.4 \sigma_n) / F_C$ con $f_{vm} \leq f_{v,lim} = 0.065 f_b / 0.7$ [§C8.7.1.14].

Nelle espressioni del calcolo di f_{vd} , si osservi che i coefficienti γ_M e F_C vengono applicati all'espressione completa della resistenza, cioè sia al termine di taglio puro sia a quello dovuto alla tensione normale. Infatti 0.4 è il coefficiente di attrito del materiale murario: è quindi un parametro caratteristico del materiale, e pertanto anche ad esso vanno applicati i coefficienti di sicurezza γ_M e F_C .

Muratura rinforzata:

Rinforzo a taglio di muratura ordinaria o armata: il rinforzo consiste in un'armatura trasversale (es. tralicci) posta nei giunti orizzontali. Per la resistenza a taglio V_t è possibile considerare un incremento rispetto alla muratura ordinaria (qualora nei Parametri di Calcolo sia stata selezionata, nei Dati per Muratura Armata, la corrispondente opzione) (§7.8.3.2.2):

$V_t = V_{tm}$ (contributo muratura) + V_{ts} (contributo armatura) = $(d \cdot t \cdot f_{vd}) + (0.6 \cdot d \cdot A_{sw} \cdot f_{yd}) / s$,

con la limitazione, nel caso di muratura con armature verticali: $V_t \leq V_{t,lim} = 0.3 f_d \cdot t \cdot d$,

dove: d = distanza tra lembo compresso e baricentro dell'armatura tesa;

t = spessore della parete;

s = distanza verticale tra i livelli di armatura;

A_{sw} = area dell'armatura a taglio disposta in direzione parallela alla forza di taglio (armatura orizzontale) nel singolo corso orizzontale;

f_{yd} = resistenza di calcolo dell'acciaio, pari a: f_{yk} / γ_S (analisi lineare) ($\gamma_S = 1.15$);

f_d = resistenza a compressione di calcolo della muratura, pari a: f_d / γ_M (analisi lineare).

Analoga formulazione viene applicata nel caso di muratura esistente rinforzata con **CAM o Reticolatus** (per questi casi, il contributo V_{ts} è sempre considerato).

Per muratura esistente rinforzata con **FRP**:

- il contributo della muratura V_{tm} viene calcolato sulla zona reagente; per il calcolo della resistenza a taglio dipendente dalla compressione viene considerata la tensione σ_n determinata dalla risultante delle compressioni sulla zona reagente (cfr. §5.4.1.2.2 CNR DT 200);

- il contributo del rinforzo V_{ts} ha le seguenti formulazioni (cfr. §5.4.1.2.2 CNR DT 200) ($V_{ts} = V_{Rd,t}$):

a) Nel caso di pannello murario (maschio o fascia) rinforzato con nastri verticali e orizzontali, cioè con nastri a pressoflessione e con nastri ad essi ortogonali orientati secondo la direzione dello sforzo di taglio:

$V_{ts} = (1/\gamma_{Rd}) \cdot 0.6 \cdot d \cdot (E_f \cdot \epsilon_{fd}) \cdot 2 \cdot t_f \cdot b_f / p_f$, dove:

E_f = modulo di elasticità del composito nella direzione delle fibre;

ϵ_{fd} = deformazione di progetto del rinforzo in FRP = minima fra la deformazione di distacco ϵ_{fdd} (se specificata in input) e la deformazione di rottura: $\eta_a \cdot \epsilon_{fk} / \gamma_f$;

t_f = spessore del rinforzo (considerando il numero di nastri sovrapposti; il fattore 2 corrisponde al rinforzo su entrambe le facce del pannello);

b_f , p_f = larghezza e passo delle strisce;

γ_{Rd} = coefficiente parziale, pari a 1.20.

Il valore di V_{ts} viene inoltre ridotto mediante il fattore moltiplicativo $\cotg(90^\circ - \varphi)$, dove φ è l'angolo d'attrito dei corsi di malta.

La resistenza a taglio massima, corrispondente allo stato limite di compressione delle diagonali del traliccio, è data da: $V_{t,lim} = 0.3 f_{hd} \cdot t \cdot d$, dove f_{hd} è la resistenza a compressione di progetto nella direzione del taglio (per i maschi: parallela ai letti di malta; per le fasce si considera f_d).

b) Se invece il rinforzo a taglio è effettuato mediante nastri diagonali:

$V_{ts} = (\delta_{Rd}/H) \cdot (\sin \alpha \cdot \cos^2 \alpha \cdot E_f \cdot A_f)$, dove:

$\delta_{Rd}/H = \min \{ 0.005, \epsilon_{fdd} / (\sin \alpha \cdot \cos \alpha) \}$, con: α = angolo di inclinazione del rinforzo a taglio diagonale; ϵ_{fdd} = deformazione di progetto;

$A_f = 2 \cdot t_f \cdot b_f$, con t_f che tiene conto dei nastri sovrapposti.

Il coefficiente: $[(\delta_{Rd}/H)/0.005]$ moltiplica inoltre il contributo della muratura V_{tm} . Nel caso in cui la correzione di V_{tm} comporti un taglio resistente ($V_{tm} + V_{ts}$) minore della resistenza V_{tm} senza nastri, si trascura il contributo di FRP assumendo come resistenza a taglio la resistenza del pannello senza nastri.

Le verifiche sismiche a taglio per scorrimento, come le altre verifiche di resistenza, sono condotte, per tutti gli edifici in muratura, allo **stato limite ultimo di salvaguardia della vita (SLV)**. Sono richieste verifiche sismiche di resistenza anche per **SLD** nel caso di costruzioni di **Classe III e IV** (§7.3.6).

Simbologia utilizzata nel software PCM (risultati analisi lineare):

N. = numero progressivo dell'elemento murario

n/e = parete in muratura nuova (n) o esistente (e)

Sez. comb. = indica la sezione di verifica (B=base, S=sommità), e la combinazione di azioni derivanti dall'analisi sismica. Più in dettaglio, le combinazioni eseguite nelle sezioni di verifica sono identificate dalle seguenti sigle:

B.1 = sezione di base, combinazione N+, T/M+

B.2 = sezione di base, combinazione N+, T/M-

B.3 = sezione di base, combinazione N-, T/M+

B.4 = sezione di base, combinazione N-, T/M-

e analogamente per la sezione S di sommità.

Le combinazioni .2 e .3 (N+, T/M-) e (N-, T/M+), vengono eseguite solo se il corrispondente parametro di calcolo è stato selezionato (finestra Parametri di Calcolo: scheda: Edifici in Muratura: Per Analisi Lineare: Considerare anche le combinazioni (N_{min} , T/M_{max}), (N_{max} , T/M_{min})).

Le combinazioni che generano risultati identici non vengono riportate. Un esempio di questo tipo è il caso di strutture con vincolamento shear-type, quindi composte da pareti con sforzo normale costante: le verifiche per le diverse combinazioni sono identiche, in quanto varia solamente il segno del momento e conseguentemente si inverte la zona reagente, ma i risultati sono invariati. In questo caso, nella tabella viene riportata, ad es. nella sezione di base, la sola verifica B.1

P = forza assiale positiva se di compressione

M = momento di calcolo

Ecc = eccentricità (= M / P)

Beta = coefficiente di parzializzazione della sezione = l'/l , essendo l' la zona compressa.

Per muratura ordinaria: la zona reagente (parte della sezione soggetta a compressione) può essere determinata ipotizzando la distribuzione triangolare delle tensioni (EC6, §4.5.3.(6)), oppure (nell'ipotesi di comportamento della muratura parabolico-rettangolare) calcolando l'effettiva zona reagente a pressoflessione attraverso lo studio del punto di sollecitazione contenuto nel dominio di resistenza. In caso di distribuzione triangolare: $Beta=1$ se $(Ecc/l) \leq 1/6$, altrimenti: $Beta=(3 \cdot (0.5-Ecc/l))$ [$Beta=0$ se $Ecc \geq l/2$].

Per muratura armata o consolidata con FRP / CAM / Reticolatus, il dominio di resistenza è sempre disponibile e quindi in tali casi è sempre possibile fare riferimento all'effettiva zona reagente a pressoflessione.

Si osservi che il riferimento all'effettiva zona reagente a pressoflessione garantisce la coerenza fra Taglio e PressoFlessione (N,M e T agiscono contemporaneamente sulla sezione trasversale). Lo studio della sezione nel dominio di resistenza fornisce inoltre la risultante delle compressioni C relativa alla zona reagente: tale risultante è maggiore dello sforzo normale N di compressione agente sulla sezione quando sia presente un elemento in grado di fornire resistenza a trazione T ($C=N+T$). Più in dettaglio:

- per la muratura armata e per i sistemi CAM / Reticolatus, la zona resistente a taglio per scorrimento è pari a d (cfr. §7.8.3.2.2) e quindi non corrisponde in realtà alla sola zona compressa. La tensione normale σ_n ai fini della verifica a taglio per scorrimento è fornita da: $N/(dt)$, con t=spessore della parete;
- per la muratura ordinaria non rinforzata non esiste un elemento reagente a trazione, e quindi $C=N$. σ_n è pari a $N/(It)$;
- per la muratura rinforzata con FRP, si fa riferimento all'effettiva zona compressa e alla tensione normale media prodotta dalla risultante degli sforzi di compressione: $\sigma_n = C/(It)$ (DT200 R1/2012, §5.4.1.1.2).

C = risultante degli sforzi di compressione sulla zona reagente, calcolata in caso di comportamento meccanico della muratura secondo il modello parabolico-rettangolare

σ_n = tensione normale media riferita alla parte compressa della sezione

f_{vko}/f_{vmo} = resistenza a taglio per fessurazione diagonale in assenza di compressione: f_{vko} (caratteristica) per muratura nuova, f_{vmo} (media) per muratura esistente ($f_{vmo} = f_{vo}$).

f_{vd} = valore di calcolo (o: di progetto) della resistenza a taglio per scorrimento, che tiene conto dei limiti sopra citati

Edificio nuovo: **γ_m** = coefficiente parziale di sicurezza dei materiali γ_m

Edificio esistente: **γ_m** · **FC** = prodotto del coefficiente parziale di sicurezza dei materiali γ_m per il fattore di confidenza (dipendente dal livello di conoscenza LC1, LC2 o LC3)

Vt = taglio resistente

V = taglio di calcolo. Per gli edifici nuovi in muratura armata progettata secondo la gerarchia delle resistenze (§7.8.1.7), il taglio di calcolo viene amplificato per il fattore (M_u/M), dove M è il momento di calcolo corrispondente a V e M_u è il momento resistente, in modo da ottenere l'azione di taglio corrispondente alla resistenza a collasso per flessione; V è inoltre amplificato per $\gamma_{Rd}=1.5$

C.Sic. = coefficiente di sicurezza dato dal rapporto V_t / V . La verifica è soddisfatta quando il coefficiente di sicurezza è ≥ 1

Nel caso di muratura rinforzata, compaiono inoltre i seguenti parametri:

% arm. tag. = percentuale di armatura a taglio (definita da: $A_{sw} / (s \cdot t) \cdot 100$).

Nel caso di rinforzo con armatura trasversale posta nei giunti, si adottano i limiti normativi indicati in §4.5.7: la percentuale non può essere inferiore allo 0.04% né superiore allo 0.5%, e in caso contrario il dato viene posto in evidenza (grassetto in colore blu)

VtM = contributo della muratura al taglio resistente

VtS = contributo dell'armatura orizzontale al taglio resistente

Vtlim = valore limite del taglio resistente

VERIFICHE SISMICHE DEGLI ELEMENTI IN CALCESTRUZZO ARMATO: VERIFICA A TAGLIO

(D.M.17.1.2018 (NTC18), §4.1.2.1.3)

In strutture miste, gli elementi in c.a. (pareti e/o travi) possono essere soggetti a verifica di resistenza, in particolare nel caso in cui siano considerati collaboranti con gli elementi murari sotto azioni orizzontali. La legge di comportamento del calcestruzzo è di tipo parabolico-rettangolare (§4.1.2.1.2.1, Fig. 4.1.1(a)), mentre per l'acciaio si adotta la legge elastica-perfettamente plastica (§4.1.2.1.2.2, Fig. 4.1.3(b)).

Per gli elementi verticali (pareti e pilastri) viene eseguita la verifica a taglio considerando separatamente i due piani locali di sollecitazione xy (taglio V_y) e xz (taglio V_z). Per gli elementi orizzontali (travi in elevazione e di fondazione) viene eseguita la verifica a taglio nel piano locale xz (V_z). Le verifiche a taglio vengono eseguite nelle sezioni di estremità della luce deformabile.

La staffatura è supposta uguale nelle due sezioni di estremità (in caso di differenza, si sarà fatto riferimento alla staffatura minore). Nel caso di strutture esistenti, saranno stati inseriti i valori di armatura stimati o rilevati; nel caso di strutture nuove, le armature progettate. Per i nuovi elementi in c.a. il rispetto delle armature minime di regolamento e delle eventuali condizioni sulle gerarchie delle resistenze, secondo le indicazioni normative, deve essere assicurato a priori. PCM esegue le verifiche di sicurezza utilizzando le armature in input e le sollecitazioni derivanti dal calcolo, indipendentemente dai controlli sulla conformità alla Normativa delle armature adottate.

La resistenza a taglio viene espressa sulla base della schematizzazione a traliccio (§4.1.2.3.5.2); gli elementi resistenti dell'ideale traliccio sono: le armature trasversali (di area A_{sw} , interasse 's' fra due armature trasversali consecutive, e inclinazione α rispetto all'asse della trave; nel caso delle staffe: $\alpha=90^\circ$), le armature longitudinali, il corrente compresso di calcestruzzo, e i puntoni d'anima inclinati (caratterizzati dall'inclinazione θ rispetto all'asse della trave).

L'inclinazione θ deve rispettare i seguenti limiti: $1 \leq \cotg \theta \leq 2.5$.

Per la verifica di resistenza si può adottare il criterio di uguaglianza della resistenza di calcolo a "taglio trazione" con quella a "taglio compressione", corrispondente a ipotizzare il cedimento simultaneo delle bielle di calcestruzzo e dell'armatura a taglio: si uguagliano i secondi membri delle espressioni V_{Rsd} (4.1.27) e V_{Rcd} (4.1.28):

$$0.9 d (A_{sw}/s) f_{yd} \cdot (\cotg \alpha + \cotg \theta) \cdot \sin \alpha = 0.9 d b_w \alpha_c v f_{cd} \cdot (\cotg \alpha + \cotg \theta) / (1 + \cotg^2 \theta)$$

da cui, essendo $\sin \alpha = 1$ (per le staffe) e $[1/(1 + \cotg^2 \theta)] = \sin^2 \theta$, si ottiene:

$$(A_{sw} f_{yd}) / (b_w s \alpha_c v f_{cd}) = \sin^2 \theta$$

relazione da cui si ottiene θ ; segue il controllo su $\cotg \theta$. A questo punto il taglio resistente si può calcolare equivalentemente con l'espressione di V_{Rsd} o di V_{Rcd} ; si ha:

$$V_{Rd} = V_{Rsd} = 0.9 d (A_{sw}/s) f_{yd} \cdot \cotg \theta. \text{ La verifica di resistenza è soddisfatta quando risulta } V_{Ed} < V_{Rd}.$$

Simbologia utilizzata nel software PCM per i risultati dell'Analisi Sismica Lineare per elementi in cemento armato:

N. = numero progressivo dell'elemento

Tip. = tipologia: parete o pilastro (C), trave in elevazione (T), trave di fondazione (Z)

fcd = resistenza a compressione di progetto. I valori sono i seguenti:

Edifici nuovi: Calcestruzzo: $f_{cd} = 0.85 \cdot f_{ck} / \gamma_c$, Acciaio: $f_{yd} = f_{yk} / \gamma_s$;

Edifici esistenti: Calcestruzzo: $f_{cd} = f_{cm} / F_c / \gamma_c$, Acciaio: $f_{yd} = f_{ym} / F_c / \gamma_s$

v fcd = resistenza di progetto a compressione ridotta per il calcestruzzo d'anima ($v = 0.5$) (§4.1.2.3.5.2)

I seguenti parametri sono elencati per ognuno dei due piani di sollecitazione xy (taglio V_y) e xz (taglio V_z):

cotg.th = cotangente dell'angolo θ . Se non sono rispettati i limiti: $1 \leq \cotg \theta \leq 2.5$, il coefficiente di sicurezza a taglio si annulla

Vu = taglio resistente ($=V_{Rd}$) in direzione y e z

V = taglio di calcolo ($=V_{Ed}$) in direzione y e z

C.Sic. = coefficiente di sicurezza, dato dal rapporto (V_u/V) in direzione y e z

Infine si riporta il coefficiente di sicurezza **C.Sic.** pari al valore minimo fra i coefficienti relativi ai due piani di sollecitazione

17. VERIFICA A TAGLIO PER SCORRIMENTO (§7.8.2.2.2) [SLV] - C.Sic: 1.757

(Analisi Sismica Dinamica Modale)

| N. | n/e | Sez. | P | M | Ecc. | Beta | C | σ_n | f_{vko}/f_{vmo} | γ_m | f_{vd} | Vt | V | C.Sic. |

		comb	(kN)	(kN m)	(m)		(kN)	(N/mm^2)	* FC	(N/mm^2)	(kN)	(kN)		
143	n	B.1	283.09	206.70	0.73	0.820	283.09	0.360	0.300	2.40	0.185	145.55	65.27	2.230
143	n	B.4	269.75	122.42	0.45	1.000	269.75	0.280	0.300	2.40	0.172	165.30	19.97	8.277
146	n	B.1	283.01	-206.72	0.73	0.820	283.01	0.360	0.300	2.40	0.185	145.50	65.28	2.229
146	n	B.4	269.67	-122.45	0.45	1.000	269.67	0.280	0.300	2.40	0.172	165.28	19.98	8.272
150	n	B.1	314.89	-179.33	0.57	0.970	314.89	0.338	0.300	2.40	0.181	168.92	58.89	2.868
150	n	B.4	297.90	-87.83	0.29	1.000	297.90	0.309	0.300	2.40	0.177	169.99	10.31	>> 1
153	n	B.1	314.95	179.31	0.57	0.970	314.95	0.338	0.300	2.40	0.181	168.95	58.89	2.869
153	n	B.4	297.96	87.81	0.29	1.000	297.96	0.310	0.300	2.40	0.177	170.00	10.30	>> 1

18. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.757
(Analisi Sismica Dinamica Modale)

N.	Tip.	fcd (N/mm^2)	v fcd	cotg.th (y)	Vu,y (kN)	Vy	C.Sic. y	cotg.th (Z)	Vu,Z (kN)	Vz	C.Sic. Z	C.Sic.
252	T	15.556	7.778					2.500	153.42	12.71	>> 1	>> 1
252	T	15.556	7.778					2.500	153.42	-12.71	>> 1	>> 1
253	T	15.556	7.778					2.500	153.42	12.71	>> 1	>> 1
253	T	15.556	7.778					2.500	153.42	-12.71	>> 1	>> 1
254	T	15.556	7.778					2.500	153.42	9.21	>> 1	>> 1
254	T	15.556	7.778					2.500	153.42	-9.21	>> 1	>> 1
255	T	15.556	7.778					2.500	153.42	9.21	>> 1	>> 1
255	T	15.556	7.778					2.500	153.42	-9.21	>> 1	>> 1
428	Z	15.556	7.778					2.500	369.78	-67.58	5.471	5.471
428	Z	15.556	7.778					2.500	369.78	-43.36	8.528	8.528
428	Z	15.556	7.778					2.500	369.78	67.68	5.463	5.463
428	Z	15.556	7.778					2.500	369.78	43.46	8.508	8.508
433	Z	15.556	7.778					2.500	369.78	-68.18	5.424	5.424
433	Z	15.556	7.778					2.500	369.78	-43.08	8.584	8.584
433	Z	15.556	7.778					2.500	369.78	68.08	5.432	5.432
433	Z	15.556	7.778					2.500	369.78	42.98	8.604	8.604
441	Z	15.556	7.778					2.500	369.78	-210.46	1.757	1.757
441	Z	15.556	7.778					2.500	369.78	-199.86	1.850	1.850
441	Z	15.556	7.778					2.500	369.78	-107.06	3.454	3.454
441	Z	15.556	7.778					2.500	369.78	-106.06	3.486	3.486
442	Z	15.556	7.778					2.500	369.78	-110.99	3.332	3.332
442	Z	15.556	7.778					2.500	369.78	-109.66	3.372	3.372
442	Z	15.556	7.778					2.500	369.78	-41.44	8.924	8.924
442	Z	15.556	7.778					2.500	369.78	-38.74	9.545	9.545
443	Z	15.556	7.778					2.500	369.78	107.06	3.454	3.454
443	Z	15.556	7.778					2.500	369.78	106.06	3.486	3.486
443	Z	15.556	7.778					2.500	369.78	210.46	1.757	1.757
443	Z	15.556	7.778					2.500	369.78	199.86	1.850	1.850
444	Z	15.556	7.778					2.500	369.78	-49.37	7.490	7.490
444	Z	15.556	7.778					2.500	369.78	-46.68	7.921	7.921
444	Z	15.556	7.778					2.500	369.78	49.37	7.490	7.490
444	Z	15.556	7.778					2.500	369.78	46.68	7.921	7.921
445	Z	15.556	7.778					2.500	369.78	41.44	8.924	8.924
445	Z	15.556	7.778					2.500	369.78	38.74	9.545	9.545
445	Z	15.556	7.778					2.500	369.78	110.99	3.332	3.332
445	Z	15.556	7.778					2.500	369.78	109.66	3.372	3.372
446	Z	15.556	7.778					2.500	369.78	105.97	3.489	3.489
446	Z	15.556	7.778					2.500	369.78	105.25	3.513	3.513
446	Z	15.556	7.778					2.500	369.78	208.90	1.770	1.770
446	Z	15.556	7.778					2.500	369.78	198.68	1.861	1.861
447	Z	15.556	7.778					2.500	369.78	41.09	9.000	9.000
447	Z	15.556	7.778					2.500	369.78	38.25	9.668	9.668
447	Z	15.556	7.778					2.500	369.78	109.97	3.363	3.363
447	Z	15.556	7.778					2.500	369.78	108.89	3.396	3.396
448	Z	15.556	7.778					2.500	369.78	-49.08	7.534	7.534
448	Z	15.556	7.778					2.500	369.78	-46.24	7.996	7.996
448	Z	15.556	7.778					2.500	369.78	49.07	7.536	7.536
448	Z	15.556	7.778					2.500	369.78	46.24	7.996	7.996
449	Z	15.556	7.778					2.500	369.78	-208.90	1.770	1.770
449	Z	15.556	7.778					2.500	369.78	-198.68	1.861	1.861
449	Z	15.556	7.778					2.500	369.78	-105.97	3.489	3.489
449	Z	15.556	7.778					2.500	369.78	-105.25	3.513	3.513
450	Z	15.556	7.778					2.500	369.78	-109.98	3.362	3.362
450	Z	15.556	7.778					2.500	369.78	-108.90	3.396	3.396
450	Z	15.556	7.778					2.500	369.78	-41.10	8.998	8.998
450	Z	15.556	7.778					2.500	369.78	-38.25	9.668	9.668
458	T	15.556	7.778					2.500	153.42	17.13	8.956	8.956
458	T	15.556	7.778					2.500	153.42	-15.91	9.643	9.643
458	T	15.556	7.778					2.500	153.42	17.12	8.961	8.961
458	T	15.556	7.778					2.500	153.42	-15.92	9.637	9.637
462	T	15.556	7.778					2.500	153.42	8.64	>> 1	>> 1
462	T	15.556	7.778					2.500	153.42	-8.64	>> 1	>> 1
466	T	15.556	7.778					2.500	153.42	8.64	>> 1	>> 1
466	T	15.556	7.778					2.500	153.42	-8.64	>> 1	>> 1
470	T	15.556	7.778					2.500	153.42	8.09	>> 1	>> 1
470	T	15.556	7.778					2.500	153.42	-8.09	>> 1	>> 1
474	T	15.556	7.778					2.500	153.42	8.09	>> 1	>> 1

474	T	15.556	7.778				2.500	153.42	-8.09	>> 1	>> 1
478	T	15.556	7.778				2.500	153.42	8.09	>> 1	>> 1
478	T	15.556	7.778				2.500	153.42	-8.09	>> 1	>> 1
482	T	15.556	7.778				2.500	153.42	8.09	>> 1	>> 1
482	T	15.556	7.778				2.500	153.42	-8.09	>> 1	>> 1
486	T	15.556	7.778				2.500	153.42	8.09	>> 1	>> 1
486	T	15.556	7.778				2.500	153.42	-8.09	>> 1	>> 1
490	T	15.556	7.778				2.500	153.42	8.09	>> 1	>> 1
490	T	15.556	7.778				2.500	153.42	-8.09	>> 1	>> 1
494	T	15.556	7.778				2.500	153.42	8.04	>> 1	>> 1
494	T	15.556	7.778				2.500	153.42	-8.04	>> 1	>> 1
504	T	15.556	7.778				2.500	153.42	8.09	>> 1	>> 1
504	T	15.556	7.778				2.500	153.42	-8.09	>> 1	>> 1
508	T	15.556	7.778				2.500	153.42	8.09	>> 1	>> 1
508	T	15.556	7.778				2.500	153.42	-8.09	>> 1	>> 1
512	T	15.556	7.778				2.500	153.42	8.09	>> 1	>> 1
512	T	15.556	7.778				2.500	153.42	-8.09	>> 1	>> 1
516	T	15.556	7.778				2.500	153.42	8.09	>> 1	>> 1
516	T	15.556	7.778				2.500	153.42	-8.09	>> 1	>> 1
520	T	15.556	7.778				2.500	153.42	8.09	>> 1	>> 1
520	T	15.556	7.778				2.500	153.42	-8.09	>> 1	>> 1
521	T	15.556	7.778				2.500	153.42	8.65	>> 1	>> 1
521	T	15.556	7.778				2.500	153.42	-8.64	>> 1	>> 1
525	T	15.556	7.778				2.500	153.42	8.09	>> 1	>> 1
525	T	15.556	7.778				2.500	153.42	-8.09	>> 1	>> 1
526	T	15.556	7.778				2.500	153.42	8.64	>> 1	>> 1
526	T	15.556	7.778				2.500	153.42	-8.64	>> 1	>> 1
530	T	15.556	7.778				2.500	153.42	8.03	>> 1	>> 1
530	T	15.556	7.778				2.500	153.42	-8.03	>> 1	>> 1
534	T	15.556	7.778				2.500	153.42	7.23	>> 1	>> 1
534	T	15.556	7.778				2.500	153.42	-7.23	>> 1	>> 1
535	T	15.556	7.778				2.500	153.42	8.80	>> 1	>> 1
535	T	15.556	7.778				2.500	153.42	-8.80	>> 1	>> 1
539	T	15.556	7.778				2.500	153.42	7.23	>> 1	>> 1
539	T	15.556	7.778				2.500	153.42	-7.23	>> 1	>> 1
540	T	15.556	7.778				2.500	153.42	8.80	>> 1	>> 1
540	T	15.556	7.778				2.500	153.42	-8.80	>> 1	>> 1

VERIFICHE SISMICHE DEGLI ELEMENTI IN MURATURA: VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE

(D.M.17.1.2018 (NTC18), §C8.7.1.5)

I criteri di resistenza per la verifica a taglio per fessurazione diagonale nelle murature a tessitura irregolare e nelle murature a tessitura regolare sono indicati nella Circolare in §C8.7.1.3.1.1 per le verifiche sismiche e, per analogia, vengono estese alle verifiche statiche.

Le verifiche statiche, originariamente nate per edifici di nuova costruzione, possono essere svolte anche per gli edifici esistenti, utilizzando resistenze di progetto ottenute dividendo i valori medi divisi per il fattore di confidenza e per il coefficiente parziale di sicurezza dei materiali (per γ_M : §4.5.6.1, per F_C : §C8.5.4).

Per muratura con tessitura irregolare:

$$V_t = l \cdot t \cdot \frac{1.5 \tau_{0d}}{b} \sqrt{1 + \frac{\sigma_0}{1.5 \tau_{0d}}} = l \cdot t \cdot \frac{f_{td}}{b} \sqrt{1 + \frac{\sigma_0}{f_{td}}} \quad [\text{C8.7.1.16}]$$

per muratura con tessitura regolare:

$$V_t = \frac{l \cdot t}{b} \left(\tilde{f}_{v0d} + \mu \sigma_0 \right) = \frac{l \cdot t}{b} \left(\frac{f_{v0d}}{1 + \mu \phi} + \frac{\mu}{1 + \mu \phi} \sigma_0 \right) \leq V_{t,lim} \quad [\text{C8.7.1.17}]$$

dove: l = lunghezza del pannello, t = spessore del pannello,

σ_0 = tensione normale media, riferita all'area totale della sezione (= P / lt , con P forza assiale agente positiva se di compressione);

b = coefficiente correttivo legato alla distribuzione degli sforzi sulla sezione, dipendente dalla snellezza della parete. Si può assumere $b = \lambda (=h/l)$, essendo λ la snellezza della parete, comunque non superiore a 1.5 e non inferiore a 1, dove h è l'altezza della parete.

Per tessitura irregolare:

f_{td} = valore di calcolo della resistenza a trazione per fessurazione diagonale = $1.5 \tau_{0d}$

τ_{0d} = valore di calcolo della resistenza a taglio di riferimento (=resistenza a taglio puro, cioè in assenza di sforzo normale)

Per tessitura regolare:

μ (coefficiente di attrito locale del giunto) e ϕ (coefficiente di ingranamento murario - muratura regolare): cfr. Dati Materiali;

f_{v0d} = valore di calcolo della resistenza a taglio di riferimento (=resistenza a taglio puro, cioè in assenza di sforzo normale);

per il taglio resistente la Normativa fornisce la limitazione massima $V_{t,lim}$ [C8.7.1.18].

I valori di calcolo delle resistenze sono ottenuti dividendo i valori medi per i rispettivi fattori di confidenza F_C (§8.5.4, §C8.5.4) e, in analisi lineare, per il coefficiente parziale di sicurezza sui materiali γ_M . Normalmente: $F_C = 1.35, 1.20, 1.00$ in corrispondenza dei livelli di conoscenza LC1,LC2,LC3 (si osservi che dal livello di conoscenza dipende anche il valore adottato per τ_0 e per f_{v0}).

Per le verifiche sismiche viene utilizzato il coefficiente parziale di sicurezza γ_M definito in §7.8.1.1 dove si indica $\gamma_M \geq 2.0$.

Muratura rinforzata:

Rinforzo a taglio di muratura ordinaria o armata: il rinforzo consiste in un'armatura trasversale (es. tralicci) posta nei giunti orizzontali. Per la resistenza a taglio V_t è possibile considerare un incremento rispetto alla muratura ordinaria (qualora nei Parametri di Calcolo sia stata selezionata, nei Dati per Muratura Armata, la corrispondente opzione) (§7.8.3.2.2):

$$V_t = V_{tm} (\text{contributo muratura}) + V_{ts} (\text{contributo armatura}) = (l \cdot t \cdot f_{vd}) + (0.6 \cdot l \cdot A_{sw} \cdot f_{yd}) / s,$$

dove:

s = distanza verticale tra i livelli di armatura;

A_{sw} = area dell'armatura a taglio disposta in direzione parallela alla forza di taglio (armatura orizzontale) nel singolo corso orizzontale;
 f_{yd} = resistenza di calcolo dell'acciaio, pari a: f_{yk} / γ_s (analisi lineare) ($\gamma_s = 1.15$);
 f_d = resistenza a compressione di calcolo della muratura, pari a: f_d / γ_m (analisi lineare).
 Analoga formulazione viene applicata nel caso di muratura esistente rinforzata con **CAM o Reticolatus** (per questi casi, il contributo V_{is} è sempre considerato; al posto della lunghezza del pannello l viene considerata la distanza d tra lembo compresso e baricentro dell'armatura tesa).
 Per muratura esistente rinforzata con **FRP**, il contributo del rinforzo ha le seguenti formulazioni (cfr. §5.4.1.2.2 CNR DT 200) ($V_{is}=V_{Rd,f}$).
 a) Nel caso di pannello murario (maschio o fascia) rinforzato con nastri verticali e orizzontali, cioè con nastri a pressoflessione e con nastri ad essi ortogonali orientati secondo la direzione dello sforzo di taglio:
 $V_{is} = (1/\gamma_{Rd}) \cdot 0.6 d \cdot (E_f \varepsilon_{fd}) \cdot 2 t_f b_f / p_f$, dove:
 E_f = modulo di elasticità del composito nella direzione delle fibre;
 ε_{fd} = deformazione di progetto del rinforzo in FRP = minima fra la deformazione di distacco ε_{fdd} (se specificata in input) e la deformazione di rottura: $\eta_a \varepsilon_{fk} / \gamma_f$;
 t_f = spessore del rinforzo (considerando il numero di nastri sovrapposti; il fattore 2 corrisponde al rinforzo su entrambe le facce del pannello);
 b_f, p_f = larghezza e passo delle strisce;
 γ_{Rd} = coefficiente parziale, pari a 1.20.
 Il valore di V_{is} viene inoltre ridotto mediante il fattore moltiplicativo $\cotg(90^\circ - \varphi)$, dove φ è l'angolo d'attrito dei corsi di malta.
 La resistenza a taglio massima, corrispondente allo stato limite di compressione delle diagonali del traliccio, è data da: $V_{t,lim} = 0.3 f_{hd} t d$, dove f_{hd} è la resistenza a compressione di progetto nella direzione del taglio (per i maschi: parallela ai letti di malta; per le fasce si considera f_d).
 b) Se invece il rinforzo a taglio è effettuato mediante nastri diagonali:
 $V_{is} = (\delta_{Rd}/H) \cdot (\sin \alpha \cos^2 \alpha E_f A_f)$, dove:
 $\delta_{Rd}/H = \min \{ 0.005, \varepsilon_{fdd} / (\sin \alpha \cos \alpha) \}$, con: α =angolo di inclinazione del rinforzo a taglio diagonale; ε_{fdd} =deformazione di progetto;
 $A_f = 2 t_f b_f$, con t_f che tiene conto dei nastri sovrapposti.
 Il coefficiente: $[(\delta_{Rd}/H)/0.005]$ moltiplica inoltre il contributo della muratura V_{tm} . Nel caso in cui la correzione di V_{tm} comporti un taglio resistente ($V_{tm} + V_{is}$) minore della resistenza V_{tm} senza nastri, si trascura il contributo di FRP assumendo come resistenza a taglio la resistenza del pannello senza nastri.

Le verifiche sismiche a taglio per fessurazione diagonale, come le altre verifiche di resistenza, sono condotte, per tutti gli edifici in muratura, allo **stato limite ultimo di salvaguardia della vita (SLV)**. Sono richieste verifiche sismiche di resistenza anche per **SLD** nel caso di costruzioni di **Classe III e IV (§7.3.6)**.

Simbologia adottata dal software PCM (risultati analisi lineare):
N. = numero progressivo dell'elemento murario
n/e = parete in muratura nuova (n) o esistente (e)
Sez. comb. = indica la sezione di verifica (M=mezzeria, con riferimento alla luce deformabile nel piano complanare), e la combinazione di azioni derivanti dall'analisi sismica. Più in dettaglio, le combinazioni eseguite sono identificate dalle seguenti sigle:
 M.1 = combinazione N+, T/M+
 M.2 = combinazione N+, T/M-
 M.3 = combinazione N-, T/M+
 M.4 = combinazione N-, T/M-
 Le combinazioni .2 e .3 (N+, T/M-) e (N-, T/M+), vengono eseguite solo se il corrispondente parametro di calcolo è stato selezionato (finestra Parametri di Calcolo: scheda: Edifici in Muratura: Per Analisi Lineare: Considerare anche le combinazioni ($N_{min}, T/M_{max}$), ($N_{max}, T/M_{min}$)).
 Le combinazioni che generano risultati identici non vengono riportate. Un esempio di questo tipo è il caso di strutture con vincolamento shear-type, quindi composte da pareti con sforzo normale costante: le verifiche per le diverse combinazioni sono identiche, in quanto varia solamente il segno del momento e conseguentemente si inverte la zona reagente, ma i risultati sono invariati. In questo caso, nella tabella viene riportata la sola verifica M.1
Coeff. b = coefficiente correttivo b
P = forza assiale positiva se di compressione
p = σ_o = tensione normale media riferita all'intera sezione
tau0 = resistenza media a taglio per fessurazione diagonale in assenza di compressione, per tessitura irregolare
fvdo = resistenza di progetto a taglio in assenza di compressione, per tessitura regolare
 Edificio nuovo: γ_m = coefficiente parziale di sicurezza dei materiali γ_m
 Edificio esistente: $\gamma_m \cdot FC$ = prodotto del coefficiente parziale di sicurezza dei materiali γ_m per il fattore di confidenza (dipendente dal livello di conoscenza LC1, LC2 o LC3)
fvd = valore di calcolo (o: di progetto) della resistenza a taglio per fessurazione diagonale
Vt,lim = valore limite per il taglio resistente per tessitura regolare
Vt = taglio resistente
V = taglio di calcolo. Per gli edifici nuovi in muratura armata progettata secondo la gerarchia delle resistenze (§7.8.1.7), il taglio di calcolo viene amplificato per il fattore (M_o/M), dove M è il momento di calcolo corrispondente a V e M_o è il momento resistente, in modo da ottenere l'azione di taglio corrispondente alla resistenza a collasso per flessione; V è inoltre amplificato per $\gamma_{Rd}=1.5$
C.Sic. = coefficiente di sicurezza dato dal rapporto V_t / V . La verifica è soddisfatta quando il coefficiente di sicurezza è ≥ 1

Nel caso di muratura rinforzata, compaiono inoltre i seguenti parametri:
% arm. tag. = percentuale di armatura a taglio (definita da: $A_{sw} / (s t) \cdot 100$).
 Nel caso di rinforzo con armatura trasversale posta nei giunti, si adottano i limiti normativi indicati in §4.5.7: la percentuale non può essere inferiore allo 0.04% né superiore allo 0.5%, e in caso contrario il dato viene posto in evidenza (grassetto in colore blu)
Vtm = contributo della muratura al taglio resistente
Vts = contributo dell'armatura orizzontale al taglio resistente

19. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§C8.7.1.3.1) [SLV] - C.Sic: 1.394
 (Analisi Sismica Dinamica Modale)

N.	n/e	Sez. comb.	Coeff. b	P (kN)	p (N/mm^2)	tau0 (N/mm^2)	γ_m FC	fvd (N/mm^2)	Vt (kN)	V (kN)	C.Sic.
1	e	M.1	1.500	48.13	0.054	0.043	2.88	0.028	24.67	15.19	1.624
1	e	M.4	1.500	36.74	0.041	0.043	2.88	0.025	22.52	5.81	3.876
5	e	M.1	1.500	73.05	0.083	0.043	2.88	0.032	28.58	18.18	1.572
5	e	M.4	1.500	55.48	0.063	0.043	2.88	0.029	25.74	5.50	4.679
11	e	M.1	1.500	80.85	0.091	0.043	2.88	0.034	29.76	5.85	5.087
11	e	M.4	1.500	62.95	0.071	0.043	2.88	0.031	26.98	2.70	9.994
14	e	M.1	1.500	67.44	0.076	0.043	2.88	0.031	27.70	5.60	4.946
14	e	M.4	1.500	50.41	0.057	0.043	2.88	0.028	24.85	2.67	9.306

186	e	M.1	1.000	74.37	0.032	0.043	2.88	0.035	81.14	3.77	>> 1
186	e	M.4	1.000	67.75	0.029	0.043	2.88	0.034	78.99	3.56	>> 1
188	e	M.1	1.000	85.93	0.030	0.043	2.88	0.034	98.99	4.76	>> 1
188	e	M.4	1.000	69.64	0.024	0.043	2.88	0.032	93.49	4.38	>> 1
189	e	M.1	1.000	76.69	0.026	0.043	2.88	0.033	96.23	4.81	>> 1
189	e	M.4	1.000	50.37	0.017	0.043	2.88	0.030	86.85	4.36	>> 1
191	e	M.1	1.000	17.74	0.008	0.043	2.88	0.026	55.30	1.08	>> 1
191	e	M.4	1.000	7.02	0.003	0.043	2.88	0.024	50.52	0.97	>> 1
194	e	M.1	1.000	17.75	0.008	0.043	2.88	0.026	55.30	1.08	>> 1
194	e	M.4	1.000	7.03	0.003	0.043	2.88	0.024	50.52	0.97	>> 1
197	e	M.1	1.000	13.33	0.006	0.043	2.88	0.025	53.38	1.03	>> 1
197	e	M.4	1.000	9.87	0.005	0.043	2.88	0.025	51.83	1.02	>> 1
200	e	M.1	1.000	13.33	0.006	0.043	2.88	0.025	53.38	1.03	>> 1
200	e	M.4	1.000	9.87	0.005	0.043	2.88	0.025	51.83	1.02	>> 1
203	e	M.1	1.500	63.81	0.045	0.043	2.88	0.026	36.47	16.97	2.149
203	e	M.4	1.500	46.64	0.033	0.043	2.88	0.024	33.02	16.96	1.947
205	e	M.1	1.500	62.68	0.045	0.043	2.88	0.026	36.25	16.96	2.137
205	e	M.4	1.500	47.79	0.034	0.043	2.88	0.024	33.26	16.96	1.961
208	e	M.1	1.500	63.82	0.045	0.043	2.88	0.026	36.47	16.96	2.150
208	e	M.4	1.500	46.66	0.033	0.043	2.88	0.024	33.02	16.96	1.947

20. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§C8.7.1.3.1) [SLV] - C.Sic: 1.394 (Analisi Sismica Dinamica Modale)

N.	n/e	Sez.	Coeff.	P	p	fvd0	γ_{m}	fvd	Vt,lim	Vt	V	C.Sic.
		comb.	b	(kN)	(N/mm ²)		* FC	(N/mm ²)	(kN)	(kN)	(kN)	
143	n	M.1	1.160	250.82	0.261	0.300	2.40	0.150	191.59	144.84	65.27	2.219
143	n	M.4	1.160	237.48	0.247	0.300	2.40	0.146	189.62	140.63	19.97	7.042
146	n	M.1	1.160	250.75	0.260	0.300	2.40	0.150	191.58	144.81	65.28	2.218
146	n	M.4	1.160	237.40	0.247	0.300	2.40	0.146	189.61	140.60	19.98	7.037
150	n	M.1	1.160	282.63	0.294	0.300	2.40	0.161	196.21	154.86	58.89	2.630
150	n	M.4	1.160	265.63	0.276	0.300	2.40	0.155	193.76	149.50	10.31	>> 1
153	n	M.1	1.160	282.69	0.294	0.300	2.40	0.161	196.22	154.88	58.89	2.630
153	n	M.4	1.160	265.70	0.276	0.300	2.40	0.155	193.77	149.53	10.30	>> 1

VERIFICHE SISMICHE DEGLI ELEMENTI IN MURATURA: VERIFICA A PRESSOFLESSIONE ORTOGONALE

(azioni ortogonali convenzionali secondo §7.2.3)

(D.M.14.1.2008 (NTC08), §7.8.2.2.3)

§7.8.2.2.3: Il valore del momento di collasso per azioni perpendicolari al piano della parete sarà calcolato assumendo un diagramma delle compressioni rettangolare, un valore della resistenza pari a $0.85 f_d$ e trascurando la resistenza a trazione della muratura.

In alternativa, PCM prevede la possibilità di adottare per la muratura la legge di comportamento parabolico-rettangolare: il momento ultimo viene quindi calcolato attraverso l'elaborazione del dominio di resistenza N-M. Per gli elementi in muratura armata (sia in edifici nuovi, sia in murature esistenti rinforzate con armature), viene sempre utilizzato il diagramma parabola-rettangolo. Oltre ai risultati riportati in tabella, specifiche rappresentazioni grafiche di PCM evidenziano il dominio di resistenza ed i punti rappresentativi degli stati di sollecitazione sottoposti a verifica di sicurezza.

§7.8.1.5.2 Analisi statica lineare: Per le verifiche fuori piano, potranno essere adottate le forze equivalenti indicate al punto §7.2.3 per gli elementi strutturali secondari e non strutturali. Più precisamente, l'azione sismica ortogonale alla parete potrà essere rappresentata da una forza orizzontale distribuita, pari a S_a/q_a volte il peso della parete e da forze orizzontali concentrate pari a S_a/q_a volte il peso trasmesso dagli orizzontamenti che si appoggiano su di essa, se queste non sono efficacemente trasmesse a muri trasversali disposti parallelamente alla direzione del sisma.

Per le pareti resistenti al sisma che rispettano i limiti della Tab.7.8.II (§7.8.1.4) si può assumere che il periodo T_a indicato al punto §7.2.3 sia pari a 0.

§7.8.1.5.3 Analisi dinamica modale: Le verifiche fuori piano potranno essere effettuate separatamente, adottando le forze equivalenti indicate al punto §7.8.1.5.2 per l'analisi statica lineare.

§7.2.3: L'effetto dell'azione sismica potrà essere valutato considerando un sistema di forze proporzionali alle masse (concentrate o distribuite) dell'elemento, la cui forza risultante (F_a) valutata al baricentro dell'elemento stesso, è calcolata secondo la relazione seguente:

$F_a = S_a W_a / q_a$, dove:

W_a = peso dell'elemento

S_a = accelerazione massima, adimensionalizzata rispetto a quella di gravità, che l'elemento subisce durante il sisma, e corrispondente allo stato limite in esame (SLD o SLV, §3.2.1)

q_a = fattore di struttura dell'elemento. Secondo §7.8.1.5.2, si può assumere $q_a=3$

S_a può essere calcolato nel seguente modo:

$S_a = \alpha S \cdot [1.5 \cdot (1 + Z/H_f) - 0.5] \geq \alpha S$, dove:

α = rapporto tra l'accelerazione massima del terreno a_g su sottosuolo di tipo A da considerare nello stato limite in esame e l'accelerazione di gravità g ;

S = coefficiente che tiene conto della categoria di sottosuolo e delle condizioni topografiche secondo quanto riportato nel §3.2.3.2.1

T_a = periodo fondamentale di vibrazione dell'elemento nella direzione considerata, T_1 = periodo fondamentale di vibrazione della struttura nella direzione considerata (le verifiche secondo NTC18 non prevedono l'utilizzo di T_a e T_1 nella formula delle forze ortogonali sulle pareti considerate come elementi non strutturali o secondari secondo §7.2.3)

Z = quota del baricentro dell'elemento misurata a partire dal piano di fondazione

H_f = altezza della costruzione misurata a partire dal piano di fondazione.

Ponendo H = luce deformabile nel piano di flessione ortogonale al piano medio della parete, si ha che:

Z = quota della base della parete + zona rigida iniziale in direzione ortogonale + $H/2$

g = accelerazione di gravità

In PCM la verifica a pressoflessione ortogonale viene eseguita nella sezione di mezzera della luce deformabile nel piano ortogonale dei maschi murari, sotto le seguenti ipotesi:

- la parete è soggetta allo sforzo normale statico, senza incremento o diminuzione dovuti all'effetto sismico sul modello globale; tale sforzo normale può essere caratterizzato da eccentricità di tipo strutturale (dovuta ai carichi di solaio e alla posizione delle pareti sovrastanti);

- non sono considerate forze ribaltanti in sommità derivanti dall'orizzontamento. Ciò equivale a ipotizzare che le forze sismiche siano efficacemente trasmesse a pareti di controvento (parallele alla direzione sismica). Per edifici nuovi, questo requisito può essere considerato intrinseco nelle modalità costruttive; per edifici esistenti in assenza di efficace connessione fra pareti, questa ipotesi trova giustificazione nel fatto che la verifica a meccanismo di collasso (ribaltamento di corpo rigido) può essere considerata maggiormente rappresentativa del comportamento fuori piano della parete mal connessa, rispetto alla verifica a pressoflessione ortogonale;

- i requisiti della **Tab.7.8.II** vengono direttamente considerati, per la verifica a pressoflessione ortogonale, per ogni parete in muratura nuova, quindi anche se inserita in un edificio esistente (p.es. in caso di aggiunta di nuove pareti nell'ambito del progetto di consolidamento). Per murature esistenti, qualora sia stato selezionato il corrispondente parametro di calcolo, è possibile fare riferimento ai requisiti della **Tab.7.8.II** per adottare periodo $T_a=0$, con le seguenti posizioni. Per murature con le tipologie: pietrame disordinata, conci sbozzati, pietre a spacco con buona tessitura, conci di pietra tenera, si adottano i requisiti di muratura ordinaria con elementi in pietra squadrata (requisiti più severi fra quelli indicati in **Tab.7.8.II**); per murature a blocchi lapidei squadrati, si utilizza lo stesso riferimento, con l'aggiunta di parametri più favorevoli per le zone 3 e 4; per elementi artificiali pieni o semipieni si adottano le prescrizioni corrispondenti;

- i dati geometrici delle pareti riportano sia la snellezza complanare, sia la snellezza nel piano ortogonale (h_o/t). Nel computo di h_o , si assume per default: $\rho = 1$ (fattore laterale di vincolo). L'altezza libera di inflessione della parete fa riferimento alla luce deformabile nel piano ortogonale (depurata quindi delle eventuali zone rigide agli estremi per flessione nel piano ortogonale al piano della parete);

- la parete viene considerata appoggiata. Se l'interasse di irrigidimento 'a' (=distanza fra muri trasversali per la specchiatura entro cui si trova confinata la parete) è >0 , viene considerato un comportamento a piastra (parete ben ammortata nei muri trasversali). Se $a=B$, con B =base (dimensione complanare) della parete, ciò equivale a considerare che la parete sia vincolata esattamente ai suoi bordi laterali; se $a>B$, la parete appartiene ad una specchiatura più ampia definita dai muri trasversali. $a=0$ equivale a considerare un comportamento a trave, con parete libera quindi da vincoli laterali. In entrambi i casi, le formule per il momento agente ed il periodo proprio sono tratte dal Manuale Ingegneria Civile, Ed.Cremonese.

- Comportamento a trave: il periodo proprio è dato da: $T_a = 2\pi / \omega$, con: $\omega = \pi^2 \cdot (1/H^2) \cdot t \cdot \sqrt{[(E/12)/(\text{peso sp.})/g]}$, dove: t = spessore della parete; E = modulo di elasticità longitudinale; (peso sp.) = peso specifico medio della muratura. L'azione sismica produce un momento in mezzera $M = qH^2/8$, essendo q il carico sismico distribuito lungo l'altezza ($q = F_a / H$).

- Comportamento a piastra: il periodo proprio è pari a: $T_a = 2\pi / \omega$, con: $\omega = \pi^2 \cdot (1/a^2 + 1/H^2) \cdot t \cdot \sqrt{[(E/12)/(\text{peso sp.})/g] / (1-\nu^2)}$, dove: ν =coefficiente di Poisson; $G=E/2(1+\nu)$. L'azione sismica produce un momento in mezzera il cui valore massimo è pari a $q' H^2/8 \cdot c$, essendo: $q' = q / (1+\lambda^4)$ con $\lambda=H/a$, con q =carico sismico di superficie ($q = F_a / H / a$); $c=1 - 5/6 \lambda^2 / (1+\lambda^4)$. Per eseguire la verifica sulla sezione trasversale, il momento massimo si estende, a favore di sicurezza, all'intera sezione trasversale prescindendo dalla diminuzione verso gli appoggi laterali verticali della piastra: si ha così: $M = q / (1+\lambda^4) \cdot H^2/8 \cdot c$, con $q = F_a / H$.

Per la verifica della sezione muraria, viene effettuato il confronto fra il momento agente di calcolo M e il momento ultimo resistente M_u , definito come momento di collasso per pressoflessione ortogonale: $M_u = (N t / 2) \cdot (1 - N / N_u)$, dove N_u è lo sforzo normale ultimo dato da: $N_u = 0.85 f_d$ lt, essendo l e t le dimensioni della sezione trasversale della parete, e f_d resistenza di progetto:

$f_d = f_k / \gamma_M$ è la resistenza di progetto per la verifica a compressione (§4.5.6.1). Per la muratura esistente, il parametro descrittivo del materiale è la resistenza a compressione media f_m , definita in base alla tipologia della muratura e ad opportuni fattori correttivi riguardanti le caratteristiche dell'organizzazione strutturale e degli eventuali interventi (§C8.5.3.1, **Tab.C8.5.II**). f_m sostituisce f_k nella formulazione di f_d ; inoltre, γ_M deve essere moltiplicato per il Fattore di Confidenza F_C (§8.5.4, §C.8.5.4) che normalmente assume i valori 1.35, 1.20, 1.00 rispettivamente per i livelli di conoscenza LC1,LC2,LC3 (si osservi che dal livello di conoscenza dipende anche il valore adottato per f_m).

Per le verifiche sismiche viene utilizzato il coefficiente parziale di sicurezza γ_M definito in §7.8.1.1 dove si indica $\gamma_M \geq 2.0$.

Si ha pertanto il seguente schema di valutazione della resistenza di calcolo (o: di progetto) f_d (analisi lineare):

Muratura nuova: da §7.8.2.2.1: $f_d = f_k / \gamma_M$.

Muratura esistente: è nota f_m (dipendente, fra l'altro, dal livello di conoscenza); si ha: $f_d = f_m / \gamma_M / F_C$ (§C8.7.1.3.1.1).

Le verifiche sismiche a pressoflessione ortogonale, come le altre verifiche di resistenza, sono condotte, per tutti gli edifici in muratura, allo **stato limite ultimo di salvaguardia della vita (SLV)**; in SLV le sollecitazioni di progetto si ottengono combinando gli sforzi normali di tipo statico con i momenti dovuti alle azioni convenzionali, determinati come sopra descritto. Sono richieste verifiche sismiche di resistenza anche per **SLD** nel caso di costruzioni di **Classe III e IV** (§7.3.6).

Alla verifica di resistenza può essere affiancata, se scelta nei parametri di calcolo, la verifica di stabilità. E' così possibile considerare gli effetti del secondo ordine riconducibili all'instabilizzazione fuori piano di una parete in muratura ordinaria.

La **verifica di stabilità** viene svolta applicando le formulazioni proposte nei seguenti riferimenti bibliografici:

Schultz, A.E., J.G. Mueffelman, and N.J. Ojard: "Critical Axial Loads for Transverse Loaded Masonry Walls", Proceedings, 12th International Brick/Block Masonry Conference, 2000, pp. 1633-1646;

Masonry Standards Joint Committee: "Building Code Requirements for Masonry Structures", ACI 530-99/ASCE 5-99/TMS 402-99, American Concrete Institute, Farmington Hills, MI, American Society of Civil Engineers, Reston, VA, The Masonry Society, Boulder, CO, 1999.

Il **carico critico** viene calcolato tenendo conto dell'influenza dell'eccentricità dello sforzo normale e della flessione dovuta alle azioni trasversali, attraverso la seguente relazione:

$$(P_{crit} / P_E) = [1 - 2(e_a + \lambda e_f)/t]^3 = [1 - 2e_a/t - 2\lambda e_f/t]^3$$

dove P_E è il carico critico euleriano: $P_E = \pi^2 EJ / l_0^2$

essendo: EJ la rigidezza flessionale dell'intera sezione trasversale della parete valutata nel piano ortogonale (il piano di minima inerzia), l_0 è la lunghezza libera di inflessione, assunta inizialmente pari all'altezza della parete nello schema di riferimento (asta incernierata). Il carico critico viene poi corretto utilizzando le relazioni proposte in letteratura tecnica per i diversi tipi di vincolamento interno, tenendo conto anche del carico assiale variabile (determinato, per le pareti in muratura, dagli effetti del peso proprio).

Inoltre: e_a e e_f sono le eccentricità corrispondenti rispettivamente al carico sovrastante e al momento flettente; λ è un coefficiente pari a 0.813 per il momento lineare e a 0.905 per il momento parabolico dovuto a carico distribuito, t è lo spessore della parete.

Il calcolo di verifica determina il minimo ed il massimo valore del carico critico entro i quali deve essere compreso il carico verticale affinché lo stato di sollecitazione resti compreso nel **dominio di stabilità** (i dettagli sul metodo sono riportati nella manualistica associata al software PCM).

La verifica di stabilità si riferisce all'asta nel suo complesso. Se la verifica di stabilità è più sfavorevole rispetto alla verifica di resistenza, il valore dello sforzo normale ultimo N_u viene sostituito dal Carico critico, ed è preceduto da un asterisco *. In tal caso, il corrispondente coefficiente di sicurezza fa riferimento alla verifica di stabilità.

Simbologia utilizzata nel software PCM:

N = numero progressivo dell'elemento murario

fd = valore di calcolo (o: di progetto) della resistenza a compressione

Nu = sforzo normale ultimo = $0.85 f_d$ lt. La presenza di * indica il valore del Carico critico (la verifica si riferisce alla stabilità)

Mu = momento di collasso per pressoflessione = $(N t / 2) \cdot (1 - N / N_u)$

P = forza assiale positiva se di compressione

M = momento di calcolo ortogonale, definito dall'azione sismica distribuita in elevazione e dal comportamento a trave ($a=0$) o a piastra ($a>0$). Il momento di calcolo può inoltre essere incrementato nel caso che sia stata scelta l'opzione di considerare l'eccentricità minima pari a $(h/200)$ ed il corrispondente momento sia superiore al momento di calcolo. Viene infine considerato il contributo degli eventuali momenti flettenti ortogonali al piano della parete agenti in

200	0.868	1552.80	5.98	24.31	0.35	5.525	8.000	1.050	0.000	0.000	0.060	0.160	48.61	2.40	>> 1
203	0.868	1035.20	17.85	77.16	3.77	2.500	8.000	5.000	0.000	0.000	0.060	0.110	154.33	1.16	4.739
205	0.868	1035.20	17.85	77.16	3.77	2.500	8.000	5.000	0.000	0.000	0.060	0.110	154.33	1.16	4.739
208	0.868	1035.20	17.85	77.16	3.77	2.500	8.000	5.000	0.000	0.000	0.060	0.110	154.33	1.16	4.739

VERIFICHE SISMICHE A STATO LIMITE DI TIPO GEOTECNICO (GEO): CAPACITÀ PORTANTE DEL TERRENO E SCORRIMENTO SUL PIANO DI POSA (D.M.17.1.2018 (NTC18), §6.4.2.1, §7.2.5, §7.11.5.3)

PCM esegue automaticamente le verifiche allo stato limite ultimo di tipo geotecnico (GEO) (verifica di capacità portante del terreno e di scorrimento sul piano di posa) utilizzando l'**Approccio 2** (§6.4.1), dove i coefficienti parziali definiti per le azioni (A), per la resistenza dei materiali (M) e la resistenza globale del sistema (R) assumono i valori (§6.4.2.1):

$A1 + M1 + R3$

Con questo approccio, sono incrementate le azioni (A), invariati i parametri geotecnici (M) e ridotta la resistenza (R).

A1 (tab. 6.2.I) definisce i coefficienti parziali per le azioni γ_F (distinti in: γ_{G1} , γ_{G2} , γ_P e γ_Q) già applicati nella generazione delle combinazioni di carico delle quali si esamineranno i risultati. Il campo di tensioni sul terreno generato da ognuna delle combinazioni di carico risulta quindi coerente con i valori dei γ_F indicati dalla Norma.

M1 (tab. 6.2.II) indica il coefficiente parziale per i materiali γ_M che deve essere applicato ai parametri geotecnici del terreno: tangente dell'angolo di resistenza al taglio, coesione efficace, resistenza non drenata, peso dell'unità di volume. Si ha: $\gamma_M=1.0$ (cioè: nessuna variazione dei parametri).

R3 (tab. 6.4.I) definisce il coefficiente parziale per la resistenza, pari a 2.3 per la capacità portante, e ad 1.1 per lo scorrimento sul piano di posa. Per la verifica di resistenza strutturale della trave di fondazione (stato limite STR) il coefficiente γ_R non deve essere portato in conto.

Si ipotizza che il modello globale dell'edificio contenga sia le travi di fondazione sia la struttura in elevazione, e le sollecitazioni sono calcolate tenendo conto dell'interazione fra fondazioni e struttura sovrastante; le fondazioni sono schematizzate come aste su suolo elastico, e normalmente considerate rigide sotto i maschi e deformabili in corrispondenza delle aperture.

Per l'**analisi sismica**, si fa riferimento a §7.2.5; si ricorda che la combinazione di carico sismica è unica ed è data da: $G_1 + G_2 + E + \sum \psi_{2j} Q_{kj}$ (i coefficienti γ_F sono unitari).

Nella verifica delle fondazioni devono essere assunte come azioni di progetto trasmesse dalla struttura **le minori tra:**

(a) la **forza assiale** (N) negli elementi strutturali verticali soprastanti, derivante dalla combinazione delle azioni di cui sopra, associata al concomitante **valore resistente del momento flettente (M) e del taglio (V);**

(b) le azioni trasferite dagli elementi soprastanti (N, M, V) **amplificate** con un coefficiente γ_{Rd} pari a **1,1 in CD "B"** (N.B. CD "B" può essere considerata la situazione degli edifici in muratura, caratterizzati da bassa duttilità) e 1,3 in CD "A"; si ritiene ragionevole ritenere che l'amplificazione riguardi le sole componenti sismiche (il valore di ogni sollecitazione è dato dalla composizione della componente statica con quella sismica) (in alternativa, l'amplificazione viene applicata alle sollecitazioni complessive);

(c) le azioni derivanti da una analisi elastica della struttura in elevazione eseguita con un fattore di struttura q pari a 1.

Per applicare l'opzione (a) è indispensabile seguire una modalità di modellazione che separa il graticcio di fondazione dalla sovrastruttura; al graticcio si applicano puntualmente (nei nodi di base degli elementi verticali soprastanti) le azioni assiali di calcolo e i valori resistenti delle azioni tagliante e flettente. Nel caso di modello unitario fondazioni+sovrastuttura, l'opzione (a) non può essere utilizzata, perchè non esiste una configurazione di analisi che produca contemporaneamente le sollecitazioni richieste.

L'opzione (b) è invece sempre applicabile in entrambi i casi; nel caso di modello unitario, l'amplificazione verrà attribuita direttamente alle tensioni di contatto fondazione-terreno (ai fini della verifica geotecnica GEO) e alle sollecitazioni nelle travi di fondazione (ai fini della loro verifica di resistenza strutturale STR).

L'opzione (c) può essere considerata poco significativa per le normali strutture (è ragionevole ritenerla pensata per le strutture che in elevazione sono calcolate con $q=1$). Infatti: la componente sismica valutata con il reale fattore di struttura ($>=2.25$ per gli edifici in muratura esistenti; $>=2.80$ per gli edifici nuovi in muratura ordinaria; $>=3.25$ per gli edifici nuovi in muratura armata) è comunque inferiore a quella valutata con $q=1$ e quindi, potendo scegliere le sollecitazioni minori fra (a) (b) (c), l'opzione (c) appare superflua.

Comunque, potendo scegliere le azioni minori fra (a) (b) (c), considerando un solo caso o due casi si opera favore di sicurezza (i restanti due casi o un caso potrebbero solo ridurre le azioni e quindi non corrisponderebbero a situazioni più sfavorevoli).

In analisi sismica, PCM segue l'opzione (b). Per la verifica di capacità portante: si amplificano di 1.1 le tensioni sul terreno corrispondenti all'unica combinazione sismica prevista (effetto statico + effetto sismico); l'amplificazione viene applicata, a favore di sicurezza, alle componenti globali: in alternativa potrebbe infatti applicarsi alla sola componente sismica; infine si confrontano con la capacità portante (ridotta di 2.3). Per la verifica a scorrimento, si confronta il taglio complessivo agente sul piano di posa, cioè sulla superficie di appoggio completa dell'edificio, amplificato di 1.1, con la resistenza a scorrimento (ridotta di 1.1).

I seguenti parametri: K Winkler, Base di appoggio, Capacità portante (q_{lim}): sono proprietà di ogni singola trave di fondazione e vengono definiti nei Dati Aste. Sia il coefficiente di sottofondo che la capacità portante possono infatti variare a causa delle diverse dimensioni geometriche delle travi di fondazioni. Dato comune a tutte le fondazioni è invece l'angolo d'attrito fondazione-terreno: δ_k , da cui: il coefficiente d'attrito ($tg \delta_k$).

La combinazione sismica è la seguente :

$G_1 + G_2 + E + \sum \psi_{2j} Q_{kj}$ (i coefficienti γ_F sono unitari) (§3.2.4).

Le verifiche sismiche di tipo geotecnico, come le altre verifiche di resistenza, sono condotte, per tutti gli edifici in muratura, allo **stato limite ultimo di salvaguardia della vita (SLV)**. Per alcuni tipi di edifici sono richieste verifiche sismiche di resistenza anche per **stati limite di esercizio** (in particolare: **SLD**): si tratta delle costruzioni di **Classe III e IV** qualora si vogliano limitare i danneggiamenti strutturali (§7.3.7.1).

Simbologia utilizzata nel software PCM:

Verifica di capacità portante del terreno

N.asta = numero progressivo dell'asta (trave di fondazione, o trave su suolo elastico)

K Winkler = coefficiente di sottofondo della trave su suolo elastico

q_{lim} = capacità portante corrispondente all'asta, calcolata ad esempio con la formulazione di Terzaghi:

$q_{lim} = c N_c + q_0 N_q + \frac{1}{2} \gamma B N_\gamma$

essendo:

$c N_c$ = contributo della coesione lungo le superfici di rottura;

$q_0 N_q$ = effetto stabilizzante del terreno ai lati della fondazione sul piano di posa;

$\frac{1}{2} \gamma B N_\gamma$ = contributo della resistenza di attrito dovuta al peso del terreno del terreno all'interno delle superfici di scorrimento.

Rd = valore di progetto della resistenza = q_{lim} / γ_R

Nodo i = nodo iniziale dell'asta

sZ,i = spostamento verticale del nodo i

sT,i = tensione di contatto nel nodo i

Ed,i = valore di progetto dell'azione in corrispondenza del nodo i. La tensione sul terreno risultante dal calcolo deve essere amplificata di 1.1 (opzione **(b)**); l'amplificazione 1.1 si applica, a favore di sicurezza, alla tensione complessiva, che include sia la parte statica sia la parte sismica)
C.Sic. i = coefficiente di sicurezza, fornito dal rapporto: $R_d / Ed,i$. La verifica è soddisfatta quando il coefficiente di sicurezza è ≥ 1
Nodo j = nodo finale dell'asta
sZ,j = spostamento verticale del nodo j
sT,j = tensione di contatto nel nodo j
Ed,j = valore di progetto dell'azione in corrispondenza del nodo j. Analogamente a **Ed,i**, la tensione sul terreno risultante dal calcolo deve essere amplificata per 1.1
C.Sic. j = coefficiente di sicurezza, fornito dal rapporto: $R_d / Ed,j$. La verifica è soddisfatta quando il coefficiente di sicurezza è ≥ 1

Verifica di scorrimento sul piano di posa

In corrispondenza di tutti i nodi di fondazione (nodi vincolati su suolo elastico), vengono rilevate le seguenti azioni (forze):

F orizz.X, F orizz. Y = reazioni orizzontali competenti al nodo.

F vert. = carico verticale corrispondente al nodo. Avendo risolto la struttura nel suo insieme (fondazioni+sovrastuttura), poiché il nodo su suolo elastico alla Winkler non fornisce la reazione verticale, è comunque possibile fare riferimento allo sforzo normale alla base del maschio; questa azione interna contiene già il contributo del peso proprio delle travi di fondazione, regolarmente considerato nelle condizioni di carico.

Per ognuna delle due direzioni orizzontali del sistema globale di riferimento X,Y vengono infine riportati i seguenti parametri:

Direz. = direzione di riferimento (X o Y)

F.orizz.tot. = taglio globale agente lungo la direzione di riferimento

F.vert.tot. = carico verticale complessivo agente sul piano di posa delle fondazioni

R = valore di calcolo della resistenza. La resistenza di progetto si ottiene moltiplicando il carico verticale totale per $\text{tg } \delta_k$

Ed = valore di progetto dell'azione, coincidente con il taglio globale nella direzione di riferimento amplificato per 1.1 (opzione **(b)**)

Rd = valore di progetto della resistenza. Il coefficiente d'attrito di progetto è dato da: $\text{tg } \delta_d = \text{tg } \delta_k / \gamma_\phi$, dove: $\gamma_\phi = 1$ (da tab. 6.2.II, colonna M1), applicando a $\text{tg } \delta_k$ il coefficiente parziale per $\text{tg } \phi'$. Risulta quindi: $\text{tg } \delta_d = \text{tg } \delta_k$. La resistenza di progetto si ottiene moltiplicando il carico verticale totale per $\text{tg } \delta_d$ e dividendo per 1.1

C.Sic. = coefficiente di sicurezza, fornito dal rapporto: R_d / Ed . La verifica è soddisfatta quando il coefficiente di sicurezza è ≥ 1

22. VERIFICHE PER STATO LIMITE ULTIMO DI TIPO GEOTECNICO (§6.4.2.1, §7.2.5) [SLV] - C.Sic: 1.143

(Analisi Sismica Dinamica Modale)

VERIFICA DI CAPACITA' PORTANTE DEL TERRENO (§6.4.2.1, §7.2.5) [SLV]

(Analisi Sismica Dinamica Modale)

N.asta	K Winkler (N/mm ³)	q,lim (N/mm ²)	Rd	Nodo i	sZ,i (mm)	sT,i (N/mm ²)	Ed,i	C.Sic. i	Nodo j	sZ,j (mm)	sT,j (N/mm ²)	Ed,j	C.Sic. j
210	0.016	0.511	0.222	3	-10.92	0.175	0.192	1.156	8	-10.79	0.173	0.190	1.170
211	0.016	0.511	0.222	224	-10.61	0.170	0.187	1.189	225	-10.57	0.169	0.186	1.194
212	0.016	0.511	0.222	20	-10.53	0.169	0.185	1.199	24	-10.45	0.167	0.184	1.207
213	0.016	0.511	0.222	228	-10.07	0.161	0.177	1.253	229	-10.01	0.160	0.176	1.261
214	0.016	0.511	0.222	42	-10.46	0.167	0.184	1.207	46	-10.49	0.168	0.185	1.203
215	0.016	0.511	0.222	232	-10.52	0.168	0.185	1.200	233	-10.56	0.169	0.186	1.195
216	0.016	0.511	0.222	67	-8.96	0.143	0.158	1.409	71	-8.96	0.143	0.158	1.409
217	0.016	0.511	0.222	76	-10.92	0.175	0.192	1.156	80	-10.77	0.172	0.190	1.172
218	0.016	0.511	0.222	236	-10.56	0.169	0.186	1.195	237	-10.52	0.168	0.185	1.200
219	0.016	0.511	0.222	92	-10.49	0.168	0.185	1.203	96	-10.46	0.167	0.184	1.207
220	0.016	0.511	0.222	240	-10.01	0.160	0.176	1.261	241	-10.07	0.161	0.177	1.253
221	0.016	0.511	0.222	114	-10.45	0.167	0.184	1.208	118	-10.53	0.169	0.185	1.199
222	0.016	0.511	0.222	244	-10.57	0.169	0.186	1.194	245	-10.61	0.170	0.187	1.189
223	0.016	0.511	0.222	130	-10.79	0.173	0.190	1.170	134	-10.92	0.175	0.192	1.156
356	0.016	0.511	0.222	223	-10.99	0.176	0.193	1.149	1	-10.95	0.175	0.193	1.152
357	0.016	0.511	0.222	1	-10.95	0.175	0.193	1.152	3	-10.92	0.175	0.192	1.156
358	0.016	0.511	0.222	8	-10.79	0.173	0.190	1.170	6	-10.75	0.172	0.189	1.175
359	0.016	0.511	0.222	6	-10.75	0.172	0.189	1.175	340	-10.70	0.171	0.188	1.179
360	0.016	0.511	0.222	340	-10.70	0.171	0.188	1.179	11	-10.66	0.171	0.188	1.184
361	0.016	0.511	0.222	11	-10.66	0.171	0.188	1.184	224	-10.61	0.170	0.187	1.189
362	0.016	0.511	0.222	225	-10.57	0.169	0.186	1.194	14	-10.56	0.169	0.186	1.196
363	0.016	0.511	0.222	14	-10.56	0.169	0.186	1.196	341	-10.55	0.169	0.186	1.197
364	0.016	0.511	0.222	341	-10.55	0.169	0.186	1.197	18	-10.54	0.169	0.186	1.198
365	0.016	0.511	0.222	18	-10.54	0.169	0.186	1.198	20	-10.53	0.169	0.185	1.199
366	0.016	0.511	0.222	24	-10.45	0.167	0.184	1.207	22	-10.42	0.167	0.183	1.211
367	0.016	0.511	0.222	22	-10.42	0.167	0.183	1.211	226	-10.39	0.166	0.183	1.215
368	0.016	0.511	0.222	226	-10.39	0.166	0.183	1.215	27	-10.26	0.164	0.181	1.231
369	0.016	0.511	0.222	27	-10.26	0.164	0.181	1.231	227	-10.13	0.162	0.178	1.247
370	0.016	0.511	0.222	227	-10.13	0.162	0.178	1.247	30	-10.10	0.162	0.178	1.250
371	0.016	0.511	0.222	30	-10.10	0.162	0.178	1.250	228	-10.07	0.161	0.177	1.253
372	0.016	0.511	0.222	229	-10.01	0.160	0.176	1.261	33	-10.05	0.161	0.177	1.256
373	0.016	0.511	0.222	33	-10.05	0.161	0.177	1.256	230	-10.09	0.161	0.177	1.252
374	0.016	0.511	0.222	230	-10.09	0.161	0.177	1.252	37	-10.26	0.164	0.181	1.231
375	0.016	0.511	0.222	37	-10.26	0.164	0.181	1.231	231	-10.43	0.167	0.184	1.210
376	0.016	0.511	0.222	231	-10.43	0.167	0.184	1.210	40	-10.45	0.167	0.184	1.208
377	0.016	0.511	0.222	40	-10.45	0.167	0.184	1.208	42	-10.46	0.167	0.184	1.207
378	0.016	0.511	0.222	46	-10.49	0.168	0.185	1.203	44	-10.50	0.168	0.185	1.203
379	0.016	0.511	0.222	44	-10.50	0.168	0.185	1.203	342	-10.50	0.168	0.185	1.202
380	0.016	0.511	0.222	342	-10.50	0.168	0.185	1.202	49	-10.51	0.168	0.185	1.201
381	0.016	0.511	0.222	49	-10.51	0.168	0.185	1.201	232	-10.52	0.168	0.185	1.200
382	0.016	0.511	0.222	233	-10.56	0.169	0.186	1.195	52	-10.61	0.170	0.187	1.189
383	0.016	0.511	0.222	52	-10.61	0.170	0.187	1.189	343	-10.67	0.171	0.188	1.183
384	0.016	0.511	0.222	343	-10.67	0.171	0.188	1.183	56	-10.72	0.172	0.189	1.178
385	0.016	0.511	0.222	56	-10.72	0.172	0.189	1.178	58	-10.77	0.172	0.190	1.172
386	0.016	0.511	0.222	58	-10.77	0.172	0.190	1.172	62	-10.92	0.175	0.192	1.156

387	0.016	0.511	0.222	62	-10.92	0.175	0.192	1.156	60	-10.98	0.176	0.193	1.150
388	0.016	0.511	0.222	60	-10.98	0.176	0.193	1.150	234	-11.04	0.177	0.194	1.143
389	0.016	0.511	0.222	234	-11.04	0.177	0.194	1.143	65	-9.66	0.155	0.170	1.307
390	0.016	0.511	0.222	65	-9.66	0.155	0.170	1.307	67	-8.96	0.143	0.158	1.409
391	0.016	0.511	0.222	71	-8.96	0.143	0.158	1.409	69	-9.66	0.155	0.170	1.307
392	0.016	0.511	0.222	69	-9.66	0.155	0.170	1.307	235	-11.04	0.177	0.194	1.143
393	0.016	0.511	0.222	235	-11.04	0.177	0.194	1.143	74	-10.98	0.176	0.193	1.150
394	0.016	0.511	0.222	74	-10.98	0.176	0.193	1.150	76	-10.92	0.175	0.192	1.156
395	0.016	0.511	0.222	80	-10.77	0.172	0.190	1.172	78	-10.72	0.172	0.189	1.178
396	0.016	0.511	0.222	78	-10.72	0.172	0.189	1.178	344	-10.67	0.171	0.188	1.183
397	0.016	0.511	0.222	344	-10.67	0.171	0.188	1.183	83	-10.61	0.170	0.187	1.189
398	0.016	0.511	0.222	83	-10.61	0.170	0.187	1.189	236	-10.56	0.169	0.186	1.195
399	0.016	0.511	0.222	237	-10.52	0.168	0.185	1.200	86	-10.51	0.168	0.185	1.201
400	0.016	0.511	0.222	86	-10.51	0.168	0.185	1.201	345	-10.50	0.168	0.185	1.202
401	0.016	0.511	0.222	345	-10.50	0.168	0.185	1.202	90	-10.50	0.168	0.185	1.203
402	0.016	0.511	0.222	90	-10.50	0.168	0.185	1.203	92	-10.49	0.168	0.185	1.203
403	0.016	0.511	0.222	96	-10.46	0.167	0.184	1.207	94	-10.45	0.167	0.184	1.208
404	0.016	0.511	0.222	94	-10.45	0.167	0.184	1.208	238	-10.43	0.167	0.184	1.210
405	0.016	0.511	0.222	238	-10.43	0.167	0.184	1.210	99	-10.26	0.164	0.181	1.231
406	0.016	0.511	0.222	99	-10.26	0.164	0.181	1.231	239	-10.08	0.161	0.177	1.252
407	0.016	0.511	0.222	239	-10.08	0.161	0.177	1.252	102	-10.05	0.161	0.177	1.256
408	0.016	0.511	0.222	102	-10.05	0.161	0.177	1.256	240	-10.01	0.160	0.176	1.261
409	0.016	0.511	0.222	241	-10.07	0.161	0.177	1.253	105	-10.10	0.162	0.178	1.250
410	0.016	0.511	0.222	105	-10.10	0.162	0.178	1.250	242	-10.13	0.162	0.178	1.247
411	0.016	0.511	0.222	242	-10.13	0.162	0.178	1.247	109	-10.26	0.164	0.181	1.231
412	0.016	0.511	0.222	109	-10.26	0.164	0.181	1.231	243	-10.39	0.166	0.183	1.215
413	0.016	0.511	0.222	243	-10.39	0.166	0.183	1.215	112	-10.42	0.167	0.183	1.211
414	0.016	0.511	0.222	112	-10.42	0.167	0.183	1.211	114	-10.45	0.167	0.184	1.208
415	0.016	0.511	0.222	118	-10.53	0.169	0.185	1.199	116	-10.54	0.169	0.185	1.198
416	0.016	0.511	0.222	116	-10.54	0.169	0.185	1.198	346	-10.55	0.169	0.186	1.197
417	0.016	0.511	0.222	346	-10.55	0.169	0.186	1.197	121	-10.56	0.169	0.186	1.196
418	0.016	0.511	0.222	121	-10.56	0.169	0.186	1.196	244	-10.57	0.169	0.186	1.194
419	0.016	0.511	0.222	245	-10.61	0.170	0.187	1.189	124	-10.66	0.171	0.188	1.184
420	0.016	0.511	0.222	124	-10.66	0.171	0.188	1.184	347	-10.70	0.171	0.188	1.180
421	0.016	0.511	0.222	347	-10.70	0.171	0.188	1.180	128	-10.75	0.172	0.189	1.175
422	0.016	0.511	0.222	128	-10.75	0.172	0.189	1.175	130	-10.79	0.173	0.190	1.170
423	0.016	0.511	0.222	134	-10.92	0.175	0.192	1.156	132	-10.95	0.175	0.193	1.152
424	0.016	0.511	0.222	132	-10.95	0.175	0.193	1.152	246	-10.99	0.176	0.193	1.149
425	0.016	0.511	0.222	348	-7.45	0.119	0.131	1.695	137	-8.94	0.143	0.157	1.412
426	0.016	0.511	0.222	137	-8.94	0.143	0.157	1.412	238	-10.43	0.167	0.184	1.210
427	0.016	0.511	0.222	231	-10.43	0.167	0.184	1.210	141	-8.94	0.143	0.157	1.412
428	0.016	0.511	0.222	349	-7.45	0.119	0.131	1.695	348	-7.45	0.119	0.131	1.695
429	0.016	0.511	0.222	141	-8.94	0.143	0.157	1.412	349	-7.45	0.119	0.131	1.695
430	0.016	0.511	0.222	350	-7.46	0.119	0.131	1.692	145	-8.93	0.143	0.157	1.414
431	0.016	0.511	0.222	145	-8.93	0.143	0.157	1.414	226	-10.39	0.166	0.183	1.215
432	0.016	0.511	0.222	243	-10.39	0.166	0.183	1.215	149	-8.92	0.143	0.157	1.415
433	0.016	0.511	0.222	351	-7.46	0.119	0.131	1.692	350	-7.46	0.119	0.131	1.692
434	0.016	0.511	0.222	149	-8.92	0.143	0.157	1.415	351	-7.46	0.119	0.131	1.692
435	0.016	0.511	0.222	246	-10.99	0.176	0.193	1.149	215	-9.79	0.157	0.172	1.290
436	0.016	0.511	0.222	215	-9.79	0.157	0.172	1.290	352	-9.10	0.146	0.160	1.387
437	0.016	0.511	0.222	352	-9.10	0.146	0.160	1.387	218	-8.74	0.140	0.154	1.444
438	0.016	0.511	0.222	218	-8.74	0.140	0.154	1.444	353	-9.10	0.146	0.160	1.386
439	0.016	0.511	0.222	353	-9.10	0.146	0.160	1.386	221	-9.79	0.157	0.172	1.290
440	0.016	0.511	0.222	221	-9.79	0.157	0.172	1.290	223	-10.99	0.176	0.193	1.149
441	0.016	0.511	0.222	227	-10.13	0.162	0.178	1.247	306	-8.18	0.131	0.144	1.544
442	0.016	0.511	0.222	306	-8.18	0.131	0.144	1.544	304	-6.70	0.107	0.118	1.885
443	0.016	0.511	0.222	308	-8.18	0.131	0.144	1.544	242	-10.13	0.162	0.178	1.247
444	0.016	0.511	0.222	304	-6.70	0.107	0.118	1.885	310	-6.70	0.107	0.118	1.885
445	0.016	0.511	0.222	310	-6.70	0.107	0.118	1.885	308	-8.18	0.131	0.144	1.544
446	0.016	0.511	0.222	312	-8.12	0.130	0.143	1.555	230	-10.09	0.161	0.177	1.252
447	0.016	0.511	0.222	314	-6.64	0.106	0.117	1.901	312	-8.12	0.130	0.143	1.555
448	0.016	0.511	0.222	316	-6.64	0.106	0.117	1.901	314	-6.64	0.106	0.117	1.901
449	0.016	0.511	0.222	239	-10.08	0.161	0.177	1.252	318	-8.12	0.130	0.143	1.555
450	0.016	0.511	0.222	318	-8.12	0.130	0.143	1.555	316	-6.64	0.106	0.117	1.901

VERIFICA DI SCORRIMENTO SUL PIANO DI POSA (§6.4.2.1, §7.2.5) [SLV]
(Analisi Sismica Dinamica Modale)

N.nodo	F orizz.X (kN)	F orizz.Y (kN)	F vert. (kN)
1	5.81	0.64	101.37
6	5.50	0.33	119.31
11	2.70	0.32	108.09
14	5.60	-0.10	95.54
18	17.19	-0.11	105.03
22	-7.68	-0.17	54.32
27	-12.23	-0.69	246.35
30	-0.23	-0.15	72.55
33	0.78	-0.23	76.47
37	36.27	-1.05	229.80
40	2.73	-0.13	25.54
44	4.99	-0.21	121.51
49	3.09	-0.20	116.17
52	7.82	0.21	120.76

56	21.67	0.22	127.97
60	14.87	0.35	83.34
65	0.87	21.19	152.72
69	0.87	33.72	152.73
74	14.87	0.50	83.34
78	21.67	0.45	127.97
83	7.82	0.44	120.75
86	3.09	0.85	116.17
90	4.99	0.85	121.50
94	2.73	0.32	25.54
99	36.27	2.41	229.79
102	0.78	0.51	76.48
105	-0.23	0.45	72.55
109	-12.23	2.13	246.35
112	-7.68	0.54	54.32
116	17.18	0.82	105.03
121	5.60	0.83	95.53
124	2.70	0.45	108.10
128	5.50	0.46	119.31
132	5.81	0.64	101.47
137	1.29	65.27	269.75
141	1.29	-19.98	269.67
145	-0.38	-10.31	297.90
149	-0.38	58.89	297.96
215	0.36	16.97	123.81
218	0.35	16.96	124.95
221	0.36	16.96	123.82

Angolo d'attrito fondazione-terreno (°) = 24

Direz.	F.orizz.tot. (kN)	F.vert.tot. (kN)	R (kN)	Ed (kN)	Rd (kN)	C.Sic.
X	222.37	5421.60	2413.85	244.61	2194.41	8.970
Y	211.39	5421.60	2413.85	232.52	2194.41	9.440

23. SPOSTAMENTI DI INTERPIANO [SLV]

- Massimo rapporto (d,r/H): 1.064 < 2 (per mille)

H e d,r sono calcolati per ogni asta verticale (=parete) del piano; H è l'altezza della parete.

Nei risultati, si riporta per ogni piano l'asta corrispondente al massimo rapporto d,r/H.

H può non coincidere con l'altezza di piano: nel caso di quote sfalsate,

o nel caso di aste definite tra piani non consecutivi.

Lo spostamento d,r include per SLV l'amplificazione per il fattore di duttilità in spostamento [§7.3.3.3].

N.piano	H (m)	Asta	Spost. d,r (mm)	(d,r / H) (per mille)
1	5.000	203	5.3	1.064
2	0.300	157	0.3	0.873

24. CONTROLLO EFFETTI DEL SECONDO ORDINE [SLV] (§7.3.1, EC8-1: §4.4.2.2)

H e d,r sono calcolati per ogni asta verticale (=parete) del piano; H è l'altezza della parete.

Nei risultati, si riporta per ogni piano l'asta corrispondente al massimo rapporto d,r/H.

P è il carico verticale totale della parte di struttura sovrastante il piano (=orizzontamento) considerato;

V è la forza sismica orizzontale totale in corrispondenza dell'orizzontamento in esame.

Il controllo consiste nel calcolo di Theta e nel confronto con 0.1:

trascurare l'effetto P-Delta (non linearità geometrica) è lecito quando Theta <= 0.1

N.piano	P (kN)	V (kN)	H (m)	d,r (mm)	Asta	Theta
1	1886.66	211.07	5.000	5.3	203	0.00951
2	939.36	64.43	1.050	0.9	197	0.01258

VERIFICHE STATICHE

RELAZIONE DI CALCOLO

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(Analisi Statica Lineare NON Sismica: Inviluppo CCC)

6. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.474 (CCC ID 42)
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7. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.274 (CCC ID 43)
(Analisi Statica Lineare NON Sismica: Inviluppo CCC)

8. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.274 (CCC ID 43)
(Analisi Statica Lineare NON Sismica: Inviluppo CCC)

9. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 2.620 (CCC ID 46)
(Analisi Statica Lineare NON Sismica: Inviluppo CCC)

10. VERIFICHE PER STATO LIMITE ULTIMO DI TIPO GEOTECNICO (§6.4.2.1) [SLV] - C.Sic: 1.488 (CCC ID 42)
(Analisi Statica Lineare NON Sismica: Inviluppo CCC SLU)

179	2	X	2.45	0.30	0.30	0.123	8.157	0.50	0.30	0.30	0.600	23.254	0.000	3
182	2	X	3.30	0.30	0.30	0.091	11.010	0.50	0.30	0.30	0.600	20.379	0.000	3
184	2	X	2.45	0.30	0.30	0.122	8.167	0.50	0.30	0.30	0.600	17.503	0.000	3
186	2	X	4.65	0.30	0.30	0.065	15.500	0.50	0.30	0.30	0.600	13.953	0.000	3
188	2	X	5.80	0.30	0.30	0.052	19.333	0.50	0.30	0.30	0.600	8.728	0.000	3
189	2	X	5.83	0.30	0.30	0.051	19.420	0.50	0.30	0.30	0.600	2.915	0.000	3
191	2	X	4.21	1.05	1.05	0.249	4.009	0.50	1.05	1.05	2.100	41.102	2.104	3
194	2	X	4.21	1.05	1.05	0.249	4.009	0.50	1.05	1.05	2.100	41.102	6.313	3
197	2	X	4.21	1.05	1.05	0.249	4.009	0.50	1.05	1.05	2.100	0.000	6.313	3
200	2	X	4.21	1.05	1.05	0.249	4.009	0.50	1.05	1.05	2.100	0.001	2.104	3
203	1	X	2.81	5.00	5.00	1.782	0.561	0.50	5.00	5.00	10.000	0.000	7.015	3
205	1	X	2.81	5.00	5.00	1.782	0.561	0.50	5.00	5.00	10.000	0.001	4.209	3
208	1	X	2.81	5.00	5.00	1.782	0.561	0.50	5.00	5.00	10.000	0.002	1.403	3

2. DATI GEOMETRICI ELEMENTI IN C.A.

N.	p.no	C/R	T/Z	lungh. l(base)	Piano Complanare (m)				Piano Ortogonale (m)			Xg (m)	Yg (m)	N° mat
					alt. H	alt. def.h	h/l	l/h	spess. t	alt. def.h	h/t			
252	2		X	0.35	4.47	4.47	12.766	0.078	0.50					1
253	2		X	0.35	4.47	4.47	12.766	0.078	0.50					1
254	2		X	0.35	4.47	4.47	12.766	0.078	0.50					1
255	2		X	0.35	4.47	4.47	12.766	0.078	0.50					1
428	0		X	0.80	2.00	2.00	2.500	0.400	0.60					1
433	0		X	0.80	2.00	2.00	2.500	0.400	0.60					1
441	0		X	0.80	1.81	1.81	2.261	0.442	0.60					1
442	0		X	0.80	1.40	1.40	1.750	0.571	0.60					1
443	0		X	0.80	1.81	1.81	2.261	0.442	0.60					1
444	0		X	0.80	2.00	2.00	2.500	0.400	0.60					1
445	0		X	0.80	1.40	1.40	1.750	0.571	0.60					1
446	0		X	0.80	1.81	1.81	2.261	0.442	0.60					1
447	0		X	0.80	1.40	1.40	1.750	0.571	0.60					1
448	0		X	0.80	2.00	2.00	2.500	0.400	0.60					1
449	0		X	0.80	1.81	1.81	2.261	0.442	0.60					1
450	0		X	0.80	1.40	1.40	1.750	0.571	0.60					1
458	2		X	0.35	0.00	0.00	0.006	-	0.50					1
462	2		X	0.35	3.95	3.95	11.286	0.089	0.50					1
466	2		X	0.35	3.95	3.95	11.286	0.089	0.50					1
470	2		X	0.35	3.70	3.70	10.571	0.095	0.50					1
474	2		X	0.35	3.70	3.70	10.571	0.095	0.50					1
478	2		X	0.35	3.70	3.70	10.571	0.095	0.50					1
482	2		X	0.35	3.70	3.70	10.571	0.095	0.50					1
486	2		X	0.35	3.70	3.70	10.571	0.095	0.50					1
490	2		X	0.35	3.70	3.70	10.571	0.095	0.50					1
494	2		X	0.35	3.68	3.67	10.500	0.095	0.50					1
504	2		X	0.35	3.70	3.70	10.571	0.095	0.50					1
508	2		X	0.35	3.70	3.70	10.571	0.095	0.50					1
512	2		X	0.35	3.70	3.70	10.571	0.095	0.50					1
516	2		X	0.35	3.70	3.70	10.571	0.095	0.50					1
520	2		X	0.35	3.70	3.70	10.571	0.095	0.50					1
521	2		X	0.35	3.95	3.95	11.291	0.089	0.50					1
525	2		X	0.35	3.70	3.70	10.571	0.095	0.50					1
526	2		X	0.35	3.95	3.95	11.286	0.089	0.50					1
530	2		X	0.35	3.67	3.67	10.494	0.095	0.50					1
534	2		X	0.35	3.30	3.30	9.437	0.106	0.50					1
535	2		X	0.35	4.02	4.02	11.491	0.087	0.50					1
539	2		X	0.35	3.30	3.30	9.437	0.106	0.50					1
540	2		X	0.35	4.02	4.02	11.497	0.087	0.50					1

3. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.067 (CCC ID 42) (Analisi Statica Lineare NON Sismica: Involuppo CCC)

N.	Tip.	n/e	Sez.	P (kN)	p (N/mm ²)	f _k / f _m (N/mm ²)	γ _m * FC	f _d (N/mm ²)	Nu (kN)	Mu (kN m)	M (kN m)	C.Sic.	ID CCC
1	M	e	B	98.32	0.110	2.500	3.60	0.694	529.18	71.77	-14.45	4.967	41
5	M	e	B	126.35	0.140	2.500	3.60	0.694	521.81	84.65	-19.29	4.388	41
11	M	e	B	157.38	0.180	2.500	3.60	0.694	521.81	97.16	-9.21	>> 1	41
14	M	e	B	141.34	0.160	2.500	3.60	0.694	521.51	91.03	8.62	>> 1	43
18	M	e	B	82.25	0.090	2.500	3.60	0.694	521.51	61.21	14.51	4.218	47
28	M	e	B	345.09	0.280	2.500	3.60	0.694	723.09	220.99	-109.63	2.016	41
31	M	e	B	101.31	0.390	2.500	3.60	0.694	152.88	8.85	-1.70	5.207	41
34	M	e	B	108.59	0.420	2.500	3.60	0.694	153.47	8.26	2.34	3.529	44
38	M	e	B	322.17	0.260	2.500	3.60	0.694	722.20	218.34	151.63	1.440	43
41	M	e	B	16.75	0.090	2.500	3.60	0.694	108.61	2.61	1.55	1.682	47
45	M	e	B	130.48	0.130	2.500	3.60	0.694	580.83	99.55	-25.76	3.865	41
51	M	e	B	171.02	0.170	2.500	3.60	0.694	580.83	118.73	-13.32	8.914	41
54	M	e	B	177.10	0.180	2.500	3.60	0.694	580.83	121.13	13.86	8.740	43
58	M	e	B	138.17	0.140	2.500	3.60	0.694	580.83	103.62	26.61	3.894	43
62	M	e	B	54.99	0.070	2.500	3.60	0.694	469.86	38.65	13.42	2.880	48

68	M	e	B	132.05	0.090	2.500	3.60	0.694	907.85	173.55	-52.00	3.338	46
71	M	e	B	132.06	0.090	2.500	3.60	0.694	907.85	173.56	52.01	3.337	48
76	M	e	B	54.99	0.070	2.500	3.60	0.694	469.86	38.65	13.41	2.882	46
80	M	e	B	138.17	0.140	2.500	3.60	0.694	580.83	103.62	26.61	3.894	43
86	M	e	B	177.09	0.180	2.500	3.60	0.694	580.83	121.13	13.86	8.739	43
89	M	e	B	171.01	0.170	2.500	3.60	0.694	580.83	118.73	-13.31	8.920	41
93	M	e	B	130.48	0.130	2.500	3.60	0.694	580.83	99.55	-25.75	3.866	41
97	M	e	B	16.75	0.090	2.500	3.60	0.694	108.61	2.61	1.55	1.682	47
103	M	e	B	322.16	0.260	2.500	3.60	0.694	722.20	218.34	151.63	1.440	43
106	M	e	B	108.59	0.420	2.500	3.60	0.694	153.47	8.26	2.34	3.529	42
109	M	e	B	101.31	0.390	2.500	3.60	0.694	152.88	8.85	-1.70	5.207	41
113	M	e	B	345.10	0.280	2.500	3.60	0.694	723.09	220.99	-109.63	2.016	41
120	M	e	B	82.24	0.090	2.500	3.60	0.694	521.51	61.20	14.50	4.221	47
126	M	e	B	141.32	0.160	2.500	3.60	0.694	521.51	91.02	8.61	>> 1	43
129	M	e	B	157.39	0.180	2.500	3.60	0.694	521.81	97.17	-9.21	>> 1	41
133	M	e	B	126.35	0.140	2.500	3.60	0.694	521.81	84.65	-19.30	4.386	41
137	M	e	B	98.42	0.110	2.500	3.60	0.694	529.77	71.92	-14.48	4.967	41
143	M	n	B	370.66	0.390	5.300	3.00	1.767	1445.65	442.24	256.10	1.727	44
146	M	n	B	370.56	0.380	5.300	3.00	1.767	1445.65	442.16	-256.13	1.726	42
150	M	n	B	408.64	0.420	5.300	3.00	1.767	1445.65	470.33	-217.22	2.165	42
153	M	n	B	408.73	0.420	5.300	3.00	1.767	1445.65	470.39	217.19	2.166	44
157	M	e	B	121.85	0.040	2.500	3.60	0.694	1720.07	329.92	0.00	>> 1	44
159	M	e	B	137.14	0.050	2.500	3.60	0.694	1711.81	365.84	0.00	>> 1	44
160	M	e	B	119.19	0.050	2.500	3.60	0.694	1372.40	253.05	0.00	>> 1	44
162	M	e	B	64.63	0.050	2.500	3.60	0.694	723.09	72.10	0.00	>> 1	44
164	M	e	B	88.14	0.050	2.500	3.60	0.694	974.84	132.40	0.00	>> 1	42
166	M	e	B	65.14	0.050	2.500	3.60	0.694	722.20	72.51	0.00	>> 1	42
169	M	e	B	118.83	0.050	2.500	3.60	0.694	1357.93	249.45	0.00	>> 1	42
171	M	e	B	146.62	0.050	2.500	3.60	0.694	1829.86	418.10	0.00	>> 1	42
172	M	e	B	120.40	0.040	2.500	3.60	0.694	1718.89	326.05	0.00	>> 1	42
174	M	e	B	120.37	0.040	2.500	3.60	0.694	1718.89	325.97	0.00	>> 1	44
176	M	e	B	146.60	0.050	2.500	3.60	0.694	1829.86	418.05	0.00	>> 1	44
177	M	e	B	118.80	0.050	2.500	3.60	0.694	1357.64	249.33	0.00	>> 1	44
179	M	e	B	65.14	0.050	2.500	3.60	0.694	722.20	72.51	0.00	>> 1	44
182	M	e	B	88.14	0.050	2.500	3.60	0.694	974.84	132.40	0.00	>> 1	44
184	M	e	B	64.64	0.050	2.500	3.60	0.694	723.09	72.11	0.00	>> 1	42
186	M	e	B	119.21	0.050	2.500	3.60	0.694	1372.40	253.09	0.00	>> 1	42
188	M	e	B	137.18	0.050	2.500	3.60	0.694	1711.81	365.94	0.00	>> 1	42
189	M	e	B	121.87	0.040	2.500	3.60	0.694	1719.48	329.85	0.00	>> 1	42
191	M	e	B	54.69	0.030	2.500	3.60	0.694	1242.24	110.03	0.00	>> 1	44
194	M	e	B	54.71	0.030	2.500	3.60	0.694	1242.24	110.07	0.00	>> 1	42
197	M	e	B	51.55	0.020	2.500	3.60	0.694	1242.24	103.99	0.00	>> 1	44
200	M	e	B	51.56	0.020	2.500	3.60	0.694	1242.24	104.00	0.00	>> 1	42
203	M	e	B	180.62	0.130	2.500	3.60	0.694	828.16	198.14	0.00	4.585	41
205	M	e	B	178.33	0.130	2.500	3.60	0.694	828.16	196.32	0.00	4.644	43
208	M	e	B	135.71	0.100	2.500	3.60	0.694	828.16	159.20	-34.36	4.633	48
287	W		I	0.12	0.040	-	1.05	223.809	734.10	34.59	2.14	>> 1	1
290	W		I	0.13	0.040	-	1.05	223.809	734.10	34.59	2.14	>> 1	1

4. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.067 (CCC ID 42)
(Analisi Statica Lineare NON Sismica: Involuppo CCC)

N.	Tip.	P (kN)	Nu	My	Mz (kN m)	Mu,y	Mu,z	C.Sic.	ID CCC
252	T	6.65	3246.97	-13.89		-91.48		6.586	41
252	T	-6.64	3246.97	-13.89		-89.60		6.450	41
253	T	6.65	3246.97	-13.89		-91.48		6.586	41
253	T	-6.64	3246.97	-13.89		-89.60		6.450	41
254	T	4.27	3246.97	-8.91		-91.14		>> 1	1
254	T	-4.26	3246.97	-8.91		-89.93		>> 1	1
255	T	4.27	3246.97	-8.91		-91.14		>> 1	1
255	T	-4.26	3246.97	-8.91		-89.93		>> 1	1
428	Z	0.00	8253.79	-67.01		-338.83		5.056	44
428	Z	0.00	8253.79	-39.94		-338.83		8.483	44
433	Z	0.00	8253.79	-25.09		-338.83		>> 1	44
433	Z	0.00	8253.79	-52.91		-338.83		6.404	44
441	Z	0.00	8253.79	317.60		338.83		1.067	44
441	Z	0.00	8253.79	-22.55		-338.83		>> 1	44
442	Z	0.00	8253.79	-22.16		-338.83		>> 1	44
442	Z	0.00	8253.79	-147.45		-338.83		2.298	44
443	Z	0.00	8253.79	-22.55		-338.83		>> 1	42
443	Z	0.00	8253.79	317.60		338.83		1.067	42
444	Z	0.00	8253.79	-145.09		-338.83		2.335	42
444	Z	0.00	8253.79	-147.26		-338.83		2.301	42
445	Z	0.00	8253.79	-147.45		-338.83		2.298	42
445	Z	0.00	8253.79	-22.15		-338.83		>> 1	42
446	Z	0.00	8253.79	-26.18		-338.83		>> 1	44
446	Z	0.00	8253.79	311.22		338.83		1.089	44
447	Z	0.00	8253.79	-149.83		-338.83		2.261	44
447	Z	0.00	8253.79	-25.77		-338.83		>> 1	44
448	Z	0.00	8253.79	-149.64		-338.83		2.264	42
448	Z	0.00	8253.79	-147.30		-338.83		2.300	42
449	Z	0.00	8253.79	311.22		338.83		1.089	42

449	Z	0.00	8253.79	-26.17		-338.83		>> 1	42
450	Z	0.00	8253.79	-25.77		-338.83		>> 1	42
450	Z	0.00	8253.79	-149.83		-338.83	2.261	>> 1	42
458	T	-0.01	3246.97	0.00		0.00		>> 1	1
462	T	0.00	3246.97	-7.39		-90.54		>> 1	1
462	T	0.00	3246.97	-7.40		-90.54		>> 1	1
466	T	0.00	3246.97	-7.39		-90.54		>> 1	1
466	T	0.00	3246.97	-7.40		-90.54		>> 1	1
470	T	0.00	3246.97	-6.49		-90.54		>> 1	1
474	T	0.00	3246.97	-6.49		-90.54		>> 1	1
478	T	0.00	3246.97	-6.49		-90.54		>> 1	1
482	T	0.00	3246.97	-6.49		-90.54		>> 1	1
486	T	0.00	3246.97	-6.49		-90.54		>> 1	1
490	T	0.00	3246.97	-6.49		-90.54		>> 1	1
494	T	0.00	3246.97	-6.40		-90.54		>> 1	1
504	T	0.00	3246.97	-6.49		-90.54		>> 1	1
508	T	0.00	3246.97	-6.49		-90.54		>> 1	1
512	T	0.00	3246.97	-6.49		-90.54		>> 1	1
516	T	0.00	3246.97	-6.49		-90.54		>> 1	1
520	T	0.00	3246.97	-6.49		-90.54		>> 1	1
521	T	0.00	3246.97	-7.40		-90.54		>> 1	1
525	T	0.00	3246.97	-6.49		-90.54		>> 1	1
526	T	0.00	3246.97	-7.40		-90.54		>> 1	1
526	T	0.00	3246.97	-7.39		-90.54		>> 1	1
530	T	0.00	3246.97	-6.39		-90.54		>> 1	1
534	T	0.00	3246.97	-5.17		-90.54		>> 1	1
535	T	0.00	3246.97	-7.67		-90.54		>> 1	1
539	T	0.00	3246.97	-5.17		-90.54		>> 1	1
540	T	0.00	3246.97	-7.67		-90.54		>> 1	1

5. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.474 (CCC ID 42)
(Analisi Statica Lineare NON Sismica: Involuppo CCC)

N.	n/e	Sez.	P (kN)	M (kN m)	Ecc. (m)	Beta	C (kN)	σ_n (N/mm ²)	f _{vk0} /f _{vm0}	γ_m * FC	f _{vd} (N/mm ²)	V _t (kN)	V (kN)	C.Sic.	ID CCC
143	n	B	370.66	256.10	0.69	0.850	370.66	0.451	0.300	3.00	0.160	131.64	77.83	1.691	44
146	n	B	370.56	-256.13	0.69	0.850	370.56	0.451	0.300	3.00	0.160	131.61	77.84	1.691	42
150	n	B	408.64	-217.22	0.53	1.000	408.64	0.424	0.300	3.00	0.157	150.76	68.14	2.212	42
153	n	B	408.73	217.19	0.53	1.000	408.73	0.425	0.300	3.00	0.157	150.77	68.13	2.213	44

6. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.474 (CCC ID 42)
(Analisi Statica Lineare NON Sismica: Involuppo CCC)

N.	Tip.	f _{cd} (N/mm ²)	ν f _{cd}	cotg.th (y)	V _{u,y} (kN)	V _y	C.Sic. y	cotg.th (Z)	V _{u,Z} (kN)	V _z	C.Sic. Z	C.Sic.	ID CCC
252	T	15.556	7.778					2.500	153.42	18.65	8.226	8.226	41
252	T	15.556	7.778					2.500	153.42	-18.65	8.226	8.226	41
253	T	15.556	7.778					2.500	153.42	18.65	8.226	8.226	41
253	T	15.556	7.778					2.500	153.42	-18.65	8.226	8.226	41
254	T	15.556	7.778					2.500	153.42	11.97	>> 1	>> 1	1
254	T	15.556	7.778					2.500	153.42	-11.97	>> 1	>> 1	1
255	T	15.556	7.778					2.500	153.42	11.97	>> 1	>> 1	1
255	T	15.556	7.778					2.500	153.42	-11.97	>> 1	>> 1	1
428	Z	15.556	7.778					2.500	369.78	-54.72	6.758	6.758	44
428	Z	15.556	7.778					2.500	369.78	81.48	4.538	4.538	44
433	Z	15.556	7.778					2.500	369.78	-81.92	4.514	4.514	44
433	Z	15.556	7.778					2.500	369.78	54.39	6.799	6.799	44
441	Z	15.556	7.778					2.500	369.78	-250.88	1.474	1.474	44
441	Z	15.556	7.778					2.500	369.78	-127.05	2.911	2.911	44
442	Z	15.556	7.778					2.500	369.78	-133.78	2.764	2.764	44
442	Z	15.556	7.778					2.500	369.78	-46.35	7.978	7.978	44
443	Z	15.556	7.778					2.500	369.78	127.05	2.911	2.911	42
443	Z	15.556	7.778					2.500	369.78	250.88	1.474	1.474	42
444	Z	15.556	7.778					2.500	369.78	-60.00	6.163	6.163	42
444	Z	15.556	7.778					2.500	369.78	58.14	6.360	6.360	42
445	Z	15.556	7.778					2.500	369.78	46.36	7.976	7.976	42
445	Z	15.556	7.778					2.500	369.78	133.78	2.764	2.764	42
446	Z	15.556	7.778					2.500	369.78	125.81	2.939	2.939	44
446	Z	15.556	7.778					2.500	369.78	249.14	1.484	1.484	44
447	Z	15.556	7.778					2.500	369.78	45.77	8.079	8.079	44
447	Z	15.556	7.778					2.500	369.78	132.62	2.788	2.788	44
448	Z	15.556	7.778					2.500	369.78	-57.61	6.419	6.419	42
448	Z	15.556	7.778					2.500	369.78	59.64	6.200	6.200	42
449	Z	15.556	7.778					2.500	369.78	-249.13	1.484	1.484	42
449	Z	15.556	7.778					2.500	369.78	-125.81	2.939	2.939	42
450	Z	15.556	7.778					2.500	369.78	-132.62	2.788	2.788	42
450	Z	15.556	7.778					2.500	369.78	-45.77	8.079	8.079	42
458	T	15.556	7.778					2.500	153.42	2.94	>> 1	>> 1	43
458	T	15.556	7.778					2.500	153.42	2.93	>> 1	>> 1	43

462	T	15.556	7.778					2.500	153.42	11.23	>> 1	>> 1	1
462	T	15.556	7.778					2.500	153.42	-11.23	>> 1	>> 1	1
466	T	15.556	7.778					2.500	153.42	11.23	>> 1	>> 1	1
466	T	15.556	7.778					2.500	153.42	-11.23	>> 1	>> 1	1
470	T	15.556	7.778					2.500	153.42	10.52	>> 1	>> 1	1
470	T	15.556	7.778					2.500	153.42	-10.52	>> 1	>> 1	1
474	T	15.556	7.778					2.500	153.42	10.52	>> 1	>> 1	1
474	T	15.556	7.778					2.500	153.42	-10.52	>> 1	>> 1	1
478	T	15.556	7.778					2.500	153.42	10.52	>> 1	>> 1	1
478	T	15.556	7.778					2.500	153.42	-10.52	>> 1	>> 1	1
482	T	15.556	7.778					2.500	153.42	10.52	>> 1	>> 1	1
482	T	15.556	7.778					2.500	153.42	-10.52	>> 1	>> 1	1
486	T	15.556	7.778					2.500	153.42	10.52	>> 1	>> 1	1
486	T	15.556	7.778					2.500	153.42	-10.52	>> 1	>> 1	1
490	T	15.556	7.778					2.500	153.42	10.52	>> 1	>> 1	1
490	T	15.556	7.778					2.500	153.42	-10.52	>> 1	>> 1	1
494	T	15.556	7.778					2.500	153.42	10.45	>> 1	>> 1	1
494	T	15.556	7.778					2.500	153.42	-10.45	>> 1	>> 1	1
504	T	15.556	7.778					2.500	153.42	10.52	>> 1	>> 1	1
504	T	15.556	7.778					2.500	153.42	-10.52	>> 1	>> 1	1
508	T	15.556	7.778					2.500	153.42	10.52	>> 1	>> 1	1
508	T	15.556	7.778					2.500	153.42	-10.52	>> 1	>> 1	1
512	T	15.556	7.778					2.500	153.42	10.52	>> 1	>> 1	1
512	T	15.556	7.778					2.500	153.42	-10.52	>> 1	>> 1	1
516	T	15.556	7.778					2.500	153.42	10.52	>> 1	>> 1	1
516	T	15.556	7.778					2.500	153.42	-10.52	>> 1	>> 1	1
520	T	15.556	7.778					2.500	153.42	10.52	>> 1	>> 1	1
520	T	15.556	7.778					2.500	153.42	-10.52	>> 1	>> 1	1
521	T	15.556	7.778					2.500	153.42	11.24	>> 1	>> 1	1
521	T	15.556	7.778					2.500	153.42	-11.24	>> 1	>> 1	1
525	T	15.556	7.778					2.500	153.42	10.52	>> 1	>> 1	1
525	T	15.556	7.778					2.500	153.42	-10.52	>> 1	>> 1	1
526	T	15.556	7.778					2.500	153.42	11.23	>> 1	>> 1	1
526	T	15.556	7.778					2.500	153.42	-11.23	>> 1	>> 1	1
530	T	15.556	7.778					2.500	153.42	10.45	>> 1	>> 1	1
530	T	15.556	7.778					2.500	153.42	-10.45	>> 1	>> 1	1
534	T	15.556	7.778					2.500	153.42	9.39	>> 1	>> 1	1
534	T	15.556	7.778					2.500	153.42	-9.39	>> 1	>> 1	1
535	T	15.556	7.778					2.500	153.42	11.44	>> 1	>> 1	1
535	T	15.556	7.778					2.500	153.42	-11.44	>> 1	>> 1	1
539	T	15.556	7.778					2.500	153.42	9.39	>> 1	>> 1	1
539	T	15.556	7.778					2.500	153.42	-9.39	>> 1	>> 1	1
540	T	15.556	7.778					2.500	153.42	11.44	>> 1	>> 1	1
540	T	15.556	7.778					2.500	153.42	-11.44	>> 1	>> 1	1

7. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.274 (CCC ID 43)
(Analisi Statica Lineare NON Sismica: Involuppo CCC)

N.	n/e	Sez.	Coeff. b	P (kN)	p (N/mm^2)	tau0	γ,m * FC	fvd (N/mm^2)	Vt (kN)	V (kN)	C.Sic.	ID CCC
1	e	M	1.500	61.39	0.068	0.043	3.60	0.026	23.51	8.28	2.840	41
5	e	M	1.500	90.13	0.102	0.043	3.60	0.031	27.31	10.90	2.506	41
11	e	M	1.500	98.69	0.112	0.043	3.60	0.032	28.39	2.99	9.496	41
14	e	M	1.500	82.67	0.094	0.043	3.60	0.030	26.32	2.84	9.269	43
18	e	M	1.500	72.50	0.082	0.043	3.60	0.028	24.93	10.20	2.444	43
28	e	M	1.500	257.50	0.210	0.043	3.60	0.043	52.21	28.46	1.835	41
31	e	M	1.500	85.19	0.329	0.043	3.60	0.053	13.61	0.59	>> 1	41
34	e	M	1.500	90.65	0.349	0.043	3.60	0.054	14.05	0.82	>> 1	43
38	e	M	1.500	234.68	0.192	0.043	3.60	0.041	50.00	39.25	1.274	43
41	e	M	1.500	18.05	0.098	0.043	3.60	0.030	5.59	2.23	2.508	43
45	e	M	1.500	88.56	0.090	0.043	3.60	0.029	28.85	13.50	2.137	41
51	e	M	1.500	105.62	0.107	0.043	3.60	0.032	31.08	4.16	7.470	41
54	e	M	1.500	111.70	0.114	0.043	3.60	0.032	31.83	4.42	7.202	43
58	e	M	1.500	96.25	0.098	0.043	3.60	0.030	29.87	14.11	2.117	43
62	e	M	1.500	42.62	0.054	0.043	3.60	0.024	18.99	9.37	2.026	44
68	e	M	1.140	72.76	0.047	0.043	3.60	0.030	46.15	28.63	1.612	46
71	e	M	1.140	72.77	0.047	0.043	3.60	0.030	46.16	28.63	1.612	48
76	e	M	1.500	42.63	0.054	0.043	3.60	0.024	18.99	9.37	2.027	42
80	e	M	1.500	96.24	0.098	0.043	3.60	0.030	29.87	14.11	2.117	43
86	e	M	1.500	111.69	0.114	0.043	3.60	0.032	31.83	4.42	7.202	43
89	e	M	1.500	105.61	0.107	0.043	3.60	0.032	31.07	4.16	7.470	41
93	e	M	1.500	88.56	0.090	0.043	3.60	0.029	28.85	13.49	2.138	41
97	e	M	1.500	18.05	0.098	0.043	3.60	0.030	5.59	2.24	2.497	43
103	e	M	1.500	234.69	0.192	0.043	3.60	0.041	50.00	39.25	1.274	43
106	e	M	1.500	90.65	0.349	0.043	3.60	0.054	14.05	0.82	>> 1	43
109	e	M	1.500	85.19	0.329	0.043	3.60	0.053	13.61	0.59	>> 1	41
113	e	M	1.500	257.51	0.210	0.043	3.60	0.043	52.21	28.46	1.835	41
120	e	M	1.500	72.49	0.082	0.043	3.60	0.028	24.93	10.19	2.446	43
126	e	M	1.500	82.65	0.094	0.043	3.60	0.030	26.32	2.84	9.268	43
129	e	M	1.500	98.70	0.112	0.043	3.60	0.032	28.39	2.99	9.497	41
133	e	M	1.500	90.14	0.102	0.043	3.60	0.031	27.31	10.90	2.506	41
137	e	M	1.500	61.43	0.068	0.043	3.60	0.026	23.54	8.28	2.843	41
157	e	M	1.000	101.53	0.035	0.043	3.60	0.031	89.59	0.74	>> 1	41

159	e	M	1.000	92.74	0.032	0.043	3.60	0.030	86.71	0.65	>> 1	45
160	e	M	1.000	83.43	0.036	0.043	3.60	0.031	72.18	0.47	>> 1	45
162	e	M	1.000	45.97	0.038	0.043	3.60	0.032	38.61	0.22	>> 1	45
164	e	M	1.000	62.60	0.038	0.043	3.60	0.032	52.23	0.26	>> 1	47
166	e	M	1.000	45.89	0.038	0.043	3.60	0.032	38.56	0.22	>> 1	47
169	e	M	1.000	82.67	0.036	0.043	3.60	0.031	71.46	0.46	>> 1	47
171	e	M	1.000	99.41	0.032	0.043	3.60	0.030	92.77	0.69	>> 1	47
172	e	M	1.000	102.19	0.035	0.043	3.60	0.031	89.74	0.74	>> 1	43
174	e	M	1.000	102.16	0.035	0.043	3.60	0.031	89.73	0.74	>> 1	43
176	e	M	1.000	99.39	0.032	0.043	3.60	0.030	92.76	0.69	>> 1	47
177	e	M	1.000	82.64	0.036	0.043	3.60	0.031	71.44	0.46	>> 1	47
179	e	M	1.000	45.89	0.038	0.043	3.60	0.032	38.56	0.22	>> 1	47
182	e	M	1.000	62.61	0.038	0.043	3.60	0.032	52.23	0.26	>> 1	45
184	e	M	1.000	45.98	0.038	0.043	3.60	0.032	38.61	0.22	>> 1	45
186	e	M	1.000	83.44	0.036	0.043	3.60	0.031	72.19	0.47	>> 1	45
188	e	M	1.000	92.77	0.032	0.043	3.60	0.030	86.72	0.65	>> 1	45
189	e	M	1.000	101.56	0.035	0.043	3.60	0.031	89.58	0.74	>> 1	41
191	e	M	1.000	17.27	0.008	0.043	3.60	0.022	45.53	0.14	>> 1	42
194	e	M	1.000	17.29	0.008	0.043	3.60	0.022	45.54	0.14	>> 1	44
197	e	M	1.000	15.50	0.007	0.043	3.60	0.021	44.79	0.09	>> 1	48
200	e	M	1.000	15.51	0.007	0.043	3.60	0.021	44.79	0.09	>> 1	46
203	e	M	1.500	58.54	0.042	0.043	3.60	0.022	30.58	13.86	2.206	46
205	e	M	1.500	59.84	0.043	0.043	3.60	0.022	30.81	13.87	2.221	46
208	e	M	1.500	58.55	0.042	0.043	3.60	0.022	30.58	13.87	2.205	48

8. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.274 (CCC ID 43)
(Analisi Statica Lineare NON Sismica: Involuppo CCC)

N.	n/e	Sez.	Coeff.	P	p	fvd0	γ_m	fvd	Vt,lim	Vt	V	C.Sic.	ID
			b	(kN)	(N/mm ²)		* FC	(N/mm ²)	(kN)	(kN)	(kN)		CCC
143	n	M	1.160	328.72	0.341	0.300	3.00	0.162	171.06	156.24	77.83	2.008	44
146	n	M	1.160	328.61	0.341	0.300	3.00	0.162	171.04	156.21	77.84	2.007	42
150	n	M	1.160	281.54	0.292	0.300	3.00	0.147	164.73	141.37	58.00	2.437	46
153	n	M	1.160	281.60	0.293	0.300	3.00	0.147	164.74	141.39	58.00	2.438	48

9. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 2.620 (CCC ID 46)
(Analisi Statica Lineare NON Sismica: Involuppo CCC)

N.	n/e	x Sez.	P	p	f _k , f _m	γ_m	f _d	Nu	Mu	M	C.Sic.	ID
		(m)	(kN)	(N/mm ²)	(N/mm ²)	* FC	(N/mm ²)	(kN)	(kN m)	(kN m)		CCC
1	e	2.500	60.36	0.067	2.500	3.60	0.694	529.18	13.37	2.29	5.838	48
5	e	2.500	80.68	0.091	2.500	3.60	0.694	521.81	17.05	2.92	5.840	46
11	e	2.500	67.88	0.077	2.500	3.60	0.694	521.81	14.76	2.92	5.056	46
14	e	2.500	63.72	0.072	2.500	3.60	0.694	521.51	13.98	3.38	4.137	48
18	e	2.500	73.18	0.083	2.500	3.60	0.694	521.51	15.73	3.38	4.653	48
28	e	2.500	261.86	0.214	2.500	3.60	0.694	723.09	41.76	6.55	6.379	44
31	e	2.500	84.35	0.326	2.500	3.60	0.694	152.88	9.45	2.11	4.483	44
34	e	2.500	90.00	0.346	2.500	3.60	0.694	153.47	9.31	2.25	4.136	44
38	e	2.500	238.21	0.195	2.500	3.60	0.694	722.20	39.91	5.96	6.702	44
41	e	2.500	17.80	0.097	2.500	3.60	0.694	108.61	3.72	1.42	2.620	48
45	e	2.500	86.93	0.088	2.500	3.60	0.694	580.83	18.48	3.80	4.863	48
51	e	2.500	82.34	0.084	2.500	3.60	0.694	580.83	17.67	3.80	4.649	48
54	e	2.500	75.89	0.077	2.500	3.60	0.694	580.83	16.49	3.15	5.236	46
58	e	2.500	84.81	0.086	2.500	3.60	0.694	580.83	18.11	3.15	5.748	46
62	e	2.500	45.32	0.057	2.500	3.60	0.694	469.86	10.24	2.25	4.550	48
68	e	2.500	85.37	0.056	2.500	3.60	0.694	907.85	19.34	3.55	5.447	45
71	e	2.500	85.37	0.056	2.500	3.60	0.694	907.85	19.34	3.55	5.447	45
76	e	2.500	45.32	0.057	2.500	3.60	0.694	469.86	10.24	2.25	4.550	46
80	e	2.500	84.81	0.086	2.500	3.60	0.694	580.83	18.11	3.15	5.748	48
86	e	2.500	75.88	0.077	2.500	3.60	0.694	580.83	16.49	3.15	5.235	48
89	e	2.500	82.34	0.084	2.500	3.60	0.694	580.83	17.67	3.80	4.649	46
93	e	2.500	86.93	0.088	2.500	3.60	0.694	580.83	18.48	3.80	4.863	46
97	e	2.500	17.80	0.097	2.500	3.60	0.694	108.61	3.72	1.42	2.620	46
103	e	2.500	238.23	0.195	2.500	3.60	0.694	722.20	39.91	5.96	6.701	42
106	e	2.500	90.00	0.346	2.500	3.60	0.694	153.47	9.31	2.25	4.136	42
109	e	2.500	84.35	0.326	2.500	3.60	0.694	152.88	9.45	2.11	4.483	42
113	e	2.500	261.87	0.214	2.500	3.60	0.694	723.09	41.76	6.55	6.378	42
120	e	2.500	73.18	0.083	2.500	3.60	0.694	521.51	15.73	3.38	4.653	46
126	e	2.500	63.71	0.072	2.500	3.60	0.694	521.51	13.98	3.38	4.137	46
129	e	2.500	67.88	0.077	2.500	3.60	0.694	521.81	14.76	2.92	5.056	48
133	e	2.500	80.68	0.091	2.500	3.60	0.694	521.81	17.05	2.92	5.840	48
137	e	2.500	60.40	0.067	2.500	3.60	0.694	529.77	13.38	2.29	5.842	46
143	n	2.190	326.00	0.339	5.300	3.00	1.767	1445.65	37.87	7.14	5.305	42
146	n	2.190	325.89	0.339	5.300	3.00	1.767	1445.65	37.86	7.14	5.305	44
150	n	2.190	367.77	0.382	5.300	3.00	1.767	1445.65	41.13	8.05	5.107	44
153	n	2.190	367.85	0.382	5.300	3.00	1.767	1445.65	41.14	8.06	5.106	42
157	e	0.150	109.35	0.038	2.500	3.60	0.694	1720.07	25.60	0.16	>> 1	44
159	e	0.150	124.70	0.043	2.500	3.60	0.694	1711.81	28.90	0.19	>> 1	44
160	e	0.150	109.21	0.047	2.500	3.60	0.694	1372.40	25.13	0.16	>> 1	44

162	e	0.150	59.38	0.048	2.500	3.60	0.694	723.09	13.63	0.09	>> 1	44
164	e	0.150	81.06	0.049	2.500	3.60	0.694	974.84	18.58	0.12	>> 1	42
166	e	0.150	59.89	0.049	2.500	3.60	0.694	722.20	13.73	0.09	>> 1	42
169	e	0.150	108.96	0.047	2.500	3.60	0.694	1357.93	25.05	0.16	>> 1	42
171	e	0.150	133.33	0.043	2.500	3.60	0.694	1829.86	30.90	0.20	>> 1	42
172	e	0.150	84.21	0.029	2.500	3.60	0.694	1718.89	20.02	0.14	>> 1	46
174	e	0.150	84.19	0.029	2.500	3.60	0.694	1718.89	20.02	0.14	>> 1	48
176	e	0.150	133.30	0.043	2.500	3.60	0.694	1829.86	30.90	0.20	>> 1	44
177	e	0.150	108.93	0.047	2.500	3.60	0.694	1357.64	25.05	0.16	>> 1	44
179	e	0.150	59.89	0.049	2.500	3.60	0.694	722.20	13.73	0.09	>> 1	44
182	e	0.150	81.06	0.049	2.500	3.60	0.694	974.84	18.58	0.12	>> 1	44
184	e	0.150	59.38	0.048	2.500	3.60	0.694	723.09	13.63	0.09	>> 1	42
186	e	0.150	109.23	0.047	2.500	3.60	0.694	1372.40	25.13	0.16	>> 1	42
188	e	0.150	124.74	0.043	2.500	3.60	0.694	1711.81	28.91	0.19	>> 1	42
189	e	0.150	109.37	0.038	2.500	3.60	0.694	1719.48	25.60	0.16	>> 1	42
191	e	0.525	15.50	0.007	2.500	3.60	0.694	1242.24	3.83	0.16	>> 1	45
194	e	0.525	15.52	0.007	2.500	3.60	0.694	1242.24	3.83	0.16	>> 1	45
197	e	0.525	14.56	0.007	2.500	3.60	0.694	1242.24	3.60	0.16	>> 1	47
200	e	0.525	14.57	0.007	2.500	3.60	0.694	1242.24	3.60	0.16	>> 1	47
203	e	2.500	58.68	0.042	2.500	3.60	0.694	828.16	13.63	2.39	5.703	47
205	e	2.500	58.69	0.042	2.500	3.60	0.694	828.16	13.63	2.39	5.704	47
208	e	2.500	58.70	0.042	2.500	3.60	0.694	828.16	13.63	2.39	5.705	47

10. VERIFICHE PER STATO LIMITE ULTIMO DI TIPO GEOTECNICO (§6.4.2.1) [SLV] - C.Sic: 1.488 (CCC ID 42)
(Analisi Statica Lineare NON Sismica: Involuppo CCC SLU)

VERIFICA DI CAPACITA' PORTANTE DEL TERRENO (§6.4.2.1) [SLV]
(Analisi Statica Lineare NON Sismica: Involuppo CCC SLU)

N.asta	K Winkler (N/mm^3)	q,lim (N/mm^2)	Rd	Nodo i	sZ,i (mm)	sT,i (N/mm^2)	Ed,i	C.Sic. i	Nodo j	sZ,j (mm)	sT,j (N/mm^2)	Ed,j	C.Sic. j	ID CCC
210	0.016	0.511	0.222	3	-9.31	0.149	0.149	1.492	8	-9.29	0.149	0.149	1.495	44
211	0.016	0.511	0.222	224	-9.24	0.148	0.148	1.503	225	-9.27	0.148	0.148	1.499	44
212	0.016	0.511	0.222	20	-9.31	0.149	0.149	1.492	24	-9.27	0.148	0.148	1.498	44
213	0.016	0.511	0.222	228	-8.98	0.144	0.144	1.546	229	-8.95	0.143	0.143	1.552	44
214	0.016	0.511	0.222	42	-9.30	0.149	0.149	1.493	46	-9.30	0.149	0.149	1.494	44
215	0.016	0.511	0.222	232	-9.24	0.148	0.148	1.503	233	-9.23	0.148	0.148	1.505	44
216	0.016	0.511	0.222	67	-9.03	0.144	0.144	1.538	71	-9.14	0.146	0.146	1.520	42
217	0.016	0.511	0.222	76	-9.31	0.149	0.149	1.492	80	-9.29	0.149	0.149	1.495	42
218	0.016	0.511	0.222	236	-9.23	0.148	0.148	1.505	237	-9.24	0.148	0.148	1.503	42
219	0.016	0.511	0.222	92	-9.30	0.149	0.149	1.494	96	-9.30	0.149	0.149	1.493	42
220	0.016	0.511	0.222	240	-8.95	0.143	0.143	1.552	241	-8.98	0.144	0.144	1.546	42
221	0.016	0.511	0.222	114	-9.27	0.148	0.148	1.498	118	-9.31	0.149	0.149	1.492	42
222	0.016	0.511	0.222	244	-9.26	0.148	0.148	1.499	245	-9.24	0.148	0.148	1.503	42
223	0.016	0.511	0.222	130	-9.29	0.149	0.149	1.495	134	-9.31	0.149	0.149	1.492	42
356	0.016	0.511	0.222	223	-9.33	0.149	0.149	1.489	1	-9.32	0.149	0.149	1.490	44
357	0.016	0.511	0.222	1	-9.32	0.149	0.149	1.490	3	-9.31	0.149	0.149	1.492	44
358	0.016	0.511	0.222	8	-9.29	0.149	0.149	1.495	6	-9.28	0.148	0.148	1.497	44
359	0.016	0.511	0.222	6	-9.28	0.148	0.148	1.497	340	-9.26	0.148	0.148	1.499	44
360	0.016	0.511	0.222	340	-9.26	0.148	0.148	1.499	11	-9.25	0.148	0.148	1.501	44
361	0.016	0.511	0.222	11	-9.25	0.148	0.148	1.501	224	-9.24	0.148	0.148	1.503	44
362	0.016	0.511	0.222	225	-9.27	0.148	0.148	1.499	14	-9.27	0.148	0.148	1.497	44
363	0.016	0.511	0.222	14	-9.27	0.148	0.148	1.497	341	-9.28	0.149	0.149	1.496	44
364	0.016	0.511	0.222	341	-9.28	0.149	0.149	1.496	18	-9.30	0.149	0.149	1.494	44
365	0.016	0.511	0.222	18	-9.30	0.149	0.149	1.494	20	-9.31	0.149	0.149	1.492	44
366	0.016	0.511	0.222	24	-9.27	0.148	0.148	1.498	22	-9.24	0.148	0.148	1.502	44
367	0.016	0.511	0.222	22	-9.24	0.148	0.148	1.502	226	-9.22	0.148	0.148	1.506	44
368	0.016	0.511	0.222	226	-9.22	0.148	0.148	1.506	27	-9.12	0.146	0.146	1.522	44
369	0.016	0.511	0.222	27	-9.12	0.146	0.146	1.522	227	-9.02	0.144	0.144	1.539	44
370	0.016	0.511	0.222	227	-9.02	0.144	0.144	1.539	30	-9.00	0.144	0.144	1.542	44
371	0.016	0.511	0.222	30	-9.00	0.144	0.144	1.542	228	-8.98	0.144	0.144	1.546	44
372	0.016	0.511	0.222	229	-8.95	0.143	0.143	1.552	33	-8.98	0.144	0.144	1.547	44
373	0.016	0.511	0.222	33	-8.98	0.144	0.144	1.547	230	-9.01	0.144	0.144	1.542	44
374	0.016	0.511	0.222	230	-9.01	0.144	0.144	1.542	37	-9.14	0.146	0.146	1.519	44
375	0.016	0.511	0.222	37	-9.14	0.146	0.146	1.519	231	-9.28	0.149	0.149	1.496	44
376	0.016	0.511	0.222	231	-9.28	0.149	0.149	1.496	40	-9.29	0.149	0.149	1.494	44
377	0.016	0.511	0.222	40	-9.29	0.149	0.149	1.494	42	-9.30	0.149	0.149	1.493	44
378	0.016	0.511	0.222	46	-9.30	0.149	0.149	1.494	44	-9.28	0.149	0.149	1.496	44
379	0.016	0.511	0.222	44	-9.28	0.149	0.149	1.496	342	-9.27	0.148	0.148	1.498	44
380	0.016	0.511	0.222	342	-9.27	0.148	0.148	1.498	49	-9.25	0.148	0.148	1.501	44
381	0.016	0.511	0.222	49	-9.25	0.148	0.148	1.501	232	-9.24	0.148	0.148	1.503	44
382	0.016	0.511	0.222	233	-9.23	0.148	0.148	1.505	52	-9.24	0.148	0.148	1.502	44
383	0.016	0.511	0.222	52	-9.24	0.148	0.148	1.502	343	-9.26	0.148	0.148	1.500	44
384	0.016	0.511	0.222	343	-9.26	0.148	0.148	1.500	56	-9.27	0.148	0.148	1.498	44
385	0.016	0.511	0.222	56	-9.27	0.148	0.148	1.498	58	-9.29	0.149	0.149	1.495	44
386	0.016	0.511	0.222	58	-9.29	0.149	0.149	1.495	62	-9.31	0.149	0.149	1.491	44
387	0.016	0.511	0.222	62	-9.31	0.149	0.149	1.491	60	-9.32	0.149	0.149	1.490	44
388	0.016	0.511	0.222	60	-9.32	0.149	0.149	1.490	234	-9.33	0.149	0.149	1.488	44
389	0.016	0.511	0.222	234	-9.33	0.149	0.149	1.488	65	-9.23	0.148	0.148	1.504	44
390	0.016	0.511	0.222	65	-9.23	0.148	0.148	1.504	67	-9.14	0.146	0.146	1.520	44
391	0.016	0.511	0.222	71	-9.14	0.146	0.146	1.520	69	-9.23	0.148	0.148	1.504	42
392	0.016	0.511	0.222	69	-9.23	0.148	0.148	1.504	235	-9.33	0.149	0.149	1.488	42

393	0.016	0.511	0.222	235	-9.33	0.149	0.149	1.488	74	-9.32	0.149	0.149	1.490	42
394	0.016	0.511	0.222	74	-9.32	0.149	0.149	1.490	76	-9.31	0.149	0.149	1.492	42
395	0.016	0.511	0.222	80	-9.29	0.149	0.149	1.495	78	-9.27	0.148	0.148	1.498	42
396	0.016	0.511	0.222	78	-9.27	0.148	0.148	1.498	344	-9.26	0.148	0.148	1.500	42
397	0.016	0.511	0.222	344	-9.26	0.148	0.148	1.500	83	-9.24	0.148	0.148	1.502	42
398	0.016	0.511	0.222	83	-9.24	0.148	0.148	1.502	236	-9.23	0.148	0.148	1.505	42
399	0.016	0.511	0.222	237	-9.24	0.148	0.148	1.503	86	-9.25	0.148	0.148	1.501	42
400	0.016	0.511	0.222	86	-9.25	0.148	0.148	1.501	345	-9.27	0.148	0.148	1.498	42
401	0.016	0.511	0.222	345	-9.27	0.148	0.148	1.498	90	-9.28	0.149	0.149	1.496	42
402	0.016	0.511	0.222	90	-9.28	0.149	0.149	1.496	92	-9.30	0.149	0.149	1.494	42
403	0.016	0.511	0.222	96	-9.30	0.149	0.149	1.493	94	-9.29	0.149	0.149	1.494	42
404	0.016	0.511	0.222	94	-9.29	0.149	0.149	1.494	238	-9.28	0.148	0.148	1.496	42
405	0.016	0.511	0.222	238	-9.28	0.148	0.148	1.496	99	-9.14	0.146	0.146	1.519	42
406	0.016	0.511	0.222	99	-9.14	0.146	0.146	1.519	239	-9.01	0.144	0.144	1.542	42
407	0.016	0.511	0.222	239	-9.01	0.144	0.144	1.542	102	-8.98	0.144	0.144	1.547	42
408	0.016	0.511	0.222	102	-8.98	0.144	0.144	1.547	240	-8.95	0.143	0.143	1.552	42
409	0.016	0.511	0.222	241	-8.98	0.144	0.144	1.546	105	-9.00	0.144	0.144	1.543	42
410	0.016	0.511	0.222	105	-9.00	0.144	0.144	1.543	242	-9.02	0.144	0.144	1.539	42
411	0.016	0.511	0.222	242	-9.02	0.144	0.144	1.539	109	-9.12	0.146	0.146	1.522	42
412	0.016	0.511	0.222	109	-9.12	0.146	0.146	1.522	243	-9.22	0.148	0.148	1.506	42
413	0.016	0.511	0.222	243	-9.22	0.148	0.148	1.506	112	-9.24	0.148	0.148	1.502	42
414	0.016	0.511	0.222	112	-9.24	0.148	0.148	1.502	114	-9.27	0.148	0.148	1.498	42
415	0.016	0.511	0.222	118	-9.31	0.149	0.149	1.492	116	-9.30	0.149	0.149	1.494	42
416	0.016	0.511	0.222	116	-9.30	0.149	0.149	1.494	346	-9.28	0.149	0.149	1.496	42
417	0.016	0.511	0.222	346	-9.28	0.149	0.149	1.496	121	-9.27	0.148	0.148	1.497	42
418	0.016	0.511	0.222	121	-9.27	0.148	0.148	1.497	244	-9.26	0.148	0.148	1.499	42
419	0.016	0.511	0.222	245	-9.24	0.148	0.148	1.503	124	-9.25	0.148	0.148	1.501	42
420	0.016	0.511	0.222	124	-9.25	0.148	0.148	1.501	347	-9.26	0.148	0.148	1.499	42
421	0.016	0.511	0.222	347	-9.26	0.148	0.148	1.499	128	-9.28	0.148	0.148	1.497	42
422	0.016	0.511	0.222	128	-9.28	0.148	0.148	1.497	130	-9.29	0.149	0.149	1.495	42
423	0.016	0.511	0.222	134	-9.31	0.149	0.149	1.492	132	-9.32	0.149	0.149	1.490	42
424	0.016	0.511	0.222	132	-9.32	0.149	0.149	1.490	246	-9.33	0.149	0.149	1.489	42
425	0.016	0.511	0.222	348	-8.80	0.141	0.141	1.578	137	-9.04	0.145	0.145	1.536	42
426	0.016	0.511	0.222	137	-9.04	0.145	0.145	1.536	238	-9.28	0.148	0.148	1.496	42
427	0.016	0.511	0.222	231	-9.28	0.149	0.149	1.496	141	-9.04	0.145	0.145	1.536	44
428	0.016	0.511	0.222	349	-8.70	0.139	0.139	1.595	348	-8.80	0.141	0.141	1.578	42
429	0.016	0.511	0.222	141	-9.04	0.145	0.145	1.536	349	-8.80	0.141	0.141	1.578	44
430	0.016	0.511	0.222	350	-8.80	0.141	0.141	1.578	145	-9.01	0.144	0.144	1.541	44
431	0.016	0.511	0.222	145	-9.01	0.144	0.144	1.541	226	-9.22	0.148	0.148	1.506	44
432	0.016	0.511	0.222	243	-9.22	0.148	0.148	1.506	149	-9.01	0.144	0.144	1.541	42
433	0.016	0.511	0.222	351	-8.80	0.141	0.141	1.578	350	-8.70	0.139	0.139	1.595	42
434	0.016	0.511	0.222	149	-9.01	0.144	0.144	1.541	351	-8.80	0.141	0.141	1.578	42
435	0.016	0.511	0.222	246	-9.33	0.149	0.149	1.489	215	-9.25	0.148	0.148	1.501	42
436	0.016	0.511	0.222	215	-9.25	0.148	0.148	1.501	352	-9.18	0.147	0.147	1.513	42
437	0.016	0.511	0.222	352	-9.18	0.147	0.147	1.513	218	-9.10	0.146	0.146	1.525	42
438	0.016	0.511	0.222	218	-9.10	0.146	0.146	1.525	353	-9.18	0.147	0.147	1.513	44
439	0.016	0.511	0.222	353	-9.18	0.147	0.147	1.513	221	-9.25	0.148	0.148	1.501	44
440	0.016	0.511	0.222	221	-9.25	0.148	0.148	1.501	223	-9.33	0.149	0.149	1.489	44
441	0.016	0.511	0.222	227	-9.02	0.144	0.144	1.539	306	-8.40	0.134	0.134	1.653	44
442	0.016	0.511	0.222	306	-8.40	0.134	0.134	1.653	304	-7.90	0.126	0.126	1.758	44
443	0.016	0.511	0.222	308	-8.40	0.134	0.134	1.653	242	-9.02	0.144	0.144	1.539	42
444	0.016	0.511	0.222	304	-7.80	0.125	0.125	1.780	310	-7.90	0.126	0.126	1.758	42
445	0.016	0.511	0.222	310	-7.90	0.126	0.126	1.758	308	-8.40	0.134	0.134	1.653	42
446	0.016	0.511	0.222	312	-8.36	0.134	0.134	1.660	230	-9.01	0.144	0.144	1.542	44
447	0.016	0.511	0.222	314	-7.85	0.126	0.126	1.768	312	-8.36	0.134	0.134	1.660	44
448	0.016	0.511	0.222	316	-7.85	0.126	0.126	1.768	314	-7.76	0.124	0.124	1.790	42
449	0.016	0.511	0.222	239	-9.01	0.144	0.144	1.542	318	-8.36	0.134	0.134	1.660	42
450	0.016	0.511	0.222	318	-8.36	0.134	0.134	1.660	316	-7.85	0.126	0.126	1.768	42

VERIFICA DI SCORRIMENTO SUL PIANO DI POSA (§6.4.2.1) [SLV] (CCC ID 42)
(Analisi Statica Lineare NON Sismica: Involuppo CCC SLU)

N.nodo	F orizz.X (kN)	F orizz.Y (kN)	F vert. (kN)
1	-6.26	-6.01	147.27
6	-7.17	-5.22	170.72
11	-1.75	-5.22	154.19
14	1.85	-5.73	136.78
18	7.23	-5.73	150.93
22	-13.82	-3.92	77.01
27	-26.12	-7.12	341.92
30	-0.54	-3.63	100.17
33	0.77	-3.72	105.45
37	36.82	-7.52	319.71
40	2.04	-3.15	36.94
44	-9.46	-5.98	174.05
49	-2.63	-5.98	165.26
52	3.04	-5.52	172.27
56	10.37	-5.51	183.60
60	5.31	-5.56	128.04
65	0.25	-30.72	228.33
69	0.44	-13.24	220.82
74	9.37	-5.34	118.36
78	12.19	-5.20	193.33

83	3.49	-5.21	185.12
86	-3.41	-4.58	177.10
90	-11.96	-4.59	183.80
94	1.90	-2.56	36.75
99	38.33	-2.94	325.70
102	0.80	-2.74	108.59
105	-0.57	-2.84	102.85
109	-27.47	-3.40	349.46
112	-14.48	-2.98	78.14
116	8.24	-4.50	159.02
121	2.04	-4.51	146.18
124	-2.40	-5.04	163.56
128	-9.56	-5.04	178.13
132	-6.95	-6.02	144.38
137	1.33	34.95	375.33
141	1.27	-77.84	370.56
145	-0.90	-68.14	408.64
149	-0.94	23.26	417.18
215	-0.26	-13.86	178.17
218	-0.24	-13.87	179.48
221	-0.23	-13.87	180.79

Angolo d'attrito fondazione-terreno (°) = 24

Direz.	F.orizz.tot. (kN)	F.vert.tot. (kN)	R (kN)	Ed (kN)	Rd (kN)	C.Sic.
X	0.05	7774.08	3461.24	0.05	3146.59	>> 1
Y	326.35	7774.08	3461.24	326.35	3146.59	9.640

RELAZIONE DI CALCOLO

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1. NORMATIVA DI RIFERIMENTO

D.M. 17.1.2018: "Aggiornamento delle "Norme tecniche per le costruzioni", Supplemento ordinario alla "Gazzetta Ufficiale", n.42 del 20 febbraio 2018.

Circolare 21.1.2019, n. 7 C.S.LL.PP.: Istruzioni per l'applicazione dell'«Aggiornamento delle "Norme tecniche per le costruzioni"» di cui al decreto ministeriale 17 gennaio 2018.

Edifici monumentali: Direttiva del Presidente del Consiglio dei Ministri del 9.2.2011: "Valutazione e riduzione del rischio sismico del patrimonio culturale con riferimento alle Norme tecniche per le costruzioni di cui al decreto del Ministero delle infrastrutture e dei trasporti del 14 gennaio 2008", di cui costituisce parte integrante la **Circ. 26 del 2.12.2010 del Ministero per i Beni e le Attività Culturali:** "Linee guida per la valutazione e riduzione del rischio sismico del patrimonio culturale".

FRP:

Istruzioni per la Progettazione, l'Esecuzione ed il Controllo di Interventi di Consolidamento Statico mediante l'utilizzo di Compositi Fibrorinforzati, CNR-DT 200 R1/2012.

Linee guida per la Progettazione, l'Esecuzione ed il Collaudo di Interventi di Rinforzo di strutture di c.a., c.a.p. e murarie mediante FRP, documento approvato il 24 luglio 2009 dall'assemblea Generale del Consiglio Superiore dei Lavori Pubblici.

Indirizzi per l'esecuzione degli interventi di cui all'Ordinanza del Presidente del Consiglio dei Ministri n.3790 del 17.7.2009 (Riparazione con miglioramento sismico di edifici danneggiati), a cura della Presidenza del Consiglio dei Ministri, Dipartimento della Protezione Civile, Commissario Delegato (Eventi sismici provincia di L'Aquila, 6 aprile 2009).

Riferimenti tecnici: EuroCodici

Per quanto non diversamente specificato nel D.M.14.1.2008, si intendono coerenti con i principi alla base del Decreto le indicazioni riportate nei documenti di riferimento elencati in §12; fra questi: gli EuroCodici strutturali, così organizzati:

Criteri generali di progettazione strutturale

UNI EN 1990:2006

Eurocodice 1 – Azioni sulle strutture

UNI EN 1991-1-1:2004 Parte 1-1: Azioni in generale - Pesì per unità di volume, pesì propri e sovraccarichi per gli edifici

UNI EN 1991-1-2:2004 Parte 1-2: Azioni in generale - Azioni sulle strutture esposte al fuoco

UNI EN 1991-1-3:2004 Parte 1-3: Azioni in generale - Carichi da neve

UNI EN 1991-1-4:2005 Parte 1-4: Azioni in generale - Azioni del vento

UNI EN 1991-1-5:2004 Parte 1-5: Azioni in generale - Azioni termiche

UNI EN 1991-1-6:2005 Parte 1-6: Azioni in generale - Azioni durante la costruzione

UNI EN 1991-1-7:2006 Parte 1-7: Azioni in generale - Azioni eccezionali

UNI EN 1991-2:2005 Parte 2: Carichi da traffico sui ponti

UNI EN 1991-3:2006 Parte 3: Azioni indotte da gru e da macchinari

UNI EN 1991-4:2006 Parte 4: Azioni su silos e serbatoi

Eurocodice 2 – Progettazione delle strutture in calcestruzzo

UNI EN 1992-1-1:2005 Parte 1-1: Regole generali e regole per gli edifici

UNI EN 1992-1-2:2005 Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio

UNI EN 1992-2:2006 Parte 2: Ponti di calcestruzzo - Progettazione e dettagli costruttivi

UNI EN 1992-3:2006 Parte 3: Strutture di contenimento liquidi

Eurocodice 3 – Progettazione delle strutture in acciaio

UNI EN 1993-1-1:2005 Parte 1-1: Regole generali e regole per gli edifici

UNI EN 1993-1-2:2005 Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio

UNI EN 1993-1-3:2007 Parte 1-3: Regole generali - Regole supplementari per l'impiego dei profilati e delle lamiere sottili piegati a freddo

UNI EN 1993-1-4:2007 Parte 1-4: Regole generali - Regole supplementari per acciai inossidabili

UNI EN 1993-1-5:2007 Parte 1-5: Elementi strutturali a lastra

UNI EN 1993-1-6:2007 Parte 1-6: Resistenza e stabilità delle strutture a guscio

UNI EN 1993-1-7:2007 Parte 1-7: Strutture a lastra ortotropa caricate al di fuori del piano

UNI EN 1993-1-8:2005 Parte 1-8: Progettazione dei collegamenti

UNI EN 1993-1-9:2005 Parte 1-9: Fatica

UNI EN 1993-1-10:2005 Parte 1-10: Resilienza del materiale e proprietà attraverso lo spessore

UNI EN 1993-1-11:2007 Parte 1-11: Progettazione di strutture con elementi tesi

UNI EN 1993-1-12:2007 Parte 1-12: Regole aggiuntive per l'estensione della EN 1993 fino agli acciai di grado S 700

UNI EN 1993-2:2007 Parte 2: Ponti di acciaio

UNI EN 1993-3-1:2007 Parte 3-1: Torri, pali e ciminiera - Torri e pali

UNI EN 1993-3-2:2007 Parte 3-2: Torri, pali e ciminiera - Ciminiera

UNI EN 1993-4-1:2007 Parte 4-1: Silos

UNI EN 1993-4-2:2007 Parte 4-2: Serbatoi

UNI EN 1993-4-3:2007 Parte 4-3: Condotte

UNI EN 1993-5:2007 Parte 5: Pali e palancole

UNI EN 1993-6:2007 Parte 6: Strutture per apparecchi di sollevamento

Eurocodice 4 – Progettazione delle strutture composte acciaio-calcestruzzo

UNI EN 1994-1-1:2005 Parte 1-1: Regole generali e regole per gli edifici

UNI EN 1994-1-2:2005 Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio

UNI EN 1994-2:2006 Parte 2: Regole generali e regole per i ponti

Eurocodice 5 – Progettazione delle strutture in legno

UNI EN 1995-1-1:2005 Parte 1-1: Regole generali - Regole comuni e regole per gli edifici

UNI EN 1995-1-2:2005 Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio

UNI EN 1995-2:2005 Parte 2: Ponti

Eurocodice 6 – Progettazione delle strutture in muratura

UNI EN 1996-1-1:2006 Parte 1-1: Regole generali per strutture di muratura armata e non armata

UNI EN 1996-1-2:2005 Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio

UNI EN 1996-2:2006 Parte 2: Considerazioni progettuali, selezione dei materiali ed esecuzione delle murature

UNI EN 1996-3:2006 Parte 3: Metodi di calcolo semplificato per strutture di muratura non armata

Eurocodice 7 – Progettazione geotecnica

UNI EN 1997-1:2005 Parte 1: Regole generali

UNI EN 1997-2:2007 Parte 2: Indagini e prove nel sottosuolo

Eurocodice 8 – Progettazione delle strutture per la resistenza sismica

UNI EN 1998-1:2005 Parte 1: Regole generali, azioni sismiche e regole per gli edifici

UNI EN 1998-2:2006 Parte 2: Ponti

UNI EN 1998-3:2005 Parte 3: Valutazione e adeguamento degli edifici

UNI EN 1998-4:2006 Parte 4: Silos, serbatoi e condotte

UNI EN 1998-5:2005 Parte 5: Fondazioni, strutture di contenimento ed aspetti geotecnici

UNI EN 1998-6:2005 Parte 6: Torri, pali e camini

Eurocodice 9 – Progettazione delle strutture in alluminio

UNI EN 1999-1-1:2007 Parte 1-1: Regole strutturali generali

UNI EN 1999-1-2:2007 Parte 1-2: Progettazione strutturale contro l'incendio

UNI EN 1999-1-3:2007 Parte 1-3: Strutture sottoposte a fatica

UNI EN 1999-1-4:2007 Parte 1-4: Lamiere sottili piegate a freddo

UNI EN 1999-1-5:2007 Parte 1-5: Strutture a guscio

Norme Italiane precedenti al D.M. 17.1.2018:

D.M. 14.1.2008: "Approvazione delle nuove norme tecniche per le costruzioni", Supplemento ordinario alla "Gazzetta Ufficiale", n.29 del 4 febbraio 2008.

Circolare 2.2.2009, n.617: "Istruzioni per l'applicazione delle "Nuove norme tecniche per le costruzioni" di cui al D.M. 14.1.2008.

Le norme elencate nel seguito sono in generale da considerarsi superate dal D.M.14.1.2008; esse possono costituire tuttavia utili fonti di riferimento per la comprensione dello sviluppo dei metodi di calcolo adottati dalle NTC.

D.M. 14.9.2005: "Norme Tecniche per le Costruzioni" (ex Testo Unico)

In campo antisismico, il D.M. 14.9.2005 definisce l'azione sismica [§3.2] e fissa i livelli di sicurezza. Nel rispetto di tali presupposti, il D.M.14.9.2005 può fare riferimento all'OPCM 3274 e s.m.i. [§5.7.1.1] per le indicazioni attuative sulle verifiche di sicurezza.

Sismica: Ordinanza P.C.M. n. 3274 del 20.3.2003: "Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica", e successive modifiche e integrazioni:

Ordinanza P.C.M. n. 3316 del 2.10.2003 e Ordinanza P.C.M. n. 3431 del 3.5.2005

Sismica: D. P.C.M. del 21.10.2003: "Disposizioni attuative dell'art.2, commi 2, 3 e 4, dell'Ordinanza del Presidente del Consiglio dei Ministri n.3274 del 20 marzo 2003".

Norme strutturali precedenti all'OPCM 3274 (per la Sismica) e al D.M. 14.9.2005:

Legge n.64 del 2.2.1974: "Provvedimenti per le costruzioni, con particolari prescrizioni per le zone sismiche."

Regione Autonoma Friuli Venezia Giulia - Legge Regionale n. 30 del 20.6.1977: "Documentazione tecnica per la progettazione e direzione delle opere di riparazione degli edifici - Documento Tecnico n. 2 - Raccomandazioni per la riparazione strutturale degli edifici in muratura."

Regione Umbria, Art.38 L.R. 1.7.1981, n.34: "Direttive tecniche ed esemplificazioni delle metodologie di intervento per la riparazione ed il consolidamento degli edifici danneggiati da eventi sismici."

D.M. 2.7.1981: "Normativa per le riparazioni ed il rafforzamento degli edifici danneggiati dal sisma nelle regioni Basilicata, Campania e Puglia."

Circolare Min.LL.PP. n.21745 del 30.7.1981: "Istruzioni relative alla normativa tecnica per la riparazione ed il rafforzamento degli edifici in muratura danneggiati dal sisma."

D.M. 16.1.1996: "Norme tecniche per le costruzioni in zone sismiche."

Circolare Min.LL.PP. n.65 del 10.4.1997: "Istruzioni per l'applicazione delle "Norme Tecniche per le costruzioni in zone sismiche" di cui al D.M. 16.1.1996."

Servizio Sismico Nazionale (S.S.N.) - Associazione Nazionale Italiana di Ingegneria Sismica (A.N.I.D.I.S.): "Commentario al D.M. 16.1.1996 ed alla Circ. n.65 del 10.4.1997 del Ministero LL.PP.", coord. F.Braga, 1998

D.G.R. Umbria n.5180 del 14.9.1998 e D.G.R. Marche n.2153 del 14.9.1998 in attuazione Legge 61/98: "Eventi sismici del 12 maggio, 26 settembre 1997 e successivi - Modalità e procedure per la concessione dei contributi previsti dall'art.4 della Legge 61/98 - Allegato B".

Provincia di Perugia, Servizio Sismico Nazionale: "Terremoto in Umbria e Marche del 1997. Criteri di calcolo per la progettazione degli interventi. Verifiche sismiche ed esempi per l'applicazione delle Direttive Tecniche D.G.R. Umbria 5180/98 e D.G.R. Marche 2153/98 in attuazione L.61/98", coord. A.De Sortis, G.Di Pasquale, U.Nasini, 1998.

Murature: D.M. 20.11.1987: "Norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento."

Circolare Min.LL.PP. n.30787 del 4.1.1989: "Istruzioni in merito alle norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento."

Carichi: D.M. 16.1.1996: "Norme tecniche relative ai criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi."

ANALISI DEI MECCANISMI LOCALI DI COLLASSO IN EDIFICI ESISTENTI IN MURATURA

(ANALISI CINEMATICA)

(D.M.17.1.2018 (NTC18), §8.7.1, Circ. 7 del 21.1.2019: §C8.7.1.2)

Negli edifici esistenti in muratura, come hanno dimostrato anche gli eventi sismici più recenti, i collassi più frequenti sono determinati dalla formazione di cinematismi: porzioni murarie di dimensioni rilevanti si distaccano dalle strutture e ruotano come corpi rigidi; è tipico il ribaltamento delle parti superiori delle facciate verso l'esterno.

Durante la sollecitazione sismica, le azioni di tipo stabilizzante (pesi propri e carichi verticali dai solai, azioni da tiranti) si oppongono alle instabilizzanti (dovute a strutture spingenti e ad azioni orizzontali di tipo sismico proporzionali alle masse, cioè ai pesi). Quando a causa del sisma le azioni instabilizzanti superano un certo valore, si forma il meccanismo di collasso.

Pertanto, la sicurezza strutturale può essere indagata studiando i cinematismi che possono formarsi nell'opera muraria e definendo per ognuno di essi il moltiplicatore di collasso, ossia l'entità dell'input sismico che lo attiva generando il ribaltamento.

Al moltiplicatore di collasso è legata l'accelerazione al suolo a_g . Con riferimento ad uno stato limite di interesse (lo Stato Limite di Danno o lo Stato Limite ultimo SLV di salvaguardia della Vita), attraverso le relazioni biunivoche che legano: accelerazione alla base della struttura PGA (che può tenere conto degli

$$\alpha_0 = \frac{\sum_{k=1}^N P_k \delta_{Py,k} - \sum_{k=1}^m F_k \delta_{F,k} + L_i}{\sum_{k=1}^N (P_k + Q_k) \delta_{PQx,k}}$$

che nel caso in esame diventa:

$$\alpha_0 = \frac{W_1 \varphi s_1 / 2 + P_1 \varphi (s_1 - e_1) + T_1 \varphi h_{T1} - S_1 \varphi h_{S1}}{W_1 \varphi h_1 / 2 + P_1 \varphi h_{S1}}$$

Semplificando in φ la formula può essere scritta in modo alternativo, come:

$$\alpha_0 = \frac{M_S - M_{R2}}{M_{R2}}$$

dove:

$$\dot{a}_0 M_{R1} = \dot{a}_0 (W_1 h_1 / 2 + P_1 h_{S1})$$

è il momento ribaltante dovuto alle forze inerziali

$$M_{R2} = S_1 h_{S1}$$

è il momento ribaltante dovuto alla spinta orizzontale indipendente da \dot{a}_0

$$M_S = W_1 s_1 / 2 + P_1 (s_1 - e_1) + T_1 h_{T1}$$

è il momento stabilizzante

Calcolato il moltiplicatore di collasso α_0 è possibile determinare l'accelerazione spettrale che attiva il meccanismo a_0^* .

L'espressione è fornita dalla formula [C8.7.1.8], coerente con la formulazione fornita dalla Circolare n. 617 del 2 febbraio 2009 (§C8A.4.2.2):

$$a_0^* = \frac{\alpha_0 \sum_{i=1}^{n+m} P_i}{M^* FC} = \frac{\alpha_0 g}{e^* FC} \quad (C8A.4.4)$$

dove:

- g è l'accelerazione di gravità;

- $e^* = g M^* / \sum_{i=1}^{n+m} P_i$ è la frazione di massa partecipante della struttura;

- FC è il fattore di confidenza. Nel caso in cui per la valutazione del moltiplicatore α non si tenga conto della resistenza a compressione della muratura, il fattore di confidenza da utilizzare sarà comunque quello relativo al livello di conoscenza LC1.

La massa partecipante al cinematisimo M^* può essere valutata considerando gli spostamenti virtuali dei punti di applicazione dei diversi pesi, associati al cinematisimo, come una forma modale di vibrazione:

$$M^* = \frac{\left(\sum_{i=1}^{n+m} P_i \delta_{xi} \right)^2}{g \sum_{i=1}^{n+m} P_i \delta_{xi}^2} \quad (C8A.4.3)$$

dove:

- $n+m$ è il numero delle forze peso P_i applicate le cui masse, per effetto dell'azione sismica, generano forze orizzontali sugli elementi della catena cinematica;

- δ_{xi} è lo spostamento virtuale orizzontale del punto di applicazione dell' i -esimo peso P_i .

Nel caso in esame:

$$M^* = \frac{(W_1 \varphi h_1 / 2 + P_1 \varphi h_{S1})^2}{g [W_1 (\varphi h_1 / 2)^2 + P_1 (\varphi h_{S1})^2]}$$

$$e^* = g M^* / (W_1 + P_1)$$

Fino a questo punto non è stato utilizzato alcun dato sismico relativo al sito di ubicazione della struttura: il calcolo dell'accelerazione di attivazione del meccanismo a_0^* non dipende dall'azione sismica, ma soltanto dalla geometria e dai carichi applicati.

Capacità in termini di accelerazione. Indicatori di Rischio Sismico

Una volta determinata l'accelerazione spettrale di attivazione del meccanismo a_0^* la verifica di sicurezza si basa sul confronto con l'accelerazione massima alla quota Z (domanda in termini di accelerazione alla quota del baricentro delle linee di vincolo del cinematisimo). Si segue la procedura descritta al §C8.7.1.2.1.5 per SLD e §C8.7.1.2.1.7 per SLV, nell'ipotesi di meccanismi locali rigidamente vincolati alla struttura principale. L'accelerazione massima alla quota Z (a_z) può essere determinata con le seguenti espressioni [C7.2.7 - C7.2.8]

$$a_{z,k}(z) = S_e(T_k, \xi_k) \gamma_k \psi_k(z) \sqrt{1 + 0.0004 \xi_k^2}$$

$$a_z(z) = \sqrt{\sum a_{z,k}^2(z)}$$

Considerando il solo modo fondamentale di vibrazione nella direzione di avanzamento del cinematismo, un coefficiente di smorzamento viscoso $\hat{\imath} = 5\%$ e ignorando il contributo irrilevante del termine sotto radice, l'espressione [C7.2.8] diventa:

$$a_z(z) = S_e(T_1) \cdot \gamma_1 \cdot \psi_1(z)$$

dove:

- T_1 è il periodo fondamentale di vibrazione dell'intera costruzione nella direzione considerata. Se T_1 non è stato calcolato con un'analisi modale applicata alla struttura nel suo complesso, può essere definito in via semplificata tramite la relazione [C7.3.2]:
 $T_1 = 0.05 H^{3/4}$ dove H è l'altezza totale dell'edificio;
- $S_e(T_1)$ è lo spettro elastico al suolo valutato per il periodo T_1 ;
- $\psi(Z)$ è il valore della forma modale alla quota Z , posto pari a Z/H , dove H è l'altezza di tutta la costruzione rispetto alla fondazione;
- γ_1 è il coefficiente di partecipazione modale del modo fondamentale di vibrazione. Se non è noto da analisi modale può essere assunto $\gamma = 3N/(2N+1)$ con N numero di piani della costruzione [C7.2.10].

Pertanto, considerando che la domanda in termini di accelerazione (a^*) non deve comunque essere inferiore all'accelerazione al suolo, questa viene assunta come la massima tra le seguenti accelerazioni a_1^* e a_2^* .

$$a^* = \text{Max}(a_1^*, a_2^*)$$

Per Stato Limite di Danno:

$$a_1^* = a_g S$$

$$a_2^* = S_e(T_1) \cdot \gamma_1 \cdot \psi_1(z)$$

Per Stato Limite di Salvaguardia della Vita:

$$a_1^* = a_g \cdot S/q$$

$$a_2^* = S_e(T_1) \cdot \gamma_1 \cdot \psi_1(z)/q$$

La verifica di sicurezza è soddisfatta se l'accelerazione di attivazione del meccanismo a_0^* è maggiore o uguale all'accelerazione richiesta secondo normativa a^* .

Nell'espressione di a^* è direttamente identificabile la componente $a_g S$. È quindi immediatamente comprensibile come, uguagliando l'accelerazione di attivazione del meccanismo a_0^* all'espressione dell'accelerazione richiesta a^* , resti determinato univocamente un valore di PGA: è questa la capacità in termini di accelerazione dell'elemento strutturale nei confronti del cinematismo, PGA_{CLV} (capacità per SLV) e PGA_{CLD} (capacità per SLD). Un valore maggiore dell'accelerazione al suolo, quindi, innesca il meccanismo di collasso.

Per semplicità nel seguito si fa riferimento al solo SLV, ma la procedura viene applicata in modo analogo per SLD.

L'equazione $a_0^* = a^*$ che fornisce PGA_{CLV} è di tipo non lineare. Infatti, sia a_g sia i parametri di spettro F_0 e T_C^* sono tabulati in funzione del periodo di ritorno, nel reticolo sismico fornito dal D.M. 14.1.2008. Da essi dipendono inoltre i valori dei parametri S , T_C , T_B , T_D .

Pertanto, l'unico modo esatto con cui procedere per determinare PGA_{CLV} è seguire una procedura iterativa, fondata sul periodo di ritorno T_R . Applicando il metodo di bisezione, ad ogni passo T_R viene fatto variare fra i valori ammissibili, compresi fra 1 e 2475 anni; a T_R corrispondono univocamente i valori degli altri parametri, e si controlla se l'equazione $a_0^* = a^*$ è soddisfatta. Quando ciò accade, a_g e S forniscono la PGA_{CLV} . A PGA_{CLV} corrisponde il periodo di ritorno TR_{CLV} .

La capacità PGA_{CLV} viene confrontata con la domanda in termini di accelerazione al suolo per il sito in esame PGA_{DLV} , definendo il coefficiente di sicurezza allo stato limite ultimo, denominato 'Indicatore di Rischio Sismico' ζ_E in termini di PGA:

$$\zeta_{E, \text{PGA}} = \text{PGA}_{\text{CLV}} / \text{PGA}_{\text{DLV}}$$

Si osservi che a questo punto è possibile definire l'Indicatore di Rischio Sismico anche in termini di TR ($\zeta_{E, \text{TR}}$) come rapporto tra TR_{CLV} e TR_{DLV} . Poiché il legame tra TR e PGA, pur biunivoco, non è lineare, il valore di $\zeta_{E, \text{TR}}$ non coincide col valore di $\zeta_{E, \text{PGA}}$ (però sono entrambi >1 o <1 , e quando uno dei due ζ_E vale esattamente 1.000, anche l'altro vale 1.000).

Osservazioni integrative

• Intervallo di calcolo per TR.

Il D.M. 14.1.2008 definisce un periodo di ritorno compreso tra 30 e 2475 anni. Se dal calcolo risulta una capacità in termini di TR superiore a 2475 anni, si pone $\text{TR}=2475$ come limite superiore. Per quanto riguarda il limite inferiore, è possibile considerare valori di TR minori di 30 anni con riferimento al Programma di ricerca DPC-ReLUIIS (Unità di Ricerca CNR-ITC): viene adottata un'estrapolazione mediante una regressione sui tre valori di hazard $\text{ag}(30)$, $\text{ag}(50)$ e $\text{ag}(75)$, effettuata con la funzione di potenza: $\text{ag}(\text{TR}) = k \cdot \text{TR}^{\lambda}$. L'intervallo di calcolo di TR è quindi [1, 2475].

• Definizione di PGA.

PGA può essere intesa come accelerazione di picco al suolo su roccia (o: su suolo rigido), oppure come accelerazione di picco al suolo tenendo conto degli effetti di sito. Si tenga presente che la Circ. 7 del 21.1.2019 in §C8.3 specifica che "il parametro di confronto dell'azione sismica da adottare per la definizione dell'indicatore di rischio sismico a_E è, salvo casi particolari, l'accelerazione al suolo $a_g S$ ", ossia la PGA tenendo conto degli effetti di sito. La scelta di questa opzione determina il valore di PGA_{DLV} e PGA_{CLV} : nel caso si tenga conto degli effetti di sito, la PGA su roccia viene moltiplicata per il fattore di suolo S (§3.2.3.2.1), pari al prodotto di S_S (coefficiente di amplificazione stratigrafica) per S_T (coefficiente di amplificazione topografica). Poiché il coefficiente S_S è legato ai parametri di spettro (dipende da a_g e F_0), PGA_{CLV} conterrà S_S corrispondente al periodo TR_{CLV} , che in generale sarà distinto dal valore S_S corrispondente alla domanda (a_g in input): pertanto, l'Indicatore di Rischio Sismico $\zeta_{E, \text{PGA}}$ può assumere valori leggermente diversi, considerando o meno gli effetti di suolo nella definizione di PGA.

Nessuna variazione corrispondente si ha invece per l'Indicatore di Rischio Sismico $\zeta_{E,TR}$ in termini di periodo di ritorno.

• Parametri di spettro in input.

La conoscenza di specifici parametri fisici relativi alla zona di ubicazione dell'edificio (microzonazione) può tradursi in una modifica dei parametri di spettro rispetto ai valori previsti dal reticolo sismico secondo Normativa.

La capacità in termini di accelerazione al suolo, cioè il valore di PGA che produce il raggiungimento di un determinato stato limite, viene calcolata tramite una procedura iterativa eseguita sulla PGA stessa, variandone il valore fino ad ottenere verifica soddisfatta; si calcola poi l'indicatore di rischio sismico in termini di PGA. Per determinare le corrispondenti capacità - e quindi gli indicatori di rischio - in termini di TR, cioè i periodi di ritorno associati ai terremoti che generano tali accelerazioni, si esegue il passaggio dalla capacità PGA_c a TR_c con la relazione del D.M.65-07.03.2017 (All.A: Linee Guida per la Classificazione del rischio sismico delle costruzioni):

$$TR_c = TR_D * (PGA_c/PGA_D)^{\eta}$$

dove $\eta=(1/0.41)$, valore medio sull'intero territorio nazionale.

In alternativa, per un valore più puntuale dell'intensità sismica di appartenenza si usano le seguenti formule (con riferimento all'accelerazione massima su roccia a_g ; Aedes.PCM assume come riferimento a_g per SLV):

$$\eta=(1/0.49) \text{ per } a_g \geq 0.25g; \eta=(1/0.43) \text{ per } 0.25g > a_g \geq 0.15g; \eta=(1/0.356) \text{ per } 0.15g > a_g \geq 0.05g; \eta=(1/0.34) \text{ per } a_g < 0.05.$$

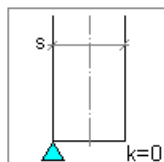
Resistenza a compressione: posizione della cerniera di ribaltamento

L'Analisi Cinematica prescinde normalmente dai parametri di elasticità e di resistenza; è comunque possibile considerare la resistenza a compressione della muratura, al fine di stimare in modo più accurato la modalità di formazione della cerniera alla base della parete soggetta a ribaltamento. La Normativa Italiana esprime chiaramente questa possibilità in §C8A.4.2.2.

Per la posizione della cerniera di ribaltamento (=polo di rotazione della parete), è possibile utilizzare una delle convenzioni riportate nella figura seguente:

Resistenza a Compressione infinita

Il comportamento del corpo rigido prescinde dalla resistenza a compressione, che può considerarsi infinita (modello alla Heyman)



1

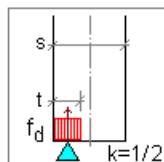
Spigolo esterno

Prescindendo dalla resistenza a compressione, il livello di conoscenza è necessariamente LC1 (§C8A.4.2.2) e quindi $F_c=1.35$

Con questa posizione del Polo, nei Dati in input, la resistenza a compressione della muratura viene ignorata (è quindi possibile non specificarne alcun valore)

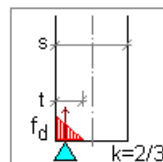
Resistenza a Compressione finita

Si distinguono le seguenti ipotesi: distribuzione di pressione uniforme o lineare (triangolare), e posizione della cerniera (polo di rotazione) nel limite della zona reagente o nel baricentro delle tensioni (in corrispondenza della risultante)



2

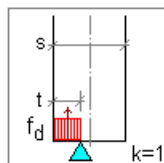
Distribuzione uniforme, polo di rotazione nel baricentro delle tensioni



$$\text{Resistenza di calcolo: } f_d = \frac{f_m}{F_c \gamma_M} \quad \gamma_M = 2$$

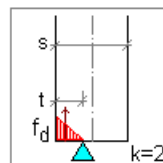
4

Distribuzione lineare, polo di rotazione nel baricentro delle tensioni



3

Distribuzione uniforme, polo di rotazione nel limite della zona reagente



5

Distribuzione lineare, polo di rotazione nel limite della zona reagente

Fig. 2. Posizione della cerniera di ribaltamento

dove:

x_c = arretramento della cerniera rispetto alla posizione dell'asse di rotazione. Ad esempio, nel caso di una parete sottoposta a ribaltamento semplice con asse di rotazione in corrispondenza dello spigolo esterno, l'arretramento è la distanza della cerniera dallo spigolo esterno;

N = carico verticale in corrispondenza della sezione della parete dove è posizionato l'asse di rotazione;

a = dimensione della linea di ribaltamento. Ad esempio, nel caso di una parete sottoposta a ribaltamento semplice 'a' è la larghezza della base della parete;

k = coefficiente che assume un valore compreso fra 0 e 2 in funzione del tipo di polo di rotazione scelto.

In alternativa, è possibile definire per x_c un valore personalizzato, utile ad esempio per limitare l'arretramento stesso in casi in cui il calcolo automatico propone una posizione della cerniera troppo distante rispetto allo spigolo della parete.

Bibliografia di riferimento

Oltre alla normativa nazionale (cfr. in particolare: Circolare n.7 del 21.1.2019, Circolare n.617, 2.2.2009 §C8.A.4) e regionale, si segnalano i seguenti testi di riferimento:

[1] A. Giuffrè, *Lecture sulla meccanica delle murature storiche*, Roma, 1990.

[2] A. Giuffrè (a cura di), *Sicurezza e conservazione dei centri storici. Il caso Ortigia*, Laterza.

[3] G. Cangi, M. Caraboni, A. De Maria, *Analisi strutturale per il recupero antisismico*, DEI - Tipografia del Genio Civile, Roma, 2010.

[4] A. Borri (Direttore scientifico), C. Donà, A. De Maria (a cura di), *Manuale delle Murature Storiche*, DEI - Tipografia del Genio Civile, Roma, 2011.

2. ANALISI CINEMATICA LINEARE

Azione Sismica

Struttura:

Vita Nominale VN (anni) = 50

Classe d'uso: II

Coefficiente d'uso CU = 1

Periodo di riferimento per l'azione sismica $VR=VN*CU$ (anni) = 50

Pericolosità:

Ubicazione del sito:

Longitudine ED50 (gradi sessadecimali) = 12.527298

- Latitudine ED50 (gradi sessadecimali) = 38.026001

Tipo di interpolazione: media ponderata ([3] in All.a)

Valori dei parametri a_g , F_0 , T_C^* per i periodi di ritorno T_R di riferimento (dagli Studi di pericolosità sismica del sito di ubicazione dell'edificio [cfr.Tab.1 All.B al D.M.14.1.2008]):

T_R (anni)	a_g (*g)	F_0	T_C^* (sec)
30	0.015	2.507	0.147
50	0.020	2.521	0.164
72	0.024	2.465	0.200
101	0.028	2.445	0.211
140	0.033	2.459	0.231
201	0.037	2.487	0.267
475	0.051	2.467	0.320
975	0.064	2.541	0.340
2475	0.082	2.644	0.379

Per periodi di ritorno $T_R < 30$ anni [cfr. DPC-Reluis, CNR-ITC]:
 $a_g(T_R) = K * T_R^{-\alpha}$, dove:
 $K = 0.002270210$, $\alpha = 0.553690360$

Stati Limite:
PVR (%) Probabilità di superamento nel periodo di riferimento V_R (Tab.3.2.I)
SLE: SLO 81
SLE: SLD 63
SLU: SLV 10
SLU: SLC 5
 $a_g(g)$ F_0 $T_C^*(sec)$ e altri parametri di spettro per i periodi di ritorno T_R associati a ciascun Stato Limite secondo Normativa [§3.2.3]

Stato limite	T_R (anni)	a_g (*g)	F_0	T_C^* (sec)	S	TB (sec)	TC (sec)	TD (sec)	Fv
SLO	30	0.015	2.507	0.147	1.500	0.097	0.291	1.660	0.415
SLD	50	0.020	2.521	0.164	1.500	0.104	0.313	1.680	0.481
SLV	475	0.051	2.467	0.320	1.500	0.163	0.489	1.804	0.752
SLC	975	0.064	2.541	0.340	1.500	0.170	0.510	1.856	0.868

(parametri di spettro conformi al reticolo sismico secondo D.M. 14.1.2008)

Suolo:
Categoria di sottosuolo e Condizioni topografiche:
Categoria di sottosuolo: C
Categoria topografica: T1
Rapporto quota sito / altezza rilievo topografico = 0
Coefficiente di amplificazione topografica $ST = 1$
PGA:
Definizione di PGA: Accelerazione al suolo (analoga ad: $a_g * S$, dove: $S = SS * ST$)

Componenti:
Spettro di risposta (componente orizzontale):
SLE: Smorzamento viscoso (ξ) (%) = 5
 $\eta = [10 / (5 + \xi)] = 1$
SLU: Fattore di Comportamento q per Analisi Cinematica = 2.0

3. 1) Cinematismo

Ribaltamento semplice

Il cinematismo presenta un asse di rotazione

Dati generali

V	H	Z	T1	γ	FC	SLD
(m ³)	(m)	(m)	(sec)			
26.800	7.100	0.000	0.217	1.200	1.350	

V = volume dei corpi partecipanti al meccanismo
H = altezza della struttura rispetto alla fondazione
Z = altezza rispetto alla fondazione del baricentro delle linee di vincolo tra i corpi del meccanismo ed il resto della struttura
T1 = primo periodo di vibrazione
 γ = Coefficiente di partecipazione modale
FC = fattore di confidenza
SLD = X indica che è richiesta la verifica di sicurezza per SLD

Asse di rotazione

Coord. punto iniziale (m)			Coord. punto finale (m)			Arretr.	K	N	fd	a
X	Y	Z	X	Y	Z	(m)		(kN)	(N/mm ²)	(m)
-0.002	8.918	0.000	-0.002	-0.220	0.000	0.000	0.000	0.00	0.000	9.138

n. = numero consecutivo dell'asse di rotazione
X,Y,Z = coordinate dei punti iniziale e finale dell'asse di rotazione (considerando l'eventuale arretramento)

Carichi

n.	tipologia	Punto di applicazione (m)			Carico permanente G (kN)			Carico variabile Q (kN)			ψ_2
		X	Y	Z	GX	GY	GZ	QX	QY	QZ	
1	peso proprio	0.248	6.563	6.164	0.00	0.00	-19.35	0.00	0.00	0.00	0.30
2	peso proprio	0.249	4.459	2.500	0.00	0.00	-153.02	0.00	0.00	0.00	0.30
3	peso proprio	0.243	6.064	5.614	0.00	0.00	-48.24	0.00	0.00	0.00	0.30
4	da solaio	0.498	6.478	5.761	0.00	0.00	-11.16	0.00	0.00	-14.04	0.00
5	peso proprio	0.248	2.354	6.164	0.00	0.00	-19.35	0.00	0.00	0.00	0.30
6	peso proprio	0.245	2.853	5.614	0.00	0.00	-48.24	0.00	0.00	0.00	0.30
7	da solaio	0.499	2.439	5.761	0.00	0.00	-11.16	0.00	0.00	-14.04	0.00
8	peso proprio	0.242	1.649	2.500	0.00	0.00	-153.02	0.00	0.00	0.00	0.30
9	peso proprio	0.241	7.268	2.500	0.00	0.00	-153.02	0.00	0.00	0.00	0.30

n. = numero consecutivo del carico
tipologia: peso proprio, da solaio, catena o generico
X,Y,Z = coordinate del punto di applicazione del carico nel sistema di riferimento globale XYZ
GX,GY,GZ, QX,QY,QZ = componenti del carico nel sistema XYZ
 ψ_2 = coefficiente di combinazione per il carico variabile (Tab.2.5.i), il valore di ψ_2 (per carichi da solaio con più variabili aventi diversi coefficienti di combinazione, mostrato in tabella è pari alla media pesata: $P=G+\psi_2*Q$, con G e Q carichi totali del solaio)

Forze, spostamenti, lavoro

n.	Carico totale $G+\psi_2*Q$ (kN)			Forza inerziale(kN)			Spostam.virtuali (mm)			Lavoro virtuale (kN*mm)		
	PX	PY	PZ	EX	EY	EZ	δX	δY	δZ	L1	L2	L3
1	0.00	0.00	-19.35	-19.35	0.00	0.00	-6.164	0.000	0.247	-4.780	119.298	0.000
2	0.00	0.00	-153.02	-153.02	0.00	0.00	-2.500	0.000	0.250	-38.251	382.565	0.000
3	0.00	0.00	-48.24	-48.24	0.00	0.00	-5.614	0.000	0.243	-11.717	270.811	0.000
4	0.00	0.00	-11.16	-11.16	0.00	0.00	-5.761	0.000	0.498	-5.554	64.281	0.000
5	0.00	0.00	-19.35	-19.35	0.00	0.00	-6.164	0.000	0.247	-4.780	119.298	0.000
6	0.00	0.00	-48.24	-48.24	0.00	0.00	-5.614	0.000	0.244	-11.771	270.811	0.000
7	0.00	0.00	-11.16	-11.16	0.00	0.00	-5.761	0.000	0.499	-5.566	64.281	0.000
8	0.00	0.00	-153.02	-153.02	0.00	0.00	-2.500	0.000	0.243	-37.247	382.570	0.000
9	0.00	0.00	-153.02	-153.02	0.00	0.00	-2.500	0.000	0.242	-37.011	382.569	0.000

n. = numero consecutivo del carico
PX,PY,PZ = componenti del carico totale $G+\psi_2*Q$ nel sistema XYZ
EX,EY = componenti orizzontali della forza inerziale corrispondente al carico
EZ = componente verticale della forza inerziale corrispondente al carico
 $\delta X,\delta Y,\delta Z$ = spostamenti virtuali del punto di applicazione del carico nel sistema XYZ (angolo di rotazione virtuale intorno all'asse di rotazione pari a 1 mrad)
L1 = lavoro virtuale delle forze statiche: $L1=\sum(n)[Pi*\delta i]$
L2 = lavoro virtuale delle forze inerziali (sismiche) orizzontali: $L2=\sum(n)[EXi*\delta Xi + EYi*\delta Yi]$
L3 = lavoro virtuale delle forze inerziali (sismiche) verticali: $L3=\sum(n)[EZi*\delta Zi]$

Moltiplicatore di collasso, Massa partecipante, Accelerazione di attivazione del meccanismo

α_0	M*	e*	a0*
	(kgm)		(g)
0.076	53098	0.845	0.067

α_0 = moltiplicatore di collasso
M* = massa partecipante
e* = frazione di massa partecipante
a0* = accelerazione spettrale di attivazione del meccanismo

Verifiche di sicurezza: valore obiettivo di $\zeta, E = 0.800$

SLV: Verifiche di sicurezza

a1*	a2*	a*	PGA	TR	VN	PGA,CLV	TR,CLV
(g)	(g)	(g)	CLV	CLV	CLV	/PGA,DLV	/TR,DLV
0.038	0.000	0.038	0.123	2475	261	1.608	5.211

a1* = accelerazione spettrale richiesta su sistema rigido

a2* = accelerazione spettrale richiesta su sistema deformabile

PGA,CLV = capacità in termini di PGA per SLV

TR,CLV = capacità in termini di periodo di ritorno TR per SLV

VN,CLV = capacità in termini di Vita Nominale per SLV

PGA,CLV / PGA,DLV = ζ, E, SLV, PGA = indicatore di Rischio Sismico in termini di PGA per SLV

TR,CLV / TR,DLV = ζ, E, SLV, TR = indicatore di Rischio Sismico in termini di periodo di ritorno TR per SLV

01. Cinematismo

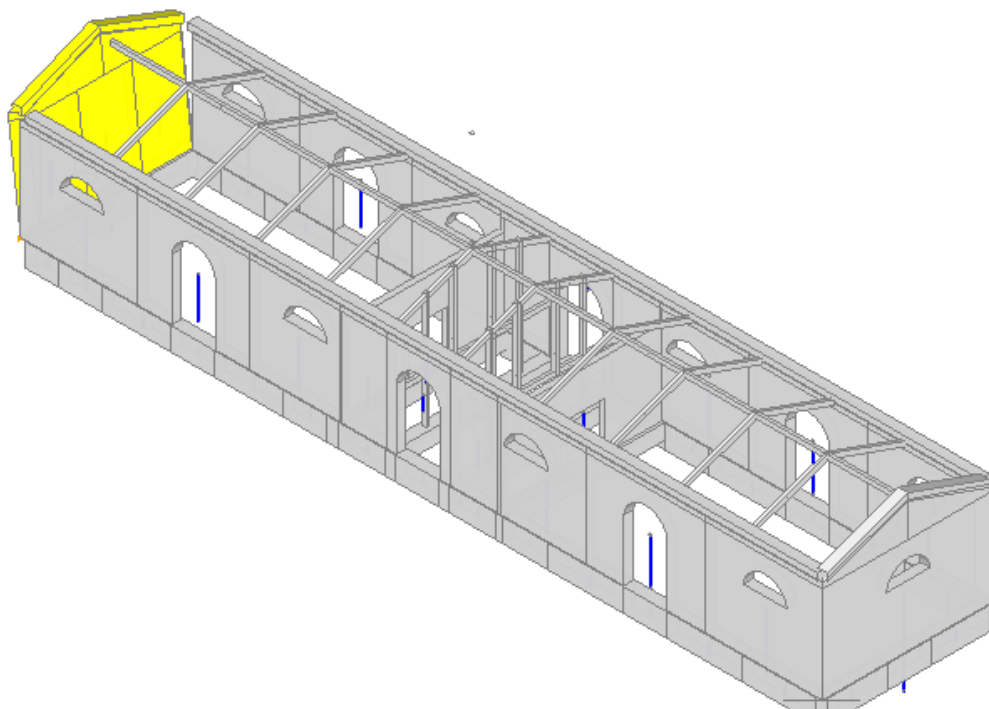
Ribaltamento semplice

$\alpha_0 = 0.076$

■ SLV

$PGA_{CLV} / PGA_{DLV} = 0.123 / 0.077 = 1.608$

$TR_{CLV} / TR_{DLV} = 2475 / 475 = 5.211$



4. 2) Cinematismo

Ribaltamento semplice

Il cinematismo presenta un asse di rotazione

Dati generali

V	H	Z	T1	γ	FC	SLD
(m ³)	(m)	(m)	(sec)			
26.166	7.100	0.000	0.217	1.200	1.350	

V = volume dei corpi partecipanti al meccanismo

H = altezza della struttura rispetto alla fondazione

Z = altezza rispetto alla fondazione del baricentro delle linee di vincolo tra i corpi del meccanismo ed il resto della struttura

T1 = primo periodo di vibrazione

γ = Coefficiente di partecipazione modale

FC = fattore di confidenza

SLD = X indica che è richiesta la verifica di sicurezza per SLD

Asse di rotazione

Coord. punto iniziale (m)			Coord. punto finale (m)			Arretr.	K	N	fd	a
X	Y	Z	X	Y	Z	(m)		(kN)	(N/mm ²)	(m)
41.600	0.000	0.000	41.600	8.918	0.000	0.000	0.000	0.00	0.000	8.918

n. = numero consecutivo dell'asse di rotazione

X,Y,Z = coordinate dei punti iniziale e finale dell'asse di rotazione (considerando l'eventuale arretramento)

Carichi

n.	tipologia	Punto di applicazione (m)			Carico permanente G (kN)			Carico variabile Q (kN)			ψ_2
		X	Y	Z	GX	GY	GZ	QX	QY	QZ	
1	peso proprio	41.350	2.354	6.164	0.00	0.00	-19.35	0.00	0.00	0.00	0.30
2	peso proprio	41.358	4.459	2.453	0.00	0.00	-444.31	0.00	0.00	0.00	0.30
3	peso proprio	41.357	2.853	5.614	0.00	0.00	-48.64	0.00	0.00	0.00	0.30
4	da solaio	41.100	2.439	5.761	0.00	0.00	-11.16	0.00	0.00	-14.05	0.00
5	peso proprio	41.357	6.065	5.614	0.00	0.00	-48.64	0.00	0.00	0.00	0.30
6	da solaio	41.100	6.478	5.761	0.00	0.00	-11.16	0.00	0.00	-14.04	0.00
7	peso proprio	41.350	6.563	6.164	0.00	0.00	-19.35	0.00	0.00	0.00	0.30

n. = numero consecutivo del carico

tipologia: peso proprio, da solaio, catena o generico

X,Y,Z = coordinate del punto di applicazione del carico nel sistema di riferimento globale XYZ

GX,GY,GZ, QX,QY,QZ = componenti del carico nel sistema XYZ

ψ_2 = coefficiente di combinazione per il carico variabile (Tab.2.5.i), il valore di ψ_2

(per carichi da solaio con più variabili aventi diversi coefficienti di combinazione,

mostrato in tabella è pari alla media pesata: $P=G+\psi_2*Q$, con G e Q carichi totali del solaio)

Forze, spostamenti, lavoro

n.	Carico totale $G+\psi_2*Q$ (kN)			Forza inerziale(kN)			Spostam.virtuali (mm)			Lavoro virtuale (kN*mm)		
	PX	PY	PZ	EX	EY	EZ	δX	δY	δZ	L1	L2	L3
1	0.00	0.00	-19.35	19.35	0.00	0.00	6.164	0.000	0.247	-4.779	119.298	0.000
2	0.00	0.00	-444.31	444.31	0.00	0.00	2.453	0.000	0.241	-107.130	1089.994	0.000
3	0.00	0.00	-48.64	48.64	0.00	0.00	5.614	0.000	0.240	-11.662	273.094	0.000
4	0.00	0.00	-11.16	11.16	0.00	0.00	5.761	0.000	0.497	-5.549	64.311	0.000
5	0.00	0.00	-48.64	48.64	0.00	0.00	5.614	0.000	0.240	-11.662	273.094	0.000
6	0.00	0.00	-11.16	11.16	0.00	0.00	5.761	0.000	0.497	-5.548	64.292	0.000
7	0.00	0.00	-19.35	19.35	0.00	0.00	6.164	0.000	0.247	-4.779	119.298	0.000

n. = numero consecutivo del carico

PX,PY,PZ = componenti del carico totale $G+\psi_2*Q$ nel sistema XYZ

EX,EY = componenti orizzontali della forza inerziale corrispondente al carico

EZ = componente verticale della forza inerziale corrispondente al carico

$\delta X,\delta Y,\delta Z$ = spostamenti virtuali del punto di applicazione del carico nel sistema XYZ

(angolo di rotazione virtuale intorno all'asse di rotazione pari a 1 mrad)

L1 = lavoro virtuale delle forze statiche:

$$L1=\sum(n)[P_i*\delta_i]$$

L2 = lavoro virtuale delle forze inerziali (sismiche) orizzontali: $L2=\sum(n)[EX_i*\delta X_i + EY_i*\delta Y_i]$

L3 = lavoro virtuale delle forze inerziali (sismiche) verticali: $L3=\sum(n)[EZ_i*\delta Z_i]$

Moltiplicatore di collasso, Massa partecipante, Accelerazione di attivazione del meccanismo

α_0	M*	e*	a0*
	(kgm)		(g)
0.075	51466	0.838	0.067

α_0 = moltiplicatore di collasso

M* = massa partecipante

e* = frazione di massa partecipante

a0* = accelerazione spettrale di attivazione del meccanismo

Verifiche di sicurezza: valore obiettivo di $\zeta, E = 0.800$

SLV: Verifiche di sicurezza

a1*	a2*	a*	PGA	TR	VN	PGA,CLV	TR,CLV
-----	-----	----	-----	----	----	---------	--------

(g)	(g)	(g)	CLV	CLV	CLV	/PGA,DLV	/TR,DLV
0.038	0.000	0.038	0.123	2475	261	1.608	5.211

a1* = accelerazione spettrale richiesta su sistema rigido

a2* = accelerazione spettrale richiesta su sistema deformabile

PGA,CLV = capacità in termini di PGA per SLV

TR,CLV = capacità in termini di periodo di ritorno TR per SLV

VN,CLV = capacità in termini di Vita Nominale per SLV

PGA,CLV / PGA,DLV = $\zeta_{E,SLV,PGA}$ = indicatore di Rischio Sismico in termini di PGA per SLV

TR,CLV / TR,DLV = $\zeta_{E,SLV,TR}$ = indicatore di Rischio Sismico in termini di periodo di ritorno TR per SLV

02. Cinematismo

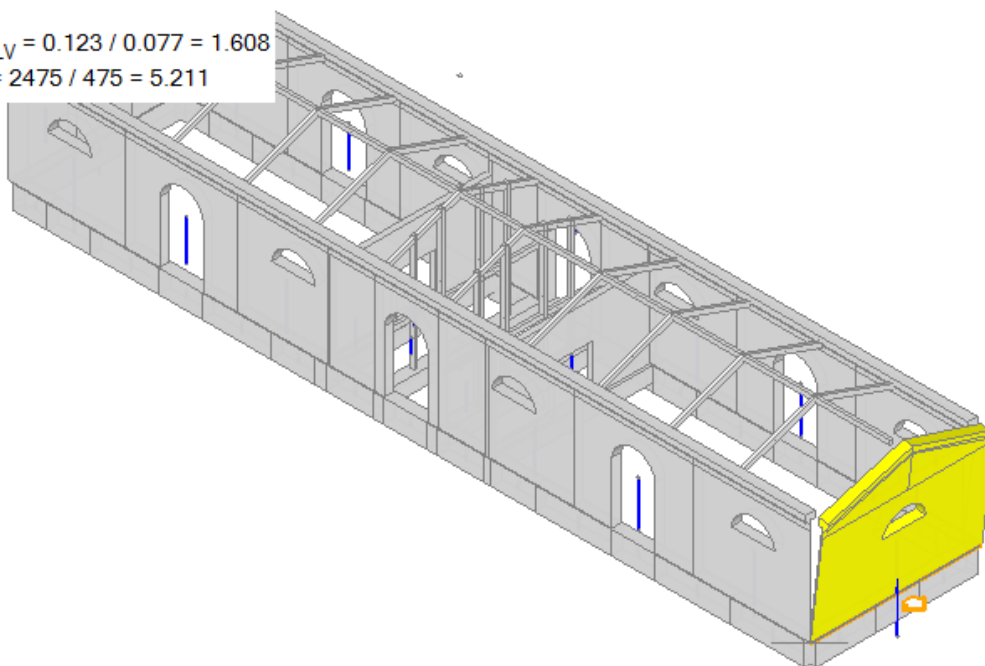
Ribaltamento semplice

$\alpha_0 = 0.075$

■ SLV

$PGA_{CLV} / PGA_{DLV} = 0.123 / 0.077 = 1.608$

$TR_{CLV} / TR_{DLV} = 2475 / 475 = 5.211$



5. 3) Cinematismo

Ribaltamento semplice

Il cinematismo presenta un asse di rotazione

Dati generali

V	H	Z	T1	γ	FC	SLD
(m ³)	(m)	(m)	(sec)			
40.773	7.100	0.000	0.217	1.200	1.350	

V = volume dei corpi partecipanti al meccanismo
H = altezza della struttura rispetto alla fondazione
Z = altezza rispetto alla fondazione del baricentro delle linee di vincolo tra i corpi del meccanismo ed il resto della struttura
T1 = primo periodo di vibrazione
 γ = Coefficiente di partecipazione modale
FC = fattore di confidenza
SLD = X indica che è richiesta la verifica di sicurezza per SLD

Asse di rotazione

Coord. punto iniziale (m)			Coord. punto finale (m)			Arretr.	K	N	fd	a
X	Y	Z	X	Y	Z	(m)		(kN)	(N/mm ²)	(m)
24.726	0.000	0.000	41.600	0.000	0.000	0.000	0.000	0.00	0.000	16.874

n. = numero consecutivo dell'asse di rotazione

X,Y,Z = coordinate dei punti iniziale e finale dell'asse di rotazione (considerando l'eventuale arretramento)

Carichi

n.	tipologia	Punto di applicazione (m)			Carico permanente G (kN)			Carico variabile Q (kN)			ψ_2
		X	Y	Z	GX	GY	GZ	QX	QY	QZ	
1	peso proprio	27.090	0.252	2.411	0.00	0.00	-234.06	0.00	0.00	0.00	0.30
2	peso proprio	32.426	0.253	2.711	0.00	0.00	-242.83	0.00	0.00	0.00	0.30
3	peso proprio	38.427	0.249	2.431	0.00	0.00	-301.26	0.00	0.00	0.00	0.30
4	peso proprio	33.038	0.250	5.427	0.00	0.00	-72.73	0.00	0.00	0.00	0.30
5	peso proprio	32.426	0.250	5.152	0.00	0.00	-20.46	0.00	0.00	0.00	0.30
6	da solaio	34.652	0.500	5.082	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	da solaio	31.848	0.500	5.083	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	da solaio	29.622	0.500	5.083	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	peso proprio	38.440	0.246	5.152	0.00	0.00	-19.22	0.00	0.00	0.00	0.30
10	da solaio	39.289	0.500	5.082	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	da solaio	36.422	0.500	5.082	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	peso proprio	27.026	0.250	5.151	0.00	0.00	-15.18	0.00	0.00	0.00	0.30
13	da solaio	27.852	0.500	5.083	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	da solaio	25.472	0.500	5.083	0.00	0.00	0.00	0.00	0.00	0.00	0.00

n. = numero consecutivo del carico

tipologia: peso proprio, da solaio, catena o generico

X,Y,Z = coordinate del punto di applicazione del carico nel sistema di riferimento globale XYZ

GX,GY,GZ, QX,QY,QZ = componenti del carico nel sistema XYZ

ψ_2 = coefficiente di combinazione per il carico variabile (Tab.2.5.i), il valore di ψ_2

(per carichi da solaio con più variabili aventi diversi coefficienti di combinazione,

mostrato in tabella è pari alla media pesata: $P=G+\psi_2*Q$, con G e Q carichi totali del solaio)

Forze, spostamenti, lavoro

n.	Carico totale $G+\psi_2*Q$ (kN)			Forza inerziale(kN)			Spostam.virtuali (mm)			Lavoro virtuale (kN*mm)		
	PX	PY	PZ	EX	EY	EZ	δX	δY	δZ	L1	L2	L3
1	0.00	0.00	-234.06	0.00	-234.06	0.00	0.000	-2.411	0.251	-58.817	564.337	0.000
2	0.00	0.00	-242.83	0.00	-242.83	0.00	0.000	-2.711	0.251	-60.985	658.366	0.000
3	0.00	0.00	-301.26	0.00	-301.26	0.00	0.000	-2.431	0.247	-74.557	732.355	0.000
4	0.00	0.00	-72.73	0.00	-72.73	0.00	0.000	-5.427	0.247	-17.986	394.706	0.000
5	0.00	0.00	-20.46	0.00	-20.46	0.00	0.000	-5.152	0.247	-5.062	105.402	0.000
6	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-5.082	0.497	0.000	0.000	0.000
7	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-5.083	0.497	0.000	0.000	0.000
8	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-5.083	0.497	0.000	0.000	0.000
9	0.00	0.00	-19.22	0.00	-19.22	0.00	0.000	-5.152	0.244	-4.687	99.017	0.000
10	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-5.082	0.497	0.000	0.000	0.000
11	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-5.082	0.497	0.000	0.000	0.000
12	0.00	0.00	-15.18	0.00	-15.18	0.00	0.000	-5.152	0.247	-3.756	78.202	0.000
13	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-5.083	0.497	0.000	0.000	0.000
14	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-5.083	0.497	0.000	0.000	0.000

n. = numero consecutivo del carico

PX,PY,PZ = componenti del carico totale $G+\psi_2*Q$ nel sistema XYZ

EX,EY = componenti orizzontali della forza inerziale corrispondente al carico

EZ = componente verticale della forza inerziale corrispondente al carico

$\delta X,\delta Y,\delta Z$ = spostamenti virtuali del punto di applicazione del carico nel sistema XYZ

(angolo di rotazione virtuale intorno all'asse di rotazione pari a 1 mrad)

L1 = lavoro virtuale delle forze statiche:

$$L1=\sum(n)[Pi*\delta i]$$

L2 = lavoro virtuale delle forze inerziali (sismiche) orizzontali: $L2=\sum(n)[EXi*\delta Xi + EYi*\delta Yi]$

L3 = lavoro virtuale delle forze inerziali (sismiche) verticali: $L3=\sum(n)[EZi*\delta Zi]$

Moltiplicatore di collasso, Massa partecipante, Accelerazione di attivazione del meccanismo

α_0	M^* (kgm)	e^*	a_0^* (g)
0.086	82897	0.898	0.071

α_0 = moltiplicatore di collasso

M^* = massa partecipante

e^* = frazione di massa partecipante

a_0^* = accelerazione spettrale di attivazione del meccanismo

Verifiche di sicurezza: valore obiettivo di $\zeta, E = 0.800$

SLV: Verifiche di sicurezza

a_1^* (g)	a_2^* (g)	a^* (g)	PGA CLV	TR CLV	VN CLV	PGA,CLV /PGA,DLV	TR,CLV /TR,DLV
0.038	0.000	0.038	0.123	2475	261	1.608	5.211

a_1^* = accelerazione spettrale richiesta su sistema rigido

a_2^* = accelerazione spettrale richiesta su sistema deformabile

PGA,CLV = capacità in termini di PGA per SLV

TR,CLV = capacità in termini di periodo di ritorno TR per SLV

VN,CLV = capacità in termini di Vita Nominale per SLV

PGA,CLV / PGA,DLV = ζ, E, SLV, PGA = indicatore di Rischio Sismico in termini di PGA per SLV

TR,CLV / TR,DLV = ζ, E, SLV, TR = indicatore di Rischio Sismico in termini di periodo di ritorno TR per SLV

03. Cinematismo

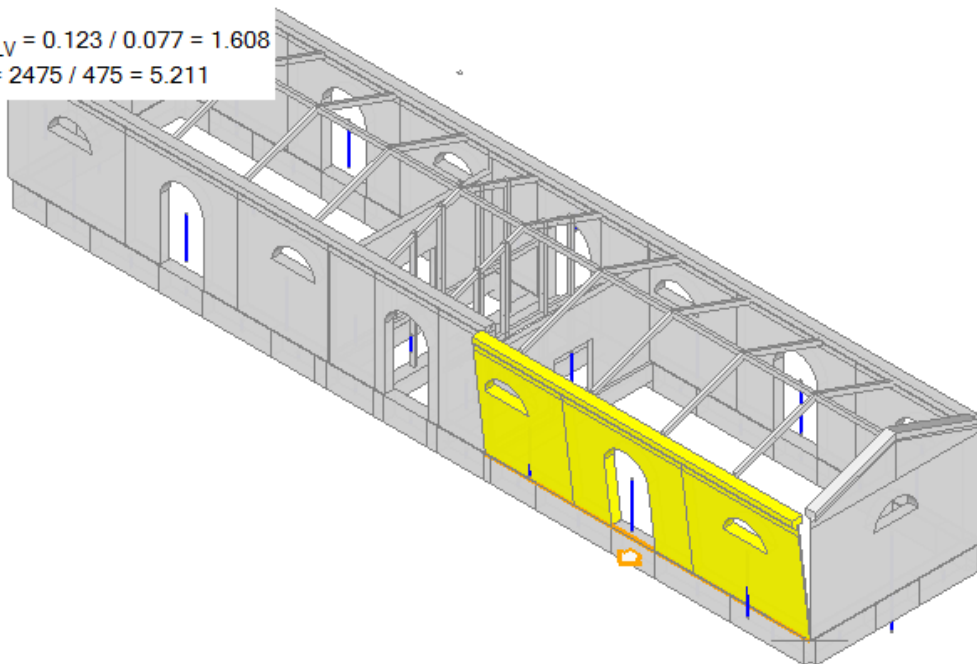
Ribaltamento semplice

$\alpha_0 = 0.086$

■ SLV

$PGA_{CLV} / PGA_{DLV} = 0.123 / 0.077 = 1.608$

$TR_{CLV} / TR_{DLV} = 2475 / 475 = 5.211$



6. 4) Cinematismo

Ribaltamento semplice

Il cinematismo presenta un asse di rotazione

Dati generali

V	H	Z	T1	γ	FC	SLD
(m ³)	(m)	(m)	(sec)			
11.204	7.100	0.000	0.217	1.200	1.350	

V = volume dei corpi partecipanti al meccanismo

H = altezza della struttura rispetto alla fondazione

Z = altezza rispetto alla fondazione del baricentro delle linee di vincolo tra i corpi del meccanismo ed il resto della struttura

T1 = primo periodo di vibrazione

γ = Coefficiente di partecipazione modale

FC = fattore di confidenza

SLD = X indica che è richiesta la verifica di sicurezza per SLD

Asse di rotazione

Coord. punto iniziale (m)			Coord. punto finale (m)			Arretr.	K	N	fd	a
X	Y	Z	X	Y	Z	(m)		(kN)	(N/mm ²)	(m)
40.600	-1.000	0.000	42.600	1.000	0.000	0.000	0.000	260.81	0.000	2.828

n. = numero consecutivo dell'asse di rotazione

X,Y,Z = coordinate dei punti iniziale e finale dell'asse di rotazione (considerando l'eventuale arretramento)

Carichi

n.	tipologia	Punto di applicazione (m)			Carico permanente G (kN)			Carico variabile Q (kN)			$\psi 2$
		X	Y	Z	GX	GY	GZ	QX	QY	QZ	
1	peso proprio	40.631	0.235	3.347	0.00	0.00	-58.75	0.00	0.00	0.00	0.30
2	peso proprio	40.297	0.240	5.157	0.00	0.00	-6.95	0.00	0.00	0.00	0.30
3	da solaio	40.227	0.500	5.082	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	peso proprio	40.073	0.250	5.433	0.00	0.00	-11.13	0.00	0.00	0.00	0.30
5	peso proprio	41.352	2.318	6.152	0.00	0.00	-19.21	0.00	0.00	0.00	0.30
6	peso proprio	41.359	2.584	5.595	0.00	0.00	-39.85	0.00	0.00	0.00	0.30
7	da solaio	41.100	2.357	5.732	0.00	0.00	-10.69	0.00	0.00	-13.45	0.00
8	peso proprio	41.362	1.611	3.297	0.00	0.00	-114.22	0.00	0.00	0.00	0.30

n. = numero consecutivo del carico

tipologia: peso proprio, da solaio, catena o generico

X,Y,Z = coordinate del punto di applicazione del carico nel sistema di riferimento globale XYZ

GX,GY,GZ, QX,QY,QZ = componenti del carico nel sistema XYZ

$\psi 2$ = coefficiente di combinazione per il carico variabile (Tab.2.5.i), il valore di $\psi 2$

(per carichi da solaio con più variabili aventi diversi coefficienti di combinazione,

mostrato in tabella è pari alla media pesata: $P=G+\psi 2*Q$, con G e Q carichi totali del solaio)

Forze, spostamenti, lavoro

n.	Carico totale $G+\psi 2*Q$ (kN)			Forza inerziale (kN)			Spostam. virtuali (mm)			Lavoro virtuale (kN*mm)		
	PX	PY	PZ	EX	EY	EZ	δX	δY	δZ	L1	L2	L3
1	0.00	0.00	-58.75	41.54	-41.54	0.00	2.367	-2.367	0.849	-49.904	196.660	0.000
2	0.00	0.00	-6.95	4.92	-4.92	0.00	3.647	-3.647	1.089	-7.569	35.861	0.000
3	0.00	0.00	0.00	0.00	0.00	0.00	3.594	-3.594	1.322	0.000	0.000	0.000
4	0.00	0.00	-11.13	7.87	-7.87	0.00	3.842	-3.842	1.254	-13.958	60.485	0.000
5	0.00	0.00	-19.21	13.59	-13.59	0.00	4.351	-4.351	1.811	-34.800	118.220	0.000
6	0.00	0.00	-39.85	28.18	-28.18	0.00	3.957	-3.957	1.995	-79.498	223.017	0.000
7	0.00	0.00	-10.69	7.56	-7.56	0.00	4.054	-4.054	2.017	-21.554	61.262	0.000
8	0.00	0.00	-114.22	80.77	-80.77	0.00	2.332	-2.332	1.306	-149.153	376.642	0.000

n. = numero consecutivo del carico

PX,PY,PZ = componenti del carico totale $G+\psi 2*Q$ nel sistema XYZ

EX,EY = componenti orizzontali della forza inerziale corrispondente al carico

EZ = componente verticale della forza inerziale corrispondente al carico

$\delta X,\delta Y,\delta Z$ = spostamenti virtuali del punto di applicazione del carico nel sistema XYZ

(angolo di rotazione virtuale intorno all'asse di rotazione pari a 1 mrad)

L1 = lavoro virtuale delle forze statiche: $L1=\sum(n)[Pi*\delta i]$

L2 = lavoro virtuale delle forze inerziali (sismiche) orizzontali: $L2=\sum(n)[EXi*\delta Xi + EYi*\delta Yi]$

L3 = lavoro virtuale delle forze inerziali (sismiche) verticali: $L3=\sum(n)[EZi*\delta Zi]$

Moltiplicatore di collasso, Massa partecipante, Accelerazione di attivazione del meccanismo

$\alpha 0$	M*	e*	a0*
	(kgm)		(g)
0.332	24726	0.930	0.265

$\alpha 0$ = moltiplicatore di collasso

M* = massa partecipante

e* = frazione di massa partecipante

a0* = accelerazione spettrale di attivazione del meccanismo

Verifiche di sicurezza: valore obiettivo di $\zeta,E = 0.800$

SLV: Verifiche di sicurezza

a1*	a2*	a*	PGA	TR	VN	PGA,CLV	TR,CLV
(g)	(g)	(g)	CLV	CLV	CLV	/PGA,DLV	/TR,DLV
0.038	0.000	0.038	0.123	2475	261	1.608	5.211

a1* = accelerazione spettrale richiesta su sistema rigido
a2* = accelerazione spettrale richiesta su sistema deformabile
PGA,CLV = capacità in termini di PGA per SLV
TR,CLV = capacità in termini di periodo di ritorno TR per SLV
VN,CLV = capacità in termini di Vita Nominale per SLV
PGA,CLV / PGA,DLV = ζ,E,SLV,PGA = indicatore di Rischio Sismico in termini di PGA per SLV
TR,CLV / TR,DLV = ζ,E,SLV,TR = indicatore di Rischio Sismico in termini di periodo di ritorno TR per SLV

04. Cinematismo

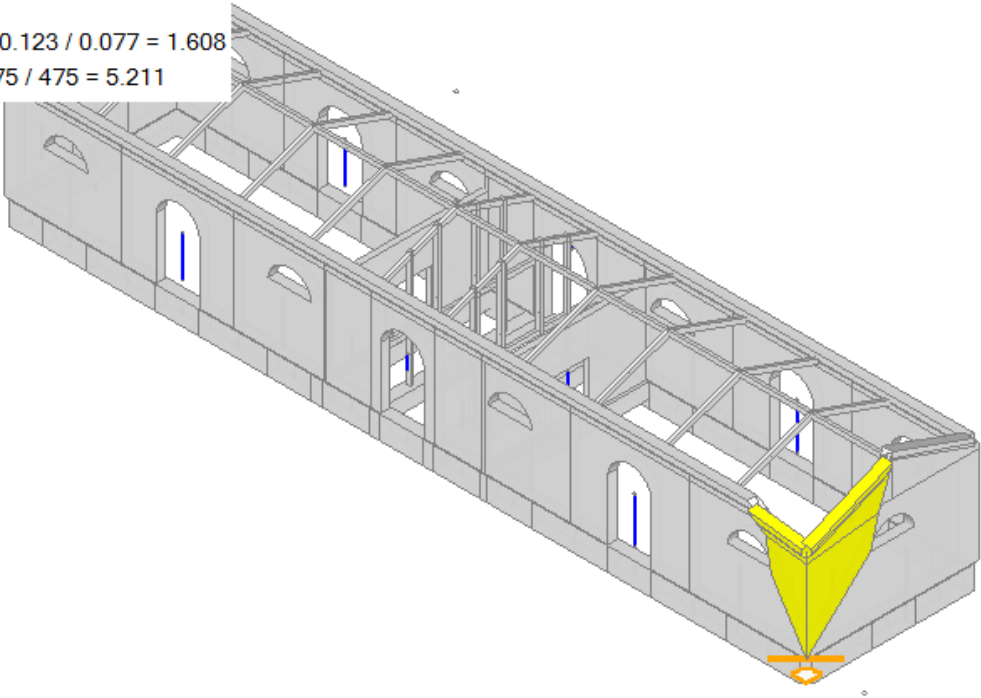
Ribaltamento semplice

$\alpha_0 = 0.332$

■ SLV

$PGA_{CLV} / PGA_{DLV} = 0.123 / 0.077 = 1.608$

$TR_{CLV} / TR_{DLV} = 2475 / 475 = 5.211$



7. SINTESI RISULTATI ANALISI CINEMATICA LINEARE

Risultati dei cinematismi analizzati:

n.	α_0	PGA,CLD /PGA,DLD	TR,CLD /TR,DLD	PGA,CLV /PGA,DLV	TR,CLV /TR,DLV
1	0.076	2.267	6.600	1.608	5.211
2	0.075	2.267	6.600	1.608	5.211
3	0.086	2.333	7.860	1.608	5.211
4	0.332	4.100	49.500	1.608	5.211

n. = numero consecutivo del cinematismo

α_0 = moltiplicatore di collasso

PGA,CLD / PGA,DLD = ζ, E, SLD, PGA = indicatore di Rischio Sismico in termini di PGA per SLD

TR,CLD / TR,DLD = ζ, E, SLD, TR = indicatore di Rischio Sismico in termini di periodo di ritorno TR per SLD

PGA,CLV / PGA,DLV = ζ, E, SLV, PGA = indicatore di Rischio Sismico in termini di PGA per SLV

TR,CLV / TR,DLV = ζ, E, SLV, TR = indicatore di Rischio Sismico in termini di periodo di ritorno TR per SLV

Secondo All.A al D.M.14.1.2008, si considerano valori di TR compresi nell'intervallo [30,2475] anni. Se TR>2475 si pone TR=2475.

Se TR<30, con riferimento al Programma di ricerca DPC-ReLUIIS (Unità di Ricerca CNR-ITC)

si adotta un'estrapolazione mediante una regressione sui tre valori di hazard $ag(30)$, $ag(50)$ e $ag(75)$,

effettuata con la funzione di potenza: $ag(TR)=k*TR^\alpha$.

Per il sito in esame risulta: $K = 0.002270210$, $\alpha = 0.553690360$

Per l'Indicatore di Rischio Sismico in termini di TR si ha quindi un limite massimo pari a:

SLD: $(2475/TR,DLD)=49.500$

SLV: $(2475/TR,DLV)=5.211$

Edificio Esistente in muratura - Intervento di Adeguamento ⁽¹⁾

Risultati dell'analisi strutturale

Normativa di riferimento: D.M. 17.1.2018 (parametri di spettro conformi a reticolo D.M. 14.1.2008)

Questo documento è una scheda di sintesi, contenente i risultati dell'elaborazione in termini di confronto fra capacità e domanda e compilata con riferimento alla terminologia proposta dal D.M.17.1.2018.

Per la verifica di sicurezza di un intervento di adeguamento (§8.4.3) si richiede che l'indicatore di rischio sismico ζ_E sia ≥ 0.800 per i casi c) e), e $\zeta_E \geq 1.000$ per gli altri casi.

Per l'edificio in oggetto, nel modello di Aedes.PCM si richiede: $\zeta_E \geq 0.800$

Sintesi risultati: Indicatori di Rischio sismico ζ_E in termini di PGA

Verifica soddisfatta

Stato Limite	ζ_E (PGA _C /PGA _D)
SLO	5.591
SLD	4.100
SLV	1.316

⁽¹⁾ Questa scheda di sintesi costituisce il risultato completo nel caso dell'Intervento di Adeguamento.

In alternativa, la scheda può riferirsi allo **Stato Attuale** (pre-intervento) **di un Intervento di Miglioramento**: in tal caso, il risultato complessivo dell'Intervento di Miglioramento è costituito dalla scheda di sintesi del file dell'edificio allo Stato di Progetto (post-intervento), dove i risultati dello Stato di Progetto vengono confrontati con quelli dello Stato Attuale.

Gerarchia dei comportamenti strutturali

Indicatore di rischio sismico obiettivo: $\zeta_E \geq 0.800$

Edificio esistente, Classe d'uso (§2.4.2): II

Verifiche obbligatorie secondo Normativa (§7.3.6, §8.3): SLV: RES

In grigio: comportamenti non analizzati, o da non considerare (cfr. §7.3.6, Tab.7.3.III)

Comportamento	ζ_E (PGA _C /PGA _D)
SLV: Capacità limite in fondazione	1.316
SLV: Resistenza nel piano	1.539
SLV: Resistenza fuori piano	1.618
SLD: Rigidezza (spostamenti)	4.100
SLO: Rigidezza (spostamenti)	5.591
SLD: Resistenza nel piano	2.400
SLD: Resistenza fuori piano	4.100
SLD: Capacità limite in fondazione	4.100
SLV: Cinematismo	
SLD: Cinematismo	

Domanda

Stato Limite	PGA_D (g)	TR_D (anni)
SLO	0.022	30
SLD	0.030	50
SLV	0.076	475

Analisi eseguite:

- Analisi dinamica modale con fattore di comportamento: $q(SLD) = 1.500$, $q(SLV) = 3.000$

Riferimenti per fattore di comportamento q (SLV):

- da Normativa (D.M.17.1.2018): posto in input ($\alpha, U/\alpha, 1$)=1.50: $q = 3.000$

- secondo §7.3.1 [$Se(SLV) \geq Se(SLD)$]: $q \geq 3.743$

Verifiche di rigidezza (RIG)

Stato Limite	PGA_C (g)	ζ_E (PGA_C/PGA_D)	TR_C (anni)	ζ_E (TR_C/TR_D)
SLO	≥ 0.123	5.591	≥ 2475	82.500
SLD	≥ 0.123	4.100	≥ 2475	49.500

Verifiche di resistenza (RES)

SLD	PGA_C (g)	ζ_E (PGA_C/PGA_D)	TR_C (anni)	ζ_E (TR_C/TR_D)
Resistenza nel piano del pannello	0.072	2.400	415	8.301
Resistenza fuori piano del pannello	≥ 0.123	4.100	≥ 2475	49.500
Capacità limite in fondazione	≥ 0.123	4.100	≥ 2475	49.500
Cinematismo				

SLV	PGA_C (g)	ζ_E (PGA_C/PGA_D)	TR_C (anni)	ζ_E (TR_C/TR_D)
Resistenza nel piano del pannello	0.117	1.539	2044	4.303
Resistenza fuori piano del pannello	≥ 0.123	1.618	≥ 2475	5.211
Capacità limite in fondazione	0.100	1.316	1191	2.507
Cinematismo	0.123	1.608	2475	5.211

Indicatori di Rischio (rapporto fra capacità e domanda).

I valori evidenziati si riferiscono al parametro ζ_E definito in termini di PGA.

Stato Limite	ζ_E (PGA _C /PGA _D)	ζ_E (TR _C /TR _D)
SLO	5.591	82.500
SLD	4.100	49.500
SLV	1.316	2.507

Il valore di PGA specificato in input è pari ad $ag \cdot S$, accelerazione al suolo.

Capacità della struttura in termini di Vita Nominale; Tempo di intervento

Dati in input (domanda):

Classe d'uso della costruzione (§2.4.2): II

Coefficiente d'uso della costruzione (§2.4.2, 2.4.3) C_U : 1

Vita Nominale V_N (§2.4.1): 50 anni

Vita di Riferimento (§2.4.3) $V_R = V_N \cdot C_U$: 50 anni

PV_R per SLV (definita in input): 10 %

Risultati dell'analisi (capacità):

TR_{CLV} (anni) = 1191 anni

Dalla relazione: $TR = -V_R / \ln(1 - PV_R)$, ponendo $TR = TR_{CLV}$ e assumendo PV_R per SLV definita in input, segue la capacità della struttura in termini di Vita di Riferimento (V_{RC}) e quindi di Vita Nominale, ossia il Tempo di intervento $T_{INT} = (TR_{CLV}/C_U) \cdot \ln(1 - PV_R)$:

V_{RC} (anni) = 125.5 anni

T_{INT} (anni) = 125.5 anni

Edifici in muratura e verifiche di sicurezza: descrizione della metodologia

Il D.M.17.1.2018 organizza le verifiche competenti ai vari Stati Limite in dipendenza dalla Classe d'Uso dell'edificio (Tab.7.3.III in §7.3.6), distinguendole in verifiche di rigidezza (RIG: consistono in verifiche di deformazione) e in verifiche di resistenza (RES, che coinvolgono i comportamenti dei pannelli murari nel piano e fuori piano e la capacità limite in fondazione). Più precisamente:

SLO: Stato Limite di Operatività:

RIG: verifica obbligatoria per edifici nuovi e classe d'uso III o IV (§7.3.6), o per edifici esistenti e classe IV (§8.3).

In analisi lineare consiste nel controllo della deformazione di interpiano, con riferimento ai limiti indicati in §7.3.6.1.

In analisi statica non lineare la verifica per SLO è definita dal confronto fra capacità (definita dallo spostamento del punto di controllo pari a $(2/3)$ di quello allo SLD) e domanda per SLO (determinata attraverso l'oscillatore monodimensionale calcolato con la bilineare equivalente allo SLV).

SLD: Stato Limite di Danno:

a) **RIG:** verifica obbligatoria per edifici nuovi e classe d'uso I e II (§7.3.6).

In analisi lineare consiste nel controllo della deformazione di interpiano, con riferimento ai limiti indicati in §7.3.6.1.

In analisi statica non lineare la verifica per SLD è definita dal confronto fra capacità e domanda. La capacità è definita dallo spostamento del punto di controllo minore fra le seguenti due condizioni:

- quello corrispondente al limite elastico della bilineare equivalente allo SLV;
- quello corrispondente al raggiungimento della resistenza massima a taglio in tutti i maschi murari in un qualunque livello di una qualunque parete ritenuta significativa ai fini dell'uso della costruzione, e comunque non prima dello spostamento per il quale si raggiunge un taglio di base pari a $3/4$ del taglio di base massimo.

La domanda per SLD è determinata attraverso l'oscillatore monodimensionale calcolato con la bilineare equivalente allo SLV.

b) **RES:** verifica obbligatoria per edifici nuovi e classe d'uso III o IV (§7.3.6), o per edifici esistenti e classe IV (§8.3).

In analisi lineare consiste nelle verifiche di resistenza, con analisi condotta con fattore di comportamento q per SLD ($q \leq 1.5$, cfr. Tab.7.3.I §7.3).

In analisi statica non lineare, la verifica per SLD coincide con quanto descritto per RIG.

SLV: Stato Limite di salvaguardia della Vita:

RES: verifiche richieste per tutti gli edifici. Per gli edifici esistenti, include le verifiche dei cinematismi condotte in termini di resistenza (con fattore di comportamento q posto in genere pari a 2).

In analisi lineare consiste nelle verifiche di resistenza, con analisi condotta con fattore di comportamento q .

In analisi statica non lineare la verifica per SLV è definita dal confronto fra capacità e domanda. La capacità è definita dallo spostamento del punto di controllo pari a $(3/4)$ di quello allo SLC. SLC è definito dallo spostamento minore fra le seguenti condizioni:

- quello corrispondente ad un taglio alla base residuo pari all'80% del massimo;
- quello corrispondente al raggiungimento della soglia limite di deformazione angolare per SLC in tutti i maschi di un qualunque livello in una qualunque parete ritenuta significativa ai fini della sicurezza.

La domanda per SLV è determinata attraverso l'oscillatore monodimensionale calcolato con la bilineare equivalente allo SLV.

Analisi sismiche eseguite e risultati per i vari comportamenti strutturali

Per ogni modello analizzato come unica struttura globale o per ogni sottostruttura di un modello calcolato come assemblaggio di sottostrutture, la scheda di sintesi indica i tipi di analisi eseguite le cui verifiche confluiscono nei risultati degli indicatori di rischio, con distinzione fra Stato Attuale e Stato di Progetto.

Le possibili analisi ed i corrispondenti comportamenti strutturali sono i seguenti:

- **Analisi cinematica:** meccanismi di collasso (cinematismi)

- **Analisi statica non lineare (pushover):**

- a) comportamento dei pannelli nel piano (per pressoflessione e/o taglio);

- b) se considerato in pushover: comportamento dei pannelli fuori piano per azioni di calcolo da modello;

- c) se vi sono fondazioni nello schema statico e sono considerate in pushover: capacità limite delle fondazioni.

- **Analisi sismica lineare** (con priorità per la dinamica modale rispetto alla statica lineare):

- a) comportamento dei pannelli nel piano (per pressoflessione e/o taglio), se non è eseguita la pushover;

- b) se la verifica è richiesta: comportamento dei pannelli fuori piano per azioni di calcolo da modello (considerato anche se è

eseguita la pushover) e/o per azioni equivalenti secondo §7.2.3 e §7.8.1.5.2;

c) se vi sono fondazioni nello schema statico: capacità limite delle fondazioni, se non si considera in pushover.

Per garantire coerenza fra le verifiche eseguite in analisi lineare ed i risultati dell'analisi pushover, il fattore di comportamento q utilizzato in analisi lineare deve coincidere con q calcolato in pushover (rispettando comunque, nel caso del D.M.17.1.2018, secondo §7.3.1, il valore massimo di q tale che: $S_{e,SLV} \geq S_{e,SLD}$).

Valutazione della sicurezza

Per gli edifici esistenti, seguendo §8.3, è possibile che la valutazione della sicurezza e la progettazione degli interventi possano essere eseguiti con riferimento ai soli stati limite ultimi (SLV), salvo che per le costruzioni in classe d'uso IV: per esse sono richieste le verifiche anche agli stati limite di esercizio SLE (SLO e SLD), per i quali potranno essere adottati livelli prestazionali ridotti.

L'**indicatore di rischio** ζ_E , consistente nel rapporto tra Capacità e Domanda, costituisce il risultato in sintesi dell'analisi sismica dell'edificio.

Il calcolo dell'indicatore di rischio sismico viene effettuato attraverso un procedimento iterativo sulla domanda. Questa viene fatta variare fino a trovare il massimo valore sostenibile, tale cioè da garantire il soddisfacimento contemporaneo delle due seguenti condizioni: a) capacità \geq domanda (in termini di spostamento); b) q^* (rapporto tra la forza di risposta elastica e la forza di snervamento del sistema equivalente) ≤ 3.0 , con riferimento a SLV (la relazione $q^* \leq 4.0$ indicata in D.M. 17.1.2018 per SLC viene ricondotta a $q^* \leq 3.0$ per SLV, dato il rapporto di (3/4) esistente fra le capacità per SLC e per SLV (EuroCodice 8, UNI EN 1998-3:2005, §C4.1.2).

Per tutti gli stati limite di riferimento (SLO, SLD e SLV) ζ_E può essere espresso sia in termini di PGA che di TR; i due valori non sono uguali data la non linearità del legame fra PGA e TR, ma in ogni caso sono contemporaneamente maggiori o minori di 1.

Per quanto riguarda la **pericolosità sismica**, la verifica di sicurezza e l'elaborazione dell'indicatore di rischio vengono eseguite in modo analogo sia nel caso di approccio semplificato (con riferimento al reticolo sismico italiano, pubblicato nel D.M.14.1.2008), sia nel caso di approccio rigoroso secondo **analisi della Risposta Sismica Locale (da microzonazione)**.

La procedura subisce invece alcune modifiche in altri casi di **parametri di spettro non conformi** al reticolo sismico, secondo le seguenti modalità.

(a) Se la difformità riguarda **ag**, il legame diretto tra TR e ag espresso dal reticolo non è più valido. Per tutti gli stati limite, il calcolo dell'indicatore di rischio si esegue attraverso una procedura iterativa direttamente su ag; il risultato in termini di TR si calcola in seguito facendo riferimento all'espressione proposta dal D.M. 65 del 07.03.2017: $TR_C = TR_D * (PGA_C/PGA_D)^\eta$ dove: $\eta = 1/0.49$ per $ag \geq 0.25g$; $\eta = 1/0.43$ per $0.25g \geq ag \geq 0.15g$; $\eta = 1/0.356$ per $0.15g \geq ag \geq 0.05g$; $\eta = 1/0.34$ per $0.05g \geq ag$ (ag = accelerazione massima su roccia, che viene assunta con riferimento a SLV).

Per gli altri parametri di spettro, il valore viene unificato, per tutti i periodi di ritorno.

(b) Se la difformità riguarda **non ag ma altri parametri di spettro** (ad es. il coefficiente di suolo S_S): i valori di ogni parametro difforme sono impostati costanti per tutti i periodi di ritorno, e la procedura iterativa viene eseguita su TR, sostituendo il valore previsto dalla Normativa con quello difforme.

(c) In caso di **spettro personalizzato definito per punti**, non è possibile risalire ai singoli parametri di spettro, tuttavia il valore di ancoraggio (spettro per $T=0$), pari ad $(ag*S)$, consente una procedura iterativa basata sull'accelerazione mediante la quale è possibile definire, per ogni stato limite, il valore degli indicatori di rischio. La procedura assume per ipotesi che la forma spettrale sia proporzionale ad $(ag*S)$ e che la definizione per punti dello spettro riguardi entrambe le direzioni sismiche X' e Y' (in assenza di una delle due definizioni, questa viene assunta uguale all'altra) ed un eventuale spettro in direzione Z; durante la procedura iterativa, tutti gli spettri vengono 'scalati' con il medesimo fattore di proporzionalità.

(d) Se la Normativa di riferimento è l'**EuroCodice**, il calcolo si limita agli indicatori di rischio in termini di PGA, con procedura iterativa analoga al punto (a) senza tuttavia valutare risultati in termini di TR.

La verifica di sicurezza per i **nuovi edifici** richiede che ζ_E sia ≥ 1.000 .

Il D.M.17.1.2018 introduce livelli di sicurezza specifici per gli **edifici esistenti**, ed a tal fine è possibile fare riferimento all'indicatore ζ_E **espresso in termini di accelerazione al suolo PGA**, preferibilmente espresso considerando gli effetti di suolo: **ag*S** (la scelta di definizione di PGA come accelerazione su roccia ag o contenente anche gli effetti di suolo: ag*S è definita in input nel file di Aedes.PCM).

Per gli **interventi di Miglioramento** (§8.4.2) ζ_E può essere minore di 1.0: per le costruzioni di classe III ad uso scolastico e di classe IV a seguito degli interventi di miglioramento deve essere: $\zeta_E \geq 0.600$; per tutti gli altri edifici, ζ_E deve essere incrementato di almeno 0.1: $\Delta\zeta_E \geq 0.100$.

Per gli **interventi di Adeguamento** (§8.4.3) in alcuni casi (c) e in §8.4.3) è sufficiente che ζ_E sia ≥ 0.800 , mentre negli altri casi il livello di sicurezza uguaglia quello richiesto alle nuove costruzioni: $\zeta_E \geq 1.000$.

Per quanto riguarda l'**intervallo di calcolo dei periodi di ritorno**: il D.M. 14.1.2008 definisce un periodo di ritorno compreso tra 30 e 2475 anni. Se dal calcolo risulta una capacità in termini di TR superiore a 2475 anni, si pone $TR = 2475$ come limite superiore. Per quanto riguarda il limite inferiore, è possibile considerare valori di TR minori di 30 anni con riferimento al Programma di ricerca DPC-ReLUIIS (Unità di Ricerca CNR-ITC): viene adottata un'estrapolazione mediante una regressione sui tre valori di hazard $ag(30)$, $ag(50)$ e $ag(75)$, effettuata con la funzione di potenza: $ag(TR) = k TR^\alpha$. L'intervallo di calcolo di TR è quindi $[1, 2475]$; ne consegue che la capacità in termini di PGA può assumere anche valori minori di quello corrispondente a $TR = 30$ anni.

La **capacità della struttura in termini di Vita Nominale (V_{NC})**, definita anche come **Tempo di intervento T_{INT}** , si identifica con la Vita Nominale che è possibile assegnare alla struttura, in conseguenza del periodo di ritorno sostenibile TR_{CLV} , mantenendo nel corrispondente periodo di riferimento $V_{RC} (= V_{NC} * C_U)$ la probabilità di superamento PV_R definita in input per lo Stato Limite ultimo SLV.

Per una valutazione del valore ottenuto per V_{NC} relativa a beni monumentali, si tenga presente che valori della vita nominale maggiori di 20 anni possono considerarsi ammissibili per un manufatto tutelato (§2.4 Direttiva P.C.M 9.2.2011). Se risulta: $TR_{CLV} \geq 2475$ anni, si potrà considerare un valore della vita nominale \geq del limite V_{NC} riportato nella scheda (corrispondente a $TR = 2475$ anni: $V_{NC} \geq 2475 * -\ln(1-PV_R) / C_U$).

Compilazione di schede tecniche per edifici strategici.

Le Schede di sintesi della verifica sismica per gli edifici strategici ai fini della Protezione Civile o rilevanti in caso di collasso a seguito di evento sismico, predisposte dalle Regioni (Regione Emilia-Romagna, ed altre), richiedono risultati relativi ai diversi stati limite (SLO, SLD e SLV), e l'indicatore di rischio può essere espresso in termini sia di PGA che di T_R .

In ogni caso, dal quadro di sintesi di PCM (sopra riportato) è possibile trarre i valori richiesti per la compilazione, anche qualora questa faccia riferimento alla Normativa precedente (D.M. 14.1.2008).

Informazioni sulla generazione di questa scheda:

data di creazione: 26/04/2021 , 11:49:32

Nome del file di progetto di Aedes.PCM:

per Analisi globale: TP_F_Prog

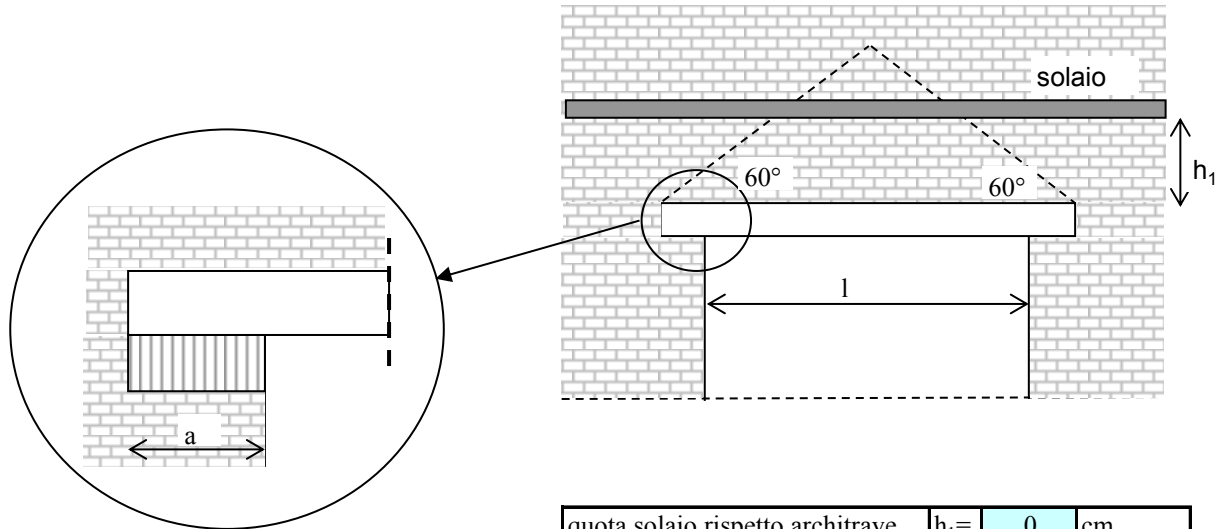
eventuale file distinto per Analisi cinematica: -

PIANO: CORPO E-F - NUOVA PARETE MATTONI PIENI

PARETE N° 1-2-3-4

ARCHITRAVE N° 1-2-3-4

VERIFICA ARCHITRAVE IN ACCIAIO



quota solaio rispetto architrave $h_1 = 0$ cm

luce architrave "l" 2 m

lunghezza di appoggio $a = 15$ cm

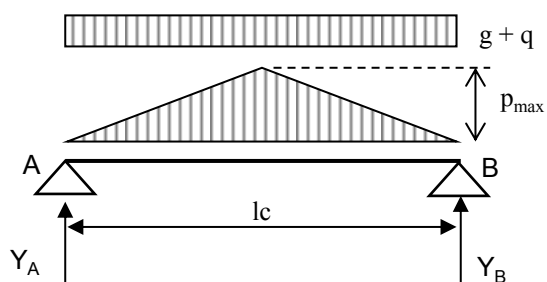
luce di calcolo "lc" 2.15 m

			carichi permanenti		carichi variabili	
	L(dx)	L(sx)	g (dx)	g (sx)	q (dx)	q (sx)
	m	m	KN/m ²	KN/m ²	KN/m ²	KN/m ²
solaio sovrastante	0	2.5	0	0.5	0	2

carichi lineari	
g	q
KN/m	KN/m
0.625	2.5

	spessore	massa vol.	p_{max} (KN/m)
	(m)	(KN/m ³)	
muro sovrastante	0.38	18	11.83

Schema statico:



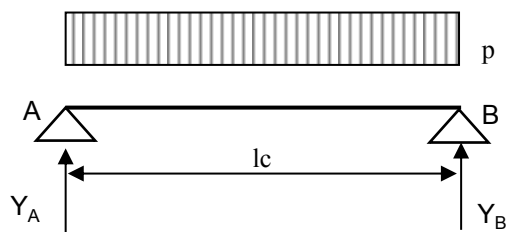
Totale carichi permanenti $g = 6.54 \text{ KN/m}$

coeff. parziale di sicurezza $\gamma_G = 1.5$

Totale carichi variabili $q = 2.5 \text{ KN/m}$

coeff. parziale di sicurezza $\gamma_Q = 1.5$

Combinazione di carico $(gx\gamma_G + qx\gamma_Q) = 13.56 \text{ KN/m}$



$p \text{ (KN/m)} = 13.56$

luce di calcolo "lc" (m) = 2.15

$Y_A \text{ (KN)} = 14.58$

$Y_B \text{ (KN)} = 14.58$

Sollecitazioni di calcolo

$M_{Ed} = 7.84 \text{ KNm}$

$V_{Ed} = 14.58 \text{ KN}$

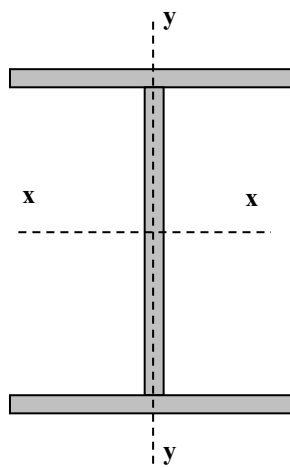
$N_{Ed} = 0.00 \text{ KN}$

Profilati

Profilato tipo HEA

Numero di profili per l'architrave 2

100



valori del singolo profilo	$A =$	21.24	cm^2	area lorda del profilo
	$b =$	100	mm	larghezza delle ali
	$t_f =$	8	mm	spessore delle ali
	$t_w =$	5	mm	spessore dell'anima
	$r =$	12	mm	raggio di raccordo tra anima e ala
	$h =$	96	mm	altezza del profilo

$E =$	210000	N/mm^2	modulo elastico
$W_{pl,x} =$	83.01	cm^3	modulo di resistenza plastico del singolo profilo
$W_{el,x} =$	72.76	cm^3	modulo di resistenza elastico del singolo profilo
$W_{el,y} =$	26.76	cm^3	modulo di resistenza elastico del singolo profilo
$J_x =$	349.2	cm^4	momento d'inerzia del singolo profilo
$A_v =$	7.56	cm^2	area resistente al taglio $(A_v = A - 2b \cdot t_f + (t_w + 2 \cdot r) \cdot t_f)$

Tipo di acciaio **S275**

$f_{yk} =$	275.00	N/mm^2	tensione caratteristica di snervamento
$f_{tk} =$	430.00	N/mm^2	tensione caratteristica di rottura
$\gamma_{M0} =$	1.05		coefficiente parziale di sicurezza

Classificazione del profilo

$$\varepsilon = 0.9244 \quad \varepsilon = \sqrt{(235/f_{yk})}$$

Azione di flessione

Ala $c/t = 4.44$ classe 1

Anima $c/t = 11.20$ classe 1

Classe di appartenenza del profilo:	1
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(per profili IPE o HE \rightarrow per l'ala: $c = b - t_w - 2 \cdot r$ $t = t_f$; per l'anima: $c = h - 2 \cdot t_f - 2 \cdot r$ $t = t_w$)

Resistenze di calcolo

$M_{c,Rd} = 43.481 \text{ KNm}$ Resistenza di calcolo a flessione

$V_{c,Rd} = 228.63 \text{ KN}$ Resistenza di calcolo a taglio

$N_{c,Rd} = 1112.6 \text{ KN}$ Resistenza di calcolo a sforzo normale

Verifiche di resistenza (SLU): stato limite di collasso per formazione di cerniera plastica

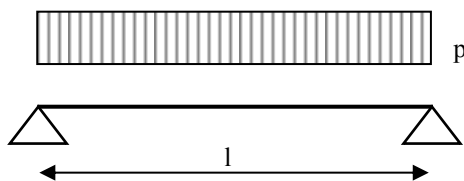
$$V_{Ed} / V_{c,Rd} = 0.0638 \leq 0,5 : \text{ si può trascurare l'influenza del taglio}$$

$$\rho = 0.000 \text{ Percentuale di riduzione della tensione di snervamento per interazione taglio-momento}$$

$M_{y,V,Rd}$ KNm	M_{Ed} KNm	$M_{y,V,Rd}/M_{Ed}$	esito della verifica
43.48	7.84	5.55	verificato

$(M_{c,Rd} = M_{pl,y,Rd} = W_{pl,y} \cdot f_{yk} / \gamma_{M0})$	Momento resistente a flessione (per sezioni di classe 1 e 2)
$(M_{c,Rd} = M_{el,y,Rd} = W_{el,min} \cdot f_{yk} / \gamma_{M0})$	Momento resistente a flessione (per sezioni di classe 3)
$(N_{c,Rd} = N_{pl,Rd} = A \cdot f_{yk} / \gamma_{M0})$	Resistenza plastica della sezione (per sezioni di classe 1, 2 e 3)
$(V_{c,Rd} = A_v \cdot f_{yk} / (\sqrt{3} \cdot \gamma_{M0}))$	Resistenza di calcolo a taglio
$(M_{y,V,Rd} = (W_{pl} - r \cdot A_v^2 / (4 \cdot t_w)) \cdot f_{yk} / \gamma_{M0})$	Resistenza convenzionale a flessione retta in presenza di taglio non trascurabile

Verifiche allo SLE (deformabilità) dell'architrave



$$p = 13.56 \text{ KN/m}$$

$$l = 2.15 \text{ m}$$

$$M_{Ed} = 7.84 \text{ KNm}$$

$M_{el} =$	38.112	KNm
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Momento al limite elastico ($W_{el} \cdot f_{yk} / \gamma_{M0}$)

La trave si trova in fase elastica in quanto $M_{ed} < M_{el}$

A favore di sicurezza, si considera la stessa combinazione di carico utilizzata per la verifica di resistenza allo S.L.U.

Totale carichi permanenti	$g =$	6.54	KN/m	coeff. parziale di sicurezza	$\gamma_G =$	1.5
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Totale carichi variabili	$q =$	2.5	KN/m	coeff. parziale di sicurezza	$\gamma_Q =$	1.5
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Combinazione di carico ($g \cdot \gamma_G + q \cdot \gamma_Q$) =	13.56	KN/m
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δ_c (mm) =	0	monta iniziale della trave
δ_1 (mm) =	1.24	spostamento elastico dovuto ai carichi permanenti
δ_2 (mm) =	0.95	spostamento elastico dovuto ai carichi variabili
δ_{max} (mm) =	2.19	spostamento nello stato finale depurato della monta iniziale = $\delta_{tot} - \delta_c$

Valori limite

$\delta_{\max} / L = 1/k$

k =	400
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$\delta_2 / L = 1/k$

k =	500
-----	-----

$\delta_{\max, LIM} =$	5.375	mm
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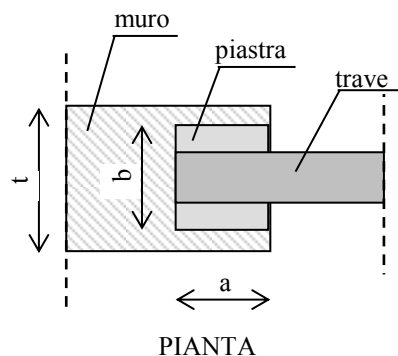
$\delta_{2, LIM} =$	4.300	mm
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δ_{\max}	< del valore limite __ VERIFICATO
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δ_2	< del valore limite __ VERIFICATO
------------	-----------------------------------

VERIFICHE SULLA MURATURA PER CARICHI CONCENTRATI

presenza di piastra di appoggio	no
profondità della piastra di appoggio	a (cm) = 0
larghezza della piastra di appoggio	b (cm) = 0
spessore del muro	t (cm) = 38



Caratteristiche della muratura

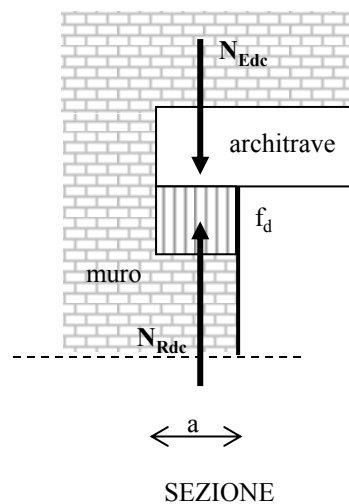
muratura in mattoni pieni e malta di calce

$f_m = 318 \text{ N/cm}^2$ Resistenza media a compressione

Livello di conoscenza **LC3** NUOVO

Coeff. parziale di sicurezza γ_M **1**

Fattore di confidenza **1**



Verifica per carichi verticali concentrati

In riferimento a quanto riportato nell'Eurocodice 6 al punto 6.1.3., il valore di progetto del carico verticale N_{Edc} deve essere minore o uguale al valore della resistenza di progetto a compressione della muratura per carichi concentrati verticali N_{Rdc} .

Deve risultare: $N_{Edc} \leq N_{Rdc}$

$$N_{Rdc} = \beta \cdot A_b \cdot f_d$$

dove: β = coefficiente di miglioramento per carichi concentrati
variabile tra 1 e 1,5: a favore di sicurezza
si sceglie $\beta = 1$

A_b = area dell'impronta del carico

f_d = resistenza di progetto a compressione della muratura

area dell'impronta di carico:

a (cm) =	15
----------	----

$A_b =$	300	cm^2
---------	-----	---------------

b (cm) =	20
----------	----

$f_d =$	318.00	N/cm^2
---------	--------	-----------------

 Resistenza di calcolo a compressione della muratura

$N_{Edc} =$	14.58	KN
-------------	-------	----

 Valore di progetto del carico verticale concentrato sull'appoggio

$N_{Rdc} =$	95.40	KN
-------------	-------	----

 Resistenza di calcolo della muratura ai carichi verticali concentrati

$N_{Edc} / N_{Rdc} =$	0.153	≤ 1 verificato
-----------------------	-------	---------------------------------------

STRALCIO 1 – FASCICOLO DI CALCOLO CAPRIATA

SEDE CENTRALE ED ISTITUZIONALE EUROPEA: SAIR-EWIV D - 70178 STUTTGART
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Relazione di calcolo strutturale impostata e redatta secondo le modalità previste nel D.M. 17 Gennaio 2018 cap. 10 “Redazione dei progetti strutturali esecutivi e delle relazioni di calcolo”.

Origine e Caratteristiche dei Codici di Calcolo	
Codice di calcolo:	PRO_SAP PROfessional Structural Analysis Program
Versione:	ENTRY (build 2020-12-191)
Produttore-Distributore:	2S.I. Software e Servizi per l'Ingegneria s.r.l. Via Garibaldi, 90 44121 Ferrara FE (Italy) Tel. +39 0532 200091 www.2si.it
Codice Licenza:	0220-007/CON

Descrizione	
Progetto	
Ubicazione	Comune di TRAPANI (TP) (Regione SICILIA)
	Località TRAPANI (TP)
	Longitudine 12.537, Latitudine 38.018
Progettista	

In merito al punto 10.2 delle Norme Tecniche per le Costruzioni (*Affidabilità dei codici utilizzati*), si fa riferimento al **Documento di Affidabilità** “Test di validazione del software di calcolo PRO_SAP e dei moduli aggiuntivi PRO_SAP Modulo Geotecnico, PRO_CAD nodi acciaio e PRO_MST” - versione Agosto 2020, disponibile per il download sul sito: <https://www.2si.it/it/prodotti/affidabilita/>

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FASCICOLO DI CALCOLO STRUTTURALE

Descrizione generale dell'opera	
Ubicazione	Comune di TRAPANI (TP) (Regione SICILIA)
	Località TRAPANI (TP)
	Longitudine 12.537, Latitudine 38.018
Numero di piani	Fuori terra
	Interrati
	le dimensioni dell'opera in pianta sono racchiuse in un rettangolo di
Tipo di fondazione	Diretta a travi

Parametri della struttura			
Classe d'uso	Vita Vn [anni]	Coeff. Uso	Periodo Vr [anni]
II	50.0	1.0	50.0

Fattore di struttura/comportamento
Comportamento non dissipativo

Quadro normativo di riferimento adottato

Le norme ed i documenti assunti quale riferimento per la progettazione strutturale vengono indicati di seguito.

Nel capitolo “normativa di riferimento” è comunque presente l'elenco completo delle normative disponibili.

Progetto - verifica degli elementi	
Progetto cemento armato	D.M. 17-01-2018
Progetto acciaio	D.M. 17-01-2018
Progetto legno	D.M. 17-01-2018
Progetto muratura	D.M. 17-01-2018
Azione sismica	
Norma applicata per l' azione sismica	D.M. 17-01-2018

Azioni di progetto sulla costruzione

Nei capitoli “modellazione delle azioni” e “schematizzazione dei casi di carico” sono indicate le azioni sulla costruzioni.

Nel prosieguo si indicano tipo di analisi strutturale condotta (statico,dinamico, lineare o non lineare) e il metodo adottato per la risoluzione del problema strutturale nonché le metodologie seguite per la verifica o per il progetto-verifica delle sezioni. Si riportano le combinazioni di carico adottate e, nel caso di calcoli non lineari, i percorsi di carico seguiti; le configurazioni studiate per la struttura in esame *sono risultate effettivamente esaustive per la progettazione-verifica*.

La verifica della sicurezza degli elementi strutturali avviene con i metodi della scienza delle costruzioni. L'analisi strutturale è condotta con il metodo degli spostamenti per la valutazione dello stato tensodeformativo indotto da carichi statici. L'analisi strutturale è condotta con il metodo dell'analisi modale e dello spettro di risposta in termini di accelerazione per la valutazione dello stato tensodeformativo indotto da carichi dinamici (tra cui quelli di tipo sismico).

L'analisi strutturale viene effettuata con il metodo degli elementi finiti. Il metodo sopraindicato si basa sulla schematizzazione della struttura in elementi connessi solo in corrispondenza di un numero prefissato di punti denominati nodi. I nodi sono definiti dalle tre coordinate cartesiane in un sistema di riferimento globale. Le incognite del problema (nell'ambito del metodo degli spostamenti) sono le componenti di spostamento dei nodi riferite al sistema di riferimento globale (traslazioni secondo X, Y, Z, rotazioni attorno X, Y, Z). La soluzione del problema si ottiene con un sistema di equazioni algebriche lineari i cui termini noti sono costituiti dai carichi agenti sulla struttura opportunamente concentrati ai nodi:

$K \cdot u = F$ dove K = matrice di rigidezza
 u = vettore spostamenti nodali
 F = vettore forze nodali

Dagli spostamenti ottenuti con la risoluzione del sistema vengono quindi dedotte le sollecitazioni e/o le tensioni di ogni elemento, riferite generalmente ad una terna locale all'elemento stesso.

Il sistema di riferimento utilizzato è costituito da una terna cartesiana destrorsa XYZ. Si assume l'asse Z verticale ed orientato verso l'alto.

Gli elementi utilizzati per la modellazione dello schema statico della struttura sono i seguenti:

Elemento tipo TRUSS	(biella-D2)
Elemento tipo BEAM	(trave-D2)
Elemento tipo MEMBRANE	(membrana-D3)
Elemento tipo PLATE	(piastra-guscio-D3)
Elemento tipo BOUNDARY	(molla)
Elemento tipo STIFFNESS	(matrice di rigidezza)
Elemento tipo BRICK	(elemento solido)
Elemento tipo SOLAIO	(macro elemento composto da più membrane)

Modello numerico

In questa parte viene descritto il modello numerico utilizzato (o i modelli numerici utilizzati) per l'analisi della struttura. La presentazione delle informazioni deve essere, coerentemente con le prescrizioni del paragrafo 10.2 e relativi sottoparagrafi delle NTC-18, tale da garantirne la leggibilità, la corretta interpretazione e la riproducibilità

Tipo di analisi strutturale	
Carichi verticali	SI
Sismica statica lineare	NO
Sismica dinamica lineare	SI
Sismica statica non lineare (prop. masse)	NO
Sismica statica non lineare (prop. modo)	NO
Sismica statica non lineare (triangolare)	NO
Non linearità geometriche (fattore P delta)	NO

Di seguito si indicano l'origine e le caratteristiche dei codici di calcolo utilizzati riportando titolo, produttore e distributore, versione, estremi della licenza d'uso:

Informazioni sul codice di calcolo	
Titolo:	PRO_SAP PROfessional Structural Analysis Program
Versione:	ENTRY (build 2020-12-191)
Produttore-Distributore:	2S.I. Software e Servizi per l'Ingegneria s.r.l., Ferrara
Dati utente finale:	Ing. Piercarlo Margiotta
Codice Utente:	0220-007/CON
Codice Licenza:	Licenza ENTRY

Un attento esame preliminare della documentazione a corredo del software **ha consentito di valutarne l'affidabilità e soprattutto l'idoneità al caso specifico**. La documentazione, fornita dal produttore e distributore del software, contiene una esauriente descrizione delle basi teoriche e degli algoritmi impiegati, l'individuazione dei campi d'impiego, nonché casi prova interamente risolti e commentati, corredati dei file di input necessari a riprodurre l'elaborazione:

Affidabilità dei codici utilizzati
2S.I. ha verificato l'affidabilità e la robustezza del codice di calcolo attraverso un numero significativo di casi prova in cui i risultati dell'analisi numerica sono stati confrontati con soluzioni teoriche. E' possibile reperire la documentazione contenente alcuni dei più significativi casi trattati al seguente link: https://www.2si.it/it/prodotti/affidabilita/

Modellazione della geometria e proprietà meccaniche:	
nodi	114
elementi D2 (per aste, travi, pilastri...)	153
elementi D3 (per pareti, platee, gusci...)	0
elementi solaio	22
elementi solidi	0
Dimensione del modello strutturale [cm]:	
X min =	-1030.00
Xmax =	710.00
Ymin =	-0.00
Ymax =	822.00
Zmin =	0.00
Zmax =	698.88
Strutture verticali:	
Elementi di tipo asta	NO
Pilastri	SI
Pareti	NO
Setti (a comportamento membranale)	NO
Strutture non verticali:	
Elementi di tipo asta	NO
Travi	SI
Gusci	NO
Membrane	NO
Orizzontamenti:	
Solai con la proprietà piano rigido	NO
Solai senza la proprietà piano rigido	SI
Tipo di vincoli:	
Nodi vincolati rigidamente	SI
Nodi vincolati elasticamente	NO
Nodi con isolatori sismici	NO
Fondazioni puntuali (plinti/plinti su palo)	NO
Fondazioni di tipo trave	SI
Fondazioni di tipo platea	NO
Fondazioni con elementi solidi	NO

Combinazioni e/o percorsi di carico

Si veda il capitolo **“Definizione delle combinazioni”** in cui sono indicate le combinazioni di carico adottate e, nel caso di calcoli non lineari, i percorsi di carico seguiti.

Combinazioni dei casi di carico	
APPROCCIO PROGETTUALE	Approccio 2
Tensioni ammissibili	NO
SLU	SI
SLV (SLU con sisma)	SI
SLC	NO
SLD	SI
SLO	NO
SLU GEO A2 (per approccio 1)	NO
SLU EQU	NO
Combinazione caratteristica (rara)	SI
Combinazione frequente	SI
Combinazione quasi permanente (SLE)	SI
SLA (accidentale quale incendio)	NO

Principali risultati

I risultati devono costituire una sintesi completa ed efficace, presentata in modo da riassumere il comportamento della struttura, per ogni tipo di analisi svolta.

Nella presente relazione di calcolo sono riportati i seguenti risultati che il progettista ritiene di interesse per la descrizione e la comprensione del/i modello/i e del comportamento della struttura:

per l'analisi modale:

- periodi dei modi di vibrare della struttura
- masse eccitate dai singoli modi
- massa eccitata totale

deformate e sollecitazioni:

- spostamenti e rotazioni dei singoli nodi della struttura
- reazioni vincolari (nel caso siano presenti nodi vincolati rigidamente)
- pressioni sul terreno (nel caso siano presenti elementi di fondazione)
- sollecitazioni sugli elementi d2 nelle combinazioni di calcolo più significative
- tensioni sugli elementi d3 nelle combinazioni di calcolo più significative
- sollecitazioni sui macroelementi da elementi d3 nelle combinazioni di calcolo più significative

La presente relazione, oltre ad illustrare in modo esaustivo i dati in ingresso ed i risultati delle analisi in forma tabellare, riporta una serie di immagini:

per i dati in ingresso:

- modello solido della struttura
- numerazione di nodi e di elementi
- configurazioni di carico statiche
- configurazioni di carico sismiche con baricentri delle masse e eccentricità

per le combinazioni più significative (statisticamente più gravose per la struttura):

- configurazioni deformate
- diagrammi e involucri delle azioni interne
- mappe delle tensioni
- reazioni vincolari
- mappe delle pressioni sul terreno

per il progetto-verifica degli elementi:

- diagrammi di armatura
- percentuali di sfruttamento
- mappe delle verifiche più significative per i vari stati limite

Informazioni generali sull'elaborazione e giudizio motivato di accettabilità dei risultati.

Il programma prevede una serie di controlli automatici (check) che consentono l'individuazione di errori di modellazione. Al termine dell'analisi un controllo automatico identifica la presenza di spostamenti o rotazioni anormali. Si può pertanto asserire che l'elaborazione sia corretta e completa. I risultati delle elaborazioni sono stati sottoposti a controlli che ne comprovano l'attendibilità. Tale valutazione ha compreso il confronto con i risultati di semplici calcoli, eseguiti con metodi tradizionali e adottati, anche in fase di primo dimensionamento della struttura. Inoltre, sulla base di considerazioni riguardanti gli stati tensionali e deformativi determinati, si è valutata la validità delle scelte operate in sede di schematizzazione e di modellazione della struttura e delle azioni. Si allega al termine della presente relazione elenco sintetico dei controlli svolti (verifiche di equilibrio tra reazioni vincolari e carichi applicati, comparazioni tra i risultati delle analisi e quelli di valutazioni semplificate, etc.) .

Verifiche agli stati limite ultimi

Nel capitolo relativo alla progettazione degli elementi strutturali agli SLU vengono indicate, con riferimento alla normativa adottata, le modalità ed i criteri seguiti per valutare la sicurezza della struttura nei confronti delle possibili situazioni di crisi ed i risultati delle valutazioni svolte. In via generale, oltre alle verifiche di resistenza e di spostamento, devono essere prese in considerazione verifiche nei confronti dei fenomeni di instabilità, locale e globale, di fatica, di duttilità, di degrado.

Verifiche agli stati limite di esercizio

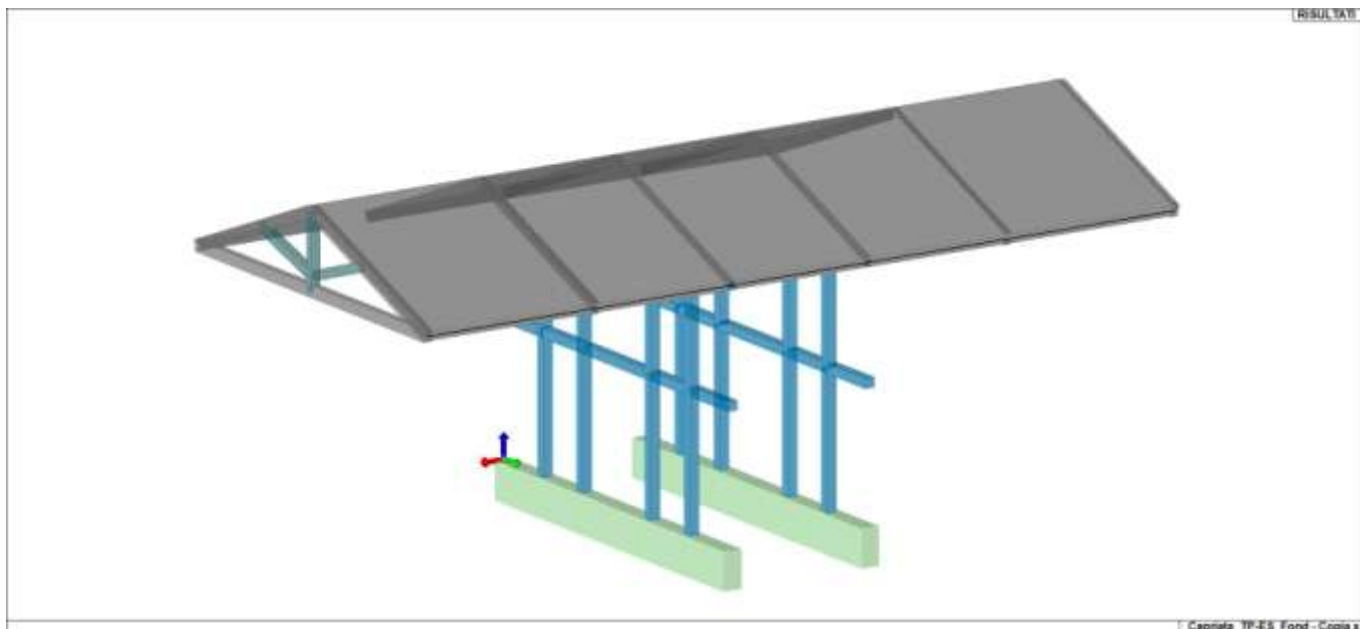
Nel capitolo relativo alla progettazione degli elementi strutturali agli SLE vengono indicate, con riferimento alla normativa adottata, le modalità seguite per valutare l'affidabilità della struttura nei confronti delle possibili situazioni di perdita di funzionalità (per eccessive deformazioni, fessurazioni, vibrazioni, etc.) ed i risultati delle valutazioni svolte.

NORMATIVA DI RIFERIMENTO

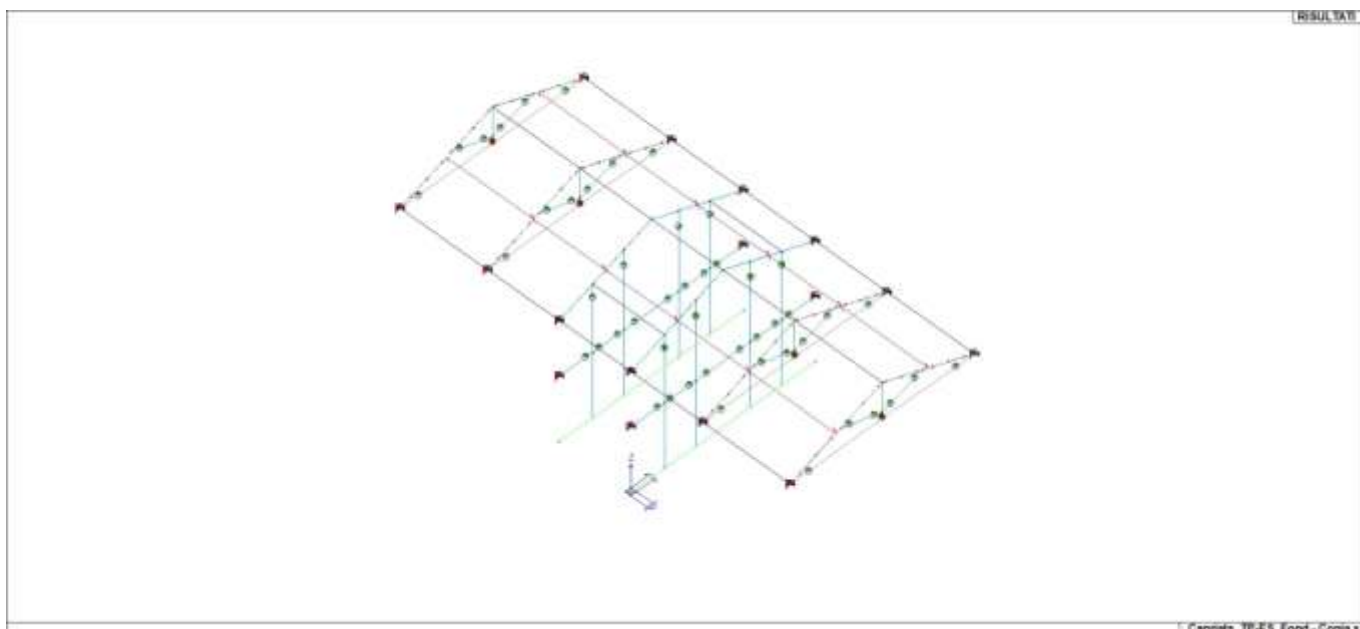
1. D.Min. Infrastrutture Min. Interni e Prot. Civile 17 Gennaio 2018 e allegate "Norme tecniche per le costruzioni".
2. Circolare 21/01/19, n. 7 C.S.LL.PP. "Istruzioni per l'applicazione dell'aggiornamento delle Norme Tecniche delle Costruzioni di cui al decreto ministeriale 17 gennaio 2018"
3. D.Min. Infrastrutture e trasporti 14 Settembre 2005 e allegate "Norme tecniche per le costruzioni".
4. D.M. LL.PP. 9 Gennaio 1996 "Norme tecniche per il calcolo, l'esecuzione ed il collaudo delle strutture in cemento armato, normale e precompresso e per le strutture metalliche".
5. D.M. LL.PP. 16 Gennaio 1996 "Norme tecniche relative ai <<Criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi>>".
6. D.M. LL.PP. 16 Gennaio 1996 "Norme tecniche per le costruzioni in zone sismiche".
7. Circolare 4/07/96, n.156AA.GG./STC. istruzioni per l'applicazione delle "Norme tecniche relative ai <<Criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi>>" di cui al D.M. 16/01/96.
8. Circolare 10/04/97, n.65AA.GG. istruzioni per l'applicazione delle "Norme tecniche per le costruzioni in zone sismiche" di cui al D.M. 16/01/96.
9. D.M. LL.PP. 20 Novembre 1987 "Norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento".
10. Circolare 4 Gennaio 1989 n. 30787 "Istruzioni in merito alle norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento".
11. D.M. LL.PP. 11 Marzo 1988 "Norme tecniche riguardanti le indagini sui terreni e sulle rocce, la stabilità dei pendii naturali e delle scarpate, i criteri generali e le prescrizioni per la progettazione, l'esecuzione e il collaudo delle opere di sostegno delle terre e delle opere di fondazione".
12. D.M. LL.PP. 3 Dicembre 1987 "Norme tecniche per la progettazione, esecuzione e collaudo delle costruzioni prefabbricate".
13. UNI 9502 - Procedimento analitico per valutare la resistenza al fuoco degli elementi costruttivi di conglomerato cementizio armato, normale e precompresso - edizione maggio 2001
14. Ordinanza del Presidente del Consiglio dei Ministri n. 3274 del 20 marzo 2003 "Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica" e successive modificazioni e integrazioni.
15. UNI EN 1990:2006 13/04/2006 Eurocodice 0 - Criteri generali di progettazione strutturale.
16. UNI EN 1991-1-1:2004 01/08/2004 Eurocodice 1 - Azioni sulle strutture - Parte 1-1: Azioni in generale - Pesi per unità di volume, pesi propri e sovraccarichi per gli edifici.
17. UNI EN 1991-2:2005 01/03/2005 Eurocodice 1 - Azioni sulle strutture - Parte 2: Carichi da traffico sui ponti.
18. UNI EN 1991-1-3:2004 01/10/2004 Eurocodice 1 - Azioni sulle strutture - Parte 1-3: Azioni in generale - Carichi da neve.
19. UNI EN 1991-1-4:2005 01/07/2005 Eurocodice 1 - Azioni sulle strutture - Parte 1-4: Azioni in generale - Azioni del vento.
20. UNI EN 1991-1-5:2004 01/10/2004 Eurocodice 1 - Azioni sulle strutture - Parte 1-5: Azioni in generale - Azioni termiche.
21. UNI EN 1992-1-1:2005 24/11/2005 Eurocodice 2 - Progettazione delle strutture di calcestruzzo - Parte 1-1: Regole generali e regole per gli edifici.
22. UNI EN 1992-1-2:2005 01/04/2005 Eurocodice 2 - Progettazione delle strutture di calcestruzzo - Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio.
23. UNI EN 1993-1-1:2005 01/08/2005 Eurocodice 3 - Progettazione delle strutture di acciaio - Parte 1-1: Regole generali e regole per gli edifici.
24. UNI EN 1993-1-8:2005 01/08/2005 Eurocodice 3 - Progettazione delle strutture di acciaio - Parte 1-8: Progettazione dei collegamenti.
25. UNI EN 1994-1-1:2005 01/03/2005 Eurocodice 4 - Progettazione delle strutture composte acciaio-calcestruzzo - Parte 1-1: Regole generali e regole per gli edifici.
26. UNI EN 1994-2:2006 12/01/2006 Eurocodice 4 - Progettazione delle strutture composte acciaio-calcestruzzo - Parte 2: Regole generali e regole per i ponti.
27. UNI EN 1995-1-1:2005 01/02/2005 Eurocodice 5 - Progettazione delle strutture di legno - Parte 1-1: Regole generali - Regole comuni e regole per gli edifici.
28. UNI EN 1995-2:2005 01/01/2005 Eurocodice 5 - Progettazione delle strutture di legno - Parte 2: Ponti.
29. UNI EN 1996-1-1:2006 26/01/2006 Eurocodice 6 - Progettazione delle strutture di muratura - Parte 1-1: Regole generali per strutture di muratura armata e non armata.
30. UNI EN 1996-3:2006 09/03/2006 Eurocodice 6 - Progettazione delle strutture di muratura - Parte 3: Metodi di calcolo semplificato per strutture di muratura non armata.
31. UNI EN 1997-1:2005 01/02/2005 Eurocodice 7 - Progettazione geotecnica - Parte 1: Regole generali.
32. UNI EN 1998-1:2005 01/03/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 1: Regole generali, azioni sismiche e regole per gli edifici.
33. UNI EN 1998-3:2005 01/08/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 3: Valutazione e adeguamento degli edifici.
34. UNI EN 1998-5:2005 01/01/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 5: Fondazioni, strutture di contenimento ed aspetti geotecnici.

NOTA il capitolo "normativa di riferimento": riporta l'elenco delle normative implementate nel software. Le norme

utilizzate per la struttura oggetto della presente relazione sono indicate nel precedente capitolo "RELAZIONE DI CALCOLO STRUTTURALE" "ANALISI E VERIFICHE SVOLTE CON L'AUSILIO DI CODICI DI CALCOLO". Laddove nei capitoli successivi vengano richiamate norme antecedenti al DM 17.01.18 è dovuto o a progettazione simulata di edificio esistente.



Modello



Modello_unifilare

CARATTERISTICHE MATERIALI UTILIZZATI

LEGENDA TABELLA DATI MATERIALI

Il programma consente l'uso di materiali diversi. Sono previsti i seguenti tipi di materiale:

1	materiale tipo cemento armato
2	materiale tipo acciaio
3	materiale tipo muratura
4	materiale tipo legno
5	materiale tipo generico

I materiali utilizzati nella modellazione sono individuati da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni materiale vengono riportati in tabella i seguenti dati:

Young	modulo di elasticità normale E
Poisson	coefficiente di contrazione trasversale ν
G	modulo di elasticità tangenziale
Gamma	peso specifico
Alfa	coefficiente di dilatazione termica
Fattore di confidenza FC m	Fattore di confidenza specifico per materiale; (è riportato solo se diverso da quello globale della struttura)
Fattore di confidenza FC a	Fattore di confidenza specifico per l'armatura (è riportato solo se diverso da quello globale della struttura)
Elasto-plastico	Materiale elastico perfettamente plastico per aste non lineari
Massima compressione	Massima tensione di compressione per aste non lineari
Massima trazione	Massima tensione di trazione per aste non lineari
Fattore attrito	Coefficiente di attrito per aste non lineari
Rapporto HRDb	Rapporto di hardening a flessione
Rapporto HRDv	Rapporto di hardening a taglio

I dati soprariportati vengono utilizzati per la modellazione dello schema statico e per la determinazione dei carichi inerziali e termici. In relazione al tipo di materiale vengono riportati inoltre:

1	c.a.	Resistenza Rc Resistenza fctm Coefficiente ksb	resistenza a compressione cubica resistenza media a trazione semplice Coefficiente di riduzione della resistenza a compressione da utilizzare nello stress block
2	acciaio	Tensione ft Tensione fy Resistenza fd Resistenza fd (>40) Tensione ammissibile Tensione ammissibile(>40)	Valore della tensione di rottura Valore della tensione di snervamento Resistenza di calcolo per SL CNR-UNI 10011 Resistenza di calcolo per SL CNR-UNI 10011 per spessori > 40mm Tensione ammissibile CNR-UNI 10011 Tensione ammissibile CNR-UNI 10011 per spessori > 40mm
3	muratura	Muratura consolidata Incremento resistenza Incremento rigidezza Resistenza f Resistenza fv0 Resistenza fh Resistenza fb Resistenza fbh Resistenza fv0h Resistenza ft	Muratura per la quale si prevedono interventi di rinforzo" Incremento conseguito in termini di resistenza Incremento conseguito in termini di rigidezza Valore della resistenza a compressione Valore della resistenza a taglio in assenza di tensioni normali Valore della resistenza a compressione orizzontale Valore della resistenza a compressione dei blocchi Valore della resistenza a compressione dei blocchi in direzione orizzontale Valore della resistenza a taglio in assenza di tensioni normali per le travi Valore della resistenza a trazione per fessurazione diagonale

	Resistenza fvlm Resistenza fbt Coefficiente mu Coefficiente fi Coefficiente ksb	Valore della massima resistenza a taglio Valore della resistenza a trazione dei blocchi Coefficiente d'attrito utilizzato per la resistenza a taglio (tipicamente 0.4) Coefficiente d'ingranamento utilizzato per la resistenza a taglio Coefficiente di riduzione della resistenza a compressione da utilizzare nello stress block
4	legno E0,05 Resistenza fc0 Resistenza ft0 Resistenza fm Resistenza fv Resist. ft0k Resist. fmk Resist. fvk Modulo E0,05 Lamellare	Modulo di elasticità corrispondente ad un frattile del 5% Valore della resistenza a compressione parallela Valore della resistenza a trazione parallela Valore della resistenza a flessione Valore della resistenza a taglio Resistenza caratteristica (tensione amm. per REGLES) per trazione Resistenza caratteristica (tensione amm. per REGLES) per flessione Resistenza caratteristica (tensione amm. per REGLES) per taglio Modulo elastico parallelo caratteristico lamellare o massiccio

Nel tabulato si riportano sia i valori caratteristici che medi utilizzando gli uni e/o gli altri in relazione alle richieste di normativa ed alla tipologia di verifica. (Cap.7 NTC18 per materiali nuovi, Cap.8 NTC18 e relativa circolare 21/01/2019 per materiali esistenti, Linee Guida Reluis per incamiciatura CAM, CNR-DT 200 per interventi con FRP)

Vengono inoltre riportate le tabelle contenenti il riassunto delle informazioni assegnate nei criteri di progetto in uso.

Id	Tipo / Note	V. caratt. daN/cm2	V. medio daN/cm2	Young daN/cm2	Poisson	G daN/cm2	Gamma daN/cm3	Alfa	Altri
3	Calcestruzzo Classe C28/35			3.260e+05	0.20	1.358e+05	2.50e-03	1.00e-05	
	Resistenza Rc	350.0							
	Resistenza fctm		28.4						
	Rapporto Rfessurata								1.00
	Coefficiente ksb								0.85
	Rapporto HRDb								1.00e-05
	Rapporto HRDv								1.00e-05
131	Legno lamellare omogeneo GL28h -legno E = 1.260e+05			1.260e+05	0.0	6500.0	4.60e-04	1.00e-05	
	Modulo E0,05			1.050e+05					
	Lamellare : SI								
	Resistenza fc0	280.0							
	Resistenza ft0	223.0							
	Resistenza fm	280.0							
	Resistenza fv	35.0							
	Rapporto HRDb								1.00e-05
	Rapporto HRDv								1.00e-05
157	Materiale inf. rigido no peso E = 1.000e+09			1.000e+09	0.0	5.000e+08	0.0	1.20e-05	
	Rapporto HRDb								1.00e-05
	Rapporto HRDv								1.00e-05

Travi c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Generalità						
Progetta a filo	NO	NO	NO			
Af inf: da q*L*L /	0.0	0.0	0.0			
Armatura						
Minima tesa	0.31	0.20	0.13			
Minima compressa	0.31	0.20	0.13			
Massima tesa	0.78	0.78	4.00			
Da sezione	SI	SI	SI			
Usa armatura teorica	NO	NO	NO			
Stati limite ultimi						
Tensione fy [daN/cm2]	4500.00	4500.00	4500.00			
Tensione fy staffe [daN/cm2]	4500.00	4500.00	4500.00			
Tipo acciaio	tipo C	tipo C	tipo C			
Coefficiente gamma s	1.15	1.15	1.15			
Coefficiente gamma c	1.50	1.50	1.50			
Verifiche con N costante	SI	SI	SI			
Fattore di ridistribuzione	0.0	0.0	0.0			
Modello per il confinamento						
Relazione tensio-deformativa	Mander	Mander	Mander			
Incrudimento acciaio	5.000e-03	5.000e-03	5.000e-03			

Travi c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Fattore lambda	1.00	1.00	1.00			
epsilon max,s	4.000e-02	4.000e-02	4.000e-02			
epsilon cu2	4.500e-03	4.500e-03	4.500e-03			
epsilon c2	0.0	0.0	0.0			
epsilon cy	0.0	0.0	0.0			
Tensioni ammissibili						
Tensione amm. cls [daN/cm2]	97.50	97.50	97.50			
Tensione amm. acciaio [daN/cm2]	2600.00	2600.00	2600.00			
Rapporto omogeneizzazione N	15.00	15.00	15.00			
Massimo rapporto area compressa/tesa	1.00	1.00	1.00			
Staffe						
Diametro staffe	0.0	0.0	0.0			
Passo minimo [cm]	4.00	10.00	4.00			
Passo massimo [cm]	30.00	25.00	30.00			
Passo raffittito [cm]	15.00	15.00	15.00			
Lunghezza zona raffittita [cm]	50.00	50.00	50.00			
Ctg(Teta) Max	2.50	2.50	2.50			
Percentuale sagomati	0.0	0.0	0.0			
Luce di taglio per GR [cm]	1.00	1.00	1.00			
Adotta scorrimento medio	NO	NO	NO			
Torsione non essenziale inclusa	SI	SI	SI			

Legno	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Lunghezze libere						
aste						
Beta assegnato	0.80	0.80	0.80			
travi						
3-3 Beta * L automatico	NO	SI	SI			
3-3 Beta assegnato	1.00	1.00	1.00			
3-3 Beta * L assegnato [cm]	0.0	0.0	0.0			
2-2 Beta * L automatico	NO	SI	SI			
2-2 Beta assegnato	1.00	1.00	1.00			
2-2 Beta * L assegnato [cm]	0.0	0.0	0.0			
1-1 Beta * L automatico	NO	SI	SI			
1-1 Beta assegnato	1.00	1.00	1.00			
1-1 Beta * L assegnato [cm]	0.0	0.0	0.0			
pilastr						
Metodo di calcolo 3-3	Assegnato	Assegnato	Assegnato			
3-3 Beta assegnato	2.00	2.00	2.00			
3-3 Beta * L assegnato [cm]	0.0	0.0	0.0			
Metodo di calcolo 2-2	Assegnato	Assegnato	Assegnato			
2-2 Beta assegnato	2.00	2.00	2.00			
2-2 Beta * L assegnato [cm]	0.0	0.0	0.0			
1-1 Beta assegnato	1.00	1.00	1.00			
1-1 Beta * L assegnato [cm]	0.0	0.0	0.0			
Generalità						
Gamma non sismico	1.50	1.50	1.50			
Gamma sismico	1.50	1.50	1.50			
Classificazione						
Classe di servizio	2 (media umidità)	2 (media umidità)	2 (media umidità)			
Per classe di servizio 1						
Kmod permanente	0.60	0.60	0.60			
Kmod lunga	0.70	0.70	0.70			
Kmod media	0.80	0.80	0.80			
Kmod breve	0.90	0.90	0.90			
Kmod istantanea	1.10	1.10	1.10			
Kdef	0.60	0.60	0.60			
Per classe di servizio 2						
Kmod permanente	0.60	0.60	0.60			
Kmod lunga	0.70	0.70	0.70			
Kmod media	0.80	0.80	0.80			
Kmod breve	0.90	0.90	0.90			
Kmod istantanea	1.10	1.10	1.10			
Kdef	0.80	0.80	0.80			
Per classe di servizio 3						
Kmod permanente	0.50	0.50	0.50			
Kmod lunga	0.55	0.55	0.55			
Kmod media	0.65	0.65	0.65			
Kmod breve	0.70	0.70	0.70			
Kmod istantanea	0.90	0.90	0.90			
Kdef	2.00	2.00	2.00			

MODELLAZIONE DELLE SEZIONI

LEGENDA TABELLA DATI SEZIONI

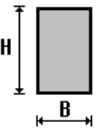
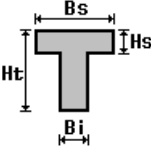
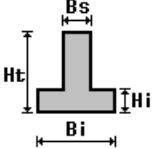
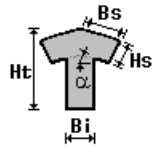
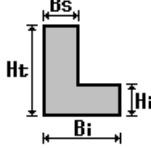
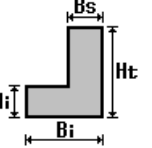
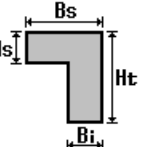
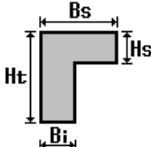
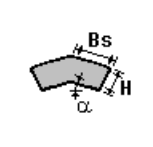
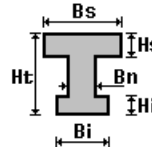
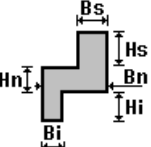
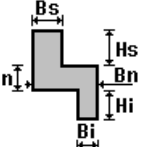
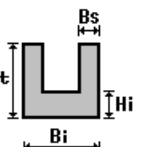
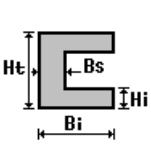
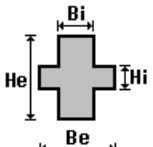
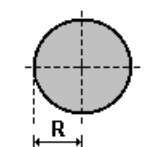
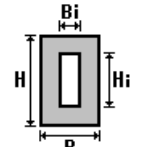
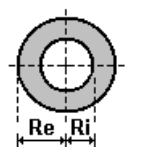
Il programma consente l'uso di sezioni diverse. Sono previsti i seguenti tipi di sezione:

1. sezione di tipo generico
2. profilati semplici
3. profilati accoppiati e speciali

Le sezioni utilizzate nella modellazione sono individuate da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni sezione vengono riportati in tabella i seguenti dati:

Area	area della sezione
A V2	area della sezione/fattore di taglio (per il taglio in direzione 2)
A V3	area della sezione/fattore di taglio (per il taglio in direzione 3)
Jt	fattore torsionale di rigidezza
J2-2	momento d'inerzia della sezione riferito all'asse 2
J3-3	momento d'inerzia della sezione riferito all'asse 3
W2-2	modulo di resistenza della sezione riferito all'asse 2
W3-3	modulo di resistenza della sezione riferito all'asse 3
Wp2-2	modulo di resistenza plastico della sezione riferito all'asse 2
Wp3-3	modulo di resistenza plastico della sezione riferito all'asse 3

I dati sopra riportati vengono utilizzati per la determinazione dei carichi inerziali e per la definizione delle rigidezze degli elementi strutturali; qualora il valore di Area V2 (e/o Area V3) sia nullo la deformabilità per taglio V2 (e/o V3) è trascurata. La valutazione delle caratteristiche inerziali delle sezioni è condotta nel riferimento 2-3 dell'elemento.

 rettangolare	 a T	 a T rovescia	 a T di colmo	 a L	 a L specchiata
 a L specchiata rovescia	 a L rovescia	 a L di colmo	 a doppio T	 a quattro specchiata	 a quattro
 a U	 a C	 a croce	 circolare	 rettangolare cava	 circolare cava

Per quanto concerne i profilati semplici ed accoppiati l'asse 2 del riferimento coincide con l'asse x riportato nei più diffusi profilati.

Per quanto concerne le sezioni di tipo generico (tipo 1.):

i valori dimensionali con prefisso B sono riferiti all'asse 2

i valori dimensionali con prefisso H sono riferiti all'asse 3

Id	Tipo	Area	A V2	A V3	Jt	J 2-2	J 3-3	W 2-2	W 3-3	Wp 2-2	Wp 3-3
		cm2	cm2	cm2	cm4	cm4	cm4	cm3	cm3	cm3	cm3
1	Puntone-Rettangolare: b=16 h=24	384.00	320.00	320.00	1.901e+04	8192.00	1.843e+04	1024.00	1536.00	1536.00	2304.00
2	Portale-Rettangolare: b=20 h=20	400.00	333.33	333.33	2.249e+04	1.333e+04	1.333e+04	1333.33	1333.33	2000.00	2000.00
3	Saette-Monaco-Portale-Rettangolare: b=16 h=20	320.00	266.67	266.67	1.408e+04	6826.67	1.067e+04	853.33	1066.67	1280.00	1600.00
4	Fondazione-Rettangolare: b=40 h=80	3200.00	2666.67	2666.67	1.169e+06	4.267e+05	1.707e+06	2.133e+04	4.267e+04	3.200e+04	6.400e+04
14	Rettangolare: b=1 h=1	1.00	0.83	0.83	0.14	0.08	0.08	0.17	0.17	0.25	0.25

MODELLAZIONE STRUTTURA: NODI

LEGENDA TABELLA DATI NODI

Il programma utilizza per la modellazione nodi strutturali.

Ogni nodo è individuato dalle coordinate cartesiane nel sistema di riferimento globale (X Y Z).

Ad ogni nodo è eventualmente associato un codice di vincolamento rigido, un codice di fondazione speciale, ed un set di sei molle (tre per le traslazioni, tre per le rotazioni). Le tabelle sottoriportate riflettono le succitate possibilità. In particolare per ogni nodo viene indicato in tabella:

Nodo	numero del nodo.
X	valore della coordinata X
Y	valore della coordinata Y
Z	valore della coordinata Z

Per i nodi ai quali sia associato un codice di vincolamento rigido, un codice di fondazione speciale o un set di molle viene indicato in tabella:

Nodo	numero del nodo.
X	valore della coordinata X
Y	valore della coordinata Y
Z	valore della coordinata Z
Note	eventuale codice di vincolo (es. v=110010 sei valori relativi ai sei gradi di libertà previsti per il nodo TxTyTzRxRyRz, il valore 1 indica che lo spostamento o rotazione relativo è impedito, il valore 0 indica che lo spostamento o rotazione relativo è libero).
Note	(FS = 1, 2,...) eventuale codice del tipo di fondazione speciale (1, 2,... fanno riferimento alle tipologie: plinto, palo, plinto su pali,...) che è collegato al nodo. (ISO = "id SIGLA") indice e sigla identificativa dell' eventuale isolatore sismico assegnato al nodo
Rig. TX	valore della rigidità dei vincoli elastici eventualmente applicati al nodo, nello specifico TX (idem per TY, TZ, RX, RY, RZ).

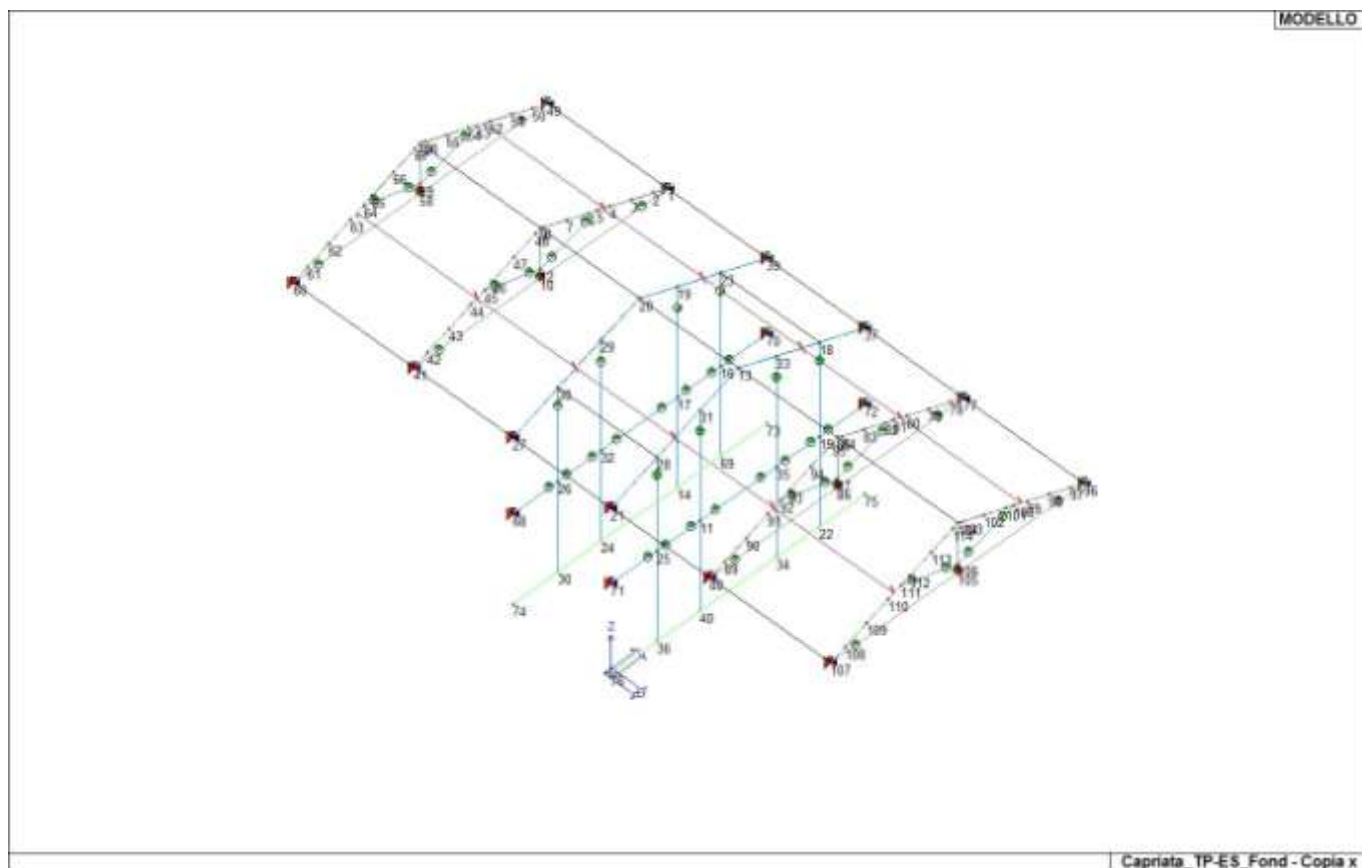
Per strutture sismicamente isolate viene inoltre inserita la tabella delle caratteristiche per gli isolatori utilizzati; le caratteristiche sono indicate in conformità al cap. 7.10 del D.M. 17/01/18

TABELLA DATI NODI

Nodo	X	Y	Z	Nodo	X	Y	Z	Nodo	X	Y	Z
	cm	cm	cm		cm	cm	cm		cm	cm	cm
2	-640.0	775.5	555.3	3	-640.0	705.7	582.8	4	-640.0	635.9	610.3
5	-640.0	593.5	627.0	6	-640.0	566.1	637.8	7	-640.0	496.3	665.3
8	-640.0	426.6	692.7	9	-640.0	411.0	698.9	10	-640.0	411.0	536.9
11	0.0	288.0	292.0	12	-640.0	411.0	566.9	13	0.0	411.0	698.9
14	-320.0	534.0	0.0	15	0.0	674.0	292.0	16	-320.0	674.0	292.0
17	-320.0	534.0	292.0	18	0.0	674.0	595.3	19	-320.0	534.0	650.4
20	-320.0	411.0	698.9	22	0.0	674.0	0.0	23	-320.0	674.0	595.3
24	-320.0	288.0	0.0	25	0.0	148.0	292.0	26	-320.0	148.0	292.0
28	0.0	148.0	595.3	29	-320.0	288.0	650.4	30	-320.0	148.0	0.0
31	0.0	288.0	650.4	32	-320.0	288.0	292.0	33	0.0	534.0	650.4
34	0.0	534.0	0.0	35	0.0	534.0	292.0	36	0.0	148.0	0.0
38	-320.0	148.0	595.3	40	0.0	288.0	0.0	42	-640.0	46.5	555.3
43	-640.0	116.3	582.8	44	-640.0	186.1	610.3	45	-640.0	228.5	627.0
46	-640.0	255.9	637.8	47	-640.0	325.7	665.3	48	-640.0	395.4	692.7
50	-1030.0	775.5	555.3	51	-1030.0	705.7	582.8	52	-1030.0	635.9	610.3
53	-1030.0	593.5	627.0	54	-1030.0	566.1	637.8	55	-1030.0	496.3	665.3
56	-1030.0	426.6	692.7	57	-1030.0	411.0	698.9	58	-1030.0	411.0	536.9
59	-1030.0	411.0	566.9	61	-1030.0	46.5	555.3	62	-1030.0	116.3	582.8
63	-1030.0	186.1	610.3	64	-1030.0	228.5	627.0	65	-1030.0	255.9	637.8
66	-1030.0	325.7	665.3	67	-1030.0	395.4	692.7	69	-320.0	674.0	0.0
73	-320.0	822.0	0.0	74	-320.0	0.0	0.0	75	0.0	822.0	0.0
76	0.0	0.0	0.0	78	320.0	775.5	555.3	79	320.0	705.7	582.8
80	320.0	635.9	610.3	81	320.0	593.5	627.0	82	320.0	566.1	637.8
83	320.0	496.3	665.3	84	320.0	426.6	692.7	85	320.0	411.0	698.9
86	320.0	411.0	536.9	87	320.0	411.0	566.9	89	320.0	46.5	555.3
90	320.0	116.3	582.8	91	320.0	186.1	610.3	92	320.0	228.5	627.0
93	320.0	255.9	637.8	94	320.0	325.7	665.3	95	320.0	395.4	692.7
97	710.0	775.5	555.3	98	710.0	705.7	582.8	99	710.0	635.9	610.3
100	710.0	593.5	627.0	101	710.0	566.1	637.8	102	710.0	496.3	665.3
103	710.0	426.6	692.7	104	710.0	411.0	698.9	105	710.0	411.0	536.9
106	710.0	411.0	566.9	108	710.0	46.5	555.3	109	710.0	116.3	582.8
110	710.0	186.1	610.3	111	710.0	228.5	627.0	112	710.0	255.9	637.8

113 710.0 325.7 665.3 114 710.0 395.4 692.7

Nodo	X cm	Y cm	Z cm	Note	Rig. TX daN/cm	Rig. TY daN/cm	Rig. TZ daN/cm	Rig. RX daN cm/rad	Rig. RY daN cm/rad	Rig. RZ daN cm/rad
1	-640.0	822.0	537.0	v=101011						
21	0.0	0.0	537.0	v=111011						
27	-320.0	0.0	537.0	v=111011						
37	0.0	822.0	537.0	v=101011						
39	-320.0	822.0	537.0	v=101011						
41	-640.0	0.0	537.0	v=111011						
49	-1030.0	822.0	537.0	v=101011						
60	-1030.0	0.0	537.0	v=111011						
68	-320.0	0.0	292.0	v=111011						
70	-320.0	822.0	292.0	v=101011						
71	0.0	0.0	292.0	v=111011						
72	0.0	822.0	292.0	v=101011						
77	320.0	822.0	537.0	v=101011						
88	320.0	0.0	537.0	v=111011						
96	710.0	822.0	537.0	v=101011						
107	710.0	0.0	537.0	v=111011						



14_MOD_NUMERAZIONE_NODI

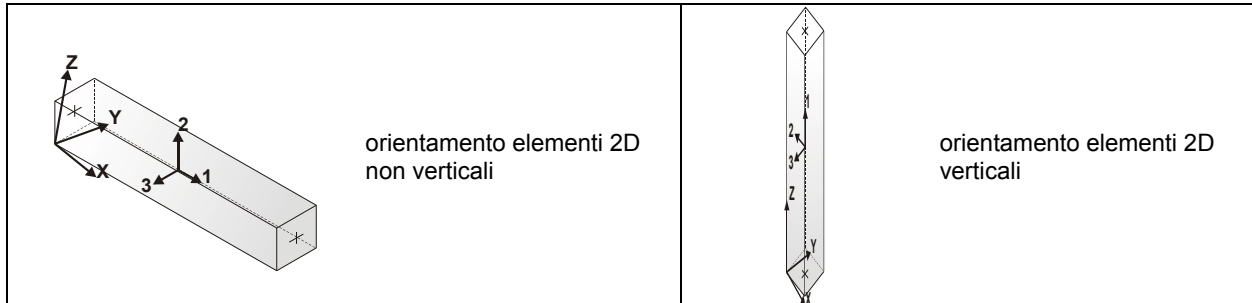
MODELLAZIONE STRUTTURA: ELEMENTI TRAVE

TABELLA DATI TRAVI

Il programma utilizza per la modellazione elementi a due nodi denominati in generale travi.

Ogni elemento trave è individuato dal nodo iniziale e dal nodo finale.

Ogni elemento è caratterizzato da un insieme di proprietà riportate in tabella che ne completano la modellazione.



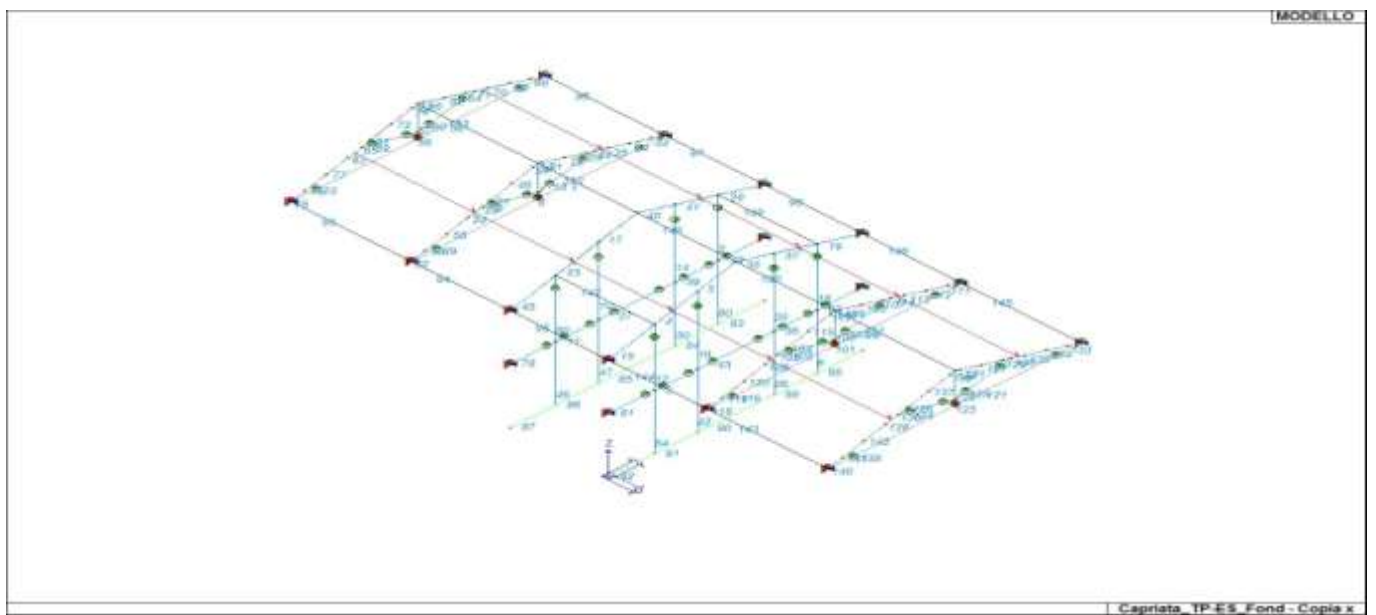
In particolare per ogni elemento viene indicato in tabella:

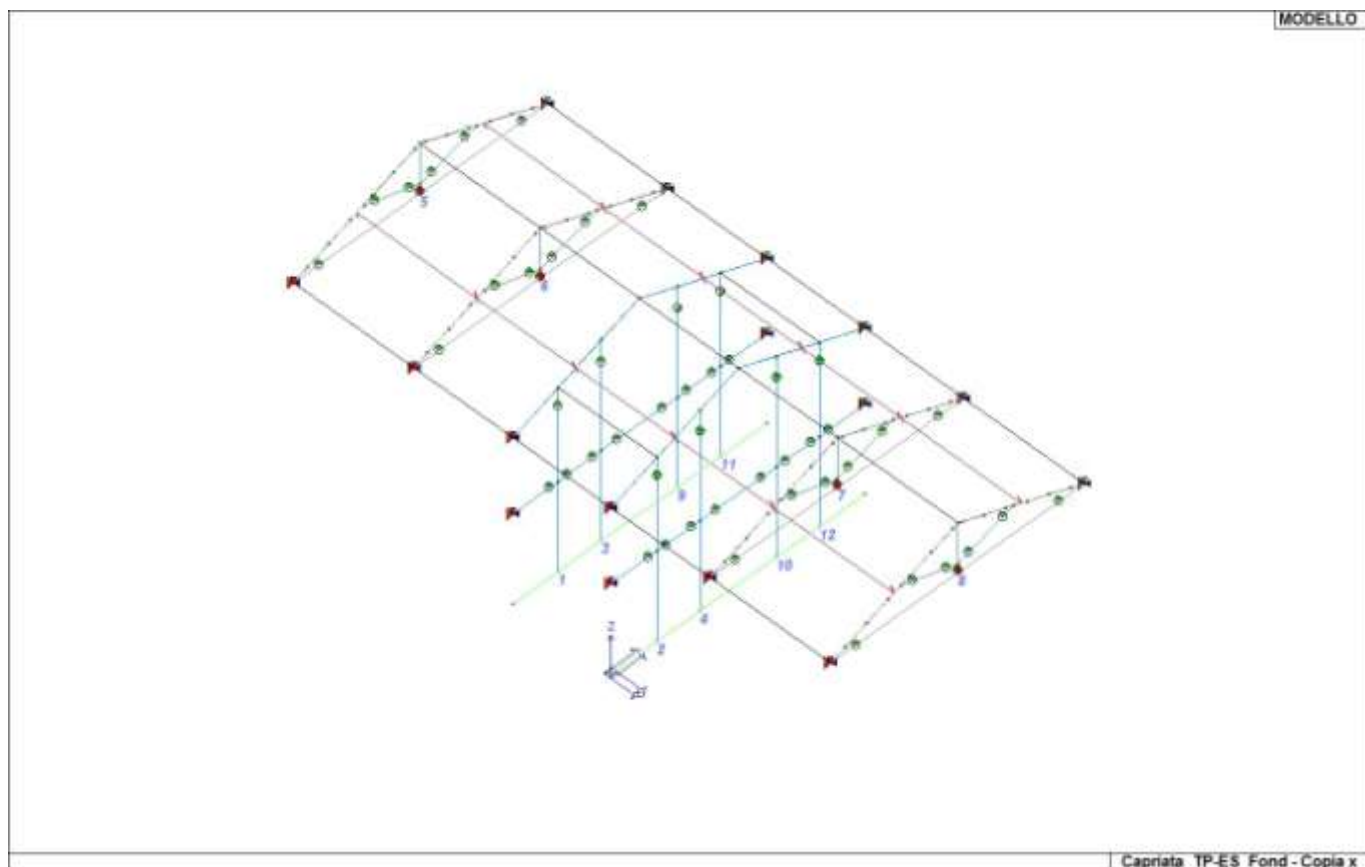
Elem.	numero dell'elemento
Note	codice di comportamento: trave, trave di fondazione, pilastro, asta, asta tesa, asta compressa,
Nodo I (J)	numero del nodo iniziale (finale)
Mat.	codice del materiale assegnato all'elemento
Sez.	codice della sezione assegnata all'elemento
Rotaz.	valore della rotazione dell'elemento, attorno al proprio asse, nel caso in cui l'orientamento di default non sia adottabile; l'orientamento di default prevede per gli elementi non verticali l'asse 2 contenuto nel piano verticale e l'asse 3 orizzontale, per gli elementi verticali l'asse 2 diretto secondo X negativo e l'asse 3 diretto secondo Y negativo
Svincolo I (J)	codici di svincolo per le azioni interne; i primi sei codici si riferiscono al nodo iniziale, i restanti sei al nodo finale (il valore 1 indica che la relativa azione interna non è attiva)
Wink V	costante di sottofondo (coefficiente di Winkler) per la modellazione della trave su suolo elastico
Wink O	costante di sottofondo (coefficiente di Winkler) per la modellazione del suolo elastico orizzontale

Elem.	Note	Nodo I	Nodo J	Mat.	Sez.	Crit.	Rotaz. gradi	Svincolo I	Svincolo J	Wink V daN/cm3	Wink O daN/cm3
1	Trave	10	1	131	1	1			000001		
2	Pilas.	16	23	131	2	1			000010		
3	Trave	25	11	131	2	1		000001	000001		
4	Trave	28	31	131	2	1					
5	Trave	31	13	131	2	1					
6	Pilas.	22	15	131	2	1					
7	Pilas.	12	9	131	3	1					
8	Pilas.	10	12	131	3	1		011111			
9	Trave	45	12	131	3	1		000001	000001		
10	Pilas.	32	29	131	2	1			000001		
11	Trave	26	32	131	2	1		000001	000001		
12	Pilas.	25	28	131	2	1			000011		
13	Trave	12	5	131	3	1		000001	000001		
14	Pilas.	17	19	131	2	1			000010		
15	Trave	21	28	131	2	1					
16	Pilas.	11	31	131	2	1			000011		
17	Trave	29	20	131	2	1					
18	Pilas.	15	18	131	2	1			000011		
19	Trave	18	37	131	2	1					
20	Pilas.	35	33	131	2	1			000011		
21	Trave	46	47	131	1	1					
22	Trave	7	6	131	1	1					
23	Trave	38	29	131	2	1					
24	Trave	44	45	131	1	1					
25	Trave	6	5	131	1	1					
26	Pilas.	34	35	131	2	1					
27	Trave	32	17	131	2	1		000001	000001		
28	Trave	23	39	131	2	1					
29	Trave	45	46	131	1	1					
30	Pilas.	14	17	131	2	1					
31	Trave	8	7	131	1	1					
32	Trave	9	8	131	1	1					

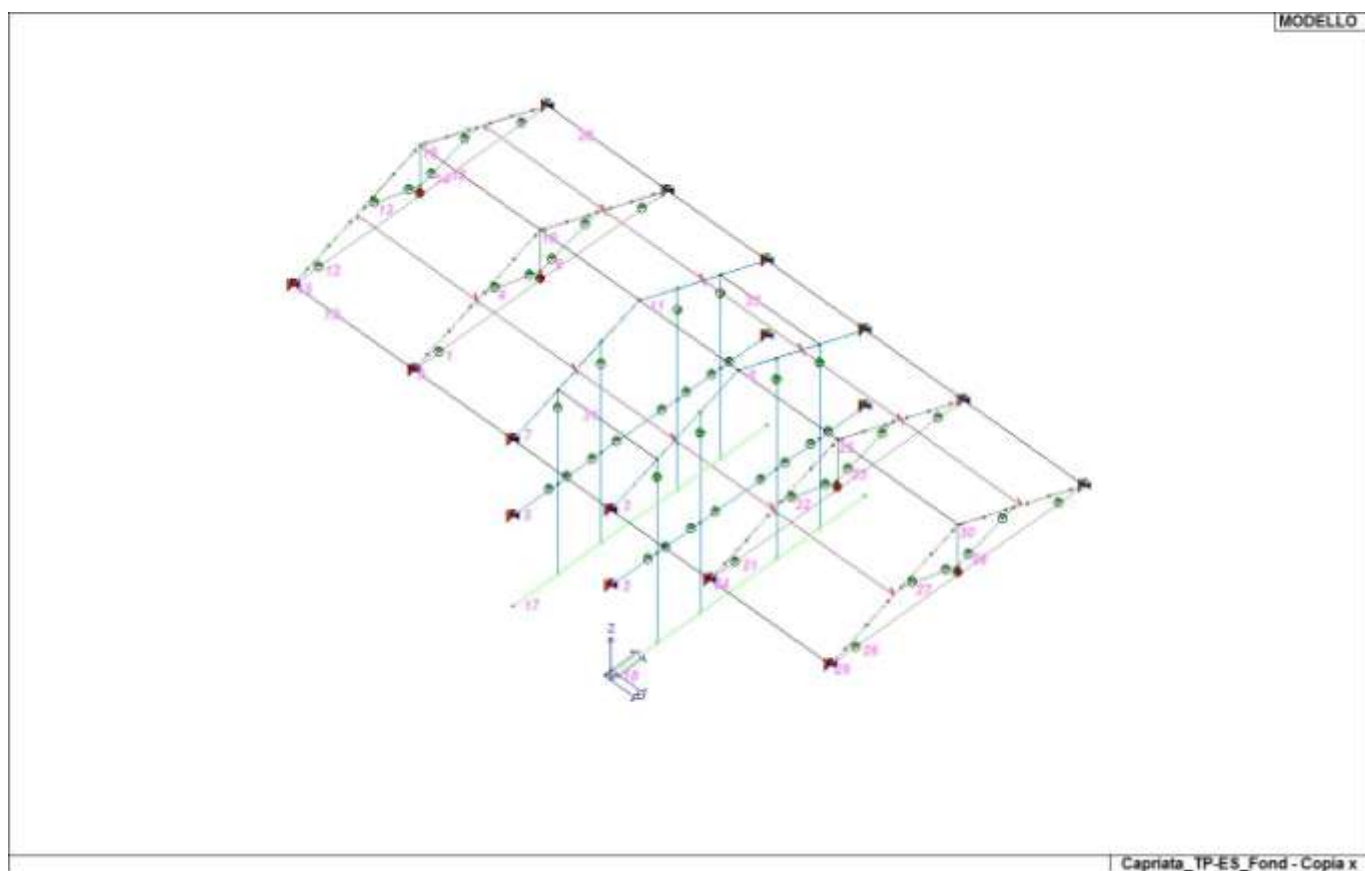
33	Trave	2	1	131	1	1					
34	Trave	3	2	131	1	1					
35	Trave	4	3	131	1	1					
36	Trave	35	15	131	2	1	000001	000001			
37	Trave	33	18	131	2	1					
38	Trave	13	33	131	2	1					
39	Trave	17	16	131	2	1	000001	000001			
40	Trave	20	19	131	2	1					
41	Trave	19	23	131	2	1					
42	Pilas.	40	11	131	2	1					
43	Trave	11	35	131	2	1	000001	000001			
44	Trave	5	4	131	1	1					
45	Trave	27	38	131	2	1					
46	Pilas.	30	26	131	2	1					
47	Pilas.	24	32	131	2	1					
48	Trave	47	48	131	1	1					
49	Trave	41	10	131	1	1	000001				
50	Pilas.	26	38	131	2	1		000001			
51	Trave	48	9	131	1	1					
52	Trave	41	42	131	1	1					
53	Trave	42	43	131	1	1					
54	Pilas.	36	25	131	2	1					
55	Trave	43	44	131	1	1					
56	Trave	58	49	131	1	1			000001		
57	Pilas.	59	57	131	3	1					
58	Pilas.	58	59	131	3	1	011111				
59	Trave	64	59	131	3	1	000001	000001			
60	Trave	59	53	131	3	1	000001	000001			
61	Trave	65	66	131	1	1					
62	Trave	55	54	131	1	1					
63	Trave	63	64	131	1	1					
64	Trave	54	53	131	1	1					
65	Trave	64	65	131	1	1					
66	Trave	56	55	131	1	1					
67	Trave	57	56	131	1	1					
68	Trave	50	49	131	1	1					
69	Trave	51	50	131	1	1					
70	Trave	52	51	131	1	1					
71	Trave	53	52	131	1	1					
72	Trave	66	67	131	1	1					
73	Trave	60	58	131	1	1	000001				
74	Trave	67	57	131	1	1					
75	Trave	60	61	131	1	1					
76	Trave	61	62	131	1	1					
77	Trave	62	63	131	1	1					
78	Trave	68	26	131	2	1		000001			
79	Trave	16	70	131	2	1	000001				
80	Pilas.	69	16	131	2	1					
81	Trave	71	25	131	2	1		000001			
82	Trave	15	72	131	2	1	000001				
83	Trave f.	69	73	3	4	2			1.60	1.60	
84	Trave f.	14	69	3	4	2			1.60	1.60	
85	Trave f.	24	14	3	4	2			1.60	1.60	
86	Trave f.	30	24	3	4	2			1.60	1.60	
87	Trave f.	74	30	3	4	2			1.60	1.60	
88	Trave f.	22	75	3	4	2			1.60	1.60	
89	Trave f.	34	22	3	4	2			1.60	1.60	
90	Trave f.	40	34	3	4	2			1.60	1.60	
91	Trave f.	36	40	3	4	2			1.60	1.60	
92	Trave f.	76	36	3	4	2			1.60	1.60	
93	Trave	60	41	157	14	3					
94	Trave	41	27	157	14	3					
95	Trave	27	21	157	14	3					
96	Trave	49	1	157	14	3					
97	Trave	1	39	157	14	3					
98	Trave	39	37	157	14	3					
99	Trave	86	77	131	1	1		000001			
100	Pilas.	87	85	131	3	1					
101	Pilas.	86	87	131	3	1	011111				
102	Trave	92	87	131	3	1	000001	000001			
103	Trave	87	81	131	3	1	000001	000001			
104	Trave	93	94	131	1	1					
105	Trave	83	82	131	1	1					
106	Trave	91	92	131	1	1					
107	Trave	82	81	131	1	1					
108	Trave	92	93	131	1	1					
109	Trave	84	83	131	1	1					

110	Trave	85	84	131	1	1		
111	Trave	78	77	131	1	1		
112	Trave	79	78	131	1	1		
113	Trave	80	79	131	1	1		
114	Trave	81	80	131	1	1		
115	Trave	94	95	131	1	1		
116	Trave	88	86	131	1	1	000001	
117	Trave	95	85	131	1	1		
118	Trave	88	89	131	1	1		
119	Trave	89	90	131	1	1		
120	Trave	90	91	131	1	1		
121	Trave	105	96	131	1	1		000001
122	Pilas.	106	104	131	3	1		
123	Pilas.	105	106	131	3	1	011111	
124	Trave	111	106	131	3	1	000001	000001
125	Trave	106	100	131	3	1	000001	000001
126	Trave	112	113	131	1	1		
127	Trave	102	101	131	1	1		
128	Trave	110	111	131	1	1		
129	Trave	101	100	131	1	1		
130	Trave	111	112	131	1	1		
131	Trave	103	102	131	1	1		
132	Trave	104	103	131	1	1		
133	Trave	97	96	131	1	1		
134	Trave	98	97	131	1	1		
135	Trave	99	98	131	1	1		
136	Trave	100	99	131	1	1		
137	Trave	113	114	131	1	1		
138	Trave	107	105	131	1	1	000001	
139	Trave	114	104	131	1	1		
140	Trave	107	108	131	1	1		
141	Trave	108	109	131	1	1		
142	Trave	109	110	131	1	1		
143	Trave	88	107	157	14	3		
144	Trave	21	88	157	14	3		
145	Trave	77	96	157	14	3		
146	Trave	37	77	157	14	3		
147	Trave	38	28	157	14	1		
148	Trave	20	13	157	14	1		
149	Trave	23	18	157	14	1		
150	Trave	13	85	157	14	1		
151	Trave	85	104	157	14	1		
152	Trave	9	20	157	14	1		
153	Trave	57	9	157	14	1		





15_MOD_NUMERAZIONE_D2_PILASTRATE



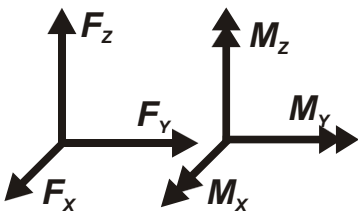
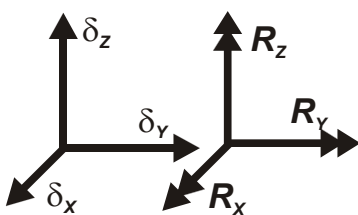
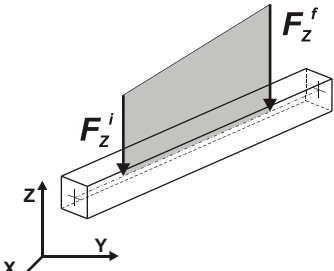
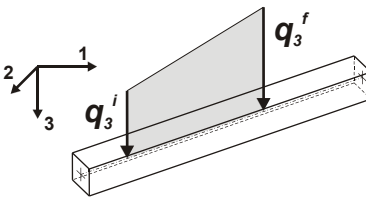
15_MOD_NUMERAZIONE_D2_TRAVATE

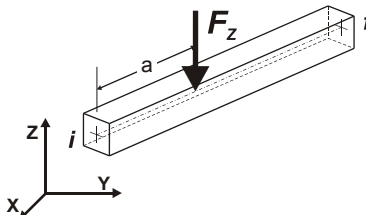
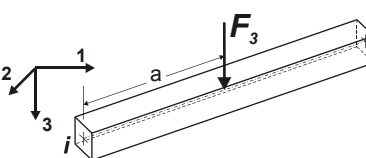
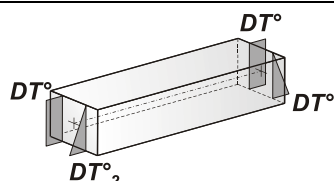
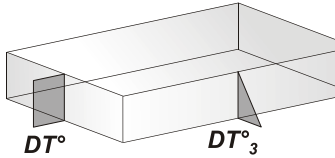
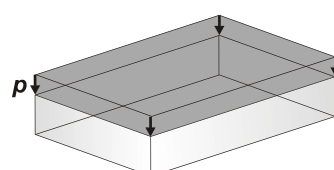
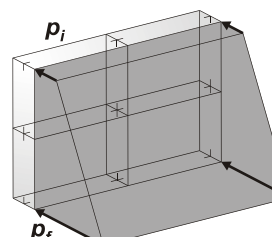
MODELLAZIONE DELLE AZIONI

LEGENDA TABELLA DATI AZIONI

Il programma consente l'uso di diverse tipologie di carico (azioni). Le azioni utilizzate nella modellazione sono individuate da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni azione applicata alla struttura viene di riportato il codice, il tipo e la sigla identificativa. Le tabelle successive dettagliano i valori caratteristici di ogni azione in relazione al tipo. Le tabelle riportano infatti i seguenti dati in relazione al tipo:

1	carico concentrato nodale 6 dati (forza F_x, F_y, F_z , momento M_x, M_y, M_z)
2	spostamento nodale impresso 6 dati (spostamento T_x, T_y, T_z , rotazione R_x, R_y, R_z)
3	carico distribuito globale su elemento tipo trave 7 dati ($f_x, f_y, f_z, m_x, m_y, m_z$, ascissa di inizio carico) 7 dati ($f_x, f_y, f_z, m_x, m_y, m_z$, ascissa di fine carico)
4	carico distribuito locale su elemento tipo trave 7 dati ($f_1, f_2, f_3, m_1, m_2, m_3$, ascissa di inizio carico) 7 dati ($f_1, f_2, f_3, m_1, m_2, m_3$, ascissa di fine carico)
5	carico concentrato globale su elemento tipo trave 7 dati ($F_x, F_y, F_z, M_x, M_y, M_z$, ascissa di carico)
6	carico concentrato locale su elemento tipo trave 7 dati ($F_1, F_2, F_3, M_1, M_2, M_3$, ascissa di carico)
7	variazione termica applicata ad elemento tipo trave 7 dati (variazioni termiche: uniforme, media e differenza in altezza e larghezza al nodo iniziale e finale)
8	carico di pressione uniforme su elemento tipo piastra 1 dato (pressione)
9	carico di pressione variabile su elemento tipo piastra 4 dati (pressione, quota, pressione, quota)
10	variazione termica applicata ad elemento tipo piastra 2 dati (variazioni termiche: media e differenza nello spessore)
11	carico variabile generale su elementi tipo trave e piastra 1 dato descrizione della tipologia 4 dati per segmento (posizione, valore, posizione, valore) la tipologia precisa l'ascissa di definizione, la direzione del carico, la modalità di carico e la larghezza d'influenza per gli elementi tipo trave
12	gruppo di carichi con impronta su piastra 9 dati (numero di ripetizioni in direzione X e Y, valore di ciascun carico, posizione centrale del primo, dimensioni dell'impronta, interasse tra i carichi)

 <p>Carico concentrato nodale</p>	 <p>Spostamento impresso</p>
 <p>Carico distribuito globale</p>	 <p>Carico distribuito locale</p>

 <p>Carico concentrato globale</p>	 <p>Carico concentrato locale</p>
 <p>Carico termico 2D</p>	 <p>Carico termico 3D</p>
 <p>Carico pressione uniforme</p>	 <p>Carico pressione variabile</p>

Tipo carico distribuito globale su trave

Id	Tipo	Pos.	fx	fy	fz	mx	my	mz
		cm	daN/cm	daN/cm	daN/cm	daN	daN	daN
2	Solaio intermedio Gk-DG:Fzi=-0.50 Fzf=-0.50	0.0	0.0	0.0	-0.50	0.0	0.0	0.0
		0.0	0.0	0.0	-0.50	0.0	0.0	0.0
3	Solaio intermedio Qk-DG:Fzi=-2.30 Fzf=-2.30	0.0	0.0	0.0	-2.30	0.0	0.0	0.0
		0.0	0.0	0.0	-2.30	0.0	0.0	0.0

Tipo carico di pressione uniforme su piastra

Id	Tipo	pressione
		daN/cm2
7	QVK ++-P3:p= 1.000e-02	0.01
8	QVK ---P3:p= 1.000e-02	0.01

SCHEMATIZZAZIONE DEI CASI DI CARICO

LEGENDA TABELLA CASI DI CARICO

Il programma consente l'applicazione di diverse tipologie di casi di carico.

Sono previsti i seguenti 11 tipi di casi di carico:

	Sigla	Tipo	Descrizione
1	Ggk	A	caso di carico comprensivo del peso proprio struttura
2	Gk	NA	caso di carico con azioni permanenti
3	Qk	NA	caso di carico con azioni variabili
4	Gsk	A	caso di carico comprensivo dei carichi permanenti sui solai e sulle coperture
5	Qsk	A	caso di carico comprensivo dei carichi variabili sui solai
6	Qnk	A	caso di carico comprensivo dei carichi di neve sulle coperture
7	Qtk	SA	caso di carico comprensivo di una variazione termica agente sulla struttura
8	Qvk	NA	caso di carico comprensivo di azioni da vento sulla struttura
9	Esk	SA	caso di carico sismico con analisi statica equivalente
10	Edk	SA	caso di carico sismico con analisi dinamica
11	Etk	NA	caso di carico comprensivo di azioni derivanti dall' incremento di spinta delle terre in condizione sismica
12	Pk	NA	caso di carico comprensivo di azioni derivanti da coazioni, cedimenti e precompressioni

Sono di tipo automatico A (ossia non prevedono introduzione dati da parte dell'utente) i seguenti casi di carico: 1-Ggk; 4-Gsk; 5-Qsk; 6-Qnk.

Sono di tipo semi-automatico SA (ossia prevedono una minima introduzione dati da parte dell'utente) i seguenti casi di carico:

7-Qtk, in quanto richiede solo il valore della variazione termica;

9-Esk e 10-Edk, in quanto richiedono il valore dell'angolo di ingresso del sisma e l'individuazione dei casi di carico partecipanti alla definizione delle masse.

Sono di tipo non automatico NA ossia prevedono la diretta applicazione di carichi generici agli elementi strutturali (si veda il precedente punto Modellazione delle Azioni) i restanti casi di carico.

Nella tabella successiva vengono riportati i casi di carico agenti sulla struttura, con l'indicazione dei dati relativi al caso di carico stesso:

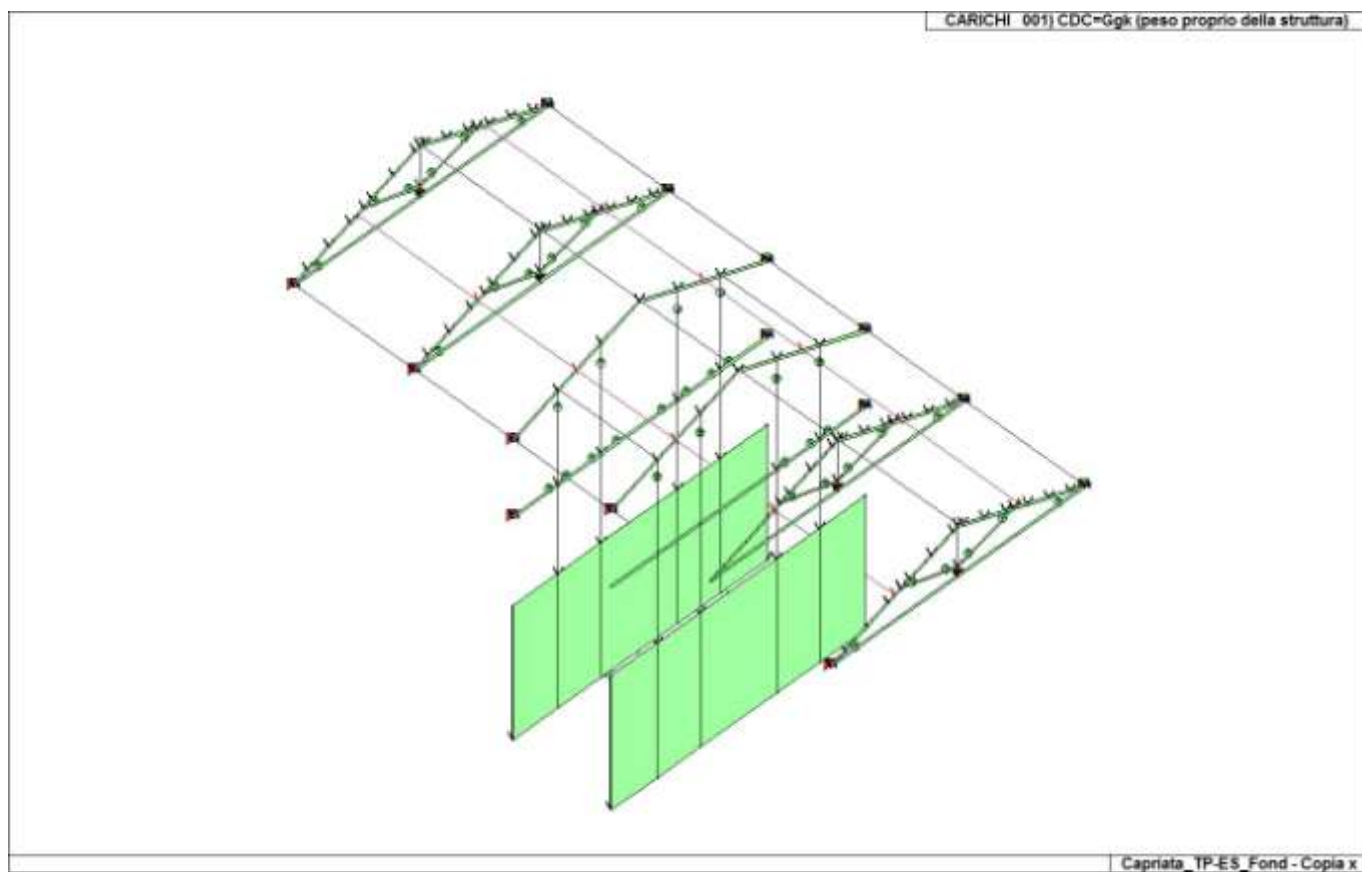
Numero Tipo e Sigla identificativa, Valore di riferimento del caso di carico (se previsto).

In successione, per i casi di carico non automatici, viene riportato l'elenco di nodi ed elementi direttamente caricati con la sigla identificativa del carico.

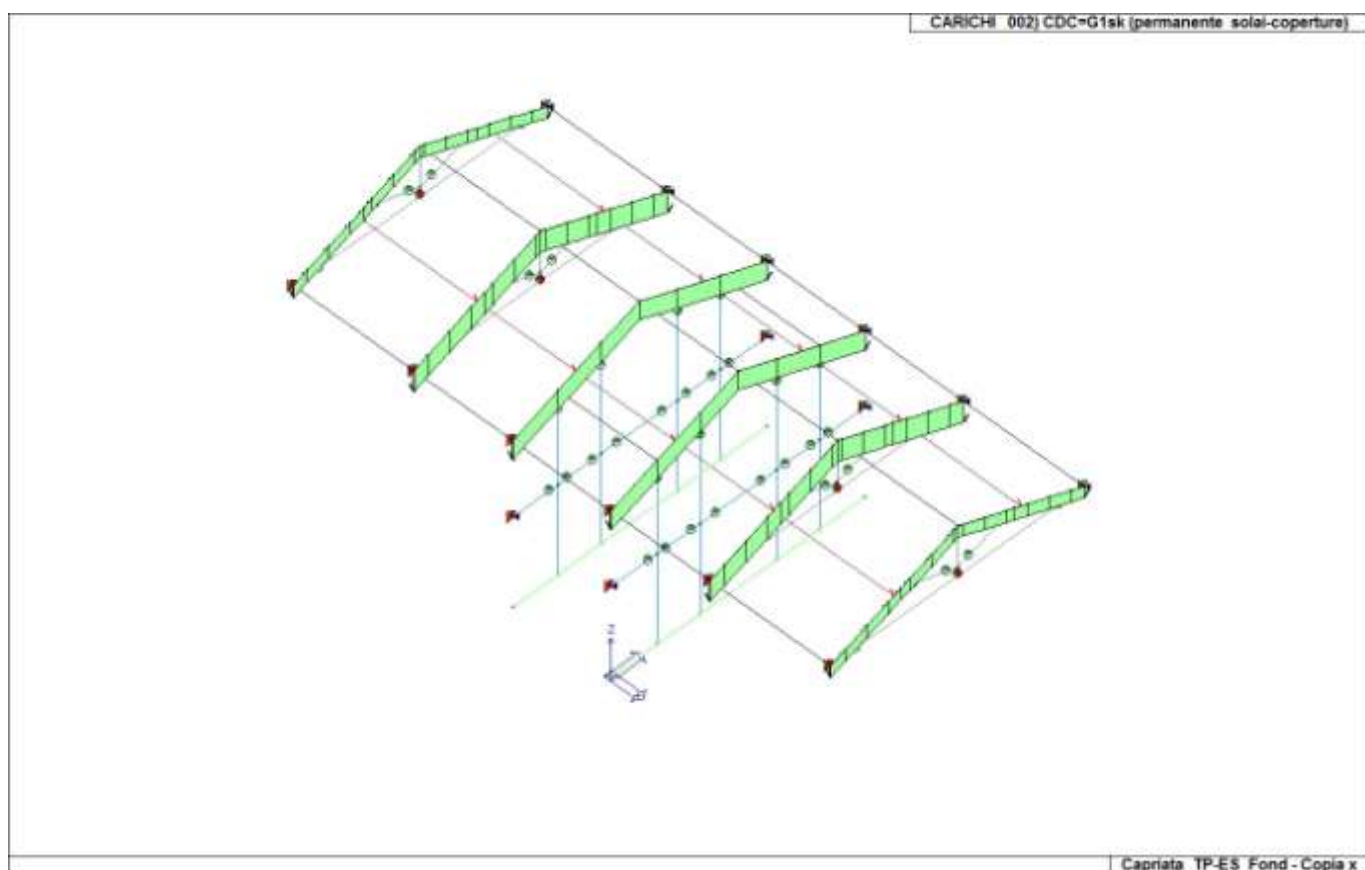
Per i casi di carico di tipo sismico (9-Esk e 10-Edk), viene riportata la tabella di definizione delle masse: per ogni caso di carico partecipante alla definizione delle masse viene indicata la relativa aliquota (partecipazione) considerata. Si precisa che per i caso di carico 5-Qsk e 6-Qnk la partecipazione è prevista localmente per ogni elemento solaio o copertura presente nel modello (si confronti il valore Sksol nel capitolo relativo agli elementi solaio) e pertanto la loro partecipazione è di norma pari a uno.

CDC	Tipo	Sigla Id	Note
1	Ggk	CDC=Ggk (peso proprio della struttura)	
2	Gsk	CDC=G1sk (permanente solai-coperture)	
3	Gsk	CDC=G2sk (permanente solai-coperture n.c.d.)	
4	Gsk	CDC=G2pk (permanente pannelli n.c.d.)	
5	Qnk	CDC=Qnk (carico da neve)	
6	Gk	CDC=G1k (solaio iint)	Azioni applicate: D2 : 3 Azione : Solaio intermedio Gk-DG:Fzi=-0.50 Fzf=-0.50 D2 : 11 Azione : Solaio intermedio Gk-DG:Fzi=-0.50 Fzf=-0.50 D2 : 27 Azione : Solaio intermedio Gk-DG:Fzi=-0.50 Fzf=-0.50 D2 : 36 Azione : Solaio intermedio Gk-DG:Fzi=-0.50 Fzf=-0.50 D2 : 39 Azione : Solaio intermedio Gk-DG:Fzi=-0.50 Fzf=-0.50 D2 : 43 Azione : Solaio intermedio Gk-DG:Fzi=-0.50 Fzf=-0.50
7	Qk	CDC=Qk (variabile solaio int)	Azioni applicate: D2 : 3 Azione : Solaio intermedio Qk-DG:Fzi=-2.30 Fzf=-2.30 D2 : 11 Azione : Solaio intermedio Qk-DG:Fzi=-2.30 Fzf=-2.30 D2 : 27 Azione : Solaio intermedio Qk-DG:Fzi=-2.30 Fzf=-2.30 D2 : 36 Azione : Solaio intermedio Qk-DG:Fzi=-2.30 Fzf=-2.30 D2 : 39 Azione : Solaio intermedio Qk-DG:Fzi=-2.30 Fzf=-2.30 D2 : 43 Azione : Solaio intermedio Qk-DG:Fzi=-2.30 Fzf=-2.30
8	Qvk	CDC=Qvk (carico da vento) dir X +	Azioni applicate: Pannello:da 11 a 22 Azione : QVK +-P3:p= 1.000e-02
9	Qvk	CDC=Qvk (carico da vento) dir X -	Azioni applicate:

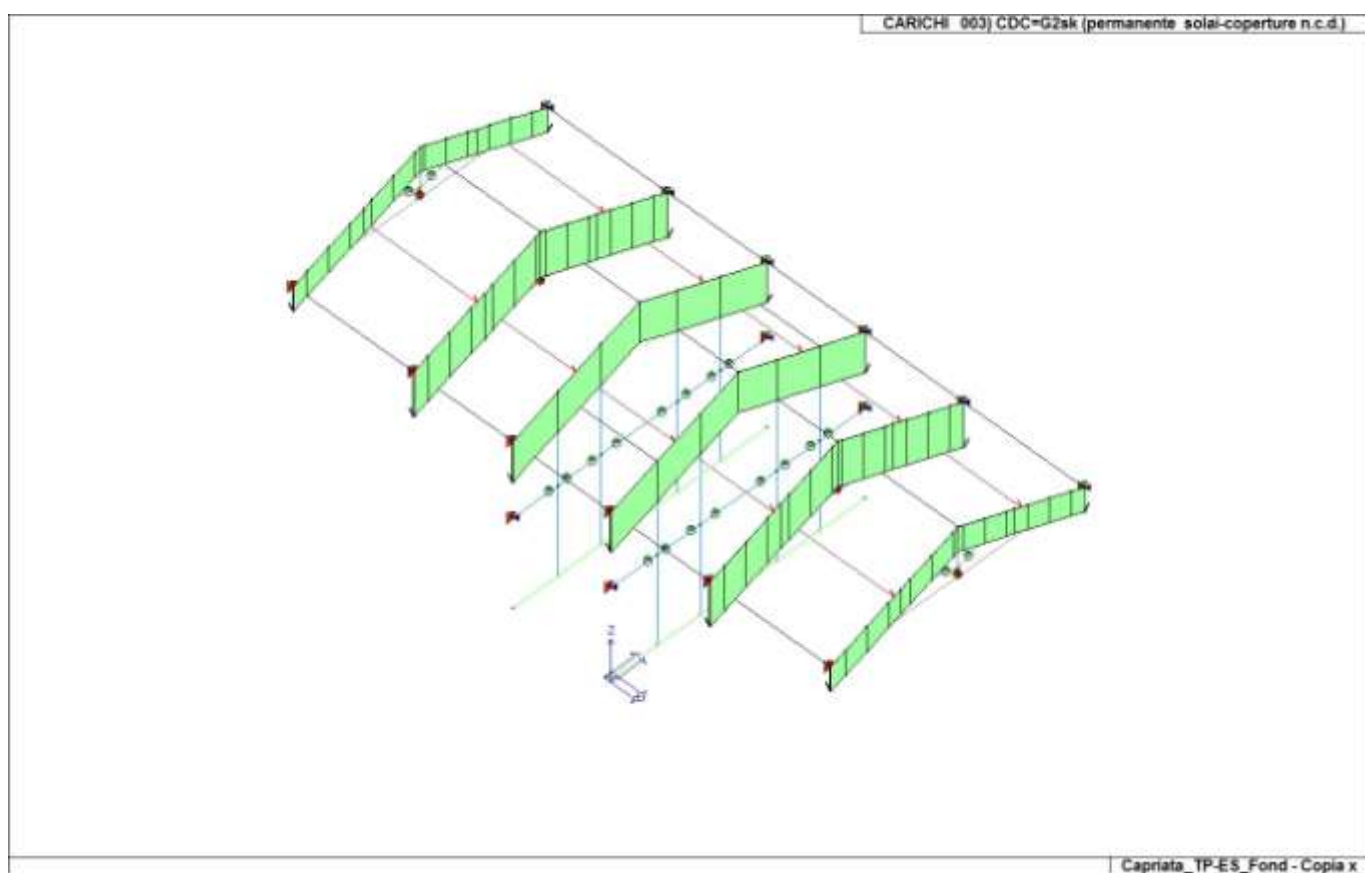
CDC	Tipo	Sigla Id	Note
10	Qvk	CDC=Qvk (carico da vento) dir Y +	Pannello:da 11 a 22 Azione : QVK ---P3:p= 1.000e-02 Azioni applicate:
11	Qvk	CDC=Qvk (carico da vento) dir Y -	Pannello:da 11 a 22 Azione : QVK ++-P3:p= 1.000e-02 Azioni applicate:
12	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)	Pannello:da 11 a 22 Azione : QVK ---P3:p= 1.000e-02 partecipazione:1.00 per 1 CDC=Ggk (peso proprio della struttura) partecipazione:1.00 per 2 CDC=G1sk (permanente solai-coperture) partecipazione:1.00 per 3 CDC=G2sk (permanente solai-coperture n.c.d.) partecipazione:1.00 per 4 CDC=G2pk (permanente pannelli n.c.d.) partecipazione:1.00 per 5 CDC=Qnk (carico da neve) partecipazione:1.00 per 6 CDC=G1k (solaio iint) partecipazione:0.80 per 7 CDC=Qk (variabile solaio int)
13	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)	come precedente CDC sismico
14	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)	come precedente CDC sismico
15	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)	come precedente CDC sismico
16	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)	come precedente CDC sismico
17	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)	come precedente CDC sismico
18	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)	come precedente CDC sismico
19	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)	come precedente CDC sismico



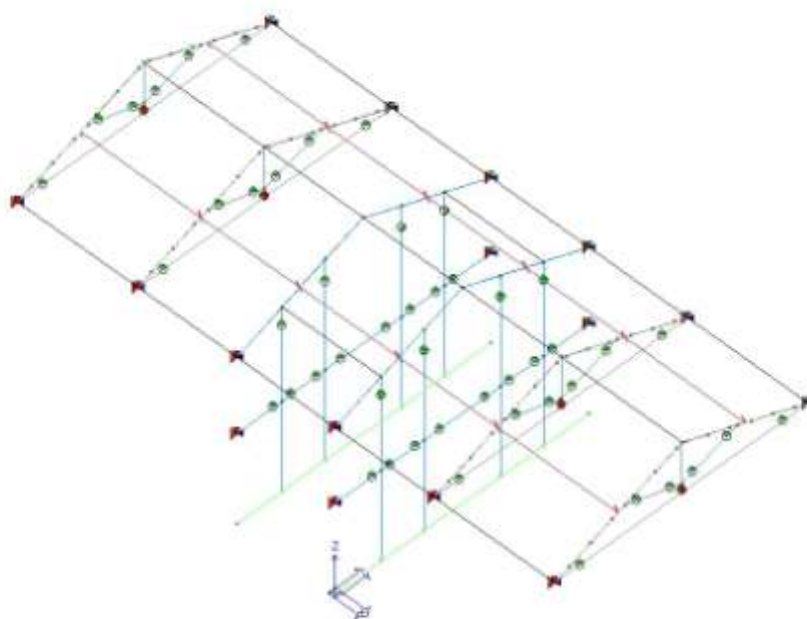
22_CDC_001_CDC=Ggk (peso proprio della struttura)



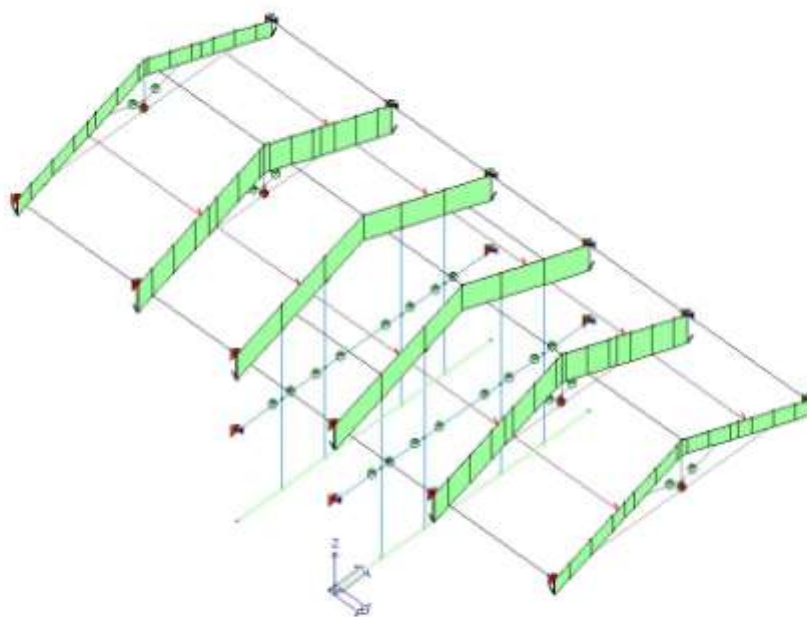
22_CDC_002_CDC=G1sk (permanente solai-coperture)



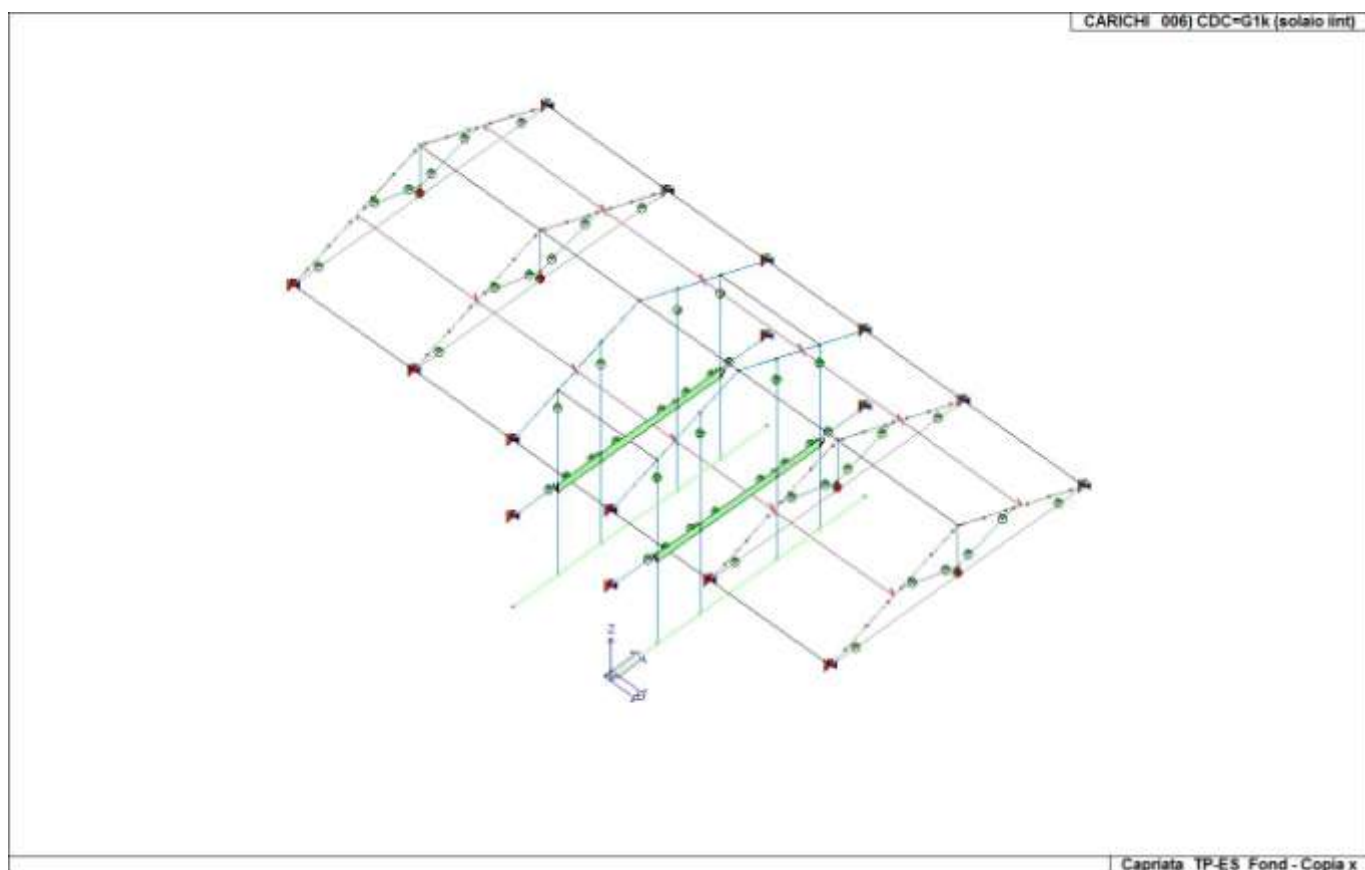
22_CDC_003_CDC=G2sk (permanente solai-coperture n.c.d.)



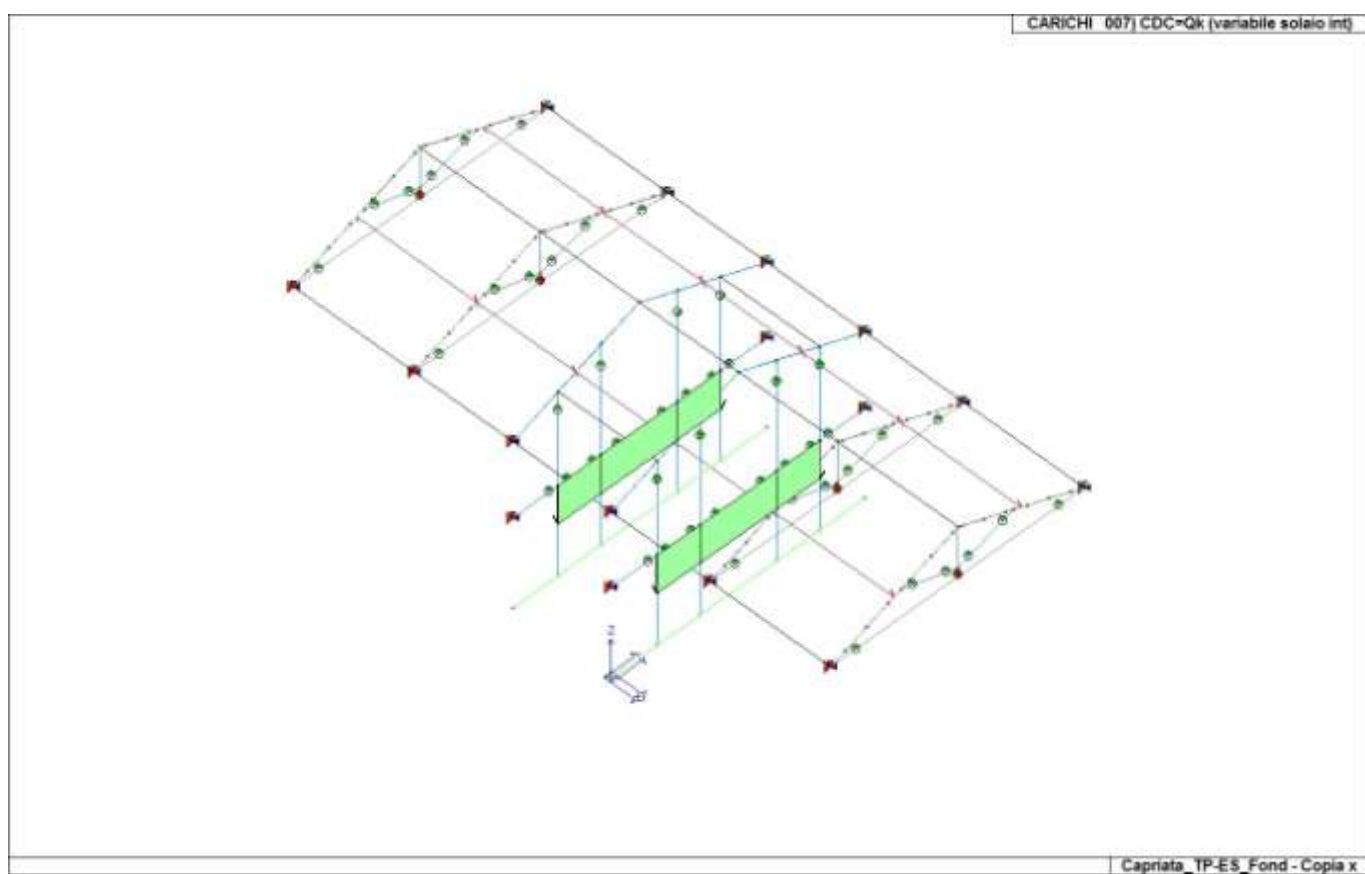
22_CDC_004_CDC=G2pk (permanente pannelli n.c.d.)



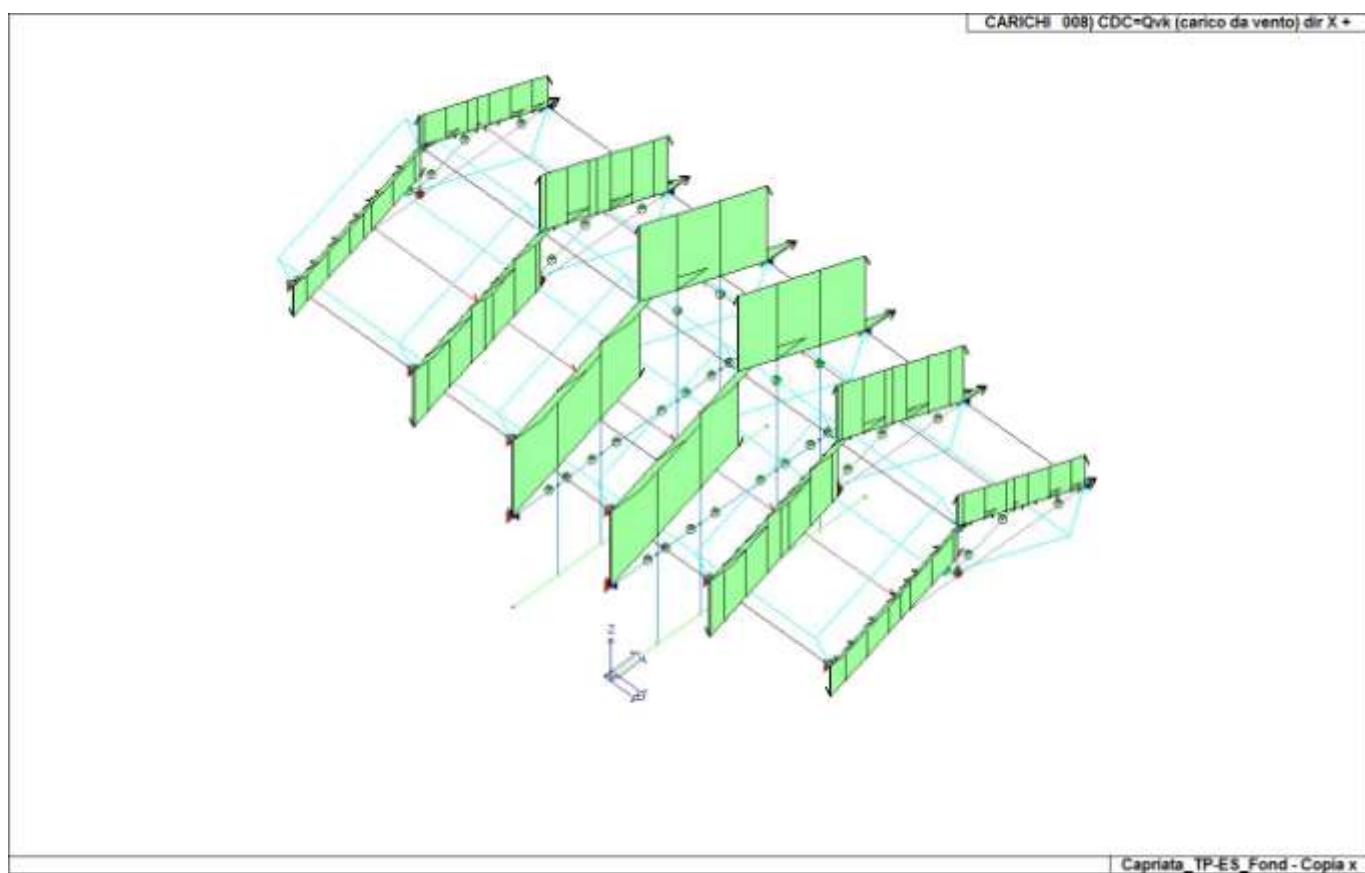
22_CDC_005_CDC=Qnk (carico da neve)



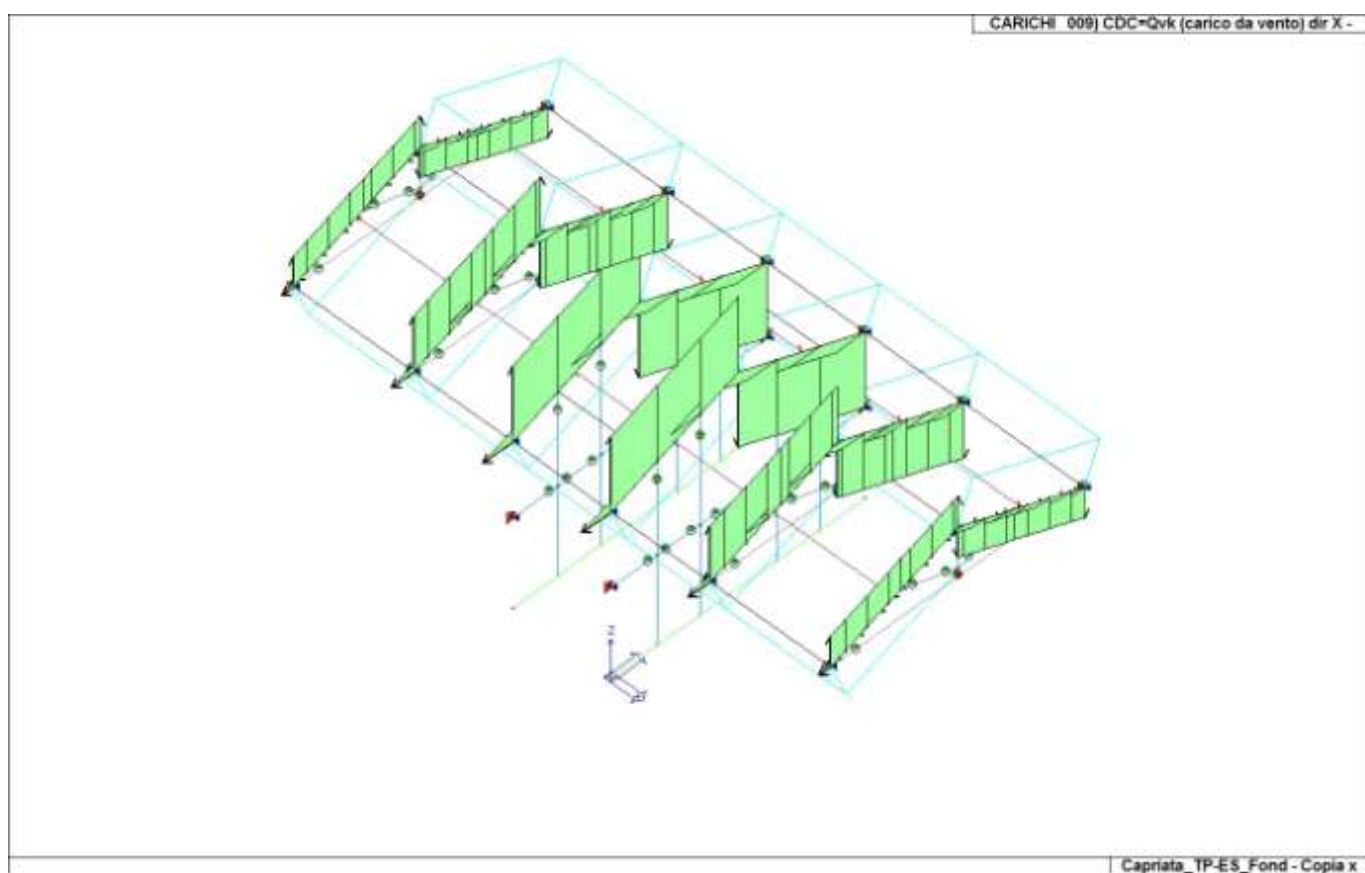
22_CDC_006_CDC=G1k (solaio iint)



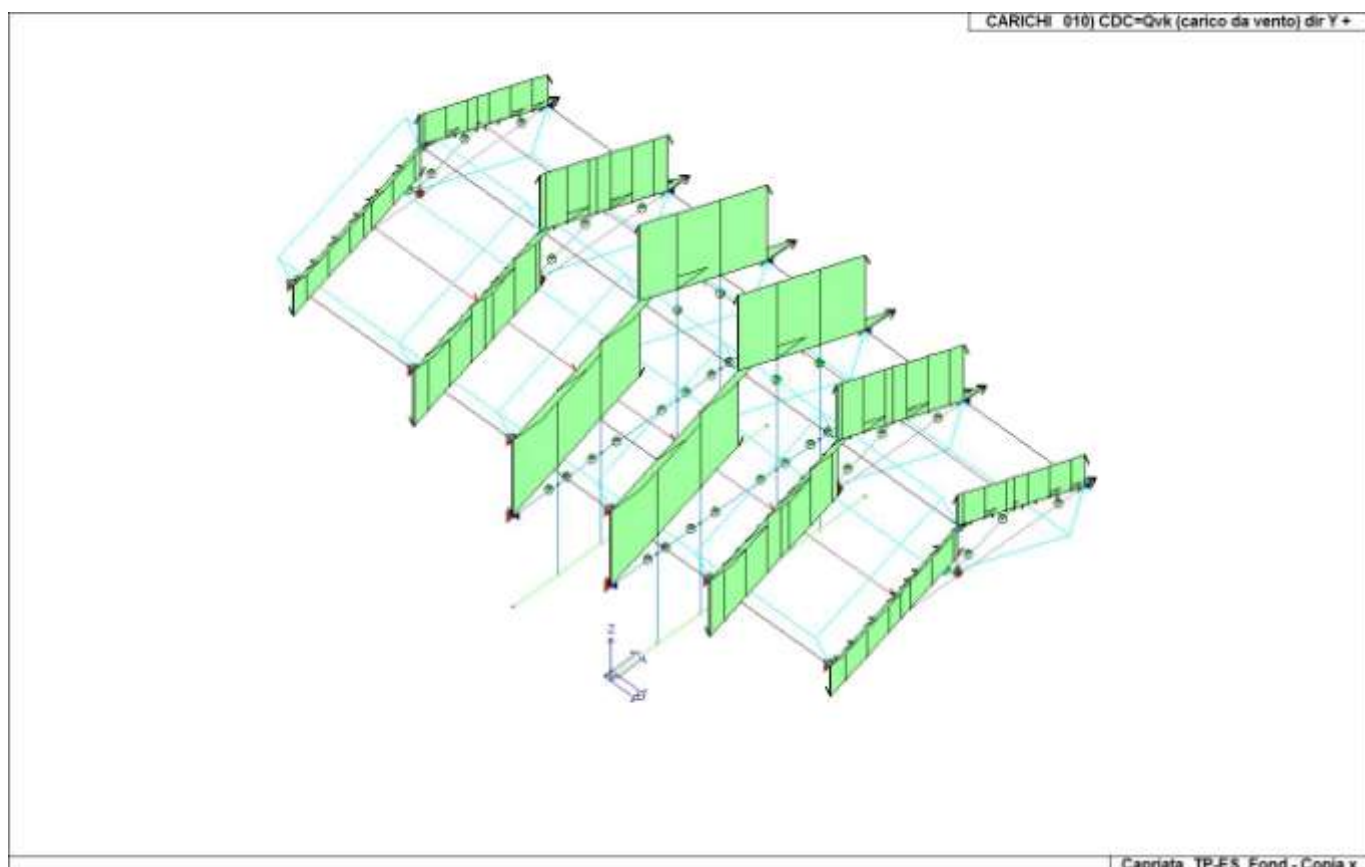
22_CDC_007_CDC=Qk (variabile solaio int)



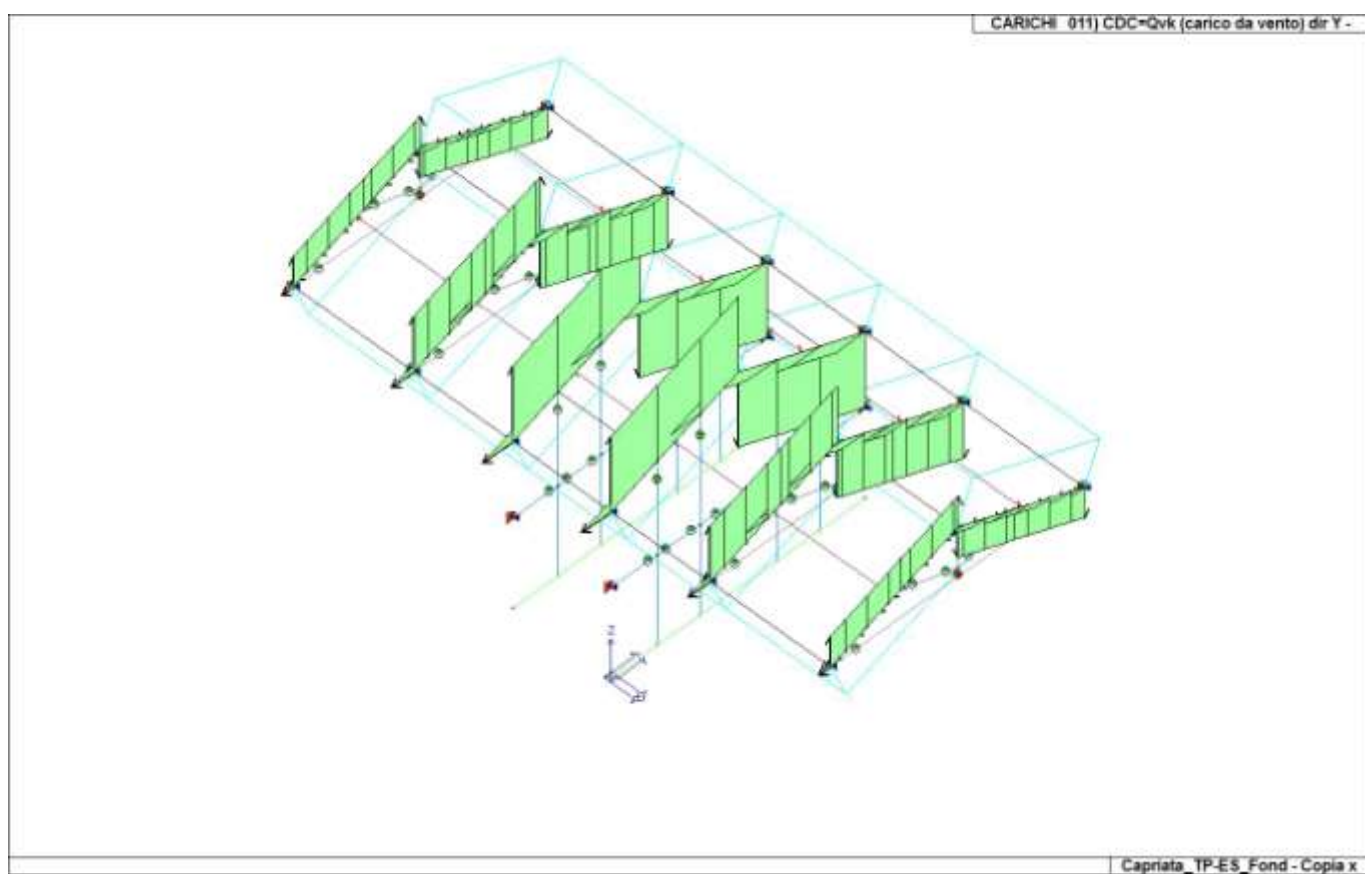
22_CDC_008_CDC=Qvk (carico da vento) dir X +



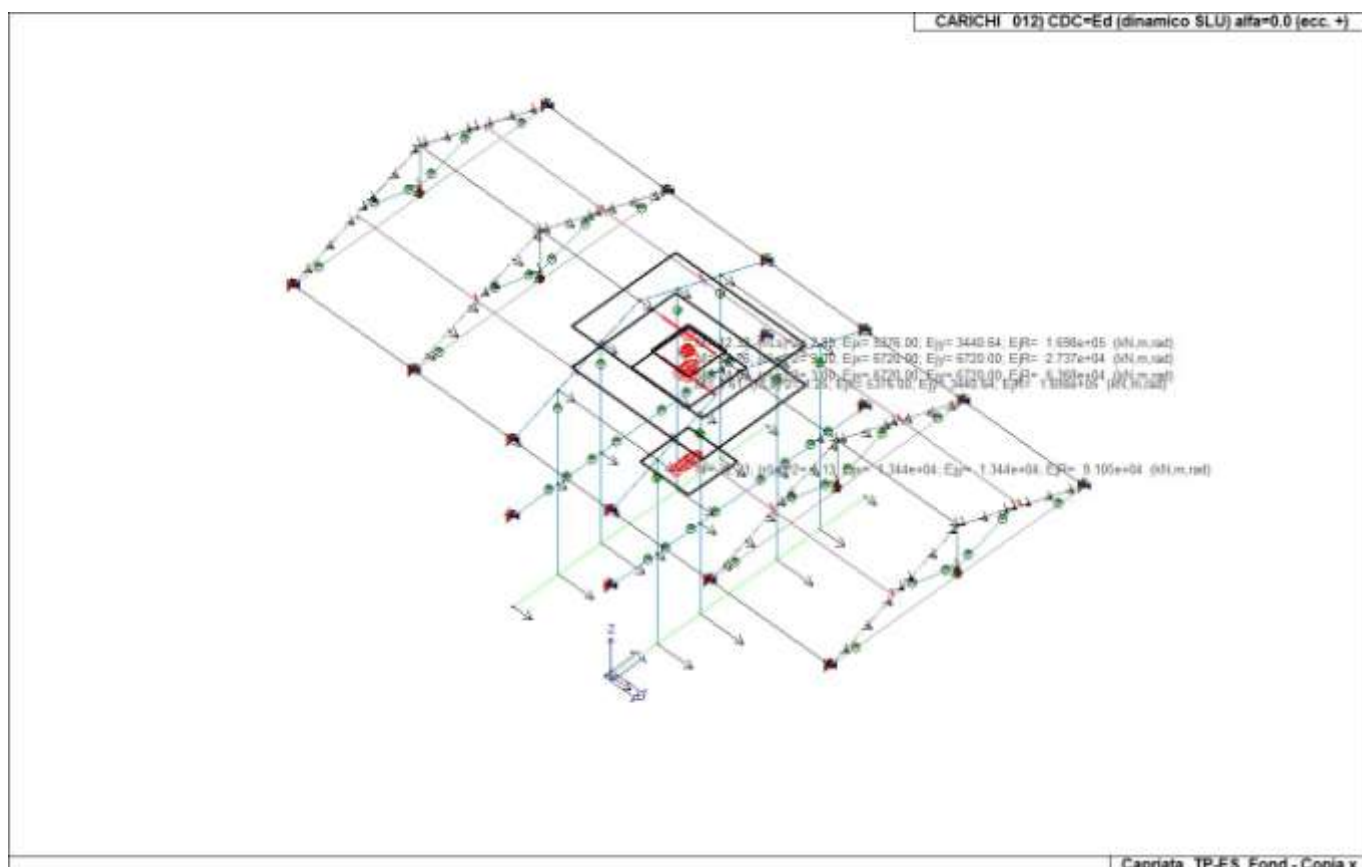
22_CDC_009_CDC=Qvk (carico da vento) dir X -



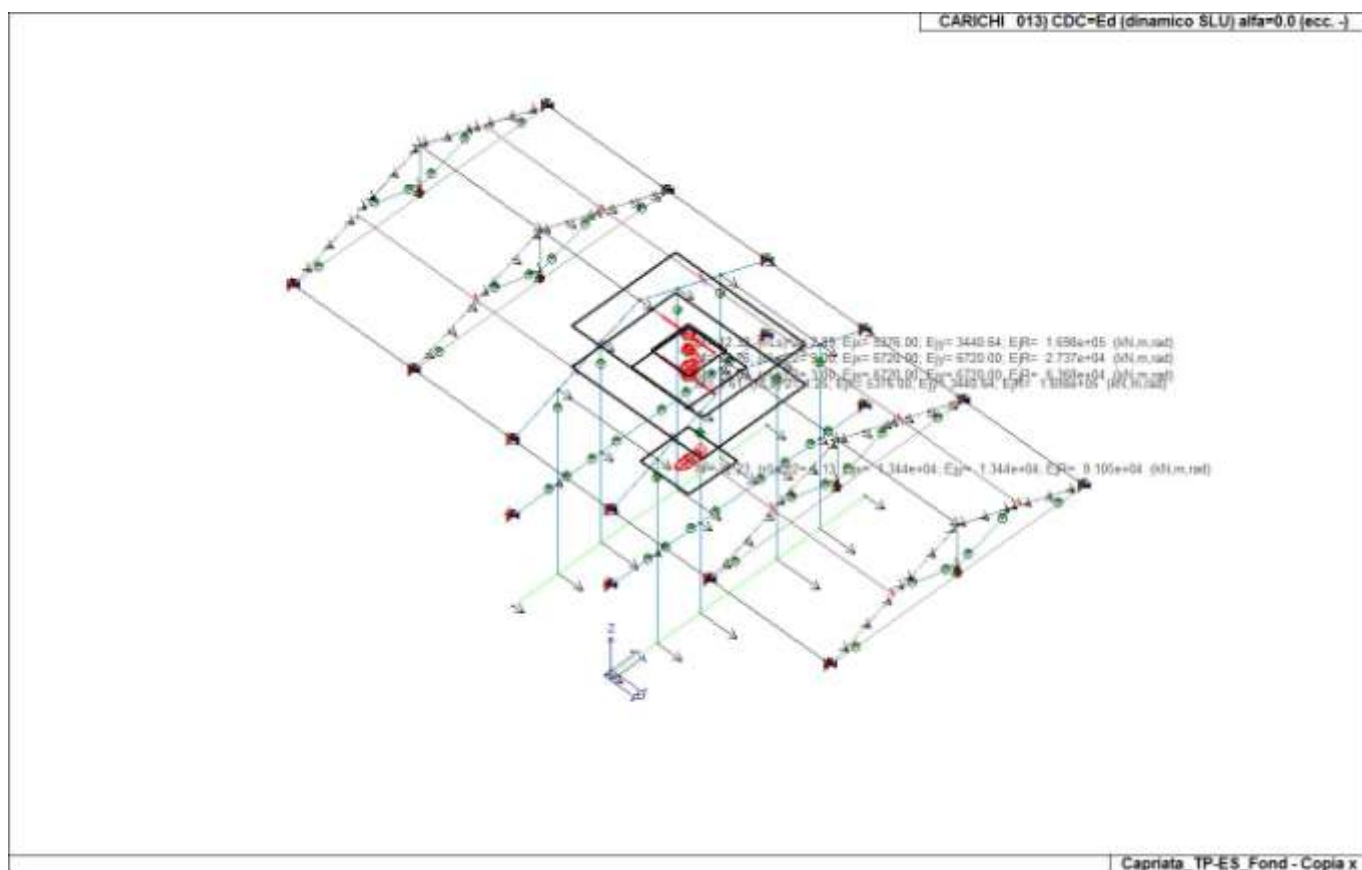
22_CDC_010_CDC=Qvk (carico da vento) dir Y +



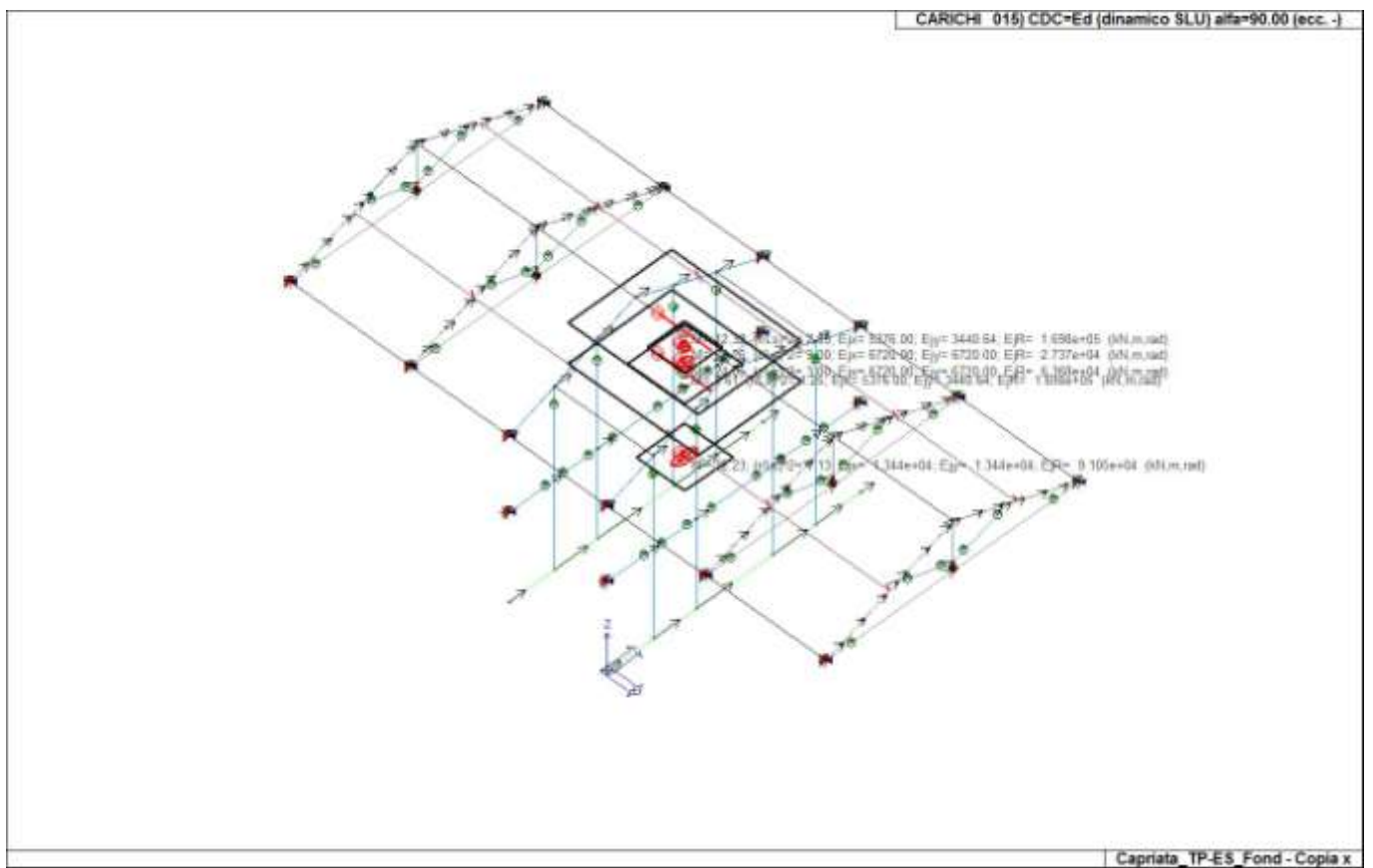
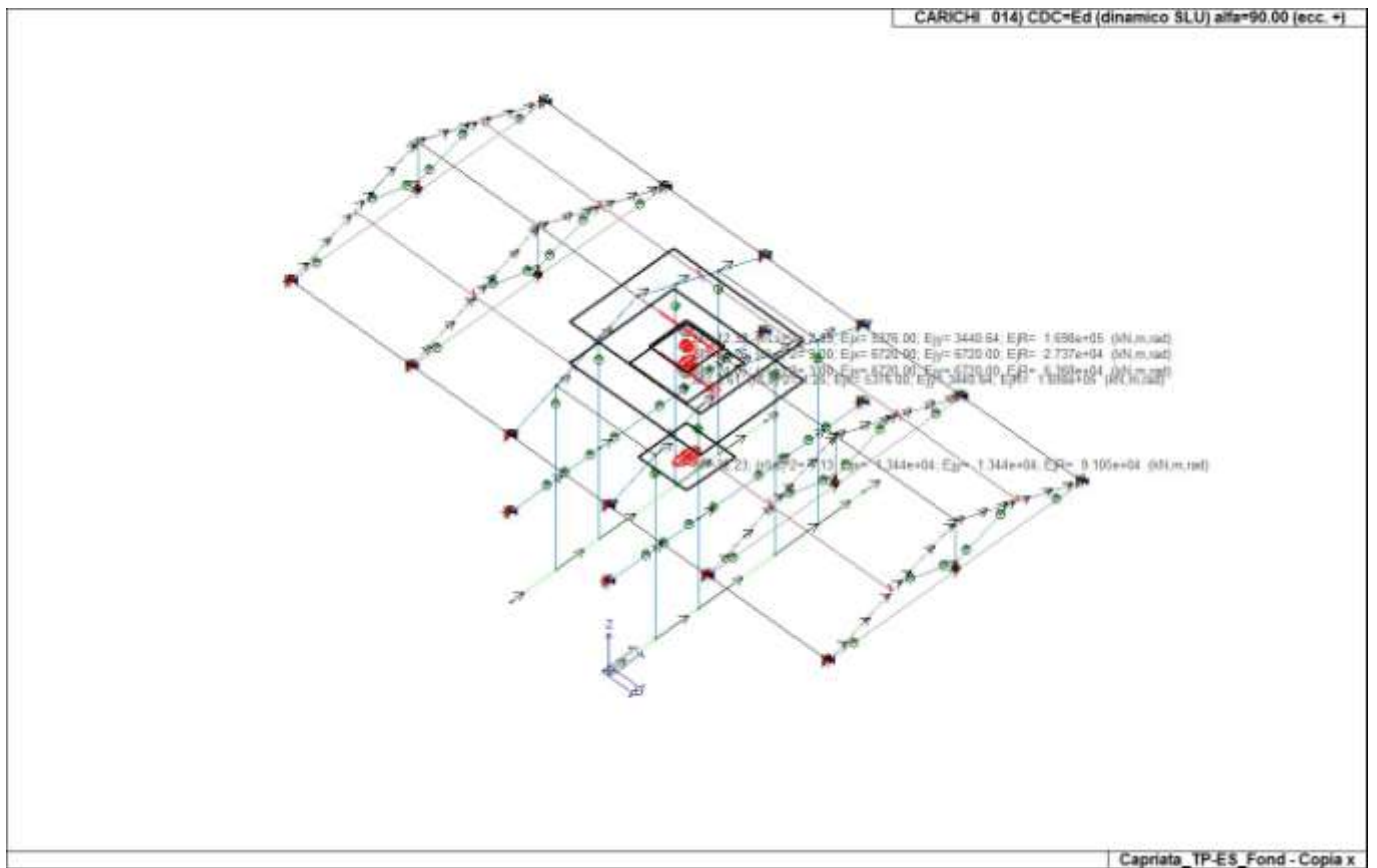
22_CDC_011_CDC=Qvk (carico da vento) dir Y -



22_CDC_012_CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)



22_CDC_013_CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)



DEFINIZIONE DELLE COMBINAZIONI

LEGENDA TABELLA COMBINAZIONI DI CARICO

Il programma combina i diversi tipi di casi di carico (CDC) secondo le regole previste dalla normativa vigente.

Le combinazioni previste sono destinate al controllo di sicurezza della struttura ed alla verifica degli spostamenti e delle sollecitazioni.

La prima tabella delle combinazioni riportata di seguito comprende le seguenti informazioni: Numero, Tipo, Sigla identificativa. Una seconda tabella riporta il peso nella combinazione assunto per ogni caso di carico.

Ai fini delle verifiche degli stati limite si definiscono le seguenti combinazioni delle azioni:

Combinazione fondamentale SLU

$$\gamma G1 \cdot G1 + \gamma G2 \cdot G2 + \gamma P \cdot P + \gamma Q1 \cdot Qk1 + \gamma Q2 \cdot \psi 02 \cdot Qk2 + \gamma Q3 \cdot \psi 03 \cdot Qk3 + \dots$$

Combinazione caratteristica (rara) SLE

$$G1 + G2 + P + Qk1 + \psi 02 \cdot Qk2 + \psi 03 \cdot Qk3 + \dots$$

Combinazione frequente SLE

$$G1 + G2 + P + \psi 11 \cdot Qk1 + \psi 22 \cdot Qk2 + \psi 23 \cdot Qk3 + \dots$$

Combinazione quasi permanente SLE

$$G1 + G2 + P + \psi 21 \cdot Qk1 + \psi 22 \cdot Qk2 + \psi 23 \cdot Qk3 + \dots$$

Combinazione sismica, impiegata per gli stati limite ultimi e di esercizio connessi all'azione sismica E

$$E + G1 + G2 + P + \psi 21 \cdot Qk1 + \psi 22 \cdot Qk2 + \dots$$

Combinazione eccezionale, impiegata per gli stati limite connessi alle azioni eccezionali

$$G1 + G2 + Ad + P + \psi 21 \cdot Qk1 + \psi 22 \cdot Qk2 + \dots$$

Dove:

NTC 2018 Tabella 2.5.I

Destinazione d'uso/azione	$\psi 0$	$\psi 1$	$\psi 2$
Categoria A residenziali	0,70	0,50	0,30
Categoria B uffici	0,70	0,50	0,30
Categoria C ambienti suscettibili di affollamento	0,70	0,70	0,60
Categoria D ambienti ad uso commerciale	0,70	0,70	0,60
Categoria E biblioteche, archivi, magazzini,...	1,00	0,90	0,80
Categoria F Rimesse e parcheggi (autoveicoli $\leq 30kN$)	0,70	0,70	0,60
Categoria G Rimesse e parcheggi (autoveicoli $> 30kN$)	0,70	0,50	0,30
Categoria H Coperture	0,00	0,00	0,00
Vento	0,60	0,20	0,00
Neve a quota $\leq 1000 m$	0,50	0,20	0,00
Neve a quota $> 1000 m$	0,70	0,50	0,20
Variazioni Termiche	0,60	0,50	0,00

Nelle verifiche possono essere adottati in alternativa due diversi approcci progettuali:

- per l'approccio 1 si considerano due diverse combinazioni di gruppi di coefficienti di sicurezza parziali per le azioni, per i materiali e per la resistenza globale (combinazione 1 con coefficienti A1 e combinazione 2 con coefficienti A2),
- per l'approccio 2 si definisce un'unica combinazione per le azioni, per la resistenza dei materiali e per la resistenza globale (con coefficienti A1).

NTC 2018 Tabella 2.6.I

		Coefficiente γf	EQU	A1	A2
Carichi permanenti	Favorevoli	$\gamma G1$	0,9	1,0	1,0
	Sfavorevoli		1,1	1,3	1,0
Carichi permanenti non strutturali (Non compiutamente definiti)	Favorevoli	$\gamma G2$	0,8	0,8	0,8
	Sfavorevoli		1,5	1,5	1,3
Carichi variabili	Favorevoli	γQi	0,0	0,0	0,0
	Sfavorevoli		1,5	1,5	1,3

Cmb	Tipo	Sigla Id	effetto P-delta
1	SLU	Comb. SLU A1 1	
2	SLU	Comb. SLU A1 2	
3	SLU	Comb. SLU A1 3	
4	SLU	Comb. SLU A1 4	
5	SLU	Comb. SLU A1 5	
6	SLU	Comb. SLU A1 6	
7	SLU	Comb. SLU A1 7	
8	SLU	Comb. SLU A1 8	
9	SLU	Comb. SLU A1 9	
10	SLU	Comb. SLU A1 10	
11	SLU	Comb. SLU A1 11	
12	SLU	Comb. SLU A1 12	
13	SLU	Comb. SLU A1 13	
14	SLU	Comb. SLU A1 14	
15	SLU	Comb. SLU A1 15	
16	SLU	Comb. SLU A1 16	
17	SLU	Comb. SLU A1 17	
18	SLU	Comb. SLU A1 18	
19	SLU	Comb. SLU A1 19	
20	SLU	Comb. SLU A1 20	
21	SLU	Comb. SLU A1 21	
22	SLU	Comb. SLU A1 22	
23	SLU	Comb. SLU A1 23	
24	SLU	Comb. SLU A1 24	
25	SLU	Comb. SLU A1 (SLV sism.) 25	
26	SLU	Comb. SLU A1 (SLV sism.) 26	
27	SLU	Comb. SLU A1 (SLV sism.) 27	
28	SLU	Comb. SLU A1 (SLV sism.) 28	
29	SLU	Comb. SLU A1 (SLV sism.) 29	
30	SLU	Comb. SLU A1 (SLV sism.) 30	
31	SLU	Comb. SLU A1 (SLV sism.) 31	
32	SLU	Comb. SLU A1 (SLV sism.) 32	
33	SLU	Comb. SLU A1 (SLV sism.) 33	
34	SLU	Comb. SLU A1 (SLV sism.) 34	
35	SLU	Comb. SLU A1 (SLV sism.) 35	
36	SLU	Comb. SLU A1 (SLV sism.) 36	
37	SLU	Comb. SLU A1 (SLV sism.) 37	
38	SLU	Comb. SLU A1 (SLV sism.) 38	
39	SLU	Comb. SLU A1 (SLV sism.) 39	
40	SLU	Comb. SLU A1 (SLV sism.) 40	
41	SLU	Comb. SLU A1 (SLV sism.) 41	
42	SLU	Comb. SLU A1 (SLV sism.) 42	
43	SLU	Comb. SLU A1 (SLV sism.) 43	
44	SLU	Comb. SLU A1 (SLV sism.) 44	
45	SLU	Comb. SLU A1 (SLV sism.) 45	
46	SLU	Comb. SLU A1 (SLV sism.) 46	
47	SLU	Comb. SLU A1 (SLV sism.) 47	
48	SLU	Comb. SLU A1 (SLV sism.) 48	
49	SLU	Comb. SLU A1 (SLV sism.) 49	
50	SLU	Comb. SLU A1 (SLV sism.) 50	
51	SLU	Comb. SLU A1 (SLV sism.) 51	
52	SLU	Comb. SLU A1 (SLV sism.) 52	
53	SLU	Comb. SLU A1 (SLV sism.) 53	
54	SLU	Comb. SLU A1 (SLV sism.) 54	
55	SLU	Comb. SLU A1 (SLV sism.) 55	
56	SLU	Comb. SLU A1 (SLV sism.) 56	
57	SLD(sis)	Comb. SLE (SLD Danno sism.) 57	
58	SLD(sis)	Comb. SLE (SLD Danno sism.) 58	
59	SLD(sis)	Comb. SLE (SLD Danno sism.) 59	
60	SLD(sis)	Comb. SLE (SLD Danno sism.) 60	
61	SLD(sis)	Comb. SLE (SLD Danno sism.) 61	
62	SLD(sis)	Comb. SLE (SLD Danno sism.) 62	
63	SLD(sis)	Comb. SLE (SLD Danno sism.) 63	
64	SLD(sis)	Comb. SLE (SLD Danno sism.) 64	
65	SLD(sis)	Comb. SLE (SLD Danno sism.) 65	
66	SLD(sis)	Comb. SLE (SLD Danno sism.) 66	
67	SLD(sis)	Comb. SLE (SLD Danno sism.) 67	
68	SLD(sis)	Comb. SLE (SLD Danno sism.) 68	
69	SLD(sis)	Comb. SLE (SLD Danno sism.) 69	
70	SLD(sis)	Comb. SLE (SLD Danno sism.) 70	
71	SLD(sis)	Comb. SLE (SLD Danno sism.) 71	
72	SLD(sis)	Comb. SLE (SLD Danno sism.) 72	
73	SLD(sis)	Comb. SLE (SLD Danno sism.) 73	
74	SLD(sis)	Comb. SLE (SLD Danno sism.) 74	

Cmb	Tipo	Sigla Id	effetto P-delta
75	SLD(sis)	Comb. SLE (SLD Danno sism.) 75	
76	SLD(sis)	Comb. SLE (SLD Danno sism.) 76	
77	SLD(sis)	Comb. SLE (SLD Danno sism.) 77	
78	SLD(sis)	Comb. SLE (SLD Danno sism.) 78	
79	SLD(sis)	Comb. SLE (SLD Danno sism.) 79	
80	SLD(sis)	Comb. SLE (SLD Danno sism.) 80	
81	SLD(sis)	Comb. SLE (SLD Danno sism.) 81	
82	SLD(sis)	Comb. SLE (SLD Danno sism.) 82	
83	SLD(sis)	Comb. SLE (SLD Danno sism.) 83	
84	SLD(sis)	Comb. SLE (SLD Danno sism.) 84	
85	SLD(sis)	Comb. SLE (SLD Danno sism.) 85	
86	SLD(sis)	Comb. SLE (SLD Danno sism.) 86	
87	SLD(sis)	Comb. SLE (SLD Danno sism.) 87	
88	SLD(sis)	Comb. SLE (SLD Danno sism.) 88	
89	SLE(r)	Comb. SLE(rara) 89	
90	SLE(r)	Comb. SLE(rara) 90	
91	SLE(r)	Comb. SLE(rara) 91	
92	SLE(r)	Comb. SLE(rara) 92	
93	SLE(r)	Comb. SLE(rara) 93	
94	SLE(r)	Comb. SLE(rara) 94	
95	SLE(r)	Comb. SLE(rara) 95	
96	SLE(r)	Comb. SLE(rara) 96	
97	SLE(r)	Comb. SLE(rara) 97	
98	SLE(r)	Comb. SLE(rara) 98	
99	SLE(r)	Comb. SLE(rara) 99	
100	SLE(r)	Comb. SLE(rara) 100	
101	SLE(f)	Comb. SLE(freq.) 101	
102	SLE(f)	Comb. SLE(freq.) 102	
103	SLE(p)	Comb. SLE(perm.) 103	

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
1	1.30 0.0	1.30 0.0	1.50 0.0	1.50 0.0	0.0 0.0	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	1.30 0.0	1.30 0.0	1.50 0.0	1.50 0.0	1.50 0.0	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	1.00 0.0	1.00 0.0	0.80 0.0	0.80 0.0	0.0 0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	1.00 0.0	1.00 0.0	0.80 0.0	0.80 0.0	1.50 0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	1.30 0.0	1.30 0.0	1.50 0.0	1.50 0.0	0.0 0.0	1.30	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	1.30 0.0	1.30 0.0	1.50 0.0	1.50 0.0	0.75 0.0	1.30	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	1.00 0.0	1.00 0.0	0.80 0.0	0.80 0.0	0.0 0.0	1.00	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	1.00 0.0	1.00 0.0	0.80 0.0	0.80 0.0	0.75 0.0	1.00	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	1.30 0.0	1.30 0.0	1.50 0.0	1.50 0.0	0.0 0.0	1.30	0.0	1.50	0.0	0.0	0.0	0.0	0.0	0.0
10	1.30 0.0	1.30 0.0	1.50 0.0	1.50 0.0	0.75 0.0	1.30	0.0	1.50	0.0	0.0	0.0	0.0	0.0	0.0
11	1.00 0.0	1.00 0.0	0.80 0.0	0.80 0.0	0.0 0.0	1.00	0.0	1.50	0.0	0.0	0.0	0.0	0.0	0.0
12	1.00 0.0	1.00 0.0	0.80 0.0	0.80 0.0	0.75 0.0	1.00	0.0	1.50	0.0	0.0	0.0	0.0	0.0	0.0
13	1.30 0.0	1.30 0.0	1.50 0.0	1.50 0.0	0.0 0.0	1.30	0.0	0.0	1.50	0.0	0.0	0.0	0.0	0.0
14	1.30 0.0	1.30 0.0	1.50 0.0	1.50 0.0	0.75 0.0	1.30	0.0	0.0	1.50	0.0	0.0	0.0	0.0	0.0
15	1.00 0.0	1.00 0.0	0.80 0.0	0.80 0.0	0.0 0.0	1.00	0.0	0.0	1.50	0.0	0.0	0.0	0.0	0.0
16	1.00 0.0	1.00 0.0	0.80 0.0	0.80 0.0	0.75 0.0	1.00	0.0	0.0	1.50	0.0	0.0	0.0	0.0	0.0
17	1.30 0.0	1.30 0.0	1.50 0.0	1.50 0.0	0.0 0.0	1.30	0.0	0.0	0.0	1.50	0.0	0.0	0.0	0.0
18	1.30 0.0	1.30 0.0	1.50 0.0	1.50 0.0	0.75 0.0	1.30	0.0	0.0	0.0	1.50	0.0	0.0	0.0	0.0
19	1.00 0.0	1.00 0.0	0.80 0.0	0.80 0.0	0.0 0.0	1.00	0.0	0.0	0.0	1.50	0.0	0.0	0.0	0.0
20	1.00 0.0	1.00 0.0	0.80 0.0	0.80 0.0	0.75 0.0	1.00	0.0	0.0	0.0	1.50	0.0	0.0	0.0	0.0

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
21	1.30	1.30	1.50	1.50	0.0	1.30	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0									
22	1.30	1.30	1.50	1.50	0.75	1.30	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0									
23	1.00	1.00	0.80	0.80	0.0	1.00	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0									
24	1.00	1.00	0.80	0.80	0.75	1.00	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0									
25	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	-0.30
	0.0	0.0	0.0	0.0	0.0									
26	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	0.30
	0.0	0.0	0.0	0.0	0.0									
27	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	1.00	0.0	-0.30
	0.0	0.0	0.0	0.0	0.0									
28	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.30
	0.0	0.0	0.0	0.0	0.0									
29	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	0.0
	-0.30	0.0	0.0	0.0	0.0									
30	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	0.0
	0.30	0.0	0.0	0.0	0.0									
31	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0
	-0.30	0.0	0.0	0.0	0.0									
32	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0
	0.30	0.0	0.0	0.0	0.0									
33	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	-0.30
	0.0	0.0	0.0	0.0	0.0									
34	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.30
	0.0	0.0	0.0	0.0	0.0									
35	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	1.00	-0.30
	0.0	0.0	0.0	0.0	0.0									
36	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.30
	0.0	0.0	0.0	0.0	0.0									
37	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0
	-0.30	0.0	0.0	0.0	0.0									
38	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0
	0.30	0.0	0.0	0.0	0.0									
39	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	-0.30	0.0	0.0	0.0	0.0									
40	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.30	0.0	0.0	0.0	0.0									
41	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	-1.00
	0.0	0.0	0.0	0.0	0.0									
42	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	1.00
	0.0	0.0	0.0	0.0	0.0									
43	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.30	0.0	-1.00
	0.0	0.0	0.0	0.0	0.0									
44	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.30	0.0	1.00
	0.0	0.0	0.0	0.0	0.0									
45	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	-1.00
	0.0	0.0	0.0	0.0	0.0									
46	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	1.00
	0.0	0.0	0.0	0.0	0.0									
47	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.30	-1.00
	0.0	0.0	0.0	0.0	0.0									
48	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.30	1.00
	0.0	0.0	0.0	0.0	0.0									
49	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	0.0
	-1.00	0.0	0.0	0.0	0.0									
50	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	0.0
	1.00	0.0	0.0	0.0	0.0									
51	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.30	0.0	0.0
	-1.00	0.0	0.0	0.0	0.0									
52	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.30	0.0	0.0
	1.00	0.0	0.0	0.0	0.0									
53	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0
	-1.00	0.0	0.0	0.0	0.0									
54	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0
	1.00	0.0	0.0	0.0	0.0									
55	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0
	-1.00	0.0	0.0	0.0	0.0									
56	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0
	1.00	0.0	0.0	0.0	0.0									
57	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
58	0.0	-1.00	0.0	-0.30	0.0									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	-1.00	0.0	0.30	0.0									
59	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	1.00	0.0	-0.30	0.0									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	1.00	0.0	0.30	0.0									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
61	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	-1.00	0.0	0.0	-0.30									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	-1.00	0.0	0.0	0.30									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
63	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	1.00	0.0	0.0	-0.30									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
64	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	1.00	0.0	0.0	0.30									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	-1.00	-0.30	0.0									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
66	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	-1.00	0.30	0.0									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	1.00	-0.30	0.0									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
68	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	1.00	0.30	0.0									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
69	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	-1.00	0.0	-0.30									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	-1.00	0.0	0.30									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
71	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	1.00	0.0	-0.30									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	1.00	0.0	0.30									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
73	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	-0.30	0.0	-1.00	0.0									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	-0.30	0.0	1.00	0.0									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.30	0.0	-1.00	0.0									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.30	0.0	1.00	0.0									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	-0.30	-1.00	0.0									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	-0.30	1.00	0.0									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.30	-1.00	0.0									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.30	1.00	0.0									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	-0.30	0.0	0.0	-1.00									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	-0.30	0.0	0.0	1.00									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.30	0.0	0.0	-1.00									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.30	0.0	0.0	1.00									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	-0.30	0.0	-1.00									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	-0.30	0.0	1.00									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.30	0.0	-1.00									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.30	0.0	1.00									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
89	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0									
	1.00	1.00	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90	1.00	1.00	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0									
	1.00	1.00	1.00	1.00	0.0	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
91	1.00	1.00	1.00	1.00	0.0	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0									
	1.00	1.00	1.00	1.00	0.50	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92	1.00	1.00	1.00	1.00	0.0	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0									
	1.00	1.00	1.00	1.00	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0
93	1.00	1.00	1.00	1.00	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0									

[illegible]

AZIONE SISMICA

VALUTAZIONE DELL' AZIONE SISMICA

L'azione sismica sulle costruzioni è valutata a partire dalla "pericolosità sismica di base", in condizioni ideali di sito di riferimento rigido con superficie topografica orizzontale.

Allo stato attuale, la pericolosità sismica su reticolo di riferimento nell'intervallo di riferimento è fornita dai dati pubblicati sul sito <http://esse1.mi.ingv.it/>. Per punti non coincidenti con il reticolo di riferimento e periodi di ritorno non contemplati direttamente si opera come indicato nell' allegato alle NTC (rispettivamente media pesata e interpolazione).

L' azione sismica viene definita in relazione ad un periodo di riferimento V_r che si ricava, per ciascun tipo di costruzione, moltiplicandone la vita nominale per il coefficiente d'uso (vedi tabella Parametri della struttura). Fissato il periodo di riferimento V_r e la probabilità di superamento P_{ver} associata a ciascuno degli stati limite considerati, si ottiene il periodo di ritorno T_r e i relativi parametri di pericolosità sismica (vedi tabella successiva):

ag: accelerazione orizzontale massima del terreno;

Fo: valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale;

T*c: periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale;

Parametri della struttura					
Classe d'uso	Vita V_n [anni]	Coeff. Uso	Periodo V_r [anni]	Tipo di suolo	Categoria topografica
II	50.0	1.0	50.0	C	T1

Individuati su reticolo di riferimento i parametri di pericolosità sismica si valutano i parametri spettrali riportati in tabella:

S è il coefficiente che tiene conto della categoria di sottosuolo e delle condizioni topografiche mediante la relazione seguente $S = S_s \cdot S_t$ (3.2.3)

F_o è il fattore che quantifica l'amplificazione spettrale massima, su sito di riferimento rigido orizzontale

F_v è il fattore che quantifica l'amplificazione spettrale massima verticale, in termini di accelerazione orizzontale massima del terreno a_g su sito di riferimento rigido orizzontale

T_b è il periodo corrispondente all'inizio del tratto dello spettro ad accelerazione costante.

T_c è il periodo corrispondente all'inizio del tratto dello spettro a velocità costante.

T_d è il periodo corrispondente all'inizio del tratto dello spettro a spostamento costante.

Lo spettro di risposta elastico in accelerazione della componente orizzontale del moto sismico, S_e , è definito dalle seguenti espressioni:

$$\begin{aligned}
 0 \leq T < T_b & \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_s \cdot \left[\frac{T}{T_b} + \frac{1}{\eta \cdot F_s} \left(1 - \frac{T}{T_b} \right) \right] \\
 T_b \leq T < T_c & \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_s \\
 T_c \leq T < T_d & \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_c}{T} \right) \\
 T_d \leq T & \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_c \cdot T_d}{T^2} \right)
 \end{aligned}$$

Dove per sottosuolo di categoria **A** i coefficienti S_s e C_c valgono 1; mentre per le categorie di sottosuolo B, C, D, E i coefficienti S_s e C_c vengono calcolati mediante le espressioni riportate nella seguente Tabella

Categoria sottosuolo	S_s	C_c
A	1,00	1,00
B	$1,00 \leq 1,40 - 0,40 \cdot F_o \cdot \frac{a_g}{g} \leq 1,20$	$1,10 \cdot (T_c^*)^{-0,20}$
C	$1,00 \leq 1,70 - 0,60 \cdot F_o \cdot \frac{a_g}{g} \leq 1,50$	$1,05 \cdot (T_c^*)^{-0,33}$
D	$0,90 \leq 2,40 - 1,50 \cdot F_o \cdot \frac{a_g}{g} \leq 1,80$	$1,25 \cdot (T_c^*)^{-0,50}$
E	$1,00 \leq 2,00 - 1,10 \cdot F_o \cdot \frac{a_g}{g} \leq 1,60$	$1,15 \cdot (T_c^*)^{-0,40}$

Per tenere conto delle condizioni topografiche e in assenza di specifiche analisi di risposta sismica locale, si utilizzano i valori del coefficiente topografico S_T riportati nella seguente Tabella

Categoria topografica	Ubicazione dell'opera o dell'intervento	S_T
T1	-	1,0
T2	In corrispondenza della sommità del pendio	1,2
T3	In corrispondenza della cresta di un rilievo con pendenza media minore o uguale a 30°	1,2
T4	In corrispondenza della cresta di un rilievo con pendenza media maggiore di 30°	1,4

Lo spettro di risposta elastico in accelerazione della componente verticale del moto sismico, S_{ve} , è definito dalle espressioni:

$$\begin{aligned}
 0 \leq T < T_B & \quad S_{ve}(T) = a_z \cdot S \cdot \eta \cdot F_v \cdot \left[\frac{T}{T_B} + \frac{1}{\eta \cdot F_s} \left(1 - \frac{T}{T_B} \right) \right] \\
 T_B \leq T < T_C & \quad S_{ve}(T) = a_z \cdot S \cdot \eta \cdot F_v \\
 T_C \leq T < T_D & \quad S_{ve}(T) = a_z \cdot S \cdot \eta \cdot F_v \cdot \left(\frac{T_C}{T} \right) \\
 T_D \leq T & \quad S_{ve}(T) = a_z \cdot S \cdot \eta \cdot F_v \cdot \left(\frac{T_C \cdot T_D}{T^2} \right)
 \end{aligned}$$

I valori di S_s , T_B , T_C e T_D , sono riportati nella seguente Tabella

Categoria di sottosuolo	S_s	T_B	T_C	T_D
A, B, C, D, E	1,0	0,05 s	0,15 s	1,0 s

Id nodo	Longitudine	Latitudine	Distanza
			Km
Loc.	12.537	38.018	
45827	12.479	37.980	6.588
45828	12.542	37.981	4.124
45606	12.541	38.031	1.482
45605	12.478	38.030	5.320

SL	Pver	Tr	ag	Fo	T*c
		Anni	g		sec
SLO	81.0	30.0	0.015	2.507	0.147
SLD	63.0	50.0	0.020	2.521	0.165
SLV	10.0	475.0	0.051	2.467	0.320
SLC	5.0	975.0	0.064	2.542	0.340

SL	ag	S	Fo	Fv	Tb	Tc	Td
	g				sec	sec	sec
SLO	0.015	1.500	2.507	0.415	0.097	0.291	1.660
SLD	0.020	1.500	2.521	0.480	0.105	0.314	1.680
SLV	0.051	1.500	2.467	0.752	0.163	0.489	1.804
SLC	0.064	1.500	2.542	0.867	0.170	0.510	1.855

RISULTATI ANALISI SISMICHE

LEGENDA TABELLA ANALISI SISMICHE

Il programma consente l'analisi di diverse configurazioni sismiche.

Sono previsti, infatti, i seguenti casi di carico:

9. Esk caso di carico sismico con analisi statica equivalente

10. Edk caso di carico sismico con analisi dinamica

Ciascun caso di carico è caratterizzato da un angolo di ingresso e da una configurazione di masse determinante la forza sismica complessiva (si rimanda al capitolo relativo ai casi di carico per chiarimenti inerenti questo aspetto).

Nella colonna Note, in funzione della norma in uso sono riportati i parametri fondamentali che caratterizzano l'azione sismica: in particolare possono essere presenti i seguenti valori:

Angolo di ingresso	Angolo di ingresso dell'azione sismica orizzontale
Fattore di importanza	Fattore di importanza dell'edificio, in base alla categoria di appartenenza
Zona sismica	Zona sismica
Accelerazione ag	Accelerazione orizzontale massima sul suolo
Categoria suolo	Categoria di profilo stratigrafico del suolo di fondazione
Fattore q	Fattore di struttura/di comportamento. Dipendente dalla tipologia strutturale
Fattore di sito S	Fattore dipendente dalla stratigrafia e dal profilo topografico
Classe di duttilità CD	Classe di duttilità della struttura – "A" duttilità alta, "B" duttilità bassa
Fattore riduz. SLD	Fattore di riduzione dello spettro elastico per lo stato limite di danno
Periodo proprio T1	Periodo proprio di vibrazione della struttura
Coefficiente Lambda	Coefficiente dipendente dal periodo proprio T1 e dal numero di piani della struttura
Ordinata spettro Sd(T1)	Valore delle ordinate dello spettro di progetto per lo stato limite ultimo, componente orizzontale (verticale Svd)
Ordinata spettro Se(T1)	Valore delle ordinate dello spettro elastico ridotta del fattore SLD per lo stato limite di danno, componente orizzontale (verticale Sve)
Ordinata spettro S (Tb-Tc)	Valore dell' ordinata dello spettro in uso nel tratto costante
numero di modi considerati	Numero di modi di vibrare della struttura considerati nell'analisi dinamica

Per ciascun caso di carico sismico viene riportato l'insieme di dati sotto riportati (le masse sono espresse in unità di forza):

- a) **analisi sismica statica equivalente:**
 - quota, posizione del centro di applicazione e azione orizzontale risultante, posizione del baricentro delle rigidezze, rapporto r/L_s (per strutture a nucleo), indici di regolarità e/r secondo EC8 4.2.3.2
 - azione sismica complessiva
- b) **analisi sismica dinamica con spettro di risposta:**
 - quota, posizione del centro di massa e massa risultante, posizione del baricentro delle rigidezze, rapporto r/L_s (per strutture a nucleo) , indici di regolarità e/r secondo EC8 4.2.3.2
 - frequenza, periodo, accelerazione spettrale, massa eccitata nelle tre direzioni globali per tutti i modi
 - massa complessiva ed aliquota di massa complessiva eccitata.

Per ciascuna combinazione sismica definita SLD o SLO viene riportato il livello di deformazione η_T (dr) degli elementi strutturali verticali. Per semplicità di consultazione il livello è espresso anche in unità $1000 \cdot \eta_T/h$ da confrontare direttamente con i valori forniti nella norma (es. 5 per edifici con tamponamenti collegati rigidamente alla struttura, 10.0 per edifici con tamponamenti collegati elasticamente, 3 per edifici in muratura ordinaria, 4 per edifici in muratura armata).

Qualora si applichi il D.M. 96 (vedi NOTA sul capitolo "normativa di riferimento") l'analisi sismica dinamica può essere comprensiva di sollecitazione verticale contemporanea a quella orizzontale, nel qual caso è effettuata una sovrapposizione degli effetti in ragione della radice dei quadrati degli effetti stessi. Per ciascuna combinazione sismica - analisi effettuate con il D.M. 96 (vedi NOTA sul capitolo "normativa di riferimento") - viene riportato il livello di deformazione η_T , η_P e η_D degli elementi strutturali verticali. Per semplicità di consultazione il livello è espresso in unità $1000 \cdot \eta_T/h$ da confrontare direttamente con il valore 2 o 4 per la verifica.

Per gli edifici sismicamente isolati si riportano di seguito le verifiche condotte sui dispositivi di isolamento. Le verifiche sono effettuate secondo la circolare n.7/2019 del C.S.LL.PP nelle combinazioni in SLC come previsto dal DM 17-01-2018. Per ogni combinazione è riportato il codice di verifica ed i valori utilizzati per la verifica: spostamento d_E , area ridotta e dimensione A_2 , azione verticale, deformazioni di taglio dell'elastomero e tensioni nell'acciaio.

Qualora si applichi l'Ordinanza 3274 e s.m.i. le verifiche sono eseguite in accordo con l'allegato 10.A.
In particolare la tabella, per ogni combinazione di calcolo, riporta:

Nodo	Nodo di appoggio dell' isolatore
Cmb	Combinazione oggetto della verifica
Verif.	Codice di verifica ok – verifica positiva , NV – verifica negativa, ND – verifica non completata
dE	Spostamento relativo tra le due facce (amplificato del 20% per Ordinanza 3274 e smi) combinato con la regola del 30%
Ang fi	Angolo utilizzato per il calcolo dell' area ridotta Ar (per dispositivi circolari)
V	Azione verticale agente
Ar	Area ridotta efficace
Dim A2	Dimensione utile per il calcolo della deformazione per rotazione
Sig s	Tensione nell' inserto in acciaio
Gam c(a,s,t)	Deformazioni di taglio dell' elastomero
Vcr	Carico critico per instabilità

Affinché la verifica sia positiva deve essere:

- 1) $V > 0$
- 2) $\text{Sig s} < f_{yk}$
- 3) $\text{Gam t} < 5$
- 4) $\text{Gam s} < \text{Gam} * (\text{caratteristica dell' elastomero})$
- 5) $\text{Gam s} < 2$
- 6) $V < 0.5 V_{cr}$

Calcolo dei fattori di comportamento secondo il D.M. 17/01/2018

La costruzione, nuova, è caratterizzata da regolarità sia in pianta sia in altezza ed è progettata considerando un comportamento non dissipativo (ND).

Parametri fattore in direzione x e y

Sistema costruttivo:	legno
Tipologia strutturale:	portali iperstatici con mezzi di unione a gambo cilindrico
Valore base fattore	$q_0 = 2.500$
Fattore di regolarità	$K_R = 1.0$
Fattore dissipativo	$q_D = q_0 \cdot K_R = 2.500$
Fattore non dissipativo	$q_{ND} = 2/3 \cdot q_D = 1.500 (\leq 1.5)$

Fattori di comportamento utilizzati

	Dissipativi	Non dissipativi
q SLU x	2.500	1.500
q SLU y	2.500	1.500
q SLU z	1.500	1.500

CDC	Tipo	Sigla Id	Note
12	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.126 g
			angolo di ingresso: 0.0
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.403 sec.
			fattore q: 1.500
			fattore per spost. mu d: 1.606
			classe di duttilità CD: ND
			numero di modi considerati: 15
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
698.88	1232.42	-160.00	411.00	0.0	0.0	-160.00	411.00	2.895	0.0	0.0
692.75	1174.74	-160.00	411.00	0.0	-1.56	0.0	0.0	0.0	0.0	0.0
665.26	1920.98	-160.00	411.00	0.0	-8.53	0.0	0.0	0.0	0.0	0.0
650.43	2225.88	-160.00	411.00	0.0	-12.30	-160.00	411.00	3.000	0.0	0.0
637.78	1337.11	-160.00	411.00	0.0	-15.51	0.0	0.0	0.0	0.0	0.0
627.00	1073.62	-160.00	411.00	0.0	-18.25	0.0	0.0	0.0	0.0	0.0
610.29	1544.37	-160.00	411.00	0.0	-22.49	0.0	0.0	0.0	0.0	0.0
595.29	2404.63	-160.00	411.00	0.0	-26.30	-160.00	411.00	3.000	0.0	0.0
582.81	1920.98	-160.00	411.00	0.0	-29.47	0.0	0.0	0.0	0.0	0.0
566.88	160.83	-160.00	411.00	0.0	0.0	-160.00	411.00	1.252	0.0	0.0
555.32	1600.82	-160.00	411.00	0.0	-36.45	0.0	0.0	0.0	0.0	0.0

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
537.00	2109.09	-160.00	411.00	0.0	-41.10	0.0	0.0	0.0	0.0	0.0
536.88	299.23	-160.00	411.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
292.00	3222.60	-160.00	411.00	0.0	-41.10	-160.00	411.00	1.134	0.0	0.0
0.0	1.337e+04	-160.00	411.00	0.0	-41.10	0.0	0.0	0.0	0.0	0.0
Risulta	3.559e+04									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	2.479	0.403	0.126	1.374e+04	38.6	0.0	0.0	2.61e-06	0.0	0.0	0.0
2	5.601	0.179	0.126	5118.77	14.4	1.71e-05	0.0	8.09e-05	0.0	0.0	0.0
3	5.628	0.178	0.126	1211.67	3.4	5.83e-04	1.64e-06	1.12e-03	3.15e-06	0.0	0.0
4	5.867	0.170	0.126	1.79e-06	0.0	828.77	2.3	2.37	6.66e-03	0.0	0.0
5	5.867	0.170	0.126	1.47e-03	4.12e-06	40.40	0.1	0.12	3.27e-04	0.0	0.0
6	6.141	0.163	0.126	0.02	6.57e-05	0.04	9.98e-05	0.05	1.53e-04	0.0	0.0
7	6.253	0.160	0.125	110.88	0.3	0.0	0.0	6.61e-06	0.0	0.0	0.0
8	6.813	0.147	0.121	0.01	3.55e-05	0.69	1.95e-03	1.40	3.93e-03	0.0	0.0
9	7.058	0.142	0.119	148.44	0.4	4.68e-04	1.31e-06	2.46e-03	6.91e-06	0.0	0.0
10	7.666	0.130	0.116	0.01	3.27e-05	149.24	0.4	0.45	1.27e-03	0.0	0.0
11	7.667	0.130	0.116	2.05e-03	5.75e-06	334.41	0.9	1.00	2.80e-03	0.0	0.0
12	7.737	0.129	0.116	4.31e-03	1.21e-05	0.32	9.00e-04	0.20	5.68e-04	0.0	0.0
13	7.893	0.127	0.115	178.28	0.5	2.74e-03	7.69e-06	0.02	6.51e-05	0.0	0.0
14	8.192	0.122	0.113	83.01	0.2	0.03	9.42e-05	4.33e-03	1.22e-05	0.0	0.0
15	8.494	0.118	0.112	0.10	2.91e-04	2.49e-03	6.98e-06	0.36	1.02e-03	0.0	0.0
Risulta				2.059e+04		1353.90		5.99			

CDC	Tipo	Sigla Id	Note
13	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.126 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.403 sec.
			fattore q: 1.500
			fattore per spost. mu d: 1.606
			classe di duttilità CD: ND
			numero di modi considerati: 15
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
698.88	1232.42	-160.00	411.00	0.0	0.0	-160.00	411.00	2.895	0.0	0.0
692.75	1174.74	-160.00	411.00	0.0	1.56	0.0	0.0	0.0	0.0	0.0
665.26	1920.98	-160.00	411.00	0.0	8.53	0.0	0.0	0.0	0.0	0.0
650.43	2225.88	-160.00	411.00	0.0	12.30	-160.00	411.00	3.000	0.0	0.0
637.78	1337.11	-160.00	411.00	0.0	15.51	0.0	0.0	0.0	0.0	0.0
627.00	1073.62	-160.00	411.00	0.0	18.25	0.0	0.0	0.0	0.0	0.0
610.29	1544.37	-160.00	411.00	0.0	22.49	0.0	0.0	0.0	0.0	0.0
595.29	2404.63	-160.00	411.00	0.0	26.30	-160.00	411.00	3.000	0.0	0.0
582.81	1920.98	-160.00	411.00	0.0	29.47	0.0	0.0	0.0	0.0	0.0
566.88	160.83	-160.00	411.00	0.0	0.0	-160.00	411.00	1.252	0.0	0.0
555.32	1600.82	-160.00	411.00	0.0	36.45	0.0	0.0	0.0	0.0	0.0
537.00	2109.09	-160.00	411.00	0.0	41.10	0.0	0.0	0.0	0.0	0.0
536.88	299.23	-160.00	411.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
292.00	3222.60	-160.00	411.00	0.0	41.10	-160.00	411.00	1.134	0.0	0.0
0.0	1.337e+04	-160.00	411.00	0.0	41.10	0.0	0.0	0.0	0.0	0.0
Risulta	3.559e+04									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	2.479	0.403	0.126	1.374e+04	38.6	0.0	0.0	2.56e-06	0.0	0.0	0.0
2	5.602	0.179	0.126	4861.71	13.7	2.73e-05	0.0	1.08e-04	0.0	0.0	0.0
3	5.635	0.177	0.126	1477.32	4.2	5.09e-04	1.43e-06	1.13e-03	3.18e-06	0.0	0.0
4	5.867	0.170	0.126	0.0	0.0	830.24	2.3	2.37	6.67e-03	0.0	0.0
5	5.867	0.170	0.126	1.36e-03	3.82e-06	38.90	0.1	0.11	3.14e-04	0.0	0.0

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
6	6.141	0.163	0.126	0.02	6.94e-05	0.26	7.34e-04	0.42	1.17e-03	0.0	0.0
7	6.253	0.160	0.125	114.27	0.3	1.94e-05	0.0	5.34e-06	0.0	0.0	0.0
8	6.814	0.147	0.121	0.01	3.09e-05	0.32	8.90e-04	0.66	1.86e-03	0.0	0.0
9	7.061	0.142	0.119	152.21	0.4	1.39e-04	0.0	6.27e-05	0.0	0.0	0.0
10	7.666	0.130	0.116	3.92e-06	0.0	479.04	1.3	1.34	3.75e-03	0.0	0.0
11	7.666	0.130	0.116	0.01	3.14e-05	4.03	1.13e-02	0.01	3.73e-05	0.0	0.0
12	7.736	0.129	0.116	3.77e-05	0.0	0.30	8.34e-04	0.18	4.98e-04	0.0	0.0
13	7.913	0.126	0.115	216.48	0.6	5.70e-04	1.60e-06	4.69e-04	1.32e-06	0.0	0.0
14	8.188	0.122	0.113	71.71	0.2	2.09e-05	0.0	1.81e-03	5.10e-06	0.0	0.0
15	8.494	0.118	0.112	0.07	2.07e-04	0.02	5.46e-05	0.01	3.34e-05	0.0	0.0
Risulta				2.063e+04		1353.11		5.10			

CDC	Tipo	Sigla Id	Note
14	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.126 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.300 sec.
			fattore q: 1.500
			fattore per spost. mu d: 1.815
			classe di duttilità CD: ND
			numero di modi considerati: 15
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
698.88	1232.42	-160.00	411.00	87.00	0.0	-160.00	411.00	2.895	0.0	0.0
692.75	1174.74	-160.00	411.00	87.00	0.0	0.0	0.0	0.0	0.0	0.0
665.26	1920.98	-160.00	411.00	87.00	0.0	0.0	0.0	0.0	0.0	0.0
650.43	2225.88	-160.00	411.00	16.00	0.0	-160.00	411.00	3.000	0.0	0.0
637.78	1337.11	-160.00	411.00	87.00	0.0	0.0	0.0	0.0	0.0	0.0
627.00	1073.62	-160.00	411.00	87.00	0.0	0.0	0.0	0.0	0.0	0.0
610.29	1544.37	-160.00	411.00	87.00	0.0	0.0	0.0	0.0	0.0	0.0
595.29	2404.63	-160.00	411.00	16.00	0.0	-160.00	411.00	3.000	0.0	0.0
582.81	1920.98	-160.00	411.00	87.00	0.0	0.0	0.0	0.0	0.0	0.0
566.88	160.83	-160.00	411.00	87.00	0.0	-160.00	411.00	1.252	0.0	0.0
555.32	1600.82	-160.00	411.00	87.00	0.0	0.0	0.0	0.0	0.0	0.0
537.00	2109.09	-160.00	411.00	87.00	0.0	0.0	0.0	0.0	0.0	0.0
536.88	299.23	-160.00	411.00	87.00	0.0	0.0	0.0	0.0	0.0	0.0
292.00	3222.60	-160.00	411.00	16.00	0.0	-160.00	411.00	1.134	0.0	0.0
0.0	1.337e+04	-160.00	411.00	16.00	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	3.559e+04									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	2.480	0.403	0.126	1.373e+04	38.6	3.12e-04	0.0	1.22e-06	0.0	0.0	0.0
2	5.626	0.178	0.126	4833.55	13.6	1.87e-04	0.0	6.10e-05	0.0	0.0	0.0
3	5.656	0.177	0.126	1564.51	4.4	1.25e-03	3.50e-06	1.33e-03	3.74e-06	0.0	0.0
4	5.825	0.172	0.126	1.36e-03	3.81e-06	521.12	1.5	1.43	4.03e-03	0.0	0.0
5	5.910	0.169	0.126	8.40e-04	2.36e-06	355.27	1.0	1.06	2.97e-03	0.0	0.0
6	6.316	0.158	0.124	6.19e-04	1.74e-06	8.26e-04	2.32e-06	1.81e-04	0.0	0.0	0.0
7	6.317	0.158	0.124	6.14e-05	0.0	0.04	1.08e-04	0.07	1.97e-04	0.0	0.0
8	6.596	0.152	0.122	0.03	7.77e-05	0.57	1.61e-03	1.10	3.09e-03	0.0	0.0
9	6.983	0.143	0.120	237.73	0.7	0.02	5.80e-05	4.10e-03	1.15e-05	0.0	0.0
10	7.564	0.132	0.117	8.16e-03	2.29e-05	329.84	0.9	0.84	2.35e-03	0.0	0.0
11	7.773	0.129	0.115	6.36e-04	1.79e-06	165.08	0.5	0.46	1.28e-03	0.0	0.0
12	7.969	0.125	0.114	0.01	3.41e-05	0.06	1.78e-04	0.21	6.00e-04	0.0	0.0

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
13	8.103	0.123	0.114	0.16	4.47e-04	7.61e-03	2.14e-05	8.39e-03	2.36e-05	0.0	0.0
14	8.213	0.122	0.113	1.47e-03	4.12e-06	1.11e-03	3.13e-06	2.39e-04	0.0	0.0	0.0
15	8.214	0.122	0.113	0.09	2.66e-04	4.75e-04	1.33e-06	0.03	7.87e-05	0.0	0.0
Risulta				2.037e+04		1372.03		5.21			

CDC	Tipo	Sigla Id	Note
15	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.126 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.300 sec.
			fattore q: 1.500
			fattore per spost. mu d: 1.815
			classe di duttilità CD: ND
			numero di modi considerati: 15
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
698.88	1232.42	-160.00	411.00	-87.00	0.0	-160.00	411.00	2.895	0.0	0.0
692.75	1174.74	-160.00	411.00	-87.00	0.0	0.0	0.0	0.0	0.0	0.0
665.26	1920.98	-160.00	411.00	-87.00	0.0	0.0	0.0	0.0	0.0	0.0
650.43	2225.88	-160.00	411.00	-16.00	0.0	-160.00	411.00	3.000	0.0	0.0
637.78	1337.11	-160.00	411.00	-87.00	0.0	0.0	0.0	0.0	0.0	0.0
627.00	1073.62	-160.00	411.00	-87.00	0.0	0.0	0.0	0.0	0.0	0.0
610.29	1544.37	-160.00	411.00	-87.00	0.0	0.0	0.0	0.0	0.0	0.0
595.29	2404.63	-160.00	411.00	-16.00	0.0	-160.00	411.00	3.000	0.0	0.0
582.81	1920.98	-160.00	411.00	-87.00	0.0	0.0	0.0	0.0	0.0	0.0
566.88	160.83	-160.00	411.00	-87.00	0.0	-160.00	411.00	1.252	0.0	0.0
555.32	1600.82	-160.00	411.00	-87.00	0.0	0.0	0.0	0.0	0.0	0.0
537.00	2109.09	-160.00	411.00	-87.00	0.0	0.0	0.0	0.0	0.0	0.0
536.88	299.23	-160.00	411.00	-87.00	0.0	0.0	0.0	0.0	0.0	0.0
292.00	3222.60	-160.00	411.00	-16.00	0.0	-160.00	411.00	1.134	0.0	0.0
0.0	1.337e+04	-160.00	411.00	-16.00	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	3.559e+04									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	2.480	0.403	0.126	1.373e+04	38.6	3.21e-04	0.0	4.47e-06	0.0	0.0	0.0
2	5.626	0.178	0.126	4833.48	13.6	5.93e-04	1.67e-06	2.27e-04	0.0	0.0	0.0
3	5.656	0.177	0.126	1564.59	4.4	5.31e-05	0.0	1.03e-03	2.89e-06	0.0	0.0
4	5.825	0.172	0.126	2.76e-03	7.74e-06	521.06	1.5	1.44	4.04e-03	0.0	0.0
5	5.910	0.169	0.126	3.94e-04	1.11e-06	355.29	1.0	1.05	2.96e-03	0.0	0.0
6	6.316	0.158	0.124	6.90e-04	1.94e-06	3.96e-04	1.11e-06	7.36e-05	0.0	0.0	0.0
7	6.317	0.158	0.124	6.88e-05	0.0	0.04	1.09e-04	0.07	1.96e-04	0.0	0.0
8	6.596	0.152	0.122	0.03	8.43e-05	0.56	1.56e-03	1.10	3.08e-03	0.0	0.0
9	6.983	0.143	0.120	237.74	0.7	0.01	3.89e-05	6.35e-03	1.78e-05	0.0	0.0
10	7.564	0.132	0.117	7.64e-04	2.15e-06	329.87	0.9	0.85	2.40e-03	0.0	0.0
11	7.773	0.129	0.115	0.01	3.34e-05	165.22	0.5	0.48	1.35e-03	0.0	0.0
12	7.969	0.125	0.114	0.01	3.63e-05	0.04	1.23e-04	0.24	6.77e-04	0.0	0.0
13	8.103	0.123	0.114	0.17	4.88e-04	3.72e-03	1.05e-05	5.89e-04	1.65e-06	0.0	0.0
14	8.213	0.122	0.113	5.41e-04	1.52e-06	1.88e-04	0.0	8.46e-04	2.38e-06	0.0	0.0
15	8.214	0.122	0.113	0.09	2.42e-04	1.33e-03	3.74e-06	0.01	3.32e-05	0.0	0.0
Risulta				2.037e+04		1372.10		5.25			

CDC	Tipo	Sigla Id	Note
16	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.075 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.403 sec.
			numero di modi considerati: 15
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
698.88	1232.42	-160.00	411.00	0.0	0.0	-160.00	411.00	2.895	0.0	0.0
692.75	1174.74	-160.00	411.00	0.0	-1.56	0.0	0.0	0.0	0.0	0.0
665.26	1920.98	-160.00	411.00	0.0	-8.53	0.0	0.0	0.0	0.0	0.0
650.43	2225.88	-160.00	411.00	0.0	-12.30	-160.00	411.00	3.000	0.0	0.0
637.78	1337.11	-160.00	411.00	0.0	-15.51	0.0	0.0	0.0	0.0	0.0
627.00	1073.62	-160.00	411.00	0.0	-18.25	0.0	0.0	0.0	0.0	0.0
610.29	1544.37	-160.00	411.00	0.0	-22.49	0.0	0.0	0.0	0.0	0.0
595.29	2404.63	-160.00	411.00	0.0	-26.30	-160.00	411.00	3.000	0.0	0.0
582.81	1920.98	-160.00	411.00	0.0	-29.47	0.0	0.0	0.0	0.0	0.0
566.88	160.83	-160.00	411.00	0.0	0.0	-160.00	411.00	1.252	0.0	0.0
555.32	1600.82	-160.00	411.00	0.0	-36.45	0.0	0.0	0.0	0.0	0.0
537.00	2109.09	-160.00	411.00	0.0	-41.10	0.0	0.0	0.0	0.0	0.0
536.88	299.23	-160.00	411.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
292.00	3222.60	-160.00	411.00	0.0	-41.10	-160.00	411.00	1.134	0.0	0.0
0.0	1.337e+04	-160.00	411.00	0.0	-41.10	0.0	0.0	0.0	0.0	0.0
Risulta	3.559e+04									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	2.479	0.403	0.059	1.374e+04	38.6	0.0	0.0	2.61e-06	0.0	0.0	0.0
2	5.601	0.179	0.075	5118.77	14.4	1.71e-05	0.0	8.09e-05	0.0	0.0	0.0
3	5.628	0.178	0.075	1211.67	3.4	5.83e-04	1.64e-06	1.12e-03	3.15e-06	0.0	0.0
4	5.867	0.170	0.075	1.79e-06	0.0	828.77	2.3	2.37	6.66e-03	0.0	0.0
5	5.867	0.170	0.075	1.47e-03	4.12e-06	40.40	0.1	0.12	3.27e-04	0.0	0.0
6	6.141	0.163	0.075	0.02	6.57e-05	0.04	9.98e-05	0.05	1.53e-04	0.0	0.0
7	6.253	0.160	0.075	110.88	0.3	0.0	0.0	6.61e-06	0.0	0.0	0.0
8	6.813	0.147	0.075	0.01	3.55e-05	0.69	1.95e-03	1.40	3.93e-03	0.0	0.0
9	7.058	0.142	0.075	148.44	0.4	4.68e-04	1.31e-06	2.46e-03	6.91e-06	0.0	0.0
10	7.666	0.130	0.075	0.01	3.27e-05	149.24	0.4	0.45	1.27e-03	0.0	0.0
11	7.667	0.130	0.075	2.05e-03	5.75e-06	334.41	0.9	1.00	2.80e-03	0.0	0.0
12	7.737	0.129	0.075	4.31e-03	1.21e-05	0.32	9.00e-04	0.20	5.68e-04	0.0	0.0
13	7.893	0.127	0.075	178.28	0.5	2.74e-03	7.69e-06	0.02	6.51e-05	0.0	0.0
14	8.192	0.122	0.075	83.01	0.2	0.03	9.42e-05	4.33e-03	1.22e-05	0.0	0.0
15	8.494	0.118	0.075	0.10	2.91e-04	2.49e-03	6.98e-06	0.36	1.02e-03	0.0	0.0
Risulta				2.059e+04		1353.90		5.99			

CDC	Tipo	Sigla Id	Note
17	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.075 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.403 sec.
			numero di modi considerati: 15
			combinaz. modale: CQC

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	2.480	0.403	0.059	1.373e+04	38.6	3.12e-04	0.0	1.22e-06	0.0	0.0	0.0
2	5.626	0.178	0.075	4833.55	13.6	1.87e-04	0.0	6.10e-05	0.0	0.0	0.0
3	5.656	0.177	0.075	1564.51	4.4	1.25e-03	3.50e-06	1.33e-03	3.74e-06	0.0	0.0
4	5.825	0.172	0.075	1.36e-03	3.81e-06	521.12	1.5	1.43	4.03e-03	0.0	0.0
5	5.910	0.169	0.075	8.40e-04	2.36e-06	355.27	1.0	1.06	2.97e-03	0.0	0.0
6	6.316	0.158	0.075	6.19e-04	1.74e-06	8.26e-04	2.32e-06	1.81e-04	0.0	0.0	0.0
7	6.317	0.158	0.075	6.14e-05	0.0	0.04	1.08e-04	0.07	1.97e-04	0.0	0.0
8	6.596	0.152	0.075	0.03	7.77e-05	0.57	1.61e-03	1.10	3.09e-03	0.0	0.0
9	6.983	0.143	0.075	237.73	0.7	0.02	5.80e-05	4.10e-03	1.15e-05	0.0	0.0
10	7.564	0.132	0.075	8.16e-03	2.29e-05	329.84	0.9	0.84	2.35e-03	0.0	0.0
11	7.773	0.129	0.075	6.36e-04	1.79e-06	165.08	0.5	0.46	1.28e-03	0.0	0.0
12	7.969	0.125	0.075	0.01	3.41e-05	0.06	1.78e-04	0.21	6.00e-04	0.0	0.0
13	8.103	0.123	0.075	0.16	4.47e-04	7.61e-03	2.14e-05	8.39e-03	2.36e-05	0.0	0.0
14	8.213	0.122	0.075	1.47e-03	4.12e-06	1.11e-03	3.13e-06	2.39e-04	0.0	0.0	0.0
15	8.214	0.122	0.075	0.09	2.66e-04	4.75e-04	1.33e-06	0.03	7.87e-05	0.0	0.0
Risulta				2.037e+04		1372.03		5.21			

CDC	Tipo	Sigla Id	Note
19	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.075 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.300 sec.
			numero di modi considerati: 15
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
698.88	1232.42	-160.00	411.00	-87.00	0.0	-160.00	411.00	2.895	0.0	0.0
692.75	1174.74	-160.00	411.00	-87.00	0.0	0.0	0.0	0.0	0.0	0.0
665.26	1920.98	-160.00	411.00	-87.00	0.0	0.0	0.0	0.0	0.0	0.0
650.43	2225.88	-160.00	411.00	-16.00	0.0	-160.00	411.00	3.000	0.0	0.0
637.78	1337.11	-160.00	411.00	-87.00	0.0	0.0	0.0	0.0	0.0	0.0
627.00	1073.62	-160.00	411.00	-87.00	0.0	0.0	0.0	0.0	0.0	0.0
610.29	1544.37	-160.00	411.00	-87.00	0.0	0.0	0.0	0.0	0.0	0.0
595.29	2404.63	-160.00	411.00	-16.00	0.0	-160.00	411.00	3.000	0.0	0.0
582.81	1920.98	-160.00	411.00	-87.00	0.0	0.0	0.0	0.0	0.0	0.0
566.88	160.83	-160.00	411.00	-87.00	0.0	-160.00	411.00	1.252	0.0	0.0
555.32	1600.82	-160.00	411.00	-87.00	0.0	0.0	0.0	0.0	0.0	0.0
537.00	2109.09	-160.00	411.00	-87.00	0.0	0.0	0.0	0.0	0.0	0.0
536.88	299.23	-160.00	411.00	-87.00	0.0	0.0	0.0	0.0	0.0	0.0
292.00	3222.60	-160.00	411.00	-16.00	0.0	-160.00	411.00	1.134	0.0	0.0
0.0	1.337e+04	-160.00	411.00	-16.00	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	3.559e+04									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	2.480	0.403	0.059	1.373e+04	38.6	3.21e-04	0.0	4.47e-06	0.0	0.0	0.0
2	5.626	0.178	0.075	4833.48	13.6	5.93e-04	1.67e-06	2.27e-04	0.0	0.0	0.0
3	5.656	0.177	0.075	1564.59	4.4	5.31e-05	0.0	1.03e-03	2.89e-06	0.0	0.0
4	5.825	0.172	0.075	2.76e-03	7.74e-06	521.06	1.5	1.44	4.04e-03	0.0	0.0
5	5.910	0.169	0.075	3.94e-04	1.11e-06	355.29	1.0	1.05	2.96e-03	0.0	0.0
6	6.316	0.158	0.075	6.90e-04	1.94e-06	3.96e-04	1.11e-06	7.36e-05	0.0	0.0	0.0
7	6.317	0.158	0.075	6.88e-05	0.0	0.04	1.09e-04	0.07	1.96e-04	0.0	0.0
8	6.596	0.152	0.075	0.03	8.43e-05	0.56	1.56e-03	1.10	3.08e-03	0.0	0.0
9	6.983	0.143	0.075	237.74	0.7	0.01	3.89e-05	6.35e-03	1.78e-05	0.0	0.0
10	7.564	0.132	0.075	7.64e-04	2.15e-06	329.87	0.9	0.85	2.40e-03	0.0	0.0
11	7.773	0.129	0.075	0.01	3.34e-05	165.22	0.5	0.48	1.35e-03	0.0	0.0
12	7.969	0.125	0.075	0.01	3.63e-05	0.04	1.23e-04	0.24	6.77e-04	0.0	0.0
13	8.103	0.123	0.075	0.17	4.88e-04	3.72e-03	1.05e-05	5.89e-04	1.65e-06	0.0	0.0
14	8.213	0.122	0.075	5.41e-04	1.52e-06	1.88e-04	0.0	8.46e-04	2.38e-06	0.0	0.0
15	8.214	0.122	0.075	0.09	2.42e-04	1.33e-03	3.74e-06	0.01	3.32e-05	0.0	0.0
Risulta				2.037e+04		1372.10		5.25			

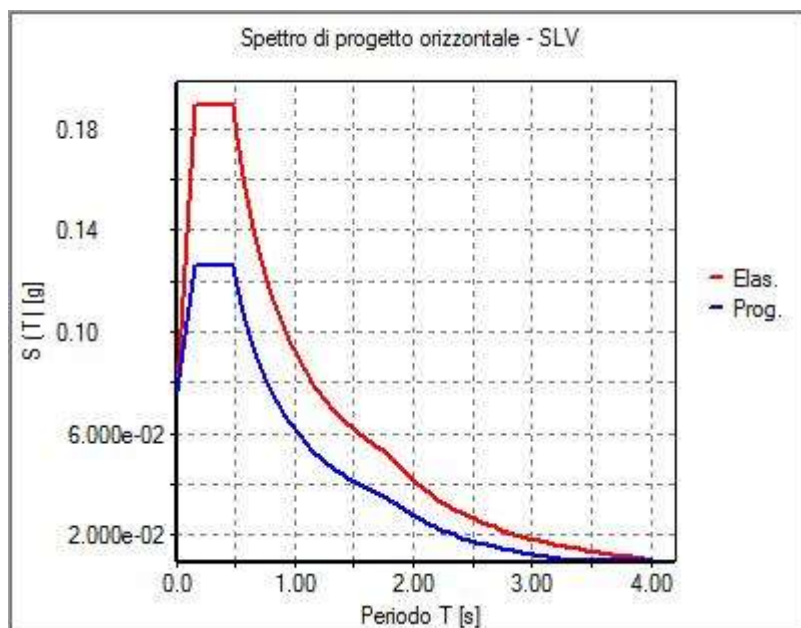
Cmb	Pilas. 1000 etaT/h			etaT	inter. h	Pilas. 1000 etaT/h			etaT	inter. h	Pilas. 1000 etaT/h			etaT	inter. h
			cm	cm				cm	cm				cm	cm	
57	2	0.43	0.13	303.3	6	0.10	0.03	292.0	7	1.21	0.16	132.0			
	8	6.37	0.19	30.0	10	0.44	0.16	358.4	12	0.29	0.09	303.3			
	14	0.52	0.19	358.4	16	0.44	0.16	358.4	18	0.44	0.13	303.3			
	20	0.51	0.18	358.4	26	0.30	0.09	292.0	30	0.29	0.08	292.0			
	42	0.33	0.10	292.0	46	0.12	0.03	292.0	47	0.32	0.09	292.0			
	50	0.29	0.09	303.3	54	0.12	0.03	292.0	57	1.82	0.24	132.0			
	58	3.68	0.11	30.0	80	0.10	0.03	292.0	100	1.01	0.13	132.0			
58	101	7.22	0.22	30.0	122	1.76	0.23	132.0	123	3.93	0.12	30.0			
	2	0.43	0.13	303.3	6	0.10	0.03	292.0	7	1.20	0.16	132.0			
	8	6.39	0.19	30.0	10	0.44	0.16	358.4	12	0.29	0.09	303.3			
	14	0.52	0.18	358.4	16	0.44	0.16	358.4	18	0.44	0.13	303.3			
	20	0.51	0.18	358.4	26	0.30	0.09	292.0	30	0.29	0.09	292.0			
	42	0.33	0.10	292.0	46	0.12	0.03	292.0	47	0.32	0.09	292.0			
	50	0.28	0.09	303.3	54	0.12	0.03	292.0	57	1.81	0.24	132.0			
59	58	3.68	0.11	30.0	80	0.10	0.03	292.0	100	1.02	0.13	132.0			
	101	7.19	0.22	30.0	122	1.76	0.23	132.0	123	3.92	0.12	30.0			
	2	0.44	0.13	303.3	6	0.10	0.03	292.0	7	1.02	0.13	132.0			
	8	7.19	0.22	30.0	10	0.45	0.16	358.4	12	0.28	0.09	303.3			
	14	0.52	0.19	358.4	16	0.44	0.16	358.4	18	0.43	0.13	303.3			
	20	0.51	0.18	358.4	26	0.30	0.09	292.0	30	0.29	0.09	292.0			
	42	0.33	0.09	292.0	46	0.12	0.03	292.0	47	0.32	0.09	292.0			
60	50	0.29	0.09	303.3	54	0.12	0.03	292.0	57	1.76	0.23	132.0			
	58	3.93	0.12	30.0	80	0.10	0.03	292.0	100	1.20	0.16	132.0			
	101	6.39	0.19	30.0	122	1.82	0.24	132.0	123	3.67	0.11	30.0			
	2	0.44	0.13	303.3	6	0.10	0.03	292.0	7	1.02	0.14	132.0			
	8	7.17	0.22	30.0	10	0.45	0.16	358.4	12	0.28	0.09	303.3			
	14	0.52	0.19	358.4	16	0.44	0.16	358.4	18	0.43	0.13	303.3			
	20	0.51	0.18	358.4	26	0.30	0.09	292.0	30	0.29	0.09	292.0			
61	42	0.33	0.09	292.0	46	0.12	0.03	292.0	47	0.32	0.09	292.0			
	50	0.29	0.09	303.3	54	0.12	0.03	292.0	57	1.76	0.23	132.0			
	58	3.93	0.12	30.0	80	0.10	0.03	292.0	100	1.20	0.16	132.0			
	101	6.42	0.19	30.0	122	1.82	0.24	132.0	123	3.68	0.11	30.0			
	2	0.43	0.13	303.3	6	0.10	0.03	292.0	7	1.21	0.16	132.0			
	8	6.36	0.19	30.0	10	0.44	0.16	358.4	12	0.29	0.09	303.3			
	14	0.52	0.18	358.4	16	0.44	0.16	358.4	18	0.44	0.13	303.3			
62	20	0.51	0.18	358.4	26	0.30	0.09	292.0	30	0.29	0.08	292.0			
	42	0.33	0.10	292.0	46	0.12	0.03	292.0	47	0.32	0.09	292.0			
	50	0.29	0.09	303.3	54	0.12	0.03	292.0	57	1.82	0.24	132.0			
	58	3.68	0.11	30.0	80	0.10	0.03	292.0	100	1.01	0.13	132.0			
	101	7.21	0.22	30.0	122	1.76	0.23	132.0	123	3.92	0.12	30.0			
	2	0.43	0.13	303.3	6	0.10	0.03	292.0	7	1.20	0.16	132.0			
	8	6.39	0.19	30.0	10	0.44	0.16	358.4	12	0.29	0.09	303.3			
63	14	0.52	0.18	358.4	16	0.44	0.16	358.4	18	0.44	0.13	303.3			
	20	0.51	0.18	358.4	26	0.30	0.09	292.0	30	0.29	0.08	292.0			
	42	0.33	0.10	292.0	46	0.12	0.03	292.0	47	0.32	0.09	292.0			
	50	0.29	0.09	303.3	54	0.12	0.03	292.0	57	1.81	0.24	132.0			
	58	3.68	0.11	30.0	80	0.10	0.03	292.0	100	1.02	0.13	132.0			
	101	7.19	0.22	30.0	122	1.76	0.23	132.0	123	3.92	0.12	30.0			
	2	0.44	0.13	303.3	6	0.10	0.03	292.0	7	1.02	0.13	132.0			
64	8	7.20	0.22	30.0	10	0.45	0.16	358.4	12	0.28	0.09	303.3			
	14	0.52	0.19	358.4	16	0.44	0.16	358.4	18	0.43	0.13	303.3			
	20	0.51	0.18	358.4	26	0.30	0.09	292.0	30	0.29	0.09	292.0			
	42	0.33	0.09	292.0	46	0.12	0.03	292.0	47	0.32	0.09	292.0			
	50	0.29	0.09	303.3	54	0.12	0.03	292.0	57	1.76	0.23	132.0			
	58	3.94	0.12	30.0	80	0.10	0.03	292.0	100	1.20	0.16	132.0			
	101	6.39	0.19	30.0	122	1.82	0.24	132.0	123	3.67	0.11	30.0			
65	2	0.44	0.13	303.3	6	0.10	0.03	292.0	7	1.02	0.14	132.0			
	8	7.17	0.22	30.0	10	0.45	0.16	358.4	12	0.28	0.09	303.3			
	14	0.52	0.19	358.4	16	0.44	0.16	358.4	18	0.43	0.13	303.3			
	20	0.51	0.18	358.4	26	0.30	0.09	292.0	30	0.29	0.09	292.0			
	42	0.33	0.09	292.0	46	0.12	0.03	292.0	47	0.32	0.09	292.0			
	50	0.29	0.09	303.3	54	0.12	0.03	292.0	57	1.76	0.23	132.0			
	58	3.93	0.12	30.0	80	0.10	0.03	292.0	100	1.20	0.16	132.0			
66	101	6.41	0.19	30.0	122	1.82	0.24	132.0	123	3.67	0.11	30.0			
	2	0.43	0.13	303.3	6	0.12	0.03	292.0	7	1.21	0.16	132.0			
	8	6.37	0.19	30.0	10	0.45	0.16	358.4	12	0.29	0.09	303.3			
	14	0.51	0.18	358.4	16	0.45	0.16	358.4	18	0.43	0.13	303.3			
	20	0.51	0.18	358.4	26	0.33	0.10	292.0	30	0.32	0.09	292.0			
	42	0.30	0.09	292.0	46	0.10	0.03	292.0	47	0.30	0.09	292.0			
	50	0.29	0.09	303.3	54	0.10	0.03	292.0	57	1.82	0.24	132.0			
	58	3.68	0.11	30.0	80	0.11	0.03	292.0	100	1.01	0.13	132.0			
	101	7.22	0.22	30.0	122	1.76	0.23	132.0	123	3.94	0.12	30.0			
	2	0.43	0.13	303.3	6	0.12	0.03	292.0	7	1.20	0.16	132.0			
	8	6.39	0.19	30.0	10	0.45	0.16	358.4	12	0.29	0.09	303.3			
	14	0.51	0.18	358.4	16	0.45	0.16	358.4	18	0.43	0.13	303.3			

67	20	0.51	0.18	358.4	26	0.33	0.10	292.0	30	0.32	0.09	292.0
	42	0.30	0.09	292.0	46	0.10	0.03	292.0	47	0.30	0.09	292.0
	50	0.29	0.09	303.3	54	0.10	0.03	292.0	57	1.81	0.24	132.0
	58	3.68	0.11	30.0	80	0.11	0.03	292.0	100	1.02	0.13	132.0
	101	7.19	0.22	30.0	122	1.76	0.23	132.0	123	3.93	0.12	30.0
	2	0.44	0.13	303.3	6	0.12	0.03	292.0	7	1.02	0.13	132.0
	8	7.20	0.22	30.0	10	0.45	0.16	358.4	12	0.29	0.09	303.3
	14	0.51	0.18	358.4	16	0.45	0.16	358.4	18	0.43	0.13	303.3
	20	0.50	0.18	358.4	26	0.33	0.09	292.0	30	0.32	0.09	292.0
	42	0.30	0.09	292.0	46	0.10	0.03	292.0	47	0.30	0.09	292.0
68	50	0.29	0.09	303.3	54	0.10	0.03	292.0	57	1.76	0.23	132.0
	58	3.94	0.12	30.0	80	0.11	0.03	292.0	100	1.20	0.16	132.0
	101	6.39	0.19	30.0	122	1.82	0.24	132.0	123	3.68	0.11	30.0
	2	0.44	0.13	303.3	6	0.12	0.03	292.0	7	1.02	0.13	132.0
	8	7.18	0.22	30.0	10	0.45	0.16	358.4	12	0.29	0.09	303.3
	14	0.51	0.18	358.4	16	0.45	0.16	358.4	18	0.43	0.13	303.3
	20	0.50	0.18	358.4	26	0.33	0.09	292.0	30	0.32	0.09	292.0
	42	0.30	0.09	292.0	46	0.10	0.03	292.0	47	0.30	0.09	292.0
	50	0.29	0.09	303.3	54	0.10	0.03	292.0	57	1.76	0.23	132.0
	58	3.93	0.12	30.0	80	0.11	0.03	292.0	100	1.19	0.16	132.0
69	101	6.42	0.19	30.0	122	1.82	0.24	132.0	123	3.69	0.11	30.0
	2	0.43	0.13	303.3	6	0.12	0.03	292.0	7	1.21	0.16	132.0
	8	6.37	0.19	30.0	10	0.45	0.16	358.4	12	0.29	0.09	303.3
	14	0.51	0.18	358.4	16	0.45	0.16	358.4	18	0.43	0.13	303.3
	20	0.51	0.18	358.4	26	0.33	0.10	292.0	30	0.32	0.09	292.0
	42	0.30	0.09	292.0	46	0.10	0.03	292.0	47	0.30	0.09	292.0
	50	0.29	0.09	303.3	54	0.10	0.03	292.0	57	1.82	0.24	132.0
	58	3.68	0.11	30.0	80	0.11	0.03	292.0	100	1.01	0.13	132.0
	101	7.21	0.22	30.0	122	1.76	0.23	132.0	123	3.93	0.12	30.0
	2	0.43	0.13	303.3	6	0.12	0.03	292.0	7	1.20	0.16	132.0
70	8	6.39	0.19	30.0	10	0.45	0.16	358.4	12	0.29	0.09	303.3
	14	0.51	0.18	358.4	16	0.45	0.16	358.4	18	0.43	0.13	303.3
	20	0.51	0.18	358.4	26	0.33	0.10	292.0	30	0.32	0.09	292.0
	42	0.30	0.09	292.0	46	0.10	0.03	292.0	47	0.30	0.09	292.0
	50	0.29	0.09	303.3	54	0.10	0.03	292.0	57	1.81	0.24	132.0
	58	3.69	0.11	30.0	80	0.11	0.03	292.0	100	1.02	0.13	132.0
	101	7.19	0.22	30.0	122	1.76	0.23	132.0	123	3.93	0.12	30.0
	2	0.44	0.13	303.3	6	0.12	0.03	292.0	7	1.02	0.13	132.0
	8	7.20	0.22	30.0	10	0.45	0.16	358.4	12	0.29	0.09	303.3
	14	0.51	0.18	358.4	16	0.45	0.16	358.4	18	0.43	0.13	303.3
71	20	0.50	0.18	358.4	26	0.33	0.09	292.0	30	0.32	0.09	292.0
	42	0.30	0.09	292.0	46	0.10	0.03	292.0	47	0.30	0.09	292.0
	50	0.29	0.09	303.3	54	0.10	0.03	292.0	57	1.76	0.23	132.0
	58	3.94	0.12	30.0	80	0.11	0.03	292.0	100	1.20	0.16	132.0
	101	6.40	0.19	30.0	122	1.82	0.24	132.0	123	3.68	0.11	30.0
	2	0.44	0.13	303.3	6	0.12	0.03	292.0	7	1.02	0.13	132.0
	8	7.18	0.22	30.0	10	0.45	0.16	358.4	12	0.29	0.09	303.3
	14	0.51	0.18	358.4	16	0.45	0.16	358.4	18	0.43	0.13	303.3
	20	0.50	0.18	358.4	26	0.33	0.09	292.0	30	0.32	0.09	292.0
	42	0.30	0.09	292.0	46	0.10	0.03	292.0	47	0.30	0.09	292.0
72	50	0.29	0.09	303.3	54	0.10	0.03	292.0	57	1.76	0.23	132.0
	58	3.94	0.12	30.0	80	0.11	0.03	292.0	100	1.19	0.16	132.0
	101	6.42	0.19	30.0	122	1.82	0.24	132.0	123	3.68	0.11	30.0
	2	0.44	0.13	303.3	6	0.12	0.03	292.0	7	1.02	0.13	132.0
	8	7.18	0.22	30.0	10	0.45	0.16	358.4	12	0.29	0.09	303.3
	14	0.51	0.18	358.4	16	0.45	0.16	358.4	18	0.43	0.13	303.3
	20	0.50	0.18	358.4	26	0.33	0.09	292.0	30	0.32	0.09	292.0
	42	0.30	0.09	292.0	46	0.10	0.03	292.0	47	0.30	0.09	292.0
	50	0.29	0.09	303.3	54	0.10	0.03	292.0	57	1.76	0.23	132.0
	58	3.93	0.12	30.0	80	0.11	0.03	292.0	100	1.19	0.16	132.0
73	101	6.42	0.19	30.0	122	1.82	0.24	132.0	123	3.68	0.11	30.0
	2	0.41	0.12	303.3	6	0.039.06e-03		292.0	7	0.45	0.06	132.0
	8	1.68	0.05	30.0	10	0.25	0.09	358.4	12	0.25	0.08	303.3
	14	0.35	0.13	358.4	16	0.25	0.09	358.4	18	0.41	0.12	303.3
	20	0.35	0.13	358.4	26	0.09	0.03	292.0	30	0.09	0.03	292.0
	42	0.10	0.03	292.0	46	0.03	0.01	292.0	47	0.10	0.03	292.0
	50	0.25	0.08	303.3	54	0.04	0.01	292.0	57	0.57	0.08	132.0
	58	1.04	0.03	30.0	80	0.038.45e-03		292.0	100	0.27	0.04	132.0
	101	2.56	0.08	30.0	122	0.51	0.07	132.0	123	1.34	0.04	30.0
	2	0.41	0.12	303.3	6	0.039.05e-03		292.0	7	0.43	0.06	132.0
74	8	1.74	0.05	30.0	10	0.25	0.09	358.4	12	0.25	0.08	303.3
	14	0.35	0.13	358.4	16	0.25	0.09	358.4	18	0.41	0.12	303.3
	20	0.35	0.13	358.4	26	0.09	0.03	292.0	30	0.09	0.03	292.0
	42	0.10	0.03	292.0	46	0.03	0.01	292.0	47	0.10	0.03	292.0
	50	0.25	0.08	303.3	54	0.04	0.01	292.0	57	0.57	0.07	132.0
	58	1.06	0.03	30.0	80	0.038.49e-03		292.0	100	0.29	0.04	132.0
	101	2.48	0.07	30.0	122	0.52	0.07	132.0	123	1.31	0.04	30.0
	2	0.41	0.13	303.3	6	0.038.92e-03		292.0	7	0.26	0.03	132.0
	8	2.53	0.08	30.0	10	0.25	0.09	358.4	12	0.25	0.08	303.3
	14	0.35	0.13	358.4	16	0.25	0.09	358.4	18	0.41	0.12	303.3
75	20	0.35	0.12	358.4	26	0.09	0.03	292.0	30	0.09	0.03	292.0
	42	0.10	0.03	292.0	46	0.03	0.01	292.0	47	0.10	0.03	292.0
	50	0.25	0.08	303.3	54	0.03	0.01	292.0	57	0.51	0.07	132.0
	58	1.30	0.04	30.0	80	0.038.72e-03		292.0	100	0.46	0.06	132.0
	101	1.72	0.05	30.0	122	0.57	0.08	132.0	123	1.08	0.03	30.0

76	2	0.41	0.13	303.3	6	0.038.93e-03		292.0	7	0.28	0.04	132.0	
	8	2.46	0.07	30.0	10	0.25	0.09	358.4	12	0.25	0.08	303.3	
	14	0.35	0.13	358.4	16	0.25	0.09	358.4	18	0.41	0.12	303.3	
	20	0.35	0.12	358.4	26	0.09	0.03	292.0	30	0.09	0.03	292.0	
	42	0.10	0.03	292.0	46	0.03	0.01	292.0	47	0.10	0.03	292.0	
	50	0.25	0.08	303.3	54	0.03	0.01	292.0	57	0.51	0.07	132.0	
	58	1.29	0.04	30.0	80	0.038.69e-03		292.0	100	0.44	0.06	132.0	
	101	1.80	0.05	30.0	122	0.57	0.08	132.0	123	1.10	0.03	30.0	
	77	2	0.41	0.12	303.3	6	0.04	0.01	292.0	7	0.45	0.06	132.0
		8	1.68	0.05	30.0	10	0.25	0.09	358.4	12	0.25	0.08	303.3
14		0.35	0.13	358.4	16	0.25	0.09	358.4	18	0.41	0.12	303.3	
20		0.35	0.13	358.4	26	0.10	0.03	292.0	30	0.09	0.03	292.0	
42		0.09	0.03	292.0	46	0.038.69e-03		292.0	47	0.09	0.03	292.0	
50		0.25	0.08	303.3	54	0.038.88e-03		292.0	57	0.57	0.08	132.0	
58		1.04	0.03	30.0	80	0.039.79e-03		292.0	100	0.27	0.04	132.0	
101		2.56	0.08	30.0	122	0.51	0.07	132.0	123	1.34	0.04	30.0	
78		2	0.41	0.12	303.3	6	0.04	0.01	292.0	7	0.43	0.06	132.0
		8	1.74	0.05	30.0	10	0.25	0.09	358.4	12	0.25	0.08	303.3
	14	0.35	0.13	358.4	16	0.25	0.09	358.4	18	0.41	0.12	303.3	
	20	0.35	0.13	358.4	26	0.10	0.03	292.0	30	0.09	0.03	292.0	
	42	0.09	0.03	292.0	46	0.038.72e-03		292.0	47	0.09	0.03	292.0	
	50	0.25	0.08	303.3	54	0.038.87e-03		292.0	57	0.56	0.07	132.0	
	58	1.06	0.03	30.0	80	0.039.83e-03		292.0	100	0.29	0.04	132.0	
	101	2.48	0.07	30.0	122	0.52	0.07	132.0	123	1.32	0.04	30.0	
	79	2	0.41	0.13	303.3	6	0.04	0.01	292.0	7	0.26	0.03	132.0
		8	2.53	0.08	30.0	10	0.25	0.09	358.4	12	0.25	0.08	303.3
14		0.35	0.13	358.4	16	0.25	0.09	358.4	18	0.41	0.12	303.3	
20		0.35	0.12	358.4	26	0.10	0.03	292.0	30	0.10	0.03	292.0	
42		0.09	0.03	292.0	46	0.038.84e-03		292.0	47	0.09	0.03	292.0	
50		0.25	0.08	303.3	54	0.038.78e-03		292.0	57	0.51	0.07	132.0	
58		1.30	0.04	30.0	80	0.03	0.01	292.0	100	0.46	0.06	132.0	
101		1.72	0.05	30.0	122	0.57	0.08	132.0	123	1.08	0.03	30.0	
80		2	0.41	0.12	303.3	6	0.04	0.01	292.0	7	0.28	0.04	132.0
		8	2.46	0.07	30.0	10	0.25	0.09	358.4	12	0.25	0.08	303.3
	14	0.35	0.13	358.4	16	0.25	0.09	358.4	18	0.41	0.12	303.3	
	20	0.35	0.12	358.4	26	0.10	0.03	292.0	30	0.10	0.03	292.0	
	42	0.09	0.03	292.0	46	0.038.80e-03		292.0	47	0.09	0.03	292.0	
	50	0.25	0.08	303.3	54	0.038.79e-03		292.0	57	0.51	0.07	132.0	
	58	1.29	0.04	30.0	80	0.03	0.01	292.0	100	0.44	0.06	132.0	
	101	1.80	0.05	30.0	122	0.57	0.08	132.0	123	1.10	0.03	30.0	
	81	2	0.41	0.12	303.3	6	0.039.07e-03		292.0	7	0.46	0.06	132.0
		8	1.71	0.05	30.0	10	0.25	0.09	358.4	12	0.25	0.08	303.3
14		0.35	0.13	358.4	16	0.25	0.09	358.4	18	0.41	0.12	303.3	
20		0.35	0.13	358.4	26	0.09	0.03	292.0	30	0.09	0.03	292.0	
42		0.10	0.03	292.0	46	0.03	0.01	292.0	47	0.10	0.03	292.0	
50		0.25	0.08	303.3	54	0.04	0.01	292.0	57	0.57	0.08	132.0	
58		1.08	0.03	30.0	80	0.038.46e-03		292.0	100	0.26	0.03	132.0	
101		2.53	0.08	30.0	122	0.51	0.07	132.0	123	1.30	0.04	30.0	
82		2	0.41	0.12	303.3	6	0.039.04e-03		292.0	7	0.44	0.06	132.0
		8	1.79	0.05	30.0	10	0.25	0.09	358.4	12	0.25	0.08	303.3
	14	0.35	0.13	358.4	16	0.25	0.09	358.4	18	0.41	0.12	303.3	
	20	0.35	0.13	358.4	26	0.09	0.03	292.0	30	0.09	0.03	292.0	
	42	0.10	0.03	292.0	46	0.03	0.01	292.0	47	0.10	0.03	292.0	
	50	0.25	0.08	303.3	54	0.03	0.01	292.0	57	0.57	0.08	132.0	
	58	1.10	0.03	30.0	80	0.038.48e-03		292.0	100	0.28	0.04	132.0	
	101	2.46	0.07	30.0	122	0.51	0.07	132.0	123	1.29	0.04	30.0	
	83	2	0.41	0.13	303.3	6	0.038.91e-03		292.0	7	0.27	0.04	132.0
		8	2.56	0.08	30.0	10	0.25	0.09	358.4	12	0.25	0.08	303.3
14		0.35	0.13	358.4	16	0.25	0.09	358.4	18	0.41	0.12	303.3	
20		0.35	0.12	358.4	26	0.09	0.03	292.0	30	0.09	0.03	292.0	
42		0.10	0.03	292.0	46	0.03	0.01	292.0	47	0.10	0.03	292.0	
50		0.25	0.08	303.3	54	0.03	0.01	292.0	57	0.51	0.07	132.0	
58		1.34	0.04	30.0	80	0.038.71e-03		292.0	100	0.45	0.06	132.0	
101		1.69	0.05	30.0	122	0.57	0.08	132.0	123	1.04	0.03	30.0	
84		2	0.41	0.13	303.3	6	0.038.94e-03		292.0	7	0.29	0.04	132.0
		8	2.48	0.07	30.0	10	0.25	0.09	358.4	12	0.25	0.08	303.3
	14	0.35	0.13	358.4	16	0.25	0.09	358.4	18	0.41	0.12	303.3	
	20	0.35	0.12	358.4	26	0.09	0.03	292.0	30	0.09	0.03	292.0	
	42	0.10	0.03	292.0	46	0.03	0.01	292.0	47	0.10	0.03	292.0	
	50	0.25	0.08	303.3	54	0.03	0.01	292.0	57	0.52	0.07	132.0	
	58	1.32	0.04	30.0	80	0.038.70e-03		292.0	100	0.43	0.06	132.0	
	101	1.76	0.05	30.0	122	0.57	0.07	132.0	123	1.06	0.03	30.0	
	85	2	0.41	0.12	303.3	6	0.04	0.01	292.0	7	0.46	0.06	132.0
		8	1.71	0.05	30.0	10	0.25	0.09	358.4	12	0.25	0.08	303.3
14		0.35	0.13	358.4	16	0.25	0.09	358.4	18	0.41	0.12	303.3	
20		0.35	0.13	358.4	26	0.10	0.03	292.0	30	0.09	0.03	292.0	
42		0.09	0.03	292.0	46	0.038.70e-03		292.0	47	0.09	0.03	292.0	

86	50	0.25	0.08	303.3	54	0.038.88e-03	292.0	57	0.57	0.08	132.0
	58	1.08	0.03	30.0	80	0.039.80e-03	292.0	100	0.26	0.03	132.0
	101	2.53	0.08	30.0	122	0.51	0.07	123	1.30	0.04	30.0
	2	0.41	0.12	303.3	6	0.04	0.01	7	0.44	0.06	132.0
	8	1.79	0.05	30.0	10	0.25	0.09	12	0.25	0.08	303.3
	14	0.35	0.13	358.4	16	0.25	0.09	18	0.41	0.12	303.3
	20	0.35	0.13	358.4	26	0.10	0.03	30	0.09	0.03	292.0
	42	0.09	0.03	292.0	46	0.038.71e-03	292.0	47	0.09	0.03	292.0
	50	0.25	0.08	303.3	54	0.038.86e-03	292.0	57	0.57	0.08	132.0
	58	1.10	0.03	30.0	80	0.039.81e-03	292.0	100	0.28	0.04	132.0
87	101	2.46	0.07	30.0	122	0.51	0.07	123	1.29	0.04	30.0
	2	0.41	0.13	303.3	6	0.04	0.01	7	0.27	0.04	132.0
	8	2.56	0.08	30.0	10	0.25	0.09	12	0.25	0.08	303.3
	14	0.35	0.13	358.4	16	0.25	0.09	18	0.41	0.12	303.3
	20	0.35	0.12	358.4	26	0.10	0.03	30	0.10	0.03	292.0
	42	0.09	0.03	292.0	46	0.038.83e-03	292.0	47	0.09	0.03	292.0
	50	0.25	0.08	303.3	54	0.038.78e-03	292.0	57	0.51	0.07	132.0
	58	1.34	0.04	30.0	80	0.03	0.01	100	0.45	0.06	132.0
	101	1.69	0.05	30.0	122	0.57	0.08	123	1.05	0.03	30.0
	2	0.41	0.12	303.3	6	0.04	0.01	7	0.29	0.04	132.0
88	8	2.48	0.07	30.0	10	0.25	0.09	12	0.25	0.08	303.3
	14	0.35	0.13	358.4	16	0.25	0.09	18	0.41	0.12	303.3
	20	0.35	0.12	358.4	26	0.10	0.03	30	0.10	0.03	292.0
	42	0.09	0.03	292.0	46	0.038.82e-03	292.0	47	0.09	0.03	292.0
	50	0.25	0.08	303.3	54	0.038.80e-03	292.0	57	0.52	0.07	132.0
	58	1.32	0.04	30.0	80	0.03	0.01	100	0.43	0.06	132.0
	101	1.76	0.05	30.0	122	0.57	0.07	123	1.06	0.03	30.0

Cmb 1000 etaT/h
 7.22



31_RIS_SPETTRI_PROGETTO_SLV_O

RISULTATI OPERE DI FONDAZIONE

LEGENDA RISULTATI OPERE DI FONDAZIONE

Il controllo dei risultati delle analisi condotte, per quanto concerne le opere di fondazione, è possibile in relazione alle tabelle sotto riportate.

La prima tabella è riferita alle fondazioni tipo palo e plinto su pali.

Per questo tipo di fondazione vengono riportate le sei componenti di sollecitazione (esprese nel riferimento globale della struttura) per ogni palo componente l'opera.

In particolare viene riportato:

Nodo	numero del nodo a cui è applicato il plinto
Tipo	codice corrispondente al nome assegnato al tipo di plinto di fondazione: 3) palo singolo (<i>PALO</i>) 4) plinto su palo 5) plinto su due pali (<i>PL.2P</i>) 6) plinto su tre pali (<i>PL.3P</i>) 7) plinto su quattro pali (<i>PL.4P</i>) 8) plinto rettangolare su cinque pali (<i>PL.5P.R</i>) 9) plinto pentagonale su cinque pali (<i>PL.5P</i>) 10) plinto su sei pali (<i>PL.6P</i>)
Palo	numero del palo
Comb.	combinazione di carico in cui si verificano le sei componenti di sollecitazione.
Quota	quota assoluta della sezione del palo per cui si riportano le sei componenti di sollecitazione.

L'azione F_z (corrispondente allo sforzo normale nel palo) è costante poiché il peso del palo stesso non è considerato nella modellazione.

La seconda tabella è riferita alle fondazioni tipo plinto su suolo elastico.

Per questo tipo di fondazione vengono riportate le pressioni nei quattro vertici dell'impronta sul terreno.

In particolare viene riportato:

Nodo	numero del nodo a cui è applicato il plinto
Tipo	Codice identificativo del nome assegnato al plinto
area	area dell'impronta del plinto
Wink O Wink V	coefficienti di Winkler (orizzontale e verticale) adottati
Comb	Combinazione di carico in cui si verificano i valori riportati
Pt (P1 P2 P3 P4)	valori di pressione nei vertici

La terza tabella è riferita alle fondazioni tipo platea su suolo elastico.

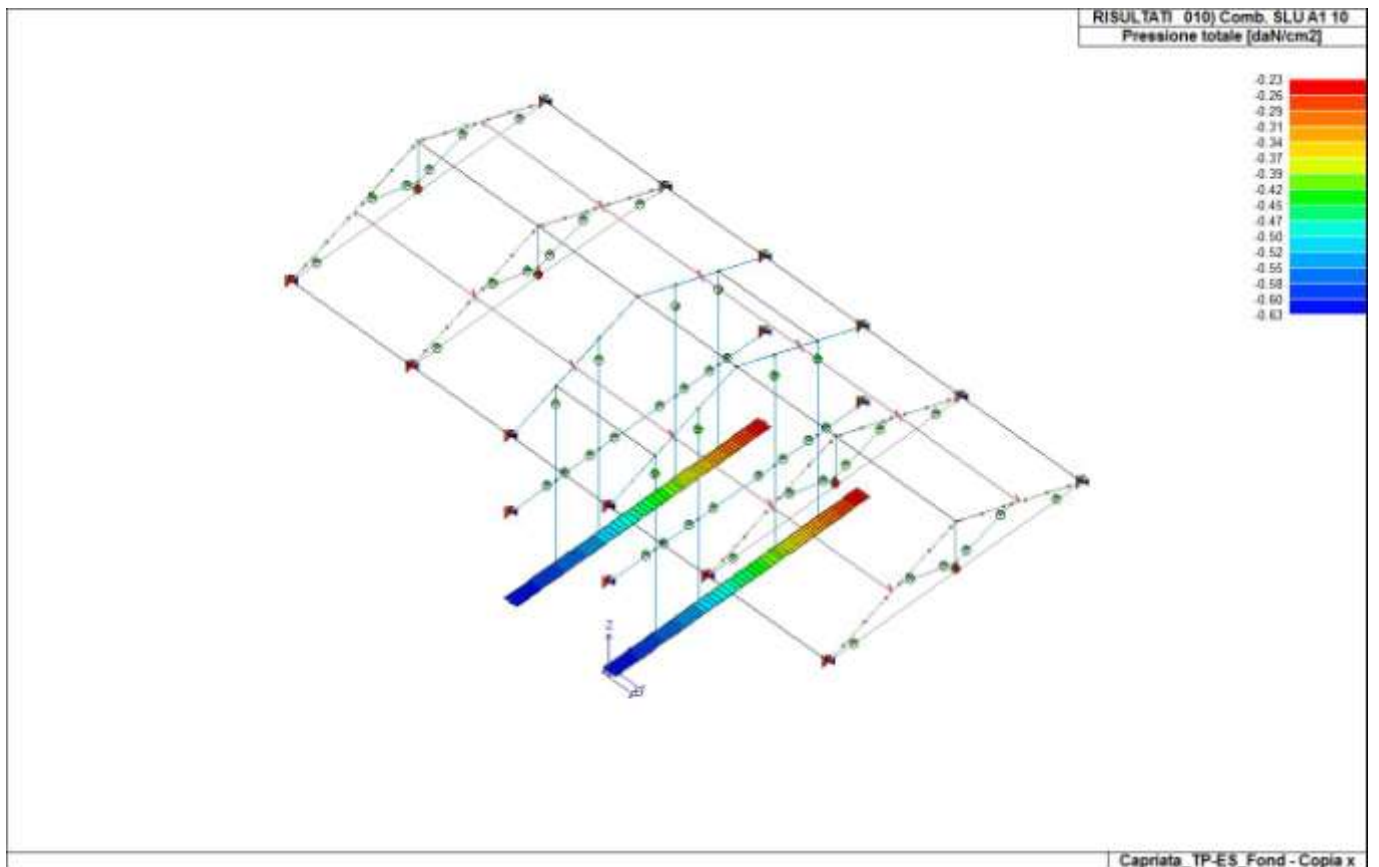
Per questo tipo di fondazione vengono riportate le pressioni in ogni vertice (nodo) degli elementi costituenti la platea.

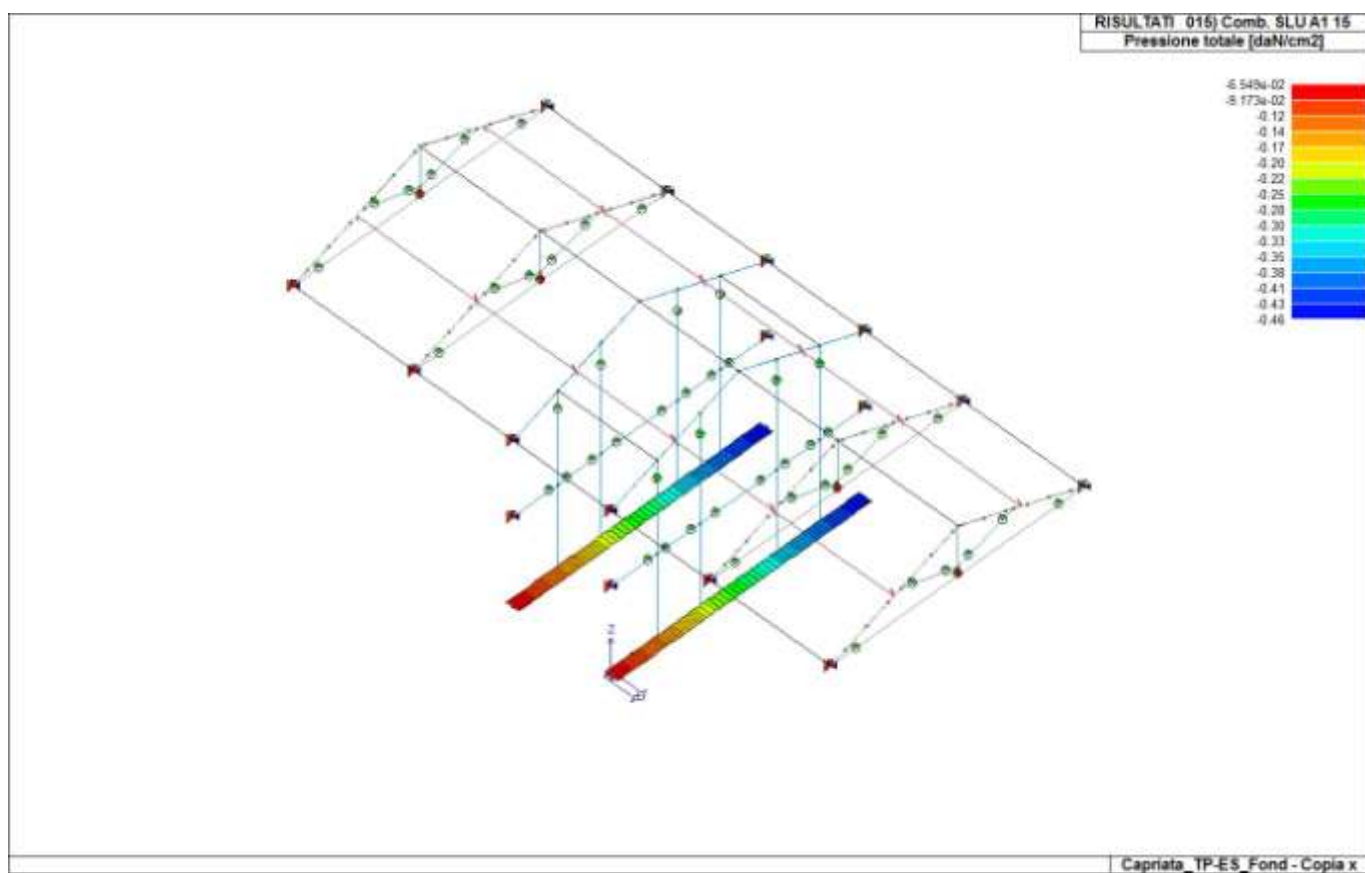
La quarta tabella è riferita alle fondazioni tipo trave su suolo elastico.

Per questo tipo di fondazione vengono riportate le pressioni alle estremità dell'elemento e la massima (in valore assoluto) pressione lungo lo sviluppo dell'elemento.

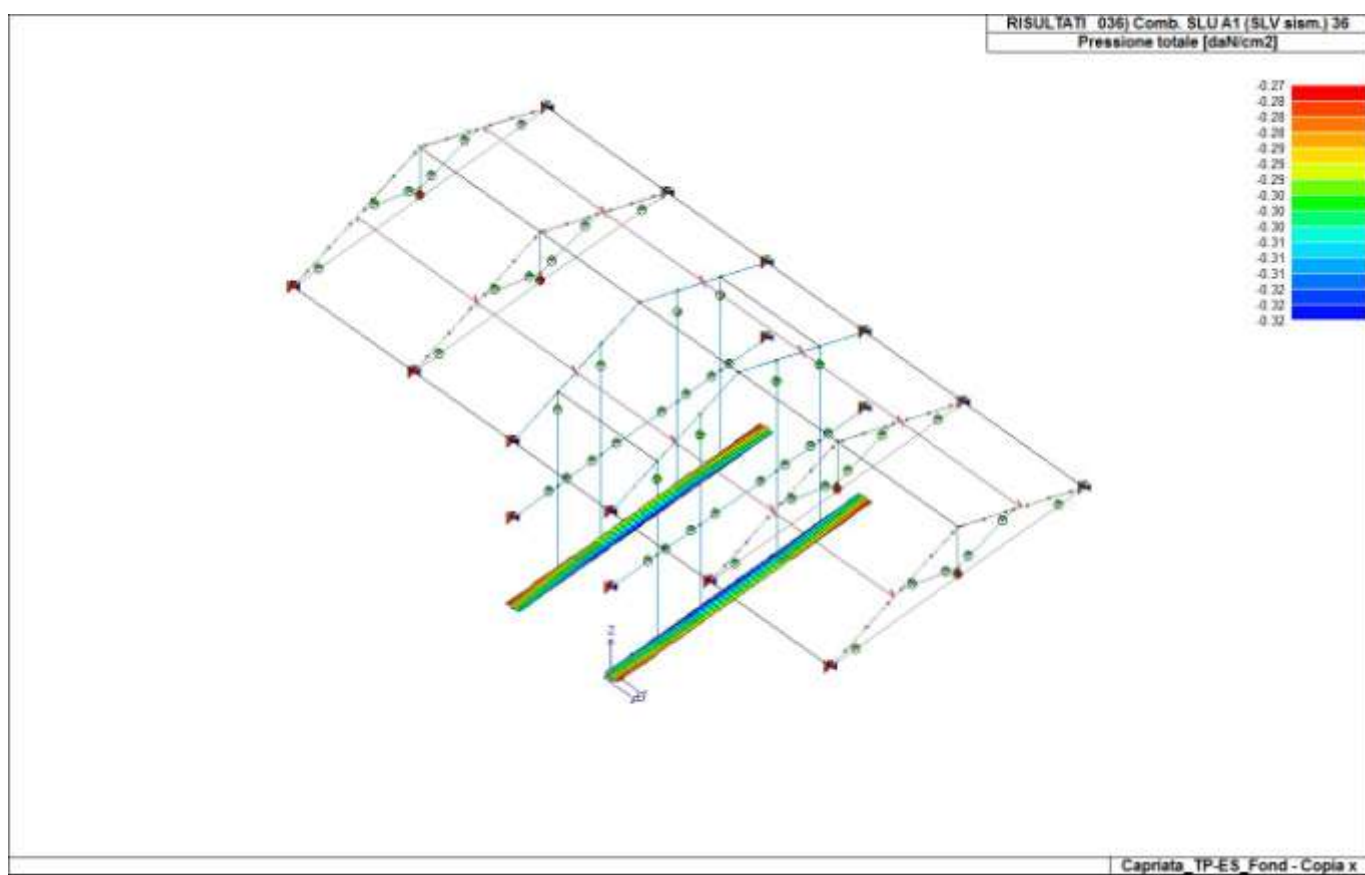
Vengono inoltre riportati, con funzione statistica, i valori massimo e minimo delle pressioni che compaiono nella tabella.

Elem.	Cmb	Pt ini daN/cm2	Pt fin daN/cm2	Pt max daN/cm2	Cmb	Pt ini daN/cm2	Pt fin daN/cm2	Pt max daN/cm2	Cmb	Pt ini daN/cm2	Pt fin daN/cm2	Pt max daN/cm2
83	14	-0.53	-0.59	-0.59	37	-0.32	-0.31	-0.32	69	-0.31	-0.30	-0.31
	96	-0.39	-0.42	-0.42	102	-0.31	-0.30	-0.31	103	-0.30	-0.29	-0.30
84	14	-0.47	-0.53	-0.53	37	-0.32	-0.32	-0.32	69	-0.32	-0.31	-0.32
	96	-0.34	-0.39	-0.39	102	-0.31	-0.31	-0.31	103	-0.31	-0.30	-0.31
85	10	-0.53	-0.40	-0.53	33	-0.32	-0.32	-0.32	65	-0.32	-0.32	-0.32
	94	-0.38	-0.30	-0.38	102	-0.31	-0.31	-0.31	103	-0.31	-0.31	-0.31
86	10	-0.58	-0.53	-0.58	29	-0.32	-0.32	-0.32	61	-0.31	-0.32	-0.32
	94	-0.42	-0.38	-0.42	102	-0.31	-0.31	-0.31	103	-0.30	-0.31	-0.31
87	10	-0.63	-0.58	-0.63	29	-0.31	-0.32	-0.32	61	-0.30	-0.31	-0.31
	94	-0.45	-0.42	-0.45	102	-0.30	-0.31	-0.31	103	-0.29	-0.30	-0.30
88	14	-0.53	-0.59	-0.59	33	-0.32	-0.31	-0.32	65	-0.31	-0.30	-0.31
	96	-0.39	-0.42	-0.42	102	-0.31	-0.30	-0.31	103	-0.30	-0.29	-0.30
89	14	-0.47	-0.53	-0.53	33	-0.32	-0.32	-0.32	65	-0.32	-0.31	-0.32
	96	-0.35	-0.39	-0.39	102	-0.31	-0.31	-0.31	103	-0.31	-0.30	-0.31
90	10	-0.53	-0.40	-0.53	37	-0.32	-0.32	-0.32	61	-0.32	-0.32	-0.32
	94	-0.38	-0.30	-0.38	102	-0.31	-0.31	-0.31	103	-0.31	-0.31	-0.31
91	10	-0.58	-0.53	-0.58	25	-0.32	-0.32	-0.32	57	-0.31	-0.32	-0.32
	94	-0.42	-0.38	-0.42	102	-0.31	-0.31	-0.31	103	-0.30	-0.31	-0.31
92	10	-0.63	-0.58	-0.63	25	-0.31	-0.32	-0.32	57	-0.30	-0.31	-0.31
	94	-0.45	-0.42	-0.45	102	-0.30	-0.31	-0.31	103	-0.29	-0.30	-0.30
Elem.		Pt ini -0.63 -0.29	Pt fin	Pt max		Pt ini	Pt fin	Pt max		Pt ini	Pt fin	Pt max

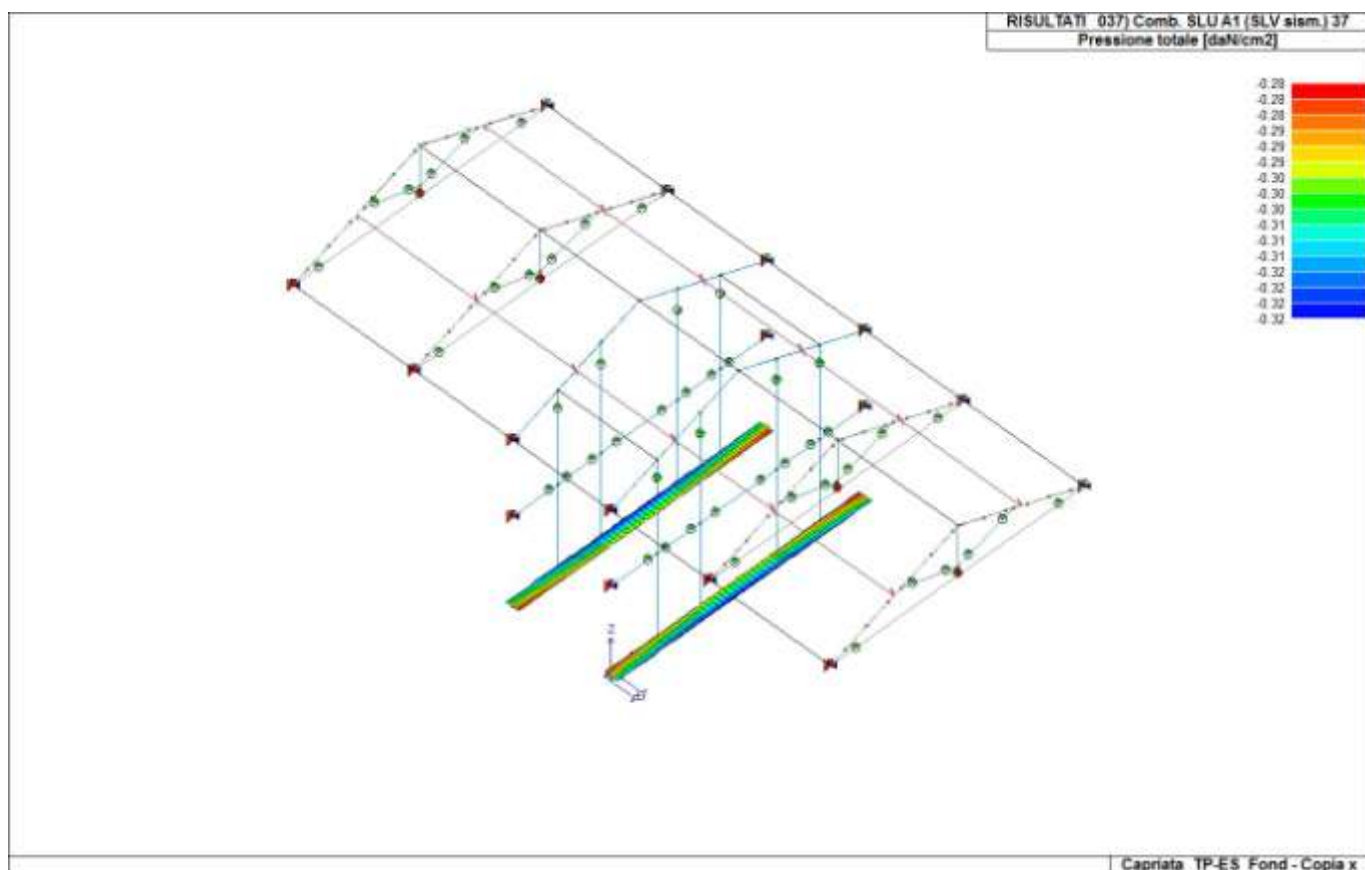




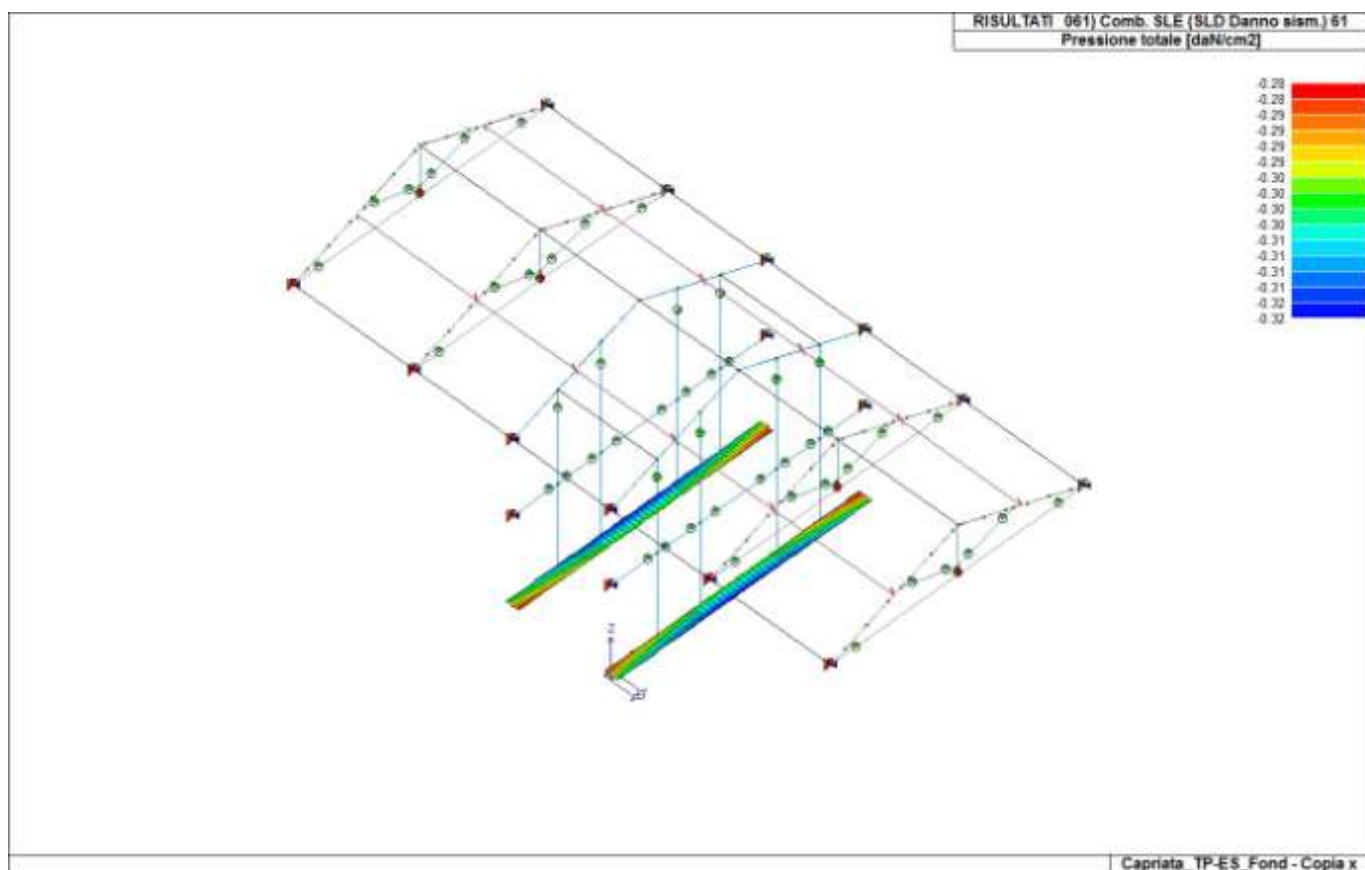
46_RIS_PRESSIONI_015_Comb. SLU A1 15



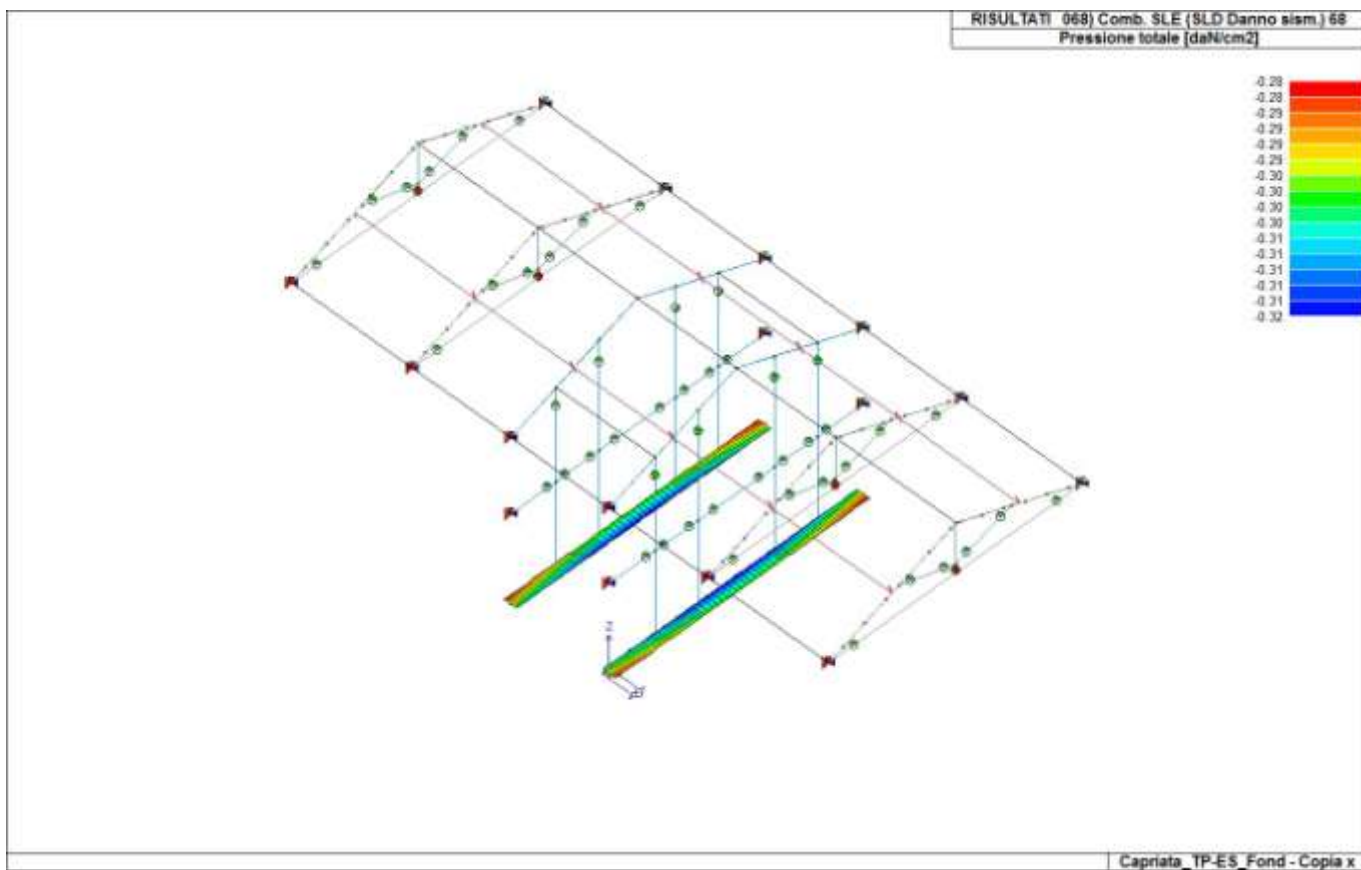
46_RIS_PRESSIONI_036_Comb. SLU A1 (SLV sism.) 36



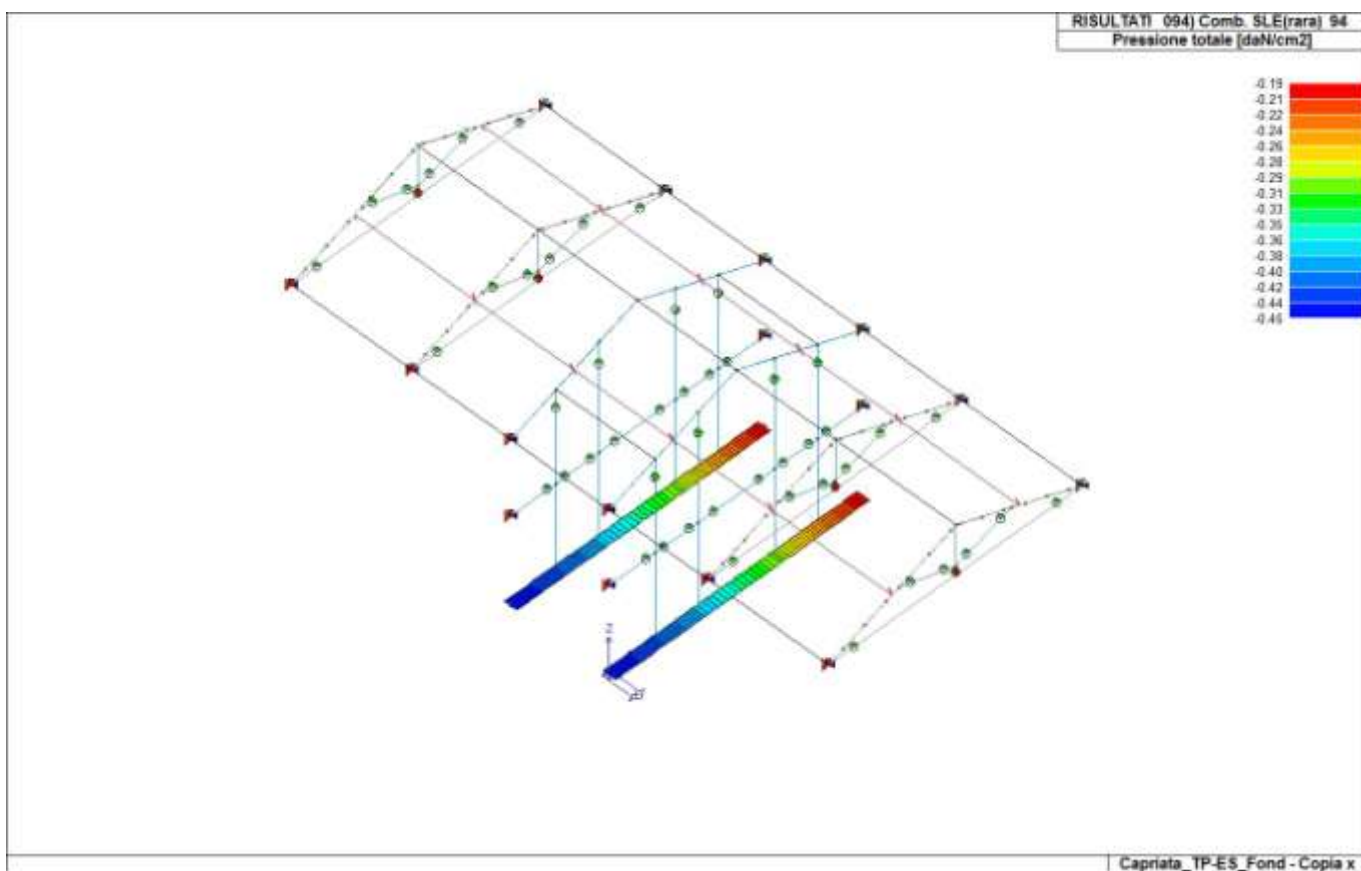
46_RIS_PRESSIONI_037_Comb. SLU A1 (SLV sism.) 37



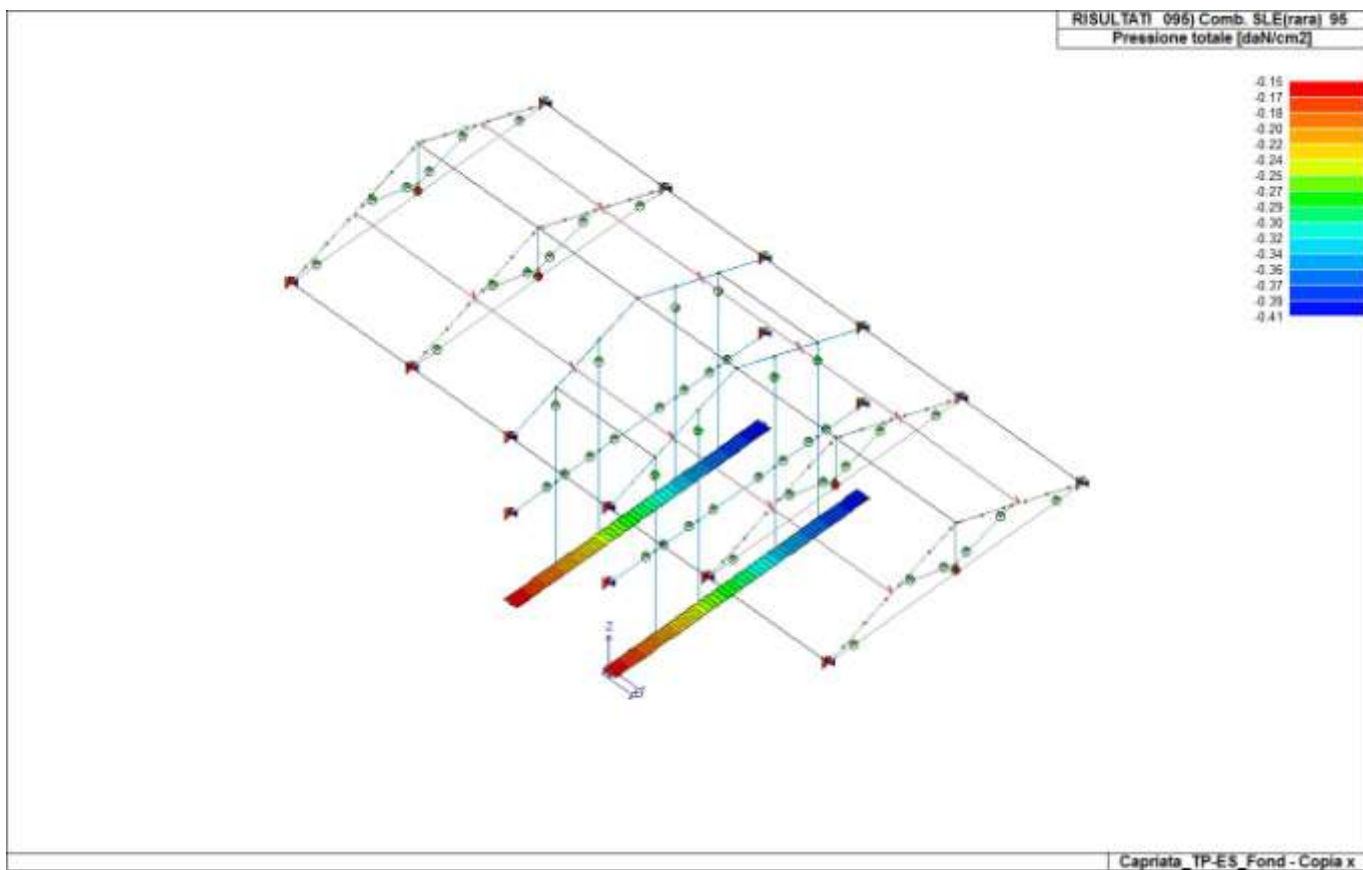
46_RIS_PRESSIONI_061_Comb. SLE (SLD Danno sism.) 61



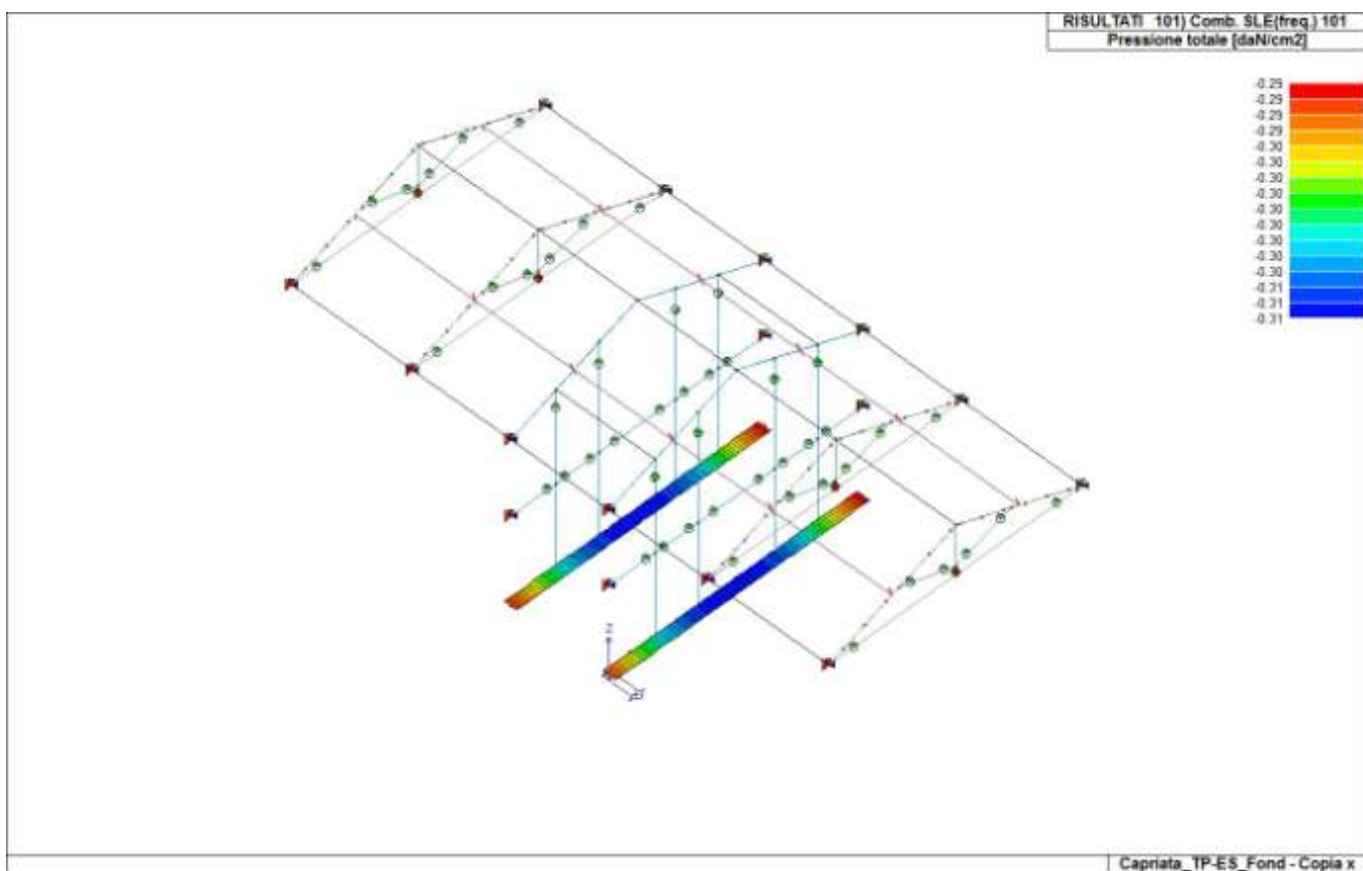
46_RIS_PRESSIONI_068_Comb. SLE (SLD Danno sism.) 68



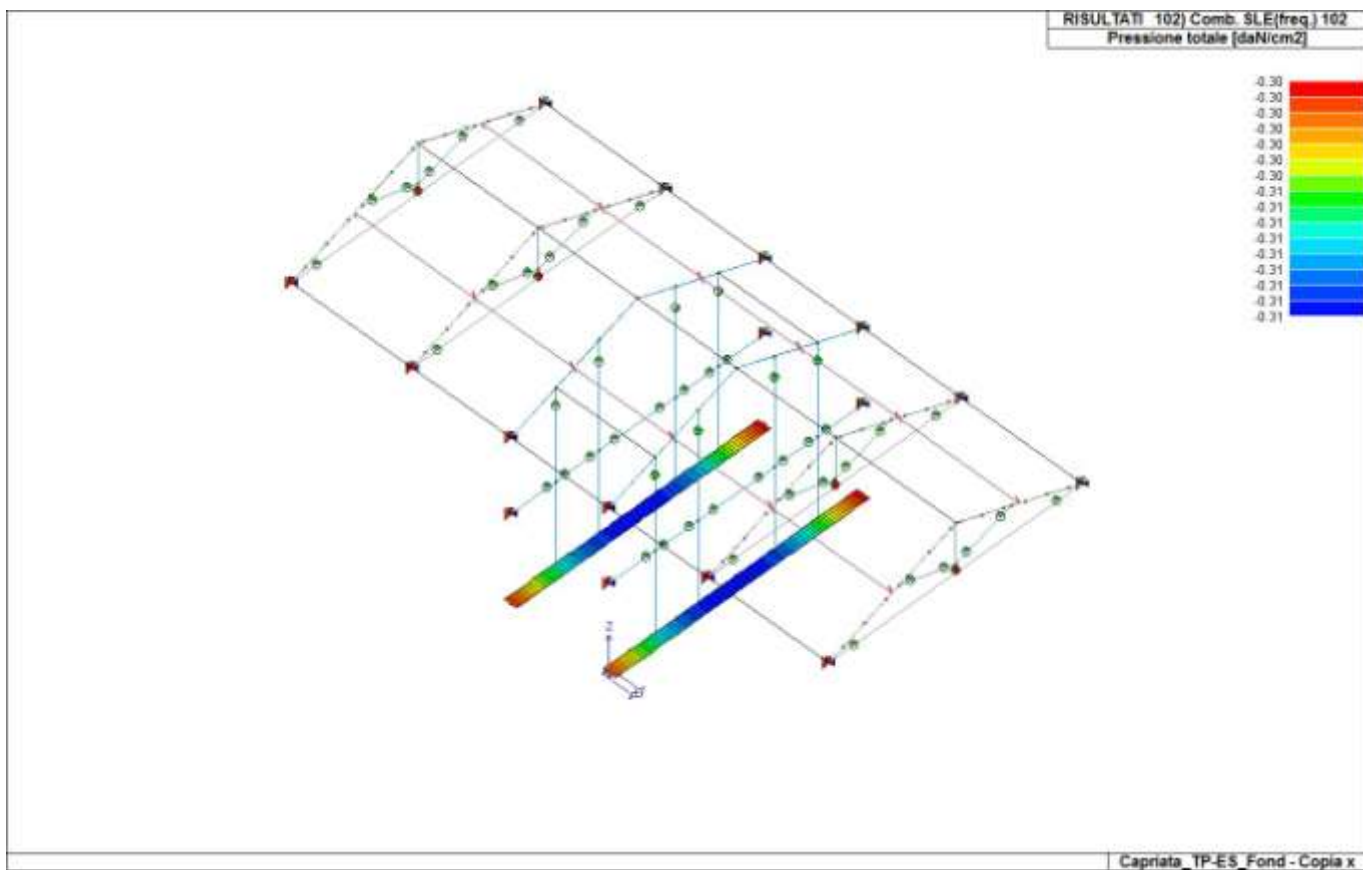
46_RIS_PRESSIONI_094_Comb. SLE(rara) 94



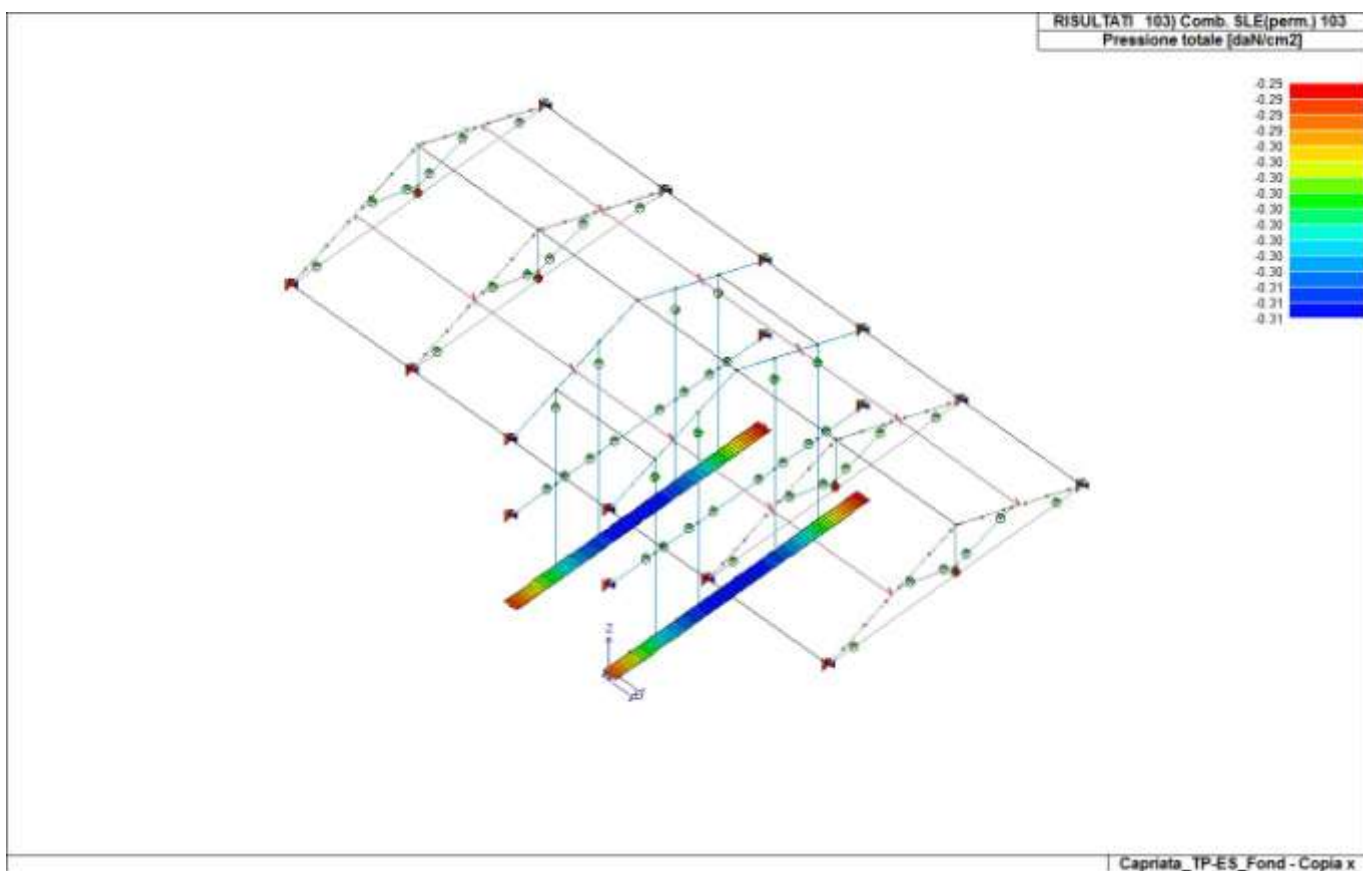
46_RIS_PRESSIONI_095_Comb. SLE(rara) 95



46_RIS_PRESSIONI_101_Comb. SLE(freq.) 101



46_RIS_PRESSIONI_102_Comb. SLE(freq.) 102



46_RIS_PRESSIONI_103_Comb. SLE(perm.) 103

RISULTATI ELEMENTI TIPO TRAVE

LEGENDA RISULTATI ELEMENTI TIPO TRAVE

Il controllo dei risultati delle analisi condotte, per quanto concerne gli elementi tipo trave, è possibile in relazione alle tabelle sotto riportate.

Gli elementi vengono suddivisi in relazione alle proprietà in elementi:

- tipo **pilastro**
- tipo **trave in elevazione**
- tipo **trave in fondazione**

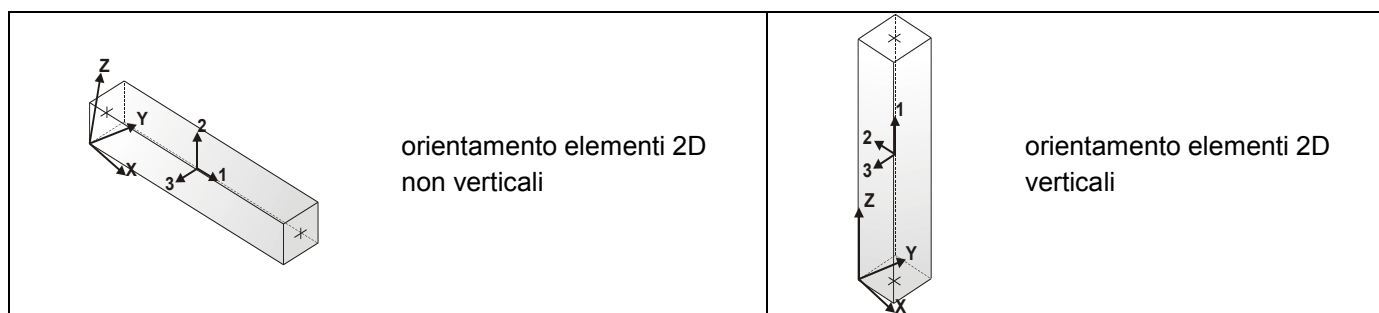
Per ogni elemento e per ogni combinazione (o caso di carico) vengono riportati i risultati più significativi.

Per gli elementi tipo *pilastro* sono riportati in tabella i seguenti valori:

Pilas.	numero dell'elemento pilastro
Cmb	combinazione in cui si verificano i valori riportati
M3 mx/mn	momento flettente in campata M3 max (prima riga) / min (seconda riga)
M2 mx/mn	momento flettente in campata M2 max (prima riga) / min (seconda riga)
D2/D3	freccia massima in direzione 2 (prima riga) / direzione 3 (seconda riga)
Q2/Q3	carico totale in direzione 2 (prima riga) / direzione 3 (seconda riga)
Pos.	ascissa del punto iniziale e finale dell'elemento
N, V2, ecc..	sei componenti di sollecitazione al piede ed in sommità dell'elemento

Per gli elementi tipo *trave in elevazione* sono riportati, oltre al numero dell'elemento, i medesimi risultati visti per i pilastri.

Per gli elementi tipo *trave in fondazione* (trave f.) sono riportati, oltre al numero dell'elemento, i medesimi risultati visti per i pilastri e la massima pressione sul terreno.



Pilas.	Cmb	M3 mx/mn daN cm	M2 mx/mn daN cm	D 2 / D 3 cm	Q 2 / Q 3 daN	Pos. cm	N daN	V 2 daN	V 3 daN	T daN cm	M 2 daN cm	M 3 daN cm
2	3	0.38	0.0	-1.77e-04	0.0	0.0	-291.15	0.03	10.67	-1.90	-3236.02	-10.05
		-10.05	-3236.02	-0.11	0.0	303.3	-235.34	0.03	10.67	-1.90	0.0	0.38
2	9	3.11	0.0	-4.24e-04	0.0	0.0	821.71	0.09	25.78	-4.32	-7817.41	-24.43
		-24.43	-7817.41	-0.33	0.0	303.3	894.26	0.09	25.78	-4.32	0.0	3.11
2	10	3.87	0.0	-4.06e-04	0.0	0.0	673.50	0.09	27.73	-4.23	-8408.92	-23.70
		-23.70	-8408.92	-0.35	0.0	303.3	746.05	0.09	27.73	-4.23	0.0	3.87
2	11	2.24	0.0	-3.88e-04	0.0	0.0	1055.61	0.08	20.65	-3.84	-6261.73	-22.13
		-22.13	-6261.73	-0.27	0.0	303.3	1111.41	0.08	20.65	-3.84	0.0	2.24
2	14	0.46	0.0	1.48e-05	0.0	0.0	-2020.00	-1.00e-03	7.77	-0.33	-2357.51	0.46
		0.16	-2357.51	-0.03	0.0	303.3	-1947.46	-1.00e-03	7.77	-0.33	0.0	0.16
2	29	-925.27	0.0	-0.11	0.0	0.0	-355.83	7.18	11.31	668.32	-3429.98	-2880.84
		-2880.84	-3429.98	-0.12	0.0	303.3	-300.03	7.18	11.31	668.32	0.0	-925.27
2	33	-958.94	0.0	-0.11	0.0	0.0	-356.10	8.92	11.30	685.75	-3428.27	-3251.68
		-3251.68	-3428.27	-0.12	0.0	303.3	-300.29	8.92	11.30	685.75	0.0	-958.94
2	36	3232.21	0.0	0.11	0.0	0.0	-353.63	-8.85	11.71	-689.46	-3552.36	3232.21
		960.35	-3552.36	-0.13	0.0	303.3	-297.82	-8.85	11.71	-689.46	0.0	960.35
2	38	-958.96	0.0	-0.11	0.0	0.0	-356.42	8.92	11.30	685.88	-3428.07	-3250.71
		-3250.71	-3428.07	-0.12	0.0	303.3	-300.61	8.92	11.30	685.88	0.0	-958.96
2	39	3231.24	0.0	0.11	0.0	0.0	-353.31	-8.85	11.71	-689.59	-3552.56	3231.24
		960.38	-3552.56	-0.13	0.0	303.3	-297.50	-8.85	11.71	-689.59	0.0	960.38
2	61	-432.46	0.0	-0.05	0.0	0.0	-355.45	3.81	11.41	320.92	-3461.95	-1439.29
		-1439.29	-3461.95	-0.12	0.0	303.3	-299.64	3.81	11.41	320.92	0.0	-432.46
2	65	-451.70	0.0	-0.04	0.0	0.0	-355.61	4.94	11.41	330.75	-3461.19	-1688.76
		-1688.76	-3461.19	-0.12	0.0	303.3	-299.80	4.94	11.41	330.75	0.0	-451.70
2	68	1669.29	0.0	0.04	0.0	0.0	-354.12	-4.87	11.60	-334.46	-3519.44	1669.29
		453.12	-3519.44	-0.13	0.0	303.3	-298.31	-4.87	11.60	-334.46	0.0	453.12
2	70	-451.72	0.0	-0.04	0.0	0.0	-355.80	4.94	11.41	330.82	-3461.07	-1688.15
		-1688.15	-3461.07	-0.12	0.0	303.3	-299.99	4.94	11.41	330.82	0.0	-451.72
2	71	1668.68	0.0	0.04	0.0	0.0	-353.93	-4.87	11.60	-334.54	-3519.57	1668.68
		453.13	-3519.57	-0.13	0.0	303.3	-298.12	-4.87	11.60	-334.54	0.0	453.13
2	89	0.71	0.0	-1.70e-04	0.0	0.0	-354.86	0.03	11.51	-1.86	-3490.32	-9.74
		-9.74	-3490.32	-0.12	0.0	303.3	-299.06	0.03	11.51	-1.86	0.0	0.71
2	93	1.95	0.0	-3.10e-04	0.0	0.0	542.97	0.07	18.16	-3.15	-5507.45	-17.79
		-17.79	-5507.45	-0.23	0.0	303.3	598.78	0.07	18.16	-3.15	0.0	1.95
2	94	2.46	0.0	-2.99e-04	0.0	0.0	444.16	0.07	19.46	-3.09	-5901.79	-17.31
		-17.31	-5901.79	-0.24	0.0	303.3	499.97	0.07	19.46	-3.09	0.0	2.46
2	96	-0.02	0.0	-1.69e-05	0.0	0.0	-1351.51	3.88e-03	6.16	-0.50	-1867.52	-1.20
		-1.20	-1867.52	-0.03	0.0	303.3	-1295.70	3.88e-03	6.16	-0.50	0.0	-0.02
2	101	0.71	0.0	-1.70e-04	0.0	0.0	-354.86	0.03	11.51	-1.86	-3490.32	-9.74
		-9.74	-3490.32	-0.12	0.0	303.3	-299.06	0.03	11.51	-1.86	0.0	0.71
2	102	0.91	0.0	-1.65e-04	0.0	0.0	-394.39	0.03	12.03	-1.83	-3648.05	-9.54
		-9.54	-3648.05	-0.13	0.0	303.3	-338.58	0.03	12.03	-1.83	0.0	0.91
2	103	0.71	0.0	-1.70e-04	0.0	0.0	-354.86	0.03	11.51	-1.86	-3490.32	-9.74
		-9.74	-3490.32	-0.12	0.0	303.3	-299.06	0.03	11.51	-1.86	0.0	0.71
6	9	5.94	-3278.87	-1.61e-04	0.0	0.0	673.12	0.03	-15.56	1.04	-3278.87	-2.14
		-2.14	-7822.05	0.03	0.0	292.0	742.96	0.03	-15.56	1.04	-7822.05	5.94
6	10	5.78	-3141.09	-1.56e-04	0.0	0.0	525.72	0.03	-18.09	1.01	-3141.09	-2.20
		-2.20	-8423.72	0.03	0.0	292.0	595.57	0.03	-18.09	1.01	-8423.72	5.78
6	11	5.33	-3655.93	-1.46e-04	0.0	0.0	941.20	0.02	-8.94	0.94	-3655.93	-1.80
		-1.80	-6265.01	0.02	0.0	292.0	994.92	0.02	-8.94	0.94	-6265.01	5.33
6	14	0.19	5776.27	1.32e-06	0.0	0.0	-2172.23	2.46e-03	-27.69	-0.02	5776.27	-0.53
		-0.53	-2307.83	-9.89e-03	0.0	292.0	-2102.38	2.46e-03	-27.69	-0.02	-2307.83	0.19
6	30	5569.39	876.39	-0.06	0.0	0.0	-470.16	-19.64	-15.08	387.26	876.39	5569.39
		-2936.36	-3525.84	7.05e-03	0.0	292.0	-416.44	-19.64	-15.08	387.26	-3525.84	-2936.36
6	31	2941.30	847.58	0.06	0.0	0.0	-472.13	19.67	-14.57	-386.42	847.58	-5571.37
		-5571.37	-3405.61	6.81e-03	0.0	292.0	-418.40	19.67	-14.57	-386.42	-3405.61	2941.30
6	33	4891.02	878.48	-0.06	0.0	0.0	-469.65	-16.51	-15.09	423.52	878.48	4891.02
		-3241.89	-3527.79	7.06e-03	0.0	292.0	-415.92	-16.51	-15.09	423.52	-3527.79	-3241.89
6	36	3246.82	845.49	0.06	0.0	0.0	-472.64	16.54	-14.55	-422.68	845.49	-4893.00
		-4893.00	-3403.66	6.80e-03	0.0	292.0	-418.91	16.54	-14.55	-422.68	-3403.66	3246.82
6	62	3310.36	868.82	-0.03	0.0	0.0	-470.55	-10.73	-14.94	210.64	868.82	3310.36
		-1429.46	-3494.05	6.99e-03	0.0	292.0	-416.82	-10.73	-14.94	210.64	-3494.05	-1429.46
6	63	1434.40	855.15	0.03	0.0	0.0	-471.74	10.75	-14.70	-209.80	855.15	-3312.33
		-3312.33	-3437.40	6.87e-03	0.0	292.0	-418.01	10.75	-14.70	-209.80	-3437.40	1434.40
6	65	2905.43	869.91	-0.03	0.0	0.0	-470.25	-8.66	-14.95	233.16	869.91	2905.43
		-1639.04	-3494.93	6.99e-03	0.0	292.0	-416.52	-8.66	-14.95	233.16	-3494.93	-1639.04
6	68	1643.98	854.06	0.03	0.0	0.0	-472.05	8.69	-14.69	-232.33	854.06	-2907.41
		-2907.41	-3436.52	6.87e-03	0.0	292.0	-418.32	8.69	-14.69	-232.33	-3436.52	1643.98
6	93	4.33	-2110.47	-1.18e-04	0.0	0.0	428.17	0.02	-11.62	0.76	-2110.47	-1.54
		-1.54	-5504.35	0.02	0.0	292.0	481.90	0.02	-11.62	0.76	-5504.35	4.33
6	94	4.23	-2018.62	-1.14e-04	0.0	0.0	329.91	0.02	-13.31	0.74	-2018.62	-1.58
		-1.58	-5905.47	0.02	0.0	292.0	383.63	0.02	-13.31	0.74	-5905.47	4.23
6	96	0.50	3926.29	-1.04e-05	0.0	0.0	-1468.73	3.31e-03	-19.71	0.06	3926.29	-0.47
		-0.47	-1828.21	-6.26e-03	0.0	292.0	-1415.00	3.31e-03	-19.71	0.06	-1828.21	0.50
6	101	2.47	861.99	-6.53e-05	0.0	0.0	-471.15	0.01	-14.82	0.42	861.99	-0.99

		-0.99	-3465.72	6.93e-03	0.0	292.0	-417.42	0.01	-14.82	0.42	-3465.72	2.47
6	102	2.43	898.73	-6.40e-05	0.0	0.0	-510.45	0.01	-15.50	0.41	898.73	-1.00
		-1.00	-3626.17	7.26e-03	0.0	292.0	-456.72	0.01	-15.50	0.41	-3626.17	2.43
6	103	2.47	861.99	-6.53e-05	0.0	0.0	-471.15	0.01	-14.82	0.42	861.99	-0.99
		-0.99	-3465.72	6.93e-03	0.0	292.0	-417.42	0.01	-14.82	0.42	-3465.72	2.47
7	2	178.92	0.75	-0.02	0.0	0.0	1853.09	-4.05	5.69e-03	14.01	0.0	178.92
		-355.78	0.0	6.52e-06	0.0	132.0	1878.35	-4.05	5.69e-03	14.01	0.75	-355.78
7	9	285.74	3.060e+04	-0.03	0.0	0.0	1334.22	-6.47	231.82	19.44	0.0	285.74
		-567.73	0.0	0.77	0.0	132.0	1359.48	-6.47	231.82	19.44	3.060e+04	-567.73
7	10	289.43	3.060e+04	-0.03	0.0	0.0	1585.05	-6.55	231.82	20.35	0.0	289.43
		-575.18	0.0	0.77	0.0	132.0	1610.31	-6.55	231.82	20.35	3.060e+04	-575.18
7	11	243.35	3.060e+04	-0.02	0.0	0.0	831.57	-5.51	231.82	15.93	0.0	243.35
		-483.40	0.0	0.77	0.0	132.0	851.00	-5.51	231.82	15.93	3.060e+04	-483.40
7	16	18.64	0.0	-1.74e-03	0.0	0.0	1116.80	-0.42	-231.81	2.33	0.0	18.64
		-37.16	-3.060e+04	-0.77	0.0	132.0	1136.23	-0.42	-231.81	2.33	-3.060e+04	-37.16
7	38	2923.82	0.0	-0.33	0.0	0.0	956.85	52.01	-2.60	-16.41	0.0	-3942.79
		-3942.79	-343.20	-9.63e-03	0.0	132.0	976.28	52.01	-2.60	-16.41	-343.20	2923.82
7	39	4204.25	344.56	0.30	0.0	0.0	956.35	-57.93	2.61	34.54	0.0	4204.25
		-3443.34	0.0	9.64e-03	0.0	132.0	975.78	-57.93	2.61	34.54	344.56	-3443.34
7	53	687.96	1151.29	-0.11	0.0	0.0	956.41	13.47	8.72	1.88	0.0	-1090.27
		-1090.27	0.0	0.03	0.0	132.0	975.85	13.47	8.72	1.88	1151.29	687.96
7	54	701.46	0.0	-0.10	0.0	0.0	956.89	13.58	-8.71	1.05	0.0	-1092.20
		-1092.20	-1149.21	-0.03	0.0	132.0	976.32	13.58	-8.71	1.05	-1149.21	701.46
7	55	1353.67	1150.57	0.08	0.0	0.0	956.31	-19.50	8.72	17.09	0.0	1353.67
		-1220.97	0.0	0.03	0.0	132.0	975.74	-19.50	8.72	17.09	1150.57	-1220.97
7	56	1351.74	0.0	0.08	0.0	0.0	956.79	-19.39	-8.71	16.26	0.0	1351.74
		-1207.48	-1149.93	-0.03	0.0	132.0	976.22	-19.39	-8.71	16.26	-1149.93	-1207.48
7	62	1224.60	0.0	-0.16	0.0	0.0	956.73	22.66	-1.56	22.36	0.0	-1767.55
		-1767.55	-206.40	-5.76e-03	0.0	132.0	976.16	22.66	-1.56	22.36	-206.40	1224.60
7	63	2029.01	207.75	0.13	0.0	0.0	956.47	-28.58	1.57	-4.22	0.0	2029.01
		-1744.12	0.0	5.77e-03	0.0	132.0	975.90	-28.58	1.57	-4.22	207.75	-1744.12
7	85	181.07	688.84	-0.06	0.0	0.0	956.49	4.69	5.22	5.24	0.0	-438.13
		-438.13	0.0	0.02	0.0	132.0	975.92	4.69	5.22	5.24	688.84	181.07
7	86	189.42	0.0	-0.05	0.0	0.0	956.77	4.76	-5.20	4.74	0.0	-439.24
		-439.24	-687.06	-0.02	0.0	132.0	976.20	4.76	-5.20	4.74	-687.06	189.42
7	87	700.70	688.41	0.03	0.0	0.0	956.43	-10.68	5.22	13.40	0.0	700.70
		-708.94	0.0	0.02	0.0	132.0	975.86	-10.68	5.22	13.40	688.41	-708.94
7	88	699.60	0.0	0.03	0.0	0.0	956.71	-10.61	-5.21	12.90	0.0	699.60
		-700.59	-687.49	-0.02	0.0	132.0	976.14	-10.61	-5.21	12.90	-687.49	-700.59
7	90	135.65	0.61	-0.01	0.0	0.0	1291.05	-3.07	4.59e-03	10.29	0.0	135.65
		-269.69	0.0	5.09e-06	0.0	132.0	1310.48	-3.07	4.59e-03	10.29	0.61	-269.69
7	93	206.87	2.040e+04	-0.02	0.0	0.0	945.13	-4.68	154.55	13.90	0.0	206.87
		-410.99	0.0	0.51	0.0	132.0	964.56	-4.68	154.55	13.90	2.040e+04	-410.99
7	94	209.33	2.040e+04	-0.02	0.0	0.0	1112.36	-4.74	154.55	14.51	0.0	209.33
		-415.95	0.0	0.51	0.0	132.0	1131.79	-4.74	154.55	14.51	2.040e+04	-415.95
7	96	57.06	0.0	-5.28e-03	0.0	0.0	1135.29	-1.29	-154.54	4.84	0.0	57.06
		-113.49	-2.040e+04	-0.51	0.0	132.0	1154.72	-1.29	-154.54	4.84	-2.040e+04	-113.49
7	101	130.73	0.68	-0.01	0.0	0.0	956.60	-2.96	5.13e-03	9.07	0.0	130.73
		-259.76	0.0	5.27e-06	0.0	132.0	976.03	-2.96	5.13e-03	9.07	0.68	-259.76
7	102	131.72	0.66	-0.01	0.0	0.0	1023.49	-2.98	5.02e-03	9.31	0.0	131.72
		-261.74	0.0	5.23e-06	0.0	132.0	1042.92	-2.98	5.02e-03	9.31	0.66	-261.74
7	103	130.73	0.68	-0.01	0.0	0.0	956.60	-2.96	5.13e-03	9.07	0.0	130.73
		-259.76	0.0	5.27e-06	0.0	132.0	976.03	-2.96	5.13e-03	9.07	0.68	-259.76
8	4	0.0	0.0	0.01	0.0	0.0	41.40	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-1.55e-05	0.0	30.0	45.82	0.0	0.0	0.0	0.0	0.0
8	9	0.0	0.0	0.03	0.0	0.0	65.22	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-0.77	0.0	30.0	70.96	0.0	0.0	0.0	0.0	0.0
8	11	0.0	0.0	0.02	0.0	0.0	56.53	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-0.77	0.0	30.0	60.95	0.0	0.0	0.0	0.0	0.0
8	13	0.0	0.0	5.32e-03	0.0	0.0	73.37	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.77	0.0	30.0	79.11	0.0	0.0	0.0	0.0	0.0
8	14	0.0	0.0	5.67e-03	0.0	0.0	63.77	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.77	0.0	30.0	69.51	0.0	0.0	0.0	0.0	0.0
8	16	0.0	0.0	1.73e-03	0.0	0.0	55.08	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.77	0.0	30.0	59.50	0.0	0.0	0.0	0.0	0.0
8	33	0.0	0.0	-0.42	0.0	0.0	56.53	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-7.87e-03	0.0	30.0	60.95	0.0	0.0	0.0	0.0	0.0
8	36	0.0	0.0	0.45	0.0	0.0	56.43	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	7.84e-03	0.0	30.0	60.84	0.0	0.0	0.0	0.0	0.0
8	50	0.0	0.0	-0.12	0.0	0.0	56.60	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.03	0.0	30.0	61.02	0.0	0.0	0.0	0.0	0.0
8	51	0.0	0.0	0.14	0.0	0.0	56.36	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-0.03	0.0	30.0	60.77	0.0	0.0	0.0	0.0	0.0
8	54	0.0	0.0	-0.12	0.0	0.0	56.60	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.03	0.0	30.0	61.02	0.0	0.0	0.0	0.0	0.0
8	56	0.0	0.0	0.14	0.0	0.0	56.56	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.03	0.0	30.0	60.97	0.0	0.0	0.0	0.0	0.0

8	65	0.0	0.0	-0.19	0.0	0.0	56.50	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-4.72e-03	0.0	30.0	60.92	0.0	0.0	0.0	0.0	0.0
8	68	0.0	0.0	0.22	0.0	0.0	56.46	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	4.69e-03	0.0	30.0	60.87	0.0	0.0	0.0	0.0	0.0
8	82	0.0	0.0	-0.05	0.0	0.0	56.55	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.02	0.0	30.0	60.97	0.0	0.0	0.0	0.0	0.0
8	83	0.0	0.0	0.07	0.0	0.0	56.41	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-0.02	0.0	30.0	60.83	0.0	0.0	0.0	0.0	0.0
8	86	0.0	0.0	-0.05	0.0	0.0	56.55	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.02	0.0	30.0	60.97	0.0	0.0	0.0	0.0	0.0
8	88	0.0	0.0	0.07	0.0	0.0	56.53	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.02	0.0	30.0	60.95	0.0	0.0	0.0	0.0	0.0
8	90	0.0	0.0	0.01	0.0	0.0	43.67	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-1.54e-05	0.0	30.0	48.09	0.0	0.0	0.0	0.0	0.0
8	93	0.0	0.0	0.02	0.0	0.0	53.76	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-0.52	0.0	30.0	58.18	0.0	0.0	0.0	0.0	0.0
8	95	0.0	0.0	5.07e-03	0.0	0.0	59.20	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.52	0.0	30.0	63.61	0.0	0.0	0.0	0.0	0.0
8	96	0.0	0.0	5.30e-03	0.0	0.0	52.80	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.52	0.0	30.0	57.21	0.0	0.0	0.0	0.0	0.0
8	101	0.0	0.0	0.01	0.0	0.0	56.48	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-1.50e-05	0.0	30.0	60.90	0.0	0.0	0.0	0.0	0.0
8	102	0.0	0.0	0.01	0.0	0.0	53.92	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-1.51e-05	0.0	30.0	58.33	0.0	0.0	0.0	0.0	0.0
8	103	0.0	0.0	0.01	0.0	0.0	56.48	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-1.50e-05	0.0	30.0	60.90	0.0	0.0	0.0	0.0	0.0
10	2	0.0	-929.13	9.52e-05	0.0	0.0	-1941.38	0.01	4.85	4.91	-2666.81	-4.90
		-4.90	-2666.81	-0.12	0.0	358.4	-1855.64	0.01	4.85	4.91	-929.13	0.0
10	9	0.0	-1229.45	7.01e-04	0.0	0.0	-3307.03	4.35e-03	1.30	11.89	-1696.70	-1.56
		-1.56	-1696.70	-0.15	0.0	358.4	-3221.29	4.35e-03	1.30	11.89	-1229.45	0.0
10	10	0.0	-1655.18	6.13e-04	0.0	0.0	-3566.35	7.62e-03	-1.03	11.36	-1655.18	-2.73
		-2.73	-2023.68	-0.16	0.0	358.4	-3480.62	7.62e-03	-1.03	11.36	-2023.68	0.0
10	13	0.0	2548.11	-1.60e-04	0.0	0.0	461.58	9.92e-03	17.72	0.05	-3803.02	-3.55
		-3.55	-3803.02	-0.06	0.0	358.4	547.32	9.92e-03	17.72	0.05	2548.11	0.0
10	15	0.0	3000.06	-1.56e-04	0.0	0.0	987.15	5.78e-03	17.30	-0.92	-3200.02	-2.07
		-2.07	-3200.02	-0.03	0.0	358.4	1053.10	5.78e-03	17.30	-0.92	3000.06	0.0
10	25	0.0	902.68	-0.33	0.0	0.0	-996.60	24.60	8.54	-399.96	-2160.06	-8818.62
		-8818.62	-2160.06	-0.08	0.0	358.4	-930.65	24.60	8.54	-399.96	902.68	0.0
10	28	8815.46	636.98	0.33	0.0	0.0	-1020.69	-24.59	7.63	409.49	-2097.96	8815.46
		0.0	-2097.96	-0.08	0.0	358.4	-954.73	-24.59	7.63	409.49	636.98	0.0
10	37	0.0	906.44	-0.34	0.0	0.0	-996.34	22.80	8.56	-414.25	-2160.95	-8173.77
		-8173.77	-2160.95	-0.08	0.0	358.4	-930.38	22.80	8.56	-414.25	906.44	0.0
10	38	0.0	907.29	-0.34	0.0	0.0	-996.07	22.81	8.56	-414.36	-2160.40	-8175.97
		-8175.97	-2160.40	-0.08	0.0	358.4	-930.12	22.81	8.56	-414.36	907.29	0.0
10	39	8172.81	632.36	0.34	0.0	0.0	-1021.22	-22.80	7.62	423.90	-2097.62	8172.81
		0.0	-2097.62	-0.08	0.0	358.4	-955.27	-22.80	7.62	423.90	632.36	0.0
10	57	0.0	832.28	-0.14	0.0	0.0	-1002.98	13.59	8.30	-192.54	-2143.62	-4870.78
		-4870.78	-2143.62	-0.08	0.0	358.4	-937.03	13.59	8.30	-192.54	832.28	0.0
10	60	4867.62	707.38	0.14	0.0	0.0	-1014.31	-13.58	7.87	202.07	-2114.40	4867.62
		0.0	-2114.40	-0.08	0.0	358.4	-948.35	-13.58	7.87	202.07	707.38	0.0
10	69	0.0	834.02	-0.14	0.0	0.0	-1002.87	12.43	8.31	-200.41	-2144.07	-4456.20
		-4456.20	-2144.07	-0.08	0.0	358.4	-936.91	12.43	8.31	-200.41	834.02	0.0
10	70	0.0	834.55	-0.14	0.0	0.0	-1002.70	12.44	8.31	-200.48	-2143.74	-4457.53
		-4457.53	-2143.74	-0.08	0.0	358.4	-936.75	12.44	8.31	-200.48	834.55	0.0
10	71	4454.37	705.11	0.14	0.0	0.0	-1014.58	-12.43	7.87	210.02	-2114.28	4454.37
		0.0	-2114.28	-0.08	0.0	358.4	-948.63	-12.43	7.87	210.02	705.11	0.0
10	90	0.0	-289.14	1.20e-04	0.0	0.0	-1354.41	8.77e-03	4.98	4.06	-2073.64	-3.14
		-3.14	-2073.64	-0.09	0.0	358.4	-1288.46	8.77e-03	4.98	4.06	-289.14	0.0
10	93	0.0	-489.36	5.24e-04	0.0	0.0	-2264.85	2.55e-03	2.62	8.71	-1426.90	-0.91
		-0.91	-1426.90	-0.11	0.0	358.4	-2198.89	2.55e-03	2.62	8.71	-489.36	0.0
10	94	0.0	-1018.85	4.66e-04	0.0	0.0	-2437.73	4.73e-03	1.06	8.36	-1399.22	-1.70
		-1.70	-1399.22	-0.12	0.0	358.4	-2371.78	4.73e-03	1.06	8.36	-1018.85	0.0
10	95	0.0	2029.02	-5.00e-05	0.0	0.0	247.56	6.26e-03	13.56	0.82	-2831.11	-2.24
		-2.24	-2831.11	-0.05	0.0	358.4	313.51	6.26e-03	13.56	0.82	2029.02	0.0
10	101	0.0	769.83	2.37e-04	0.0	0.0	-1008.64	4.41e-03	8.09	4.77	-2129.01	-1.58
		-1.58	-2129.01	-0.08	0.0	358.4	-942.69	4.41e-03	8.09	4.77	769.83	0.0
10	102	0.0	558.03	2.14e-04	0.0	0.0	-1077.80	5.28e-03	7.47	4.63	-2117.94	-1.89
		-1.89	-2117.94	-0.08	0.0	358.4	-1011.85	5.28e-03	7.47	4.63	558.03	0.0
10	103	0.0	769.83	2.37e-04	0.0	0.0	-1008.64	4.41e-03	8.09	4.77	-2129.01	-1.58
		-1.58	-2129.01	-0.08	0.0	358.4	-942.69	4.41e-03	8.09	4.77	769.83	0.0
12	1	3.03	0.0	5.08e-05	0.0	0.0	-513.94	-0.01	10.69	-3.56	-3242.13	3.03
		0.0	-3242.13	-0.10	0.0	303.3	-441.40	-0.01	10.69	-3.56	0.0	0.0
12	6	3.83	0.0	6.41e-05	0.0	0.0	-620.18	-0.01	13.13	-4.47	-3982.37	3.83
		0.0	-3982.37	-0.12	0.0	303.3	-547.64	-0.01	13.13	-4.47	0.0	0.0
12	9	6.62	0.0	1.09e-04	0.0	0.0	-1502.50	-0.02	10.56	-7.46	-3202.68	6.62
		0.0	-3202.68	-0.15	0.0	303.3	-1429.96	-0.02	10.56	-7.46	0.0	0.0
12	10	6.19	0.0	1.04e-04	0.0	0.0	-1648.63	-0.02	11.33	-7.11	-3434.86	6.19

		0.0	-3434.86	-0.16	0.0	303.3	-1576.08	-0.02	11.33	-7.11	0.0	0.0
12	15	0.0	0.0	-1.42e-05	0.0	0.0	704.36	3.04e-03	7.77	0.90	-2356.79	-0.92
		-0.92	-2356.79	-0.02	0.0	303.3	760.17	3.04e-03	7.77	0.90	0.0	0.0
12	16	0.0	0.0	-2.16e-05	0.0	0.0	558.24	4.45e-03	8.54	1.25	-2588.97	-1.35
		-1.35	-2588.97	-0.03	0.0	303.3	614.05	4.45e-03	8.54	1.25	0.0	0.0
12	26	0.0	0.0	-0.11	0.0	0.0	-349.51	10.70	7.99	-574.54	-2424.31	-3243.99
		-3243.99	-2424.31	-0.08	0.0	303.3	-293.70	10.70	7.99	-574.54	0.0	0.0
12	27	3248.95	0.0	0.11	0.0	0.0	-344.53	-10.71	7.95	568.83	-2410.02	3248.95
		0.0	-2410.02	-0.08	0.0	303.3	-288.72	-10.71	7.95	568.83	0.0	0.0
12	35	2876.24	0.0	0.11	0.0	0.0	-344.67	-9.48	7.95	545.79	-2409.87	2876.24
		0.0	-2409.87	-0.08	0.0	303.3	-288.87	-9.48	7.95	545.79	0.0	0.0
12	37	0.0	0.0	-0.11	0.0	0.0	-349.06	9.46	7.99	-551.65	-2424.62	-2870.21
		-2870.21	-2424.62	-0.08	0.0	303.3	-293.26	9.46	7.99	-551.65	0.0	0.0
12	58	0.0	0.0	-0.04	0.0	0.0	-348.23	5.55	7.98	-289.19	-2420.60	-1683.22
		-1683.22	-2420.60	-0.08	0.0	303.3	-292.42	5.55	7.98	-289.19	0.0	0.0
12	59	1688.17	0.0	0.04	0.0	0.0	-345.81	-5.57	7.96	283.48	-2413.72	1688.17
		0.0	-2413.72	-0.08	0.0	303.3	-290.00	-5.57	7.96	283.48	0.0	0.0
12	67	1438.30	0.0	0.04	0.0	0.0	-345.88	-4.74	7.96	269.59	-2413.70	1438.30
		0.0	-2413.70	-0.08	0.0	303.3	-290.07	-4.74	7.96	269.59	0.0	0.0
12	69	0.0	0.0	-0.04	0.0	0.0	-347.98	4.72	7.98	-275.39	-2420.72	-1432.67
		-1432.67	-2420.72	-0.08	0.0	303.3	-292.17	4.72	7.98	-275.39	0.0	0.0
12	89	2.48	0.0	4.10e-05	0.0	0.0	-347.02	-8.16e-03	7.97	-2.85	-2417.16	2.48
		0.0	-2417.16	-0.08	0.0	303.3	-291.21	-8.16e-03	7.97	-2.85	0.0	0.0
12	92	3.01	0.0	4.98e-05	0.0	0.0	-417.84	-9.92e-03	9.60	-3.46	-2910.66	3.01
		0.0	-2910.66	-0.09	0.0	303.3	-362.04	-9.92e-03	9.60	-3.46	0.0	0.0
12	93	4.86	0.0	8.00e-05	0.0	0.0	-1006.06	-0.02	7.88	-5.45	-2390.87	4.86
		0.0	-2390.87	-0.11	0.0	303.3	-950.25	-0.02	7.88	-5.45	0.0	0.0
12	94	4.58	0.0	7.62e-05	0.0	0.0	-1103.47	-0.02	8.39	-5.22	-2545.65	4.58
		0.0	-2545.65	-0.11	0.0	303.3	-1047.67	-0.02	8.39	-5.22	0.0	0.0
12	95	0.09	0.0	1.94e-06	0.0	0.0	312.02	-2.91e-04	8.06	-0.25	-2443.46	0.09
		0.0	-2443.46	-0.04	0.0	303.3	367.83	-2.91e-04	8.06	-0.25	0.0	0.0
12	96	0.0	0.0	-2.36e-06	0.0	0.0	214.61	6.51e-04	8.57	-0.02	-2598.24	-0.20
		-0.20	-2598.24	-0.05	0.0	303.3	270.41	6.51e-04	8.57	-0.02	0.0	0.0
12	101	2.48	0.0	4.10e-05	0.0	0.0	-347.02	-8.16e-03	7.97	-2.85	-2417.16	2.48
		0.0	-2417.16	-0.08	0.0	303.3	-291.21	-8.16e-03	7.97	-2.85	0.0	0.0
12	102	2.36	0.0	3.95e-05	0.0	0.0	-385.98	-7.79e-03	8.17	-2.76	-2479.08	2.36
		0.0	-2479.08	-0.08	0.0	303.3	-330.18	-7.79e-03	8.17	-2.76	0.0	0.0
12	103	2.48	0.0	4.10e-05	0.0	0.0	-347.02	-8.16e-03	7.97	-2.85	-2417.16	2.48
		0.0	-2417.16	-0.08	0.0	303.3	-291.21	-8.16e-03	7.97	-2.85	0.0	0.0
14	3	23.62	0.0	8.32e-04	0.0	0.0	-919.31	-0.21	6.77	-1.32	-2425.94	23.62
		-51.81	-2425.94	-0.11	0.0	358.4	-853.36	-0.21	6.77	-1.32	0.0	-51.81
14	9	55.68	0.0	1.94e-03	0.0	0.0	-787.77	-0.50	14.16	-3.13	-5073.61	55.68
		-124.69	-5073.61	-0.30	0.0	358.4	-702.03	-0.50	14.16	-3.13	0.0	-124.69
14	10	54.58	0.0	1.91e-03	0.0	0.0	-1046.45	-0.48	15.40	-3.02	-5518.99	54.58
		-119.25	-5518.99	-0.32	0.0	358.4	-960.72	-0.48	15.40	-3.02	0.0	-119.25
14	11	49.69	0.0	1.72e-03	0.0	0.0	-256.19	-0.46	10.90	-2.84	-3905.44	49.69
		-114.53	-3905.44	-0.25	0.0	358.4	-190.23	-0.46	10.90	-2.84	0.0	-114.53
14	14	6.18	0.0	1.45e-04	0.0	0.0	-2372.70	0.01	7.14	0.02	-2560.00	2.44
		2.44	-2560.00	-0.05	0.0	358.4	-2286.97	0.01	7.14	0.02	0.0	6.18
14	25	-2015.21	0.0	-0.34	0.0	0.0	-1019.10	-21.39	7.18	550.95	-2574.20	-8021.10
		-8021.10	-2574.20	-0.12	0.0	358.4	-953.15	-21.39	7.18	550.95	0.0	-2015.21
14	34	-2012.57	0.0	-0.33	0.0	0.0	-1018.69	-23.74	7.18	535.13	-2572.76	-8699.55
		-8699.55	-2572.76	-0.12	0.0	358.4	-952.74	-23.74	7.18	535.13	0.0	-2012.57
14	35	8745.85	0.0	0.34	0.0	0.0	-1042.35	23.33	7.43	-537.67	-2662.08	8745.85
		1913.62	-2662.08	-0.12	0.0	358.4	-976.40	23.33	7.43	-537.67	0.0	1913.62
14	38	-2012.44	0.0	-0.34	0.0	0.0	-1018.68	-23.74	7.18	535.13	-2572.74	-8699.09
		-8699.09	-2572.74	-0.12	0.0	358.4	-952.73	-23.74	7.18	535.13	0.0	-2012.44
14	39	8745.38	0.0	0.34	0.0	0.0	-1042.36	23.33	7.43	-537.68	-2662.09	8745.38
		1913.49	-2662.09	-0.12	0.0	358.4	-976.41	23.33	7.43	-537.68	0.0	1913.49
14	57	-996.75	0.0	-0.14	0.0	0.0	-1025.15	-12.43	7.25	260.09	-2597.09	-4399.69
		-4399.69	-2597.09	-0.12	0.0	358.4	-959.20	-12.43	7.25	260.09	0.0	-996.75
14	66	-1003.90	0.0	-0.14	0.0	0.0	-1024.95	-13.86	7.24	251.57	-2596.42	-4831.21
		-4831.21	-2596.42	-0.12	0.0	358.4	-959.00	-13.86	7.24	251.57	0.0	-1003.90
14	67	4877.50	0.0	0.14	0.0	0.0	-1036.10	13.46	7.36	-254.11	-2638.42	4877.50
		904.95	-2638.42	-0.12	0.0	358.4	-970.14	13.46	7.36	-254.11	0.0	904.95
14	70	-1003.82	0.0	-0.14	0.0	0.0	-1024.94	-13.87	7.24	251.57	-2596.41	-4830.94
		-4830.94	-2596.41	-0.12	0.0	358.4	-958.99	-13.87	7.24	251.57	0.0	-1003.82
14	71	4877.23	0.0	0.14	0.0	0.0	-1036.10	13.46	7.36	-254.12	-2638.43	4877.23
		904.87	-2638.43	-0.12	0.0	358.4	-970.15	13.46	7.36	-254.12	0.0	904.87
14	89	23.15	0.0	8.19e-04	0.0	0.0	-1030.52	-0.20	7.30	-1.27	-2617.42	23.15
		-49.47	-2617.42	-0.12	0.0	358.4	-964.57	-0.20	7.30	-1.27	0.0	-49.47
14	93	40.53	0.0	1.41e-03	0.0	0.0	-588.44	-0.37	10.05	-2.29	-3603.75	40.53
		-91.28	-3603.75	-0.21	0.0	358.4	-522.49	-0.37	10.05	-2.29	0.0	-91.28
14	94	39.79	0.0	1.39e-03	0.0	0.0	-760.90	-0.36	10.88	-2.21	-3900.67	39.79
		-87.65	-3900.67	-0.22	0.0	358.4	-694.95	-0.36	10.88	-2.21	0.0	-87.65
14	96	5.03	0.0	2.13e-04	0.0	0.0	-1645.06	-0.03	5.38	-0.19	-1928.01	5.03
		-4.04	-1928.01	-0.04	0.0	358.4	-1579.11	-0.03	5.38	-0.19	0.0	-4.04

14	101	23.15	0.0	8.19e-04	0.0	0.0	-1030.52	-0.20	7.30	-1.27	-2617.42	23.15
		-49.47	-2617.42	-0.12	0.0	358.4	-964.57	-0.20	7.30	-1.27	0.0	-49.47
14	102	22.85	0.0	8.12e-04	0.0	0.0	-1099.51	-0.20	7.63	-1.24	-2736.19	22.85
		-48.02	-2736.19	-0.12	0.0	358.4	-1033.55	-0.20	7.63	-1.24	0.0	-48.02
14	103	23.15	0.0	8.19e-04	0.0	0.0	-1030.52	-0.20	7.30	-1.27	-2617.42	23.15
		-49.47	-2617.42	-0.12	0.0	358.4	-964.57	-0.20	7.30	-1.27	0.0	-49.47
16	10	0.0	0.0	-7.93e-04	0.0	0.0	-3580.68	0.02	6.22	-12.27	-2228.98	-6.41
		-6.41	-2228.98	-0.16	0.0	358.4	-3494.95	0.02	6.22	-12.27	0.0	0.0
16	11	0.0	0.0	-8.78e-04	0.0	0.0	-2789.47	0.02	3.66	-11.75	-1313.44	-8.76
		-8.76	-1313.44	-0.12	0.0	358.4	-2723.52	0.02	3.66	-11.75	0.0	0.0
16	14	5.12	0.0	2.55e-04	0.0	0.0	176.50	-0.01	9.08	0.57	-3253.64	5.12
		0.0	-3253.64	-0.07	0.0	358.4	262.24	-0.01	9.08	0.57	0.0	0.0
16	15	2.77	0.0	1.70e-04	0.0	0.0	967.72	-7.74e-03	6.52	1.09	-2338.09	2.77
		0.0	-2338.09	-0.03	0.0	358.4	1033.67	-7.74e-03	6.52	1.09	0.0	0.0
16	25	0.0	0.0	-0.33	0.0	0.0	-1034.81	24.20	5.34	-390.46	-1912.53	-8674.34
		-8674.34	-1912.53	-0.08	0.0	358.4	-968.86	24.20	5.34	-390.46	0.0	0.0
16	28	8669.76	0.0	0.33	0.0	0.0	-1010.87	-24.19	5.30	380.27	-1898.02	8669.76
		0.0	-1898.02	-0.08	0.0	358.4	-944.91	-24.19	5.30	380.27	0.0	0.0
16	33	0.0	0.0	-0.33	0.0	0.0	-1035.11	22.39	5.34	-405.36	-1912.76	-8025.86
		-8025.86	-1912.76	-0.08	0.0	358.4	-969.16	22.39	5.34	-405.36	0.0	0.0
16	35	8019.04	0.0	0.33	0.0	0.0	-1010.83	-22.37	5.30	395.06	-1898.13	8019.04
		0.0	-1898.13	-0.08	0.0	358.4	-944.88	-22.37	5.30	395.06	0.0	0.0
16	36	8021.28	0.0	0.33	0.0	0.0	-1010.57	-22.38	5.29	395.17	-1897.79	8021.28
		0.0	-1897.79	-0.08	0.0	358.4	-944.62	-22.38	5.29	395.17	0.0	0.0
16	57	0.0	0.0	-0.14	0.0	0.0	-1028.51	13.44	5.33	-194.58	-1908.78	-4817.19
		-4817.19	-1908.78	-0.08	0.0	358.4	-962.56	13.44	5.33	-194.58	0.0	0.0
16	60	4812.60	0.0	0.14	0.0	0.0	-1017.17	-13.43	5.31	184.39	-1901.77	4812.60
		0.0	-1901.77	-0.08	0.0	358.4	-951.22	-13.43	5.31	184.39	0.0	0.0
16	65	0.0	0.0	-0.14	0.0	0.0	-1028.64	12.28	5.33	-202.88	-1908.84	-4401.85
		-4401.85	-1908.84	-0.08	0.0	358.4	-962.69	12.28	5.33	-202.88	0.0	0.0
16	67	4395.87	0.0	0.14	0.0	0.0	-1017.19	-12.26	5.31	192.62	-1901.91	4395.87
		0.0	-1901.91	-0.08	0.0	358.4	-951.24	-12.26	5.31	192.62	0.0	0.0
16	68	4397.27	0.0	0.14	0.0	0.0	-1017.04	-12.27	5.31	192.69	-1901.71	4397.27
		0.0	-1901.71	-0.08	0.0	358.4	-951.09	-12.27	5.31	192.69	0.0	0.0
16	93	0.0	0.0	-6.62e-04	0.0	0.0	-2275.24	0.02	4.36	-9.37	-1563.72	-6.14
		-6.14	-1563.72	-0.11	0.0	358.4	-2209.28	0.02	4.36	-9.37	0.0	0.0
16	94	0.0	0.0	-5.98e-04	0.0	0.0	-2448.86	0.01	4.71	-9.01	-1687.02	-5.05
		-5.05	-1687.02	-0.12	0.0	358.4	-2382.91	0.01	4.71	-9.01	0.0	0.0
16	95	1.55	0.0	3.69e-05	0.0	0.0	229.56	-4.33e-03	6.27	-0.81	-2246.83	1.55
		0.0	-2246.83	-0.05	0.0	358.4	295.51	-4.33e-03	6.27	-0.81	0.0	0.0
16	96	2.64	0.0	1.01e-04	0.0	0.0	55.93	-7.36e-03	6.61	-0.45	-2370.13	2.64
		0.0	-2370.13	-0.05	0.0	358.4	121.88	-7.36e-03	6.61	-0.45	0.0	0.0
16	101	0.0	0.0	-3.12e-04	0.0	0.0	-1022.84	6.39e-03	5.32	-5.09	-1905.28	-2.29
		-2.29	-1905.28	-0.08	0.0	358.4	-956.89	6.39e-03	5.32	-5.09	0.0	0.0
16	102	0.0	0.0	-2.87e-04	0.0	0.0	-1092.29	5.18e-03	5.45	-4.95	-1954.59	-1.86
		-1.86	-1954.59	-0.08	0.0	358.4	-1026.34	5.18e-03	5.45	-4.95	0.0	0.0
16	103	0.0	0.0	-3.12e-04	0.0	0.0	-1022.84	6.39e-03	5.32	-5.09	-1905.28	-2.29
		-2.29	-1905.28	-0.08	0.0	358.4	-956.89	6.39e-03	5.32	-5.09	0.0	0.0
18	2	4.44	0.0	4.65e-05	0.0	0.0	-820.86	-0.01	19.68	3.87	-5967.44	4.44
		0.0	-5967.44	-0.21	0.0	303.3	-748.31	-0.01	19.68	3.87	0.0	0.0
18	9	9.31	0.0	9.63e-05	0.0	0.0	822.91	-0.03	25.79	8.73	-7822.05	9.31
		0.0	-7822.05	-0.33	0.0	303.3	895.46	-0.03	25.79	8.73	0.0	0.0
18	10	9.07	0.0	9.36e-05	0.0	0.0	675.51	-0.03	27.77	8.48	-8423.72	9.07
		0.0	-8423.72	-0.35	0.0	303.3	748.06	-0.03	27.77	8.48	0.0	0.0
18	11	8.36	0.0	8.64e-05	0.0	0.0	1056.42	-0.03	20.66	7.91	-6265.01	8.36
		0.0	-6265.01	-0.28	0.0	303.3	1112.23	-0.03	20.66	7.91	0.0	0.0
18	14	0.28	0.0	4.66e-06	0.0	0.0	-2022.44	-9.38e-04	7.61	-0.24	-2307.83	0.28
		0.0	-2307.83	-0.03	0.0	303.3	-1949.89	-9.38e-04	7.61	-0.24	0.0	0.0
18	16	0.0	0.0	-5.26e-06	0.0	0.0	-1788.93	2.21e-03	2.48	-1.06	-750.79	-0.67
		-0.67	-750.79	0.03	0.0	303.3	-1733.12	2.21e-03	2.48	-1.06	0.0	0.0
18	25	0.0	0.0	-0.11	0.0	0.0	-354.63	9.54	11.63	535.82	-3526.11	-2892.55
		-2892.55	-3526.11	-0.13	0.0	303.3	-298.82	9.54	11.63	535.82	0.0	0.0
18	33	0.0	0.0	-0.11	0.0	0.0	-354.45	10.73	11.63	559.77	-3527.79	-3255.51
		-3255.51	-3527.79	-0.13	0.0	303.3	-298.65	10.73	11.63	559.77	0.0	0.0
18	34	0.0	0.0	-0.11	0.0	0.0	-354.81	10.74	11.63	559.62	-3527.48	-3256.26
		-3256.26	-3527.48	-0.13	0.0	303.3	-299.00	10.74	11.63	559.62	0.0	0.0
18	35	3263.98	0.0	0.11	0.0	0.0	-357.04	-10.76	11.22	-552.74	-3403.97	3263.98
		0.0	-3403.97	-0.12	0.0	303.3	-301.23	-10.76	11.22	-552.74	0.0	0.0
18	36	3263.23	0.0	0.11	0.0	0.0	-357.39	-10.76	11.22	-552.89	-3403.66	3263.23
		0.0	-3403.66	-0.12	0.0	303.3	-301.59	-10.76	11.22	-552.89	0.0	0.0
18	57	0.0	0.0	-0.05	0.0	0.0	-355.14	4.75	11.52	269.42	-3494.22	-1440.22
		-1440.22	-3494.22	-0.12	0.0	303.3	-299.33	4.75	11.52	269.42	0.0	0.0
18	65	0.0	0.0	-0.04	0.0	0.0	-355.04	5.55	11.52	283.96	-3494.93	-1684.03
		-1684.03	-3494.93	-0.12	0.0	303.3	-299.23	5.55	11.52	283.96	0.0	0.0
18	66	0.0	0.0	-0.04	0.0	0.0	-355.25	5.55	11.52	283.87	-3494.74	-1684.49
		-1684.49	-3494.74	-0.12	0.0	303.3	-299.44	5.55	11.52	283.87	0.0	0.0
18	67	1692.21	0.0	0.04	0.0	0.0	-356.59	-5.58	11.33	-276.99	-3436.71	1692.21

		0.0	-3436.71	-0.12	0.0	303.3	-300.79	-5.58	11.33	-276.99	0.0	0.0
18	68	1691.75	0.0	0.04	0.0	0.0	-356.81	-5.58	11.33	-277.08	-3436.52	1691.75
		0.0	-3436.52	-0.12	0.0	303.3	-301.00	-5.58	11.33	-277.08	0.0	0.0
18	90	3.54	0.0	3.72e-05	0.0	0.0	-552.45	-0.01	14.07	3.11	-4267.95	3.54
		0.0	-4267.95	-0.15	0.0	303.3	-496.65	-0.01	14.07	3.11	0.0	0.0
18	93	6.79	0.0	7.04e-05	0.0	0.0	543.39	-0.02	18.15	6.35	-5504.35	6.79
		0.0	-5504.35	-0.23	0.0	303.3	599.20	-0.02	18.15	6.35	0.0	0.0
18	94	6.63	0.0	6.86e-05	0.0	0.0	445.13	-0.02	19.47	6.18	-5905.47	6.63
		0.0	-5905.47	-0.25	0.0	303.3	500.93	-0.02	19.47	6.18	0.0	0.0
18	96	0.77	0.0	9.31e-06	0.0	0.0	-1353.50	-2.55e-03	6.03	0.37	-1828.21	0.77
		0.0	-1828.21	-0.03	0.0	303.3	-1297.70	-2.55e-03	6.03	0.37	0.0	0.0
18	101	3.86	0.0	4.08e-05	0.0	0.0	-355.92	-0.01	11.43	3.44	-3465.72	3.86
		0.0	-3465.72	-0.12	0.0	303.3	-300.12	-0.01	11.43	3.44	0.0	0.0
18	102	3.80	0.0	4.00e-05	0.0	0.0	-395.23	-0.01	11.96	3.37	-3626.17	3.80
		0.0	-3626.17	-0.13	0.0	303.3	-339.42	-0.01	11.96	3.37	0.0	0.0
18	103	3.86	0.0	4.08e-05	0.0	0.0	-355.92	-0.01	11.43	3.44	-3465.72	3.86
		0.0	-3465.72	-0.12	0.0	303.3	-300.12	-0.01	11.43	3.44	0.0	0.0
20	3	0.0	0.0	-1.02e-03	0.0	0.0	-914.67	0.05	6.70	5.19	-2402.56	-17.76
		-17.76	-2402.56	-0.11	0.0	358.4	-848.72	0.05	6.70	5.19	0.0	0.0
20	9	0.0	0.0	-2.42e-03	0.0	0.0	-790.29	0.12	14.16	12.45	-5076.34	-41.63
		-41.63	-5076.34	-0.30	0.0	358.4	-704.55	0.12	14.16	12.45	0.0	0.0
20	10	0.0	0.0	-2.37e-03	0.0	0.0	-1051.29	0.11	15.43	11.92	-5529.55	-41.12
		-41.12	-5529.55	-0.32	0.0	358.4	-965.55	0.11	15.43	11.92	0.0	0.0
20	11	0.0	0.0	-2.15e-03	0.0	0.0	-257.81	0.10	10.90	11.42	-3907.44	-36.81
		-36.81	-3907.44	-0.25	0.0	358.4	-191.86	0.10	10.90	11.42	0.0	0.0
20	14	0.0	0.0	-1.13e-04	0.0	0.0	-2365.02	8.44e-03	7.03	-0.53	-2519.80	-3.03
		-3.03	-2519.80	-0.04	0.0	358.4	-2279.28	8.44e-03	7.03	-0.53	0.0	0.0
20	16	1.80	0.0	1.50e-04	0.0	0.0	-1832.54	-5.02e-03	3.77	-1.57	-1350.90	1.80
		0.0	-1350.90	0.01	0.0	358.4	-1766.59	-5.02e-03	3.77	-1.57	0.0	0.0
20	31	8011.89	0.0	0.33	0.0	0.0	-1015.50	-22.35	7.13	-386.29	-2554.26	8011.89
		0.0	-2554.26	-0.12	0.0	358.4	-949.55	-22.35	7.13	-386.29	0.0	0.0
20	33	0.0	0.0	-0.33	0.0	0.0	-1038.69	24.25	7.37	381.68	-2642.00	-8691.82
		-8691.82	-2642.00	-0.12	0.0	358.4	-972.74	24.25	7.37	381.68	0.0	0.0
20	36	8656.74	0.0	0.33	0.0	0.0	-1015.07	-24.15	7.12	-371.75	-2552.80	8656.74
		0.0	-2552.80	-0.12	0.0	358.4	-949.12	-24.15	7.12	-371.75	0.0	0.0
20	37	0.0	0.0	-0.33	0.0	0.0	-1038.68	24.25	7.37	381.67	-2641.98	-8692.04
		-8692.04	-2641.98	-0.12	0.0	358.4	-972.73	24.25	7.37	381.67	0.0	0.0
20	40	8656.95	0.0	0.33	0.0	0.0	-1015.08	-24.15	7.12	-371.74	-2552.82	8656.95
		0.0	-2552.82	-0.12	0.0	358.4	-949.13	-24.15	7.12	-371.74	0.0	0.0
20	63	4382.27	0.0	0.14	0.0	0.0	-1021.52	-12.23	7.19	-189.23	-2577.05	4382.27
		0.0	-2577.05	-0.12	0.0	358.4	-955.56	-12.23	7.19	-189.23	0.0	0.0
20	65	0.0	0.0	-0.14	0.0	0.0	-1032.45	13.48	7.31	191.13	-2618.41	-4830.64
		-4830.64	-2618.41	-0.12	0.0	358.4	-966.50	13.48	7.31	191.13	0.0	0.0
20	68	4795.56	0.0	0.13	0.0	0.0	-1021.31	-13.38	7.19	-181.20	-2576.40	4795.56
		0.0	-2576.40	-0.12	0.0	358.4	-955.36	-13.38	7.19	-181.20	0.0	0.0
20	69	0.0	0.0	-0.14	0.0	0.0	-1032.45	13.48	7.31	191.12	-2618.39	-4830.75
		-4830.75	-2618.39	-0.12	0.0	358.4	-966.49	13.48	7.31	191.12	0.0	0.0
20	72	4795.67	0.0	0.13	0.0	0.0	-1021.31	-13.38	7.19	-181.19	-2576.41	4795.67
		0.0	-2576.41	-0.12	0.0	358.4	-955.36	-13.38	7.19	-181.19	0.0	0.0
20	89	0.0	0.0	-1.01e-03	0.0	0.0	-1026.88	0.05	7.25	4.96	-2597.40	-17.54
		-17.54	-2597.40	-0.12	0.0	358.4	-960.93	0.05	7.25	4.96	0.0	0.0
20	92	0.0	0.0	-1.21e-03	0.0	0.0	-1212.90	0.06	8.63	6.00	-3092.36	-21.13
		-21.13	-3092.36	-0.14	0.0	358.4	-1146.95	0.06	8.63	6.00	0.0	0.0
20	93	0.0	0.0	-1.76e-03	0.0	0.0	-588.97	0.08	10.05	9.11	-3600.65	-30.24
		-30.24	-3600.65	-0.21	0.0	358.4	-523.02	0.08	10.05	9.11	0.0	0.0
20	94	0.0	0.0	-1.73e-03	0.0	0.0	-762.97	0.08	10.89	8.76	-3902.79	-29.90
		-29.90	-3902.79	-0.22	0.0	358.4	-697.02	0.08	10.89	8.76	0.0	0.0
20	96	0.0	0.0	-2.22e-04	0.0	0.0	-1638.79	0.01	5.29	0.46	-1896.29	-4.50
		-4.50	-1896.29	-0.04	0.0	358.4	-1572.84	0.01	5.29	0.46	0.0	0.0
20	101	0.0	0.0	-1.01e-03	0.0	0.0	-1026.88	0.05	7.25	4.96	-2597.40	-17.54
		-17.54	-2597.40	-0.12	0.0	358.4	-960.93	0.05	7.25	4.96	0.0	0.0
20	102	0.0	0.0	-9.93e-04	0.0	0.0	-1096.48	0.05	7.58	4.82	-2718.26	-17.40
		-17.40	-2718.26	-0.12	0.0	358.4	-1030.53	0.05	7.58	4.82	0.0	0.0
20	103	0.0	0.0	-1.01e-03	0.0	0.0	-1026.88	0.05	7.25	4.96	-2597.40	-17.54
		-17.54	-2597.40	-0.12	0.0	358.4	-960.93	0.05	7.25	4.96	0.0	0.0
26	6	1.02	1118.20	-2.87e-04	0.0	0.0	-2633.49	-0.09	-18.60	0.48	1118.20	1.02
		-24.80	-4313.90	8.26e-03	0.0	292.0	-2563.65	-0.09	-18.60	0.48	-4313.90	-24.80
26	9	0.79	-4342.91	-4.53e-04	0.0	0.0	-1031.75	-0.13	-2.51	0.78	-4342.91	0.79
		-36.92	-5076.34	0.02	0.0	292.0	-961.90	-0.13	-2.51	0.78	-5076.34	-36.92
26	10	1.08	-4209.62	-4.37e-04	0.0	0.0	-1292.75	-0.13	-4.52	0.74	-4209.62	1.08
		-36.47	-5529.55	0.02	0.0	292.0	-1222.90	-0.13	-4.52	0.74	-5529.55	-36.47
26	11	0.36	-3907.44	-4.12e-04	0.0	0.0	-443.55	-0.11	2.67	0.72	-4687.93	0.36
		-32.65	-4687.93	0.02	0.0	292.0	-389.82	-0.11	2.67	0.72	-3907.44	-32.65
26	14	1.24	6587.66	1.12e-05	0.0	0.0	-2606.48	-0.01	-31.19	-0.05	6587.66	1.24
		-2.67	-2519.80	-0.01	0.0	292.0	-2536.63	-0.01	-31.19	-0.05	-2519.80	-2.67
26	16	1.60	6242.65	4.94e-05	0.0	0.0	-2018.28	2.70e-03	-26.01	-0.11	6242.65	0.82
		0.82	-1350.90	-0.01	0.0	292.0	-1964.55	2.70e-03	-26.01	-0.11	-1350.90	1.60

26	33	8549.38	779.80	-0.17	0.0	0.0	-1224.53	-34.63	-11.72	268.75	779.80	3424.64
		3424.64	-2642.00	4.92e-03	0.0	292.0	-1170.80	-34.63	-11.72	268.75	-2642.00	8549.38
26	36	-3423.50	756.23	0.17	0.0	0.0	-1200.71	34.52	-11.33	-268.14	756.23	-3423.50
		-8580.49	-2552.80	4.74e-03	0.0	292.0	-1146.98	34.52	-11.33	-268.14	-2552.80	-8580.49
26	38	8551.40	778.06	-0.17	0.0	0.0	-1224.39	-34.62	-11.71	268.70	778.06	3424.68
		3424.68	-2641.77	4.92e-03	0.0	292.0	-1170.67	-34.62	-11.71	268.70	-2641.77	8551.40
26	39	-3423.54	757.97	0.17	0.0	0.0	-1200.85	34.51	-11.34	-268.08	757.97	-3423.54
		-8582.51	-2553.03	4.74e-03	0.0	292.0	-1147.12	34.51	-11.34	-268.08	-2553.03	-8582.51
26	65	4795.44	773.78	-0.10	0.0	0.0	-1218.25	-20.49	-11.62	146.32	773.78	1874.76
		1874.76	-2618.41	4.87e-03	0.0	292.0	-1164.52	-20.49	-11.62	146.32	-2618.41	4795.44
26	68	-1873.62	762.25	0.09	0.0	0.0	-1206.99	20.38	-11.43	-145.71	762.25	-1873.62
		-4826.55	-2576.40	4.79e-03	0.0	292.0	-1153.27	20.38	-11.43	-145.71	-2576.40	-4826.55
26	70	4796.65	772.74	-0.10	0.0	0.0	-1218.16	-20.48	-11.61	146.29	772.74	1874.80
		1874.80	-2618.27	4.87e-03	0.0	292.0	-1164.44	-20.48	-11.61	146.29	-2618.27	4796.65
26	71	-1873.66	763.29	0.09	0.0	0.0	-1207.08	20.37	-11.44	-145.68	763.29	-1873.66
		-4827.76	-2576.54	4.79e-03	0.0	292.0	-1153.35	20.37	-11.44	-145.68	-2576.54	-4827.76
26	90	0.96	945.74	-1.61e-04	0.0	0.0	-1560.62	-0.05	-14.20	0.26	945.74	0.96
		-14.94	-3201.68	5.99e-03	0.0	292.0	-1506.89	-0.05	-14.20	0.26	-3201.68	-14.94
26	92	0.67	809.67	-2.20e-04	0.0	0.0	-1842.54	-0.07	-13.36	0.37	809.67	0.67
		-18.74	-3092.36	5.90e-03	0.0	292.0	-1788.81	-0.07	-13.36	0.37	-3092.36	-18.74
26	93	0.52	-2831.08	-3.31e-04	0.0	0.0	-774.71	-0.09	-2.64	0.57	-2831.08	0.52
		-26.82	-3600.65	0.02	0.0	292.0	-720.98	-0.09	-2.64	0.57	-3600.65	-26.82
26	94	0.71	-2742.21	-3.20e-04	0.0	0.0	-948.71	-0.09	-3.97	0.55	-2742.21	0.71
		-26.52	-3902.79	0.02	0.0	292.0	-894.98	-0.09	-3.97	0.55	-3902.79	-26.52
26	96	0.82	4455.97	-2.38e-05	0.0	0.0	-1824.53	-0.02	-21.75	0.02	4455.97	0.82
		-3.98	-1896.29	-7.32e-03	0.0	292.0	-1770.80	-0.02	-21.75	0.02	-1896.29	-3.98
26	101	0.57	768.02	-1.82e-04	0.0	0.0	-1212.62	-0.06	-11.53	0.31	768.02	0.57
		-15.55	-2597.40	4.83e-03	0.0	292.0	-1158.89	-0.06	-11.53	0.31	-2597.40	-15.55
26	102	0.65	803.56	-1.78e-04	0.0	0.0	-1282.22	-0.06	-12.06	0.30	803.56	0.65
		-15.43	-2718.26	5.06e-03	0.0	292.0	-1228.49	-0.06	-12.06	0.30	-2718.26	-15.43
26	103	0.57	768.02	-1.82e-04	0.0	0.0	-1212.62	-0.06	-11.53	0.31	768.02	0.57
		-15.55	-2597.40	4.83e-03	0.0	292.0	-1158.89	-0.06	-11.53	0.31	-2597.40	-15.55
30	6	31.55	1149.34	4.99e-04	0.0	0.0	-2637.23	0.10	-18.80	-0.64	1149.34	31.55
		1.25	-4338.89	8.38e-03	0.0	292.0	-2567.38	0.10	-18.80	-0.64	-4338.89	1.25
30	9	47.72	-4338.27	7.90e-04	0.0	0.0	-1029.23	0.15	-2.52	-1.04	-4338.27	47.72
		2.79	-5073.61	0.02	0.0	292.0	-959.38	0.15	-2.52	-1.04	-5073.61	2.79
30	10	46.81	-4210.49	7.58e-04	0.0	0.0	-1287.92	0.15	-4.48	-0.99	-4210.49	46.81
		2.28	-5518.99	0.02	0.0	292.0	-1218.07	0.15	-4.48	-0.99	-5518.99	2.28
30	11	42.55	-3905.44	7.23e-04	0.0	0.0	-441.93	0.14	2.67	-0.96	-3905.44	42.55
		2.97	-4685.30	0.02	0.0	292.0	-388.20	0.14	2.67	-0.96	-4685.30	2.97
30	14	2.22	6631.35	-2.29e-05	0.0	0.0	-2614.17	0.01	-31.48	0.06	6631.35	2.22
		-1.40	-2560.00	-0.01	0.0	292.0	-2544.32	0.01	-31.48	0.06	-2560.00	-1.40
30	16	-1.23	6284.31	-9.02e-05	0.0	0.0	-2026.86	-5.89e-03	-26.29	0.14	6284.31	-1.23
		-2.95	-1391.83	-0.01	0.0	292.0	-1973.13	-5.89e-03	-26.29	0.14	-1391.83	-2.95
30	33	8649.53	781.16	-0.17	0.0	0.0	-1204.46	-34.78	-11.49	267.24	781.16	3298.43
		3298.43	-2572.96	4.80e-03	0.0	292.0	-1150.73	-34.78	-11.49	267.24	-2572.96	8649.53
30	36	-3296.61	799.94	0.17	0.0	0.0	-1228.07	34.91	-11.85	-268.06	799.94	-3296.61
		-8609.80	-2661.87	4.99e-03	0.0	292.0	-1174.34	34.91	-11.85	-268.06	-2661.87	-8609.80
30	38	8646.73	779.37	-0.17	0.0	0.0	-1204.32	-34.80	-11.48	267.31	779.37	3296.97
		3296.97	-2572.74	4.80e-03	0.0	292.0	-1150.59	-34.80	-11.48	267.31	-2572.74	8646.73
30	39	-3295.16	801.73	0.17	0.0	0.0	-1228.20	34.93	-11.86	-268.14	801.73	-3295.16
		-8607.01	-2662.09	4.99e-03	0.0	292.0	-1174.48	34.93	-11.86	-268.14	-2662.09	-8607.01
30	65	4876.30	786.16	-0.09	0.0	0.0	-1210.71	-20.51	-11.59	145.52	786.16	1817.65
		1817.65	-2596.54	4.85e-03	0.0	292.0	-1156.98	-20.51	-11.59	145.52	-2596.54	4876.30
30	68	-1815.84	794.95	0.09	0.0	0.0	-1221.81	20.64	-11.76	-146.34	794.95	-1815.84
		-4836.57	-2638.29	4.94e-03	0.0	292.0	-1168.08	20.64	-11.76	-146.34	-2638.29	-4836.57
30	70	4874.61	785.09	-0.09	0.0	0.0	-1210.63	-20.52	-11.58	145.57	785.09	1816.72
		1816.72	-2596.41	4.85e-03	0.0	292.0	-1156.90	-20.52	-11.58	145.57	-2596.41	4874.61
30	71	-1814.91	796.01	0.09	0.0	0.0	-1221.90	20.65	-11.76	-146.39	796.01	-1814.91
		-4834.88	-2638.43	4.94e-03	0.0	292.0	-1168.17	20.65	-11.76	-146.39	-2638.43	-4834.88
30	92	23.94	835.01	3.85e-04	0.0	0.0	-1846.18	0.08	-13.52	-0.50	835.01	23.94
		1.11	-3113.93	5.98e-03	0.0	292.0	-1792.45	0.08	-13.52	-0.50	-3113.93	1.11
30	93	34.72	-2823.39	5.79e-04	0.0	0.0	-774.18	0.11	-2.67	-0.76	-2823.39	34.72
		2.13	-3603.75	0.02	0.0	292.0	-720.45	0.11	-2.67	-0.76	-3603.75	2.13
30	94	34.12	-2738.21	5.57e-04	0.0	0.0	-946.64	0.11	-3.98	-0.73	-2738.21	34.12
		1.79	-3900.67	0.02	0.0	292.0	-892.91	0.11	-3.98	-0.73	-3900.67	1.79
30	96	4.39	4489.68	3.67e-05	0.0	0.0	-1830.80	0.02	-21.98	-0.03	4489.68	4.39
		-0.67	-1928.01	-7.32e-03	0.0	292.0	-1777.08	0.02	-21.98	-0.03	-1928.01	-0.67
30	101	19.86	790.55	3.19e-04	0.0	0.0	-1216.26	0.06	-11.67	-0.41	790.55	19.86
		0.91	-2617.42	4.90e-03	0.0	292.0	-1162.53	0.06	-11.67	-0.41	-2617.42	0.91
30	102	19.62	824.63	3.10e-04	0.0	0.0	-1285.25	0.06	-12.19	-0.40	824.63	19.62
		0.77	-2736.19	5.13e-03	0.0	292.0	-1231.52	0.06	-12.19	-0.40	-2736.19	0.77
30	103	19.86	790.55	3.19e-04	0.0	0.0	-1216.26	0.06	-11.67	-0.41	790.55	19.86
		0.91	-2617.42	4.90e-03	0.0	292.0	-1162.53	0.06	-11.67	-0.41	-2617.42	0.91
42	10	-5.75	-2228.98	-3.48e-04	0.0	0.0	-3822.15	7.05e-03	6.87	-0.88	-4235.31	-5.75
		-7.81	-4235.31	0.02	0.0	292.0	-3752.30	7.05e-03	6.87	-0.88	-2228.98	-7.81
42	11	-6.81	-1313.44	-3.39e-04	0.0	0.0	-2975.21	-3.48e-03	11.95	-0.83	-4802.40	-6.81

		-7.82	-4802.40	0.01	0.0	292.0	-2921.48	-3.48e-03	11.95	-0.83	-1313.44	-7.82
42	14	4.52	7435.95	2.91e-05	0.0	0.0	-64.96	0.02	-36.61	0.02	7435.95	-0.90
		-0.90	-3253.64	-0.01	0.0	292.0	4.89	0.02	-36.61	0.02	-3253.64	4.52
42	15	2.45	6868.86	3.66e-05	0.0	0.0	781.98	8.01e-03	-31.53	0.07	6868.86	0.11
		0.11	-2338.09	-0.01	0.0	292.0	835.71	8.01e-03	-31.53	0.07	-2338.09	2.45
42	26	8563.99	1090.66	-0.17	0.0	0.0	-1220.39	-34.58	-10.28	-269.14	1090.66	3423.71
		3423.71	-1912.20	2.69e-03	0.0	292.0	-1166.66	-34.58	-10.28	-269.14	-1912.20	8563.99
42	27	-3430.41	1086.97	0.17	0.0	0.0	-1196.77	34.59	-10.23	268.41	1086.97	-3430.41
		-8568.12	-1898.35	2.69e-03	0.0	292.0	-1143.04	34.59	-10.23	268.41	-1898.35	-8568.12
42	33	2554.12	1092.41	-0.16	0.0	0.0	-1220.96	-28.26	-10.29	-288.96	1092.41	2554.12
		-7865.92	-1912.76	2.69e-03	0.0	292.0	-1167.23	-28.26	-10.29	-288.96	-1912.76	-7865.92
42	36	7861.79	1085.22	0.16	0.0	0.0	-1196.20	28.27	-10.22	288.23	1085.22	-2560.82
		-2560.82	-1897.79	2.68e-03	0.0	292.0	-1142.47	28.27	-10.22	288.23	-1897.79	7861.79
42	41	2563.72	1092.92	-0.05	0.0	0.0	-1212.62	-10.39	-10.28	-81.07	1092.92	1022.89
		1022.89	-1907.96	2.68e-03	0.0	292.0	-1158.89	-10.39	-10.28	-81.07	-1907.96	2563.72
42	58	4812.36	1089.96	-0.10	0.0	0.0	-1214.15	-20.44	-10.27	-146.55	1089.96	1872.15
		1872.15	-1908.58	2.68e-03	0.0	292.0	-1160.42	-20.44	-10.27	-146.55	-1908.58	4812.36
42	59	-1878.85	1087.67	0.09	0.0	0.0	-1203.01	20.45	-10.24	145.81	1087.67	-1878.85
		-4816.49	-1901.97	2.69e-03	0.0	292.0	-1149.29	20.45	-10.24	145.81	-1901.97	-4816.49
42	65	1315.21	1090.88	-0.09	0.0	0.0	-1214.44	-16.57	-10.27	-158.71	1090.88	1315.21
		-4368.79	-1908.84	2.69e-03	0.0	292.0	-1160.71	-16.57	-10.27	-158.71	-1908.84	-4368.79
42	68	4364.66	1086.75	0.09	0.0	0.0	-1202.72	16.58	-10.24	157.98	1086.75	-1321.91
		-1321.91	-1901.71	2.68e-03	0.0	292.0	-1148.99	16.58	-10.24	157.98	-1901.71	4364.66
42	73	1439.74	1091.28	-0.03	0.0	0.0	-1210.55	-6.14	-10.27	-44.26	1091.28	558.10
		558.10	-1906.63	2.68e-03	0.0	292.0	-1156.82	-6.14	-10.27	-44.26	-1906.63	1439.74
42	93	-5.49	-1563.72	-2.69e-04	0.0	0.0	-2460.98	5.65e-04	4.24	-0.67	-2801.61	-5.49
		-5.65	-2801.61	0.01	0.0	292.0	-2407.25	5.65e-04	4.24	-0.67	-1563.72	-5.49
42	94	-4.53	-1687.02	-2.56e-04	0.0	0.0	-2634.60	3.87e-03	3.52	-0.64	-2715.42	-5.66
		-5.66	-2715.42	0.01	0.0	292.0	-2580.87	3.87e-03	3.52	-0.64	-1687.02	-4.53
42	95	1.36	4979.23	-1.80e-05	0.0	0.0	43.82	8.23e-03	-24.75	-0.07	4979.23	-1.04
		-1.04	-2246.83	-7.80e-03	0.0	292.0	97.54	8.23e-03	-24.75	-0.07	-2246.83	1.36
42	96	2.32	5065.42	-9.22e-06	0.0	0.0	-129.81	0.01	-25.46	-0.04	5065.42	-1.04
		-1.04	-3172.13	-7.81e-03	0.0	292.0	-76.08	0.01	-25.46	-0.04	-3172.13	2.32
42	101	-2.07	1088.81	-1.43e-04	0.0	0.0	-1208.58	4.40e-03	-10.25	-0.37	1088.81	-3.35
		-3.35	-1905.28	2.69e-03	0.0	292.0	-1154.85	4.40e-03	-10.25	-0.37	-1905.28	-2.07
42	102	-1.68	1123.29	-1.38e-04	0.0	0.0	-1278.03	5.72e-03	-10.54	-0.36	1123.29	-3.35
		-3.35	-1954.59	2.74e-03	0.0	292.0	-1224.30	5.72e-03	-10.54	-0.36	-1954.59	-1.68
42	103	-2.07	1088.81	-1.43e-04	0.0	0.0	-1208.58	4.40e-03	-10.25	-0.37	1088.81	-3.35
		-3.35	-1905.28	2.69e-03	0.0	292.0	-1154.85	4.40e-03	-10.25	-0.37	-1905.28	-2.07
46	9	-6.98	-2507.43	1.52e-04	0.0	0.0	-1665.18	5.90e-03	2.28	1.20	-3172.43	-8.70
		-8.70	-3172.43	0.01	0.0	292.0	-1595.34	5.90e-03	2.28	1.20	-2507.43	-6.98
46	10	-6.55	-2728.52	1.44e-04	0.0	0.0	-1815.53	6.53e-03	0.82	1.13	-2967.62	-8.46
		-8.46	-2967.62	0.01	0.0	292.0	-1745.69	6.53e-03	0.82	1.13	-2728.52	-6.55
46	11	-6.53	-1859.16	1.42e-04	0.0	0.0	-1395.95	4.49e-03	6.36	1.11	-3717.13	-7.84
		-7.84	-3717.13	0.01	0.0	292.0	-1342.22	4.49e-03	6.36	1.11	-1859.16	-6.53
46	14	0.64	6747.92	-1.36e-05	0.0	0.0	172.52	2.80e-03	-29.53	-0.08	6747.92	-0.18
		-0.18	-1874.57	-0.01	0.0	292.0	242.37	2.80e-03	-29.53	-0.08	-1874.57	0.64
46	15	0.67	5998.40	-1.53e-05	0.0	0.0	592.11	7.63e-04	-23.98	-0.11	5998.40	0.45
		0.45	-1005.20	-0.01	0.0	292.0	645.84	7.63e-04	-23.98	-0.11	-1005.20	0.67
46	16	1.10	6203.22	-2.38e-05	0.0	0.0	441.76	1.39e-03	-25.44	-0.17	6203.22	0.69
		0.69	-1226.30	-0.01	0.0	292.0	495.49	1.39e-03	-25.44	-0.17	-1226.30	1.10
46	30	4848.55	1223.05	-0.06	0.0	0.0	-463.49	-15.95	-9.39	-418.62	1223.05	4848.55
		-3256.85	-1518.28	1.88e-03	0.0	292.0	-409.76	-15.95	-9.39	-418.62	-1518.28	-3256.85
46	31	3251.36	1234.32	0.06	0.0	0.0	-469.61	15.96	-9.48	419.56	1234.32	-4855.74
		-4855.74	-1536.18	1.90e-03	0.0	292.0	-415.89	15.96	-9.48	419.56	-1536.18	3251.36
46	34	5536.86	1222.69	-0.06	0.0	0.0	-463.64	-19.17	-9.39	-382.10	1222.69	5536.86
		-2937.28	-1518.09	1.88e-03	0.0	292.0	-409.91	-19.17	-9.39	-382.10	-1518.09	-2937.28
46	35	2931.79	1234.68	0.06	0.0	0.0	-469.47	19.18	-9.49	383.04	1234.68	-5544.04
		-5544.04	-1536.37	1.90e-03	0.0	292.0	-415.74	19.18	-9.49	383.04	-1536.37	2931.79
46	39	2931.94	1234.79	0.06	0.0	0.0	-469.50	19.18	-9.49	383.01	1234.79	-5543.74
		-5543.74	-1536.45	1.90e-03	0.0	292.0	-415.77	19.18	-9.49	383.01	-1536.45	2931.94
46	62	2885.88	1225.80	-0.03	0.0	0.0	-465.08	-8.41	-9.42	-230.86	1225.80	2885.88
		-1653.37	-1522.92	1.89e-03	0.0	292.0	-411.35	-8.41	-9.42	-230.86	-1522.92	-1653.37
46	63	1647.88	1231.57	0.03	0.0	0.0	-468.02	8.42	-9.46	231.80	1231.57	-2893.06
		-2893.06	-1531.54	1.90e-03	0.0	292.0	-414.30	8.42	-9.46	231.80	-1531.54	1647.88
46	66	3296.95	1225.66	-0.03	0.0	0.0	-465.15	-10.53	-9.41	-208.21	1225.66	3296.95
		-1435.04	-1522.87	1.89e-03	0.0	292.0	-411.42	-10.53	-9.41	-208.21	-1522.87	-1435.04
46	67	1429.55	1231.71	0.03	0.0	0.0	-467.95	10.54	-9.46	209.16	1231.71	-3304.13
		-3304.13	-1531.59	1.89e-03	0.0	292.0	-414.23	10.54	-9.46	209.16	-1531.59	1429.55
46	71	1429.65	1231.77	0.03	0.0	0.0	-467.97	10.54	-9.46	209.14	1231.77	-3303.97
		-3303.97	-1531.63	1.89e-03	0.0	292.0	-414.24	10.54	-9.46	209.14	-1531.63	1429.65
46	93	-5.14	-1811.88	1.12e-04	0.0	0.0	-1129.24	4.14e-03	0.68	0.88	-2009.83	-6.35
		-6.35	-2009.83	9.09e-03	0.0	292.0	-1075.51	4.14e-03	0.68	0.88	-1811.88	-5.14
46	94	-4.86	-1873.29	1.06e-04	0.0	0.0	-1229.47	4.56e-03	-0.29	0.84	-1873.29	-6.19
		-6.19	-1959.28	9.09e-03	0.0	292.0	-1175.74	4.56e-03	-0.29	0.84	-1959.28	-4.86
46	95	-0.35	4467.20	7.74e-06	0.0	0.0	196.13	1.65e-03	-19.55	0.07	4467.20	-0.83
		-0.83	-1242.58	-8.59e-03	0.0	292.0	249.86	1.65e-03	-19.55	0.07	-1242.58	-0.35

46	96	-0.06	4603.74	2.89e-06	0.0	0.0	95.90	2.07e-03	-20.53	0.03	4603.74	-0.67
		-0.67	-1389.97	-8.61e-03	0.0	292.0	149.63	2.07e-03	-20.53	0.03	-1389.97	-0.06
46	101	-2.75	1228.69	5.97e-05	0.0	0.0	-466.55	2.90e-03	-9.44	0.47	1228.69	-3.59
		-3.59	-1527.23	1.89e-03	0.0	292.0	-412.83	2.90e-03	-9.44	0.47	-1527.23	-2.75
46	102	-2.63	1283.30	5.74e-05	0.0	0.0	-506.65	3.06e-03	-9.83	0.46	1283.30	-3.53
		-3.53	-1586.19	1.97e-03	0.0	292.0	-452.92	3.06e-03	-9.83	0.46	-1586.19	-2.63
46	103	-2.75	1228.69	5.97e-05	0.0	0.0	-466.55	2.90e-03	-9.44	0.47	1228.69	-3.59
		-3.59	-1527.23	1.89e-03	0.0	292.0	-412.83	2.90e-03	-9.44	0.47	-1527.23	-2.75
47	2	5.80	1615.97	2.13e-04	0.0	0.0	-2182.84	-0.04	-14.67	0.61	1615.97	5.80
		-4.48	-2666.81	3.57e-03	0.0	292.0	-2112.99	-0.04	-14.67	0.61	-2666.81	-4.48
47	9	11.37	-1696.70	5.44e-04	0.0	0.0	-3548.49	-0.04	9.68	1.45	-4523.96	11.37
		-1.75	-4523.96	0.01	0.0	292.0	-3478.64	-0.04	9.68	1.45	-1696.70	-1.75
47	10	11.19	-1655.18	5.16e-04	0.0	0.0	-3807.81	-0.05	9.75	1.39	-4502.41	11.19
		-2.77	-4502.41	0.01	0.0	292.0	-3737.97	-0.05	9.75	1.39	-1655.18	-2.77
47	11	10.08	-1093.70	5.03e-04	0.0	0.0	-2967.20	-0.04	13.05	1.33	-4903.32	10.08
		-0.42	-4903.32	0.01	0.0	292.0	-2913.47	-0.04	13.05	1.33	-1093.70	-0.42
47	14	0.77	7691.27	-3.56e-05	0.0	0.0	-39.21	-0.02	-39.22	-0.05	7691.27	0.77
		-4.16	-3761.49	-0.01	0.0	292.0	30.64	-0.02	-39.22	-0.05	-3761.49	-4.16
47	15	-0.34	7290.36	-4.90e-05	0.0	0.0	801.41	-5.01e-03	-35.93	-0.11	7290.36	-0.34
		-1.81	-3200.02	-0.01	0.0	292.0	855.13	-5.01e-03	-35.93	-0.11	-3200.02	-1.81
47	25	3380.06	1220.42	-0.17	0.0	0.0	-1182.23	-34.89	-11.58	-260.37	1220.42	3380.06
		-8697.33	-2160.06	3.22e-03	0.0	292.0	-1128.51	-34.89	-11.58	-260.37	-2160.06	-8697.33
47	28	8694.24	1185.15	0.17	0.0	0.0	-1206.53	34.84	-11.24	261.54	1185.15	-3370.47
		-3370.47	-2097.96	3.09e-03	0.0	292.0	-1152.81	34.84	-11.24	261.54	-2097.96	8694.24
47	37	2494.87	1220.89	-0.16	0.0	0.0	-1181.97	-28.58	-11.58	-280.43	1220.89	2494.87
		-7999.13	-2160.95	3.22e-03	0.0	292.0	-1128.25	-28.58	-11.58	-280.43	-2160.95	-7999.13
47	38	2494.40	1218.83	-0.16	0.0	0.0	-1181.69	-28.57	-11.57	-280.48	1218.83	2494.40
		-8001.35	-2160.40	3.22e-03	0.0	292.0	-1127.97	-28.57	-11.57	-280.48	-2160.40	-8001.35
47	39	7998.26	1186.74	0.16	0.0	0.0	-1207.07	28.53	-11.25	281.65	1186.74	-2484.82
		-2484.82	-2097.62	3.09e-03	0.0	292.0	-1153.35	28.53	-11.25	281.65	-2097.62	7998.26
47	57	1859.81	1211.14	-0.09	0.0	0.0	-1188.66	-20.57	-11.49	-142.18	1211.14	1859.81
		-4865.12	-2143.62	3.19e-03	0.0	292.0	-1134.93	-20.57	-11.49	-142.18	-2143.62	-4865.12
47	60	4862.03	1194.42	0.09	0.0	0.0	-1200.11	20.52	-11.33	143.34	1194.42	-1850.23
		-1850.23	-2114.40	3.13e-03	0.0	292.0	-1146.38	20.52	-11.33	143.34	-2114.40	4862.03
47	69	1293.34	1211.46	-0.09	0.0	0.0	-1188.55	-16.69	-11.49	-154.48	1211.46	1293.34
		-4418.24	-2144.07	3.19e-03	0.0	292.0	-1134.83	-16.69	-11.49	-154.48	-2144.07	-4418.24
47	70	1293.06	1210.23	-0.09	0.0	0.0	-1188.38	-16.68	-11.49	-154.51	1210.23	1293.06
		-4419.59	-2143.74	3.19e-03	0.0	292.0	-1134.66	-16.68	-11.49	-154.51	-2143.74	-4419.59
47	71	4416.50	1195.34	0.09	0.0	0.0	-1200.38	16.64	-11.33	155.68	1195.34	-1283.47
		-1283.47	-2114.28	3.13e-03	0.0	292.0	-1146.65	16.64	-11.33	155.68	-2114.28	4416.50
47	90	4.56	1231.51	1.78e-04	0.0	0.0	-1540.15	-0.03	-11.32	0.50	1231.51	4.56
		-2.90	-2073.64	2.86e-03	0.0	292.0	-1486.42	-0.03	-11.32	0.50	-2073.64	-2.90
47	93	8.27	-1426.90	3.99e-04	0.0	0.0	-2450.59	-0.03	4.91	1.06	-2861.78	8.27
		-1.08	-2861.78	0.01	0.0	292.0	-2396.86	-0.03	4.91	1.06	-1426.90	-1.08
47	94	8.15	-1399.22	3.81e-04	0.0	0.0	-2623.47	-0.03	4.96	1.02	-2847.41	8.15
		-1.76	-2847.41	0.01	0.0	292.0	-2569.74	-0.03	4.96	1.02	-1399.22	-1.76
47	95	1.32	5267.35	3.11e-05	0.0	0.0	61.82	-0.01	-27.73	0.11	5267.35	1.32
		-2.01	-2831.11	-7.42e-03	0.0	292.0	115.55	-0.01	-27.73	0.11	-2831.11	-2.01
47	96	1.20	5281.71	1.47e-05	0.0	0.0	-111.07	-0.01	-27.69	0.06	5281.71	1.20
		-2.69	-2803.43	-7.52e-03	0.0	292.0	-57.34	-0.01	-27.69	0.06	-2803.43	-2.69
47	101	4.79	1202.78	2.15e-04	0.0	0.0	-1194.38	-0.02	-11.41	0.58	1202.78	4.79
		-1.55	-2129.01	3.16e-03	0.0	292.0	-1140.66	-0.02	-11.41	0.58	-2129.01	-1.55
47	102	4.75	1208.53	2.08e-04	0.0	0.0	-1263.54	-0.02	-11.39	0.57	1208.53	4.75
		-1.82	-2117.94	3.10e-03	0.0	292.0	-1209.81	-0.02	-11.39	0.57	-2117.94	-1.82
47	103	4.79	1202.78	2.15e-04	0.0	0.0	-1194.38	-0.02	-11.41	0.58	1202.78	4.79
		-1.55	-2129.01	3.16e-03	0.0	292.0	-1140.66	-0.02	-11.41	0.58	-2129.01	-1.55
50	9	0.0	-2507.43	-2.19e-04	0.0	0.0	-1515.39	0.03	-0.57	6.59	-2507.43	-9.43
		-9.43	-2680.90	-0.15	0.0	303.3	-1442.85	0.03	-0.57	6.59	-2680.90	0.0
50	10	0.0	-2728.52	-2.07e-04	0.0	0.0	-1665.74	0.03	-0.01	6.18	-2728.52	-8.83
		-8.83	-2731.74	-0.16	0.0	303.3	-1593.19	0.03	-0.01	6.18	-2731.74	0.0
50	14	0.98	-1874.57	1.43e-05	0.0	0.0	322.32	-3.23e-03	-14.50	-0.46	-1874.57	0.98
		0.0	-6271.22	-0.06	0.0	303.3	394.86	-3.23e-03	-14.50	-0.46	-6271.22	0.0
50	15	0.97	-1005.20	1.79e-05	0.0	0.0	707.34	-3.18e-03	-13.68	-0.50	-1005.20	0.97
		0.0	-5154.64	-0.02	0.0	303.3	763.14	-3.18e-03	-13.68	-0.50	-5154.64	0.0
50	16	1.57	-1226.30	2.97e-05	0.0	0.0	556.99	-5.17e-03	-13.12	-0.91	-1226.30	1.57
		0.0	-5205.48	-0.03	0.0	303.3	612.79	-5.17e-03	-13.12	-0.91	-5205.48	0.0
50	25	0.0	-1519.05	-0.11	0.0	0.0	-348.60	10.82	-6.23	-583.71	-1519.05	-3280.74
		-3280.74	-3408.56	-0.08	0.0	303.3	-292.80	10.82	-6.23	-583.71	-3408.56	0.0
50	28	3273.38	-1535.41	0.11	0.0	0.0	-354.05	-10.79	-6.16	589.00	-1535.41	3273.38
		0.0	-3404.96	-0.08	0.0	303.3	-298.25	-10.79	-6.16	589.00	-3404.96	0.0
50	30	0.0	-1518.28	-0.11	0.0	0.0	-348.31	10.81	-6.24	-583.88	-1518.28	-3279.76
		-3279.76	-3412.07	-0.08	0.0	303.3	-292.51	10.81	-6.24	-583.88	-3412.07	0.0
50	31	3272.40	-1536.18	0.11	0.0	0.0	-354.35	-10.79	-6.15	589.17	-1536.18	3272.40
		0.0	-3401.44	-0.08	0.0	303.3	-298.54	-10.79	-6.15	589.17	-3401.44	0.0
50	38	0.0	-1518.01	-0.11	0.0	0.0	-348.43	9.57	-6.25	-560.82	-1518.01	-2902.86
		-2902.86	-3412.34	-0.08	0.0	303.3	-292.62	9.57	-6.25	-560.82	-3412.34	0.0
50	54	0.0	-1523.17	-0.03	0.0	0.0	-349.97	2.88	-6.24	-166.64	-1523.17	-872.17

		-872.17	-3414.30	-0.08	0.0	303.3	-294.16	2.88	-6.24	-166.64	-3414.30	0.0
50	57	0.0	-1523.39	-0.04	0.0	0.0	-350.05	5.62	-6.21	-289.66	-1523.39	-1705.11
		-1705.11	-3407.41	-0.08	0.0	303.3	-294.25	5.62	-6.21	-289.66	-3407.41	0.0
50	60	1697.75	-1531.07	0.04	0.0	0.0	-352.60	-5.60	-6.18	294.95	-1531.07	1697.75
		0.0	-3406.11	-0.08	0.0	303.3	-296.80	-5.60	-6.18	294.95	-3406.11	0.0
50	62	0.0	-1522.92	-0.04	0.0	0.0	-349.88	5.62	-6.22	-289.76	-1522.92	-1704.50
		-1704.50	-3409.51	-0.08	0.0	303.3	-294.07	5.62	-6.22	-289.76	-3409.51	0.0
50	63	1697.14	-1531.54	0.04	0.0	0.0	-352.78	-5.60	-6.17	295.05	-1531.54	1697.14
		0.0	-3404.01	-0.08	0.0	303.3	-296.97	-5.60	-6.17	295.05	-3404.01	0.0
50	70	0.0	-1522.83	-0.05	0.0	0.0	-349.93	4.79	-6.22	-275.87	-1522.83	-1452.19
		-1452.19	-3409.63	-0.08	0.0	303.3	-294.13	4.79	-6.22	-275.87	-3409.63	0.0
50	86	0.0	-1525.14	-0.01	0.0	0.0	-350.62	1.44	-6.22	-81.06	-1525.14	-437.45
		-437.45	-3411.13	-0.08	0.0	303.3	-294.81	1.44	-6.22	-81.06	-3411.13	0.0
50	89	0.0	-1527.23	-8.75e-05	0.0	0.0	-351.33	0.01	-6.20	2.65	-1527.23	-3.68
		-3.68	-3406.76	-0.08	0.0	303.3	-295.52	0.01	-6.20	2.65	-3406.76	0.0
50	93	0.0	-1811.88	-1.61e-04	0.0	0.0	-1014.02	0.02	-1.37	4.86	-1811.88	-6.95
		-6.95	-2226.93	-0.11	0.0	303.3	-958.21	0.02	-1.37	4.86	-2226.93	0.0
50	94	0.0	-1959.28	-1.53e-04	0.0	0.0	-1114.25	0.02	-0.99	4.59	-1959.28	-6.55
		-6.55	-2260.83	-0.11	0.0	303.3	-1058.44	0.02	-0.99	4.59	-2260.83	0.0
50	95	0.0	-1242.58	-1.37e-05	0.0	0.0	311.36	1.35e-03	-11.03	0.43	-1242.58	-0.41
		-0.41	-4586.58	-0.04	0.0	303.3	367.16	1.35e-03	-11.03	0.43	-4586.58	0.0
50	96	0.0	-1389.97	-5.60e-06	0.0	0.0	211.12	3.25e-05	-10.65	0.16	-1389.97	-9.85e-03
		-9.85e-03	-4620.48	-0.05	0.0	303.3	266.93	3.25e-05	-10.65	0.16	-4620.48	0.0
50	101	0.0	-1527.23	-8.75e-05	0.0	0.0	-351.33	0.01	-6.20	2.65	-1527.23	-3.68
		-3.68	-3406.76	-0.08	0.0	303.3	-295.52	0.01	-6.20	2.65	-3406.76	0.0
50	102	0.0	-1586.19	-8.43e-05	0.0	0.0	-391.42	0.01	-6.05	2.54	-1586.19	-3.52
		-3.52	-3420.32	-0.08	0.0	303.3	-335.62	0.01	-6.05	2.54	-3420.32	0.0
50	103	0.0	-1527.23	-8.75e-05	0.0	0.0	-351.33	0.01	-6.20	2.65	-1527.23	-3.68
		-3.68	-3406.76	-0.08	0.0	303.3	-295.52	0.01	-6.20	2.65	-3406.76	0.0
54	6	2.76	2997.54	-6.47e-05	0.0	0.0	-1011.47	5.39e-03	-23.90	-0.49	2997.54	1.18
		1.18	-3982.37	5.60e-03	0.0	292.0	-941.63	5.39e-03	-23.90	-0.49	-3982.37	2.76
54	9	4.73	-2850.74	-1.08e-04	0.0	0.0	-1652.30	0.01	-1.21	-0.82	-2850.74	1.51
		1.51	-3202.68	0.01	0.0	292.0	-1582.45	0.01	-1.21	-0.82	-3202.68	4.73
54	10	4.44	-2636.30	-1.02e-04	0.0	0.0	-1798.42	9.72e-03	-2.73	-0.77	-2636.30	1.61
		1.61	-3434.86	0.01	0.0	292.0	-1728.57	9.72e-03	-2.73	-0.77	-3434.86	4.44
54	14	0.52	7479.97	1.26e-05	0.0	0.0	178.71	-4.02e-03	-37.65	0.07	7479.97	0.52
		-0.65	-3513.74	-0.01	0.0	292.0	248.55	-4.02e-03	-37.65	0.07	-3513.74	-0.65
54	15	0.13	6593.04	1.23e-05	0.0	0.0	589.14	-2.68e-03	-30.65	0.08	6593.04	0.13
		-0.65	-2356.79	-0.01	0.0	292.0	642.87	-2.68e-03	-30.65	0.08	-2356.79	-0.65
54	16	0.23	6807.47	1.87e-05	0.0	0.0	443.02	-3.99e-03	-32.18	0.13	6807.47	0.23
		-0.94	-2588.97	-0.01	0.0	292.0	496.74	-3.99e-03	-32.18	0.13	-2588.97	-0.94
54	26	4889.70	1631.61	-0.06	0.0	0.0	-464.77	-16.39	-13.89	-423.22	1631.61	4889.70
		-3227.77	-2424.31	3.48e-03	0.0	292.0	-411.05	-16.39	-13.89	-423.22	-2424.31	-3227.77
54	27	3231.32	1622.56	0.06	0.0	0.0	-459.71	16.40	-13.81	422.59	1622.56	-4888.27
		-4888.27	-2410.02	3.49e-03	0.0	292.0	-405.98	16.40	-13.81	422.59	-2410.02	3231.32
54	33	5566.39	1633.42	-0.06	0.0	0.0	-464.28	-19.53	-13.90	-387.03	1633.42	5566.39
		-2911.81	-2424.62	3.49e-03	0.0	292.0	-410.56	-19.53	-13.90	-387.03	-2424.62	-2911.81
54	37	5566.85	1633.27	-0.06	0.0	0.0	-464.31	-19.53	-13.90	-387.06	1633.27	5566.85
		-2912.17	-2424.62	3.49e-03	0.0	292.0	-410.59	-19.53	-13.90	-387.06	-2424.62	-2912.17
54	40	2915.72	1620.91	0.06	0.0	0.0	-460.17	19.53	-13.80	386.42	1620.91	-5565.42
		-5565.42	-2409.70	3.48e-03	0.0	292.0	-406.44	19.53	-13.80	386.42	-2409.70	2915.72
54	57	2906.22	1630.49	-0.03	0.0	0.0	-463.27	-8.60	-13.87	-232.98	1630.49	2906.22
		-1635.17	-2420.70	3.48e-03	0.0	292.0	-409.54	-8.60	-13.87	-232.98	-2420.70	-1635.17
54	58	2905.54	1629.43	-0.03	0.0	0.0	-463.47	-8.61	-13.87	-232.95	1629.43	2905.54
		-1636.05	-2420.60	3.48e-03	0.0	292.0	-409.74	-8.61	-13.87	-232.95	-2420.60	-1636.05
54	59	1639.60	1624.74	0.03	0.0	0.0	-461.01	8.61	-13.83	232.32	1624.74	-2904.11
		-2904.11	-2413.72	3.49e-03	0.0	292.0	-407.28	8.61	-13.83	232.32	-2413.72	1639.60
54	69	3309.90	1630.25	-0.03	0.0	0.0	-463.21	-10.68	-13.87	-210.48	1630.25	3309.90
		-1420.02	-2420.72	3.49e-03	0.0	292.0	-409.49	-10.68	-13.87	-210.48	-2420.72	-1420.02
54	72	1423.57	1623.92	0.03	0.0	0.0	-461.27	10.68	-13.83	209.85	1623.92	-3308.47
		-3308.47	-2413.60	3.48e-03	0.0	292.0	-407.54	10.68	-13.83	209.85	-2413.60	1423.57
54	92	2.16	2153.84	-5.06e-05	0.0	0.0	-694.07	4.45e-03	-17.34	-0.38	2153.84	0.86
		0.86	-2910.66	4.12e-03	0.0	292.0	-640.34	4.45e-03	-17.34	-0.38	-2910.66	2.16
54	93	3.47	-1745.01	-7.96e-05	0.0	0.0	-1121.28	8.21e-03	-2.21	-0.60	-1745.01	1.08
		1.08	-2390.87	9.97e-03	0.0	292.0	-1067.55	8.21e-03	-2.21	-0.60	-2390.87	3.47
54	94	3.28	-1602.05	-7.53e-05	0.0	0.0	-1218.70	7.34e-03	-3.23	-0.57	-1602.05	1.14
		1.14	-2545.65	0.01	0.0	292.0	-1164.97	7.34e-03	-3.23	-0.57	-2545.65	3.28
54	95	0.35	4999.18	-3.90e-06	0.0	0.0	196.80	-9.52e-04	-25.49	-0.04	4999.18	0.35
		0.08	-2443.46	-7.45e-03	0.0	292.0	250.53	-9.52e-04	-25.49	-0.04	-2443.46	0.08
54	96	0.42	5142.13	-1.03e-06	0.0	0.0	99.38	-1.82e-03	-26.51	-8.61e-03	5142.13	0.42
		-0.12	-2598.24	-7.53e-03	0.0	292.0	153.11	-1.82e-03	-26.51	-8.61e-03	-2598.24	-0.12
54	101	1.78	1627.09	-4.17e-05	0.0	0.0	-462.24	3.63e-03	-13.85	-0.32	1627.09	0.72
		0.72	-2417.16	3.48e-03	0.0	292.0	-408.51	3.63e-03	-13.85	-0.32	-2417.16	1.78
54	102	1.70	1684.27	-4.00e-05	0.0	0.0	-501.21	3.28e-03	-14.26	-0.31	1684.27	0.74
		0.74	-2479.08	3.56e-03	0.0	292.0	-447.48	3.28e-03	-14.26	-0.31	-2479.08	1.70
54	103	1.78	1627.09	-4.17e-05	0.0	0.0	-462.24	3.63e-03	-13.85	-0.32	1627.09	0.72
		0.72	-2417.16	3.48e-03	0.0	292.0	-408.51	3.63e-03	-13.85	-0.32	-2417.16	1.78

57	2	90.92	0.07	-8.38e-03	0.0	0.0	1116.62	-2.06	5.12e-04	1.83	0.0	90.92
		-180.58	0.0	0.0	0.0	132.0	1141.88	-2.06	5.12e-04	1.83	0.07	-180.58
57	10	73.19	1.739e+04	-6.63e-03	0.0	0.0	969.08	-1.65	131.75	1.78	0.0	73.19
		-144.65	0.0	0.43	0.0	132.0	994.33	-1.65	131.75	1.78	1.739e+04	-144.65
57	11	31.89	1.739e+04	-2.79e-03	0.0	0.0	531.80	-0.71	131.74	0.96	0.0	31.89
		-62.41	0.0	0.43	0.0	132.0	551.23	-0.71	131.74	0.96	1.739e+04	-62.41
57	15	36.08	0.0	-3.35e-03	0.0	0.0	550.40	-0.82	-131.74	0.44	0.0	36.08
		-71.79	-1.739e+04	-0.43	0.0	132.0	569.83	-0.82	-131.74	0.44	-1.739e+04	-71.79
57	30	456.11	0.0	-0.51	0.0	0.0	601.18	24.72	-1.53	22.42	0.0	-2809.38
		-2809.38	-202.24	-5.55e-03	0.0	132.0	620.61	24.72	-1.53	22.42	-202.24	456.11
57	31	2890.80	202.31	0.50	0.0	0.0	599.89	-26.55	1.53	-20.76	0.0	2890.80
		-617.17	0.0	5.55e-03	0.0	132.0	619.32	-26.55	1.53	-20.76	202.31	-617.17
57	50	83.07	0.0	-0.16	0.0	0.0	600.90	6.81	-5.05	7.25	0.0	-816.86
		-816.86	-666.49	-0.02	0.0	132.0	620.33	6.81	-5.05	7.25	-666.49	83.07
57	51	898.28	666.55	0.15	0.0	0.0	600.16	-8.65	5.05	-5.59	0.0	898.28
		-244.13	0.0	0.02	0.0	132.0	619.59	-8.65	5.05	-5.59	666.55	-244.13
57	62	171.04	0.0	-0.24	0.0	0.0	600.84	11.03	-0.99	14.36	0.0	-1287.77
		-1287.77	-130.53	-3.58e-03	0.0	132.0	620.27	11.03	-0.99	14.36	-130.53	171.04
57	63	1369.19	130.59	0.23	0.0	0.0	600.22	-12.87	0.99	-12.70	0.0	1369.19
		-332.09	0.0	3.58e-03	0.0	132.0	619.65	-12.87	0.99	-12.70	130.59	-332.09
57	82	-3.42	0.0	-0.07	0.0	0.0	600.74	2.69	-3.26	4.85	0.0	-359.41
		-359.41	-430.21	-0.01	0.0	132.0	620.17	2.69	-3.26	4.85	-430.21	-3.42
57	83	440.83	430.27	0.07	0.0	0.0	600.33	-4.53	3.26	-3.19	0.0	440.83
		-157.64	0.0	0.01	0.0	132.0	619.76	-4.53	3.26	-3.19	430.27	-157.64
57	90	61.56	0.05	-5.66e-03	0.0	0.0	784.86	-1.39	3.50e-04	1.24	0.0	61.56
		-122.17	0.0	0.0	0.0	132.0	804.29	-1.39	3.50e-04	1.24	0.05	-122.17
57	93	39.31	1.159e+04	-3.51e-03	0.0	0.0	594.34	-0.88	87.83	1.00	0.0	39.31
		-77.40	0.0	0.29	0.0	132.0	613.77	-0.88	87.83	1.00	1.159e+04	-77.40
57	94	49.74	1.159e+04	-4.49e-03	0.0	0.0	686.50	-1.12	87.83	1.21	0.0	49.74
		-98.22	0.0	0.29	0.0	132.0	705.93	-1.12	87.83	1.21	1.159e+04	-98.22
57	95	42.11	0.0	-3.88e-03	0.0	0.0	606.73	-0.95	-87.83	0.66	0.0	42.11
		-83.66	-1.159e+04	-0.29	0.0	132.0	626.16	-0.95	-87.83	0.66	-1.159e+04	-83.66
57	101	40.71	0.03	-3.70e-03	0.0	0.0	600.53	-0.92	2.43e-04	0.83	0.0	40.71
		-80.53	0.0	0.0	0.0	132.0	619.96	-0.92	2.43e-04	0.83	0.03	-80.53
57	102	44.88	0.03	-4.09e-03	0.0	0.0	637.40	-1.01	2.64e-04	0.91	0.0	44.88
		-88.86	0.0	0.0	0.0	132.0	656.83	-1.01	2.64e-04	0.91	0.03	-88.86
57	103	40.71	0.03	-3.70e-03	0.0	0.0	600.53	-0.92	2.43e-04	0.83	0.0	40.71
		-80.53	0.0	0.0	0.0	132.0	619.96	-0.92	2.43e-04	0.83	0.03	-80.53
58	2	0.0	0.0	8.44e-03	0.0	0.0	78.35	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-1.09e-06	0.0	30.0	84.09	0.0	0.0	0.0	0.0	0.0
58	4	0.0	0.0	6.06e-03	0.0	0.0	61.85	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	30.0	66.27	0.0	0.0	0.0	0.0	0.0
58	12	0.0	0.0	4.40e-03	0.0	0.0	64.94	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-0.43	0.0	30.0	69.35	0.0	0.0	0.0	0.0	0.0
58	13	0.0	0.0	5.73e-03	0.0	0.0	91.14	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.43	0.0	30.0	96.89	0.0	0.0	0.0	0.0	0.0
58	30	0.0	0.0	-0.24	0.0	0.0	70.41	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	5.58e-03	0.0	30.0	74.82	0.0	0.0	0.0	0.0	0.0
58	31	0.0	0.0	0.25	0.0	0.0	69.92	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-5.58e-03	0.0	30.0	74.33	0.0	0.0	0.0	0.0	0.0
58	33	0.0	0.0	-0.24	0.0	0.0	70.39	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-3.78e-03	0.0	30.0	74.81	0.0	0.0	0.0	0.0	0.0
58	36	0.0	0.0	0.25	0.0	0.0	69.93	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	3.78e-03	0.0	30.0	74.35	0.0	0.0	0.0	0.0	0.0
58	41	0.0	0.0	-0.07	0.0	0.0	70.22	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-0.01	0.0	30.0	74.64	0.0	0.0	0.0	0.0	0.0
58	52	0.0	0.0	0.08	0.0	0.0	70.12	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.02	0.0	30.0	74.53	0.0	0.0	0.0	0.0	0.0
58	62	0.0	0.0	-0.11	0.0	0.0	70.28	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	3.60e-03	0.0	30.0	74.69	0.0	0.0	0.0	0.0	0.0
58	63	0.0	0.0	0.12	0.0	0.0	70.05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-3.60e-03	0.0	30.0	74.46	0.0	0.0	0.0	0.0	0.0
58	65	0.0	0.0	-0.11	0.0	0.0	70.27	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-2.46e-03	0.0	30.0	74.69	0.0	0.0	0.0	0.0	0.0
58	68	0.0	0.0	0.12	0.0	0.0	70.05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	2.46e-03	0.0	30.0	74.47	0.0	0.0	0.0	0.0	0.0
58	73	0.0	0.0	-0.03	0.0	0.0	70.19	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-8.23e-03	0.0	30.0	74.61	0.0	0.0	0.0	0.0	0.0
58	84	0.0	0.0	0.04	0.0	0.0	70.15	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.01	0.0	30.0	74.56	0.0	0.0	0.0	0.0	0.0
58	90	0.0	0.0	5.71e-03	0.0	0.0	63.11	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	30.0	67.52	0.0	0.0	0.0	0.0	0.0
58	94	0.0	0.0	4.61e-03	0.0	0.0	65.16	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-0.29	0.0	30.0	69.58	0.0	0.0	0.0	0.0	0.0
58	95	0.0	0.0	3.91e-03	0.0	0.0	71.63	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.29	0.0	30.0	76.05	0.0	0.0	0.0	0.0	0.0
58	101	0.0	0.0	3.77e-03	0.0	0.0	70.16	0.0	0.0	0.0	0.0	0.0

		0.0	0.0	0.0	0.0	30.0	74.58	0.0	0.0	0.0	0.0	0.0
58	102	0.0	0.0	4.16e-03	0.0	0.0	68.75	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	30.0	73.17	0.0	0.0	0.0	0.0	0.0
58	103	0.0	0.0	3.77e-03	0.0	0.0	70.16	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	30.0	74.58	0.0	0.0	0.0	0.0	0.0
80	9	4.60	-3273.76	2.93e-04	0.0	0.0	671.92	-0.08	-15.56	-1.82	-3273.76	4.60
		-18.60	-7817.41	0.03	0.0	292.0	741.77	-0.08	-15.56	-1.82	-7817.41	-18.60
80	10	4.59	-3141.80	2.80e-04	0.0	0.0	523.71	-0.08	-18.04	-1.75	-3141.80	4.59
		-18.04	-8408.92	0.03	0.0	292.0	593.55	-0.08	-18.04	-1.75	-8408.92	-18.04
80	11	4.03	-3653.05	2.67e-04	0.0	0.0	940.38	-0.07	-8.93	-1.66	-3653.05	4.03
		-16.86	-6261.73	0.02	0.0	292.0	994.11	-0.07	-8.93	-1.66	-6261.73	-16.86
80	14	0.44	5823.03	-6.51e-06	0.0	0.0	-2169.79	2.41e-04	-28.02	0.05	5823.03	0.37
		0.37	-2357.51	-9.84e-03	0.0	292.0	-2099.95	2.41e-04	-28.02	0.05	-2357.51	0.44
80	25	5620.52	872.43	-0.05	0.0	0.0	-471.09	-19.76	-14.73	374.05	872.43	5620.52
		-2917.87	-3429.95	6.87e-03	0.0	292.0	-417.37	-19.76	-14.73	374.05	-3429.95	-2917.87
80	28	2903.12	899.77	0.05	0.0	0.0	-469.08	19.70	-15.24	-375.52	899.77	-5616.68
		-5616.68	-3550.68	7.14e-03	0.0	292.0	-415.35	19.70	-15.24	-375.52	-3550.68	2903.12
80	38	4949.29	870.14	-0.06	0.0	0.0	-471.66	-16.56	-14.72	410.88	870.14	4949.29
		-3230.01	-3428.07	6.87e-03	0.0	292.0	-417.94	-16.56	-14.72	410.88	-3428.07	-3230.01
80	39	3215.25	902.05	0.06	0.0	0.0	-468.51	16.50	-15.25	-412.35	902.05	-4945.46
		-4945.46	-3552.56	7.14e-03	0.0	292.0	-414.78	16.50	-15.25	-412.35	-3552.56	3215.25
80	57	3344.00	879.71	-0.03	0.0	0.0	-470.69	-10.86	-14.87	204.19	879.71	3344.00
		-1424.23	-3461.93	6.94e-03	0.0	292.0	-416.96	-10.86	-14.87	204.19	-3461.93	-1424.23
80	60	1409.47	892.49	0.03	0.0	0.0	-469.48	10.79	-15.11	-205.66	892.49	-3340.16
		-3340.16	-3518.70	7.07e-03	0.0	292.0	-415.75	10.79	-15.11	-205.66	-3518.70	1409.47
80	70	2943.51	878.45	-0.03	0.0	0.0	-471.04	-8.75	-14.86	227.04	878.45	2943.51
		-1638.43	-3461.07	6.94e-03	0.0	292.0	-417.31	-8.75	-14.86	227.04	-3461.07	-1638.43
80	71	1623.68	893.75	0.03	0.0	0.0	-469.14	8.69	-15.11	-228.51	893.75	-2939.67
		-2939.67	-3519.57	7.07e-03	0.0	292.0	-415.41	8.69	-15.11	-228.51	-3519.57	1623.68
80	93	3.32	-2102.18	2.14e-04	0.0	0.0	427.75	-0.06	-11.66	-1.33	-2102.18	3.32
		-13.54	-5507.45	0.02	0.0	292.0	481.48	-0.06	-11.66	-1.33	-5507.45	-13.54
80	94	3.32	-2014.20	2.06e-04	0.0	0.0	328.94	-0.06	-13.31	-1.28	-2014.20	3.32
		-13.17	-5901.79	0.02	0.0	292.0	382.67	-0.06	-13.31	-1.28	-5901.79	-13.17
80	96	0.51	3962.35	1.53e-05	0.0	0.0	-1466.73	-4.64e-03	-19.97	-0.09	3962.35	0.51
		-0.85	-1867.52	-6.25e-03	0.0	292.0	-1413.00	-4.64e-03	-19.97	-0.09	-1867.52	-0.85
80	101	1.92	886.10	1.19e-04	0.0	0.0	-470.09	-0.03	-14.99	-0.74	886.10	1.92
		-7.38	-3490.32	7.00e-03	0.0	292.0	-416.36	-0.03	-14.99	-0.74	-3490.32	-7.38
80	102	1.92	921.29	1.16e-04	0.0	0.0	-509.61	-0.03	-15.65	-0.72	921.29	1.92
		-7.23	-3648.05	7.34e-03	0.0	292.0	-455.88	-0.03	-15.65	-0.72	-3648.05	-7.23
80	103	1.92	886.10	1.19e-04	0.0	0.0	-470.09	-0.03	-14.99	-0.74	886.10	1.92
		-7.38	-3490.32	7.00e-03	0.0	292.0	-416.36	-0.03	-14.99	-0.74	-3490.32	-7.38
100	2	355.20	0.62	0.02	0.0	0.0	1853.07	4.04	4.67e-03	-14.02	0.0	-178.15
		-178.15	0.0	-3.33e-06	0.0	132.0	1878.33	4.04	4.67e-03	-14.02	0.62	355.20
100	10	574.44	3.060e+04	0.03	0.0	0.0	1585.04	6.53	231.82	-20.40	0.0	-287.95
		-287.95	0.0	0.77	0.0	132.0	1610.30	6.53	231.82	-20.40	3.060e+04	574.44
100	11	481.07	3.060e+04	0.02	0.0	0.0	831.56	5.47	231.82	-15.95	0.0	-241.05
		-241.05	0.0	0.77	0.0	132.0	850.99	5.47	231.82	-15.95	3.060e+04	481.07
100	15	25.01	0.0	1.17e-03	0.0	0.0	865.95	0.28	-231.81	-1.31	0.0	-12.54
		-12.54	3.060e+04	-0.77	0.0	132.0	885.38	0.28	-231.81	-1.31	-3.060e+04	25.01
100	25	3472.87	346.64	-0.30	0.0	0.0	956.29	58.27	2.63	15.54	0.0	-4219.46
		-4219.46	0.0	9.63e-03	0.0	132.0	975.72	58.27	2.63	15.54	346.64	3472.87
100	28	3962.05	0.0	0.33	0.0	0.0	956.89	-52.43	-2.62	-33.60	0.0	3962.05
		-2959.24	-345.79	-9.64e-03	0.0	132.0	976.32	-52.43	-2.62	-33.60	-345.79	-2959.24
100	41	1227.76	1151.07	-0.08	0.0	0.0	956.28	19.57	8.72	-2.05	0.0	-1356.68
		-1356.68	0.0	0.03	0.0	132.0	975.71	19.57	8.72	-2.05	1151.07	1227.76
100	44	1099.27	0.0	0.10	0.0	0.0	956.89	-13.73	-8.71	-16.02	0.0	1099.27
		-714.13	-1150.22	-0.03	0.0	132.0	976.33	-13.73	-8.71	-16.02	-1150.22	-714.13
100	57	1756.45	207.51	-0.13	0.0	0.0	956.42	28.72	1.57	4.08	0.0	-2034.99
		-2034.99	0.0	5.76e-03	0.0	132.0	975.85	28.72	1.57	4.08	207.51	1756.45
100	60	1777.57	0.0	0.16	0.0	0.0	956.76	-22.88	-1.57	-22.15	0.0	1777.57
		-1242.82	-206.67	-5.76e-03	0.0	132.0	976.19	-22.88	-1.57	-22.15	-206.67	-1242.82
100	73	710.49	688.61	-0.03	0.0	0.0	956.41	10.69	5.22	-5.33	0.0	-701.00
		-701.00	0.0	0.02	0.0	132.0	975.84	10.69	5.22	-5.33	688.61	710.49
100	76	443.59	0.0	0.05	0.0	0.0	956.77	-4.85	-5.21	-12.74	0.0	443.59
		-196.86	-687.77	-0.02	0.0	132.0	976.20	-4.85	-5.21	-12.74	-687.77	-196.86
100	90	268.52	0.46	0.01	0.0	0.0	1291.03	3.05	3.47e-03	-10.29	0.0	-134.65
		-134.65	0.0	-2.56e-06	0.0	132.0	1310.47	3.05	3.47e-03	-10.29	0.46	268.52
100	93	408.83	2.040e+04	0.02	0.0	0.0	945.13	4.65	154.55	-13.91	0.0	-204.88
		-204.88	0.0	0.51	0.0	132.0	964.56	4.65	154.55	-13.91	2.040e+04	408.83
100	94	414.69	2.040e+04	0.02	0.0	0.0	1112.35	4.72	154.55	-14.54	0.0	-207.85
		-207.85	0.0	0.51	0.0	132.0	1131.78	4.72	154.55	-14.54	2.040e+04	414.69
100	95	104.79	0.0	4.91e-03	0.0	0.0	968.05	1.19	-154.54	-4.16	0.0	-52.54
		-52.54	-2.040e+04	-0.51	0.0	132.0	987.48	1.19	-154.54	-4.16	-2.040e+04	104.79
100	101	256.81	0.42	0.01	0.0	0.0	956.59	2.92	3.19e-03	-9.03	0.0	-128.71
		-128.71	0.0	-2.57e-06	0.0	132.0	976.02	2.92	3.19e-03	-9.03	0.42	256.81
100	102	259.16	0.43	0.01	0.0	0.0	1023.48	2.95	3.25e-03	-9.28	0.0	-129.90
		-129.90	0.0	-2.57e-06	0.0	132.0	1042.91	2.95	3.25e-03	-9.28	0.43	259.16

100	103	256.81	0.42	0.01	0.0	0.0	956.59	2.92	3.19e-03	-9.03	0.0	-128.71
		-128.71	0.0	-2.57e-06	0.0	132.0	976.02	2.92	3.19e-03	-9.03	0.42	256.81
101	4	0.0	0.0	-0.01	0.0	0.0	41.40	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-7.89e-06	0.0	30.0	45.82	0.0	0.0	0.0	0.0	0.0
101	12	0.0	0.0	-0.02	0.0	0.0	46.93	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-0.77	0.0	30.0	51.34	0.0	0.0	0.0	0.0	0.0
101	13	0.0	0.0	-5.11e-03	0.0	0.0	73.37	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.77	0.0	30.0	79.11	0.0	0.0	0.0	0.0	0.0
101	14	0.0	0.0	-5.52e-03	0.0	0.0	63.77	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.77	0.0	30.0	69.51	0.0	0.0	0.0	0.0	0.0
101	29	0.0	0.0	-0.45	0.0	0.0	56.38	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-7.89e-03	0.0	30.0	60.79	0.0	0.0	0.0	0.0	0.0
101	32	0.0	0.0	0.43	0.0	0.0	56.58	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	7.88e-03	0.0	30.0	61.00	0.0	0.0	0.0	0.0	0.0
101	41	0.0	0.0	-0.15	0.0	0.0	56.36	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-0.03	0.0	30.0	60.77	0.0	0.0	0.0	0.0	0.0
101	44	0.0	0.0	0.12	0.0	0.0	56.61	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.03	0.0	30.0	61.02	0.0	0.0	0.0	0.0	0.0
101	51	0.0	0.0	0.12	0.0	0.0	56.44	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-0.03	0.0	30.0	60.85	0.0	0.0	0.0	0.0	0.0
101	61	0.0	0.0	-0.22	0.0	0.0	56.43	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-4.72e-03	0.0	30.0	60.85	0.0	0.0	0.0	0.0	0.0
101	64	0.0	0.0	0.19	0.0	0.0	56.53	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	4.71e-03	0.0	30.0	60.95	0.0	0.0	0.0	0.0	0.0
101	73	0.0	0.0	-0.07	0.0	0.0	56.41	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-0.02	0.0	30.0	60.83	0.0	0.0	0.0	0.0	0.0
101	76	0.0	0.0	0.05	0.0	0.0	56.55	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.02	0.0	30.0	60.97	0.0	0.0	0.0	0.0	0.0
101	83	0.0	0.0	0.05	0.0	0.0	56.45	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-0.02	0.0	30.0	60.87	0.0	0.0	0.0	0.0	0.0
101	90	0.0	0.0	-0.01	0.0	0.0	43.67	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-7.77e-06	0.0	30.0	48.09	0.0	0.0	0.0	0.0	0.0
101	94	0.0	0.0	-0.02	0.0	0.0	47.36	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-0.52	0.0	30.0	51.78	0.0	0.0	0.0	0.0	0.0
101	95	0.0	0.0	-4.88e-03	0.0	0.0	59.20	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.52	0.0	30.0	63.62	0.0	0.0	0.0	0.0	0.0
101	96	0.0	0.0	-5.16e-03	0.0	0.0	52.80	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.52	0.0	30.0	57.21	0.0	0.0	0.0	0.0	0.0
101	101	0.0	0.0	-0.01	0.0	0.0	56.48	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-7.07e-06	0.0	30.0	60.90	0.0	0.0	0.0	0.0	0.0
101	102	0.0	0.0	-0.01	0.0	0.0	53.92	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-7.21e-06	0.0	30.0	58.34	0.0	0.0	0.0	0.0	0.0
101	103	0.0	0.0	-0.01	0.0	0.0	56.48	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-7.07e-06	0.0	30.0	60.90	0.0	0.0	0.0	0.0	0.0
122	2	180.52	0.06	8.48e-03	0.0	0.0	1116.62	2.05	4.64e-04	-1.83	0.0	-90.41
		-90.41	0.0	0.0	0.0	132.0	1141.88	2.05	4.64e-04	-1.83	0.06	180.52
122	10	144.46	1.739e+04	6.87e-03	0.0	0.0	969.08	1.64	131.75	-1.78	0.0	-71.98
		-71.98	0.0	0.43	0.0	132.0	994.34	1.64	131.75	-1.78	1.739e+04	144.46
122	11	62.34	1.739e+04	3.04e-03	0.0	0.0	531.80	0.71	131.74	-0.96	0.0	-30.73
		-30.73	0.0	0.43	0.0	132.0	551.23	0.71	131.74	-0.96	1.739e+04	62.34
122	15	72.14	0.0	3.37e-03	0.0	0.0	550.40	0.82	-131.74	-0.44	0.0	-36.21
		-36.21	-1.739e+04	-0.43	0.0	132.0	569.83	0.82	-131.74	-0.44	-1.739e+04	72.14
122	25	612.96	201.33	-0.50	0.0	0.0	599.89	26.52	1.53	20.07	0.0	-2888.92
		-2888.92	0.0	5.54e-03	0.0	132.0	619.32	26.52	1.53	20.07	201.33	612.96
122	28	2808.49	0.0	0.51	0.0	0.0	601.18	-24.69	-1.52	-21.73	0.0	2808.49
		-451.69	-201.28	-5.54e-03	0.0	132.0	620.61	-24.69	-1.52	-21.73	-201.28	-451.69
122	41	237.92	666.24	-0.15	0.0	0.0	600.15	8.63	5.05	5.38	0.0	-897.59
		-897.59	0.0	0.02	0.0	132.0	619.58	8.63	5.05	5.38	666.24	237.92
122	44	817.16	0.0	0.16	0.0	0.0	600.92	-6.80	-5.05	-7.04	0.0	817.16
		-76.66	-666.19	-0.02	0.0	132.0	620.35	-6.80	-5.05	-7.04	-666.19	-76.66
122	57	330.01	129.95	-0.23	0.0	0.0	600.22	12.85	0.98	12.21	0.0	-1368.06
		-1368.06	0.0	3.58e-03	0.0	132.0	619.65	12.85	0.98	12.21	129.95	330.01
122	60	1287.63	0.0	0.24	0.0	0.0	600.85	-11.02	-0.98	-13.87	0.0	1287.63
		-168.74	-129.90	-3.58e-03	0.0	132.0	620.28	-11.02	-0.98	-13.87	-129.90	-168.74
122	73	153.94	430.07	-0.07	0.0	0.0	600.31	4.52	3.26	3.04	0.0	-440.28
		-440.28	0.0	0.01	0.0	132.0	619.74	4.52	3.26	3.04	430.07	153.94
122	76	359.85	0.0	0.07	0.0	0.0	600.75	-2.69	-3.26	-4.71	0.0	359.85
		7.33	-430.02	-0.01	0.0	132.0	620.18	-2.69	-3.26	-4.71	-430.02	7.33
122	90	122.17	0.04	5.75e-03	0.0	0.0	784.86	1.39	3.13e-04	-1.24	0.0	-61.14
		-61.14	0.0	0.0	0.0	132.0	804.29	1.39	3.13e-04	-1.24	0.04	122.17
122	93	77.37	1.159e+04	3.72e-03	0.0	0.0	594.34	0.88	87.83	-1.00	0.0	-38.39
		-38.39	0.0	0.29	0.0	132.0	613.77	0.88	87.83	-1.00	1.159e+04	77.37
122	94	98.13	1.159e+04	4.68e-03	0.0	0.0	686.50	1.11	87.83	-1.21	0.0	-48.85
		-48.85	0.0	0.29	0.0	132.0	705.93	1.11	87.83	-1.21	1.159e+04	98.13
122	95	83.90	0.0	3.94e-03	0.0	0.0	606.73	0.95	-87.83	-0.66	0.0	-42.04
		-42.04	-1.159e+04	-0.29	0.0	132.0	626.16	0.95	-87.83	-0.66	-1.159e+04	83.90
122	101	80.63	0.03	3.83e-03	0.0	0.0	600.53	0.92	2.03e-04	-0.83	0.0	-40.22

		-40.22	0.0	0.0	0.0	132.0	619.96	0.92	2.03e-04	-0.83	0.03	80.63
122	102	88.94	0.03	4.21e-03	0.0	0.0	637.40	1.01	2.25e-04	-0.91	0.0	-44.40
		-44.40	0.0	0.0	0.0	132.0	656.83	1.01	2.25e-04	-0.91	0.03	88.94
122	103	80.63	0.03	3.83e-03	0.0	0.0	600.53	0.92	2.03e-04	-0.83	0.0	-40.22
		-40.22	0.0	0.0	0.0	132.0	619.96	0.92	2.03e-04	-0.83	0.03	80.63
123	2	0.0	0.0	-8.41e-03	0.0	0.0	78.35	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	30.0	84.09	0.0	0.0	0.0	0.0	0.0
123	4	0.0	0.0	-6.03e-03	0.0	0.0	61.85	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	30.0	66.27	0.0	0.0	0.0	0.0	0.0
123	12	0.0	0.0	-4.33e-03	0.0	0.0	64.94	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-0.43	0.0	30.0	69.35	0.0	0.0	0.0	0.0	0.0
123	13	0.0	0.0	-5.74e-03	0.0	0.0	91.14	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.43	0.0	30.0	96.89	0.0	0.0	0.0	0.0	0.0
123	25	0.0	0.0	-0.25	0.0	0.0	69.92	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-5.57e-03	0.0	30.0	74.34	0.0	0.0	0.0	0.0	0.0
123	28	0.0	0.0	0.24	0.0	0.0	70.41	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	5.57e-03	0.0	30.0	74.82	0.0	0.0	0.0	0.0	0.0
123	42	0.0	0.0	-0.08	0.0	0.0	70.12	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.02	0.0	30.0	74.53	0.0	0.0	0.0	0.0	0.0
123	49	0.0	0.0	-0.08	0.0	0.0	70.08	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-0.01	0.0	30.0	74.50	0.0	0.0	0.0	0.0	0.0
123	57	0.0	0.0	-0.12	0.0	0.0	70.05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-3.60e-03	0.0	30.0	74.46	0.0	0.0	0.0	0.0	0.0
123	60	0.0	0.0	0.11	0.0	0.0	70.28	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	3.59e-03	0.0	30.0	74.69	0.0	0.0	0.0	0.0	0.0
123	74	0.0	0.0	-0.04	0.0	0.0	70.14	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.01	0.0	30.0	74.56	0.0	0.0	0.0	0.0	0.0
123	81	0.0	0.0	-0.04	0.0	0.0	70.12	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-8.24e-03	0.0	30.0	74.54	0.0	0.0	0.0	0.0	0.0
123	90	0.0	0.0	-5.69e-03	0.0	0.0	63.11	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	30.0	67.52	0.0	0.0	0.0	0.0	0.0
123	94	0.0	0.0	-4.55e-03	0.0	0.0	65.16	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	-0.29	0.0	30.0	69.58	0.0	0.0	0.0	0.0	0.0
123	95	0.0	0.0	-3.91e-03	0.0	0.0	71.63	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.29	0.0	30.0	76.05	0.0	0.0	0.0	0.0	0.0
123	101	0.0	0.0	-3.75e-03	0.0	0.0	70.16	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	30.0	74.58	0.0	0.0	0.0	0.0	0.0
123	102	0.0	0.0	-4.13e-03	0.0	0.0	68.75	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	30.0	73.17	0.0	0.0	0.0	0.0	0.0
123	103	0.0	0.0	-3.75e-03	0.0	0.0	70.16	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	30.0	74.58	0.0	0.0	0.0	0.0	0.0

Pilas.	M3 mx/mn	M2 mx/mn	D 2 / D 3	Q 2 / Q 3	N	V 2	V 3	T
	-8818.62	-3.060e+04	-0.77	0.0	-3822.15	-57.93	-231.81	-689.59
	8815.46	3.060e+04	0.77	0.0	1878.35	58.27	231.82	685.88

Trave	Cmb	M3 mx/mn	M2 mx/mn	D 2 / D 3	Q 2 / Q 3	Pos.	N	V 2	V 3	T	M 2	M 3
		daN cm	daN cm	cm	daN	cm	daN	daN	daN	daN cm	daN cm	daN cm
1	1	7369.90	0.0	0.23	-94.38	0.0	5128.24	36.19	0.0	0.0	0.0	4518.78
		0.0	0.0	0.0	0.0	411.0	5128.27	-58.18	0.0	0.0	0.0	0.0
1	2	9812.13	0.0	0.32	-94.38	0.0	7183.02	27.21	0.0	0.0	0.0	8211.31
		0.0	0.0	0.0	0.0	411.0	7183.05	-67.17	0.0	0.0	0.0	0.0
1	3	4836.84	0.0	0.14	-72.60	0.0	3163.36	31.26	0.0	0.0	0.0	2071.71
		0.0	0.0	0.0	0.0	411.0	3163.38	-41.34	0.0	0.0	0.0	0.0
1	13	6912.24	0.0	0.21	-94.38	0.0	4277.06	37.98	0.0	0.0	0.0	3786.51
		0.0	0.0	0.0	0.0	411.0	4277.09	-56.40	0.0	0.0	0.0	0.0
1	15	4424.93	0.0	0.12	-72.60	0.0	2312.18	33.04	0.0	0.0	0.0	1339.44
		0.0	0.0	0.0	0.0	411.0	2312.21	-39.56	0.0	0.0	0.0	0.0
1	27	5301.93	3.52	0.16	-72.60	0.0	3620.61	29.27	-0.01	-1.06e-03	3.52	2888.42
		0.0	-3.03	9.95e-05	0.0	411.0	3620.64	-43.33	-0.01	-1.06e-03	-3.03	0.0
1	29	5283.87	3.55	0.16	-72.60	0.0	3607.33	29.34	0.02	9.06e-04	-3.00	2859.54
		0.0	-3.00	-8.54e-05	0.0	411.0	3607.35	-43.26	0.02	9.06e-04	3.55	0.0
1	32	5291.25	3.00	0.16	-72.60	0.0	3602.76	29.31	-0.02	-9.06e-04	3.00	2871.33
		0.0	-3.55	8.54e-05	0.0	411.0	3602.78	-43.29	-0.02	-9.06e-04	-3.55	0.0
1	50	5263.47	0.08	0.16	-72.60	0.0	3567.24	29.42	3.66e-04	5.70e-04	-1.89	2826.89
		0.0	-1.89	-5.34e-05	0.0	411.0	3567.26	-43.18	3.66e-04	5.70e-04	0.08	0.0
1	51	5311.65	1.89	0.16	-72.60	0.0	3642.85	29.23	-3.66e-04	-5.70e-04	1.89	2903.98
		0.0	-0.08	5.34e-05	0.0	411.0	3642.87	-43.37	-3.66e-04	-5.70e-04	-0.08	0.0
1	55	5311.65	1.08	0.16	-72.60	0.0	3642.83	29.23	3.57e-03	-3.26e-04	1.08	2903.98
		0.0	0.73	3.05e-05	0.0	411.0	3642.86	-43.37	3.57e-03	-3.26e-04	0.73	0.0
1	59	5294.93	2.30	0.16	-72.60	0.0	3613.34	29.30	-9.63e-03	-6.94e-04	2.30	2877.23
		0.0	-1.98	6.50e-05	0.0	411.0	3613.37	-43.30	-9.63e-03	-6.94e-04	-1.98	0.0
1	61	5286.57	2.32	0.16	-72.60	0.0	3607.42	29.33	0.01	5.92e-04	-1.96	2863.85
		0.0	-1.96	-5.58e-05	0.0	411.0	3607.45	-43.27	0.01	5.92e-04	2.32	0.0
1	64	5288.55	1.96	0.16	-72.60	0.0	3602.66	29.32	-0.01	-5.92e-04	1.96	2867.02

		0.0	-2.32	5.58e-05	0.0	411.0	3602.69	-43.28	-0.01	-5.92e-04	-2.32	0.0
1	86	5273.51	-0.48	0.16	-72.60	0.0	3582.73	29.38	-2.32e-03	2.12e-04	-0.70	2842.95
		0.0	-0.70	-1.98e-05	0.0	411.0	3582.75	-43.22	-2.32e-03	2.12e-04	-0.48	0.0
1	87	5301.62	0.70	0.16	-72.60	0.0	3627.36	29.27	2.32e-03	-2.12e-04	0.70	2887.92
		0.0	0.48	1.98e-05	0.0	411.0	3627.38	-43.33	2.32e-03	-2.12e-04	0.48	0.0
1	89	5287.56	0.0	0.16	-72.60	0.0	3605.04	29.33	0.0	0.0	0.0	2865.43
		0.0	0.0	0.0	0.0	411.0	3605.07	-43.27	0.0	0.0	0.0	0.0
1	90	6867.67	0.0	0.22	-72.60	0.0	4974.90	23.34	0.0	0.0	0.0	5327.12
		0.0	0.0	0.0	0.0	411.0	4974.92	-49.26	0.0	0.0	0.0	0.0
1	95	5008.70	0.0	0.15	-72.60	0.0	3037.59	30.52	0.0	0.0	0.0	2377.25
		0.0	0.0	0.0	0.0	411.0	3037.61	-42.08	0.0	0.0	0.0	0.0
1	101	5287.56	0.0	0.16	-72.60	0.0	3605.04	29.33	0.0	0.0	0.0	2865.43
		0.0	0.0	0.0	0.0	411.0	3605.07	-43.27	0.0	0.0	0.0	0.0
1	102	5595.27	0.0	0.17	-72.60	0.0	3879.01	28.13	0.0	0.0	0.0	3357.77
		0.0	0.0	0.0	0.0	411.0	3879.04	-44.47	0.0	0.0	0.0	0.0
1	103	5287.56	0.0	0.16	-72.60	0.0	3605.04	29.33	0.0	0.0	0.0	2865.43
		0.0	0.0	0.0	0.0	411.0	3605.07	-43.27	0.0	0.0	0.0	0.0
3	1	2178.54	4.12	-0.01	-124.49	0.0	82.80	62.24	-0.04	0.87	4.12	0.0
		0.0	-0.94	1.26e-04	0.0	140.0	82.80	-62.24	-0.04	0.87	-0.94	0.0
3	5	1.063e+04	5.44	-0.03	-607.49	0.0	90.11	303.74	-0.05	1.25	5.44	0.0
		0.0	-2.01	1.70e-04	0.0	140.0	90.11	-303.74	-0.05	1.25	-2.01	0.0
3	9	2178.54	8.09	0.02	-124.49	0.0	55.78	62.24	-0.08	1.93	8.09	0.0
		0.0	-3.47	2.57e-04	0.0	140.0	55.78	-62.24	-0.08	1.93	-3.47	0.0
3	11	1675.80	7.37	0.03	-95.76	0.0	29.54	47.88	-0.08	1.84	7.37	0.0
		0.0	-3.81	2.37e-04	0.0	140.0	29.54	-47.88	-0.08	1.84	-3.81	0.0
3	14	2178.54	2.32	-0.05	-124.49	0.0	119.20	62.24	0.02	-0.34	-0.16	0.0
		0.0	-0.16	-1.65e-05	0.0	140.0	119.20	-62.24	0.02	-0.34	2.32	0.0
3	25	1675.80	1429.94	-7.91e-03	-95.76	0.0	61.41	47.88	-73.71	496.85	1429.94	0.0
		0.0	-8891.04	0.11	0.0	140.0	61.41	-47.88	-73.71	496.85	-8891.04	0.0
3	29	1675.80	1429.77	-7.91e-03	-95.76	0.0	61.41	47.88	-73.71	496.86	1429.77	0.0
		0.0	-8891.72	0.11	0.0	140.0	61.41	-47.88	-73.71	496.86	-8891.72	0.0
3	32	1675.80	8889.80	-7.81e-03	-95.76	0.0	59.77	47.88	73.65	-495.42	-1423.23	0.0
		0.0	-1423.23	-0.11	0.0	140.0	59.77	-47.88	73.65	-495.42	8889.80	0.0
3	33	1675.80	2091.02	-7.91e-03	-95.76	0.0	61.44	47.88	-62.90	489.05	2091.02	0.0
		0.0	-6764.58	0.11	0.0	140.0	61.44	-47.88	-62.90	489.05	-6764.58	0.0
3	36	1675.80	6762.66	-7.81e-03	-95.76	0.0	59.74	47.88	62.84	-487.61	-2084.48	0.0
		0.0	-2084.48	-0.11	0.0	140.0	59.74	-47.88	62.84	-487.61	6762.66	0.0
3	57	1675.80	799.32	-7.88e-03	-95.76	0.0	60.98	47.88	-41.29	241.73	799.32	0.0
		0.0	-4982.23	0.06	0.0	140.0	60.98	-47.88	-41.29	241.73	-4982.23	0.0
3	61	1675.80	799.20	-7.88e-03	-95.76	0.0	60.98	47.88	-41.29	241.74	799.20	0.0
		0.0	-4982.66	0.06	0.0	140.0	60.98	-47.88	-41.29	241.74	-4982.66	0.0
3	64	1675.80	4980.74	-7.84e-03	-95.76	0.0	60.20	47.88	41.23	-240.30	-792.66	0.0
		0.0	-792.66	-0.06	0.0	140.0	60.20	-47.88	41.23	-240.30	4980.74	0.0
3	65	1675.80	1196.95	-7.88e-03	-95.76	0.0	60.99	47.88	-34.60	236.62	1196.95	0.0
		0.0	-3670.60	0.06	0.0	140.0	60.99	-47.88	-34.60	236.62	-3670.60	0.0
3	68	1675.80	3668.68	-7.84e-03	-95.76	0.0	60.19	47.88	34.54	-235.19	-1190.41	0.0
		0.0	-1190.41	-0.06	0.0	140.0	60.19	-47.88	34.54	-235.19	3668.68	0.0
3	89	1675.80	3.27	-7.86e-03	-95.76	0.0	60.59	47.88	-0.03	0.72	3.27	0.0
		0.0	-0.96	1.01e-04	0.0	140.0	60.59	-47.88	-0.03	0.72	-0.96	0.0
3	91	7310.80	4.15	-0.02	-417.76	0.0	65.46	208.88	-0.04	0.97	4.15	0.0
		0.0	-1.67	1.31e-04	0.0	140.0	65.46	-208.88	-0.04	0.97	-1.67	0.0
3	93	1675.80	5.91	0.02	-95.76	0.0	42.58	47.88	-0.06	1.43	5.91	0.0
		0.0	-2.65	1.88e-04	0.0	140.0	42.58	-47.88	-0.06	1.43	-2.65	0.0
3	96	1675.80	1.21	-0.03	-95.76	0.0	84.86	47.88	5.68e-03	-0.09	0.42	0.0
		0.0	0.42	6.47e-06	0.0	140.0	84.86	-47.88	5.68e-03	-0.09	1.21	0.0
3	101	1675.80	3.27	-7.86e-03	-95.76	0.0	60.59	47.88	-0.03	0.72	3.27	0.0
		0.0	-0.96	1.01e-04	0.0	140.0	60.59	-47.88	-0.03	0.72	-0.96	0.0
3	102	1675.80	3.19	-8.16e-03	-95.76	0.0	63.09	47.88	-0.03	0.68	3.19	0.0
		0.0	-0.77	9.80e-05	0.0	140.0	63.09	-47.88	-0.03	0.68	-0.77	0.0
3	103	1675.80	3.27	-7.86e-03	-95.76	0.0	60.59	47.88	-0.03	0.72	3.27	0.0
		0.0	-0.96	1.01e-04	0.0	140.0	60.59	-47.88	-0.03	0.72	-0.96	0.0
4	9	2.234e+04	182.66	-0.03	-1824.69	0.0	1813.70	449.35	-2.89	-50.47	182.66	1.402e+04
		-5.565e+04	-252.49	1.26e-03	3.83e-04	150.5	2105.68	-1375.34	-2.89	-50.47	-252.49	-5.565e+04
4	10	2.294e+04	166.26	-0.03	-1981.01	0.0	1789.44	499.26	-2.63	-48.26	166.26	1.348e+04
		-6.044e+04	-230.14	1.14e-03	3.83e-04	150.5	2142.99	-1481.74	-2.63	-48.26	-230.14	-6.044e+04
4	14	1.474e+04	51.40	-0.05	185.72	0.0	-2016.96	-168.75	0.61	0.83	-40.83	1.474e+04
		3216.11	-40.83	-2.84e-04	-3.83e-04	150.5	-1663.42	16.98	0.61	0.83	51.40	3321.16
4	33	1.224e+04	1.185e+04	-0.02	-518.56	0.0	-41.44	69.03	-123.77	1281.97	1.185e+04	1.156e+04
		-1.707e+04	-6906.76	0.33	0.0	150.5	162.80	-449.53	-123.77	1281.97	-6906.76	-1.707e+04
4	36	1.215e+04	6720.11	-0.02	-518.56	0.0	-80.21	75.42	121.65	-1323.31	-1.172e+04	1.134e+04
		-1.633e+04	-1.172e+04	-0.33	0.0	150.5	124.03	-443.14	121.65	-1323.31	6720.11	-1.633e+04
4	65	1.222e+04	5566.05	-0.02	-518.56	0.0	-51.77	70.72	-58.25	587.87	5566.05	1.150e+04
		-1.688e+04	-3302.10	0.15	0.0	150.5	152.47	-447.84	-58.25	587.87	-3302.10	-1.688e+04
4	68	1.217e+04	3115.44	-0.02	-518.56	0.0	-69.88	73.73	56.13	-629.20	-5433.47	1.139e+04
		-1.652e+04	-5433.47	-0.15	0.0	150.5	134.36	-444.83	56.13	-629.20	3115.44	-1.652e+04
4	93	1.628e+04	135.32	-0.02	-1240.80	0.0	1207.98	294.89	-2.14	-37.03	135.32	1.103e+04
		-3.795e+04	-187.17	9.30e-04	2.25e-04	150.5	1412.22	-945.91	-2.14	-37.03	-187.17	-3.795e+04

4	94	1.669e+04	124.38	-0.02	-1345.01	0.0	1191.80	328.17	-1.97	-35.56	124.38	1.067e+04
		-4.115e+04	-172.28	8.54e-04	2.25e-04	150.5	1437.09	-1016.85	-1.97	-35.56	-172.28	-4.115e+04
4	96	1.151e+04	15.42	-0.03	99.48	0.0	-1345.80	-117.17	0.19	-2.83	-13.68	1.151e+04
		1360.37	-13.68	-9.68e-05	-2.25e-04	150.5	-1100.52	-17.70	0.19	-2.83	15.42	1360.37
4	101	1.220e+04	66.29	-0.02	-518.56	0.0	-60.82	72.22	-1.06	-20.67	66.29	1.145e+04
		-1.670e+04	-93.33	4.55e-04	0.0	150.5	143.41	-446.34	-1.06	-20.67	-93.33	-1.670e+04
4	102	1.225e+04	61.91	-0.02	-560.24	0.0	-67.29	85.53	-0.99	-20.08	61.91	1.130e+04
		-1.798e+04	-87.37	4.24e-04	0.0	150.5	153.36	-474.71	-0.99	-20.08	-87.37	-1.798e+04
4	103	1.220e+04	66.29	-0.02	-518.56	0.0	-60.82	72.22	-1.06	-20.67	66.29	1.145e+04
		-1.670e+04	-93.33	4.55e-04	0.0	150.5	143.41	-446.34	-1.06	-20.67	-93.33	-1.670e+04
5	9	5.469e+04	-240.57	-0.14	-1603.12	0.0	925.67	1636.25	-2.91	-55.16	-240.57	-5.565e+04
		-5.565e+04	-625.80	-1.45e-03	3.45e-04	132.2	1182.19	33.12	-2.91	-55.16	-625.80	5.469e+04
5	10	5.882e+04	-218.73	-0.16	-1740.46	0.0	868.02	1772.35	-2.65	-52.75	-218.73	-6.044e+04
		-6.044e+04	-569.30	-1.32e-03	3.45e-04	132.2	1178.63	31.90	-2.65	-52.75	-569.30	5.882e+04
5	11	4.751e+04	-232.78	-0.11	-1348.37	0.0	1035.93	1385.44	-2.82	-50.47	-232.78	-4.652e+04
		-4.652e+04	-605.48	-1.40e-03	3.45e-04	132.2	1192.11	37.08	-2.82	-50.47	-605.48	4.751e+04
5	14	3321.16	133.74	-0.03	163.17	0.0	-1558.87	-223.69	0.63	1.04	50.87	3321.16
		-1.547e+04	50.87	2.79e-04	-3.45e-04	132.2	-1248.26	-60.52	0.63	1.04	133.74	-1.547e+04
5	16	1.245e+04	154.06	0.02	417.93	0.0	-1448.61	-474.50	0.72	5.73	58.66	1.245e+04
		-2.265e+04	58.66	3.31e-04	-3.45e-04	132.2	-1238.34	-56.57	0.72	5.73	154.06	-2.265e+04
5	33	1.283e+04	-6603.99	-0.05	-455.59	0.0	-187.31	454.02	-75.84	1144.73	-6603.99	-1.707e+04
		-1.707e+04	-1.624e+04	0.23	0.0	132.2	-7.87	-1.57	-75.84	1144.73	-1.624e+04	1.283e+04
5	36	1.147e+04	1.578e+04	-0.05	-455.59	0.0	-217.29	437.84	73.70	-1189.80	6426.82	-1.633e+04
		-1.633e+04	6426.82	-0.23	0.0	132.2	-37.85	-17.75	73.70	-1189.80	1.578e+04	1.147e+04
5	37	1.283e+04	-6602.76	-0.05	-455.59	0.0	-187.31	454.00	-75.84	1144.81	-6602.76	-1.707e+04
		-1.707e+04	-1.624e+04	0.23	0.0	132.2	-7.87	-1.59	-75.84	1144.81	-1.624e+04	1.283e+04
5	40	1.147e+04	1.578e+04	-0.05	-455.59	0.0	-217.29	437.86	73.70	-1189.88	6425.58	-1.633e+04
		-1.633e+04	6425.58	-0.23	0.0	132.2	-37.85	-17.73	73.70	-1189.88	1.578e+04	1.147e+04
5	65	1.247e+04	-3169.20	-0.05	-455.59	0.0	-195.30	449.75	-36.51	521.91	-3169.20	-1.688e+04
		-1.688e+04	-7698.31	0.11	0.0	132.2	-15.86	-5.84	-36.51	521.91	-7698.31	1.247e+04
5	68	1.181e+04	7238.97	-0.05	-455.59	0.0	-209.30	442.11	34.38	-566.98	7238.97	-1.652e+04
		-1.652e+04	2992.03	-0.11	0.0	132.2	-29.86	-13.48	34.38	-566.98	2992.03	1.181e+04
5	69	1.246e+04	-3168.43	-0.05	-455.59	0.0	-195.30	449.74	-36.51	521.95	-3168.43	-1.688e+04
		-1.688e+04	-7698.40	0.11	0.0	132.2	-15.86	-5.85	-36.51	521.95	-7698.40	1.246e+04
5	72	1.181e+04	7239.07	-0.05	-455.59	0.0	-209.30	442.12	34.38	-567.03	7239.07	-1.652e+04
		-1.652e+04	2991.25	-0.11	0.0	132.2	-29.86	-13.47	34.38	-567.03	2991.25	1.181e+04
5	93	3.690e+04	-178.45	-0.10	-1090.13	0.0	606.66	1111.28	-2.16	-40.47	-178.45	-3.795e+04
		-3.795e+04	-464.01	-1.08e-03	2.30e-04	132.2	786.10	21.15	-2.16	-40.47	-464.01	3.690e+04
5	94	3.965e+04	-163.89	-0.11	-1181.69	0.0	568.23	1202.02	-1.99	-38.86	-163.89	-4.115e+04
		-4.115e+04	-426.35	-9.91e-04	2.30e-04	132.2	783.73	20.33	-1.99	-38.86	-426.35	3.965e+04
5	96	1360.37	42.34	-0.02	87.40	0.0	-1049.70	-128.68	0.20	-3.00	15.84	1360.37
		-9874.00	15.84	7.68e-05	-2.30e-04	132.2	-834.20	-41.28	0.20	-3.00	42.34	-9874.00
5	101	1.214e+04	-88.59	-0.05	-455.59	0.0	-202.30	445.93	-1.07	-22.54	-88.59	-1.670e+04
		-1.670e+04	-229.67	-5.43e-04	0.0	132.2	-22.86	-9.66	-1.07	-22.54	-229.67	1.214e+04
5	102	1.324e+04	-82.76	-0.06	-492.21	0.0	-217.67	482.23	-1.00	-21.89	-82.76	-1.798e+04
		-1.798e+04	-214.60	-5.09e-04	0.0	132.2	-23.81	-9.99	-1.00	-21.89	-214.60	1.324e+04
5	103	1.214e+04	-88.59	-0.05	-455.59	0.0	-202.30	445.93	-1.07	-22.54	-88.59	-1.670e+04
		-1.670e+04	-229.67	-5.43e-04	0.0	132.2	-22.86	-9.66	-1.07	-22.54	-229.67	1.214e+04
9	2	838.74	344.35	-0.02	-34.92	0.0	-2807.30	17.46	2.14	12.41	-66.11	0.0
		0.0	-66.11	-0.01	0.0	192.1	-2818.81	-17.46	2.14	12.41	344.35	0.0
9	10	838.74	557.73	1.11	-34.92	0.0	-2248.15	17.46	3.44	21.44	-102.47	0.0
		0.0	-102.47	-0.02	0.0	192.1	-2259.65	-17.46	3.44	21.44	557.73	0.0
9	11	645.19	469.28	1.11	-26.86	0.0	-1059.70	13.43	2.88	18.72	-83.87	0.0
		0.0	-83.87	-0.02	0.0	192.1	-1068.55	-13.43	2.88	18.72	469.28	0.0
9	15	645.19	28.68	-1.13	-26.86	0.0	-1345.71	13.43	0.18	0.89	-5.98	0.0
		0.0	-5.98	-1.23e-03	0.0	192.1	-1354.56	-13.43	0.18	0.89	28.68	0.0
9	38	645.19	-1921.54	-0.02	-26.86	0.0	-1383.36	13.43	-28.82	-353.48	-1921.54	0.0
		0.0	-7450.62	0.02	0.0	192.1	-1392.21	-13.43	-28.82	-353.48	-7450.62	0.0
9	39	645.19	7954.53	4.58e-03	-26.86	0.0	-1379.86	13.43	31.93	372.98	1829.47	0.0
		0.0	1829.47	-0.03	0.0	192.1	-1388.71	-13.43	31.93	372.98	7954.53	0.0
9	42	645.19	-684.98	-0.05	-26.86	0.0	-1385.76	13.43	-7.19	-122.27	-684.98	0.0
		0.0	-2065.00	-0.01	0.0	192.1	-1394.61	-13.43	-7.19	-122.27	-2065.00	0.0
9	53	645.19	-611.93	0.04	-26.86	0.0	-1376.53	13.43	-7.49	-96.33	-611.93	0.0
		0.0	-2048.22	-0.01	0.0	192.1	-1385.38	-13.43	-7.49	-96.33	-2048.22	0.0
9	54	645.19	-605.98	-0.06	-26.86	0.0	-1386.81	13.43	-7.62	-101.63	-605.98	0.0
		0.0	-2067.66	-8.83e-03	0.0	192.1	-1395.66	-13.43	-7.62	-101.63	-2067.66	0.0
9	55	645.19	2571.57	0.04	-26.86	0.0	-1376.41	13.43	10.72	121.14	513.91	0.0
		0.0	513.91	-0.02	0.0	192.1	-1385.26	-13.43	10.72	121.14	2571.57	0.0
9	70	645.19	-921.61	-0.02	-26.86	0.0	-1382.65	13.43	-12.62	-161.84	-921.61	0.0
		0.0	-3338.91	-9.31e-03	0.0	192.1	-1391.51	-13.43	-12.62	-161.84	-3338.91	0.0
9	71	645.19	3842.82	-2.75e-03	-26.86	0.0	-1380.56	13.43	15.72	181.35	829.54	0.0
		0.0	829.54	-0.02	0.0	192.1	-1389.41	-13.43	15.72	181.35	3842.82	0.0
9	74	645.19	-344.00	-0.03	-26.86	0.0	-1384.09	13.43	-2.53	-52.84	-344.00	0.0
		0.0	-829.27	-0.01	0.0	192.1	-1392.94	-13.43	-2.53	-52.84	-829.27	0.0
9	85	645.19	-310.66	0.02	-26.86	0.0	-1378.57	13.43	-2.66	-39.93	-310.66	0.0
		0.0	-818.80	-0.01	0.0	192.1	-1387.42	-13.43	-2.66	-39.93	-818.80	0.0
9	86	645.19	-307.07	-0.04	-26.86	0.0	-1384.72	13.43	-2.73	-43.22	-307.07	0.0

		0.0	-830.74	-9.28e-03	0.0	192.1	-1393.57	-13.43	-2.73	-43.22	-830.74	0.0
9	87	645.19	1334.64	0.02	-26.86	0.0	-1378.50	13.43	5.84	62.73	215.01	0.0
		0.0	215.01	-0.01	0.0	192.1	-1387.35	-13.43	5.84	62.73	1334.64	0.0
9	90	645.19	261.18	-0.01	-26.86	0.0	-1936.48	13.43	1.62	9.61	-49.47	0.0
		0.0	-49.47	-0.01	0.0	192.1	-1945.33	-13.43	1.62	9.61	261.18	0.0
9	93	645.19	398.82	0.74	-26.86	0.0	-1286.27	13.43	2.45	15.70	-72.00	0.0
		0.0	-72.00	-0.02	0.0	192.1	-1295.12	-13.43	2.45	15.70	398.82	0.0
9	94	645.19	403.43	0.74	-26.86	0.0	-1563.71	13.43	2.48	15.62	-73.72	0.0
		0.0	-73.72	-0.02	0.0	192.1	-1572.56	-13.43	2.48	15.62	403.43	0.0
9	95	645.19	105.09	-0.76	-26.86	0.0	-1476.94	13.43	0.65	3.81	-20.07	0.0
		0.0	-20.07	-4.36e-03	0.0	192.1	-1485.79	-13.43	0.65	3.81	105.09	0.0
9	101	645.19	251.95	-9.40e-03	-26.86	0.0	-1381.61	13.43	1.55	9.75	-46.03	0.0
		0.0	-46.03	-0.01	0.0	192.1	-1390.46	-13.43	1.55	9.75	251.95	0.0
9	102	645.19	253.80	-0.01	-26.86	0.0	-1492.58	13.43	1.56	9.72	-46.72	0.0
		0.0	-46.72	-0.01	0.0	192.1	-1501.43	-13.43	1.56	9.72	253.80	0.0
9	103	645.19	251.95	-9.40e-03	-26.86	0.0	-1381.61	13.43	1.55	9.75	-46.03	0.0
		0.0	-46.03	-0.01	0.0	192.1	-1390.46	-13.43	1.55	9.75	251.95	0.0
11	1	2178.54	0.41	-0.01	-124.49	0.0	86.71	62.24	0.06	-1.06	-7.33	0.0
		0.0	-7.33	-1.95e-04	0.0	140.0	86.71	-62.24	0.06	-1.06	0.41	0.0
11	5	1.063e+04	1.30	-0.03	-607.49	0.0	97.51	303.74	0.08	-1.51	-9.74	0.0
		0.0	-9.74	-2.63e-04	0.0	140.0	97.51	-303.74	0.08	-1.51	1.30	0.0
11	9	2178.54	2.44	0.02	-124.49	0.0	49.63	62.24	0.12	-2.31	-14.55	0.0
		0.0	-14.55	-3.94e-04	0.0	140.0	49.63	-62.24	0.12	-2.31	2.44	0.0
11	11	1675.80	2.85	0.03	-95.76	0.0	25.64	47.88	0.12	-2.19	-13.31	0.0
		0.0	-13.31	-3.63e-04	0.0	140.0	25.64	-47.88	0.12	-2.19	2.85	0.0
11	14	2178.54	0.49	-0.05	-124.49	0.0	129.02	62.24	-0.02	0.35	0.49	0.0
		0.0	-2.28	2.21e-05	0.0	140.0	129.02	-62.24	-0.02	0.35	-2.28	0.0
11	25	1675.80	1335.23	-7.76e-03	-95.76	0.0	64.84	47.88	-73.61	493.32	1335.23	0.0
		0.0	-8971.65	0.11	0.0	140.0	64.84	-47.88	-73.61	493.32	-8971.65	0.0
11	26	1675.80	1336.43	-7.76e-03	-95.76	0.0	64.82	47.88	-73.64	493.41	1336.43	0.0
		0.0	-8975.40	0.11	0.0	140.0	64.82	-47.88	-73.64	493.41	-8975.40	0.0
11	27	1675.80	8976.48	-7.84e-03	-95.76	0.0	65.12	47.88	73.73	-495.16	-1348.10	0.0
		0.0	-1348.10	-0.11	0.0	140.0	65.12	-47.88	73.73	-495.16	8976.48	0.0
11	33	1675.80	2009.25	-7.75e-03	-95.76	0.0	64.83	47.88	-62.78	485.45	2009.25	0.0
		0.0	-6843.32	0.11	0.0	140.0	64.83	-47.88	-62.78	485.45	-6843.32	0.0
11	38	1675.80	2010.11	-7.76e-03	-95.76	0.0	64.81	47.88	-62.80	485.53	2010.11	0.0
		0.0	-6846.37	0.11	0.0	140.0	64.81	-47.88	-62.80	485.53	-6846.37	0.0
11	39	1675.80	6847.44	-7.85e-03	-95.76	0.0	65.13	47.88	62.89	-487.27	-2021.78	0.0
		0.0	-2021.78	-0.11	0.0	140.0	65.13	-47.88	62.89	-487.27	6847.44	0.0
11	57	1675.80	750.71	-7.78e-03	-95.76	0.0	64.91	47.88	-41.29	239.38	750.71	0.0
		0.0	-5030.62	0.06	0.0	140.0	64.91	-47.88	-41.29	239.38	-5030.62	0.0
11	58	1675.80	751.47	-7.79e-03	-95.76	0.0	64.89	47.88	-41.31	239.43	751.47	0.0
		0.0	-5032.93	0.06	0.0	140.0	64.89	-47.88	-41.31	239.43	-5032.93	0.0
11	59	1675.80	5034.01	-7.82e-03	-95.76	0.0	65.04	47.88	41.40	-241.18	-763.14	0.0
		0.0	-763.14	-0.06	0.0	140.0	65.04	-47.88	41.40	-241.18	5034.01	0.0
11	65	1675.80	1154.85	-7.78e-03	-95.76	0.0	64.90	47.88	-34.60	234.24	1154.85	0.0
		0.0	-3717.47	0.06	0.0	140.0	64.90	-47.88	-34.60	234.24	-3717.47	0.0
11	70	1675.80	1155.40	-7.78e-03	-95.76	0.0	64.89	47.88	-34.61	234.28	1155.40	0.0
		0.0	-3719.34	0.06	0.0	140.0	64.89	-47.88	-34.61	234.28	-3719.34	0.0
11	71	1675.80	3720.42	-7.82e-03	-95.76	0.0	65.05	47.88	34.70	-236.03	-1167.06	0.0
		0.0	-1167.06	-0.06	0.0	140.0	65.05	-47.88	34.70	-236.03	3720.42	0.0
11	89	1675.80	0.54	-7.80e-03	-95.76	0.0	64.97	47.88	0.05	-0.87	-5.83	0.0
		0.0	-5.83	-1.56e-04	0.0	140.0	64.97	-47.88	0.05	-0.87	0.54	0.0
11	91	7310.80	1.13	-0.02	-417.76	0.0	72.17	208.88	0.06	-1.17	-7.44	0.0
		0.0	-7.44	-2.02e-04	0.0	140.0	72.17	-208.88	0.06	-1.17	1.13	0.0
11	93	1675.80	1.89	0.02	-95.76	0.0	40.25	47.88	0.09	-1.70	-10.65	0.0
		0.0	-10.65	-2.89e-04	0.0	140.0	40.25	-47.88	0.09	-1.70	1.89	0.0
11	96	1675.80	-0.62	-0.03	-95.76	0.0	93.17	47.88	-4.56e-03	0.07	-0.62	0.0
		0.0	-1.26	-1.16e-05	0.0	140.0	93.17	-47.88	-4.56e-03	0.07	-1.26	0.0
11	101	1675.80	0.54	-7.80e-03	-95.76	0.0	64.97	47.88	0.05	-0.87	-5.83	0.0
		0.0	-5.83	-1.56e-04	0.0	140.0	64.97	-47.88	0.05	-0.87	0.54	0.0
11	102	1675.80	0.36	-8.09e-03	-95.76	0.0	66.36	47.88	0.04	-0.83	-5.67	0.0
		0.0	-5.67	-1.51e-04	0.0	140.0	66.36	-47.88	0.04	-0.83	0.36	0.0
11	103	1675.80	0.54	-7.80e-03	-95.76	0.0	64.97	47.88	0.05	-0.87	-5.83	0.0
		0.0	-5.83	-1.56e-04	0.0	140.0	64.97	-47.88	0.05	-0.87	0.54	0.0
13	2	838.74	353.59	0.02	-34.92	0.0	-2818.81	17.46	-1.91	-29.15	353.59	0.0
		0.0	-14.27	0.01	0.0	192.1	-2807.31	-17.46	-1.91	-29.15	-14.27	0.0
13	9	838.74	563.63	1.14	-34.92	0.0	-2087.58	17.46	-3.08	-44.76	563.63	0.0
		0.0	-28.00	0.02	0.0	192.1	-2076.07	-17.46	-3.08	-44.76	-28.00	0.0
13	10	838.74	571.15	1.14	-34.92	0.0	-2503.73	17.46	-3.11	-45.75	571.15	0.0
		0.0	-27.19	0.02	0.0	192.1	-2492.23	-17.46	-3.11	-45.75	-27.19	0.0
13	13	838.74	113.46	-1.11	-34.92	0.0	-1885.44	17.46	-0.61	-9.60	113.46	0.0
		0.0	-3.78	3.45e-03	0.0	192.1	-1873.94	-17.46	-0.61	-9.60	-3.78	0.0
13	15	645.19	29.62	-1.11	-26.86	0.0	-1110.49	13.43	-0.16	-2.58	29.62	0.0
		0.0	-0.72	8.81e-04	0.0	192.1	-1101.64	-13.43	-0.16	-2.58	-0.72	0.0
13	30	645.19	-1888.40	-5.09e-03	-26.86	0.0	-1388.83	13.43	28.95	343.13	-7444.64	0.0
		0.0	-7444.64	0.03	0.0	192.1	-1379.98	-13.43	28.95	343.13	-1888.40	0.0

13	31	645.19	7960.50	0.02	-26.86	0.0	-1392.10	13.43	-31.77	-384.30	7960.50	0.0
		0.0	1863.42	-0.02	0.0	192.1	-1383.25	-13.43	-31.77	-384.30	1863.42	0.0
13	41	645.19	-579.16	0.05	-26.86	0.0	-1395.33	13.43	7.67	84.75	-2043.93	0.0
		0.0	-2043.93	0.01	0.0	192.1	-1386.48	-13.43	7.67	84.75	-579.16	0.0
13	49	645.19	-580.02	0.06	-26.86	0.0	-1396.60	13.43	7.67	83.98	-2042.40	0.0
		0.0	-2042.40	0.01	0.0	192.1	-1387.75	-13.43	7.67	83.98	-580.02	0.0
13	53	645.19	-658.19	0.06	-26.86	0.0	-1396.60	13.43	7.25	105.21	-2041.34	0.0
		0.0	-2041.34	0.02	0.0	192.1	-1387.75	-13.43	7.25	105.21	-658.19	0.0
13	56	645.19	2557.21	-0.04	-26.86	0.0	-1384.33	13.43	-10.06	-146.38	2557.21	0.0
		0.0	633.21	-7.90e-03	0.0	192.1	-1375.47	-13.43	-10.06	-146.38	633.21	0.0
13	62	645.19	-888.16	-1.73e-03	-26.86	0.0	-1389.48	13.43	12.75	151.22	-3333.00	0.0
		0.0	-3333.00	0.01	0.0	192.1	-1380.63	-13.43	12.75	151.22	-888.16	0.0
13	63	645.19	3848.86	0.02	-26.86	0.0	-1391.45	13.43	-15.57	-192.39	3848.86	0.0
		0.0	863.18	-9.12e-03	0.0	192.1	-1382.60	-13.43	-15.57	-192.39	863.18	0.0
13	73	645.19	-277.56	0.03	-26.86	0.0	-1393.37	13.43	2.82	28.64	-813.90	0.0
		0.0	-813.90	8.40e-03	0.0	192.1	-1384.52	-13.43	2.82	28.64	-277.56	0.0
13	81	645.19	-278.08	0.04	-26.86	0.0	-1394.13	13.43	2.82	28.16	-812.94	0.0
		0.0	-812.94	8.48e-03	0.0	192.1	-1385.28	-13.43	2.82	28.16	-278.08	0.0
13	85	645.19	-314.51	0.04	-26.86	0.0	-1394.14	13.43	2.62	38.18	-812.42	0.0
		0.0	-812.42	0.01	0.0	192.1	-1385.29	-13.43	2.62	38.18	-314.51	0.0
13	88	645.19	1328.28	-0.02	-26.86	0.0	-1386.79	13.43	-5.44	-79.35	1328.28	0.0
		0.0	289.53	5.11e-03	0.0	192.1	-1377.94	-13.43	-5.44	-79.35	289.53	0.0
13	90	645.19	267.96	0.01	-26.86	0.0	-1945.33	13.43	-1.45	-21.90	267.96	0.0
		0.0	-11.41	8.31e-03	0.0	192.1	-1936.48	-13.43	-1.45	-21.90	-11.41	0.0
13	93	645.19	407.99	0.76	-26.86	0.0	-1457.84	13.43	-2.23	-32.31	407.99	0.0
		0.0	-20.57	0.01	0.0	192.1	-1448.99	-13.43	-2.23	-32.31	-20.57	0.0
13	94	645.19	413.00	0.76	-26.86	0.0	-1735.28	13.43	-2.25	-32.96	413.00	0.0
		0.0	-20.03	0.01	0.0	192.1	-1726.43	-13.43	-2.25	-32.96	-20.03	0.0
13	95	645.19	107.88	-0.74	-26.86	0.0	-1323.08	13.43	-0.58	-8.87	107.88	0.0
		0.0	-4.41	3.33e-03	0.0	192.1	-1314.23	-13.43	-0.58	-8.87	-4.41	0.0
13	101	645.19	257.93	9.42e-03	-26.86	0.0	-1390.46	13.43	-1.41	-20.59	257.93	0.0
		0.0	-12.49	8.10e-03	0.0	192.1	-1381.61	-13.43	-1.41	-20.59	-12.49	0.0
13	102	645.19	259.94	0.01	-26.86	0.0	-1501.44	13.43	-1.42	-20.85	259.94	0.0
		0.0	-12.27	8.14e-03	0.0	192.1	-1492.59	-13.43	-1.42	-20.85	-12.27	0.0
13	103	645.19	257.93	9.42e-03	-26.86	0.0	-1390.46	13.43	-1.41	-20.59	257.93	0.0
		0.0	-12.49	8.10e-03	0.0	192.1	-1381.61	-13.43	-1.41	-20.59	-12.49	0.0
15	9	4.625e+04	173.09	-0.40	-1928.96	0.0	2019.24	1043.96	1.47	-30.45	-60.66	1383.01
		1383.01	-60.66	-1.03e-04	2.56e-04	159.1	2327.90	-885.00	1.47	-30.45	173.09	1.403e+04
15	10	4.920e+04	157.32	-0.41	-2094.21	0.0	1982.73	1122.88	1.34	-29.53	-55.07	1431.42
		1431.42	-55.07	-9.31e-05	2.56e-04	159.1	2356.48	-971.33	1.34	-29.53	157.32	1.348e+04
15	14	1.476e+04	14.87	-0.18	196.34	0.0	-2548.45	3.81	-0.34	1.26	14.87	-1456.60
		-1456.60	-39.39	2.56e-05	-2.56e-04	159.1	-2174.71	200.14	-0.34	1.26	-39.39	1.476e+04
15	15	1.233e+04	10.95	-0.08	668.12	0.0	-2427.33	-246.93	-0.25	3.12	10.95	-1527.74
		-8784.59	-28.87	1.87e-05	-2.56e-04	159.1	-2239.40	421.19	-0.25	3.12	-28.87	1.233e+04
15	26	1.741e+04	3.280e+04	-0.21	-548.19	0.0	-178.97	347.08	-157.50	553.68	3.280e+04	-87.32
		-87.32	8004.17	0.20	0.0	159.1	36.94	-201.11	-157.50	553.68	8004.17	1.157e+04
15	27	1.730e+04	-7878.76	-0.21	-548.19	0.0	-175.90	345.98	158.56	-577.45	-3.285e+04	-38.53
		-38.53	-3.285e+04	-0.20	0.0	159.1	40.01	-202.21	158.56	-577.45	-7878.76	1.135e+04
15	33	1.743e+04	3.135e+04	-0.21	-548.19	0.0	-175.35	347.38	-144.54	548.34	3.135e+04	-44.68
		-44.68	8447.13	0.19	0.0	159.1	40.56	-200.81	-144.54	548.34	8447.13	1.157e+04
15	36	1.728e+04	-8321.72	-0.21	-548.19	0.0	-179.51	345.69	145.60	-572.11	-3.139e+04	-81.17
		-81.17	-3.139e+04	-0.19	0.0	159.1	36.40	-202.50	145.60	-572.11	-8321.72	1.135e+04
15	46	1.735e+04	9407.47	-0.21	-548.19	0.0	-177.20	346.27	-43.14	156.52	9407.47	-134.99
		-134.99	2571.19	0.06	0.0	159.1	38.71	-201.92	-43.14	156.52	2571.19	1.149e+04
15	58	1.738e+04	1.531e+04	-0.21	-548.19	0.0	-178.39	346.77	-73.71	253.08	1.531e+04	-77.13
		-77.13	3789.43	0.09	0.0	159.1	37.52	-201.42	-73.71	253.08	3789.43	1.151e+04
15	59	1.733e+04	-3664.02	-0.21	-548.19	0.0	-176.47	346.29	74.77	-276.85	-1.535e+04	-48.72
		-48.72	-1.535e+04	-0.09	0.0	159.1	39.44	-201.90	74.77	-276.85	-3664.02	1.141e+04
15	65	1.739e+04	1.461e+04	-0.21	-548.19	0.0	-176.34	346.95	-67.25	250.59	1.461e+04	-51.62
		-51.62	3977.67	0.09	0.0	159.1	39.57	-201.24	-67.25	250.59	3977.67	1.151e+04
15	68	1.732e+04	-3852.26	-0.21	-548.19	0.0	-178.52	346.12	68.31	-274.36	-1.465e+04	-74.23
		-74.23	-1.465e+04	-0.09	0.0	159.1	37.39	-202.07	68.31	-274.36	-3852.26	1.141e+04
15	78	1.735e+04	4378.12	-0.21	-548.19	0.0	-177.34	346.35	-19.90	67.06	4378.12	-105.91
		-105.91	1232.74	0.03	0.0	159.1	38.57	-201.84	-19.90	67.06	1232.74	1.147e+04
15	93	3.227e+04	128.27	-0.29	-1311.71	0.0	1332.96	719.56	1.09	-22.15	-44.93	899.75
		899.75	-44.93	-7.59e-05	1.70e-04	159.1	1548.87	-592.15	1.09	-22.15	128.27	1.103e+04
15	94	3.424e+04	117.76	-0.30	-1421.87	0.0	1308.63	772.17	1.00	-21.54	-41.20	932.01
		932.01	-41.20	-6.96e-05	1.70e-04	159.1	1567.92	-649.70	1.00	-21.54	117.76	1.067e+04
15	95	1.189e+04	1.70	-0.13	215.32	0.0	-1687.83	-26.49	-0.03	-1.62	1.70	-1025.60
		-1284.73	-2.86	4.02e-06	-1.70e-04	159.1	-1471.92	188.83	-0.03	-1.62	-2.86	1.189e+04
15	96	1.153e+04	5.43	-0.14	105.16	0.0	-1712.16	26.12	-0.12	-1.01	5.43	-932.33
		-993.33	-13.38	9.95e-06	-1.70e-04	159.1	-1452.86	131.28	-0.12	-1.01	-13.38	1.153e+04
15	101	1.736e+04	62.70	-0.21	-548.19	0.0	-177.43	346.53	0.53	-11.88	-21.61	-62.93
		-62.93	-21.61	-3.62e-05	0.0	159.1	38.48	-201.66	0.53	-11.88	62.70	1.146e+04
15	102	1.809e+04	58.50	-0.21	-592.26	0.0	-187.17	367.58	0.49	-11.64	-20.12	-50.02
		-50.02	-20.12	-3.37e-05	0.0	159.1	46.10	-224.68	0.49	-11.64	58.50	1.132e+04
15	103	1.736e+04	62.70	-0.21	-548.19	0.0	-177.43	346.53	0.53	-11.88	-21.61	-62.93

		-62.93	-21.61	-3.62e-05	0.0	159.1	38.48	-201.66	0.53	-11.88	62.70	1.146e+04
17	9	5.458e+04	581.24	-0.14	-1603.12	0.0	925.05	1637.93	2.76	50.87	215.89	-5.598e+04
		-5.598e+04	215.89	1.12e-03	-3.45e-04	132.2	1181.58	34.81	2.76	50.87	581.24	5.458e+04
17	10	5.860e+04	528.12	-0.16	-1740.46	0.0	866.92	1775.64	2.51	49.10	196.00	-6.109e+04
		-6.109e+04	196.00	1.02e-03	-3.45e-04	132.2	1177.53	35.18	2.51	49.10	528.12	5.860e+04
17	11	4.743e+04	563.98	-0.11	-1348.37	0.0	1035.51	1386.53	2.68	46.36	209.78	-4.674e+04
		-4.674e+04	209.78	1.09e-03	-3.45e-04	132.2	1191.70	38.17	2.68	46.36	563.98	4.743e+04
17	14	4435.45	-51.74	-0.04	163.17	0.0	-1557.25	-229.19	-0.63	-1.85	-51.74	4435.45
		-1.508e+04	-134.69	-2.89e-04	3.45e-04	132.2	-1246.64	-66.02	-0.63	-1.85	-134.69	-1.508e+04
17	16	1.368e+04	-57.85	0.01	417.93	0.0	-1446.79	-480.59	-0.71	-6.36	-57.85	1.368e+04
		-2.223e+04	-151.94	-3.19e-04	3.45e-04	132.2	-1236.52	-62.66	-0.71	-6.36	-151.94	-2.223e+04
17	34	1.168e+04	-6983.35	-0.05	-455.59	0.0	-216.27	434.67	-79.94	1126.08	-6983.35	-1.573e+04
		-1.573e+04	-1.718e+04	0.23	0.0	132.2	-36.83	-20.92	-79.94	1126.08	-1.718e+04	1.162e+04
17	35	1.302e+04	1.760e+04	-0.06	-455.59	0.0	-186.86	451.97	81.94	-1085.84	1.760e+04	1.302e+04
		-1.661e+04	7138.07	-0.23	0.0	132.2	-7.42	-3.63	81.94	-1085.84	7138.07	-1.661e+04
17	39	1.302e+04	1.760e+04	-0.06	-455.59	0.0	-186.86	451.99	81.91	-1085.78	1.760e+04	1.302e+04
		-1.661e+04	7135.55	-0.23	0.0	132.2	-7.42	-3.60	81.91	-1085.78	7135.55	-1.661e+04
17	66	1.201e+04	-3267.02	-0.05	-455.59	0.0	-208.44	439.24	-37.17	536.32	-3267.02	-1.596e+04
		-1.596e+04	-7895.28	0.11	0.0	132.2	-29.00	-16.35	-37.17	536.32	-7895.28	-1.596e+04
17	67	1.265e+04	8314.76	-0.05	-455.59	0.0	-194.70	447.40	39.17	-496.08	8314.76	1.265e+04
		-1.638e+04	3421.74	-0.11	0.0	132.2	-15.26	-8.20	39.17	-496.08	3421.74	-1.638e+04
17	71	1.265e+04	8314.35	-0.05	-455.59	0.0	-194.70	447.41	39.15	-496.05	8314.35	1.265e+04
		-1.638e+04	3420.06	-0.11	0.0	132.2	-15.26	-8.18	39.15	-496.05	3420.06	-1.638e+04
17	93	3.688e+04	430.68	-0.10	-1090.13	0.0	606.49	1111.59	2.05	37.10	430.68	3.688e+04
		-3.801e+04	159.94	8.32e-04	-2.30e-04	132.2	785.93	21.46	2.05	37.10	159.94	-3.801e+04
17	94	3.956e+04	395.27	-0.11	-1181.69	0.0	567.73	1203.40	1.88	35.93	395.27	3.956e+04
		-4.142e+04	146.68	7.63e-04	-2.30e-04	132.2	783.23	21.71	1.88	35.93	146.68	-4.142e+04
17	96	2266.15	-18.48	-0.03	87.40	0.0	-1048.38	-133.15	-0.21	1.96	-18.48	2266.15
		-9559.44	-46.60	-1.10e-04	2.30e-04	132.2	-832.88	-45.76	-0.21	1.96	-46.60	-9559.44
17	101	1.232e+04	209.74	-0.05	-455.59	0.0	-201.57	443.32	1.00	20.12	209.74	1.232e+04
		-1.617e+04	77.36	3.95e-04	0.0	132.2	-22.13	-12.27	1.00	20.12	77.36	-1.617e+04
17	102	1.339e+04	195.58	-0.06	-492.21	0.0	-217.07	480.04	0.93	19.65	195.58	1.339e+04
		-1.753e+04	72.06	3.68e-04	0.0	132.2	-23.21	-12.17	0.93	19.65	72.06	-1.753e+04
17	103	1.232e+04	209.74	-0.05	-455.59	0.0	-201.57	443.32	1.00	20.12	209.74	1.232e+04
		-1.617e+04	77.36	3.95e-04	0.0	132.2	-22.13	-12.27	1.00	20.12	77.36	-1.617e+04
19	9	2.187e+04	381.27	0.19	361.58	0.0	312.07	-327.94	-3.19	22.50	381.27	2.187e+04
		-1753.83	-126.86	-2.94e-04	-2.56e-04	159.1	3.40	33.64	-3.19	22.50	-126.86	-1753.83
19	10	2.132e+04	374.22	0.21	196.34	0.0	345.72	-241.55	-3.14	21.58	374.22	2.132e+04
		-1483.45	-124.80	-2.88e-04	-2.56e-04	159.1	-28.02	-45.21	-3.14	21.58	-124.80	-1483.45
19	11	1.894e+04	340.27	0.11	668.12	0.0	260.59	-462.89	-2.85	20.74	340.27	1.894e+04
		-6565.75	-112.84	-2.63e-04	-2.56e-04	159.1	72.66	205.23	-2.85	20.74	-112.84	-6565.75
19	14	4.569e+04	13.46	0.38	-2094.21	0.0	-54.17	1014.35	-0.12	-2.16	13.46	4.569e+04
		1448.78	-6.16	6.22e-06	2.56e-04	159.1	-427.91	-1079.86	-0.12	-2.16	-6.16	1448.78
19	26	1.736e+04	3.163e+04	0.21	-548.19	0.0	74.78	201.83	146.73	-672.81	3.163e+04	1.736e+04
		-47.85	8389.25	-0.19	0.0	159.1	-141.13	-346.37	146.73	-672.81	8389.25	-47.85
19	27	1.724e+04	-8075.53	0.21	-548.19	0.0	75.45	202.58	-149.36	689.77	-8075.53	1.724e+04
		-85.02	-3.173e+04	0.19	0.0	159.1	-140.46	-345.61	-149.36	689.77	-3.173e+04	-85.02
19	34	1.736e+04	3.307e+04	0.21	-548.19	0.0	74.79	201.81	159.66	-677.84	3.307e+04	1.736e+04
		-47.92	7966.27	-0.20	0.0	159.1	-141.12	-346.38	159.66	-677.84	7966.27	-47.92
19	35	1.724e+04	-7652.55	0.21	-548.19	0.0	75.44	202.59	-162.30	694.79	-7652.55	1.724e+04
		-84.95	-3.318e+04	0.20	0.0	159.1	-140.47	-345.60	-162.30	694.79	-3.318e+04	-84.95
19	45	1.729e+04	9873.39	0.21	-548.19	0.0	75.19	201.57	46.90	-197.09	9873.39	1.729e+04
		-136.23	2503.50	-0.06	0.0	159.1	-140.72	-346.62	46.90	-197.09	2503.50	-136.23
19	58	1.733e+04	1.472e+04	0.21	-548.19	0.0	74.94	202.04	67.89	-309.50	1.472e+04	1.733e+04
		-55.07	4002.02	-0.09	0.0	159.1	-140.97	-346.15	67.89	-309.50	4002.02	-55.07
19	59	1.727e+04	-3688.30	0.21	-548.19	0.0	75.29	202.36	-70.53	326.46	-3688.30	1.727e+04
		-77.80	-1.483e+04	0.09	0.0	159.1	-140.62	-345.83	-70.53	326.46	-1.483e+04	-77.80
19	66	1.733e+04	1.542e+04	0.21	-548.19	0.0	74.94	202.03	74.37	-311.67	1.542e+04	1.733e+04
		-55.11	3827.23	-0.09	0.0	159.1	-140.97	-346.16	74.37	-311.67	3827.23	-55.11
19	70	1.733e+04	1.542e+04	0.21	-548.19	0.0	74.95	202.02	74.37	-311.64	1.542e+04	1.733e+04
		-57.35	3826.96	-0.09	0.0	159.1	-140.96	-346.18	74.37	-311.64	3826.96	-57.35
19	71	1.727e+04	-3513.24	0.21	-548.19	0.0	75.28	202.39	-77.01	328.60	-3513.24	1.727e+04
		-75.52	-1.553e+04	0.09	0.0	159.1	-140.63	-345.81	-77.01	328.60	-1.553e+04	-75.52
19	77	1.729e+04	4583.28	0.21	-548.19	0.0	75.17	201.84	21.34	-87.37	4583.28	1.729e+04
		-108.10	1260.36	-0.03	0.0	159.1	-140.74	-346.35	21.34	-87.37	1260.36	-108.10
19	93	1.626e+04	277.11	0.15	215.32	0.0	208.41	-216.43	-2.32	16.39	277.11	1.626e+04
		-1043.85	-92.18	-2.14e-04	-1.70e-04	159.1	-7.50	-1.11	-2.32	16.39	-92.18	-1043.85
19	94	1.589e+04	272.41	0.16	105.16	0.0	230.85	-158.83	-2.28	15.78	272.41	1.589e+04
		-1011.66	-90.81	-2.10e-04	-1.70e-04	159.1	-28.45	-53.67	-2.28	15.78	-90.81	-1011.66
19	96	3.180e+04	31.91	0.28	-1421.87	0.0	-35.74	678.43	-0.27	-0.04	31.91	3.180e+04
		943.16	-11.72	-2.14e-05	1.70e-04	159.1	-295.04	-743.44	-0.27	-0.04	-11.72	943.16
19	101	1.730e+04	156.86	0.21	-548.19	0.0	75.12	202.20	-1.32	8.48	156.86	1.730e+04
		-66.44	-52.63	-1.20e-04	0.0	159.1	-140.79	-345.99	-1.32	8.48	-52.63	-66.44
19	102	1.803e+04	154.98	0.21	-592.26	0.0	84.09	225.24	-1.30	8.23	154.98	1.803e+04
		-53.56	-52.08	-1.18e-04	0.0	159.1	-149.17	-367.02	-1.30	8.23	-52.08	-53.56
19	103	1.730e+04	156.86	0.21	-548.19	0.0	75.12	202.20	-1.32	8.48	156.86	1.730e+04
		-66.44	-52.63	-1.20e-04	0.0	159.1	-140.79	-345.99	-1.32	8.48	-52.63	-66.44

21	2	1.316e+04	180.58	-0.02	-580.31	0.0	-5042.13	513.52	-0.72	9.87	180.58	-3879.79
		-3879.79	126.64	6.06e-04	0.0	75.0	-4813.58	-66.79	-0.72	9.87	126.64	1.287e+04
21	9	1.168e+05	309.18	0.36	-806.81	0.0	-3255.91	-12.88	-0.93	16.23	309.18	1.168e+05
		8.553e+04	239.55	9.94e-04	-2.07e-04	75.0	-3095.44	-819.69	-0.93	16.23	239.55	8.553e+04
21	11	1.178e+05	267.71	0.37	-647.05	0.0	-1880.17	-154.42	-0.74	13.92	267.71	1.178e+05
		8.200e+04	211.92	8.52e-04	-2.07e-04	75.0	-1782.63	-801.46	-0.74	13.92	211.92	8.200e+04
21	14	-6.543e+04	54.04	-0.39	-94.50	0.0	-4700.06	808.86	-0.32	3.19	54.04	-1.225e+05
		-1.225e+05	29.70	1.96e-04	2.07e-04	75.0	-4505.55	714.36	-0.32	3.19	29.70	-6.543e+04
21	16	-6.896e+04	12.57	-0.38	65.27	0.0	-3324.32	667.32	-0.14	0.88	12.57	-1.215e+05
		-1.215e+05	2.07	5.43e-05	2.07e-04	75.0	-3192.73	732.59	-0.14	0.88	2.07	-6.896e+04
21	30	5534.24	-6644.84	-0.01	-284.83	0.0	-2546.81	259.46	-32.89	82.52	-6644.84	-3321.24
		-3321.24	-8885.85	0.13	0.0	75.0	-2434.63	-25.37	-32.89	82.52	-8885.85	5457.03
21	31	7546.69	9100.58	-5.68e-03	-284.83	0.0	-2558.24	242.64	32.02	-67.73	6925.22	-199.17
		-199.17	6925.22	-0.13	0.0	75.0	-2446.06	-42.19	32.02	-67.73	9100.58	7318.10
21	53	9940.99	-1452.42	6.81e-03	-284.83	0.0	-2540.06	223.31	-11.12	40.22	-1452.42	3384.24
		3384.24	-2233.12	0.04	0.0	75.0	-2427.88	-61.52	-11.12	40.22	-2233.12	9451.38
21	54	3317.44	-1554.21	-0.02	-284.83	0.0	-2559.68	278.84	-10.37	35.67	-1554.21	-6914.40
		-6914.40	-2279.34	0.04	0.0	75.0	-2447.50	-5.99	-10.37	35.67	-2279.34	3317.44
21	55	9947.95	2494.08	6.80e-03	-284.83	0.0	-2545.37	223.26	9.49	-20.88	1834.59	3393.99
		3393.99	1834.59	-0.04	0.0	75.0	-2433.19	-61.57	9.49	-20.88	2494.08	9457.70
21	56	3323.75	2447.86	-0.02	-284.83	0.0	-2564.98	278.79	10.24	-25.43	1732.80	-6904.65
		-6904.65	1732.80	-0.04	0.0	75.0	-2452.80	-6.04	10.24	-25.43	2447.86	3323.75
21	62	5934.85	-3081.94	-0.01	-284.83	0.0	-2550.15	256.07	-15.94	50.07	-3081.94	-2692.03
		-2692.03	-4099.67	0.06	0.0	75.0	-2437.97	-28.76	-15.94	50.07	-4099.67	5832.12
21	63	7139.84	4314.40	-6.95e-03	-284.83	0.0	-2554.90	246.03	15.07	-35.28	3362.32	-828.38
		-828.38	3362.32	-0.06	0.0	75.0	-2442.72	-38.80	15.07	-35.28	4314.40	6943.01
21	85	8553.08	-610.02	-3.18e-03	-284.83	0.0	-2545.39	234.46	-5.56	24.42	-610.02	1316.99
		1316.99	-983.38	0.02	0.0	75.0	-2433.21	-50.37	-5.56	24.42	-983.38	8220.24
21	86	4590.47	-673.07	-0.02	-284.83	0.0	-2557.12	267.67	-5.10	21.60	-673.07	-4842.20
		-4842.20	-1012.02	0.02	0.0	75.0	-2444.94	-17.16	-5.10	21.60	-1012.02	4551.75
21	87	8556.54	1226.75	-3.19e-03	-284.83	0.0	-2547.92	234.43	4.22	-6.82	953.45	1321.79
		1321.79	953.45	-0.02	0.0	75.0	-2435.74	-50.39	4.22	-6.82	1226.75	8223.39
21	88	4593.73	1198.12	-0.02	-284.83	0.0	-2559.65	267.64	4.69	-9.63	890.40	-4837.40
		-4837.40	890.40	-0.02	0.0	75.0	-2447.47	-17.19	4.69	-9.63	1198.12	4554.90
21	90	9094.59	139.27	-0.01	-400.08	0.0	-3498.43	353.75	-0.52	7.53	139.27	-2633.50
		-2633.50	100.27	4.62e-04	0.0	75.0	-3340.86	-46.33	-0.52	7.53	100.27	8894.66
21	93	7.779e+04	225.01	0.24	-551.08	0.0	-2307.62	2.81	-0.66	11.77	225.01	7.779e+04
		5.733e+04	175.54	7.21e-04	-1.38e-04	75.0	-2195.44	-548.27	-0.66	11.77	175.54	5.733e+04
21	96	-4.331e+04	54.92	-0.26	-76.20	0.0	-3270.38	550.64	-0.26	3.08	54.92	-8.175e+04
		-8.175e+04	35.64	1.89e-04	1.38e-04	75.0	-3135.51	474.43	-0.26	3.08	35.64	-4.331e+04
21	101	6537.34	140.19	-9.19e-03	-284.83	0.0	-2552.52	251.05	-0.44	7.39	140.19	-1760.21
		-1760.21	107.37	4.53e-04	0.0	75.0	-2440.34	-33.78	-0.44	7.39	107.37	6387.57
21	102	7048.79	140.01	-9.91e-03	-307.88	0.0	-2741.70	271.59	-0.45	7.42	140.01	-1934.86
		-1934.86	105.95	4.55e-04	0.0	75.0	-2620.45	-36.29	-0.45	7.42	105.95	6888.99
21	103	6537.34	140.19	-9.19e-03	-284.83	0.0	-2552.52	251.05	-0.44	7.39	140.19	-1760.21
		-1760.21	107.37	4.53e-04	0.0	75.0	-2440.34	-33.78	-0.44	7.39	107.37	6387.57
22	2	1.316e+04	483.43	0.02	-580.31	0.0	-4816.38	66.77	-1.34	-14.81	483.43	1.287e+04
		-3882.56	382.87	-9.98e-04	0.0	75.0	-5044.94	-513.54	-1.34	-14.81	382.87	-3882.56
22	10	-6.475e+04	752.41	0.39	-94.50	0.0	-4512.17	-697.52	-2.00	-23.52	752.41	-6.475e+04
		-1.206e+05	602.25	-1.57e-03	2.07e-04	75.0	-4706.69	-792.02	-2.00	-23.52	602.25	-1.206e+05
22	15	1.159e+05	43.56	-0.37	-647.05	0.0	-1780.64	784.59	-0.13	-1.28	43.56	8.131e+04
		8.131e+04	33.79	-8.69e-05	-2.07e-04	75.0	-1878.19	137.54	-0.13	-1.28	33.79	1.159e+05
22	38	7508.31	-6530.77	4.27e-03	-284.83	0.0	-2429.04	41.89	31.88	-86.10	-6530.77	7282.48
		-256.88	-8667.20	-0.13	0.0	75.0	-2541.22	-242.94	31.88	-86.10	-8667.20	-256.88
22	39	5568.79	9343.71	0.01	-284.83	0.0	-2455.60	25.64	-33.67	64.91	9343.71	5490.34
		-3267.98	7072.96	0.13	0.0	75.0	-2567.78	-259.19	-33.67	64.91	7072.96	-3267.98
22	50	9885.71	-1452.46	-7.92e-03	-284.83	0.0	-2424.74	61.05	9.90	-37.63	-1452.46	9402.64
		3300.63	-2070.50	-0.04	0.0	75.0	-2536.92	-223.77	9.90	-37.63	-2070.50	3300.63
22	51	3370.18	2747.01	0.02	-284.83	0.0	-2459.89	6.47	-11.69	16.44	2747.01	3370.18
		-6825.49	1994.64	0.04	0.0	75.0	-2572.07	-278.36	-11.69	16.44	1994.64	-6825.49
22	53	3364.53	-1681.49	0.02	-284.83	0.0	-2454.58	6.43	8.40	-36.89	-1681.49	3364.53
		-6834.18	-2315.51	-0.04	0.0	75.0	-2566.76	-278.40	8.40	-36.89	-2315.51	-6834.18
22	56	9891.93	2992.02	-7.91e-03	-284.83	0.0	-2430.05	61.10	-10.19	15.70	2992.02	9408.28
		3309.31	2223.68	0.04	0.0	75.0	-2542.23	-223.73	-10.19	15.70	2223.68	3309.31
22	70	7118.45	-2961.64	6.21e-03	-284.83	0.0	-2435.42	38.63	14.81	-53.56	-2961.64	6923.17
		-860.57	-3875.62	-0.06	0.0	75.0	-2547.60	-246.20	14.81	-53.56	-3875.62	-860.57
22	71	5953.65	4552.13	0.01	-284.83	0.0	-2449.22	28.90	-16.60	32.37	4552.13	5849.65
		-2664.30	3503.82	0.06	0.0	75.0	-2561.40	-255.93	-16.60	32.37	3503.82	-2664.30
22	85	4619.32	-644.68	0.02	-284.83	0.0	-2449.97	17.42	3.49	-25.73	-644.68	4579.39
		-4795.20	-896.55	-0.02	0.0	75.0	-2562.15	-267.41	3.49	-25.73	-896.55	-4795.20
22	86	8519.34	-743.85	-3.61e-03	-284.83	0.0	-2432.13	50.09	4.09	-21.61	-743.85	8190.49
		1265.95	-950.42	-0.02	0.0	75.0	-2544.31	-234.74	4.09	-21.61	-950.42	1265.95
22	87	4622.36	1626.93	0.02	-284.83	0.0	-2452.50	17.44	-5.88	0.42	1626.93	4582.33
		-4790.81	1286.04	0.02	0.0	75.0	-2564.68	-267.39	-5.88	0.42	1286.04	-4790.81
22	88	8522.55	1573.05	-3.61e-03	-284.83	0.0	-2434.67	50.11	-5.28	4.53	1573.05	8193.43
		1270.33	1186.86	0.02	0.0	75.0	-2546.85	-234.72	-5.28	4.53	1186.86	1270.33
22	90	9093.48	362.24	0.01	-400.08	0.0	-3342.97	46.31	-0.99	-11.17	362.24	8893.70

		-2635.66	287.80	-7.50e-04	0.0	75.0	-3500.54	-353.76	-0.99	-11.17	287.80	-2635.66
22	94	-4.285e+04	541.55	0.26	-76.20	0.0	-3140.16	-463.21	-1.43	-16.97	541.55	-4.285e+04
		-8.045e+04	434.05	-1.13e-03	1.38e-04	75.0	-3275.04	-539.41	-1.43	-16.97	434.05	-8.045e+04
22	95	7.649e+04	146.95	-0.24	-551.08	0.0	-2194.80	537.01	-0.41	-4.51	146.95	7.649e+04
		5.688e+04	116.48	-3.03e-04	-1.38e-04	75.0	-2306.98	-14.07	-0.41	-4.51	116.48	7.649e+04
22	101	6536.05	338.25	9.07e-03	-284.83	0.0	-2442.32	33.76	-0.90	-10.60	338.25	6536.05
		-1762.43	271.09	-7.06e-04	0.0	75.0	-2554.50	-251.07	-0.90	-10.60	271.09	-1762.43
22	102	7047.54	343.05	9.78e-03	-307.88	0.0	-2622.45	36.27	-0.91	-10.71	343.05	7047.54
		-1937.08	274.43	-7.15e-04	0.0	75.0	-2743.71	-271.60	-0.91	-10.71	274.43	-1937.08
22	103	6536.05	338.25	9.07e-03	-284.83	0.0	-2442.32	33.76	-0.90	-10.60	338.25	6536.05
		-1762.43	271.09	-7.06e-04	0.0	75.0	-2554.50	-251.07	-0.90	-10.60	271.09	-1762.43
23	9	2.148e+04	226.95	-0.03	-1824.69	0.0	1812.34	464.95	2.77	46.52	-189.61	1.257e+04
		-5.475e+04	-189.61	-1.31e-03	-3.83e-04	150.5	2104.31	-1359.74	2.77	46.52	226.95	-5.475e+04
23	10	2.214e+04	206.57	-0.03	-1981.01	0.0	1789.83	518.54	2.52	44.94	-172.66	1.194e+04
		-5.907e+04	-172.66	-1.19e-03	-3.83e-04	150.5	2143.38	-1462.47	2.52	44.94	206.57	-5.907e+04
23	14	1.167e+04	40.31	-0.05	185.72	0.0	-2030.65	-152.60	-0.61	-1.67	40.31	1.167e+04
		2238.20	-52.18	2.84e-04	3.83e-04	150.5	-1677.10	33.13	-0.61	-1.67	-52.18	2681.57
23	31	1.075e+04	8783.66	-0.02	-518.56	0.0	-49.09	79.14	135.46	-1240.51	-1.189e+04	9868.58
		-1.724e+04	-1.189e+04	-0.33	0.0	150.5	155.15	-439.42	135.46	-1240.51	8783.66	-1.724e+04
23	34	1.068e+04	1.212e+04	-0.02	-518.56	0.0	-87.54	84.52	-128.12	1269.47	1.212e+04	9662.20
		-1.663e+04	-7296.40	0.33	0.0	150.5	116.70	-434.04	-128.12	1269.47	-7296.40	-1.663e+04
23	35	1.075e+04	7459.99	-0.02	-518.56	0.0	-48.20	79.09	130.13	-1232.73	-1.226e+04	9869.45
		-1.724e+04	-1.226e+04	-0.33	0.0	150.5	156.04	-439.47	130.13	-1232.73	7459.99	-1.724e+04
23	38	1.068e+04	1.212e+04	-0.02	-518.56	0.0	-87.55	84.52	-128.11	1269.42	1.212e+04	9662.08
		-1.663e+04	-7293.93	0.33	0.0	150.5	116.69	-434.04	-128.11	1269.42	-7293.93	-1.663e+04
23	39	1.075e+04	7457.52	-0.02	-518.56	0.0	-48.19	79.08	130.12	-1232.68	-1.226e+04	9869.56
		-1.724e+04	-1.226e+04	-0.33	0.0	150.5	156.05	-439.48	130.12	-1232.68	7457.52	-1.724e+04
23	63	1.072e+04	4219.79	-0.02	-518.56	0.0	-59.10	80.55	63.71	-569.94	-5592.78	9814.31
		-1.708e+04	-5592.78	-0.16	0.0	150.5	145.14	-438.01	63.71	-569.94	4219.79	-1.708e+04
23	66	1.069e+04	5617.67	-0.02	-518.56	0.0	-77.06	83.08	-59.20	603.51	5617.67	9717.03
		-1.680e+04	-3399.01	0.15	0.0	150.5	127.18	-435.48	-59.20	603.51	-3399.01	-1.680e+04
23	67	1.072e+04	3562.60	-0.02	-518.56	0.0	-58.69	80.52	61.21	-566.76	-5756.77	9814.62
		-1.708e+04	-5756.77	-0.16	0.0	150.5	145.55	-438.04	61.21	-566.76	3562.60	-1.708e+04
23	70	1.069e+04	5617.49	-0.02	-518.56	0.0	-77.06	83.08	-59.19	603.48	5617.49	9716.95
		-1.679e+04	-3397.35	0.15	0.0	150.5	127.17	-435.48	-59.19	603.48	-3397.35	-1.679e+04
23	71	1.072e+04	3560.94	-0.02	-518.56	0.0	-58.68	80.52	61.20	-566.73	-5756.59	9814.69
		-1.708e+04	-5756.59	-0.16	0.0	150.5	145.56	-438.04	61.20	-566.73	3560.94	-1.708e+04
23	93	1.552e+04	168.04	-0.02	-1240.80	0.0	1205.62	305.51	2.05	33.91	-140.54	9857.36
		-3.752e+04	-140.54	-9.74e-04	-2.25e-04	150.5	1409.86	-935.29	2.05	33.91	168.04	-3.752e+04
23	94	1.596e+04	154.46	-0.02	-1345.01	0.0	1190.62	341.24	1.89	32.86	-129.24	9443.14
		-4.040e+04	-129.24	-8.95e-04	-2.25e-04	150.5	1435.91	-1003.77	1.89	32.86	154.46	-4.040e+04
23	96	9260.06	12.74	-0.03	99.48	0.0	-1356.37	-106.18	-0.20	1.79	12.74	9260.06
		766.62	-18.04	9.12e-05	2.25e-04	150.5	-1111.08	-6.71	-0.20	1.79	-18.04	766.62
23	101	1.070e+04	81.79	-0.02	-518.56	0.0	-67.87	81.80	1.01	18.37	-69.55	9765.82
		-1.694e+04	-69.55	-4.81e-04	0.0	150.5	136.37	-436.76	1.01	18.37	81.79	-1.694e+04
23	102	1.083e+04	76.36	-0.02	-560.24	0.0	-73.87	96.09	0.94	17.95	-65.03	9600.13
		-1.809e+04	-65.03	-4.49e-04	0.0	150.5	146.79	-464.15	0.94	17.95	76.36	-1.809e+04
23	103	1.070e+04	81.79	-0.02	-518.56	0.0	-67.87	81.80	1.01	18.37	-69.55	9765.82
		-1.694e+04	-69.55	-4.81e-04	0.0	150.5	136.37	-436.76	1.01	18.37	81.79	-1.694e+04
24	2	1.705e+04	158.82	0.02	-352.76	0.0	-7440.77	-687.30	1.42	61.67	94.22	1.705e+04
		-2.232e+04	94.22	-3.34e-04	0.0	45.6	-7301.83	-1040.06	1.42	61.67	158.82	-2.232e+04
24	9	1.402e+05	273.42	0.02	-490.45	0.0	-4836.41	-363.73	2.46	96.65	161.34	1.402e+05
		1.125e+05	161.34	-6.00e-04	-7.50e-05	45.6	-4738.85	-854.19	2.46	96.65	273.42	1.125e+05
24	10	1.427e+05	272.50	0.02	-542.99	0.0	-5899.92	-466.30	2.45	98.31	160.98	1.427e+05
		1.091e+05	160.98	-5.93e-04	-7.50e-05	45.6	-5781.67	-1009.29	2.45	98.31	272.50	1.091e+05
24	11	1.356e+05	237.05	0.01	-393.33	0.0	-2801.25	-174.45	2.14	81.92	139.70	1.356e+05
		1.187e+05	139.70	-5.26e-04	-7.50e-05	45.6	-2741.95	-567.78	2.14	81.92	237.05	1.187e+05
24	14	-1.135e+05	46.98	0.02	-57.44	0.0	-6854.60	-703.17	0.41	21.68	28.16	-1.135e+05
		-1.469e+05	28.16	-9.01e-05	7.50e-05	45.6	-6736.35	-760.61	0.41	21.68	46.98	-1.469e+05
24	16	-1.182e+05	10.61	0.02	39.68	0.0	-4819.44	-513.89	0.09	6.95	6.53	-1.182e+05
		-1.407e+05	6.53	-1.53e-05	7.50e-05	45.6	-4739.44	-474.21	0.09	6.95	10.61	-1.407e+05
24	30	6842.11	-2118.06	9.25e-03	-173.14	0.0	-3731.58	-337.11	-110.00	1123.43	-2118.06	6842.11
		-1.247e+04	-6804.18	0.11	0.0	45.6	-3663.39	-510.25	-110.00	1123.43	-6804.18	-1.247e+04
24	31	1.021e+04	7051.97	9.26e-03	-173.14	0.0	-3740.01	-336.85	112.23	-1034.80	2264.33	1.021e+04
		-9095.38	2264.33	-0.11	0.0	45.6	-3671.81	-510.00	112.23	-1034.80	7051.97	-9095.38
24	50	2961.70	-626.68	9.10e-03	-173.14	0.0	-3747.84	-337.23	-32.38	362.90	-626.68	2961.70
		-1.636e+04	-2004.04	0.03	0.0	45.6	-3679.64	-510.37	-32.38	362.90	-2004.04	-1.636e+04
24	53	1.408e+04	-268.38	9.44e-03	-173.14	0.0	-3718.54	-336.77	-29.84	354.58	-268.38	1.408e+04
		-5219.49	-1469.55	0.03	0.0	45.6	-3650.35	-509.91	-29.84	354.58	-1469.55	-5219.49
24	55	1.409e+04	1826.15	9.41e-03	-173.14	0.0	-3723.81	-336.73	32.41	-254.62	507.97	1.409e+04
		-5208.86	507.97	-0.03	0.0	45.6	-3655.61	-509.88	32.41	-254.62	1826.15	-5208.86
24	56	2971.55	1717.33	9.07e-03	-173.14	0.0	-3753.05	-337.19	32.06	-265.94	414.66	2971.55
		-1.635e+04	414.66	-0.03	0.0	45.6	-3684.86	-510.33	32.06	-265.94	1717.33	-1.635e+04
24	62	7520.83	-1092.98	9.24e-03	-173.14	0.0	-3734.30	-337.06	-50.73	548.27	-1092.98	7520.83
		-1.179e+04	-3175.51	0.05	0.0	45.6	-3666.11	-510.20	-50.73	548.27	-3175.51	-1.179e+04
24	63	9532.04	3423.30	9.27e-03	-173.14	0.0	-3737.29	-336.90	52.96	-459.64	1239.25	9532.04
		-9776.13	1239.25	-0.05	0.0	45.6	-3669.10	-510.05	52.96	-459.64	3423.30	-9776.13

24	85	1.185e+04	-128.60	9.36e-03	-173.14	0.0	-3725.80	-336.85	-13.30	190.31	-128.60	1.185e+04
		-7455.55	-629.13	0.01	0.0	45.6	-3657.60	-510.00	-13.30	190.31	-629.13	-7455.55
24	86	5198.86	-186.44	9.16e-03	-173.14	0.0	-3743.28	-337.13	-13.51	183.35	-186.44	5198.86
		-1.412e+04	-696.56	0.01	0.0	45.6	-3675.09	-510.27	-13.51	183.35	-696.56	-1.412e+04
24	87	1.185e+04	944.35	9.35e-03	-173.14	0.0	-3728.31	-336.83	15.73	-94.71	332.71	1.185e+04
		-7450.35	332.71	-0.02	0.0	45.6	-3660.11	-509.98	15.73	-94.71	944.35	-7450.35
24	88	5203.78	876.92	9.15e-03	-173.14	0.0	-3745.80	-337.11	15.52	-101.67	274.88	5203.78
		-1.411e+04	274.88	-0.02	0.0	45.6	-3677.60	-510.25	15.52	-101.67	876.92	-1.411e+04
24	90	1.180e+04	122.66	0.01	-243.20	0.0	-5153.81	-473.73	1.10	46.54	72.66	1.180e+04
		-1.534e+04	72.66	-2.61e-04	0.0	45.6	-5058.02	-716.94	1.10	46.54	122.66	-1.534e+04
24	93	9.393e+04	199.07	0.01	-334.99	0.0	-3417.57	-258.02	1.79	69.86	117.41	9.393e+04
		7.453e+04	117.41	-4.39e-04	-5.00e-05	45.6	-3439.37	-593.02	1.79	69.86	199.07	7.453e+04
24	94	9.557e+04	198.45	0.02	-370.02	0.0	-4126.58	-326.40	1.78	70.97	117.17	9.557e+04
		7.225e+04	117.17	-4.34e-04	-5.00e-05	45.6	-4044.58	-696.42	1.78	70.97	198.45	7.225e+04
24	96	-7.524e+04	48.11	0.01	-46.32	0.0	-4763.03	-484.31	0.43	19.89	28.63	-7.524e+04
		-9.838e+04	28.63	-9.84e-05	5.00e-05	45.6	-4681.04	-530.63	0.43	19.89	48.11	-9.838e+04
24	101	8526.43	123.89	9.25e-03	-173.14	0.0	-3735.80	-336.98	1.11	44.32	73.14	8526.43
		-1.078e+04	73.14	-2.71e-04	0.0	45.6	-3667.60	-510.12	1.11	44.32	123.89	-1.078e+04
24	102	9181.33	123.65	0.01	-187.15	0.0	-4019.40	-364.33	1.11	44.76	73.04	9181.33
		-1.170e+04	73.04	-2.69e-04	0.0	45.6	-3945.68	-551.49	1.11	44.76	123.65	-1.170e+04
24	103	8526.43	123.89	9.25e-03	-173.14	0.0	-3735.80	-336.98	1.11	44.32	73.14	8526.43
		-1.078e+04	73.14	-2.71e-04	0.0	45.6	-3667.60	-510.12	1.11	44.32	123.89	-1.078e+04
25	2	-3882.56	382.87	0.01	-227.54	0.0	-5044.94	-513.47	-1.34	-14.81	382.87	-3882.56
		-2.233e+04	343.43	2.10e-04	0.0	29.4	-5134.56	-741.01	-1.34	-14.81	343.43	-2.233e+04
25	10	-1.206e+05	602.25	0.08	-37.05	0.0	-4706.70	-791.94	-2.00	-23.51	602.25	-1.206e+05
		-1.444e+05	543.37	3.28e-04	1.24e-04	29.4	-4782.97	-828.99	-2.00	-23.51	543.37	-1.444e+05
25	15	1.170e+05	33.79	-0.06	-253.71	0.0	-1878.19	137.57	-0.13	-1.28	33.79	1.159e+05
		1.159e+05	29.96	1.93e-05	-1.24e-04	29.4	-1916.43	-116.14	-0.13	-1.28	29.96	1.162e+05
25	38	-256.88	-4827.77	5.90e-03	-111.68	0.0	-2541.01	-246.79	60.49	-86.13	-6530.77	-256.88
		-9156.07	-6530.77	-0.06	0.0	29.4	-2585.00	-358.47	60.49	-86.13	-4827.77	-9156.07
25	39	-3267.98	7072.96	7.74e-03	-111.68	0.0	-2567.99	-255.26	-62.28	64.95	7072.96	-3267.98
		-1.242e+04	5317.29	0.06	0.0	29.4	-2611.98	-366.94	-62.28	64.95	5317.29	-1.242e+04
25	50	3300.63	-997.63	3.81e-03	-111.68	0.0	-2536.28	-236.73	16.34	-37.65	-1452.45	3300.63
		-5303.07	-1452.45	-0.02	0.0	29.4	-2580.26	-348.41	16.34	-37.65	-997.63	-5303.07
25	51	-6825.49	1994.64	9.83e-03	-111.68	0.0	-2572.73	-265.32	-18.13	16.47	1994.64	-6825.49
		-1.627e+04	1487.15	0.02	0.0	29.4	-2616.71	-377.01	-18.13	16.47	1487.15	-1.627e+04
25	53	-6834.18	-1186.84	9.82e-03	-111.68	0.0	-2567.41	-265.36	17.44	-36.90	-1681.49	-6834.18
		-1.628e+04	-1681.49	-0.02	0.0	29.4	-2611.40	-377.04	17.44	-36.90	-1186.84	-1.628e+04
25	56	3309.31	2223.68	3.82e-03	-111.68	0.0	-2541.59	-236.69	-19.23	15.72	2223.68	3309.31
		-5293.61	1676.36	0.02	0.0	29.4	-2585.58	-348.37	-19.23	15.72	1676.36	-5293.61
25	70	-860.57	-2204.47	6.27e-03	-111.68	0.0	-2547.48	-248.49	27.73	-53.56	-2961.64	-860.57
		-9809.80	-2961.64	-0.03	0.0	29.4	-2591.47	-360.17	27.73	-53.56	-2204.47	-9809.80
25	71	-2664.30	3503.82	7.37e-03	-111.68	0.0	-2561.53	-253.56	-29.52	32.38	3503.82	-2664.30
		-1.176e+04	2693.98	0.03	0.0	29.4	-2605.51	-365.24	-29.52	32.38	2693.98	-1.176e+04
25	85	-4795.20	-434.60	8.62e-03	-111.68	0.0	-2562.53	-259.60	7.64	-25.72	-644.68	-4795.20
		-1.407e+04	-644.68	-8.71e-03	0.0	29.4	-2606.52	-371.28	7.64	-25.72	-434.60	-1.407e+04
25	86	1265.95	-536.27	5.02e-03	-111.68	0.0	-2543.93	-242.47	7.73	-21.61	-743.85	1265.95
		-7506.70	-743.85	-8.66e-03	0.0	29.4	-2587.92	-354.16	7.73	-21.61	-536.27	-7506.70
25	87	-4790.81	1286.04	8.62e-03	-111.68	0.0	-2565.07	-259.58	-9.52	0.43	1286.04	-4790.81
		-1.407e+04	1025.79	8.96e-03	0.0	29.4	-2609.06	-371.26	-9.52	0.43	1025.79	-1.407e+04
25	88	1270.33	1186.86	5.03e-03	-111.68	0.0	-2546.47	-242.45	-9.43	4.54	1186.86	1270.33
		-7502.03	924.11	9.01e-03	0.0	29.4	-2590.46	-354.14	-9.43	4.54	924.11	-7502.03
25	90	-2635.66	287.80	9.42e-03	-156.87	0.0	-3500.54	-353.71	-0.99	-11.16	287.80	-2635.66
		-1.534e+04	258.61	1.58e-04	0.0	29.4	-3562.33	-510.58	-0.99	-11.16	258.61	-1.534e+04
25	94	-8.045e+04	434.05	0.05	-29.88	0.0	-3275.04	-539.36	-1.43	-16.96	434.05	-8.045e+04
		-9.675e+04	391.91	2.36e-04	8.28e-05	29.4	-3327.93	-569.24	-1.43	-16.96	391.91	-9.675e+04
25	95	7.649e+04	116.48	-0.04	-216.08	0.0	-2306.98	-14.03	-0.41	-4.51	116.48	7.649e+04
		7.290e+04	104.54	6.43e-05	-8.28e-05	29.4	-2350.97	-230.11	-0.41	-4.51	104.54	7.290e+04
25	101	-1762.43	271.09	6.82e-03	-111.68	0.0	-2554.50	-251.03	-0.90	-10.59	271.09	-1762.43
		-1.079e+04	244.76	1.48e-04	0.0	29.4	-2598.49	-362.71	-0.90	-10.59	244.76	-1.079e+04
25	102	-1937.08	274.43	7.34e-03	-120.72	0.0	-2743.71	-271.56	-0.91	-10.71	274.43	-1937.08
		-1.170e+04	247.53	1.50e-04	0.0	29.4	-2791.26	-392.28	-0.91	-10.71	247.53	-1.170e+04
25	103	-1762.43	271.09	6.82e-03	-111.68	0.0	-2554.50	-251.03	-0.90	-10.59	271.09	-1762.43
		-1.079e+04	244.76	1.48e-04	0.0	29.4	-2598.49	-362.71	-0.90	-10.59	244.76	-1.079e+04
27	2	6726.35	24.57	-0.03	-218.74	0.0	77.66	109.37	0.09	-1.15	3.38	0.0
		0.0	3.38	-1.44e-04	0.0	246.0	77.66	-109.37	0.09	-1.15	24.57	0.0
27	5	3.282e+04	37.03	-0.14	-1067.44	0.0	66.18	533.72	0.12	-1.46	8.30	0.0
		0.0	8.30	-2.11e-04	0.0	246.0	66.18	-533.72	0.12	-1.46	37.03	0.0
27	9	6726.35	54.87	0.09	-218.74	0.0	58.01	109.37	0.17	-2.11	12.88	0.0
		0.0	12.88	-3.11e-04	0.0	246.0	58.01	-109.37	0.17	-2.11	54.87	0.0
27	11	5174.12	49.75	0.09	-168.26	0.0	37.80	84.13	0.15	-1.85	12.44	0.0
		0.0	12.44	-2.80e-04	0.0	246.0	37.80	-84.13	0.15	-1.85	49.75	0.0
27	12	5174.12	47.90	0.09	-168.26	0.0	45.44	84.13	0.15	-1.84	11.30	0.0
		0.0	11.30	-2.71e-04	0.0	246.0	45.44	-84.13	0.15	-1.84	47.90	0.0
27	16	5174.12	-3.15	-0.09	-168.26	0.0	54.20	84.13	-8.78e-03	0.04	-3.15	0.0
		0.0	-5.31	2.70e-05	0.0	246.0	54.20	-84.13	-8.78e-03	0.04	-5.31	0.0
27	25	5174.12	-6221.82	-0.02	-168.26	0.0	44.72	84.13	11.25	-34.86	-8795.00	0.0

		0.0	-8795.00	0.03	0.0	246.0	44.72	-84.13	11.25	-34.86	-6221.82	0.0
27	26	5174.12	-6225.32	-0.02	-168.26	0.0	44.70	84.13	11.23	-34.79	-8798.60	0.0
		0.0	-8798.60	0.03	0.0	246.0	44.70	-84.13	11.23	-34.79	-6225.32	0.0
27	27	5174.12	8808.05	-0.02	-168.26	0.0	46.23	84.13	-11.08	32.98	8808.05	0.0
		0.0	6270.01	-0.03	0.0	246.0	46.23	-84.13	-11.08	32.98	6270.01	0.0
27	30	5174.12	-6224.40	-0.02	-168.26	0.0	44.70	84.13	11.23	-34.80	-8797.92	0.0
		0.0	-8797.92	0.03	0.0	246.0	44.70	-84.13	11.23	-34.80	-6224.40	0.0
27	38	5174.12	-6706.25	-0.02	-168.26	0.0	44.68	84.13	-8.98	-16.20	-6706.25	0.0
		0.0	-8359.54	0.04	0.0	246.0	44.68	-84.13	-8.98	-16.20	-8359.54	0.0
27	39	5174.12	8404.23	-0.02	-168.26	0.0	46.26	84.13	9.12	14.39	6715.70	0.0
		0.0	6715.70	-0.04	0.0	246.0	46.26	-84.13	9.12	14.39	8404.23	0.0
27	57	5174.12	-3342.16	-0.02	-168.26	0.0	45.12	84.13	6.63	-18.87	-4886.24	0.0
		0.0	-4886.24	0.01	0.0	246.0	45.12	-84.13	6.63	-18.87	-3342.16	0.0
27	58	5174.12	-3344.35	-0.02	-168.26	0.0	45.11	84.13	6.61	-18.83	-4888.47	0.0
		0.0	-4888.47	0.01	0.0	246.0	45.11	-84.13	6.61	-18.83	-3344.35	0.0
27	59	5174.12	4897.92	-0.02	-168.26	0.0	45.83	84.13	-6.47	17.02	4897.92	0.0
		0.0	3389.04	-0.01	0.0	246.0	45.83	-84.13	-6.47	17.02	3389.04	0.0
27	62	5174.12	-3343.77	-0.02	-168.26	0.0	45.11	84.13	6.62	-18.84	-4888.05	0.0
		0.0	-4888.05	0.01	0.0	246.0	45.11	-84.13	6.62	-18.84	-3343.77	0.0
27	70	5174.12	-3586.89	-0.02	-168.26	0.0	45.10	84.13	-5.34	-9.59	-3586.89	0.0
		0.0	-4667.39	0.02	0.0	246.0	45.10	-84.13	-5.34	-9.59	-4667.39	0.0
27	71	5174.12	4712.08	-0.02	-168.26	0.0	45.84	84.13	5.48	7.78	3596.34	0.0
		0.0	3596.34	-0.02	0.0	246.0	45.84	-84.13	5.48	7.78	4712.08	0.0
27	90	5174.12	19.89	-0.02	-168.26	0.0	55.65	84.13	0.07	-0.89	3.21	0.0
		0.0	3.21	-1.16e-04	0.0	246.0	55.65	-84.13	0.07	-0.89	19.89	0.0
27	91	2.257e+04	28.20	-0.09	-734.06	0.0	48.00	367.03	0.09	-1.10	6.49	0.0
		0.0	6.49	-1.61e-04	0.0	246.0	48.00	-367.03	0.09	-1.10	28.20	0.0
27	93	5174.12	40.08	0.06	-168.26	0.0	42.55	84.13	0.12	-1.53	9.54	0.0
		0.0	9.54	-2.27e-04	0.0	246.0	42.55	-84.13	0.12	-1.53	40.08	0.0
27	94	5174.12	38.86	0.06	-168.26	0.0	47.64	84.13	0.12	-1.52	8.78	0.0
		0.0	8.78	-2.21e-04	0.0	246.0	47.64	-84.13	0.12	-1.52	38.86	0.0
27	96	5174.12	3.38	-0.06	-168.26	0.0	53.48	84.13	0.02	-0.27	-0.85	0.0
		0.0	-0.85	-2.41e-05	0.0	246.0	53.48	-84.13	0.02	-0.27	3.38	0.0
27	101	5174.12	22.35	-0.02	-168.26	0.0	45.47	84.13	0.07	-0.91	4.72	0.0
		0.0	4.72	-1.28e-04	0.0	246.0	45.47	-84.13	0.07	-0.91	22.35	0.0
27	102	5174.12	21.85	-0.02	-168.26	0.0	47.50	84.13	0.07	-0.90	4.42	0.0
		0.0	4.42	-1.26e-04	0.0	246.0	47.50	-84.13	0.07	-0.90	21.85	0.0
27	103	5174.12	22.35	-0.02	-168.26	0.0	45.47	84.13	0.07	-0.91	4.72	0.0
		0.0	4.72	-1.28e-04	0.0	246.0	45.47	-84.13	0.07	-0.91	22.35	0.0
28	9	2.185e+04	163.02	0.19	361.58	0.0	312.18	-327.78	3.51	-5.87	-395.83	2.185e+04
		-1754.77	-395.83	2.19e-04	2.56e-04	159.1	3.51	33.80	3.51	-5.87	163.02	-1531.08
28	10	2.128e+04	158.73	0.21	196.34	0.0	345.92	-241.28	3.42	-5.65	-385.85	2.128e+04
		-1482.51	-385.85	2.14e-04	2.56e-04	159.1	-27.83	-44.94	3.42	-5.65	158.73	-1482.51
28	11	1.892e+04	146.35	0.11	668.12	0.0	260.66	-462.79	3.15	-5.32	-354.55	1.892e+04
		-6570.24	-354.55	1.95e-04	2.56e-04	159.1	72.73	205.33	3.15	-5.32	146.35	-1552.92
28	14	4.571e+04	5.49	0.38	-2094.21	0.0	-54.38	1014.10	0.15	-0.14	-17.80	6698.11
		1448.77	-17.80	1.51e-05	-2.56e-04	159.1	-428.13	-1080.10	0.15	-0.14	5.49	1448.77
28	33	1.726e+04	3.311e+04	0.21	-548.19	0.0	75.34	202.50	160.58	273.82	7832.88	1.131e+04
		-81.12	7832.88	-0.20	0.0	159.1	-140.57	-345.69	160.58	273.82	3.311e+04	-81.12
28	36	1.737e+04	-8165.35	0.21	-548.19	0.0	74.69	201.68	-157.64	-278.76	-8165.35	1.147e+04
		-51.68	-3.298e+04	0.20	0.0	159.1	-141.22	-346.51	-157.64	-278.76	-3.298e+04	-51.68
28	37	1.725e+04	3.311e+04	0.21	-548.19	0.0	75.35	202.47	160.58	273.84	7833.04	1.131e+04
		-84.87	7833.04	-0.20	0.0	159.1	-140.56	-345.72	160.58	273.84	3.311e+04	-84.87
28	40	1.737e+04	-8165.50	0.21	-548.19	0.0	74.69	201.70	-157.64	-278.78	-8165.50	1.147e+04
		-47.92	-3.298e+04	0.20	0.0	159.1	-141.23	-346.49	-157.64	-278.78	-3.298e+04	-47.92
28	55	1.730e+04	-2571.70	0.21	-548.19	0.0	75.09	201.46	-46.17	-85.50	-2571.70	1.142e+04
		-136.20	-9834.60	0.06	0.0	159.1	-140.82	-346.73	-46.17	-85.50	-9834.60	-136.20
28	65	1.728e+04	1.551e+04	0.21	-548.19	0.0	75.19	202.27	76.27	159.20	3588.36	1.135e+04
		-75.46	3588.36	-0.09	0.0	159.1	-140.72	-345.92	76.27	159.20	1.551e+04	-75.46
28	68	1.734e+04	-3920.83	0.21	-548.19	0.0	74.85	201.91	-73.32	-164.14	-3920.83	1.143e+04
		-57.33	-1.537e+04	0.09	0.0	159.1	-141.06	-346.29	-73.32	-164.14	-1.537e+04	-57.33
28	69	1.728e+04	1.551e+04	0.21	-548.19	0.0	75.19	202.26	76.26	159.21	3588.44	1.135e+04
		-77.71	3588.44	-0.09	0.0	159.1	-140.72	-345.94	76.26	159.21	1.551e+04	-77.71
28	72	1.734e+04	-3920.90	0.21	-548.19	0.0	74.84	201.92	-73.32	-164.15	-3920.90	1.143e+04
		-55.08	-1.537e+04	0.09	0.0	159.1	-141.07	-346.27	-73.32	-164.15	-1.537e+04	-55.08
28	87	1.730e+04	-1296.25	0.21	-548.19	0.0	75.07	201.73	-20.91	-51.06	-1296.25	1.140e+04
		-108.07	-4556.85	0.03	0.0	159.1	-140.84	-346.46	-20.91	-51.06	-4556.85	-108.07
28	93	1.625e+04	118.97	0.15	215.32	0.0	208.45	-216.37	2.56	-4.31	-288.91	1.625e+04
		-1043.49	-288.91	1.60e-04	1.70e-04	159.1	-7.46	-1.05	2.56	-4.31	118.97	-1043.49
28	94	1.587e+04	116.10	0.16	105.16	0.0	230.94	-158.70	2.50	-4.16	-282.26	1.587e+04
		-1011.11	-282.26	1.56e-04	1.70e-04	159.1	-28.35	-53.54	2.50	-4.16	116.10	-1011.11
28	96	3.182e+04	13.94	0.28	-1421.87	0.0	-35.92	678.22	0.32	-0.49	-36.89	6146.95
		943.08	-36.89	2.40e-05	-1.70e-04	159.1	-295.22	-743.65	0.32	-0.49	13.94	943.08
28	101	1.731e+04	67.89	0.21	-548.19	0.0	75.02	202.09	1.47	-2.47	-166.23	1.139e+04
		-66.40	-166.23	9.33e-05	0.0	159.1	-140.89	-346.10	1.47	-2.47	67.89	-66.40
28	102	1.804e+04	66.74	0.21	-592.26	0.0	84.01	225.16	1.45	-2.41	-163.57	1.124e+04
		-53.45	-163.57	9.20e-05	0.0	159.1	-149.25	-367.10	1.45	-2.41	66.74	-53.45

28	103	1.731e+04	67.89	0.21	-548.19	0.0	75.02	202.09	1.47	-2.47	-166.23	1.139e+04
		-66.40	-166.23	9.33e-05	0.0	159.1	-140.89	-346.10	1.47	-2.47	67.89	-66.40
29	2	-3879.79	201.73	-0.01	-227.54	0.0	-5131.76	740.98	-0.72	9.86	201.73	-2.232e+04
		-2.232e+04	180.58	-2.78e-05	0.0	29.4	-5042.14	513.44	-0.72	9.86	180.58	-3879.79
29	10	1.161e+05	337.61	0.06	-350.25	0.0	-4041.61	414.33	-0.99	16.33	337.61	1.091e+05
		1.091e+05	308.49	-5.89e-05	-1.24e-04	29.4	-3965.34	64.08	-0.99	16.33	308.49	1.161e+05
29	11	1.192e+05	289.58	0.06	-253.71	0.0	-1918.42	99.26	-0.74	13.91	289.58	1.187e+05
		1.178e+05	267.71	-5.74e-05	-1.24e-04	29.4	-1880.17	-154.45	-0.74	13.91	267.71	1.178e+05
29	14	-1.225e+05	63.59	-0.08	-37.05	0.0	-4776.34	845.83	-0.32	3.19	63.59	-1.469e+05
		-1.469e+05	54.04	-4.32e-06	1.24e-04	29.4	-4700.07	808.78	-0.32	3.19	54.04	-1.225e+05
29	16	-1.215e+05	16.70	-0.08	25.59	0.0	-3375.93	641.67	-0.14	0.88	16.70	-1.407e+05
		-1.407e+05	12.57	5.77e-06	1.24e-04	29.4	-3324.33	667.26	-0.14	0.88	12.57	-1.215e+05
29	30	-3321.24	-4901.72	-7.68e-03	-111.68	0.0	-2590.94	367.05	-61.75	82.55	-4901.72	-1.247e+04
		-1.247e+04	-6644.84	0.06	0.0	29.4	-2546.95	255.36	-61.75	82.55	-6644.84	-3321.24
29	31	-199.17	6925.22	-5.96e-03	-111.68	0.0	-2602.09	358.34	60.87	-67.77	5207.84	-9095.38
		-9095.38	5207.84	-0.06	0.0	29.4	-2558.10	246.66	60.87	-67.77	6925.22	-199.17
29	50	-6914.40	-1412.56	-9.75e-03	-111.68	0.0	-2604.20	377.01	-18.73	27.87	-1412.56	-1.636e+04
		-1.636e+04	-1941.63	0.02	0.0	29.4	-2560.21	265.33	-18.73	27.87	-1941.63	-6914.40
29	53	3384.24	-954.36	-3.88e-03	-111.68	0.0	-2583.58	348.41	-17.70	40.23	-954.36	-5219.49
		-5219.49	-1452.42	0.02	0.0	29.4	-2539.59	236.73	-17.70	40.23	-1452.42	3384.24
29	55	3393.99	1834.59	-3.89e-03	-111.68	0.0	-2588.88	348.37	16.60	-20.91	1368.58	-5208.86
		-5208.86	1368.58	-0.02	0.0	29.4	-2544.90	236.69	16.60	-20.91	1834.59	3393.99
29	56	-6904.65	1732.80	-9.76e-03	-111.68	0.0	-2609.45	376.98	16.83	-25.45	1260.48	-1.635e+04
		-1.635e+04	1260.48	-0.02	0.0	29.4	-2565.46	265.29	16.83	-25.45	1732.80	-6904.65
29	62	-2692.03	-2284.58	-7.34e-03	-111.68	0.0	-2594.22	365.29	-29.01	50.08	-2284.58	-1.179e+04
		-1.179e+04	-3081.94	0.03	0.0	29.4	-2550.23	253.61	-29.01	50.08	-3081.94	-2692.03
29	63	-828.38	3362.32	-6.30e-03	-111.68	0.0	-2598.80	360.10	28.14	-35.29	2590.70	-9776.13
		-9776.13	2590.70	-0.03	0.0	29.4	-2554.82	248.41	28.14	-35.29	3362.32	-828.38
29	85	1316.99	-377.92	-5.06e-03	-111.68	0.0	-2589.10	354.15	-8.50	24.42	-377.92	-7455.56
		-7455.56	-610.02	8.86e-03	0.0	29.4	-2545.11	242.47	-8.50	24.42	-610.02	1316.99
29	86	-4842.20	-444.86	-8.57e-03	-111.68	0.0	-2601.40	371.26	-8.36	21.61	-444.86	-1.412e+04
		-1.412e+04	-673.07	8.83e-03	0.0	29.4	-2557.41	259.58	-8.36	21.61	-673.07	-4842.20
29	87	1321.79	953.45	-5.07e-03	-111.68	0.0	-2591.63	354.13	7.49	-6.83	750.98	-7450.35
		-7450.35	750.98	-8.87e-03	0.0	29.4	-2547.64	242.45	7.49	-6.83	953.45	1321.79
29	88	-4837.40	890.40	-8.58e-03	-111.68	0.0	-2603.93	371.24	7.63	-9.64	890.40	-4837.40
		-1.411e+04	684.04	-8.90e-03	0.0	29.4	-2559.94	259.55	7.63	-9.64	890.40	-4837.40
29	90	-2633.50	154.57	-9.42e-03	-156.87	0.0	-3560.22	510.56	-0.52	7.53	154.57	-1.534e+04
		-1.534e+04	139.27	-2.31e-05	0.0	29.4	-3498.44	353.69	-0.52	7.53	139.27	-2633.50
29	93	7.779e+04	244.40	0.04	-216.08	0.0	-2351.60	218.86	-0.66	11.77	244.40	7.453e+04
		7.453e+04	225.01	-4.65e-05	-8.28e-05	29.4	-2307.61	2.78	-0.66	11.77	225.01	7.779e+04
29	94	7.735e+04	245.15	0.04	-238.67	0.0	-2833.46	292.79	-0.70	11.84	245.15	7.225e+04
		7.225e+04	224.55	-4.40e-05	-8.28e-05	29.4	-2780.57	54.12	-0.70	11.84	224.55	7.735e+04
29	96	-8.175e+04	62.48	-0.05	-29.88	0.0	-3323.28	580.46	-0.26	3.08	62.48	-9.838e+04
		-9.838e+04	54.92	-6.98e-06	8.28e-05	29.4	-3270.39	550.59	-0.26	3.08	54.92	-8.175e+04
29	101	-1760.21	153.06	-6.82e-03	-111.68	0.0	-2596.51	362.69	-0.44	7.39	153.06	-1.078e+04
		-1.078e+04	140.19	-2.76e-05	0.0	29.4	-2552.53	251.01	-0.44	7.39	140.19	-1760.21
29	102	-1934.86	153.36	-7.34e-03	-120.72	0.0	-2789.25	392.27	-0.45	7.42	153.36	-1.170e+04
		-1.170e+04	140.01	-2.67e-05	0.0	29.4	-2741.71	271.55	-0.45	7.42	140.01	-1934.86
29	103	-1760.21	153.06	-6.82e-03	-111.68	0.0	-2596.51	362.69	-0.44	7.39	153.06	-1.078e+04
		-1.078e+04	140.19	-2.76e-05	0.0	29.4	-2552.53	251.01	-0.44	7.39	140.19	-1760.21
31	2	1.287e+04	584.00	-0.03	-580.30	0.0	-4587.82	647.15	-1.34	-14.81	584.00	-1.390e+04
		-1.390e+04	483.43	-3.63e-03	0.0	75.0	-4816.38	66.85	-1.34	-14.81	483.43	1.287e+04
31	10	-1.598e+04	902.59	0.54	-94.49	0.0	-4317.67	-602.95	-2.00	-23.50	902.59	-1.598e+04
		-6.475e+04	752.41	-5.66e-03	2.29e-04	75.0	-4512.19	-697.44	-2.00	-23.50	752.41	-6.475e+04
31	11	-1.009e+04	737.37	0.55	151.71	0.0	-2425.67	-876.82	-1.60	-19.53	737.37	-1.009e+04
		-7.016e+04	617.48	-4.66e-03	2.29e-04	75.0	-2523.21	-725.11	-1.60	-19.53	617.48	-7.016e+04
31	14	8.673e+04	218.53	-0.59	-893.24	0.0	-3575.08	1705.53	-0.53	-5.25	218.53	-7689.66
		-7689.66	178.49	-1.33e-03	-2.29e-04	75.0	-3769.60	812.29	-0.53	-5.25	178.49	8.673e+04
31	15	8.131e+04	53.31	-0.58	-647.04	0.0	-1683.08	1431.66	-0.13	-1.28	53.31	-1795.22
		-1795.22	43.56	-3.24e-04	-2.29e-04	75.0	-1780.63	784.62	-0.13	-1.28	43.56	8.131e+04
31	38	7282.48	-6842.73	-0.02	-284.83	0.0	-2317.09	330.29	-28.86	-86.16	-6842.73	-6808.86
		-6808.86	-8667.20	-0.09	0.0	75.0	-2429.27	45.46	-28.86	-86.16	-8667.20	7282.48
31	39	5490.34	9343.71	-3.75e-03	-284.83	0.0	-2343.18	306.97	27.07	64.98	7653.56	-6850.97
		-6850.97	7653.56	0.08	0.0	75.0	-2455.36	22.15	27.07	64.98	9343.71	5490.34
31	50	9402.64	-1753.15	-0.04	-284.83	0.0	-2313.28	357.84	-4.98	-37.66	-1753.15	-6753.97
		-6753.97	-2070.50	-0.03	0.0	75.0	-2425.46	73.02	-4.98	-37.66	-2070.50	9402.64
31	51	3370.18	2747.01	0.02	-284.83	0.0	-2346.99	279.42	3.19	16.48	2563.98	-6905.87
		-6905.87	2563.98	0.03	0.0	75.0	-2459.17	-5.41	3.19	16.48	2747.01	3370.18
31	53	3364.53	-1744.08	0.02	-284.83	0.0	-2341.69	279.35	-10.25	-36.91	-1744.08	-6906.95
		-6906.95	-2315.51	-0.03	0.0	75.0	-2453.87	-5.47	-10.25	-36.91	-2315.51	3364.53
31	56	9408.28	2992.02	-0.04	-284.83	0.0	-2318.58	357.91	8.46	15.73	2554.91	-6752.89
		-6752.89	2554.91	0.02	0.0	75.0	-2430.76	73.08	8.46	15.73	2992.02	9408.28
31	70	6923.17	-2976.37	-0.02	-284.83	0.0	-2323.38	325.61	-15.39	-53.57	-2976.37	-6817.11
		-6817.11	-3875.62	-0.04	0.0	75.0	-2435.56	40.79	-15.39	-53.57	-3875.62	6923.17
31	71	5849.65	4552.13	-6.87e-03	-284.83	0.0	-2336.89	311.65	13.60	32.39	3787.20	-6842.73
		-6842.73	3787.20	0.04	0.0	75.0	-2449.08	26.83	13.60	32.39	4552.13	5849.65
31	85	4579.39	-593.72	6.33e-03	-284.83	0.0	-2337.36	295.14	-5.84	-25.73	-593.72	-6876.07

		-6876.07	-896.55	-0.02	0.0	75.0	-2449.54	10.32	-5.84	-25.73	-896.55	4579.39
31	86	8190.49	-621.98	-0.03	-284.83	0.0	-2320.38	342.08	-4.75	-21.61	-621.98	-6784.34
		-6784.34	-950.42	-0.01	0.0	75.0	-2432.57	57.26	-4.75	-21.61	-950.42	8190.49
31	87	4582.33	1626.93	6.33e-03	-284.83	0.0	-2339.88	295.18	2.96	0.43	1432.81	-6875.50
		-6875.50	1432.81	9.22e-03	0.0	75.0	-2452.07	10.35	2.96	0.43	1626.93	4582.33
31	88	8193.43	1573.05	-0.03	-284.83	0.0	-2322.91	342.12	4.05	4.55	1404.55	-6783.77
		-6783.77	1404.55	9.95e-03	0.0	75.0	-2435.09	57.29	4.05	4.55	1573.05	8193.43
31	90	8893.70	436.67	-0.02	-400.07	0.0	-3185.39	446.44	-0.99	-11.16	436.67	-9586.80
		-9586.80	362.24	-2.72e-03	0.0	75.0	-3342.96	46.37	-0.99	-11.16	362.24	8893.70
31	93	-9593.78	633.43	0.36	-18.58	0.0	-2577.66	-450.86	-1.39	-16.67	633.43	-9593.78
		-4.410e+04	529.56	-3.99e-03	1.53e-04	75.0	-2689.84	-469.44	-1.38	-16.67	529.56	-4.410e+04
31	94	-1.097e+04	649.06	0.36	-76.20	0.0	-3005.29	-386.95	-1.43	-16.96	649.06	-1.097e+04
		-4.285e+04	541.55	-4.08e-03	1.53e-04	75.0	-3140.17	-463.15	-1.43	-16.96	541.55	-4.285e+04
31	95	5.688e+04	177.40	-0.39	-551.07	0.0	-2082.61	1088.12	-0.41	-4.51	177.40	-4066.06
		-4066.06	146.95	-1.10e-03	-1.53e-04	75.0	-2194.79	537.05	-0.41	-4.51	146.95	5.688e+04
31	96	5.813e+04	193.03	-0.39	-608.70	0.0	-2510.23	1152.03	-0.45	-4.79	193.03	-5444.49
		-5444.49	158.94	-1.19e-03	-1.53e-04	75.0	-2645.11	543.33	-0.45	-4.79	158.94	5.813e+04
31	101	6386.41	405.42	-0.01	-284.83	0.0	-2330.13	318.63	-0.90	-10.59	405.42	-6829.92
		-6829.92	338.25	-2.55e-03	0.0	75.0	-2442.32	33.81	-0.90	-10.59	338.25	6386.41
31	102	6887.87	411.67	-0.01	-307.87	0.0	-2501.18	344.19	-0.91	-10.70	411.67	-7381.29
		-7381.29	343.05	-2.58e-03	0.0	75.0	-2622.45	36.32	-0.91	-10.70	343.05	6887.87
31	103	6386.41	405.42	-0.01	-284.83	0.0	-2330.13	318.63	-0.90	-10.59	405.42	-6829.92
		-6829.92	338.25	-2.55e-03	0.0	75.0	-2442.32	33.81	-0.90	-10.59	338.25	6386.41
32	2	-1.390e+04	606.43	-7.03e-03	-129.45	0.0	-4536.88	776.35	-1.34	-14.84	606.43	-2.581e+04
		-2.581e+04	584.00	-1.22e-03	0.0	16.7	-4587.85	646.90	-1.34	-14.84	584.00	-1.390e+04
32	10	-6066.64	936.09	0.13	-21.08	0.0	-4274.25	-582.10	-2.00	-23.55	936.09	-6066.64
		-1.598e+04	902.59	-1.91e-03	4.71e-05	16.7	-4317.63	-603.18	-2.00	-23.55	902.59	-1.598e+04
32	11	4867.18	764.11	0.13	33.84	0.0	-2403.86	-910.79	-1.60	-19.57	764.11	4867.18
		-1.009e+04	737.36	-1.56e-03	4.71e-05	16.7	-2425.62	-876.95	-1.60	-19.57	737.36	-1.009e+04
32	14	-7689.66	227.46	-0.14	-199.25	0.0	-3531.79	1904.58	-0.53	-5.27	227.46	-3.789e+04
		-3.789e+04	218.53	-4.52e-04	-4.71e-05	16.7	-3575.18	1705.33	-0.53	-5.27	218.53	-7689.66
32	15	-1795.22	55.48	-0.14	-144.33	0.0	-1661.40	1575.90	-0.13	-1.28	55.48	-2.695e+04
		-2.695e+04	53.31	-1.10e-04	-4.71e-05	16.7	-1683.16	1431.57	-0.13	-1.28	53.31	-1795.22
32	38	-6808.86	-5845.74	-2.72e-03	-63.53	0.0	-2292.17	394.05	-63.59	-85.96	-5845.74	-1.287e+04
		-1.287e+04	-6842.73	-0.01	0.0	16.7	-2317.19	330.51	-63.59	-85.96	-6842.73	-6808.86
32	39	-6850.97	7653.56	-4.20e-03	-63.53	0.0	-2318.09	370.03	61.80	64.74	6686.53	-1.251e+04
		-1.251e+04	6686.53	0.01	0.0	16.7	-2343.11	306.50	61.80	64.74	7653.56	-6850.97
32	50	-6753.97	-1555.23	-9.95e-04	-63.53	0.0	-2288.53	422.51	-12.86	-37.58	-1555.23	-1.329e+04
		-1.329e+04	-1753.15	-5.67e-03	0.0	16.7	-2313.55	358.98	-12.86	-37.58	-1753.15	-6753.97
32	51	-6905.87	2563.98	-5.92e-03	-63.53	0.0	-2321.73	341.56	11.07	16.36	2396.02	-1.209e+04
		-1.209e+04	2396.02	3.95e-03	0.0	16.7	-2346.75	278.03	11.07	16.36	2563.98	-6905.87
32	54	-6754.02	-1494.23	-9.95e-04	-63.53	0.0	-2288.55	422.51	-18.86	-30.17	-1494.23	-1.329e+04
		-1.329e+04	-1789.86	-4.84e-03	0.0	16.7	-2313.57	358.97	-18.86	-30.17	-1789.86	-6754.02
32	56	-6752.89	2554.91	-9.95e-04	-63.53	0.0	-2293.81	422.60	18.92	15.64	2258.56	-1.329e+04
		-1.329e+04	2258.56	3.22e-03	0.0	16.7	-2318.83	359.06	18.92	15.64	2554.91	-6752.89
32	70	-6817.11	-2512.11	-3.02e-03	-63.53	0.0	-2298.42	389.23	-30.86	-53.51	-2512.11	-1.280e+04
		-1.280e+04	-2976.37	-7.10e-03	0.0	16.7	-2323.45	325.69	-30.86	-53.51	-2976.37	-6817.11
32	71	-6842.72	3787.20	-3.90e-03	-63.53	0.0	-2311.84	374.85	29.07	32.28	3352.91	-1.258e+04
		-1.258e+04	3352.91	5.39e-03	0.0	16.7	-2336.86	311.32	29.07	32.28	3787.20	-6842.72
32	86	-6784.34	-480.80	-1.98e-03	-63.53	0.0	-2295.53	406.24	-9.37	-21.61	-480.80	-1.305e+04
		-1.305e+04	-621.98	-2.70e-03	0.0	16.7	-2320.55	342.71	-9.37	-21.61	-621.98	-6784.34
32	87	-6875.50	1432.81	-4.93e-03	-63.53	0.0	-2314.73	357.84	7.58	0.39	1321.60	-1.233e+04
		-1.233e+04	1321.60	9.87e-04	0.0	16.7	-2339.75	294.30	7.58	0.39	1432.81	-6875.50
32	88	-6783.77	1404.55	-1.98e-03	-63.53	0.0	-2298.05	406.29	8.71	4.50	1274.46	-1.305e+04
		-1.305e+04	1274.46	1.05e-03	0.0	16.7	-2323.07	342.76	8.71	4.50	1404.55	-6783.77
32	90	-9586.80	453.27	-4.85e-03	-89.24	0.0	-3150.27	535.51	-0.99	-11.18	453.27	-1.780e+04
		-1.780e+04	436.67	-9.17e-04	0.0	16.7	-3185.41	446.27	-0.99	-11.18	436.67	-9586.80
32	93	-2083.43	656.60	0.09	-4.14	0.0	-2552.62	-446.86	-1.39	-16.71	656.60	-2083.43
		-9593.78	633.43	-1.34e-03	3.14e-05	16.7	-2577.64	-451.00	-1.39	-16.71	633.43	-9593.78
32	94	-4638.12	673.04	0.09	-17.00	0.0	-2975.19	-370.12	-1.43	-16.99	673.04	-4638.12
		-1.097e+04	649.06	-1.37e-03	3.14e-05	16.7	-3005.27	-387.12	-1.43	-16.99	649.06	-1.097e+04
32	95	-4066.06	184.19	-0.09	-122.92	0.0	-2057.64	1210.93	-0.41	-4.52	184.19	-2.330e+04
		-2.330e+04	177.40	-3.72e-04	-3.14e-05	16.7	-2082.66	1088.01	-0.41	-4.52	177.40	-4066.06
32	96	-5444.49	200.63	-0.09	-135.78	0.0	-2480.21	1287.67	-0.45	-4.80	200.63	-2.585e+04
		-2.585e+04	193.03	-4.02e-04	-3.14e-05	16.7	-2510.30	1151.89	-0.45	-4.80	193.03	-5444.49
32	101	-6829.92	420.40	-3.46e-03	-63.53	0.0	-2305.13	382.04	-0.90	-10.61	420.40	-1.269e+04
		-1.269e+04	405.42	-8.56e-04	0.0	16.7	-2330.15	318.50	-0.90	-10.61	405.42	-6829.92
32	102	-7381.29	426.97	-3.74e-03	-68.68	0.0	-2474.16	412.73	-0.91	-10.73	426.97	-1.371e+04
		-1.371e+04	411.67	-8.69e-04	0.0	16.7	-2501.20	344.06	-0.91	-10.73	411.67	-7381.29
32	103	-6829.92	420.40	-3.46e-03	-63.53	0.0	-2305.13	382.04	-0.90	-10.61	420.40	-1.269e+04
		-1.269e+04	405.42	-8.56e-04	0.0	16.7	-2330.15	318.50	-0.90	-10.61	405.42	-6829.92
33	2	3.308e+04	-285.64	0.16	-386.87	0.0	-7900.70	-473.42	-3.26	-46.35	-285.64	3.308e+04
		-259.80	-448.42	5.56e-04	0.0	50.0	-8053.07	-860.29	-3.26	-46.35	-448.42	-259.80
33	10	1905.43	-448.91	-0.28	-63.00	0.0	-7218.02	504.13	-5.12	-76.07	-448.91	-2.173e+04
		-2.173e+04	-704.70	8.73e-04	0.0	50.0	-7347.70	441.14	-5.12	-76.07	-704.70	1905.43
33	11	2073.37	-370.76	-0.34	101.14	0.0	-3924.63	704.73	-4.22	-64.51	-370.76	-3.569e+04
		-3.569e+04	-581.98	7.21e-04	0.0	50.0	-3989.66	805.87	-4.22	-64.51	-581.98	2073.37

33	14	7.815e+04	-103.53	0.55	-595.50	0.0	-6319.99	-1310.34	-1.18	-15.29	-103.53	7.815e+04
		-2258.79	-162.53	2.01e-04	0.0	50.0	-6449.67	-1905.84	-1.18	-15.29	-162.53	-2258.79
33	15	6.418e+04	-25.38	0.48	-431.36	0.0	-3026.61	-1109.73	-0.29	-3.73	-25.38	6.418e+04
		-2090.86	-39.81	4.93e-05	0.0	50.0	-3091.64	-1541.10	-0.29	-3.73	-39.81	-2090.86
33	38	1.687e+04	2.685e+04	0.08	-189.89	0.0	-3946.49	-244.13	150.08	-1114.25	1.937e+04	1.687e+04
		-83.21	1.937e+04	-0.03	0.0	50.0	-4021.28	-434.02	150.08	-1114.25	2.685e+04	-83.21
33	39	1.581e+04	-1.977e+04	0.07	-189.89	0.0	-3977.80	-221.33	-154.68	1045.43	-1.977e+04	1.581e+04
		-5.75	-2.749e+04	0.03	0.0	50.0	-4052.58	-411.22	-154.68	1045.43	-2.749e+04	-5.75
33	50	1.813e+04	7379.76	0.10	-189.89	0.0	-3936.73	-271.00	39.48	-334.95	5410.10	1.813e+04
		-170.08	5410.10	-9.09e-03	0.0	50.0	-4011.52	-460.89	39.48	-334.95	7379.76	-170.08
33	51	1.455e+04	-5814.34	0.06	-189.89	0.0	-3987.56	-194.46	-44.09	266.14	-5814.34	1.455e+04
		81.12	-8014.29	9.88e-03	0.0	50.0	-4062.34	-384.35	-44.09	266.14	-8014.29	81.12
33	54	1.813e+04	7950.72	0.10	-189.89	0.0	-3936.75	-271.00	44.51	-354.61	5731.36	1.813e+04
		-170.09	5731.36	-9.80e-03	0.0	50.0	-4011.53	-460.89	44.51	-354.61	7950.72	-170.09
33	56	1.813e+04	-5998.41	0.10	-189.89	0.0	-3942.04	-271.05	-46.70	294.04	-5998.41	1.813e+04
		-169.39	-8327.64	0.01	0.0	50.0	-4016.83	-460.94	-46.70	294.04	-8327.64	-169.39
33	70	1.666e+04	1.239e+04	0.08	-189.89	0.0	-3953.81	-239.55	69.35	-538.81	8935.67	1.666e+04
		-67.58	8935.67	-0.02	0.0	50.0	-4028.59	-429.44	69.35	-538.81	1.239e+04	-67.58
33	71	1.602e+04	-9339.90	0.08	-189.89	0.0	-3970.48	-225.91	-73.96	470.00	-9339.90	1.602e+04
		-21.38	-1.302e+04	0.02	0.0	50.0	-4045.27	-415.80	-73.96	470.00	-1.302e+04	-21.38
33	86	1.741e+04	3566.12	0.09	-189.89	0.0	-3947.26	-255.62	19.87	-183.41	2577.54	1.741e+04
		-119.81	2577.54	-4.39e-03	0.0	50.0	-4022.05	-445.50	19.87	-183.41	3566.12	-119.81
33	87	1.527e+04	-2981.78	0.07	-189.89	0.0	-3977.03	-209.84	-24.47	114.59	-2981.78	1.527e+04
		30.85	-4200.65	5.18e-03	0.0	50.0	-4051.81	-399.73	-24.47	114.59	-4200.65	30.85
33	88	1.741e+04	-2897.55	0.09	-189.89	0.0	-3949.82	-255.65	-22.99	119.69	-2897.55	1.741e+04
		-119.47	-4042.44	4.98e-03	0.0	50.0	-4024.60	-445.53	-22.99	119.69	-4042.44	-119.47
33	90	2.284e+04	-214.68	0.11	-266.72	0.0	-5471.07	-326.49	-2.45	-35.30	-214.68	2.284e+04
		-155.31	-337.00	4.18e-04	0.0	50.0	-5576.12	-593.21	-2.45	-35.30	-337.00	-155.31
33	93	1343.59	-317.24	-0.20	-12.39	0.0	-4261.49	372.09	-3.61	-54.67	-317.24	-1.695e+04
		-1.695e+04	-497.99	6.17e-04	0.0	50.0	-4336.27	359.71	-3.61	-54.67	-497.99	1343.59
33	94	1288.18	-323.52	-0.18	-50.80	0.0	-5015.95	325.21	-3.69	-55.11	-323.52	-1.370e+04
		-1.370e+04	-507.86	6.29e-04	0.0	50.0	-5105.87	274.41	-3.69	-55.11	-507.86	1288.18
33	95	4.963e+04	-86.99	0.35	-367.39	0.0	-3662.80	-837.55	-0.99	-14.15	-86.99	4.963e+04
		-1432.55	-136.54	1.69e-04	0.0	50.0	-3737.59	-1204.94	-0.99	-14.15	-136.54	-1432.55
33	96	5.288e+04	-93.27	0.37	-405.80	0.0	-4417.27	-884.43	-1.06	-14.59	-93.27	5.288e+04
		-1487.97	-146.41	1.81e-04	0.0	50.0	-4507.18	-1290.24	-1.06	-14.59	-146.41	-1487.97
33	101	1.634e+04	-202.12	0.08	-189.89	0.0	-3962.14	-232.73	-2.30	-34.41	-202.12	1.634e+04
		-44.48	-317.26	3.93e-04	0.0	50.0	-4036.93	-422.62	-2.30	-34.41	-317.26	-44.48
33	102	1.764e+04	-204.63	0.08	-205.25	0.0	-4263.93	-251.48	-2.33	-34.58	-204.63	1.764e+04
		-66.65	-321.21	3.98e-04	0.0	50.0	-4344.77	-456.74	-2.33	-34.58	-321.21	-66.65
33	103	1.634e+04	-202.12	0.08	-189.89	0.0	-3962.14	-232.73	-2.30	-34.41	-202.12	1.634e+04
		-44.48	-317.26	3.93e-04	0.0	50.0	-4036.93	-422.62	-2.30	-34.41	-317.26	-44.48
34	2	4.756e+04	-41.49	0.15	-580.30	0.0	-7672.14	106.97	-3.26	-46.35	-41.49	4.682e+04
		3.308e+04	-285.64	2.01e-03	0.0	75.0	-7900.71	-473.33	-3.26	-46.35	-285.64	3.308e+04
34	10	-2.173e+04	-65.24	-0.36	-94.49	0.0	-7023.50	598.71	-5.12	-76.08	-65.24	-6.309e+04
		-6.309e+04	-448.91	3.15e-03	1.40e-04	75.0	-7218.01	504.21	-5.12	-76.08	-448.91	-2.173e+04
34	11	-3.569e+04	-53.91	-0.43	151.71	0.0	-3827.08	553.07	-4.22	-64.51	-53.91	-8.286e+04
		-8.286e+04	-370.76	2.61e-03	1.40e-04	75.0	-3924.63	704.78	-4.22	-64.51	-370.76	-3.569e+04
34	14	1.429e+05	-15.05	0.62	-893.24	0.0	-6125.49	-417.03	-1.18	-15.29	-15.05	1.429e+05
		7.815e+04	-103.53	7.28e-04	-1.40e-04	75.0	-6320.01	-1310.27	-1.18	-15.29	-103.53	7.815e+04
34	15	1.231e+05	-3.73	0.56	-647.04	0.0	-2929.07	-462.66	-0.29	-3.73	-3.73	1.231e+05
		6.418e+04	-25.38	1.78e-04	-1.40e-04	75.0	-3026.62	-1109.70	-0.29	-3.73	-25.38	6.418e+04
34	38	2.460e+04	1.937e+04	0.08	-284.83	0.0	-3834.45	42.50	147.57	-1114.03	8392.35	2.437e+04
		1.687e+04	8392.35	-0.13	0.0	75.0	-3946.63	-242.32	147.57	-1114.03	1.937e+04	1.687e+04
34	39	2.235e+04	-8451.15	0.07	-284.83	0.0	-3865.48	61.77	-152.17	1045.21	-8451.15	2.185e+04
		1.581e+04	-1.977e+04	0.13	0.0	75.0	-3977.66	-223.05	-152.17	1045.21	-1.977e+04	1.581e+04
34	50	2.738e+04	5410.11	0.10	-284.83	0.0	-3824.97	19.78	38.85	-334.89	2546.37	2.733e+04
		1.813e+04	2546.37	-0.04	0.0	75.0	-3937.15	-265.04	38.85	-334.89	5410.11	1.813e+04
34	51	1.983e+04	-2605.17	0.05	-284.83	0.0	-3874.95	84.50	-43.45	266.08	-2605.17	1.889e+04
		1.455e+04	-5814.34	0.04	0.0	75.0	-3987.14	-200.33	-43.45	266.08	-5814.34	1.455e+04
34	53	1.982e+04	5594.18	0.05	-284.83	0.0	-3869.65	84.54	41.42	-362.79	2479.14	1.888e+04
		1.454e+04	2479.14	-0.04	0.0	75.0	-3981.83	-200.28	41.42	-362.79	5594.18	1.454e+04
34	56	2.739e+04	-2537.94	0.10	-284.83	0.0	-3830.27	19.73	-46.03	293.97	-2537.94	2.734e+04
		1.813e+04	-5998.42	0.04	0.0	75.0	-3942.46	-265.09	-46.03	293.97	-5998.42	1.813e+04
34	70	2.414e+04	8935.67	0.08	-284.83	0.0	-3841.71	46.37	68.12	-538.71	3897.47	2.386e+04
		1.666e+04	3897.47	-0.06	0.0	75.0	-3953.89	-238.45	68.12	-538.71	8935.67	1.666e+04
34	71	2.280e+04	-3956.28	0.07	-284.83	0.0	-3858.22	57.91	-72.72	469.89	-3956.28	2.563e+04
		1.602e+04	-9339.91	0.06	0.0	75.0	-3970.40	-226.92	-72.72	469.89	-9339.91	1.602e+04
34	85	2.126e+04	2493.32	0.06	-284.83	0.0	-3862.04	71.52	18.06	-188.48	1137.61	2.058e+04
		1.527e+04	1137.61	-0.02	0.0	75.0	-3974.23	-213.31	18.06	-188.48	2493.32	1.527e+04
34	86	2.577e+04	2577.54	0.09	-284.83	0.0	-3835.33	32.79	19.46	-183.38	1157.89	2.563e+04
		1.741e+04	1157.89	-0.02	0.0	75.0	-3947.52	-252.04	19.46	-183.38	2577.54	1.741e+04
34	87	2.126e+04	-1216.69	0.06	-284.83	0.0	-3864.59	71.49	-24.06	114.56	-1216.69	2.059e+04
		1.527e+04	-2981.78	0.02	0.0	75.0	-3976.78	-213.33	-24.06	114.56	-2981.78	1.527e+04
34	88	2.578e+04	-1196.42	0.09	-284.83	0.0	-3837.88	32.76	-22.67	119.66	-1196.42	2.564e+04
		1.741e+04	-2897.55	0.02	0.0	75.0	-3950.07	-252.06	-22.67	119.66	-2897.55	1.741e+04
34	90	3.283e+04	-31.19	0.10	-400.07	0.0	-5313.50	73.64	-2.45	-35.30	-31.19	3.232e+04

		2.284e+04	-214.68	1.51e-03	0.0	75.0	-5471.07	-326.43	-2.45	-35.30	-214.68	2.284e+04
34	93	-1.695e+04	-46.13	-0.25	-18.58	0.0	-4149.30	390.72	-3.61	-54.67	-46.13	-4.556e+04
		-4.556e+04	-317.24	2.23e-03	9.31e-05	75.0	-4261.48	372.14	-3.61	-54.67	-317.24	-1.695e+04
34	94	-1.370e+04	-47.03	-0.24	-76.20	0.0	-4881.07	401.47	-3.69	-55.11	-47.03	-4.095e+04
		-4.095e+04	-323.52	2.27e-03	9.31e-05	75.0	-5015.95	325.27	-3.69	-55.11	-323.52	-1.370e+04
34	95	9.178e+04	-12.67	0.40	-551.07	0.0	-3550.63	-286.44	-0.99	-14.15	-12.67	9.178e+04
		4.963e+04	-86.99	6.11e-04	-9.31e-05	75.0	-3662.81	-837.51	-0.99	-14.15	-86.99	4.963e+04
34	96	9.638e+04	-13.57	0.42	-608.70	0.0	-4282.39	-275.69	-1.06	-14.59	-13.57	9.638e+04
		5.288e+04	-93.27	6.55e-04	-9.31e-05	75.0	-4417.28	-884.38	-1.06	-14.59	-93.27	5.288e+04
34	101	2.347e+04	-29.40	0.08	-284.83	0.0	-3849.96	52.14	-2.30	-34.41	-29.40	2.311e+04
		1.634e+04	-202.12	1.42e-03	0.0	75.0	-3962.15	-232.69	-2.30	-34.41	-202.12	1.634e+04
34	102	2.534e+04	-29.76	0.08	-307.87	0.0	-4142.67	56.44	-2.33	-34.59	-29.76	2.495e+04
		1.764e+04	-204.63	1.44e-03	0.0	75.0	-4263.93	-251.44	-2.33	-34.59	-204.63	1.764e+04
34	103	2.347e+04	-29.40	0.08	-284.83	0.0	-3849.96	52.14	-2.30	-34.41	-29.40	2.311e+04
		1.634e+04	-202.12	1.42e-03	0.0	75.0	-3962.15	-232.69	-2.30	-34.41	-202.12	1.634e+04
35	2	4.682e+04	202.67	0.03	-580.31	0.0	-7443.59	687.14	-3.26	-46.35	202.67	1.705e+04
		1.705e+04	-41.49	2.23e-03	0.0	75.0	-7672.15	106.83	-3.26	-46.35	-41.49	4.682e+04
35	10	-6.309e+04	318.45	-0.21	-94.50	0.0	-6828.99	693.08	-5.12	-76.08	318.45	-1.115e+05
		-1.115e+05	-65.24	3.51e-03	1.62e-04	75.0	-7023.51	598.58	-5.12	-76.08	-65.24	-6.309e+04
35	11	-8.286e+04	262.94	-0.22	151.71	0.0	-3729.54	401.30	-4.22	-64.51	262.94	-1.186e+05
		-1.186e+05	-53.92	2.90e-03	1.62e-04	75.0	-3827.09	553.01	-4.22	-64.51	-53.92	-8.286e+04
35	14	1.502e+05	73.42	0.26	-893.25	0.0	-5930.97	476.12	-1.18	-15.29	73.42	1.407e+05
		1.407e+05	-15.05	8.10e-04	-1.62e-04	75.0	-6125.48	-417.13	-1.18	-15.29	-15.05	1.429e+05
35	15	1.355e+05	17.91	0.25	-647.05	0.0	-2831.52	184.33	-0.29	-3.73	17.91	1.356e+05
		1.231e+05	-3.73	1.99e-04	-1.62e-04	75.0	-2929.06	-462.71	-0.29	-3.73	-3.73	1.231e+05
35	30	2.437e+04	8506.42	0.02	-284.83	0.0	-3722.48	331.98	120.15	-1048.69	-1153.42	1.015e+04
		1.015e+04	-1153.42	-0.17	0.0	75.0	-3834.66	47.15	120.15	-1048.69	8506.42	2.437e+04
35	31	2.185e+04	1440.06	0.01	-284.83	0.0	-3753.09	341.82	-124.75	979.87	1440.06	6897.41
		6897.41	-8565.22	0.17	0.0	75.0	-3865.27	57.00	-124.75	979.87	-8565.22	2.185e+04
35	50	2.733e+04	2546.36	0.02	-284.83	0.0	-3713.60	320.31	35.14	-334.94	-313.63	1.399e+04
		1.399e+04	-313.63	-0.05	0.0	75.0	-3825.78	35.49	35.14	-334.94	2546.36	2.733e+04
35	51	1.889e+04	600.26	-3.66e-03	-284.83	0.0	-3761.96	353.49	-39.74	266.12	600.26	3060.08
		3060.08	-2605.16	0.05	0.0	75.0	-3874.14	68.66	-39.74	266.12	-2605.16	1.889e+04
35	53	1.888e+04	2479.13	-3.68e-03	-284.83	0.0	-3756.67	353.52	37.39	-362.84	-439.57	3051.32
		3051.32	-439.57	-0.05	0.0	75.0	-3868.85	68.69	37.39	-362.84	2479.13	1.888e+04
35	56	2.734e+04	726.21	0.02	-284.83	0.0	-3718.90	320.28	-42.00	294.02	726.21	1.400e+04
		1.400e+04	-2537.94	0.05	0.0	75.0	-3831.08	35.45	-42.00	294.02	-2537.94	2.734e+04
35	62	2.386e+04	3950.13	0.02	-284.83	0.0	-3729.71	333.95	55.01	-508.72	-625.78	9497.16
		9497.16	-625.78	-0.08	0.0	75.0	-3841.89	49.12	55.01	-508.72	3950.13	2.386e+04
35	63	2.236e+04	912.42	0.01	-284.83	0.0	-3745.86	339.85	-59.61	439.90	912.42	7549.43
		7549.43	-4008.93	0.08	0.0	75.0	-3858.04	55.02	-59.61	439.90	-4008.93	2.236e+04
35	85	2.058e+04	1137.61	7.32e-03	-284.83	0.0	-3749.39	346.84	16.17	-188.50	-161.01	5251.12
		5251.12	-161.01	-0.02	0.0	75.0	-3861.57	62.01	16.17	-188.50	1137.61	2.058e+04
35	86	2.563e+04	1157.88	0.02	-284.83	0.0	-3723.64	326.98	17.12	-183.40	-252.74	1.179e+04
		1.179e+04	-252.74	-0.02	0.0	75.0	-3835.82	42.15	17.12	-183.40	1157.88	2.563e+04
35	87	2.059e+04	539.37	7.35e-03	-284.83	0.0	-3751.93	346.82	-21.72	114.58	539.37	5255.64
		5255.64	-1216.68	0.03	0.0	75.0	-3864.11	61.99	-21.72	114.58	-1216.68	2.059e+04
35	88	2.564e+04	447.64	0.02	-284.83	0.0	-3726.18	326.96	-20.77	119.68	447.64	1.180e+04
		1.180e+04	-1196.41	0.03	0.0	75.0	-3838.36	42.13	-20.77	119.68	-1196.41	2.564e+04
35	90	3.232e+04	152.29	0.02	-400.08	0.0	-5155.93	473.63	-2.45	-35.30	152.29	1.180e+04
		1.180e+04	-31.19	1.68e-03	0.0	75.0	-5313.50	73.55	-2.45	-35.30	-31.19	3.232e+04
35	93	-4.556e+04	225.00	-0.14	-18.58	0.0	-4037.12	409.22	-3.62	-54.67	225.00	-7.555e+04
		-7.555e+04	-46.13	2.48e-03	7.74e-05	75.0	-4149.30	390.64	-3.61	-54.67	-46.13	-4.556e+04
35	94	-4.095e+04	229.48	-0.14	-76.20	0.0	-4746.20	477.58	-3.69	-55.11	229.48	-7.392e+04
		-7.392e+04	-47.03	2.53e-03	7.74e-05	75.0	-4881.07	401.38	-3.69	-55.11	-47.03	-4.095e+04
35	95	9.736e+04	61.64	0.17	-551.08	0.0	-3438.44	264.58	-0.99	-14.15	61.64	9.260e+04
		9.178e+04	-12.67	6.80e-04	-7.74e-05	75.0	-3550.62	-286.50	-0.99	-14.15	-12.67	9.178e+04
35	96	1.011e+05	66.13	0.17	-608.70	0.0	-4147.52	332.94	-1.06	-14.59	66.13	9.424e+04
		9.424e+04	-13.57	7.29e-04	-7.74e-05	75.0	-4282.39	-275.76	-1.06	-14.59	-13.57	9.424e+04
35	101	2.311e+04	143.32	0.01	-284.83	0.0	-3737.78	336.90	-2.30	-34.41	143.32	8523.30
		8523.30	-29.40	1.58e-03	0.0	75.0	-3849.96	52.07	-2.30	-34.41	-29.40	2.311e+04
35	102	2.495e+04	145.11	0.01	-307.88	0.0	-4021.41	364.25	-2.33	-34.59	145.11	9178.18
		9178.18	-29.76	1.60e-03	0.0	75.0	-4142.67	56.37	-2.33	-34.59	-29.76	2.495e+04
35	103	2.311e+04	143.32	0.01	-284.83	0.0	-3737.78	336.90	-2.30	-34.41	143.32	8523.30
		8523.30	-29.40	1.58e-03	0.0	75.0	-3849.96	52.07	-2.30	-34.41	-29.40	2.311e+04
36	5	1.063e+04	4.48	0.02	-607.49	0.0	38.08	303.74	0.12	-2.45	-12.95	0.0
		0.0	-12.95	-1.94e-04	0.0	140.0	38.08	-303.74	0.12	-2.45	4.48	0.0
36	9	2178.54	6.62	0.06	-124.49	0.0	41.35	62.24	0.18	-3.62	-19.01	0.0
		0.0	-19.01	-2.91e-04	0.0	140.0	41.35	-62.24	0.18	-3.62	6.62	0.0
36	10	2178.54	6.27	0.06	-124.49	0.0	45.87	62.24	0.18	-3.54	-18.79	0.0
		0.0	-18.79	-2.80e-04	0.0	140.0	45.87	-62.24	0.18	-3.54	6.27	0.0
36	15	1675.80	0.66	-0.04	-95.76	0.0	19.02	47.88	-8.41e-03	0.19	0.66	0.0
		0.0	-0.51	2.26e-05	0.0	140.0	19.02	-47.88	-8.41e-03	0.19	-0.51	0.0
36	27	1675.80	6774.42	7.87e-03	-95.76	0.0	25.79	47.88	-62.89	486.34	6774.42	0.0
		0.0	-2080.78	0.11	0.0	140.0	25.79	-47.88	-62.89	486.34	-2080.78	0.0
36	29	1675.80	2086.68	8.15e-03	-95.76	0.0	26.71	47.88	63.06	-489.38	-6792.24	0.0
		0.0	-6792.24	-0.11	0.0	140.0	26.71	-47.88	63.06	-489.38	2086.68	0.0

36	33	1675.80	1423.91	8.15e-03	-95.76	0.0	26.72	47.88	73.84	-497.06	-8916.20	0.0
		0.0	-8916.20	-0.11	0.0	140.0	26.72	-47.88	73.84	-497.06	1423.91	0.0
36	36	1675.80	8900.25	7.88e-03	-95.76	0.0	25.78	47.88	-73.69	494.07	8900.25	0.0
		0.0	-1418.60	0.11	0.0	140.0	25.78	-47.88	-73.69	494.07	-1418.60	0.0
36	37	1675.80	1424.08	8.16e-03	-95.76	0.0	26.72	47.88	73.85	-497.06	-8916.60	0.0
		0.0	-8916.60	-0.11	0.0	140.0	26.72	-47.88	73.85	-497.06	1424.08	0.0
36	40	1675.80	8900.65	7.88e-03	-95.76	0.0	25.78	47.88	-73.69	494.08	8900.65	0.0
		0.0	-1418.77	0.11	0.0	140.0	25.78	-47.88	-73.69	494.08	-1418.77	0.0
36	57	1675.80	1194.15	8.08e-03	-95.76	0.0	26.47	47.88	34.71	-237.20	-3687.89	0.0
		0.0	-3687.89	-0.06	0.0	140.0	26.47	-47.88	34.71	-237.20	1194.15	0.0
36	61	1675.80	1194.26	8.08e-03	-95.76	0.0	26.47	47.88	34.71	-237.20	-3688.13	0.0
		0.0	-3688.13	-0.06	0.0	140.0	26.47	-47.88	34.71	-237.20	1194.26	0.0
36	65	1675.80	795.55	8.08e-03	-95.76	0.0	26.47	47.88	41.38	-242.22	-4998.40	0.0
		0.0	-4998.40	-0.06	0.0	140.0	26.47	-47.88	41.38	-242.22	795.55	0.0
36	68	1675.80	4982.45	7.96e-03	-95.76	0.0	26.03	47.88	-41.22	239.23	4982.45	0.0
		0.0	-790.24	0.06	0.0	140.0	26.03	-47.88	-41.22	239.23	-790.24	0.0
36	69	1675.80	795.66	8.08e-03	-95.76	0.0	26.47	47.88	41.38	-242.22	-4998.64	0.0
		0.0	-4998.64	-0.06	0.0	140.0	26.47	-47.88	41.38	-242.22	795.66	0.0
36	72	1675.80	4982.69	7.96e-03	-95.76	0.0	26.03	47.88	-41.23	239.23	4982.69	0.0
		0.0	-790.35	0.06	0.0	140.0	26.03	-47.88	-41.23	239.23	-790.35	0.0
36	91	7310.80	3.44	0.01	-417.76	0.0	27.59	208.88	0.09	-1.86	-9.76	0.0
		0.0	-9.76	-1.48e-04	0.0	140.0	27.59	-208.88	0.09	-1.86	3.44	0.0
36	93	1675.80	4.87	0.04	-95.76	0.0	29.77	47.88	0.13	-2.64	-13.80	0.0
		0.0	-13.80	-2.13e-04	0.0	140.0	29.77	-47.88	0.13	-2.64	4.87	0.0
36	94	1675.80	4.64	0.04	-95.76	0.0	32.78	47.88	0.13	-2.58	-13.65	0.0
		0.0	-13.65	-2.05e-04	0.0	140.0	32.78	-47.88	0.13	-2.58	4.64	0.0
36	95	1675.80	0.44	-0.02	-95.76	0.0	22.72	47.88	0.02	-0.35	-2.15	0.0
		0.0	-2.15	-2.07e-05	0.0	140.0	22.72	-47.88	0.02	-0.35	0.44	0.0
36	101	1675.80	2.66	8.02e-03	-95.76	0.0	26.25	47.88	0.08	-1.49	-7.97	0.0
		0.0	-7.97	-1.17e-04	0.0	140.0	26.25	-47.88	0.08	-1.49	2.66	0.0
36	102	1675.80	2.56	8.38e-03	-95.76	0.0	27.45	47.88	0.07	-1.47	-7.92	0.0
		0.0	-7.92	-1.14e-04	0.0	140.0	27.45	-47.88	0.07	-1.47	2.56	0.0
36	103	1675.80	2.66	8.02e-03	-95.76	0.0	26.25	47.88	0.08	-1.49	-7.97	0.0
		0.0	-7.97	-1.17e-04	0.0	140.0	26.25	-47.88	0.08	-1.49	2.66	0.0
37	9	2.188e+04	393.88	0.08	342.04	0.0	908.19	172.55	6.19	47.51	-538.22	-2.982e+04
		-2.982e+04	-538.22	-2.80e-03	-3.83e-04	150.5	616.21	514.58	6.19	47.51	393.88	2.188e+04
37	10	2.132e+04	384.64	0.08	185.72	0.0	947.54	278.85	6.05	45.04	-525.67	-3.461e+04
		-3.461e+04	-525.67	-2.74e-03	-3.83e-04	150.5	593.99	464.57	6.05	45.04	384.64	2.132e+04
37	14	3.068e+04	18.73	-0.08	-1981.01	0.0	-422.23	1183.90	0.25	-2.22	-19.62	-2.244e+04
		-2.244e+04	-19.62	-1.10e-04	3.83e-04	150.5	-775.77	-797.11	0.26	-2.22	18.73	6658.29
37	29	1.216e+04	1.177e+04	0.01	-518.56	0.0	177.09	448.57	124.67	-1215.46	-7137.35	-1.703e+04
		-1.703e+04	-7137.35	-0.33	0.0	150.5	-27.15	-69.99	124.67	-1215.46	1.177e+04	1.145e+04
37	32	1.210e+04	6690.29	0.01	-518.56	0.0	140.43	442.77	-119.50	1253.83	6690.29	-1.632e+04
		-1.632e+04	-1.144e+04	0.33	0.0	150.5	-63.81	-75.79	-119.50	1253.83	-1.144e+04	1.129e+04
37	33	1.216e+04	1.140e+04	0.01	-518.56	0.0	177.52	448.65	129.93	-1224.46	-8475.76	-1.704e+04
		-1.704e+04	-8475.76	-0.33	0.0	150.5	-26.72	-69.91	129.93	-1224.46	1.140e+04	1.145e+04
37	36	1.210e+04	8028.70	0.01	-518.56	0.0	140.00	442.70	-124.76	1262.83	8028.70	-1.631e+04
		-1.631e+04	-1.107e+04	0.33	0.0	150.5	-64.24	-75.86	-124.76	1262.83	-1.107e+04	1.129e+04
37	61	1.214e+04	5581.31	0.01	-518.56	0.0	167.31	447.04	59.49	-558.14	-3481.62	-1.684e+04
		-1.684e+04	-3481.62	-0.15	0.0	150.5	-36.93	-71.52	59.49	-558.14	5581.31	1.141e+04
37	64	1.212e+04	3034.55	0.01	-518.56	0.0	150.21	444.30	-54.32	596.51	3034.55	-1.651e+04
		-1.651e+04	-5250.69	0.15	0.0	150.5	-54.03	-74.26	-54.32	596.51	-5250.69	1.133e+04
37	65	1.214e+04	5423.67	0.01	-518.56	0.0	167.51	447.08	61.96	-562.12	-4154.51	-1.685e+04
		-1.685e+04	-4154.51	-0.16	0.0	150.5	-36.73	-71.48	61.96	-562.12	5423.67	1.141e+04
37	68	1.212e+04	3707.45	0.01	-518.56	0.0	150.01	444.27	-56.79	600.48	3707.45	-1.650e+04
		-1.650e+04	-5093.05	0.15	0.0	150.5	-54.23	-74.29	-56.79	600.48	-5093.05	1.133e+04
37	93	1.626e+04	287.22	0.05	203.68	0.0	615.35	143.99	4.52	34.94	-392.22	-2.073e+04
		-2.073e+04	-392.22	-2.04e-03	-2.25e-04	150.5	411.11	347.67	4.52	34.94	287.22	1.626e+04
37	94	1.589e+04	281.12	0.05	99.48	0.0	641.58	214.86	4.42	33.29	-383.85	-2.392e+04
		-2.392e+04	-383.85	-2.00e-03	-2.25e-04	150.5	396.30	314.33	4.42	33.29	281.12	1.589e+04
37	96	2.161e+04	37.18	-0.05	-1345.01	0.0	-271.59	818.22	0.56	1.79	-46.48	-1.581e+04
		-1.581e+04	-46.48	-2.45e-04	2.25e-04	150.5	-516.88	-526.79	0.56	1.79	37.18	6112.99
37	101	1.213e+04	165.31	0.01	-518.56	0.0	158.76	445.67	2.58	19.18	-223.53	-1.668e+04
		-1.668e+04	-223.53	-1.16e-03	0.0	150.5	-45.48	-72.89	2.58	19.18	165.31	1.137e+04
37	102	1.219e+04	162.84	0.01	-560.24	0.0	169.25	474.02	2.55	18.53	-220.18	-1.795e+04
		-1.795e+04	-220.18	-1.15e-03	0.0	150.5	-51.40	-86.23	2.55	18.53	162.84	1.122e+04
37	103	1.213e+04	165.31	0.01	-518.56	0.0	158.76	445.67	2.58	19.18	-223.53	-1.668e+04
		-1.668e+04	-223.53	-1.16e-03	0.0	150.5	-45.48	-72.89	2.58	19.18	165.31	1.137e+04
38	9	5.321e+04	-526.64	0.25	300.50	0.0	893.34	-778.30	6.31	52.07	-1360.96	5.321e+04
		-2.982e+04	-1360.96	3.17e-03	-3.45e-04	132.2	636.82	-477.80	6.31	52.07	-526.64	-2.982e+04
38	10	5.733e+04	-514.58	0.27	163.17	0.0	889.96	-777.05	6.17	49.41	-1329.57	5.733e+04
		-3.461e+04	-1329.57	3.09e-03	-3.45e-04	132.2	579.35	-613.88	6.16	49.41	-514.58	-3.461e+04
38	11	4.602e+04	-471.33	0.22	555.26	0.0	902.46	-782.33	5.65	48.06	-1217.85	4.602e+04
		-2.070e+04	-1217.85	2.84e-03	-3.45e-04	132.2	746.27	-227.07	5.65	48.06	-471.33	-2.070e+04
38	14	1.063e+04	-20.11	-0.08	-1740.46	0.0	-953.42	806.21	0.26	-2.41	-54.87	-1.398e+04
		-2.244e+04	-54.87	1.15e-04	3.45e-04	132.2	-1264.03	-934.25	0.26	-2.41	-20.11	-2.244e+04
38	16	7413.24	88.24	-0.12	-1485.70	0.0	-944.30	802.18	-0.40	-6.42	88.24	-2.117e+04

		-2.117e+04	35.19	-2.14e-04	3.45e-04	132.2	-1154.58	-683.52	-0.40	-6.42	35.19	-1.332e+04
38	25	1.281e+04	-6847.72	0.05	-455.59	0.0	-6.24	2.04	76.77	-1081.41	-1.659e+04	1.281e+04
		-1.703e+04	-1.659e+04	-0.23	0.0	132.2	-185.68	-453.55	76.77	-1081.41	-6847.72	-1.703e+04
38	28	1.149e+04	1.545e+04	0.05	-455.59	0.0	-35.13	17.63	-71.51	1123.42	1.545e+04	1.146e+04
		-1.632e+04	6409.90	0.23	0.0	132.2	-214.57	-437.96	-71.51	1123.42	6409.90	-1.632e+04
38	33	1.283e+04	-8201.82	0.05	-455.59	0.0	-5.92	1.84	68.83	-1094.44	-1.643e+04	1.283e+04
		-1.704e+04	-1.643e+04	-0.22	0.0	132.2	-185.36	-453.75	68.83	-1094.44	-8201.82	-1.704e+04
38	36	1.147e+04	1.530e+04	0.05	-455.59	0.0	-35.45	17.84	-63.56	1136.45	1.530e+04	1.144e+04
		-1.631e+04	7763.99	0.22	0.0	132.2	-214.88	-437.75	-63.56	1136.45	7763.99	-1.631e+04
38	57	1.246e+04	-3355.46	0.05	-455.59	0.0	-13.94	6.15	37.81	-493.39	-8040.05	1.246e+04
		-1.684e+04	-8040.05	-0.11	0.0	132.2	-193.37	-449.44	37.81	-493.39	-3355.46	-1.684e+04
38	60	1.182e+04	6906.04	0.05	-455.59	0.0	-27.43	13.52	-32.54	535.39	6906.04	1.182e+04
		-1.651e+04	2917.63	0.11	0.0	132.2	-206.87	-442.07	-32.54	535.39	2917.63	-1.651e+04
38	65	1.246e+04	-4037.46	0.05	-455.59	0.0	-13.78	6.06	34.84	-499.33	-7969.79	1.246e+04
		-1.685e+04	-7969.79	-0.10	0.0	132.2	-193.22	-449.53	34.84	-499.33	-4037.46	-1.685e+04
38	68	1.181e+04	6835.78	0.05	-455.59	0.0	-27.59	13.61	-29.57	541.33	6835.78	1.181e+04
		-1.650e+04	3599.64	0.11	0.0	132.2	-207.03	-441.98	-29.57	541.33	3599.64	-1.650e+04
38	93	3.591e+04	-383.74	0.17	178.95	0.0	593.77	-517.91	4.60	38.28	-991.90	3.591e+04
		-2.073e+04	-991.90	2.31e-03	-2.30e-04	132.2	414.34	-338.96	4.60	38.28	-383.74	-2.073e+04
38	94	3.866e+04	-375.70	0.18	87.40	0.0	591.52	-517.08	4.50	36.50	-970.98	3.866e+04
		-2.392e+04	-970.98	2.26e-03	-2.30e-04	132.2	376.02	-429.69	4.50	36.50	-375.70	-2.392e+04
38	96	7307.57	-46.05	-0.05	-1181.69	0.0	-637.40	538.42	0.57	1.96	-121.18	-8882.42
		-1.581e+04	-121.18	2.74e-04	2.30e-04	132.2	-852.90	-643.27	0.57	1.96	-46.05	-1.581e+04
38	101	1.214e+04	-218.91	0.05	-455.59	0.0	-20.69	9.84	2.63	21.00	-567.01	1.214e+04
		-1.668e+04	-567.01	1.32e-03	0.0	132.2	-200.12	-445.75	2.63	21.00	-218.91	-1.668e+04
38	102	1.324e+04	-215.70	0.06	-492.21	0.0	-21.59	10.17	2.59	20.29	-558.63	1.324e+04
		-1.795e+04	-558.63	1.30e-03	0.0	132.2	-215.45	-482.04	2.59	20.29	-215.70	-1.795e+04
38	103	1.214e+04	-218.91	0.05	-455.59	0.0	-20.69	9.84	2.63	21.00	-567.01	1.214e+04
		-1.668e+04	-567.01	1.32e-03	0.0	132.2	-200.12	-445.75	2.63	21.00	-218.91	-1.668e+04
39	5	1.063e+04	35.61	0.02	-607.49	0.0	38.49	303.74	-0.33	3.93	35.61	0.0
		0.0	-9.94	3.33e-04	0.0	140.0	38.49	-303.74	-0.33	3.93	-9.94	0.0
39	9	2178.54	52.78	0.06	-124.49	0.0	41.34	62.24	-0.49	5.85	52.78	0.0
		0.0	-15.32	4.97e-04	0.0	140.0	41.34	-62.24	-0.49	5.85	-15.32	0.0
39	10	2178.54	50.99	0.06	-124.49	0.0	45.76	62.24	-0.47	5.67	50.99	0.0
		0.0	-14.76	4.76e-04	0.0	140.0	45.76	-62.24	-0.47	5.67	-14.76	0.0
39	15	1675.80	1.66	-0.04	-95.76	0.0	19.60	47.88	0.04	-0.38	-3.36	0.0
		0.0	-3.36	-3.82e-05	0.0	140.0	19.60	-47.88	0.04	-0.38	1.66	0.0
39	25	1675.80	2085.08	7.83e-03	-95.76	0.0	26.04	47.88	59.29	-465.64	-6243.65	0.0
		0.0	-6243.65	-0.11	0.0	140.0	26.04	-47.88	59.29	-465.64	2085.08	0.0
39	33	1675.80	1437.19	7.83e-03	-95.76	0.0	26.03	47.88	70.38	-473.90	-8422.07	0.0
		0.0	-8422.07	-0.11	0.0	140.0	26.03	-47.88	70.38	-473.90	1437.19	0.0
39	34	1675.80	1438.06	7.84e-03	-95.76	0.0	26.02	47.88	70.41	-473.98	-8425.65	0.0
		0.0	-8425.65	-0.11	0.0	140.0	26.02	-47.88	70.41	-473.98	1438.06	0.0
39	35	1675.80	8468.62	8.13e-03	-95.76	0.0	26.97	47.88	-70.80	478.74	8468.62	0.0
		0.0	-1449.94	0.11	0.0	140.0	26.97	-47.88	-70.80	478.74	-1449.94	0.0
39	38	1675.80	1437.85	7.84e-03	-95.76	0.0	26.02	47.88	70.40	-473.97	-8424.69	0.0
		0.0	-8424.69	-0.11	0.0	140.0	26.02	-47.88	70.40	-473.97	1437.85	0.0
39	39	1675.80	8467.66	8.13e-03	-95.76	0.0	26.97	47.88	-70.79	478.72	8467.66	0.0
		0.0	-1449.73	0.11	0.0	140.0	26.97	-47.88	-70.79	478.72	-1449.73	0.0
39	57	1675.80	1187.32	7.91e-03	-95.76	0.0	26.28	47.88	32.81	-223.68	-3418.24	0.0
		0.0	-3418.24	-0.06	0.0	140.0	26.28	-47.88	32.81	-223.68	1187.32	0.0
39	65	1675.80	796.23	7.91e-03	-95.76	0.0	26.28	47.88	39.63	-228.99	-4754.94	0.0
		0.0	-4754.94	-0.06	0.0	140.0	26.28	-47.88	39.63	-228.99	796.23	0.0
39	66	1675.80	796.77	7.92e-03	-95.76	0.0	26.27	47.88	39.65	-229.04	-4757.18	0.0
		0.0	-4757.18	-0.06	0.0	140.0	26.27	-47.88	39.65	-229.04	796.77	0.0
39	67	1675.80	4800.15	8.05e-03	-95.76	0.0	26.72	47.88	-40.04	233.80	4800.15	0.0
		0.0	-808.66	0.06	0.0	140.0	26.72	-47.88	-40.04	233.80	-808.66	0.0
39	70	1675.80	796.64	7.92e-03	-95.76	0.0	26.27	47.88	39.64	-229.03	-4756.57	0.0
		0.0	-4756.57	-0.06	0.0	140.0	26.27	-47.88	39.64	-229.03	796.64	0.0
39	71	1675.80	4799.54	8.05e-03	-95.76	0.0	26.72	47.88	-40.03	233.79	4799.54	0.0
		0.0	-808.53	0.06	0.0	140.0	26.72	-47.88	-40.03	233.79	-808.53	0.0
39	91	7310.80	27.12	0.01	-417.76	0.0	27.92	208.88	-0.25	2.99	27.12	0.0
		0.0	-7.58	2.55e-04	0.0	140.0	27.92	-208.88	-0.25	2.99	-7.58	0.0
39	93	1675.80	38.56	0.04	-95.76	0.0	29.82	47.88	-0.36	4.27	38.56	0.0
		0.0	-11.17	3.64e-04	0.0	140.0	29.82	-47.88	-0.36	4.27	-11.17	0.0
39	94	1675.80	37.37	0.04	-95.76	0.0	32.77	47.88	-0.34	4.15	37.37	0.0
		0.0	-10.79	3.50e-04	0.0	140.0	32.77	-47.88	-0.34	4.15	-10.79	0.0
39	95	1675.80	4.41	-0.02	-95.76	0.0	23.17	47.88	-0.04	0.49	4.41	0.0
		0.0	-0.71	3.51e-05	0.0	140.0	23.17	-47.88	-0.04	0.49	-0.71	0.0
39	101	1675.80	21.48	7.99e-03	-95.76	0.0	26.50	47.88	-0.20	2.38	21.48	0.0
		0.0	-5.94	1.99e-04	0.0	140.0	26.50	-47.88	-0.20	2.38	-5.94	0.0
39	102	1675.80	21.01	8.35e-03	-95.76	0.0	27.68	47.88	-0.19	2.33	21.01	0.0
		0.0	-5.79	1.94e-04	0.0	140.0	27.68	-47.88	-0.19	2.33	-5.79	0.0
39	103	1675.80	21.48	7.99e-03	-95.76	0.0	26.50	47.88	-0.20	2.38	21.48	0.0
		0.0	-5.94	1.99e-04	0.0	140.0	26.50	-47.88	-0.20	2.38	-5.94	0.0
40	9	5.309e+04	1344.72	0.25	300.50	0.0	893.98	-776.75	-6.32	-115.99	1344.72	5.309e+04
		-2.973e+04	509.33	-2.79e-03	3.45e-04	132.2	637.46	-476.24	-6.32	-115.99	509.33	-2.973e+04

40	10	5.711e+04	1316.50	0.27	163.17	0.0	891.31	-774.03	-6.19	-110.74	1316.50	5.711e+04
		-3.443e+04	498.50	-2.73e-03	3.45e-04	132.2	580.69	-610.85	-6.19	-110.74	498.50	-3.443e+04
40	11	4.594e+04	1202.09	0.22	555.26	0.0	902.85	-781.32	-5.65	-106.79	1202.09	4.594e+04
		-2.064e+04	455.28	-2.48e-03	3.45e-04	132.2	746.67	-226.06	-5.65	-106.79	455.28	-2.064e+04
40	14	1.073e+04	49.24	-0.08	-1740.46	0.0	-955.88	801.18	-0.22	6.81	49.24	-1.359e+04
		-2.271e+04	19.77	-1.19e-04	-3.45e-04	132.2	-1266.49	-939.27	-0.22	6.81	19.77	-2.271e+04
40	16	7428.40	-34.29	-0.11	-1485.70	0.0	-947.01	796.61	0.45	16.02	-93.39	-2.074e+04
		-2.074e+04	-93.39	1.82e-04	-3.45e-04	132.2	-1157.29	-689.09	0.45	16.02	-34.29	-1.363e+04
40	26	1.165e+04	-6588.12	0.05	-455.59	0.0	-36.29	15.28	76.86	-2409.50	-1.637e+04	1.164e+04
		-1.645e+04	-1.637e+04	-0.23	0.0	132.2	-215.73	-440.31	76.86	-2409.50	-6588.12	-1.645e+04
40	27	1.300e+04	1.748e+04	0.06	-455.59	0.0	-7.49	-0.37	-82.08	2318.00	1.748e+04	1.300e+04
		-1.716e+04	7010.63	0.23	0.0	132.2	-186.93	-455.97	-82.08	2318.00	7010.63	-1.716e+04
40	38	1.163e+04	-7941.56	0.05	-455.59	0.0	-36.63	15.49	68.51	-2418.92	-1.620e+04	1.162e+04
		-1.644e+04	-1.620e+04	-0.22	0.0	132.2	-216.07	-440.10	68.51	-2418.92	-7941.56	-1.644e+04
40	39	1.302e+04	1.731e+04	0.06	-455.59	0.0	-7.15	-0.59	-73.73	2327.42	1.731e+04	1.302e+04
		-1.717e+04	8364.07	0.22	0.0	132.2	-186.59	-456.18	-73.73	2327.42	8364.07	-1.717e+04
40	58	1.200e+04	-3009.08	0.05	-455.59	0.0	-28.62	11.14	34.93	-1154.42	-7333.17	1.200e+04
		-1.664e+04	-7333.17	-0.11	0.0	132.2	-208.06	-444.45	34.93	-1154.42	-3009.08	-1.664e+04
40	59	1.264e+04	8445.83	0.05	-455.59	0.0	-15.17	3.76	-40.15	1062.92	8445.83	1.264e+04
		-1.697e+04	3431.59	0.11	0.0	132.2	-194.60	-451.83	-40.15	1062.92	3431.59	-1.697e+04
40	70	1.199e+04	-3690.04	0.05	-455.59	0.0	-28.79	11.24	31.69	-1161.51	-7256.96	1.199e+04
		-1.663e+04	-7256.96	-0.10	0.0	132.2	-208.22	-444.35	31.69	-1161.51	-3690.04	-1.663e+04
40	71	1.265e+04	8369.62	0.05	-455.59	0.0	-15.00	3.66	-36.91	1070.01	8369.62	1.265e+04
		-1.698e+04	4112.55	0.10	0.0	132.2	-194.44	-451.93	-36.91	1070.01	4112.55	-1.698e+04
40	93	3.589e+04	978.75	0.17	178.95	0.0	593.84	-517.62	-4.60	-84.94	978.75	3.589e+04
		-2.071e+04	370.83	-2.03e-03	2.30e-04	132.2	414.40	-338.67	-4.60	-84.94	370.83	-2.071e+04
40	94	3.856e+04	959.93	0.18	87.40	0.0	592.05	-515.80	-4.51	-81.43	959.93	3.856e+04
		-2.385e+04	363.60	-1.99e-03	2.30e-04	132.2	376.55	-428.41	-4.51	-81.43	363.60	-2.385e+04
40	96	7387.83	115.10	-0.05	-1181.69	0.0	-639.41	534.34	-0.53	-3.06	115.10	-8565.69
		-1.604e+04	44.46	-2.48e-04	-2.30e-04	132.2	-854.90	-647.35	-0.53	-3.06	44.46	-1.604e+04
40	101	1.232e+04	556.33	0.05	-455.59	0.0	-21.89	7.45	-2.61	-45.75	556.33	1.232e+04
		-1.681e+04	211.26	-1.16e-03	0.0	132.2	-201.33	-448.14	-2.61	-45.75	211.26	-1.681e+04
40	102	1.339e+04	548.80	0.06	-492.21	0.0	-22.61	8.18	-2.58	-44.35	548.80	1.339e+04
		-1.806e+04	208.37	-1.14e-03	0.0	132.2	-216.47	-484.04	-2.58	-44.35	208.37	-1.806e+04
40	103	1.232e+04	556.33	0.05	-455.59	0.0	-21.89	7.45	-2.61	-45.75	556.33	1.232e+04
		-1.681e+04	211.26	-1.16e-03	0.0	132.2	-201.33	-448.14	-2.61	-45.75	211.26	-1.681e+04
41	9	2.185e+04	466.55	0.08	342.04	0.0	907.89	171.76	-5.82	1.17	466.55	-2.973e+04
		-2.973e+04	-408.52	2.85e-03	3.83e-04	150.5	615.92	513.80	-5.82	1.17	-408.52	2.185e+04
41	10	2.128e+04	457.61	0.08	185.72	0.0	947.08	277.39	-5.70	1.32	457.61	-3.443e+04
		-3.443e+04	-400.42	2.79e-03	3.83e-04	150.5	593.54	463.11	-5.70	1.32	-400.42	2.128e+04
41	14	3.060e+04	22.02	-0.08	-1981.01	0.0	-421.77	1185.98	-0.23	1.05	22.02	-2.271e+04
		-2.271e+04	-13.15	1.14e-04	-3.83e-04	150.5	-775.31	-795.02	-0.23	1.05	-13.15	6698.53
41	26	1.210e+04	1.213e+04	0.01	-518.56	0.0	140.61	443.77	131.29	-866.27	-7783.35	-1.645e+04
		-1.645e+04	-7783.35	-0.33	0.0	150.5	-63.63	-74.79	131.29	-866.27	1.213e+04	1.131e+04
41	27	1.216e+04	8171.96	0.01	-518.56	0.0	177.27	449.54	-136.10	867.76	8171.96	-1.716e+04
		-1.716e+04	-1.247e+04	0.33	0.0	150.5	-26.97	-69.02	-136.10	867.76	-1.247e+04	1.147e+04
41	38	1.210e+04	1.175e+04	0.01	-518.56	0.0	140.18	443.69	136.46	-891.45	-9106.42	-1.644e+04
		-1.644e+04	-9106.42	-0.33	0.0	150.5	-64.06	-74.87	136.46	-891.45	1.175e+04	1.130e+04
41	39	1.216e+04	9495.04	0.01	-518.56	0.0	177.70	449.61	-141.27	892.95	9495.04	-1.717e+04
		-1.717e+04	-1.209e+04	0.33	0.0	150.5	-26.54	-68.95	-141.27	892.95	-1.209e+04	1.147e+04
41	58	1.212e+04	5569.45	0.01	-518.56	0.0	150.39	445.29	59.94	-420.06	-3573.73	-1.664e+04
		-1.664e+04	-3573.73	-0.15	0.0	150.5	-53.85	-73.27	59.94	-420.06	5569.45	1.135e+04
41	59	1.214e+04	3962.35	0.01	-518.56	0.0	167.49	448.01	-64.76	421.56	3962.35	-1.697e+04
		-1.697e+04	-5905.39	0.16	0.0	150.5	-36.75	-70.55	-64.76	421.56	-5905.39	1.143e+04
41	70	1.212e+04	5402.87	0.01	-518.56	0.0	150.19	445.26	62.39	-431.80	-4236.99	-1.663e+04
		-1.663e+04	-4236.99	-0.15	0.0	150.5	-54.05	-73.30	62.39	-431.80	5402.87	1.135e+04
41	71	1.214e+04	4625.61	0.01	-518.56	0.0	167.69	448.05	-67.20	433.29	4625.61	-1.698e+04
		-1.698e+04	-5738.82	0.16	0.0	150.5	-36.55	-70.51	-67.20	433.29	-5738.82	1.143e+04
41	93	1.625e+04	339.51	0.05	203.68	0.0	615.22	143.79	-4.23	0.84	339.51	-2.071e+04
		-2.071e+04	-297.06	2.08e-03	2.25e-04	150.5	410.98	347.47	-4.23	0.84	-297.06	1.625e+04
41	94	1.587e+04	333.54	0.05	99.48	0.0	641.35	214.20	-4.16	0.93	333.54	-2.385e+04
		-2.385e+04	-291.66	2.03e-03	2.25e-04	150.5	396.07	313.68	-4.16	0.93	-291.66	1.587e+04
41	96	2.155e+04	43.15	-0.05	-1345.01	0.0	-271.22	819.94	-0.51	0.76	43.15	-1.604e+04
		-1.604e+04	-33.49	2.51e-04	-2.25e-04	150.5	-516.50	-525.08	-0.51	0.76	-33.49	6147.28
41	101	1.213e+04	194.31	0.01	-518.56	0.0	158.94	446.65	-2.41	0.75	194.31	-1.681e+04
		-1.681e+04	-167.97	1.19e-03	0.0	150.5	-45.30	-71.91	-2.41	0.75	-167.97	1.139e+04
41	102	1.218e+04	191.92	0.01	-560.24	0.0	169.39	474.82	-2.38	0.79	191.92	-1.806e+04
		-1.806e+04	-165.81	1.17e-03	0.0	150.5	-51.27	-85.42	-2.38	0.79	-165.81	1.124e+04
41	103	1.213e+04	194.31	0.01	-518.56	0.0	158.94	446.65	-2.41	0.75	194.31	-1.681e+04
		-1.681e+04	-167.97	1.19e-03	0.0	150.5	-45.30	-71.91	-2.41	0.75	-167.97	1.139e+04
43	2	6726.35	-4.40	-0.03	-218.74	0.0	77.45	109.37	-0.04	0.73	-4.40	0.0
		0.0	-14.69	7.80e-05	0.0	246.0	77.45	-109.37	-0.04	0.73	-14.69	0.0
43	5	3.282e+04	-9.93	-0.14	-1067.44	0.0	65.45	533.72	-0.04	0.77	-9.93	0.0
		0.0	-20.74	1.04e-04	0.0	246.0	65.45	-533.72	-0.04	0.77	-20.74	0.0
43	9	6726.35	-15.37	0.09	-218.74	0.0	58.02	109.37	-0.06	1.09	-15.37	0.0
		0.0	-30.68	1.53e-04	0.0	246.0	58.02	-109.37	-0.06	1.09	-30.68	0.0
43	11	5174.12	-14.73	0.09	-168.26	0.0	37.82	84.13	-0.05	0.91	-14.73	0.0

		0.0	-27.50	1.36e-04	0.0	246.0	37.82	-84.13	-0.05	0.91	-27.50	0.0
43	16	5174.12	3.52	-0.09	-168.26	0.0	53.31	84.13	-4.80e-03	0.08	3.52	0.0
		0.0	2.34	-1.06e-05	0.0	246.0	53.31	-84.13	-4.80e-03	0.08	2.34	0.0
43	25	5174.12	-6622.76	-0.02	-168.26	0.0	45.79	84.13	9.86	-17.80	-8697.85	0.0
		0.0	-8697.85	0.03	0.0	246.0	45.79	-84.13	9.86	-17.80	-6622.76	0.0
43	33	5174.12	-6605.24	-0.02	-168.26	0.0	45.81	84.13	-9.99	20.51	-6605.24	0.0
		0.0	-8713.59	0.04	0.0	246.0	45.81	-84.13	-9.99	20.51	-8713.59	0.0
43	36	5174.12	8688.33	-0.02	-168.26	0.0	44.23	84.13	9.93	-19.52	6593.86	0.0
		0.0	6593.86	-0.04	0.0	246.0	44.23	-84.13	9.93	-19.52	8688.33	0.0
43	37	5174.12	-6605.92	-0.02	-168.26	0.0	45.81	84.13	-9.99	20.51	-6605.92	0.0
		0.0	-8714.00	0.04	0.0	246.0	45.81	-84.13	-9.99	20.51	-8714.00	0.0
43	40	5174.12	8688.74	-0.02	-168.26	0.0	44.23	84.13	9.94	-19.53	6594.54	0.0
		0.0	6594.54	-0.04	0.0	246.0	44.23	-84.13	9.94	-19.53	8688.74	0.0
43	57	5174.12	-3547.09	-0.02	-168.26	0.0	45.38	84.13	5.85	-10.18	-4835.21	0.0
		0.0	-4835.21	0.02	0.0	246.0	45.38	-84.13	5.85	-10.18	-3547.09	0.0
43	64	5174.12	4824.26	-0.02	-168.26	0.0	44.66	84.13	-5.91	11.16	4824.26	0.0
		0.0	3522.07	-0.02	0.0	246.0	44.66	-84.13	-5.91	11.16	3522.07	0.0
43	65	5174.12	-3534.29	-0.02	-168.26	0.0	45.39	84.13	-5.95	12.05	-3534.29	0.0
		0.0	-4846.90	0.02	0.0	246.0	45.39	-84.13	-5.95	12.05	-4846.90	0.0
43	68	5174.12	4821.64	-0.02	-168.26	0.0	44.65	84.13	5.90	-11.07	3522.91	0.0
		0.0	3522.91	-0.02	0.0	246.0	44.65	-84.13	5.90	-11.07	4821.64	0.0
43	69	5174.12	-3534.72	-0.02	-168.26	0.0	45.39	84.13	-5.95	12.05	-3534.72	0.0
		0.0	-4847.15	0.02	0.0	246.0	45.39	-84.13	-5.95	12.05	-4847.15	0.0
43	90	5174.12	-4.04	-0.02	-168.26	0.0	55.41	84.13	-0.03	0.54	-4.04	0.0
		0.0	-11.68	6.10e-05	0.0	246.0	55.41	-84.13	-0.03	0.54	-11.68	0.0
43	91	2.257e+04	-7.73	-0.09	-734.06	0.0	47.40	367.03	-0.03	0.57	-7.73	0.0
		0.0	-15.71	7.83e-05	0.0	246.0	47.40	-367.03	-0.03	0.57	-15.71	0.0
43	93	5174.12	-11.36	0.06	-168.26	0.0	42.45	84.13	-0.04	0.78	-11.36	0.0
		0.0	-22.34	1.11e-04	0.0	246.0	42.45	-84.13	-0.04	0.78	-22.34	0.0
43	96	5174.12	0.81	-0.06	-168.26	0.0	52.78	84.13	-0.01	0.23	0.81	0.0
		0.0	-2.45	1.76e-05	0.0	246.0	52.78	-84.13	-0.01	0.23	-2.45	0.0
43	101	5174.12	-5.69	-0.02	-168.26	0.0	45.02	84.13	-0.03	0.49	-5.69	0.0
		0.0	-12.63	6.37e-05	0.0	246.0	45.02	-84.13	-0.03	0.49	-12.63	0.0
43	102	5174.12	-5.36	-0.02	-168.26	0.0	47.10	84.13	-0.03	0.50	-5.36	0.0
		0.0	-12.44	6.31e-05	0.0	246.0	47.10	-84.13	-0.03	0.50	-12.44	0.0
43	103	5174.12	-5.69	-0.02	-168.26	0.0	45.02	84.13	-0.03	0.49	-5.69	0.0
		0.0	-12.63	6.37e-05	0.0	246.0	45.02	-84.13	-0.03	0.49	-12.63	0.0
44	2	1.705e+04	351.09	-0.02	-352.76	0.0	-7304.64	1040.04	-3.26	-46.35	351.09-2.233e+04	
		-2.233e+04	202.67	9.03e-04	0.0	45.6	-7443.58	687.28	-3.26	-46.35	202.67 1.705e+04	
44	10	-1.115e+05	551.70	0.01	-57.44	0.0	-6710.73	750.65	-5.12	-76.07	551.70-1.444e+05	
		-1.444e+05	318.46	1.42e-03	7.50e-05	45.6	-6828.98	693.21	-5.12	-76.07	318.46-1.115e+05	
44	14	1.407e+05	127.20	-0.03	-542.99	0.0	-5812.71	1019.22	-1.18	-15.29	127.20 1.066e+05	
		1.066e+05	73.42	3.27e-04	-7.50e-05	45.6	-5930.96	476.23	-1.18	-15.29	73.42 1.407e+05	
44	15	1.336e+05	31.05	-0.03	-393.33	0.0	-2772.22	577.72	-0.29	-3.73	31.05 1.162e+05	
		1.162e+05	17.91	8.06e-05	-7.50e-05	45.6	-2831.51	184.39	-0.29	-3.73	17.91 1.336e+05	
44	38	1.015e+04	-2070.83	-9.40e-03	-173.14	0.0	-3654.57	510.31	108.88	-1114.20	-6698.64 -9156.07	
		-9156.07	-6698.64	-0.11	0.0	45.6	-3722.77	337.17	108.88	-1114.20	-2070.83 1.015e+04	
44	39	6897.88	7195.26	-9.11e-03	-173.14	0.0	-3684.59	509.92	-113.48	1045.39	7195.26-1.242e+04	
		-1.242e+04	2357.46	0.11	0.0	45.6	-3752.78	336.77	-113.48	1045.39	2357.46 6897.88	
44	50	1.399e+04	-313.63	-9.60e-03	-173.14	0.0	-3646.18	510.59	29.13	-334.94	-1487.01 -5303.07	
		-5303.07	-1487.01	-0.03	0.0	45.6	-3714.37	337.45	29.13	-334.94	-313.63 1.399e+04	
44	51	3060.08	1983.63	-8.90e-03	-173.14	0.0	-3692.98	509.63	-33.74	266.13	1983.63-1.627e+04	
		-1.627e+04	600.26	0.03	0.0	45.6	-3761.18	336.49	-33.74	266.13	600.26 3060.08	
44	53	3051.32	-439.57	-8.93e-03	-173.14	0.0	-3687.70	509.67	30.72	-362.84	-1739.31-1.628e+04	
		-1.628e+04	-1739.31	-0.03	0.0	45.6	-3755.89	336.53	30.72	-362.84	-439.57 3051.32	
44	56	1.400e+04	2235.94	-9.58e-03	-173.14	0.0	-3651.46	510.56	-35.33	294.03	2235.94 -5293.61	
		-5293.61	726.20	0.03	0.0	45.6	-3719.66	337.41	-35.33	294.03	726.20 1.400e+04	
44	70	9496.73	-1037.73	-9.33e-03	-173.14	0.0	-3661.63	510.23	49.58	-538.79	-3063.09 -9809.80	
		-9809.80	-3063.09	-0.05	0.0	45.6	-3729.83	337.09	49.58	-538.79	-1037.73 9496.73	
44	71	7549.86	3559.71	-9.17e-03	-173.14	0.0	-3677.53	510.00	-54.18	469.98	3559.71-1.176e+04	
		-1.176e+04	1324.37	0.05	0.0	45.6	-3745.73	336.85	-54.18	469.98	1324.37 7549.86	
44	85	5251.12	-161.01	-9.06e-03	-173.14	0.0	-3680.72	509.85	13.06	-188.50	-685.85-1.407e+04	
		-1.407e+04	-685.85	-0.01	0.0	45.6	-3748.92	336.71	13.06	-188.50	-161.01 5251.12	
44	86	1.179e+04	-252.73	-9.46e-03	-173.14	0.0	-3655.90	510.40	13.43	-183.40	-794.58 -7506.70	
		-7506.70	-794.58	-0.01	0.0	45.6	-3724.10	337.26	13.43	-183.40	-252.73 1.179e+04	
44	87	5255.64	1291.20	-9.05e-03	-173.14	0.0	-3683.26	509.83	-18.04	114.59	1291.20-1.407e+04	
		-1.407e+04	539.37	0.02	0.0	45.6	-3751.46	336.68	-18.04	114.59	539.37 5255.64	
44	88	1.180e+04	1182.48	-9.45e-03	-173.14	0.0	-3658.44	510.38	-17.66	119.69	1182.48 -7502.03	
		-7502.03	447.64	0.02	0.0	45.6	-3726.64	337.23	-17.66	119.69	447.64 1.180e+04	
44	90	1.180e+04	263.83	-0.01	-243.20	0.0	-5060.13	716.92	-2.45	-35.30	263.83-1.534e+04	
		-1.534e+04	152.29	6.79e-04	0.0	45.6	-5155.92	473.72	-2.45	-35.30	152.29 1.180e+04	
44	94	-7.392e+04	397.57	7.34e-03	-46.32	0.0	-4664.20	523.99	-3.69	-55.11	397.57-9.675e+04	
		-9.675e+04	229.48	1.02e-03	5.00e-05	45.6	-4746.19	477.67	-3.69	-55.11	229.48-7.392e+04	
44	95	9.260e+04	106.81	-0.02	-334.99	0.0	-3370.24	599.64	-0.99	-14.15	106.81 7.290e+04	
		7.290e+04	61.64	2.75e-04	-5.00e-05	45.6	-3438.44	264.64	-0.99	-14.15	61.64 9.260e+04	
44	96	9.424e+04	114.57	-0.02	-370.02	0.0	-4065.52	703.04	-1.06	-14.59	114.57 7.062e+04	
		7.062e+04	66.13	2.95e-04	-5.00e-05	45.6	-4147.51	333.02	-1.06	-14.59	66.13 9.424e+04	

44	101	8523.30	248.31	-9.25e-03	-173.14	0.0	-3669.58	510.11	-2.30	-34.41	248.31	-1.079e+04
		-1.079e+04	143.32	6.39e-04	0.0	45.6	-3737.78	336.97	-2.30	-34.41	143.32	8523.30
44	102	9178.18	251.42	-0.01	-187.15	0.0	-3947.69	551.47	-2.33	-34.58	251.42	-1.170e+04
		-1.170e+04	145.11	6.47e-04	0.0	45.6	-4021.41	364.32	-2.33	-34.58	145.11	9178.18
44	103	8523.30	248.31	-9.25e-03	-173.14	0.0	-3669.58	510.11	-2.30	-34.41	248.31	-1.079e+04
		-1.079e+04	143.32	6.39e-04	0.0	45.6	-3737.78	336.97	-2.30	-34.41	143.32	8523.30
45	9	4.693e+04	71.28	-0.40	-1928.96	0.0	2032.95	1051.65	-1.58	28.16	71.28	1371.93
		1371.93	-180.65	1.28e-04	-2.56e-04	159.1	2341.61	-877.31	-1.58	28.16	-180.65	1.524e+04
45	10	4.986e+04	64.88	-0.41	-2094.21	0.0	1999.94	1130.39	-1.44	26.85	64.88	1419.86
		1419.86	-164.27	1.17e-04	-2.56e-04	159.1	2373.68	-963.82	-1.44	26.85	-164.27	1.467e+04
45	14	1.792e+04	39.45	-0.18	196.34	0.0	-2535.61	23.78	0.34	-0.07	-14.53	-1480.96
		-1480.96	-14.53	-2.52e-05	2.56e-04	159.1	-2161.86	220.12	0.34	-0.07	39.45	1.792e+04
45	15	1.503e+04	28.79	-0.08	668.12	0.0	-2423.30	-229.85	0.25	-1.14	-10.55	-1547.23
		-7789.41	-10.55	-1.83e-05	2.56e-04	159.1	-2235.37	438.27	0.25	-1.14	28.79	1.503e+04
45	25	1.836e+04	3.270e+04	-0.21	-548.19	0.0	-168.09	356.78	-155.04	548.65	3.270e+04	-55.67
		-55.67	8262.88	0.20	0.0	159.1	47.83	-191.41	-155.04	548.65	8262.88	1.306e+04
45	28	1.847e+04	-8394.94	-0.21	-548.19	0.0	-171.35	357.83	153.88	-525.15	-3.265e+04	-96.76
		-96.76	-3.265e+04	-0.20	0.0	159.1	44.56	-190.36	153.88	-525.15	-8394.94	1.326e+04
45	38	1.834e+04	3.125e+04	-0.21	-548.19	0.0	-172.25	356.51	-142.14	543.99	3.125e+04	-94.40
		-94.40	8703.96	0.19	0.0	159.1	43.66	-191.68	-142.14	543.99	8703.96	1.306e+04
45	39	1.849e+04	-8836.02	-0.21	-548.19	0.0	-167.18	358.10	140.98	-520.49	-3.120e+04	-58.04
		-58.04	-3.120e+04	-0.19	0.0	159.1	48.73	-190.09	140.98	-520.49	-8836.02	1.326e+04
45	56	1.840e+04	-2692.09	-0.21	-548.19	0.0	-169.32	357.00	41.98	-148.19	-9351.45	-148.33
		-148.33	-9351.45	-0.06	0.0	159.1	46.59	-191.19	41.98	-148.19	-2692.09	1.318e+04
45	57	1.839e+04	1.529e+04	-0.21	-548.19	0.0	-168.75	357.07	-73.13	263.87	1.529e+04	-64.33
		-64.33	3836.72	0.09	0.0	159.1	47.16	-191.12	-73.13	263.87	3836.72	1.311e+04
45	60	1.844e+04	-3968.78	-0.21	-548.19	0.0	-170.68	357.54	71.97	-240.37	-1.523e+04	-88.11
		-88.11	-1.523e+04	-0.09	0.0	159.1	45.23	-190.66	71.97	-240.37	-3968.78	1.321e+04
45	70	1.838e+04	1.459e+04	-0.21	-548.19	0.0	-171.02	356.91	-66.71	261.78	1.459e+04	-87.50
		-87.50	4025.34	0.09	0.0	159.1	44.89	-191.28	-66.71	261.78	4025.34	1.311e+04
45	71	1.845e+04	-4157.39	-0.21	-548.19	0.0	-168.42	357.70	65.54	-238.28	-1.453e+04	-64.94
		-64.94	-1.453e+04	-0.09	0.0	159.1	47.49	-190.49	65.54	-238.28	-4157.39	1.321e+04
45	88	1.840e+04	-1290.28	-0.21	-548.19	0.0	-169.54	357.10	19.31	-63.42	-4347.96	-119.23
		-119.23	-4347.96	-0.03	0.0	159.1	46.37	-191.09	19.31	-63.42	-1290.28	1.317e+04
45	93	3.286e+04	52.87	-0.29	-1311.71	0.0	1342.13	726.18	-1.17	20.72	52.87	890.72
		890.72	-133.93	9.51e-05	-1.70e-04	159.1	1558.04	-585.53	-1.17	20.72	-133.93	1.208e+04
45	94	3.481e+04	48.61	-0.30	-1421.87	0.0	1320.12	778.67	-1.08	19.84	48.61	922.67
		922.67	-123.01	8.74e-05	-1.70e-04	159.1	1579.42	-643.20	-1.08	19.84	-123.01	1.170e+04
45	95	1.424e+04	1.88	-0.13	215.32	0.0	-1681.57	-11.57	0.01	2.78	-0.06	-1043.16
		-1091.24	-0.06	3.48e-06	1.70e-04	159.1	-1465.66	203.76	0.01	2.78	1.88	1.424e+04
45	96	1.386e+04	12.80	-0.14	105.16	0.0	-1703.57	40.93	0.11	1.90	-4.33	-1011.20
		-1011.20	-4.33	-7.19e-06	1.70e-04	159.1	-1444.27	146.09	0.11	1.90	12.80	1.386e+04
45	101	1.841e+04	26.40	-0.21	-548.19	0.0	-169.72	357.31	-0.58	11.75	26.40	-76.22
		-76.22	-66.03	4.79e-05	0.0	159.1	46.19	-190.89	-0.58	11.75	-66.03	1.316e+04
45	102	1.915e+04	24.70	-0.21	-592.26	0.0	-178.52	378.30	-0.54	11.40	24.70	-63.44
		-63.44	-61.66	4.49e-05	0.0	159.1	54.74	-213.96	-0.54	11.40	-61.66	1.301e+04
45	103	1.841e+04	26.40	-0.21	-548.19	0.0	-169.72	357.31	-0.58	11.75	26.40	-76.22
		-76.22	-66.03	4.79e-05	0.0	159.1	46.19	-190.89	-0.58	11.75	-66.03	1.316e+04
48	2	1.287e+04	126.64	0.03	-580.30	0.0	-4813.57	-66.87	-0.72	9.86	126.64	1.287e+04
		-1.390e+04	72.70	1.30e-03	0.0	75.0	-4585.01	-647.17	-0.72	9.86	72.70	-1.390e+04
48	9	8.553e+04	239.55	0.58	-806.80	0.0	-3095.43	-819.74	-0.93	16.22	239.55	8.553e+04
		-6203.63	169.91	2.30e-03	-2.29e-04	75.0	-2934.95	-1626.55	-0.93	16.22	169.91	-6203.63
48	10	8.741e+04	234.22	0.59	-893.24	0.0	-3770.81	-829.17	-0.99	16.33	234.22	8.741e+04
		-8271.53	159.94	2.28e-03	-2.29e-04	75.0	-3576.29	-1722.41	-0.99	16.33	159.94	-8271.53
48	11	8.200e+04	211.92	0.58	-647.04	0.0	-1782.61	-801.49	-0.74	13.91	211.92	8.200e+04
		-2376.66	156.11	2.01e-03	-2.29e-04	75.0	-1685.07	-1448.53	-0.74	13.91	156.11	-2376.66
48	15	-9504.97	7.40	-0.56	151.71	0.0	-2517.36	741.96	-0.08	0.78	7.40	-7.084e+04
		-7.084e+04	1.55	8.72e-05	2.29e-04	75.0	-2419.81	893.66	-0.08	0.78	1.55	-9504.97
48	16	-1.157e+04	2.07	-0.55	65.27	0.0	-3192.75	732.53	-0.14	0.88	2.07	-6.896e+04
		-6.896e+04	-8.41	6.56e-05	2.29e-04	75.0	-3061.16	797.80	-0.14	0.88	-8.41	-1.157e+04
48	30	5457.03	-7166.65	5.35e-03	-284.83	0.0	-2434.49	-21.58	27.87	82.59	-8885.85	5457.03
		-6843.39	-8885.85	0.09	0.0	75.0	-2322.31	-306.41	27.87	82.59	-7166.65	-6843.39
48	31	7318.10	9100.58	0.02	-284.83	0.0	-2446.19	-46.06	-28.75	-67.81	9100.58	7318.10
		-6816.27	7315.74	-0.09	0.0	75.0	-2334.00	-330.88	-28.75	-67.81	7315.74	-6816.27
48	53	9451.38	-2035.83	0.04	-284.83	0.0	-2428.35	-74.17	3.99	40.25	-2233.12	9451.38
		-6790.88	-2233.12	0.03	0.0	75.0	-2316.17	-359.00	3.99	40.25	-2035.83	-6790.88
48	54	3317.44	-2082.71	-0.01	-284.83	0.0	-2447.03	6.60	5.21	35.70	-2279.34	3317.44
		-6869.95	-2279.34	0.03	0.0	75.0	-2334.85	-278.22	5.21	35.70	-2082.71	-6869.95
48	55	9457.70	2494.08	0.04	-284.83	0.0	-2433.65	-74.24	-6.09	-20.92	2494.08	9457.70
		-6789.70	2231.80	-0.03	0.0	75.0	-2321.47	-359.07	-6.09	-20.92	2231.80	-6789.70
48	56	3323.75	2447.86	-0.01	-284.83	0.0	-2452.33	6.53	-4.87	-25.46	2447.86	3323.75
		-6868.77	2184.92	-0.03	0.0	75.0	-2340.15	-278.30	-4.87	-25.46	2184.92	-6868.77
48	62	5832.12	-3303.98	8.17e-03	-284.83	0.0	-2437.89	-26.51	14.25	50.09	-4099.67	5832.12
		-6837.79	-4099.67	0.04	0.0	75.0	-2325.70	-311.34	14.25	50.09	-3303.98	-6837.79
48	63	6943.01	4314.40	0.02	-284.83	0.0	-2442.80	-41.13	-15.13	-35.31	4314.40	6943.01
		-6821.86	3453.08	-0.04	0.0	75.0	-2330.61	-325.95	-15.13	-35.31	3453.08	-6821.86
48	85	8220.24	-906.33	0.03	-284.83	0.0	-2433.49	-57.95	2.07	24.43	-983.38	8220.24

		-6806.28	-983.38	0.01	0.0	75.0	-2321.31	-342.78	2.07	24.43	-906.33	-6806.28
48	86	4551.75	-935.24	-2.42e-03	-284.83	0.0	-2444.67	-9.65	2.82	21.62	-1012.02	4551.75
		-6853.98	-1012.02	0.01	0.0	75.0	-2332.48	-294.47	2.82	21.62	-935.24	-6853.98
48	87	8223.39	1226.75	0.03	-284.83	0.0	-2436.02	-57.99	-3.70	-6.83	1226.75	8223.39
		-6805.68	1084.33	-0.01	0.0	75.0	-2323.83	-342.82	-3.70	-6.83	1084.33	-6805.68
48	88	4554.90	1198.12	-2.41e-03	-284.83	0.0	-2447.19	-9.69	-2.94	-9.65	1198.12	4554.90
		-6853.38	1055.42	-0.01	0.0	75.0	-2335.00	-294.51	-2.94	-9.65	1055.42	-6853.38
48	90	8894.66	100.27	0.02	-400.07	0.0	-3340.86	-46.39	-0.52	7.53	100.27	8894.66
		-9587.03	61.26	1.01e-03	0.0	75.0	-3183.28	-446.46	-0.52	7.53	61.26	-9587.03
48	93	5.733e+04	175.54	0.39	-551.07	0.0	-2195.43	-548.30	-0.66	11.77	175.54	5.733e+04
		-4453.72	126.07	1.68e-03	-1.53e-04	75.0	-2083.24	-1099.38	-0.66	11.77	126.07	-4453.72
48	94	5.859e+04	171.99	0.39	-608.70	0.0	-2645.68	-554.59	-0.70	11.84	171.99	5.859e+04
		-5832.33	119.42	1.66e-03	-1.53e-04	75.0	-2510.80	-1163.28	-0.70	11.84	119.42	-5832.33
48	95	-9205.93	39.19	-0.37	-18.58	0.0	-2685.26	480.66	-0.22	3.01	39.19	-4.456e+04
		-4.456e+04	23.03	3.98e-04	1.53e-04	75.0	-2573.07	462.09	-0.22	3.01	23.03	-9205.93
48	96	-1.058e+04	35.64	-0.36	-76.20	0.0	-3135.51	474.38	-0.26	3.08	35.64	-4.331e+04
		-4.331e+04	16.38	3.84e-04	1.53e-04	75.0	-3000.64	398.18	-0.26	3.08	16.38	-1.058e+04
48	101	6387.57	107.37	0.01	-284.83	0.0	-2440.34	-33.82	-0.44	7.39	107.37	6387.57
		-6829.83	74.55	1.04e-03	0.0	75.0	-2328.16	-318.65	-0.44	7.39	74.55	-6829.83
48	102	6888.99	105.95	0.01	-307.87	0.0	-2620.44	-36.33	-0.45	7.42	105.95	6888.99
		-7381.27	71.89	1.03e-03	0.0	75.0	-2499.18	-344.21	-0.45	7.42	71.89	-7381.27
48	103	6387.57	107.37	0.01	-284.83	0.0	-2440.34	-33.82	-0.44	7.39	107.37	6387.57
		-6829.83	74.55	1.04e-03	0.0	75.0	-2328.16	-318.65	-0.44	7.39	74.55	-6829.83
49	1	7369.90	0.0	-0.23	-94.38	0.0	5128.27	58.18	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	5128.24	-36.19	0.0	0.0	0.0	4518.78
49	2	9812.13	0.0	-0.32	-94.38	0.0	7183.05	67.17	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	7183.02	-27.21	0.0	0.0	0.0	8211.31
49	3	4836.84	0.0	-0.14	-72.60	0.0	3163.38	41.34	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	3163.36	-31.26	0.0	0.0	0.0	2071.71
49	15	4424.93	0.0	-0.12	-72.60	0.0	2312.21	39.56	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	2312.18	-33.04	0.0	0.0	0.0	1339.44
49	29	5283.87	3.55	-0.16	-72.60	0.0	3607.36	43.26	-0.01	-1.07e-03	3.55	0.0
		0.0	-3.00	8.48e-05	0.0	411.0	3607.34	-29.34	-0.01	-1.07e-03	-3.00	2859.54
49	32	5291.25	3.00	-0.16	-72.60	0.0	3602.77	43.29	0.01	1.07e-03	-3.55	0.0
		0.0	-3.55	-8.48e-05	0.0	411.0	3602.75	-29.31	0.01	1.07e-03	3.00	2871.33
49	43	5305.07	1.81	-0.16	-72.60	0.0	3631.79	43.34	8.81e-03	4.64e-05	-0.15	0.0
		0.0	-0.15	-5.44e-05	0.0	411.0	3631.77	-29.26	8.81e-03	4.64e-05	1.81	2893.45
49	50	5263.47	0.08	-0.16	-72.60	0.0	3567.23	43.18	-9.19e-03	-2.27e-05	0.08	0.0
		0.0	-1.89	5.72e-05	0.0	411.0	3567.21	-29.42	-9.19e-03	-2.27e-05	-1.89	2826.89
49	51	5311.65	1.89	-0.16	-72.60	0.0	3642.90	43.37	9.19e-03	2.27e-05	-0.08	0.0
		0.0	-0.08	-5.72e-05	0.0	411.0	3642.88	-29.23	9.19e-03	2.27e-05	1.89	2903.98
49	55	5311.65	1.08	-0.16	-72.60	0.0	3642.89	43.37	5.26e-03	-2.21e-04	0.73	0.0
		0.0	0.73	-3.73e-05	0.0	411.0	3642.87	-29.23	5.26e-03	-2.21e-04	1.08	2903.98
49	61	5286.57	2.32	-0.16	-72.60	0.0	3607.45	43.27	-9.55e-03	-6.99e-04	2.32	0.0
		0.0	-1.96	5.54e-05	0.0	411.0	3607.43	-29.33	-9.55e-03	-6.99e-04	-1.96	2863.85
49	64	5288.55	1.96	-0.16	-72.60	0.0	3602.68	43.28	9.55e-03	6.99e-04	-2.32	0.0
		0.0	-2.32	-5.54e-05	0.0	411.0	3602.66	-29.32	9.55e-03	6.99e-04	1.96	2867.02
49	75	5297.67	1.18	-0.16	-72.60	0.0	3620.74	43.31	5.74e-03	3.16e-05	-0.10	0.0
		0.0	-0.10	-3.54e-05	0.0	411.0	3620.72	-29.29	5.74e-03	3.16e-05	1.18	2881.60
49	86	5273.51	-0.48	-0.16	-72.60	0.0	3582.73	43.22	-3.42e-03	1.44e-04	-0.48	0.0
		0.0	-0.70	2.43e-05	0.0	411.0	3582.71	-29.38	-3.42e-03	1.44e-04	-0.70	2842.95
49	87	5301.62	0.70	-0.16	-72.60	0.0	3627.40	43.33	3.42e-03	-1.44e-04	0.48	0.0
		0.0	0.48	-2.43e-05	0.0	411.0	3627.38	-29.27	3.42e-03	-1.44e-04	0.70	2887.92
49	89	5287.56	0.0	-0.16	-72.60	0.0	3605.07	43.27	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	3605.04	-29.33	0.0	0.0	0.0	2865.43
49	90	6867.67	0.0	-0.22	-72.60	0.0	4974.92	49.26	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	4974.90	-23.34	0.0	0.0	0.0	5327.12
49	95	5008.70	0.0	-0.15	-72.60	0.0	3037.61	42.08	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	3037.59	-30.52	0.0	0.0	0.0	2377.25
49	101	5287.56	0.0	-0.16	-72.60	0.0	3605.07	43.27	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	3605.04	-29.33	0.0	0.0	0.0	2865.43
49	102	5595.27	0.0	-0.17	-72.60	0.0	3879.04	44.47	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	3879.01	-28.13	0.0	0.0	0.0	3357.77
49	103	5287.56	0.0	-0.16	-72.60	0.0	3605.07	43.27	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	3605.04	-29.33	0.0	0.0	0.0	2865.43
51	2	-1.390e+04	72.70	7.03e-03	-129.45	0.0	-4585.05	-646.92	-0.72	9.87	72.70	-1.390e+04
		-2.581e+04	60.67	3.54e-04	0.0	16.7	-4534.07	-776.37	-0.72	9.87	60.67	-2.581e+04
51	9	-6203.63	169.91	0.14	-179.97	0.0	-2935.04	-1626.39	-0.93	16.23	169.91	-6203.63
		-3.492e+04	154.37	6.53e-04	-4.71e-05	16.7	-2899.25	-1806.36	-0.93	16.23	154.37	-3.492e+04
51	10	-8271.53	159.94	0.14	-199.25	0.0	-3576.39	-1722.22	-0.99	16.34	159.94	-8271.53
		-3.875e+04	143.37	6.41e-04	-4.71e-05	16.7	-3533.00	-1921.47	-0.99	16.34	143.37	-3.875e+04
51	11	-2376.66	156.11	0.14	-144.33	0.0	-1685.14	-1448.44	-0.74	13.92	156.11	-2376.66
		-2.782e+04	143.66	5.74e-04	-4.71e-05	16.7	-1663.39	-1592.77	-0.74	13.92	143.66	-2.782e+04
51	15	5730.87	1.55	-0.13	33.84	0.0	-2419.76	893.80	-0.08	0.78	1.55	-9504.97
		-9504.97	0.25	2.17e-05	4.71e-05	16.7	-2398.01	927.63	-0.08	0.78	0.25	5730.87
51	16	1898.56	-8.41	-0.13	14.56	0.0	-3061.11	797.97	-0.14	0.88	-8.41	-1.157e+04
		-1.157e+04	-10.75	1.04e-05	4.71e-05	16.7	-3031.76	812.53	-0.14	0.88	-10.75	1898.56

51	30	-6843.39	-6189.39	1.81e-03	-63.53	0.0	-2322.30	-305.75	62.69	82.37	-7166.65	-6843.39
		-1.249e+04	-7166.65	0.01	0.0	16.7	-2297.28	-369.29	62.69	82.37	-6189.39	-1.249e+04
51	31	-6816.27	7315.74	5.11e-03	-63.53	0.0	-2334.04	-331.28	-63.57	-67.58	7315.74	-6816.27
		-1.289e+04	6323.84	-0.01	0.0	16.7	-2309.02	-394.82	-63.57	-67.58	6323.84	-1.289e+04
51	53	-6790.88	-1834.62	8.96e-03	-63.53	0.0	-2316.27	-360.53	11.85	40.15	-2035.83	-6790.88
		-1.336e+04	-2035.83	5.16e-03	0.0	16.7	-2291.25	-424.06	11.85	40.15	-1834.62	-1.336e+04
51	55	-6789.70	2231.81	8.96e-03	-63.53	0.0	-2321.57	-360.62	-13.98	-20.81	2231.81	-6789.70
		-1.335e+04	2036.68	-4.56e-03	0.0	16.7	-2296.55	-424.16	-13.98	-20.81	2036.68	-1.335e+04
51	56	-6868.77	2184.92	-2.04e-03	-63.53	0.0	-2340.07	-276.51	-12.73	-25.36	2184.92	-6868.77
		-1.202e+04	1969.06	-4.57e-03	0.0	16.7	-2315.05	-340.05	-12.73	-25.36	1969.06	-1.202e+04
51	62	-6837.79	-2860.40	2.47e-03	-63.53	0.0	-2325.71	-310.90	29.79	50.01	-3303.98	-6837.79
		-1.257e+04	-3303.98	6.56e-03	0.0	16.7	-2300.69	-374.43	29.79	50.01	-2860.40	-1.257e+04
51	63	-6821.86	3453.08	4.45e-03	-63.53	0.0	-2330.64	-326.14	-30.66	-35.22	3453.08	-6821.86
		-1.281e+04	2994.85	-5.97e-03	0.0	16.7	-2305.62	-389.68	-30.66	-35.22	2994.85	-1.281e+04
51	85	-6806.28	-816.68	6.75e-03	-63.53	0.0	-2321.38	-343.65	5.45	24.39	-906.33	-6806.28
		-1.309e+04	-906.33	2.56e-03	0.0	16.7	-2296.36	-407.18	5.45	24.39	-816.68	-1.309e+04
51	87	-6805.68	1084.33	6.75e-03	-63.53	0.0	-2323.90	-343.70	-7.10	-6.79	1084.33	-6805.68
		-1.309e+04	992.87	-1.96e-03	0.0	16.7	-2298.88	-407.23	-7.10	-6.79	992.87	-1.309e+04
51	88	-6853.38	1055.42	1.93e-04	-63.53	0.0	-2334.97	-293.39	-6.32	-9.60	1055.42	-6853.38
		-1.229e+04	951.13	-1.98e-03	0.0	16.7	-2309.95	-356.93	-6.32	-9.60	951.13	-1.229e+04
51	90	-9587.03	61.26	4.85e-03	-89.24	0.0	-3183.31	-446.29	-0.52	7.53	61.26	-9587.03
		-1.780e+04	52.56	2.78e-04	0.0	16.7	-3148.16	-535.53	-0.52	7.53	52.56	-1.780e+04
51	93	-4453.72	126.07	0.09	-122.92	0.0	-2083.30	-1099.27	-0.66	11.78	126.07	-4453.72
		-2.387e+04	115.03	4.77e-04	-3.14e-05	16.7	-2058.28	-1222.19	-0.66	11.78	115.03	-2.387e+04
51	94	-5832.33	119.42	0.10	-135.78	0.0	-2510.87	-1163.15	-0.70	11.85	119.42	-5832.33
		-2.643e+04	107.70	4.70e-04	-3.14e-05	16.7	-2480.79	-1298.93	-0.70	11.85	107.70	-2.643e+04
51	95	-1507.77	23.03	-0.09	-4.14	0.0	-2573.05	462.23	-0.22	3.01	23.03	-9205.93
		-9205.93	19.42	1.09e-04	3.14e-05	16.7	-2548.03	458.08	-0.22	3.01	19.42	-1507.77
51	96	-4062.64	16.38	-0.09	-17.00	0.0	-3000.61	398.34	-0.26	3.08	16.38	-1.058e+04
		-1.058e+04	12.09	1.01e-04	3.14e-05	16.7	-2970.53	381.34	-0.26	3.08	12.09	-4062.64
51	101	-6829.83	74.55	3.46e-03	-63.53	0.0	-2328.17	-318.52	-0.44	7.40	74.55	-6829.83
		-1.269e+04	67.22	2.93e-04	0.0	16.7	-2303.15	-382.05	-0.44	7.40	67.22	-1.269e+04
51	102	-7381.27	71.89	3.74e-03	-68.68	0.0	-2499.20	-344.07	-0.45	7.42	71.89	-7381.27
		-1.371e+04	64.29	2.90e-04	0.0	16.7	-2472.16	-412.75	-0.45	7.42	64.29	-1.371e+04
51	103	-6829.83	74.55	3.46e-03	-63.53	0.0	-2328.17	-318.52	-0.44	7.40	74.55	-6829.83
		-1.269e+04	67.22	2.93e-04	0.0	16.7	-2303.15	-382.05	-0.44	7.40	67.22	-1.269e+04
52	2	3.309e+04	-118.34	-0.16	-386.87	0.0	-8050.26	860.28	1.42	61.67	-189.19	-252.00
		-252.00	-189.19	-2.35e-04	0.0	50.0	-7897.89	473.40	1.42	61.67	-118.34	3.309e+04
52	9	7.378e+04	-207.46	-0.53	-537.88	0.0	-5264.33	1787.82	2.46	96.65	-330.41	-2167.17
		-2167.17	-330.41	-4.10e-04	0.0	50.0	-5157.35	1249.94	2.46	96.65	-207.46	7.378e+04
52	10	7.865e+04	-205.95	-0.56	-595.50	0.0	-6418.63	1915.76	2.45	98.32	-328.27	-2249.91
		-2249.91	-328.27	-4.07e-04	0.0	50.0	-6288.95	1320.26	2.45	98.32	-205.95	7.865e+04
52	11	6.468e+04	-180.61	-0.49	-431.36	0.0	-3061.37	1551.03	2.14	81.92	-287.38	-2084.27
		-2084.27	-287.38	-3.56e-04	0.0	50.0	-2996.34	1119.67	2.14	81.92	-180.61	6.468e+04
52	15	2077.03	-8.39	0.35	101.14	0.0	-4016.05	-815.83	0.10	5.29	-13.48	2077.03
		-3.619e+04	-13.48	-1.67e-05	0.0	50.0	-3951.02	-714.69	0.10	5.29	-8.39	-3.619e+04
52	16	1994.29	-6.88	0.33	43.51	0.0	-5170.35	-687.88	0.09	6.95	-11.34	1994.29
		-3.131e+04	-11.34	-1.41e-05	0.0	50.0	-5082.62	-644.37	0.09	6.95	-6.88	-3.131e+04
52	30	1.579e+04	2.700e+04	-0.07	-189.89	0.0	-4031.14	410.81	-151.07	1123.47	2.700e+04	-1.94
		-1.94	1.947e+04	0.03	0.0	50.0	-3956.35	220.93	-151.07	1123.47	1.947e+04	1.579e+04
52	31	1.690e+04	-1.965e+04	-0.08	-189.89	0.0	-4038.77	434.40	153.29	-1034.84	-2.730e+04	-76.44
		-76.44	-2.730e+04	-0.03	0.0	50.0	-3963.98	244.51	153.29	-1034.84	-1.965e+04	1.690e+04
52	53	1.817e+04	7337.86	-0.10	-189.89	0.0	-4016.35	461.56	-38.72	354.59	7337.86	-168.60
		-168.60	5406.79	9.04e-03	0.0	50.0	-3941.57	271.67	-38.72	354.59	5406.79	1.817e+04
52	55	1.817e+04	-5678.86	-0.10	-189.89	0.0	-4021.63	461.62	42.46	-254.63	-7796.91	-167.72
		-167.72	-7796.91	-9.61e-03	0.0	50.0	-3946.84	271.73	42.46	-254.63	-5678.86	1.817e+04
52	56	1.452e+04	-5594.49	-0.06	-189.89	0.0	-4053.55	383.65	40.94	-265.95	-7636.89	90.22
		90.22	-7636.89	-9.41e-03	0.0	50.0	-3978.76	193.77	40.94	-265.95	-5594.49	1.452e+04
52	62	1.601e+04	1.254e+04	-0.08	-189.89	0.0	-4033.69	415.56	-70.41	548.29	1.254e+04	-16.65
		-16.65	9037.83	0.02	0.0	50.0	-3958.91	225.67	-70.41	548.29	9037.83	1.601e+04
52	63	1.667e+04	-9225.53	-0.08	-189.89	0.0	-4036.21	429.65	72.64	-459.66	-1.284e+04	-61.73
		-61.73	-1.284e+04	-0.02	0.0	50.0	-3961.42	239.76	72.64	-459.66	-9225.53	1.667e+04
52	85	1.743e+04	3336.04	-0.09	-189.89	0.0	-4024.15	445.90	-17.47	190.32	3336.04	-116.78
		-116.78	2466.35	4.11e-03	0.0	50.0	-3949.36	256.02	-17.47	190.32	2466.35	1.743e+04
52	87	1.744e+04	-2706.27	-0.09	-189.89	0.0	-4026.66	445.93	20.64	-94.72	-3734.18	-116.37
		-116.37	-3734.18	-4.60e-03	0.0	50.0	-3951.88	256.05	20.64	-94.72	-2706.27	1.744e+04
52	88	1.525e+04	-2654.05	-0.07	-189.89	0.0	-4045.76	399.31	19.70	-101.68	-3635.07	38.41
		38.41	-3635.07	-4.48e-03	0.0	50.0	-3970.97	209.42	19.70	-101.68	-2654.05	1.525e+04
52	90	2.284e+04	-91.84	-0.11	-266.72	0.0	-5574.01	593.20	1.10	46.54	-146.67	-149.51
		-149.51	-146.67	-1.82e-04	0.0	50.0	-5468.96	326.48	1.10	46.54	-91.84	2.284e+04
52	93	4.997e+04	-151.26	-0.36	-367.39	0.0	-3716.72	1211.56	1.79	69.86	-240.82	-1426.29
		-1426.29	-240.82	-2.99e-04	0.0	50.0	-3641.93	844.17	1.79	69.86	-151.26	4.997e+04
52	94	5.322e+04	-150.25	-0.37	-405.80	0.0	-4486.25	1296.85	1.78	70.97	-239.40	-1481.45
		-1481.45	-239.40	-2.97e-04	0.0	50.0	-4396.33	891.05	1.78	70.97	-150.25	5.322e+04
52	95	1347.91	-36.45	0.20	-12.39	0.0	-4353.18	-366.35	0.44	18.77	-58.21	1347.91
		-1.728e+04	-58.21	-7.22e-05	0.0	50.0	-4278.39	-378.73	0.44	18.77	-36.45	-1.728e+04
52	96	1292.75	-35.44	0.19	-50.80	0.0	-5122.71	-281.05	0.43	19.89	-56.79	1292.75

		-1.403e+04	-56.79	-7.04e-05	0.0	50.0	-5032.79	-331.85	0.43	19.89	-35.44	-1.403e+04
52	101	1.634e+04	-93.85	-0.08	-189.89	0.0	-4034.95	422.61	1.11	44.32	-149.51	-39.19
		-39.19	-149.51	-1.85e-04	0.0	50.0	-3960.16	232.72	1.11	44.32	-93.85	1.634e+04
52	102	1.764e+04	-93.45	-0.08	-205.25	0.0	-4342.76	456.72	1.11	44.76	-148.94	-61.25
		-61.25	-148.94	-1.85e-04	0.0	50.0	-4261.92	251.47	1.11	44.76	-93.45	1.764e+04
52	103	1.634e+04	-93.85	-0.08	-189.89	0.0	-4034.95	422.61	1.11	44.32	-149.51	-39.19
		-39.19	-149.51	-1.85e-04	0.0	50.0	-3960.16	232.72	1.11	44.32	-93.85	1.634e+04
53	2	4.757e+04	-12.06	-0.15	-580.30	0.0	-7897.90	473.32	1.42	61.67	-118.34	3.309e+04
		3.309e+04	-118.34	-8.36e-04	0.0	75.0	-7669.33	-106.99	1.42	61.67	-12.06	4.683e+04
53	9	1.373e+05	-23.06	-0.61	-806.80	0.0	-5157.37	1249.89	2.46	96.65	-207.46	7.378e+04
		7.378e+04	-207.46	-1.46e-03	-1.40e-04	75.0	-4996.89	443.08	2.46	96.65	-23.06	1.373e+05
53	10	1.442e+05	-22.48	-0.64	-893.24	0.0	-6288.96	1320.19	2.45	98.32	-205.95	7.865e+04
		7.865e+04	-205.95	-1.45e-03	-1.40e-04	75.0	-6094.45	426.95	2.45	98.32	-22.48	1.442e+05
53	11	1.244e+05	-20.45	-0.57	-647.04	0.0	-2996.35	1119.63	2.14	81.92	-180.61	6.468e+04
		6.468e+04	-180.61	-1.27e-03	-1.40e-04	75.0	-2898.80	472.59	2.14	81.92	-20.45	1.244e+05
53	15	-3.619e+04	-0.76	0.44	151.71	0.0	-3951.02	-714.73	0.10	5.29	-8.39	-3.619e+04
		-8.410e+04	-8.39	-5.93e-05	1.40e-04	75.0	-3853.47	-563.02	0.10	5.29	-0.76	-8.410e+04
53	16	-3.131e+04	-0.18	0.42	65.27	0.0	-5082.62	-644.43	0.09	6.95	-6.88	-3.131e+04
		-7.720e+04	-6.88	-4.90e-05	1.40e-04	75.0	-4951.02	-579.15	0.09	6.95	-0.18	-7.720e+04
53	30	2.231e+04	1.947e+04	-0.07	-284.83	0.0	-3956.29	222.70	-148.57	1123.26	1.947e+04	1.579e+04
		1.579e+04	8409.89	0.13	0.0	75.0	-3844.10	-62.13	-148.57	1123.26	8409.89	2.181e+04
53	31	2.464e+04	-8430.60	-0.08	-284.83	0.0	-3964.04	242.65	150.79	-1034.62	-1.965e+04	1.690e+04
		1.690e+04	-1.965e+04	-0.13	0.0	75.0	-3851.86	-42.17	150.79	-1034.62	-8430.60	2.442e+04
53	53	2.746e+04	5406.79	-0.10	-284.83	0.0	-3941.78	265.63	-38.20	354.53	5406.79	1.817e+04
		1.817e+04	2537.51	0.04	0.0	75.0	-3829.59	-19.20	-38.20	354.53	2537.51	2.741e+04
53	54	1.976e+04	5491.16	-0.05	-284.83	0.0	-3973.28	199.67	-39.62	343.21	5491.16	1.452e+04
		1.452e+04	2559.89	0.04	0.0	75.0	-3861.10	-85.15	-39.62	343.21	2559.89	1.881e+04
53	55	2.746e+04	-2580.60	-0.10	-284.83	0.0	-3947.05	265.68	41.84	-254.57	-5678.86	1.817e+04
		1.817e+04	-5678.86	-0.04	0.0	75.0	-3834.86	-19.14	41.84	-254.57	-2580.60	2.742e+04
53	56	1.977e+04	-2558.22	-0.05	-284.83	0.0	-3978.56	199.72	40.42	-265.89	-5594.49	1.452e+04
		1.452e+04	-5594.49	-0.04	0.0	75.0	-3866.37	-85.10	40.42	-265.89	-2558.22	1.882e+04
53	62	2.278e+04	9037.84	-0.07	-284.83	0.0	-3958.87	226.72	-69.19	548.20	9037.84	1.601e+04
		1.601e+04	3915.65	0.06	0.0	75.0	-3846.69	-58.11	-69.19	548.20	3915.65	2.234e+04
53	63	2.417e+04	-3936.37	-0.08	-284.83	0.0	-3961.46	238.64	71.42	-459.56	-9225.54	1.667e+04
		1.667e+04	-9225.54	-0.06	0.0	75.0	-3849.28	-46.19	71.42	-459.56	-3936.37	2.389e+04
53	85	2.582e+04	2466.36	-0.09	-284.83	0.0	-3949.49	252.39	-17.22	190.29	2466.36	1.743e+04
		1.743e+04	1175.55	0.02	0.0	75.0	-3837.30	-32.44	-17.22	190.29	1175.55	2.568e+04
53	86	2.122e+04	2518.57	-0.06	-284.83	0.0	-3968.33	212.94	-18.10	183.33	2518.57	1.525e+04
		1.525e+04	1189.41	0.02	0.0	75.0	-3856.15	-71.89	-18.10	183.33	1189.41	2.054e+04
53	87	2.582e+04	-1210.12	-0.09	-284.83	0.0	-3952.00	252.41	20.33	-94.69	-2706.27	1.744e+04
		1.744e+04	-2706.27	-0.02	0.0	75.0	-3839.82	-32.41	20.33	-94.69	-1210.12	2.569e+04
53	88	2.123e+04	-1196.27	-0.06	-284.83	0.0	-3970.85	212.97	19.45	-101.65	-2654.06	1.525e+04
		1.525e+04	-2654.06	-0.02	0.0	75.0	-3858.66	-71.86	19.45	-101.65	-1196.27	2.055e+04
53	90	3.283e+04	-9.59	-0.10	-400.07	0.0	-5468.96	326.42	1.10	46.54	-91.84	2.284e+04
		2.284e+04	-91.84	-6.48e-04	0.0	75.0	-5311.39	-73.65	1.10	46.54	-9.59	3.232e+04
53	93	9.261e+04	-16.92	-0.41	-551.07	0.0	-3641.94	844.13	1.79	69.87	-151.25	4.997e+04
		4.997e+04	-151.25	-1.07e-03	-9.31e-05	75.0	-3529.76	293.06	1.79	69.87	-16.92	9.261e+04
53	94	9.722e+04	-16.53	-0.43	-608.70	0.0	-4396.34	891.00	1.78	70.98	-150.25	5.322e+04
		5.322e+04	-150.25	-1.06e-03	-9.31e-05	75.0	-4261.46	282.30	1.78	70.98	-16.53	9.722e+04
53	95	-1.728e+04	-3.79	0.26	-18.58	0.0	-4278.39	-378.78	0.44	18.77	-36.44	-1.728e+04
		-4.638e+04	-36.44	-2.57e-04	9.31e-05	75.0	-4166.20	-397.36	0.44	18.77	-3.79	-4.638e+04
53	96	-1.403e+04	-3.41	0.25	-76.20	0.0	-5032.79	-331.91	0.43	19.89	-35.44	-1.403e+04
		-4.178e+04	-35.44	-2.50e-04	9.31e-05	75.0	-4897.91	-408.11	0.43	19.89	-3.41	-4.178e+04
53	101	2.347e+04	-10.36	-0.08	-284.83	0.0	-3960.17	232.68	1.11	44.32	-93.85	1.634e+04
		1.634e+04	-93.85	-6.62e-04	0.0	75.0	-3847.98	-52.15	1.11	44.32	-10.36	2.311e+04
53	102	2.534e+04	-10.20	-0.08	-307.87	0.0	-4261.93	251.42	1.11	44.76	-93.45	1.764e+04
		1.764e+04	-93.45	-6.59e-04	0.0	75.0	-4140.66	-56.45	1.11	44.76	-10.20	2.496e+04
53	103	2.347e+04	-10.36	-0.08	-284.83	0.0	-3960.17	232.68	1.11	44.32	-93.85	1.634e+04
		1.634e+04	-93.85	-6.62e-04	0.0	75.0	-3847.98	-52.15	1.11	44.32	-10.36	2.311e+04
55	2	4.683e+04	94.22	-0.03	-580.31	0.0	-7669.34	-106.85	1.42	61.67	-12.06	4.683e+04
		1.705e+04	-12.06	-9.01e-04	0.0	75.0	-7440.78	-687.16	1.42	61.67	94.22	1.705e+04
55	9	1.464e+05	161.33	-0.26	-806.81	0.0	-4996.88	443.17	2.46	96.65	-23.06	1.373e+05
		1.373e+05	-23.06	-1.59e-03	-1.62e-04	75.0	-4836.41	-363.65	2.46	96.65	161.33	1.402e+05
55	10	1.518e+05	160.98	-0.27	-893.25	0.0	-6094.44	427.06	2.45	98.32	-22.48	1.442e+05
		1.427e+05	-22.48	-1.58e-03	-1.62e-04	75.0	-5899.93	-466.19	2.45	98.32	160.98	1.427e+05
55	11	1.373e+05	139.70	-0.26	-647.05	0.0	-2898.79	472.64	2.14	81.92	-20.45	1.244e+05
		1.244e+05	-20.45	-1.39e-03	-1.62e-04	75.0	-2801.25	-174.40	2.14	81.92	139.70	1.356e+05
55	15	-8.410e+04	6.88	0.23	151.71	0.0	-3853.48	-562.96	0.10	5.29	-0.76	-8.410e+04
		-1.206e+05	-0.76	-6.35e-05	1.62e-04	75.0	-3755.93	-411.25	0.10	5.29	6.88	-1.206e+05
55	38	2.181e+04	8523.16	-0.01	-284.83	0.0	-3843.76	-57.19	-121.23	1057.94	8523.16	2.181e+04
		6842.02	-1234.79	0.17	0.0	75.0	-3731.58	-342.02	-121.23	1057.94	-1234.79	6842.02
55	39	2.442e+04	1381.07	-0.02	-284.83	0.0	-3852.21	-46.97	123.46	-969.30	-8543.88	2.442e+04
		1.021e+04	-8543.88	-0.17	0.0	75.0	-3740.03	-331.80	123.46	-969.30	1381.07	1.021e+04
55	53	2.741e+04	2537.50	-0.02	-284.83	0.0	-3830.15	-35.27	-35.07	354.58	2537.50	2.741e+04
		1.408e+04	-268.39	0.05	0.0	75.0	-3717.97	-320.10	-35.07	354.58	-268.39	1.408e+04
55	54	1.881e+04	2559.88	-6.63e-03	-284.83	0.0	-3860.55	-68.93	-36.02	343.26	2559.88	1.881e+04
		2961.67	-361.70	0.05	0.0	75.0	-3748.37	-353.76	-36.02	343.26	-361.70	2961.67

55	55	2.742e+04	507.97	-0.02	-284.83	0.0	-3835.42	-35.24	38.25	-254.62	-2580.60	2.742e+04
		1.409e+04	-2580.60	-0.05	0.0	75.0	-3723.24	-320.07	38.25	-254.62	507.97	1.409e+04
55	56	1.882e+04	414.66	-6.66e-03	-284.83	0.0	-3865.82	-68.89	37.30	-265.94	-2558.22	1.882e+04
		2971.55	-2558.22	-0.05	0.0	75.0	-3753.64	-353.72	37.30	-265.94	414.66	2971.55
55	70	2.234e+04	3967.84	-0.01	-284.83	0.0	-3846.52	-55.13	-56.14	518.31	3967.84	2.234e+04
		7520.71	-704.40	0.08	0.0	75.0	-3734.34	-339.96	-56.14	518.31	-704.40	7520.71
55	71	2.389e+04	850.67	-0.02	-284.83	0.0	-3849.45	-49.03	58.37	-429.67	-3988.55	2.389e+04
		9532.16	-3988.55	-0.08	0.0	75.0	-3737.27	-333.86	58.37	-429.67	850.67	9532.16
55	85	2.568e+04	1175.55	-0.02	-284.83	0.0	-3837.64	-42.03	-15.74	190.31	1175.55	2.568e+04
		1.185e+04	-128.60	0.02	0.0	75.0	-3725.46	-326.86	-15.74	190.31	-128.60	1.185e+04
55	86	2.054e+04	1189.40	-9.70e-03	-284.83	0.0	-3855.81	-62.15	-16.33	183.35	1189.40	2.054e+04
		5198.86	-186.44	0.02	0.0	75.0	-3743.63	-346.98	-16.33	183.35	-186.44	5198.86
55	87	2.569e+04	332.71	-0.02	-284.83	0.0	-3840.15	-42.01	18.56	-94.71	-1210.12	2.569e+04
		1.185e+04	-1210.12	-0.02	0.0	75.0	-3727.97	-326.84	18.56	-94.71	332.71	1.185e+04
55	88	2.055e+04	274.88	-9.72e-03	-284.83	0.0	-3858.33	-62.14	17.97	-101.67	-1196.27	2.055e+04
		5203.78	-1196.27	-0.02	0.0	75.0	-3746.15	-346.97	17.97	-101.67	274.88	5203.78
55	90	3.232e+04	72.66	-0.02	-400.08	0.0	-5311.39	-73.56	1.10	46.54	-9.59	3.232e+04
		1.180e+04	-9.59	-7.01e-04	0.0	75.0	-5153.82	-473.64	1.10	46.54	72.66	1.180e+04
55	93	9.844e+04	117.41	-0.18	-551.08	0.0	-3529.75	293.12	1.79	69.86	-16.92	9.844e+04
		9.261e+04	-16.92	-1.16e-03	-7.74e-05	75.0	-3417.58	-257.96	1.79	69.86	117.41	9.393e+04
55	94	1.021e+05	117.17	-0.18	-608.70	0.0	-4261.46	282.38	1.78	70.98	-16.53	9.722e+04
		9.557e+04	-16.53	-1.15e-03	-7.74e-05	75.0	-4126.58	-326.33	1.78	70.98	117.17	9.557e+04
55	95	-4.638e+04	28.86	0.15	-18.58	0.0	-4166.21	-397.28	0.44	18.77	-3.79	-4.638e+04
		-7.688e+04	-3.79	-2.78e-04	7.74e-05	75.0	-4054.03	-415.86	0.44	18.77	28.86	-7.688e+04
55	101	2.311e+04	73.14	-0.01	-284.83	0.0	-3847.98	-52.08	1.11	44.32	-10.36	2.311e+04
		8526.43	-10.36	-7.19e-04	0.0	75.0	-3735.80	-336.91	1.11	44.32	73.14	8526.43
55	102	2.496e+04	73.04	-0.02	-307.88	0.0	-4140.66	-56.38	1.11	44.76	-10.20	2.496e+04
		9181.33	-10.20	-7.15e-04	0.0	75.0	-4019.41	-364.26	1.11	44.76	73.04	9181.33
55	103	2.311e+04	73.14	-0.01	-284.83	0.0	-3847.98	-52.08	1.11	44.32	-10.36	2.311e+04
		8526.43	-10.36	-7.19e-04	0.0	75.0	-3735.80	-336.91	1.11	44.32	73.14	8526.43
56	1	5220.38	0.0	0.14	-94.38	0.0	3025.04	45.38	0.0	0.0	0.0	743.34
		0.0	0.0	0.0	0.0	411.0	3025.07	-49.00	0.0	0.0	0.0	0.0
56	2	6335.56	0.0	0.19	-94.38	0.0	4157.38	40.43	0.0	0.0	0.0	2777.98
		0.0	0.0	0.0	0.0	411.0	4157.40	-53.95	0.0	0.0	0.0	0.0
56	15	3430.61	0.0	0.08	-72.60	0.0	1432.96	37.76	0.0	0.0	0.0	-598.33
		-598.33	0.0	0.0	0.0	411.0	1432.98	-34.84	0.0	0.0	0.0	0.0
56	29	3825.45	1.33	0.10	-72.60	0.0	2120.44	35.83	6.47e-03	1.05e-04	-0.35	191.35
		0.0	-0.35	-1.72e-05	0.0	411.0	2120.46	-36.77	6.47e-03	1.05e-04	1.33	0.0
56	30	3819.24	0.35	0.09	-72.60	0.0	2107.47	35.86	1.70e-03	4.01e-04	-1.33	178.93
		0.0	-1.33	-3.76e-05	0.0	411.0	2107.49	-36.73	1.70e-03	4.01e-04	0.35	0.0
56	31	3875.69	1.33	0.10	-72.60	0.0	2171.98	35.59	-1.70e-03	-4.01e-04	1.33	291.82
		0.0	-0.35	3.76e-05	0.0	411.0	2172.00	-37.01	-1.70e-03	-4.01e-04	-0.35	0.0
56	45	3845.19	4.22	0.10	-72.60	0.0	2142.92	35.74	0.02	-1.08e-03	3.58	230.82
		0.0	3.58	1.01e-04	0.0	411.0	2142.94	-36.86	0.02	-1.08e-03	4.22	0.0
56	48	3849.74	-3.58	0.10	-72.60	0.0	2136.53	35.72	-0.02	1.08e-03	-3.58	239.93
		0.0	-4.22	-1.01e-04	0.0	411.0	2136.56	-36.88	-0.02	1.08e-03	-4.22	0.0
56	61	3837.75	0.87	0.10	-72.60	0.0	2131.89	35.77	4.22e-03	6.93e-05	-0.23	215.95
		0.0	-0.23	-1.13e-05	0.0	411.0	2131.91	-36.82	4.22e-03	6.93e-05	0.87	0.0
56	63	3861.19	0.87	0.10	-72.60	0.0	2155.94	35.66	-1.12e-03	-2.62e-04	0.87	262.82
		0.0	-0.23	2.45e-05	0.0	411.0	2155.96	-36.94	-1.12e-03	-2.62e-04	-0.23	0.0
56	77	3847.37	2.74	0.10	-72.60	0.0	2143.21	35.73	0.01	-7.01e-04	2.32	235.18
		0.0	2.32	6.56e-05	0.0	411.0	2143.24	-36.87	0.01	-7.01e-04	2.74	0.0
56	80	3847.56	-2.32	0.10	-72.60	0.0	2136.24	35.73	-0.01	7.01e-04	-2.32	235.57
		0.0	-2.74	-6.56e-05	0.0	411.0	2136.26	-36.87	-0.01	7.01e-04	-2.74	0.0
56	82	3837.26	-0.90	0.10	-72.60	0.0	2122.16	35.78	-4.37e-03	3.71e-04	-1.23	214.97
		0.0	-1.23	-3.47e-05	0.0	411.0	2122.18	-36.82	-4.37e-03	3.71e-04	-0.90	0.0
56	83	3857.66	1.23	0.10	-72.60	0.0	2157.29	35.68	4.37e-03	-3.71e-04	1.23	255.78
		0.0	0.90	3.47e-05	0.0	411.0	2157.31	-36.92	4.37e-03	-3.71e-04	0.90	0.0
56	89	3847.46	0.0	0.10	-72.60	0.0	2139.73	35.73	0.0	0.0	0.0	235.37
		0.0	0.0	0.0	0.0	411.0	2139.75	-36.87	0.0	0.0	0.0	0.0
56	90	4566.89	0.0	0.13	-72.60	0.0	2894.61	32.43	0.0	0.0	0.0	1591.80
		0.0	0.0	0.0	0.0	411.0	2894.64	-40.17	0.0	0.0	0.0	0.0
56	95	3715.34	0.0	0.09	-72.60	0.0	1830.81	36.37	0.0	0.0	0.0	-28.86
		-28.86	0.0	0.0	0.0	411.0	1830.83	-36.23	0.0	0.0	0.0	0.0
56	101	3847.46	0.0	0.10	-72.60	0.0	2139.73	35.73	0.0	0.0	0.0	235.37
		0.0	0.0	0.0	0.0	411.0	2139.75	-36.87	0.0	0.0	0.0	0.0
56	102	3983.11	0.0	0.10	-72.60	0.0	2290.70	35.07	0.0	0.0	0.0	506.66
		0.0	0.0	0.0	0.0	411.0	2290.73	-37.53	0.0	0.0	0.0	0.0
56	103	3847.46	0.0	0.10	-72.60	0.0	2139.73	35.73	0.0	0.0	0.0	235.37
		0.0	0.0	0.0	0.0	411.0	2139.75	-36.87	0.0	0.0	0.0	0.0
59	2	838.74	176.69	-0.01	-34.92	0.0	-1585.35	17.46	1.04	9.45	-23.69	0.0
		0.0	-23.69	-6.61e-03	0.0	192.1	-1596.85	-17.46	1.04	9.45	176.69	0.0
59	9	838.74	111.56	0.62	-34.92	0.0	-1045.95	17.46	0.66	5.74	-15.12	0.0
		0.0	-15.12	-4.16e-03	0.0	192.1	-1057.46	-17.46	0.66	5.74	111.56	0.0
59	11	645.19	61.68	0.62	-26.86	0.0	-611.51	13.43	0.36	3.06	-8.41	0.0
		0.0	-8.41	-2.29e-03	0.0	192.1	-620.36	-13.43	0.36	3.06	61.68	0.0
59	13	838.74	120.11	-0.64	-34.92	0.0	-1207.32	17.46	0.71	6.61	-15.65	0.0

		0.0	-15.65	-4.47e-03	0.0	192.1	-1218.82	-17.46	0.71	6.61	120.11	0.0
59	38	645.19	-2159.22	-0.01	-26.86	0.0	-792.39	13.43	-13.99	-98.38	-2159.22	0.0
		0.0	-4826.59	-0.14	0.0	192.1	-801.24	-13.43	-13.99	-98.38	-4826.59	0.0
59	39	645.19	4984.67	1.88e-03	-26.86	0.0	-789.20	13.43	14.92	106.79	2138.31	0.0
		0.0	2138.31	0.13	0.0	192.1	-798.05	-13.43	14.92	106.79	4984.67	0.0
59	41	645.19	-693.77	0.01	-26.86	0.0	-788.77	13.43	-3.62	-39.94	-693.77	0.0
		0.0	-1387.44	-0.05	0.0	192.1	-797.62	-13.43	-3.62	-39.94	-1387.44	0.0
59	46	645.19	-654.11	-0.02	-26.86	0.0	-793.16	13.43	-3.89	-26.12	-654.11	0.0
		0.0	-1396.34	-0.04	0.0	192.1	-802.01	-13.43	-3.89	-26.12	-1396.34	0.0
59	50	645.19	-693.69	-0.03	-26.86	0.0	-794.40	13.43	-3.69	-38.70	-693.69	0.0
		0.0	-1398.49	-0.05	0.0	192.1	-803.25	-13.43	-3.69	-38.70	-1398.49	0.0
59	51	645.19	1556.57	0.02	-26.86	0.0	-787.19	13.43	4.62	47.10	672.77	0.0
		0.0	672.77	0.04	0.0	192.1	-796.04	-13.43	4.62	47.10	1556.57	0.0
59	70	645.19	-1014.58	-0.01	-26.86	0.0	-791.73	13.43	-6.31	-45.58	-1014.58	0.0
		0.0	-2208.68	-0.06	0.0	192.1	-800.58	-13.43	-6.31	-45.58	-2208.68	0.0
59	71	645.19	2366.76	-2.66e-03	-26.86	0.0	-789.87	13.43	7.24	53.98	993.66	0.0
		0.0	993.66	0.06	0.0	192.1	-798.72	-13.43	7.24	53.98	2366.76	0.0
59	73	645.19	-329.66	5.96e-03	-26.86	0.0	-789.45	13.43	-1.44	-18.16	-329.66	0.0
		0.0	-604.02	-0.02	0.0	192.1	-798.30	-13.43	-1.44	-18.16	-604.02	0.0
59	78	645.19	-311.08	-0.02	-26.86	0.0	-792.30	13.43	-1.58	-10.44	-311.08	0.0
		0.0	-609.61	-0.02	0.0	192.1	-801.15	-13.43	-1.58	-10.44	-609.61	0.0
59	82	645.19	-329.59	-0.02	-26.86	0.0	-793.09	13.43	-1.48	-17.37	-329.59	0.0
		0.0	-610.93	-0.02	0.0	192.1	-801.94	-13.43	-1.48	-17.37	-610.93	0.0
59	83	645.19	769.02	0.01	-26.86	0.0	-788.50	13.43	2.41	25.78	308.68	0.0
		0.0	308.68	0.02	0.0	192.1	-797.35	-13.43	2.41	25.78	769.02	0.0
59	90	645.19	119.61	-7.76e-03	-26.86	0.0	-1096.60	13.43	0.71	6.39	-16.00	0.0
		0.0	-16.00	-4.47e-03	0.0	192.1	-1105.45	-13.43	0.71	6.39	119.61	0.0
59	93	645.19	76.19	0.41	-26.86	0.0	-737.01	13.43	0.45	3.91	-10.28	0.0
		0.0	-10.28	-2.84e-03	0.0	192.1	-745.86	-13.43	0.45	3.91	76.19	0.0
59	95	645.19	81.89	-0.43	-26.86	0.0	-844.58	13.43	0.48	4.49	-10.64	0.0
		0.0	-10.64	-3.04e-03	0.0	192.1	-853.43	-13.43	0.48	4.49	81.89	0.0
59	101	645.19	79.04	-6.13e-03	-26.86	0.0	-790.80	13.43	0.47	4.20	-10.46	0.0
		0.0	-10.46	-2.94e-03	0.0	192.1	-799.65	-13.43	0.47	4.20	79.04	0.0
59	102	645.19	87.15	-6.43e-03	-26.86	0.0	-851.96	13.43	0.51	4.64	-11.57	0.0
		0.0	-11.57	-3.25e-03	0.0	192.1	-860.81	-13.43	0.51	4.64	87.15	0.0
59	103	645.19	79.04	-6.13e-03	-26.86	0.0	-790.80	13.43	0.47	4.20	-10.46	0.0
		0.0	-10.46	-2.94e-03	0.0	192.1	-799.65	-13.43	0.47	4.20	79.04	0.0
60	2	838.74	177.89	0.01	-34.92	0.0	-1596.85	17.46	-1.01	-11.64	177.89	0.0
		0.0	-16.93	6.17e-03	0.0	192.1	-1585.35	-17.46	-1.01	-11.64	-16.93	0.0
60	9	838.74	112.53	0.64	-34.92	0.0	-1196.17	17.46	-0.64	-7.49	112.53	0.0
		0.0	-9.67	3.80e-03	0.0	192.1	-1184.66	-17.46	-0.64	-7.49	-9.67	0.0
60	14	838.74	151.37	-0.62	-34.92	0.0	-1309.47	17.46	-0.87	-9.75	151.37	0.0
		0.0	-15.15	5.31e-03	0.0	192.1	-1297.96	-17.46	-0.87	-9.75	-15.15	0.0
60	15	645.19	70.53	-0.62	-26.86	0.0	-643.01	13.43	-0.41	-4.45	70.53	0.0
		0.0	-7.32	2.49e-03	0.0	192.1	-634.16	-13.43	-0.41	-4.45	-7.32	0.0
60	30	645.19	-2155.81	-3.45e-03	-26.86	0.0	-799.03	13.43	13.99	98.02	-4826.17	0.0
		0.0	-4826.17	0.14	0.0	192.1	-790.18	-13.43	13.99	98.02	-2155.81	0.0
60	31	645.19	4985.35	0.01	-26.86	0.0	-800.27	13.43	-14.90	-108.41	4985.35	0.0
		0.0	2141.04	-0.13	0.0	192.1	-791.42	-13.43	-14.90	-108.41	2141.04	0.0
60	47	645.19	1554.61	0.02	-26.86	0.0	-802.02	13.43	-4.59	-49.93	1554.61	0.0
		0.0	674.28	-0.04	0.0	192.1	-793.17	-13.43	-4.59	-49.93	674.28	0.0
60	49	645.19	-651.32	0.03	-26.86	0.0	-803.80	13.43	3.84	24.85	-1384.77	0.0
		0.0	-1384.77	0.04	0.0	192.1	-794.95	-13.43	3.84	24.85	-651.32	0.0
60	50	645.19	-652.41	-0.02	-26.86	0.0	-795.84	13.43	3.91	26.54	-1398.29	0.0
		0.0	-1398.29	0.04	0.0	192.1	-786.99	-13.43	3.91	26.54	-652.41	0.0
60	52	645.19	1543.95	-0.02	-26.86	0.0	-795.49	13.43	-4.75	-35.24	1543.95	0.0
		0.0	636.55	-0.04	0.0	192.1	-786.64	-13.43	-4.75	-35.24	636.55	0.0
60	62	645.19	-1011.20	-1.85e-03	-26.86	0.0	-799.14	13.43	6.31	45.04	-2208.14	0.0
		0.0	-2208.14	0.06	0.0	192.1	-790.29	-13.43	6.31	45.04	-1011.20	0.0
60	63	645.19	2367.31	0.01	-26.86	0.0	-800.15	13.43	-7.22	-55.43	2367.31	0.0
		0.0	996.42	-0.06	0.0	192.1	-791.30	-13.43	-7.22	-55.43	996.42	0.0
60	79	645.19	768.05	0.02	-26.86	0.0	-801.22	13.43	-2.39	-28.03	768.05	0.0
		0.0	310.80	-0.02	0.0	192.1	-792.37	-13.43	-2.39	-28.03	310.80	0.0
60	81	645.19	-308.20	0.02	-26.86	0.0	-802.30	13.43	1.55	9.29	-602.14	0.0
		0.0	-602.14	0.02	0.0	192.1	-793.44	-13.43	1.55	9.29	-308.20	0.0
60	82	645.19	-308.81	-0.01	-26.86	0.0	-797.16	13.43	1.60	10.36	-610.56	0.0
		0.0	-610.56	0.02	0.0	192.1	-788.31	-13.43	1.60	10.36	-308.81	0.0
60	84	645.19	761.32	-0.01	-26.86	0.0	-797.00	13.43	-2.46	-19.68	761.32	0.0
		0.0	293.42	-0.02	0.0	192.1	-788.15	-13.43	-2.46	-19.68	293.42	0.0
60	90	645.19	120.43	7.76e-03	-26.86	0.0	-1105.45	13.43	-0.69	-7.87	120.43	0.0
		0.0	-11.41	4.17e-03	0.0	192.1	-1096.60	-13.43	-0.69	-7.87	-11.41	0.0
60	93	645.19	76.85	0.43	-26.86	0.0	-838.33	13.43	-0.43	-5.11	76.85	0.0
		0.0	-6.57	2.59e-03	0.0	192.1	-829.48	-13.43	-0.43	-5.11	-6.57	0.0
60	95	645.19	82.33	-0.41	-26.86	0.0	-760.96	13.43	-0.47	-5.28	82.33	0.0
		0.0	-8.21	2.88e-03	0.0	192.1	-752.11	-13.43	-0.47	-5.28	-8.21	0.0
60	96	645.19	102.74	-0.41	-26.86	0.0	-913.86	13.43	-0.59	-6.62	102.74	0.0
		0.0	-10.22	3.60e-03	0.0	192.1	-905.01	-13.43	-0.59	-6.62	-10.22	0.0

60	101	645.19	79.59	6.00e-03	-26.86	0.0	-799.65	13.43	-0.45	-5.20	79.59	0.0
		0.0	-7.39	2.74e-03	0.0	192.1	-790.80	-13.43	-0.45	-5.20	-7.39	0.0
60	102	645.19	87.76	6.35e-03	-26.86	0.0	-860.81	13.43	-0.50	-5.73	87.76	0.0
		0.0	-8.19	3.02e-03	0.0	192.1	-851.96	-13.43	-0.50	-5.73	-8.19	0.0
60	103	645.19	79.59	6.00e-03	-26.86	0.0	-799.65	13.43	-0.45	-5.20	79.59	0.0
		0.0	-7.39	2.74e-03	0.0	192.1	-790.80	-13.43	-0.45	-5.20	-7.39	0.0
61	2	7493.92	131.67	-0.01	-325.98	0.0	-2955.91	287.30	0.03	5.92	129.75	-2000.61
		-2000.61	129.75	3.74e-04	0.0	75.0	-2827.52	-38.69	0.03	5.92	131.67	7322.22
61	11	6.602e+04	42.25	0.20	-360.98	0.0	-1172.48	-84.51	-5.89e-03	1.92	42.25	6.602e+04
		4.614e+04	41.81	9.56e-05	0.0	75.0	-1116.71	-445.48	-5.89e-03	1.92	41.81	4.614e+04
61	14	-3.658e+04	115.96	-0.22	-59.13	0.0	-2767.70	452.88	0.04	5.13	112.94	-6.833e+04
		-6.833e+04	112.94	3.35e-04	0.0	75.0	-2658.01	393.75	0.04	5.13	115.96	-3.658e+04
61	29	4344.64	-2109.98	-3.29e-03	-162.01	0.0	-1513.83	137.20	-41.79	264.42	-2109.98	-7.40
		-7.40	-4944.59	0.15	0.0	75.0	-1450.02	-24.81	-41.79	264.42	-4944.59	4206.93
61	32	3264.43	5061.96	-8.13e-03	-162.01	0.0	-1572.53	146.25	41.82	-259.19	2225.32	-1681.80
		-1681.80	2225.32	-0.15	0.0	75.0	-1508.72	-15.76	41.82	-259.19	5061.96	3211.60
61	37	4345.56	-1303.62	-3.29e-03	-162.01	0.0	-1513.41	137.19	-42.23	284.07	-1303.62	-5.87
		-5.87	-4355.92	0.15	0.0	75.0	-1449.60	-24.82	-42.23	284.07	-4355.92	4207.77
61	40	3263.50	4473.29	-8.13e-03	-162.01	0.0	-1572.95	146.26	42.26	-278.84	1418.96	-1683.33
		-1683.33	1418.96	-0.15	0.0	75.0	-1509.14	-15.75	42.26	-278.84	4473.29	3210.76
61	50	1940.33	-579.49	-0.01	-162.01	0.0	-1540.47	157.75	-12.59	81.66	-579.49	-3815.54
		-3815.54	-1433.31	0.05	0.0	75.0	-1476.66	-4.26	-12.59	81.66	-1433.31	1940.33
61	51	5779.38	1550.68	3.77e-03	-162.01	0.0	-1545.89	125.70	12.61	-76.43	694.83	2126.34
		2126.34	694.83	-0.05	0.0	75.0	-1482.08	-36.31	12.61	-76.43	1550.68	5478.20
61	61	4158.58	-1084.40	-3.97e-03	-162.01	0.0	-1529.18	138.76	-19.60	126.14	-1084.40	-295.90
		-295.90	-2300.09	0.07	0.0	75.0	-1465.37	-23.25	-19.60	126.14	-2300.09	4035.50
61	64	3450.49	2417.46	-7.12e-03	-162.01	0.0	-1557.17	144.69	19.63	-120.91	1199.74	-1393.30
		-1393.30	1199.74	-0.07	0.0	75.0	-1493.37	-17.32	19.63	-120.91	2417.46	3383.03
61	69	4159.32	-629.74	-3.97e-03	-162.01	0.0	-1528.99	138.75	-19.69	134.06	-629.74	-294.74
		-294.74	-2009.97	0.07	0.0	75.0	-1465.18	-23.26	-19.69	134.06	-2009.97	4036.19
61	72	3449.75	2127.34	-7.12e-03	-162.01	0.0	-1557.36	144.70	19.71	-128.83	745.09	-1394.46
		-1394.46	745.09	-0.07	0.0	75.0	-1493.55	-17.32	19.71	-128.83	2127.34	3382.35
61	82	2591.59	-276.67	-0.01	-162.01	0.0	-1542.91	152.06	-5.91	39.99	-276.67	-2760.38
		-2760.38	-643.32	0.02	0.0	75.0	-1479.11	-9.95	-5.91	39.99	-643.32	2568.67
61	83	5066.91	760.69	-1.73e-03	-162.01	0.0	-1543.44	131.39	5.94	-34.76	392.02	1071.18
		1071.18	392.02	-0.02	0.0	75.0	-1479.63	-30.62	5.94	-34.76	760.69	4849.86
61	90	5202.68	89.07	-7.35e-03	-225.32	0.0	-2064.34	198.27	0.02	4.00	87.73	-1339.89
		-1339.89	87.73	2.50e-04	0.0	75.0	-1975.60	-27.04	0.02	4.00	89.07	5081.16
61	93	4.362e+04	53.97	0.13	-308.26	0.0	-1408.07	3.06	1.53e-03	2.45	53.85	4.362e+04
		3.229e+04	53.85	1.36e-04	0.0	75.0	-1344.26	-305.20	1.53e-03	2.45	53.97	3.229e+04
61	96	-2.419e+04	78.60	-0.15	-47.41	0.0	-1938.87	308.66	0.03	3.47	76.52	-4.556e+04
		-4.556e+04	76.52	2.24e-04	0.0	75.0	-1862.59	261.25	0.03	3.47	78.60	-2.419e+04
61	101	3804.53	58.68	-5.39e-03	-162.01	0.0	-1543.18	141.72	0.01	2.61	57.67	-844.60
		-844.60	57.67	1.56e-04	0.0	75.0	-1479.37	-20.29	0.01	2.61	58.68	3709.27
61	102	4084.16	64.76	-5.78e-03	-174.67	0.0	-1647.41	153.03	0.01	2.89	63.68	-943.66
		-943.66	63.68	1.75e-04	0.0	75.0	-1578.61	-21.64	0.01	2.89	64.76	3983.64
61	103	3804.53	58.68	-5.39e-03	-162.01	0.0	-1543.18	141.72	0.01	2.61	57.67	-844.60
		-844.60	57.67	1.56e-04	0.0	75.0	-1479.37	-20.29	0.01	2.61	58.68	3709.27
62	2	7493.92	178.18	0.01	-325.98	0.0	-2827.86	38.69	-0.29	-6.57	178.18	7322.23
		-2000.64	156.12	-4.25e-04	0.0	75.0	-2956.25	-287.30	-0.29	-6.57	156.12	-2000.64
62	7	3353.56	61.44	4.70e-03	-141.60	0.0	-1319.38	18.11	-0.11	-2.19	61.44	3266.78
		-685.20	53.25	-1.26e-04	0.0	75.0	-1375.15	-123.49	-0.11	-2.19	53.25	-685.20
62	10	-3.621e+04	147.11	0.22	-59.13	0.0	-2655.79	-384.60	-0.27	-5.26	147.11	-3.621e+04
		-6.728e+04	127.17	-3.24e-04	0.0	75.0	-2765.48	-443.73	-0.27	-5.26	127.17	-6.728e+04
62	15	6.496e+04	67.10	-0.20	-360.98	0.0	-1119.33	436.33	-0.09	-2.57	67.10	4.577e+04
		4.577e+04	60.02	-1.69e-04	0.0	75.0	-1175.10	75.35	-0.09	-2.57	60.02	6.496e+04
62	30	4337.51	-1296.11	2.50e-03	-162.01	0.0	-1448.75	24.74	42.15	-284.70	-4335.67	4200.47
		-19.23	-4335.67	-0.15	0.0	75.0	-1512.55	-137.27	42.15	-284.70	-1296.11	-19.23
62	31	3271.54	4495.30	8.15e-03	-162.01	0.0	-1510.29	15.83	-42.42	278.89	4495.30	3218.05
		-1670.02	1435.41	0.15	0.0	75.0	-1574.10	-146.18	-42.42	278.89	1435.41	-1670.02
62	38	4338.05	-2124.24	2.50e-03	-162.01	0.0	-1449.17	24.75	41.72	-265.30	-4927.97	4200.93
		-18.14	-4927.97	-0.15	0.0	75.0	-1512.98	-137.26	41.72	-265.30	-2124.24	-18.14
62	39	3271.00	5087.61	8.15e-03	-162.01	0.0	-1509.87	15.82	-41.99	259.48	5087.61	3217.58
		-1671.11	2263.55	0.15	0.0	75.0	-1573.67	-146.19	-41.99	259.48	2263.55	-1671.11
62	49	1969.98	-324.65	0.01	-162.01	0.0	-1479.88	4.55	12.48	-86.87	-1233.95	1969.98
		-3764.49	-1233.95	-0.05	0.0	75.0	-1543.69	-157.47	12.48	-86.87	-324.65	-3764.49
62	52	5744.36	1393.59	-4.47e-03	-162.01	0.0	-1479.15	36.03	-12.76	81.05	1393.59	5448.54
		2075.24	463.95	0.05	0.0	75.0	-1542.96	-125.98	-12.76	81.05	463.95	2075.24
62	62	4153.85	-621.79	3.52e-03	-162.01	0.0	-1464.69	23.20	19.59	-134.57	-1989.63	4031.23
		-303.80	-1989.63	-0.07	0.0	75.0	-1528.50	-138.81	19.59	-134.57	-621.79	-303.80
62	63	3455.20	2149.27	7.13e-03	-162.01	0.0	-1494.34	17.37	-19.86	128.76	2149.27	3387.29
		-1385.45	761.09	0.07	0.0	75.0	-1558.15	-144.64	-19.86	128.76	761.09	-1385.45
62	70	4154.23	-1094.01	3.52e-03	-162.01	0.0	-1464.88	23.21	19.53	-126.88	-2283.32	4031.55
		-303.04	-2283.32	-0.07	0.0	75.0	-1528.69	-138.80	19.53	-126.88	-1094.01	-303.04
62	71	3454.82	2442.95	7.13e-03	-162.01	0.0	-1494.15	17.36	-19.80	121.07	2442.95	3386.96
		-1386.22	1233.31	0.07	0.0	75.0	-1557.96	-144.65	-19.80	121.07	1233.31	-1386.22
62	81	2611.56	-127.99	0.01	-162.01	0.0	-1481.27	10.13	5.74	-42.04	-534.17	2587.79

		-2727.49	-534.17	-0.02	0.0	75.0	-1545.08	-151.88	5.74	-42.04	-127.99	-2727.49
62	84	5045.19	693.81	-2.28e-03	-162.01	0.0	-1477.77	30.44	-6.01	36.22	693.81	4830.73
		1038.24	267.30	0.02	0.0	75.0	-1541.57	-131.57	-6.01	36.22	267.30	1038.24
62	90	5202.68	120.65	7.25e-03	-225.32	0.0	-1975.83	27.04	-0.20	-4.44	120.65	5081.16
		-1339.92	105.63	-2.84e-04	0.0	75.0	-2064.57	-198.27	-0.20	-4.44	105.63	-1339.92
62	91	3804.42	76.34	5.32e-03	-162.01	0.0	-1479.44	20.29	-0.13	-2.76	76.34	3709.16
		-844.81	66.45	-1.66e-04	0.0	75.0	-1543.25	-141.72	-0.13	-2.76	66.45	-844.81
62	94	-2.394e+04	99.94	0.15	-47.41	0.0	-1861.11	-255.15	-0.18	-3.57	99.94	-2.394e+04
		-4.486e+04	86.33	-2.17e-04	0.0	75.0	-1937.39	-302.56	-0.18	-3.57	86.33	-4.486e+04
62	95	4.292e+04	80.12	-0.13	-308.26	0.0	-1346.08	299.10	-0.12	-3.01	80.12	3.205e+04
		3.205e+04	70.96	-1.95e-04	0.0	75.0	-1409.88	-9.16	-0.12	-3.01	70.96	4.292e+04
62	101	3804.52	79.82	5.32e-03	-162.01	0.0	-1479.52	20.29	-0.14	-2.91	79.82	3709.26
		-844.63	69.65	-1.80e-04	0.0	75.0	-1543.33	-141.72	-0.14	-2.91	69.65	-844.63
62	102	4084.15	87.98	5.71e-03	-174.67	0.0	-1578.78	21.64	-0.15	-3.21	87.98	3983.64
		-943.69	76.85	-2.01e-04	0.0	75.0	-1647.57	-153.03	-0.15	-3.21	76.85	-943.69
62	103	3804.52	79.82	5.32e-03	-162.01	0.0	-1479.52	20.29	-0.14	-2.91	79.82	3709.26
		-844.63	69.65	-1.80e-04	0.0	75.0	-1543.33	-141.72	-0.14	-2.91	69.65	-844.63
63	2	9821.21	116.82	0.01	-198.16	0.0	-4314.65	-386.72	1.07	28.34	68.11	9821.21
		-1.233e+04	68.11	-2.81e-04	0.0	45.6	-4236.60	-584.88	1.07	28.34	116.82	-1.233e+04
63	10	8.019e+04	91.25	0.01	-302.65	0.0	-3463.98	-267.05	0.84	22.63	52.79	8.019e+04
		6.112e+04	52.79	-2.31e-04	0.0	45.6	-3397.30	-569.70	0.84	22.63	91.25	6.112e+04
63	11	7.617e+04	37.92	7.86e-03	-219.43	0.0	-1707.10	-104.11	0.36	9.65	21.55	7.617e+04
		6.642e+04	21.55	-1.07e-04	0.0	45.6	-1673.20	-323.54	0.36	9.65	37.92	6.642e+04
63	14	-6.325e+04	101.79	0.01	-35.94	0.0	-3993.41	-392.95	0.93	24.13	59.54	-6.325e+04
		-8.199e+04	59.54	-2.39e-04	0.0	45.6	-3926.73	-428.89	0.93	24.13	101.79	-8.199e+04
63	29	5936.01	2004.91	5.02e-03	-98.48	0.0	-2193.75	-191.51	-80.32	1620.86	2004.91	5936.01
		-5040.17	-2331.75	0.10	0.0	45.6	-2154.96	-290.00	-80.32	1620.86	-2331.75	-5040.17
63	32	4119.82	2435.58	4.69e-03	-98.48	0.0	-2253.69	-191.39	81.27	-1595.79	-1944.79	4119.82
		-6851.33	-1944.79	-0.10	0.0	45.6	-2214.90	-289.87	81.27	-1595.79	2435.58	-6851.33
63	37	5937.76	2255.66	5.02e-03	-98.48	0.0	-2193.33	-191.51	-76.49	1589.41	2255.66	5937.76
		-5038.54	-1448.45	0.10	0.0	45.6	-2154.54	-290.00	-76.49	1589.41	-1448.45	-5038.54
63	40	4118.08	1552.28	4.69e-03	-98.48	0.0	-2254.12	-191.39	77.44	-1564.35	-2195.53	4118.08
		-6852.95	-2195.53	-0.10	0.0	45.6	-2215.33	-289.87	77.44	-1564.35	1552.28	-6852.95
63	50	1826.02	632.62	4.81e-03	-98.48	0.0	-2224.65	-191.90	-23.83	496.66	632.62	1826.02
		-9167.37	-649.85	0.03	0.0	45.6	-2185.86	-290.38	-23.83	496.66	-649.85	-9167.37
63	51	8229.82	753.68	4.90e-03	-98.48	0.0	-2222.80	-191.01	24.79	-471.60	-572.49	8229.82
		-2724.12	-572.49	-0.03	0.0	45.6	-2184.01	-289.49	24.79	-471.60	753.68	-2724.12
63	61	5621.97	1069.05	4.94e-03	-98.48	0.0	-2209.25	-191.46	-37.24	762.06	1069.05	5621.97
		-5351.74	-1207.65	0.05	0.0	45.6	-2170.46	-289.94	-37.24	762.06	-1207.65	-5351.74
63	64	4433.86	1311.48	4.78e-03	-98.48	0.0	-2238.20	-191.44	38.20	-737.00	-1008.93	4433.86
		-6539.75	-1008.93	-0.05	0.0	45.6	-2199.41	-289.93	38.20	-737.00	1311.48	-6539.75
63	69	5623.31	1092.07	4.94e-03	-98.48	0.0	-2209.05	-191.46	-35.41	748.18	1092.07	5623.31
		-5350.55	-708.66	0.05	0.0	45.6	-2170.26	-289.94	-35.41	748.18	-708.66	-5350.55
63	72	4432.53	812.50	4.78e-03	-98.48	0.0	-2238.39	-191.44	36.37	-723.12	-1031.95	4432.53
		-6540.94	-1031.95	-0.05	0.0	45.6	-2199.60	-289.93	36.37	-723.12	812.50	-6540.94
63	82	2962.93	348.14	4.82e-03	-98.48	0.0	-2225.78	-191.73	-10.88	238.41	348.14	2962.93
		-8023.03	-317.55	0.01	0.0	45.6	-2186.99	-290.21	-10.88	238.41	-317.55	-8023.03
63	83	7092.90	421.38	4.89e-03	-98.48	0.0	-2221.66	-191.17	11.84	-213.35	-288.01	7092.90
		-3868.46	-288.01	-0.01	0.0	45.6	-2182.87	-289.66	11.84	-213.35	421.38	-3868.46
63	90	6830.41	78.99	7.18e-03	-136.97	0.0	-3004.99	-267.08	0.72	19.14	45.99	6830.41
		-8468.74	45.99	-1.91e-04	0.0	45.6	-2951.05	-404.05	0.72	19.14	78.99	-8468.74
63	93	5.284e+04	48.40	7.36e-03	-187.39	0.0	-2047.25	-149.48	0.45	12.03	27.81	5.284e+04
		4.176e+04	27.81	-1.28e-04	0.0	45.6	-2008.46	-336.87	0.45	12.03	48.40	4.176e+04
63	94	5.374e+04	61.94	8.52e-03	-206.63	0.0	-2437.88	-187.30	0.57	15.33	35.78	5.374e+04
		4.049e+04	35.78	-1.59e-04	0.0	45.6	-2391.51	-393.93	0.57	15.33	61.94	4.049e+04
63	96	-4.189e+04	68.97	7.24e-03	-28.82	0.0	-2790.83	-271.24	0.63	16.34	40.28	-4.189e+04
		-5.491e+04	40.28	-1.64e-04	0.0	45.6	-2744.47	-300.06	0.63	16.34	68.97	-5.491e+04
63	101	5027.92	51.92	4.86e-03	-98.48	0.0	-2223.72	-191.45	0.48	12.53	30.06	5027.92
		-5945.75	30.06	-1.31e-04	0.0	45.6	-2184.93	-289.94	0.48	12.53	51.92	-5945.75
63	102	5388.42	57.33	5.32e-03	-106.18	0.0	-2379.98	-206.58	0.53	13.85	33.25	5388.42
		-6450.35	33.25	-1.43e-04	0.0	45.6	-2338.16	-312.76	0.53	13.85	57.33	-6450.35
63	103	5027.92	51.92	4.86e-03	-98.48	0.0	-2223.72	-191.45	0.48	12.53	30.06	5027.92
		-5945.75	30.06	-1.31e-04	0.0	45.6	-2184.93	-289.94	0.48	12.53	51.92	-5945.75
64	2	-2000.64	156.12	7.83e-03	-127.82	0.0	-2956.25	-287.25	-0.29	-6.57	156.12	-2000.64
		-1.233e+04	147.47	7.23e-05	0.0	29.4	-3006.60	-415.07	-0.29	-6.57	147.47	-1.233e+04
64	7	-685.20	53.25	3.58e-03	-55.52	0.0	-1375.15	-123.47	-0.11	-2.19	53.25	-685.20
		-5132.61	50.03	3.28e-05	0.0	29.4	-1397.02	-178.99	-0.11	-2.19	50.03	-5132.61
64	10	-6.728e+04	127.17	0.05	-23.18	0.0	-2765.49	-443.68	-0.27	-5.26	127.17	-6.728e+04
		-8.066e+04	119.35	6.87e-05	0.0	29.4	-2808.50	-466.87	-0.27	-5.26	119.35	-8.066e+04
64	15	6.555e+04	60.02	-0.04	-141.54	0.0	-1175.10	75.37	-0.09	-2.57	60.02	6.496e+04
		6.496e+04	57.24	2.51e-05	0.0	29.4	-1196.96	-66.17	-0.09	-2.57	57.24	6.510e+04
64	30	-19.23	-619.15	3.46e-03	-63.52	0.0	-1512.37	-139.38	53.98	-284.72	-1296.11	-19.23
		-5052.08	-1296.11	-0.06	0.0	29.4	-1537.39	-202.90	53.98	-284.72	-619.15	-5052.08
64	31	-1670.02	1435.41	4.62e-03	-63.52	0.0	-1574.29	-144.02	-54.25	278.91	1435.41	-1670.02
		-6839.49	750.48	0.06	0.0	29.4	-1599.31	-207.55	-54.25	278.91	750.48	-6839.49
64	38	-18.14	-1144.12	3.46e-03	-63.52	0.0	-1512.79	-139.37	56.19	-265.32	-2124.24	-18.14
		-5050.76	-2124.24	-0.06	0.0	29.4	-1537.81	-202.90	56.19	-265.32	-1144.12	-5050.76

64	39	-1671.11	2263.54	4.62e-03	-63.52	0.0	-1573.86	-144.03	-56.46	259.51	2263.54	-1671.11
		-6840.80	1275.45	0.06	0.0	29.4	-1598.88	-207.55	-56.46	259.51	1275.45	-6840.80
64	49	-3764.49	-124.22	5.75e-03	-63.52	0.0	-1544.25	-150.22	16.09	-86.87	-324.65	-3764.49
		-9116.19	-324.65	-0.02	0.0	29.4	-1569.27	-213.74	16.09	-86.87	-124.22	-9116.19
64	52	2075.24	463.95	2.33e-03	-63.52	0.0	-1542.40	-133.18	-16.36	81.06	463.95	2075.24
		-2775.37	255.55	0.02	0.0	29.4	-1567.42	-196.70	-16.36	81.06	255.55	-2775.37
64	62	-303.80	-341.33	3.67e-03	-63.52	0.0	-1528.38	-140.16	25.09	-134.58	-621.79	-303.80
		-5359.80	-621.79	-0.03	0.0	29.4	-1553.40	-203.69	25.09	-134.58	-341.33	-5359.80
64	63	-1385.45	761.09	4.40e-03	-63.52	0.0	-1558.27	-143.23	-25.37	128.77	761.09	-1385.45
		-6531.77	472.66	0.03	0.0	29.4	-1583.29	-206.76	-25.37	128.77	472.66	-6531.77
64	66	-477.07	-721.58	3.78e-03	-63.52	0.0	-1529.45	-140.67	26.11	-126.69	-1094.06	-477.07
		-5548.01	-1094.06	-0.03	0.0	29.4	-1554.47	-204.20	26.11	-126.69	-721.58	-5548.01
64	67	-1212.19	1233.36	4.30e-03	-63.52	0.0	-1557.20	-142.73	-26.38	120.87	1233.36	-1212.19
		-6343.56	852.92	0.03	0.0	29.4	-1582.22	-206.25	-26.38	120.87	852.92	-6343.56
64	81	-2727.49	-46.56	5.15e-03	-63.52	0.0	-1545.44	-147.19	7.43	-42.04	-127.99	-2727.49
		-7990.10	-127.99	-8.83e-03	0.0	29.4	-1570.46	-210.71	7.43	-42.04	-46.56	-7990.10
64	84	1038.24	267.30	2.93e-03	-63.52	0.0	-1541.21	-136.21	-7.70	36.23	267.30	1038.24
		-3901.47	177.89	8.90e-03	0.0	29.4	-1566.23	-199.73	-7.70	36.23	177.89	-3901.47
64	90	-1339.92	105.63	5.46e-03	-88.35	0.0	-2064.57	-198.24	-0.20	-4.44	105.63	-1339.92
		-8468.78	99.74	5.01e-05	0.0	29.4	-2099.37	-286.59	-0.20	-4.44	99.74	-8468.78
64	91	-844.81	66.45	4.04e-03	-63.52	0.0	-1543.25	-141.70	-0.13	-2.76	66.45	-844.81
		-5946.00	62.57	3.69e-05	0.0	29.4	-1568.27	-205.23	-0.13	-2.76	62.57	-5946.00
64	94	-4.486e+04	86.33	0.03	-18.59	0.0	-1937.39	-302.53	-0.18	-3.57	86.33	-4.486e+04
		-5.403e+04	80.99	4.77e-05	0.0	29.4	-1967.30	-321.12	-0.18	-3.57	80.99	-5.403e+04
64	95	4.292e+04	70.96	-0.02	-120.87	0.0	-1409.88	-9.14	-0.12	-3.01	70.96	4.292e+04
		4.087e+04	67.38	3.18e-05	0.0	29.4	-1434.90	-130.01	-0.12	-3.01	67.38	4.087e+04
64	101	-844.63	69.65	4.04e-03	-63.52	0.0	-1543.33	-141.70	-0.14	-2.91	69.65	-844.63
		-5945.78	65.67	3.63e-05	0.0	29.4	-1568.35	-205.22	-0.14	-2.91	65.67	-5945.78
64	102	-943.69	76.85	4.32e-03	-68.49	0.0	-1647.58	-153.01	-0.15	-3.21	76.85	-943.69
		-6450.38	72.48	3.91e-05	0.0	29.4	-1674.55	-221.50	-0.15	-3.21	72.48	-6450.38
64	103	-844.63	69.65	4.04e-03	-63.52	0.0	-1543.33	-141.70	-0.14	-2.91	69.65	-844.63
		-5945.78	65.67	3.63e-05	0.0	29.4	-1568.35	-205.22	-0.14	-2.91	65.67	-5945.78
65	2	-2000.61	129.75	-7.83e-03	-127.82	0.0	-3006.26	415.07	0.03	5.92	129.75	-2000.61
		-1.233e+04	129.00	-4.71e-05	0.0	29.4	-2955.91	287.25	0.03	5.92	129.00	-1.233e+04
65	11	6.676e+04	42.42	0.04	-141.54	0.0	-1194.34	57.01	-5.89e-03	1.92	42.42	6.642e+04
		6.602e+04	42.25	-2.52e-05	0.0	29.4	-1172.48	-84.53	-5.89e-03	1.92	42.25	6.602e+04
65	14	-6.833e+04	112.94	-0.05	-23.18	0.0	-2810.72	476.02	0.04	5.13	111.75	-6.833e+04
		-8.199e+04	111.75	-3.81e-05	0.0	29.4	-2767.71	452.84	0.04	5.13	112.94	-8.199e+04
65	29	-7.40	-1104.39	-3.47e-03	-63.52	0.0	-1538.71	202.90	-56.31	264.45	-1104.39	-5040.17
		-5040.17	-2109.98	0.06	0.0	29.4	-1513.69	139.38	-56.31	264.45	-2109.98	-7.40
65	32	-1681.80	2225.32	-4.60e-03	-63.52	0.0	-1597.69	207.55	56.34	-259.22	1218.94	-6851.33
		-6851.33	1218.94	-0.06	0.0	29.4	-1572.67	144.02	56.34	-259.22	2225.32	-1681.80
65	37	-5.87	-619.00	-3.47e-03	-63.52	0.0	-1538.29	202.90	-54.10	284.09	-619.00	-5038.54
		-5038.54	-1303.61	0.06	0.0	29.4	-1513.27	139.37	-54.10	284.09	-1303.61	-5.87
65	40	-1683.33	1418.95	-4.60e-03	-63.52	0.0	-1598.11	207.55	54.12	-278.86	733.55	-6852.95
		-6852.95	733.55	-0.06	0.0	29.4	-1573.09	144.03	54.12	-278.86	1418.95	-1683.33
65	50	-3815.54	-277.82	-5.71e-03	-63.52	0.0	-1565.95	213.75	-16.90	81.67	-277.82	-9167.37
		-9167.37	-579.49	0.02	0.0	29.4	-1540.93	150.23	-16.90	81.67	-579.49	-3815.54
65	51	2126.34	694.83	-2.37e-03	-63.52	0.0	-1570.45	196.70	16.93	-76.44	392.36	-2724.12
		-2724.12	392.36	-0.02	0.0	29.4	-1545.43	133.17	16.93	-76.44	694.83	2126.34
65	61	-295.90	-697.80	-3.68e-03	-63.52	0.0	-1554.11	203.69	-26.23	126.15	-697.80	-5351.74
		-5351.74	-1084.40	0.03	0.0	29.4	-1529.09	140.16	-26.23	126.15	-1084.40	-295.90
65	64	-1393.30	1199.74	-4.39e-03	-63.52	0.0	-1582.29	206.76	26.26	-120.93	812.34	-6539.75
		-6539.75	812.34	-0.03	0.0	29.4	-1557.27	143.24	26.26	-120.93	1199.74	-1393.30
65	69	-294.74	-343.08	-3.68e-03	-63.52	0.0	-1553.92	203.68	-25.21	134.06	-343.08	-5350.55
		-5350.55	-629.74	0.03	0.0	29.4	-1528.90	140.16	-25.21	134.06	-629.74	-294.74
65	72	-1394.46	745.08	-4.39e-03	-63.52	0.0	-1582.48	206.76	25.24	-128.84	457.63	-6540.94
		-6540.94	457.63	-0.03	0.0	29.4	-1557.46	143.24	25.24	-128.84	745.08	-1394.46
65	82	-2760.38	-160.79	-5.12e-03	-63.52	0.0	-1568.24	210.72	-7.87	39.99	-160.79	-8023.03
		-8023.03	-276.67	8.82e-03	0.0	29.4	-1543.22	147.19	-7.87	39.99	-276.67	-2760.38
65	83	1071.18	392.02	-2.96e-03	-63.52	0.0	-1568.16	199.73	7.90	-34.76	275.34	-3868.46
		-3868.46	275.34	-8.87e-03	0.0	29.4	-1543.14	136.21	7.90	-34.76	392.02	1071.18
65	90	-1339.89	87.73	-5.46e-03	-88.35	0.0	-2099.14	286.59	0.02	4.00	87.20	-8468.74
		-8468.74	87.20	-3.29e-05	0.0	29.4	-2064.34	198.24	0.02	4.00	87.73	-1339.89
65	93	4.362e+04	53.85	0.02	-120.87	0.0	-1433.09	123.91	1.53e-03	2.45	53.81	4.176e+04
		4.176e+04	53.81	-2.68e-05	0.0	29.4	-1408.07	3.04	1.53e-03	2.45	53.85	4.362e+04
65	96	-4.556e+04	76.52	-0.03	-18.59	0.0	-1968.78	327.22	0.03	3.47	75.70	-5.491e+04
		-5.491e+04	75.70	-2.69e-05	0.0	29.4	-1938.87	308.63	0.03	3.47	76.52	-4.556e+04
65	101	-844.60	57.67	-4.04e-03	-63.52	0.0	-1568.20	205.22	0.01	2.61	57.27	-5945.75
		-5945.75	57.27	-2.47e-05	0.0	29.4	-1543.18	141.70	0.01	2.61	57.67	-844.60
65	102	-943.66	63.68	-4.32e-03	-68.49	0.0	-1674.39	221.50	0.01	2.89	63.26	-6450.35
		-6450.35	63.26	-2.63e-05	0.0	29.4	-1647.41	153.01	0.01	2.89	63.68	-943.66
65	103	-844.60	57.67	-4.04e-03	-63.52	0.0	-1568.20	205.22	0.01	2.61	57.27	-5945.75
		-5945.75	57.27	-2.47e-05	0.0	29.4	-1543.18	141.70	0.01	2.61	57.67	-844.60
66	2	7322.23	200.25	-0.01	-325.98	0.0	-2699.47	364.72	-0.29	-6.57	200.25	-7807.14
		-7807.14	178.19	-1.40e-03	0.0	75.0	-2827.86	38.74	-0.29	-6.57	178.19	7322.23
66	7	3266.78	69.63	-6.17e-03	-141.60	0.0	-1263.61	159.73	-0.11	-2.19	69.63	-3402.83

		-3402.83	61.44	-4.59e-04	0.0	75.0	-1319.38	18.13	-0.11	-2.19	61.44	3266.78
66	11	-6316.71	76.32	0.31	77.78	0.0	-1463.89	-477.86	-0.13	-2.26	76.32	-6316.71
		-3.924e+04	66.20	-4.83e-04	0.0	75.0	-1519.66	-400.08	-0.13	-2.26	66.20	-3.924e+04
66	14	4.880e+04	164.90	-0.33	-497.87	0.0	-2145.76	949.75	-0.23	-5.58	164.90	-3761.19
		-3761.19	148.00	-1.18e-03	0.0	75.0	-2255.46	451.88	-0.23	-5.58	148.00	4.880e+04
66	15	4.577e+04	74.18	-0.32	-360.97	0.0	-1063.55	797.32	-0.09	-2.57	74.18	-488.92
		-488.92	67.10	-5.35e-04	0.0	75.0	-1119.32	436.35	-0.09	-2.57	67.10	4.577e+04
66	30	4200.47	-4335.66	-0.01	-162.01	0.0	-1385.14	188.72	19.83	-284.78	-5737.89	-3877.17
		-3877.17	-5737.89	-0.13	0.0	75.0	-1448.95	26.71	19.83	-284.78	-4335.66	4200.47
66	31	3218.05	5917.86	-2.13e-03	-162.01	0.0	-1446.27	175.93	-20.10	278.96	5917.86	-3901.82
		-3901.82	4495.30	0.13	0.0	75.0	-1510.08	13.92	-20.10	278.96	4495.30	3218.05
66	34	4037.26	-4927.52	-0.01	-162.01	0.0	-1386.45	186.62	16.95	-265.06	-5826.31	-3883.35
		-3883.35	-5826.31	-0.13	0.0	75.0	-1450.26	24.62	16.95	-265.06	-4927.52	4037.26
66	35	3381.26	6006.27	-3.46e-03	-162.01	0.0	-1444.96	178.02	-17.22	259.25	6006.27	-3895.64
		-3895.64	5087.16	0.13	0.0	75.0	-1508.78	16.01	-17.22	259.25	5087.16	3381.26
66	52	5448.54	1834.69	-0.02	-162.01	0.0	-1415.93	204.70	-6.00	81.07	1834.69	-3825.38
		-3825.38	1393.59	0.04	0.0	75.0	-1479.74	42.69	-6.00	81.07	1393.59	5448.54
66	53	1970.12	-1411.64	0.01	-162.01	0.0	-1415.61	159.95	4.86	-81.07	-1681.25	-3953.63
		-3953.63	-1681.25	-0.04	0.0	75.0	-1479.42	-2.06	4.86	-81.07	-1411.64	1970.12
66	62	4031.23	-1989.63	-0.01	-162.01	0.0	-1401.01	186.50	9.46	-134.61	-2626.76	-3880.55
		-3880.55	-2626.76	-0.06	0.0	75.0	-1464.82	24.49	9.46	-134.61	-1989.63	4031.23
66	63	3387.29	2806.72	-3.69e-03	-162.01	0.0	-1430.41	178.14	-9.73	128.79	2806.72	-3898.44
		-3898.44	2149.27	0.06	0.0	75.0	-1494.22	16.13	-9.73	128.79	2149.27	3387.29
66	66	3927.99	-2283.09	-9.48e-03	-162.01	0.0	-1401.76	185.18	9.28	-126.71	-2667.05	-3884.45
		-3884.45	-2667.05	-0.06	0.0	75.0	-1465.57	23.17	9.28	-126.71	-2283.09	3927.99
66	67	3490.52	2847.01	-4.64e-03	-162.01	0.0	-1429.65	179.47	-9.55	120.90	2847.01	-3894.54
		-3894.54	2442.73	0.06	0.0	75.0	-1493.46	17.46	-9.55	120.90	2442.73	3490.52
66	84	4830.73	902.76	-0.02	-162.01	0.0	-1414.34	196.76	-2.93	36.24	902.76	-3848.87
		-3848.87	693.81	0.02	0.0	75.0	-1478.15	34.75	-2.93	36.24	693.81	4830.73
66	85	2587.88	-622.28	4.49e-03	-162.01	0.0	-1417.13	167.89	2.61	-39.74	-734.87	-3930.12
		-3930.12	-734.87	-0.02	0.0	75.0	-1480.94	5.88	2.61	-39.74	-622.28	2587.88
66	90	5081.16	135.67	-9.77e-03	-225.31	0.0	-1887.08	252.39	-0.20	-4.44	135.67	-5398.91
		-5398.91	120.65	-9.42e-04	0.0	75.0	-1975.83	27.08	-0.20	-4.44	120.65	5081.16
66	91	3709.16	86.24	-7.05e-03	-162.01	0.0	-1415.63	182.32	-0.13	-2.76	86.24	-3889.50
		-3889.50	76.34	-5.81e-04	0.0	75.0	-1479.44	20.31	-0.13	-2.76	76.34	3709.16
66	93	-5832.09	90.70	0.20	-15.76	0.0	-1549.15	-242.74	-0.15	-2.80	90.70	-5832.09
		-2.463e+04	79.52	-5.97e-04	0.0	75.0	-1612.96	-258.50	-0.15	-2.80	79.52	-2.463e+04
66	95	3.205e+04	89.27	-0.22	-308.26	0.0	-1282.26	607.38	-0.12	-3.01	89.27	-1946.90
		-1946.90	80.12	-6.32e-04	0.0	75.0	-1346.07	299.12	-0.12	-3.01	80.12	3.205e+04
66	96	3.273e+04	112.11	-0.22	-339.91	0.0	-1517.95	642.42	-0.15	-3.78	112.11	-2701.60
		-2701.60	100.53	-7.96e-04	0.0	75.0	-1594.22	302.51	-0.15	-3.78	100.53	3.273e+04
66	101	3709.26	89.98	-7.05e-03	-162.01	0.0	-1415.71	182.32	-0.14	-2.91	89.98	-3889.50
		-3889.50	79.82	-6.14e-04	0.0	75.0	-1479.52	20.31	-0.14	-2.91	79.82	3709.26
66	102	3983.64	99.12	-7.59e-03	-174.67	0.0	-1509.98	196.34	-0.15	-3.21	99.12	-4191.38
		-4191.38	87.98	-6.80e-04	0.0	75.0	-1578.78	21.67	-0.15	-3.21	87.98	3983.64
66	103	3709.26	89.98	-7.05e-03	-162.01	0.0	-1415.71	182.32	-0.14	-2.91	89.98	-3889.50
		-3889.50	79.82	-6.14e-04	0.0	75.0	-1479.52	20.31	-0.14	-2.91	79.82	3709.26
67	2	-7807.14	205.17	-3.96e-03	-72.71	0.0	-2670.85	437.28	-0.29	-6.58	205.17	-1.451e+04
		-1.451e+04	200.25	-4.56e-04	0.0	16.7	-2699.49	364.57	-0.29	-6.58	200.25	-7807.14
67	7	-3402.83	71.46	-1.73e-03	-31.59	0.0	-1251.18	191.24	-0.11	-2.20	71.46	-6338.05
		-6338.05	69.63	-1.53e-04	0.0	16.7	-1263.61	159.66	-0.11	-2.20	69.63	-3402.83
67	11	1824.10	78.58	0.07	17.35	0.0	-1451.43	-495.29	-0.13	-2.26	78.58	1824.10
		-6316.71	76.32	-1.62e-04	0.0	16.7	-1463.87	-477.86	-0.13	-2.26	76.32	-6316.71
67	14	-3761.19	168.67	-0.08	-111.06	0.0	-2121.35	1060.69	-0.23	-5.59	168.67	-2.058e+04
		-2.058e+04	164.90	-3.82e-04	0.0	16.7	-2145.82	949.64	-0.23	-5.59	164.90	-3761.19
67	15	-488.92	75.75	-0.08	-80.52	0.0	-1051.16	877.78	-0.09	-2.57	75.75	-1.450e+04
		-1.450e+04	74.18	-1.73e-04	0.0	16.7	-1063.59	797.26	-0.09	-2.57	74.18	-488.92
67	30	-3877.17	-5737.91	-1.57e-03	-36.14	0.0	-1370.99	224.96	6.94	-284.47	-5768.85	-7339.97
		-7339.97	-5768.85	-0.03	0.0	16.7	-1385.22	188.83	6.94	-284.47	-5737.91	-3877.17
67	31	-3901.82	5953.35	-2.38e-03	-36.14	0.0	-1431.98	211.80	-7.21	278.65	5953.35	-7141.34
		-7141.34	5917.87	0.02	0.0	16.7	-1446.22	175.66	-7.21	278.65	5917.87	-3901.82
67	34	-3883.35	-5693.92	-1.65e-03	-36.14	0.0	-1372.25	222.81	-14.34	-264.75	-5693.92	-7310.03
		-7310.03	-5826.32	-0.02	0.0	16.7	-1386.48	186.67	-14.34	-264.75	-5826.32	-3883.35
67	35	-3895.64	6006.29	-2.31e-03	-36.14	0.0	-1430.72	213.96	14.07	258.93	6006.29	-3895.64
		-7171.29	5878.42	0.02	0.0	16.7	-1444.95	177.82	14.07	258.93	5878.42	-7171.29
67	54	-3829.20	-1646.51	-6.23e-04	-36.14	0.0	-1385.15	241.28	-4.29	-82.04	-1646.51	-7567.25
		-7567.25	-1687.95	-7.32e-03	0.0	16.7	-1399.38	205.14	-4.29	-82.04	-1687.95	-3829.20
67	56	-3825.36	1861.21	-6.23e-04	-36.14	0.0	-1401.74	241.47	4.26	75.16	1824.27	-7566.30
		-7566.30	1824.27	6.92e-03	0.0	16.7	-1415.98	205.33	4.26	75.16	1861.21	-3825.36
67	62	-3880.55	-2626.77	-1.71e-03	-36.14	0.0	-1386.83	222.69	4.25	-134.47	-2639.85	-7304.69
		-7304.69	-2639.85	-0.01	0.0	16.7	-1401.06	186.55	4.25	-134.47	-2626.77	-3880.55
67	63	-3898.44	2824.35	-2.24e-03	-36.14	0.0	-1416.14	214.08	-4.53	128.64	2824.35	-7176.62
		-7176.62	2806.73	0.01	0.0	16.7	-1430.37	177.94	-4.53	128.64	2806.73	-3898.44
67	66	-3884.45	-2605.95	-1.76e-03	-36.14	0.0	-1387.55	221.32	-8.59	-126.57	-2605.95	-7285.73
		-7285.73	-2667.05	-0.01	0.0	16.7	-1401.78	185.18	-8.59	-126.57	-2667.05	-3884.45
67	67	-3894.54	2847.02	-2.19e-03	-36.14	0.0	-1415.42	215.45	8.31	120.75	2790.45	-7195.59
		-7195.59	2790.45	0.01	0.0	16.7	-1429.65	179.31	8.31	120.75	2847.02	-3894.54

67	86	-3850.66	-719.06	-1.10e-03	-36.14	0.0	-1392.42	233.19	-2.60	-40.38	-719.06	-7451.62
		-7451.62	-739.00	-3.52e-03	0.0	16.7	-1406.65	197.05	-2.60	-40.38	-739.00	-3850.66
67	88	-3848.87	914.84	-1.10e-03	-36.14	0.0	-1400.16	233.27	2.49	33.88	899.27	-7451.09
		-7451.09	899.27	3.12e-03	0.0	16.7	-1414.40	197.13	2.49	33.88	914.84	-3848.87
67	90	-5398.91	139.02	-2.74e-03	-50.26	0.0	-1867.30	302.55	-0.20	-4.44	139.02	-1.004e+04
		-1.004e+04	135.67	-3.08e-04	0.0	16.7	-1887.10	252.29	-0.20	-4.44	135.67	-5398.91
67	91	-3889.50	88.44	-1.98e-03	-36.14	0.0	-1401.41	218.38	-0.13	-2.76	88.44	-7240.65
		-7240.65	86.24	-1.92e-04	0.0	16.7	-1415.64	182.24	-0.13	-2.76	86.24	-3889.50
67	93	-1799.21	93.19	0.05	-3.52	0.0	-1534.91	-239.31	-0.15	-2.81	93.19	-1799.21
		-5832.09	90.70	-1.98e-04	0.0	16.7	-1549.14	-242.82	-0.15	-2.81	90.70	-5832.09
67	95	-1946.90	91.31	-0.05	-68.76	0.0	-1268.06	676.07	-0.12	-3.02	91.31	-1.268e+04
		-1.268e+04	89.27	-2.05e-04	0.0	16.7	-1282.29	607.31	-0.12	-3.02	89.27	-1946.90
67	96	-2701.60	114.69	-0.05	-75.82	0.0	-1500.97	718.16	-0.15	-3.78	114.69	-1.408e+04
		-1.408e+04	112.11	-2.59e-04	0.0	16.7	-1517.98	642.33	-0.15	-3.78	112.11	-2701.60
67	101	-3889.50	92.25	-1.98e-03	-36.14	0.0	-1401.49	218.38	-0.14	-2.91	92.25	-7240.66
		-7240.66	89.98	-2.02e-04	0.0	16.7	-1415.72	182.24	-0.14	-2.91	89.98	-3889.50
67	102	-4191.38	101.60	-2.13e-03	-38.96	0.0	-1494.65	235.22	-0.15	-3.22	101.60	-7800.53
		-7800.53	99.12	-2.23e-04	0.0	16.7	-1509.99	196.25	-0.15	-3.22	99.12	-4191.38
67	103	-3889.50	92.25	-1.98e-03	-36.14	0.0	-1401.49	218.38	-0.14	-2.91	92.25	-7240.66
		-7240.66	89.98	-2.02e-04	0.0	16.7	-1415.72	182.24	-0.14	-2.91	89.98	-3889.50
68	2	1.893e+04	-113.97	0.09	-217.32	0.0	-4571.78	-265.29	-1.31	-26.34	-113.97	1.893e+04
		228.36	-179.38	2.22e-04	0.0	50.0	-4657.37	-482.62	-1.31	-26.34	-179.38	228.36
68	7	8264.13	-40.69	0.04	-94.40	0.0	-2083.37	-116.15	-0.46	-8.72	-40.69	8264.13
		96.44	-63.46	7.86e-05	0.0	50.0	-2120.55	-210.55	-0.46	-8.72	-63.46	96.44
68	11	-520.32	-43.72	-0.19	51.85	0.0	-2328.27	380.22	-0.48	-8.60	-43.72	-2.083e+04
		-2.083e+04	-67.95	8.42e-05	0.0	50.0	-2365.45	432.07	-0.48	-8.60	-67.95	-520.32
68	14	4.528e+04	-94.51	0.31	-331.92	0.0	-3703.57	-723.43	-1.09	-22.76	-94.51	4.528e+04
		810.02	-149.11	1.85e-04	0.0	50.0	-3776.70	-1055.35	-1.09	-22.76	-149.11	810.02
68	15	3.736e+04	-43.25	0.27	-240.65	0.0	-1838.69	-612.53	-0.50	-10.68	-43.25	3.736e+04
		712.31	-68.22	8.45e-05	0.0	50.0	-1875.87	-853.18	-0.50	-10.68	-68.22	712.31
68	30	9745.28	1.989e+04	0.05	-108.01	0.0	-2319.32	-138.81	91.17	-1589.31	1.533e+04	9745.28
		129.89	1.533e+04	-0.02	0.0	50.0	-2361.86	-246.82	91.17	-1589.31	1.989e+04	129.89
68	31	9136.54	-1.544e+04	0.04	-108.01	0.0	-2383.67	-126.38	-92.35	1566.06	-1.544e+04	9136.54
		91.89	-2.005e+04	0.02	0.0	50.0	-2426.20	-234.39	-92.35	1566.06	-2.005e+04	91.89
68	33	9213.18	2.083e+04	0.04	-108.01	0.0	-2325.86	-127.94	99.71	-1620.63	1.586e+04	9213.18
		97.02	1.586e+04	-0.03	0.0	50.0	-2368.40	-235.95	99.71	-1620.63	2.083e+04	97.02
68	36	9668.64	-1.596e+04	0.05	-108.01	0.0	-2377.12	-137.25	-100.89	1597.38	-1.596e+04	9668.64
		124.76	-2.099e+04	0.03	0.0	50.0	-2419.66	-245.26	-100.89	1597.38	-2.099e+04	124.76
68	51	8391.25	-4678.32	0.04	-108.01	0.0	-2374.46	-111.14	-28.28	462.94	-4678.32	8391.25
		49.58	-6090.51	7.48e-03	0.0	50.0	-2417.00	-219.15	-28.28	462.94	-6090.51	49.58
68	52	1.050e+04	-4654.59	0.06	-108.01	0.0	-2345.19	-154.20	-27.92	460.17	-4654.59	1.050e+04
		171.81	-6048.77	7.43e-03	0.0	50.0	-2387.73	-262.21	-27.92	460.17	-6048.77	171.81
68	62	9639.10	9235.45	0.05	-108.01	0.0	-2335.69	-136.65	42.36	-747.71	7122.92	9639.10
		122.39	7122.92	-0.01	0.0	50.0	-2378.23	-244.65	42.36	-747.71	9235.45	122.39
68	63	9242.72	-7226.41	0.04	-108.01	0.0	-2367.29	-128.54	-43.54	724.46	-7226.41	9242.72
		99.40	-9397.76	0.01	0.0	50.0	-2409.83	-236.55	-43.54	724.46	-9397.76	99.40
68	65	9294.59	9703.78	0.04	-108.01	0.0	-2339.85	-129.60	46.83	-761.56	7379.36	9294.59
		102.38	7379.36	-0.01	0.0	50.0	-2382.39	-237.61	46.83	-761.56	9703.78	102.38
68	68	9587.23	-7482.85	0.05	-108.01	0.0	-2363.13	-135.59	-48.01	738.31	-7482.85	9587.23
		119.41	-9866.09	0.01	0.0	50.0	-2405.67	-243.60	-48.01	738.31	-9866.09	119.41
68	83	8763.09	-2210.93	0.04	-108.01	0.0	-2364.83	-118.73	-13.58	209.99	-2210.93	8763.09
		73.54	-2888.15	3.55e-03	0.0	50.0	-2407.37	-226.73	-13.58	209.99	-2888.15	73.54
68	84	1.012e+04	-2196.01	0.05	-108.01	0.0	-2345.93	-146.54	-13.35	208.26	-2196.01	1.012e+04
		148.05	-2861.75	3.52e-03	0.0	50.0	-2388.47	-254.54	-13.35	208.26	-2861.75	148.05
68	90	1.309e+04	-77.37	0.06	-150.21	0.0	-3182.71	-183.58	-0.89	-17.79	-77.37	1.309e+04
		157.10	-121.69	1.51e-04	0.0	50.0	-3241.87	-333.79	-0.89	-17.79	-121.69	157.10
68	91	9441.10	-49.88	0.05	-108.01	0.0	-2351.42	-132.59	-0.56	-11.01	-49.88	9441.10
		111.19	-78.07	9.67e-05	0.0	50.0	-2393.96	-240.60	-0.56	-11.01	-78.07	111.19
68	93	-299.98	-51.90	-0.11	-10.51	0.0	-2514.69	198.32	-0.58	-10.93	-51.90	-9953.41
		-9953.41	-81.06	1.00e-04	0.0	50.0	-2557.23	187.81	-0.58	-10.93	-81.06	-299.98
68	95	2.884e+04	-51.59	0.20	-205.51	0.0	-2188.29	-463.51	-0.59	-12.32	-51.59	2.884e+04
		521.77	-81.25	1.01e-04	0.0	50.0	-2230.83	-669.02	-0.59	-12.32	-81.25	521.77
68	96	3.066e+04	-64.40	0.21	-226.61	0.0	-2603.90	-489.01	-0.74	-15.40	-64.40	3.066e+04
		544.87	-101.51	1.26e-04	0.0	50.0	-2654.75	-715.61	-0.74	-15.40	-101.51	544.87
68	101	9440.91	-51.74	0.05	-108.01	0.0	-2351.49	-132.60	-0.59	-11.63	-51.74	9440.91
		110.89	-81.16	1.01e-04	0.0	50.0	-2394.03	-240.60	-0.59	-11.63	-81.16	110.89
68	102	1.017e+04	-56.87	0.05	-116.45	0.0	-2517.73	-142.79	-0.65	-12.86	-56.87	1.017e+04
		120.13	-89.26	1.11e-04	0.0	50.0	-2563.60	-259.24	-0.65	-12.86	-89.26	120.13
68	103	9440.91	-51.74	0.05	-108.01	0.0	-2351.49	-132.60	-0.59	-11.63	-51.74	9440.91
		110.89	-81.16	1.01e-04	0.0	50.0	-2394.03	-240.60	-0.59	-11.63	-81.16	110.89
69	2	2.702e+04	-15.86	0.09	-325.98	0.0	-4443.39	60.74	-1.31	-26.34	-15.86	2.660e+04
		1.893e+04	-113.97	8.01e-04	0.0	75.0	-4571.78	-265.24	-1.31	-26.34	-113.97	1.893e+04
69	11	-2.083e+04	-7.38	-0.24	77.78	0.0	-2272.50	302.47	-0.48	-8.60	-7.38	-4.643e+04
		-4.643e+04	-43.72	3.06e-04	0.0	75.0	-2328.27	380.24	-0.48	-8.60	-43.72	-2.083e+04
69	14	8.086e+04	-12.62	0.35	-497.87	0.0	-3593.88	-225.51	-1.09	-22.76	-12.62	8.086e+04
		4.528e+04	-94.51	6.65e-04	0.0	75.0	-3703.58	-723.39	-1.09	-22.76	-94.51	4.528e+04
69	15	6.976e+04	-5.78	0.32	-360.97	0.0	-1782.92	-251.54	-0.50	-10.68	-5.78	6.976e+04

		3.736e+04	-43.25	3.04e-04	0.0	75.0	-1838.69	-612.51	-0.50	-10.68	-43.25	3.736e+04
69	30	1.414e+04	1.533e+04	0.05	-162.01	0.0	-2255.62	24.20	90.35	-1589.14	8577.73	1.401e+04
		9745.28	8577.73	-0.10	0.0	75.0	-2319.43	-137.81	90.35	-1589.14	1.533e+04	9745.28
69	31	1.289e+04	-8592.99	0.04	-162.01	0.0	-2319.74	34.68	-91.52	1565.89	-8592.99	1.261e+04
		9136.54	-1.544e+04	0.10	0.0	75.0	-2383.55	-127.33	-91.52	1565.89	-1.544e+04	9136.54
69	33	1.304e+04	1.586e+04	0.04	-162.01	0.0	-2262.09	33.41	98.56	-1620.45	8536.15	1.278e+04
		9213.18	8536.15	-0.11	0.0	75.0	-2325.90	-128.59	98.56	-1620.45	1.586e+04	9213.18
69	36	1.398e+04	-8551.41	0.05	-162.01	0.0	-2313.27	25.46	-99.73	1597.20	-8551.41	1.383e+04
		9668.64	-1.596e+04	0.11	0.0	75.0	-2377.08	-136.55	-99.73	1597.20	-1.596e+04	9668.64
69	49	1.140e+04	4551.11	0.03	-162.01	0.0	-2293.65	47.75	26.50	-483.37	2565.80	1.088e+04
		8384.31	2565.80	-0.03	0.0	75.0	-2357.47	-114.26	26.50	-483.37	4551.11	8384.31
69	52	1.577e+04	-2581.06	0.06	-162.01	0.0	-2281.71	11.13	-27.68	460.12	-2581.06	1.574e+04
		1.050e+04	-4654.60	0.03	0.0	75.0	-2345.52	-150.88	-27.68	460.12	-4654.60	1.050e+04
69	62	1.392e+04	7122.93	0.05	-162.01	0.0	-2271.96	26.02	41.96	-747.64	3993.16	1.376e+04
		9639.10	3993.16	-0.05	0.0	75.0	-2335.77	-135.99	41.96	-747.64	7122.93	9639.10
69	63	1.310e+04	-4008.41	0.04	-162.01	0.0	-2303.41	32.86	-43.14	724.38	-4008.41	1.285e+04
		9242.72	-7226.41	0.05	0.0	75.0	-2367.22	-129.15	-43.14	724.38	-7226.41	9242.72
69	65	1.321e+04	7379.37	0.04	-162.01	0.0	-2276.06	31.99	46.23	-761.48	3974.84	1.297e+04
		9294.59	3974.84	-0.05	0.0	75.0	-2339.87	-130.02	46.23	-761.48	7379.37	9294.59
69	68	1.381e+04	-3990.10	0.05	-162.01	0.0	-2299.30	26.89	-47.40	738.23	-3990.10	1.365e+04
		9587.23	-7482.86	0.05	0.0	75.0	-2363.11	-135.12	-47.40	738.23	-7482.86	9587.23
69	81	1.214e+04	2092.52	0.04	-162.01	0.0	-2293.03	41.25	12.06	-231.49	1191.34	1.174e+04
		8759.69	1191.34	-0.01	0.0	75.0	-2356.84	-120.76	12.06	-231.49	2092.52	8759.69
69	84	1.495e+04	-1206.60	0.05	-162.01	0.0	-2282.33	17.63	-13.23	208.23	-1206.60	1.487e+04
		1.012e+04	-2196.01	0.01	0.0	75.0	-2346.14	-144.38	-13.23	208.23	-2196.01	1.012e+04
69	90	1.870e+04	-10.89	0.06	-225.31	0.0	-3093.97	41.77	-0.89	-17.79	-10.89	1.841e+04
		1.309e+04	-77.37	5.44e-04	0.0	75.0	-3182.71	-183.55	-0.89	-17.79	-77.37	1.309e+04
69	93	-9953.41	-8.16	-0.14	-15.76	0.0	-2450.87	214.11	-0.58	-10.93	-8.16	-2.542e+04
		-2.542e+04	-51.90	3.64e-04	0.0	75.0	-2154.68	198.35	-0.58	-10.93	-51.90	-9953.41
69	95	5.204e+04	-7.10	0.23	-308.26	0.0	-2124.49	-155.23	-0.59	-12.32	-7.10	5.204e+04
		2.884e+04	-51.59	3.63e-04	0.0	75.0	-2188.30	-463.49	-0.59	-12.32	-51.59	2.884e+04
69	96	5.459e+04	-8.73	0.24	-339.91	0.0	-2527.63	-149.07	-0.74	-15.40	-8.73	5.459e+04
		3.066e+04	-64.40	4.53e-04	0.0	75.0	-2603.91	-488.98	-0.74	-15.40	-64.40	3.066e+04
69	101	1.351e+04	-7.63	0.04	-162.01	0.0	-2287.68	29.44	-0.59	-11.63	-7.63	1.331e+04
		9440.91	-51.74	3.64e-04	0.0	75.0	-2351.49	-132.57	-0.59	-11.63	-51.74	9440.91
69	102	1.455e+04	-8.28	0.05	-174.67	0.0	-2448.94	31.90	-0.65	-12.86	-8.28	1.433e+04
		1.017e+04	-56.87	4.00e-04	0.0	75.0	-2517.74	-142.76	-0.65	-12.86	-56.87	1.017e+04
69	103	1.351e+04	-7.63	0.04	-162.01	0.0	-2287.68	29.44	-0.59	-11.63	-7.63	1.331e+04
		9440.91	-51.74	3.64e-04	0.0	75.0	-2351.49	-132.57	-0.59	-11.63	-51.74	9440.91
70	2	2.660e+04	82.25	0.02	-325.98	0.0	-4315.00	386.64	-1.31	-26.34	82.25	9821.16
		9821.16	-15.86	8.88e-04	0.0	75.0	-4443.39	60.66	-1.31	-26.34	-15.86	2.660e+04
70	11	-4.643e+04	28.97	-0.12	77.78	0.0	-2216.74	224.65	-0.48	-8.60	28.97	-6.619e+04
		-6.619e+04	-7.38	3.47e-04	0.0	75.0	-2272.51	302.43	-0.48	-8.60	-7.38	-4.643e+04
70	14	8.469e+04	69.28	0.14	-497.88	0.0	-3484.19	272.31	-1.09	-22.76	69.28	7.911e+04
		7.911e+04	-12.62	7.34e-04	0.0	75.0	-3593.88	-225.57	-1.09	-22.76	-12.62	8.086e+04
70	15	7.633e+04	31.69	0.14	-360.98	0.0	-1727.15	109.41	-0.50	-10.68	31.69	7.509e+04
		6.976e+04	-5.78	3.36e-04	0.0	75.0	-1782.92	-251.57	-0.50	-10.68	-5.78	6.976e+04
70	25	1.278e+04	8577.94	7.15e-03	-162.01	0.0	-2197.98	193.56	85.16	-1589.18	2270.59	4339.88
		4339.88	2270.59	-0.15	0.0	75.0	-2261.79	31.55	85.16	-1589.18	8577.94	1.278e+04
70	28	1.384e+04	-2197.62	0.01	-162.01	0.0	-2249.77	189.26	-86.34	1565.93	-2197.62	5715.87
		5715.87	-8593.20	0.15	0.0	75.0	-2313.57	27.25	-86.34	1565.93	-8593.20	1.384e+04
70	30	1.401e+04	8577.71	0.01	-162.01	0.0	-2192.05	188.77	85.24	-1589.29	2270.26	5922.46
		5922.46	2270.26	-0.15	0.0	75.0	-2255.85	26.76	85.24	-1589.29	8577.71	1.401e+04
70	31	1.261e+04	-2197.29	7.21e-03	-162.01	0.0	-2255.70	194.05	-86.42	1566.04	-2197.29	4133.29
		4133.29	-8592.97	0.15	0.0	75.0	-2319.51	32.04	-86.42	1566.04	-8592.97	1.261e+04
70	49	1.088e+04	2565.80	2.73e-03	-162.01	0.0	-2229.15	200.95	25.02	-483.41	694.41	1883.49
		1883.49	694.41	-0.04	0.0	75.0	-2292.96	38.94	25.02	-483.41	2565.80	1.088e+04
70	52	1.574e+04	-621.44	0.01	-162.01	0.0	-2218.59	181.87	-26.19	460.16	-621.44	8172.26
		8172.26	-2581.05	0.05	0.0	75.0	-2282.40	19.86	-26.19	460.16	-2581.05	1.574e+04
70	57	1.297e+04	3993.31	7.73e-03	-162.01	0.0	-2212.14	192.77	39.46	-747.64	1104.62	4587.31
		4587.31	1104.62	-0.07	0.0	75.0	-2275.95	30.76	39.46	-747.64	3993.31	1.297e+04
70	60	1.365e+04	-1031.64	9.58e-03	-162.01	0.0	-2235.61	190.05	-40.64	724.39	-1031.64	5468.44
		5468.44	-4008.57	0.07	0.0	75.0	-2299.42	28.04	-40.64	724.39	-4008.57	1.365e+04
70	62	1.376e+04	3993.14	9.64e-03	-162.01	0.0	-2208.29	189.67	39.51	-747.71	1104.33	5612.92
		5612.92	1104.33	-0.07	0.0	75.0	-2272.10	27.66	39.51	-747.71	3993.14	1.376e+04
70	63	1.285e+04	-1031.36	7.67e-03	-162.01	0.0	-2239.45	193.15	-40.69	724.45	-1031.36	4442.83
		4442.83	-4008.40	0.07	0.0	75.0	-2303.26	31.14	-40.69	724.45	-4008.40	1.285e+04
70	81	1.174e+04	1191.34	4.85e-03	-162.01	0.0	-2228.78	197.56	11.35	-231.51	349.06	2999.95
		2999.95	349.06	-0.02	0.0	75.0	-2292.58	35.55	11.35	-231.51	1191.34	1.174e+04
70	84	1.487e+04	-276.09	0.01	-162.01	0.0	-2218.97	185.26	-12.53	208.26	-276.09	7055.80
		7055.80	-1206.60	0.02	0.0	75.0	-2282.78	23.25	-12.53	208.26	-1206.60	1.487e+04
70	90	1.841e+04	55.59	0.01	-225.32	0.0	-3005.23	267.03	-0.89	-17.79	55.59	6830.37
		6830.37	-10.89	6.03e-04	0.0	75.0	-3093.97	41.71	-0.89	-17.79	-10.89	1.841e+04
70	93	-2.542e+04	35.58	-0.08	-15.76	0.0	-2387.07	229.83	-0.58	-10.93	35.58	-4.207e+04
		-4.207e+04	-8.16	4.09e-04	0.0	75.0	-2450.88	214.07	-0.58	-10.93	-8.16	-2.542e+04
70	95	5.497e+04	37.39	0.10	-308.26	0.0	-2060.68	153.00	-0.59	-12.32	37.39	5.212e+04
		5.204e+04	-7.10	4.02e-04	0.0	75.0	-2124.49	-155.27	-0.59	-12.32	-7.10	5.204e+04

70	96	5.704e+04	46.94	0.10	-339.91	0.0	-2451.36	190.80	-0.74	-15.40	46.94	5.302e+04
		5.302e+04	-8.73	5.01e-04	0.0	75.0	-2527.63	-149.11	-0.74	-15.40	-8.73	5.459e+04
70	101	1.331e+04	36.49	8.65e-03	-162.01	0.0	-2223.87	191.41	-0.59	-11.63	36.49	5027.87
		5027.87	-7.63	4.05e-04	0.0	75.0	-2287.68	29.40	-0.59	-11.63	-7.63	1.331e+04
70	102	1.433e+04	40.31	9.13e-03	-174.67	0.0	-2380.15	206.53	-0.65	-12.86	40.31	5388.37
		5388.37	-8.28	4.45e-04	0.0	75.0	-2448.94	31.86	-0.65	-12.86	-8.28	1.433e+04
70	103	1.531e+04	36.49	8.65e-03	-162.01	0.0	-2223.87	191.41	-0.59	-11.63	36.49	5027.87
		5027.87	-7.63	4.05e-04	0.0	75.0	-2287.68	29.40	-0.59	-11.63	-7.63	1.331e+04
71	2	9821.16	141.89	-0.01	-198.16	0.0	-4236.94	584.88	-1.31	-26.34	141.89	-1.233e+04
		-1.233e+04	82.25	3.55e-04	0.0	45.6	-4314.99	386.72	-1.31	-26.34	82.25	9821.16
71	7	4446.52	48.40	-4.11e-03	-86.08	0.0	-1937.93	253.14	-0.46	-8.72	48.40	-5132.61
		-5132.61	27.63	1.33e-04	0.0	45.6	-1971.83	167.07	-0.46	-8.72	27.63	4446.52
71	10	-6.217e+04	115.66	6.60e-03	-35.94	0.0	-3907.09	423.57	-1.08	-20.68	115.66	-8.066e+04
		-8.066e+04	66.56	3.03e-04	0.0	45.6	-3973.77	387.63	-1.08	-20.68	66.56	-6.217e+04
71	14	7.911e+04	119.06	-0.02	-302.65	0.0	-3417.50	575.03	-1.09	-22.76	119.06	5.979e+04
		5.979e+04	69.28	2.90e-04	0.0	45.6	-3484.19	272.37	-1.09	-22.76	69.28	7.911e+04
71	15	7.509e+04	54.46	-0.01	-219.43	0.0	-1693.24	328.87	-0.50	-10.68	54.46	6.510e+04
		6.510e+04	31.69	1.33e-04	0.0	45.6	-1727.15	109.44	-0.50	-10.68	31.69	7.509e+04
71	30	5922.46	2270.29	-5.05e-03	-98.48	0.0	-2153.48	290.27	76.43	-1589.25	-1441.84	-5052.08
		-5052.08	-1441.84	-0.10	0.0	45.6	-2192.27	191.79	76.43	-1589.25	2270.29	5922.46
71	31	4133.29	1568.45	-4.66e-03	-98.48	0.0	-2216.68	289.60	-77.60	1566.00	1568.45	-6839.49
		-6839.49	-2197.32	0.10	0.0	45.6	-2255.47	191.12	-77.60	1566.00	-2197.32	4133.29
71	34	5627.79	2033.03	-5.03e-03	-98.48	0.0	-2155.82	290.02	80.25	-1619.96	-2349.23	-5349.67
		-5349.67	-2349.23	-0.10	0.0	45.6	-2194.61	191.53	80.25	-1619.96	2033.03	5627.79
71	35	4427.96	2475.84	-4.68e-03	-98.48	0.0	-2214.34	289.85	-81.43	1596.71	2475.84	-6541.90
		-6541.90	-1960.05	0.10	0.0	45.6	-2253.13	191.37	-81.43	1596.71	-1960.05	4427.96
71	49	1883.49	694.42	-4.71e-03	-98.48	0.0	-2189.68	289.47	22.43	-483.40	-372.30	-9116.19
		-9116.19	-372.30	-0.03	0.0	45.6	-2228.47	190.98	22.43	-483.40	694.42	1883.49
71	52	8172.26	498.91	-5.00e-03	-98.48	0.0	-2180.48	290.41	-23.61	460.15	498.91	-2775.37
		-2775.37	-621.45	0.03	0.0	45.6	-2219.27	191.92	-23.61	460.15	-621.45	8172.26
71	62	5612.92	1104.34	-4.96e-03	-98.48	0.0	-2169.64	290.12	35.33	-747.69	-701.55	-5359.80
		-5359.80	-701.55	-0.05	0.0	45.6	-2208.43	191.64	35.33	-747.69	1104.34	5612.92
71	63	4442.83	828.15	-4.76e-03	-98.48	0.0	-2200.52	289.75	-36.51	724.44	828.15	-6531.77
		-6531.77	-1031.37	0.05	0.0	45.6	-2239.31	191.27	-36.51	724.44	-1031.37	4442.83
71	66	5426.61	1093.29	-4.94e-03	-98.48	0.0	-2171.06	289.96	37.17	-761.15	-1219.99	-5548.01
		-5548.01	-1219.99	-0.05	0.0	45.6	-2209.85	191.47	37.17	-761.15	1093.29	5426.61
71	67	4629.14	1346.60	-4.77e-03	-98.48	0.0	-2199.10	289.91	-38.34	737.90	1346.60	-6343.56
		-6343.56	-1020.32	0.05	0.0	45.6	-2237.89	191.43	-38.34	737.90	-1020.32	4629.14
71	81	2999.95	349.07	-4.75e-03	-98.48	0.0	-2189.54	289.62	10.14	-231.50	-156.02	-7990.10
		-7990.10	-156.02	-0.01	0.0	45.6	-2228.33	191.14	10.14	-231.50	349.07	2999.95
71	84	7055.80	282.63	-4.96e-03	-98.48	0.0	-2180.62	290.25	-11.31	208.25	282.63	-3901.47
		-3901.47	-276.09	0.01	0.0	45.6	-2219.41	191.77	-11.31	208.25	-276.09	7055.80
71	90	6830.37	96.00	-7.18e-03	-136.97	0.0	-2951.28	404.05	-0.89	-17.79	96.00	-8468.78
		-8468.78	55.59	2.42e-04	0.0	45.6	-3005.22	267.08	-0.89	-17.79	55.59	6830.37
71	91	5027.76	60.40	-4.86e-03	-98.48	0.0	-2185.01	289.94	-0.56	-11.01	60.40	-5946.00
		-5946.00	34.69	1.60e-04	0.0	45.6	-2223.80	191.45	-0.56	-11.01	34.69	5027.76
71	94	-4.117e+04	78.52	4.32e-03	-28.82	0.0	-2731.37	296.51	-0.73	-14.01	78.52	-5.403e+04
		-5.403e+04	45.13	2.08e-04	0.0	45.6	-2777.74	267.69	-0.73	-14.01	45.13	-4.117e+04
71	95	5.212e+04	64.44	-0.01	-187.39	0.0	-2021.89	340.42	-0.59	-12.32	64.44	4.087e+04
		4.087e+04	37.39	1.60e-04	0.0	45.6	-2060.68	153.03	-0.59	-12.32	37.39	5.212e+04
71	96	5.302e+04	80.79	-0.01	-206.63	0.0	-2404.98	397.48	-0.74	-15.40	80.79	3.961e+04
		3.961e+04	46.94	1.99e-04	0.0	45.6	-2451.35	190.85	-0.74	-15.40	46.94	5.302e+04
71	101	5027.87	63.30	-4.86e-03	-98.48	0.0	-2185.08	289.94	-0.59	-11.62	63.30	-5945.78
		-5945.78	36.49	1.64e-04	0.0	45.6	-2223.87	191.45	-0.59	-11.62	36.49	5027.87
71	102	5388.37	69.84	-5.32e-03	-106.18	0.0	-2338.32	312.76	-0.65	-12.86	69.84	-6450.38
		-6450.38	40.31	1.80e-04	0.0	45.6	-2380.14	206.58	-0.65	-12.86	40.31	5388.37
71	103	5027.87	63.30	-4.86e-03	-98.48	0.0	-2185.08	289.94	-0.59	-11.62	63.30	-5945.78
		-5945.78	36.49	1.64e-04	0.0	45.6	-2223.87	191.45	-0.59	-11.62	36.49	5027.87
72	2	7322.22	133.59	0.01	-325.98	0.0	-2827.52	-38.74	0.03	5.92	131.67	7322.22
		-7807.18	131.67	1.09e-03	0.0	75.0	-2699.12	-364.72	0.03	5.92	133.59	-7807.18
72	10	4.917e+04	102.13	0.33	-497.87	0.0	-2252.68	-461.03	4.31e-03	4.63	101.80	4.917e+04
		-4079.87	101.80	8.28e-04	0.0	75.0	-2142.98	-958.91	4.31e-03	4.63	102.13	-4079.87
72	11	4.614e+04	41.81	0.32	-360.97	0.0	-1116.70	-445.50	-5.89e-03	1.92	41.81	4.614e+04
		-807.58	41.37	3.23e-04	0.0	75.0	-1060.93	-806.47	-5.89e-03	1.92	41.37	-807.58
72	15	-5998.07	58.22	-0.31	77.78	0.0	-1522.04	409.24	0.03	2.42	55.96	-3.961e+04
		-3.961e+04	55.96	4.62e-04	0.0	75.0	-1466.27	487.01	0.03	2.42	58.22	-5998.07
72	25	4038.96	-4943.62	9.80e-03	-162.01	0.0	-1450.61	-24.68	-16.78	264.75	-4943.62	4038.96
		-3886.38	-5857.58	0.13	0.0	75.0	-1386.80	-186.69	-16.78	264.75	-5857.58	-3886.38
72	28	3379.57	5976.98	4.30e-03	-162.01	0.0	-1508.12	-15.95	16.81	-259.52	5060.99	3379.57
		-3892.64	5060.99	-0.13	0.0	75.0	-1444.31	-177.96	16.81	-259.52	5976.98	-3892.64
72	37	4207.77	-4355.91	0.01	-162.01	0.0	-1449.74	-26.90	-19.87	284.14	-4355.91	4207.77
		-3883.63	-5768.24	0.13	0.0	75.0	-1385.93	-188.91	-19.87	284.14	-5768.24	-3883.63
72	40	3210.76	5887.64	3.02e-03	-162.01	0.0	-1508.99	-13.73	19.90	-278.92	4473.28	3210.76
		-3895.39	4473.28	-0.13	0.0	75.0	-1445.18	-175.74	19.90	-278.92	5887.64	-3895.39
72	51	5478.20	1832.29	0.02	-162.01	0.0	-1482.53	-43.39	5.14	-76.46	1550.68	5478.20
		-3846.20	1550.68	-0.04	0.0	75.0	-1418.72	-205.40	5.14	-76.46	1832.29	-3846.20
72	54	1940.58	-1256.71	-6.36e-03	-162.01	0.0	-1476.09	2.76	-6.06	87.57	-1256.71	1940.58

		-3932.88	-1686.17	0.04	0.0	75.0	-1412.28	-159.25	-6.06	87.57	-1686.17	-3932.88
72	57	3929.20	-2299.50	8.84e-03	-162.01	0.0	-1465.75	-23.21	-9.18	126.34	-2299.50	3929.20
		-3886.47	-2697.87	0.06	0.0	75.0	-1401.94	-185.22	-9.18	126.34	-2697.87	-3886.47
72	60	3489.33	2817.27	5.26e-03	-162.01	0.0	-1492.99	-17.42	9.20	-121.11	2416.87	3489.33
		-3892.55	2416.87	-0.06	0.0	75.0	-1429.18	-179.43	9.20	-121.11	2817.27	-3892.55
72	69	4036.19	-2009.97	9.65e-03	-162.01	0.0	-1465.27	-24.62	-9.52	134.09	-2009.97	4036.19
		-3884.72	-2657.01	0.06	0.0	75.0	-1401.46	-186.63	-9.52	134.09	-2657.01	-3884.72
72	72	3382.35	2776.41	4.45e-03	-162.01	0.0	-1493.46	-16.01	9.55	-128.86	2127.34	3382.35
		-3894.30	2127.34	-0.06	0.0	75.0	-1429.65	-178.02	9.55	-128.86	2776.41	-3894.30
72	83	4849.86	885.38	0.02	-162.01	0.0	-1479.92	-35.20	2.83	-34.77	760.69	4849.86
		-3862.47	760.69	-0.02	0.0	75.0	-1416.11	-197.21	2.83	-34.77	885.38	-3862.47
72	86	2568.88	-556.29	-1.78e-03	-162.01	0.0	-1478.76	-5.43	-2.92	42.37	-556.29	2568.88
		-3916.58	-753.78	0.02	0.0	75.0	-1414.95	-167.44	-2.92	42.37	-753.78	-3916.58
72	90	5081.16	90.42	9.77e-03	-225.31	0.0	-1975.60	-27.08	0.02	4.00	89.07	5081.16
		-5398.93	89.07	7.36e-04	0.0	75.0	-1886.85	-252.39	0.02	4.00	90.42	-5398.93
72	93	3.229e+04	54.08	0.22	-308.26	0.0	-1344.26	-305.23	1.53e-03	2.45	53.97	3.229e+04
		-2159.34	53.97	4.30e-04	0.0	75.0	-1280.44	-613.48	1.53e-03	2.45	54.08	-2159.34
72	94	3.298e+04	69.44	0.22	-339.91	0.0	-1592.37	-308.61	3.73e-03	3.14	69.16	3.298e+04
		-2914.06	69.16	5.60e-04	0.0	75.0	-1516.09	-648.52	3.73e-03	3.14	69.44	-2914.06
72	95	-5619.67	65.32	-0.20	-15.76	0.0	-1614.48	264.60	0.03	2.78	63.40	-5619.67
		-2.487e+04	63.40	5.22e-04	0.0	75.0	-1550.67	248.84	0.03	2.78	65.32	-2.487e+04
72	101	3709.27	59.70	7.05e-03	-162.01	0.0	-1479.37	-20.31	0.01	2.61	58.68	3709.27
		-3889.51	58.68	4.76e-04	0.0	75.0	-1415.56	-182.32	0.01	2.61	59.70	-3889.51
72	102	3983.64	65.84	7.59e-03	-174.67	0.0	-1578.61	-21.67	0.01	2.89	64.76	3983.64
		-4191.39	64.76	5.28e-04	0.0	75.0	-1509.82	-196.34	0.01	2.89	65.84	-4191.39
72	103	3709.27	59.70	7.05e-03	-162.01	0.0	-1479.37	-20.31	0.01	2.61	58.68	3709.27
		-3889.51	58.68	4.76e-04	0.0	75.0	-1415.56	-182.32	0.01	2.61	59.70	-3889.51
73	1	5220.38	0.0	-0.14	-94.38	0.0	3025.07	49.00	0.0	0.0	0.0	5220.38
		0.0	0.0	0.0	0.0	411.0	3025.04	-45.38	0.0	0.0	0.0	0.0
73	2	6335.56	0.0	-0.19	-94.38	0.0	4157.40	53.95	0.0	0.0	0.0	6335.56
		0.0	0.0	0.0	0.0	411.0	4157.38	-40.43	0.0	0.0	0.0	0.0
73	15	3430.61	0.0	-0.08	-72.60	0.0	1432.98	34.84	0.0	0.0	0.0	3430.61
		-598.33	0.0	0.0	0.0	411.0	1432.96	-37.76	0.0	0.0	0.0	-598.33
73	30	3819.24	0.35	-0.10	-72.60	0.0	2107.48	36.73	-6.47e-03	-1.05e-04	0.35	3819.24
		0.0	-1.33	3.91e-05	0.0	411.0	2107.45	-35.86	-6.47e-03	-1.05e-04	-1.33	0.0
73	31	3875.69	1.33	-0.10	-72.60	0.0	2172.02	37.01	6.47e-03	1.05e-04	-0.35	3875.69
		0.0	-0.35	-3.91e-05	0.0	411.0	2172.00	-35.59	6.47e-03	1.05e-04	1.33	0.0
73	45	3845.19	4.22	-0.10	-72.60	0.0	2142.95	36.86	0.02	-1.27e-03	4.22	3845.19
		0.0	3.58	-1.37e-04	0.0	411.0	2142.93	-35.74	0.02	-1.27e-03	3.58	0.0
73	48	3849.74	-3.58	-0.10	-72.60	0.0	2136.54	36.88	-0.02	1.27e-03	-4.22	3849.74
		0.0	-4.22	1.37e-04	0.0	411.0	2136.52	-35.72	-0.02	1.27e-03	-3.58	0.0
73	63	3861.19	0.87	-0.10	-72.60	0.0	2155.97	36.94	4.22e-03	6.93e-05	-0.87	3861.19
		0.0	-0.23	-2.55e-05	0.0	411.0	2155.95	-35.66	4.22e-03	6.93e-05	0.87	0.0
73	77	3847.37	2.74	-0.10	-72.60	0.0	2143.25	36.87	0.01	-8.28e-04	2.74	3847.37
		0.0	2.32	-8.93e-05	0.0	411.0	2143.22	-35.73	0.01	-8.28e-04	2.32	0.0
73	80	3847.56	-2.32	-0.10	-72.60	0.0	2136.25	36.87	-0.01	8.28e-04	-2.74	3847.56
		0.0	-2.74	8.93e-05	0.0	411.0	2136.23	-35.73	-0.01	8.28e-04	-2.32	0.0
73	82	3837.26	-0.90	-0.10	-72.60	0.0	2122.16	36.82	-5.98e-03	2.71e-04	-0.90	3837.26
		0.0	-1.23	4.29e-05	0.0	411.0	2122.14	-35.78	-5.98e-03	2.71e-04	-1.23	0.0
73	83	3857.66	1.23	-0.10	-72.60	0.0	2157.34	36.92	5.98e-03	-2.71e-04	0.90	3857.66
		0.0	0.90	-4.29e-05	0.0	411.0	2157.32	-35.68	5.98e-03	-2.71e-04	1.23	0.0
73	89	3847.46	0.0	-0.10	-72.60	0.0	2139.75	36.87	0.0	0.0	0.0	3847.46
		0.0	0.0	0.0	0.0	411.0	2139.73	-35.73	0.0	0.0	0.0	0.0
73	90	4566.89	0.0	-0.13	-72.60	0.0	2894.64	40.17	0.0	0.0	0.0	4566.89
		0.0	0.0	0.0	0.0	411.0	2894.61	-32.43	0.0	0.0	0.0	0.0
73	95	3715.34	0.0	-0.09	-72.60	0.0	1830.83	36.23	0.0	0.0	0.0	3715.34
		-28.86	0.0	0.0	0.0	411.0	1830.81	-36.37	0.0	0.0	0.0	-28.86
73	101	3847.46	0.0	-0.10	-72.60	0.0	2139.75	36.87	0.0	0.0	0.0	3847.46
		0.0	0.0	0.0	0.0	411.0	2139.73	-35.73	0.0	0.0	0.0	0.0
73	102	3983.11	0.0	-0.10	-72.60	0.0	2290.73	37.53	0.0	0.0	0.0	3983.11
		0.0	0.0	0.0	0.0	411.0	2290.70	-35.07	0.0	0.0	0.0	0.0
73	103	3847.46	0.0	-0.10	-72.60	0.0	2139.75	36.87	0.0	0.0	0.0	3847.46
		0.0	0.0	0.0	0.0	411.0	2139.73	-35.73	0.0	0.0	0.0	0.0
74	2	-7807.18	134.02	3.96e-03	-72.71	0.0	-2699.14	-364.57	0.03	5.93	133.59	-7807.18
		-1.451e+04	133.59	3.42e-04	0.0	16.7	-2670.51	-437.28	0.03	5.93	134.02	-1.451e+04
74	10	-4079.87	102.20	0.08	-111.06	0.0	-2143.04	-958.79	4.31e-03	4.64	102.13	-4079.87
		-2.105e+04	102.13	2.61e-04	0.0	16.7	-2118.57	-1069.85	4.31e-03	4.64	102.20	-2.105e+04
74	11	-807.58	41.37	0.08	-80.52	0.0	-1060.97	-806.42	-5.89e-03	1.92	41.37	-807.58
		-1.497e+04	41.27	1.03e-04	0.0	16.7	-1048.53	-886.94	-5.89e-03	1.92	41.27	-1.497e+04
74	15	2295.90	58.73	-0.07	17.35	0.0	-1466.24	487.09	0.03	2.42	58.22	2295.90
		-5998.07	58.22	1.46e-04	0.0	16.7	-1453.80	504.44	0.03	2.42	58.73	-5998.07
74	25	-3886.38	-5726.71	2.62e-03	-36.14	0.0	-1386.81	-186.76	13.88	264.44	-5726.71	-3886.38
		-7317.05	-5857.59	0.02	0.0	16.7	-1372.58	-222.90	13.88	264.44	-5857.59	-7317.05
74	28	-3892.64	5976.99	1.33e-03	-36.14	0.0	-1444.33	-177.73	-13.85	-259.20	5976.99	-3892.64
		-7164.31	5846.56	-0.02	0.0	16.7	-1430.10	-213.87	-13.85	-259.20	5846.56	-7164.31
74	37	-3883.63	-5768.25	2.92e-03	-36.14	0.0	-1385.97	-189.08	-6.95	283.83	-5768.25	-3883.63
		-7352.06	-5801.34	0.03	0.0	16.7	-1371.74	-225.22	-6.95	283.83	-5801.34	-7352.06

74	40	-3895.39	5921.19	1.03e-03	-36.14	0.0	-1445.16	-175.41	6.97	-278.60	5887.65	-3895.39
		-7129.29	5887.65	-0.02	0.0	16.7	-1430.93	-211.55	6.97	-278.60	5921.19	-7129.29
74	49	-3850.00	-1678.14	5.13e-03	-36.14	0.0	-1402.21	-206.05	4.29	80.67	-1717.51	-3850.00
		-7605.78	-1717.51	7.28e-03	0.0	16.7	-1387.97	-242.19	4.29	80.67	-1678.14	-7605.78
74	55	-3846.14	1815.63	5.14e-03	-36.14	0.0	-1418.93	-206.26	2.22	-82.25	1805.57	-3846.14
		-7604.32	1805.57	-7.38e-03	0.0	16.7	-1404.69	-242.40	2.22	-82.25	1815.63	-7604.32
74	57	-3886.47	-2638.39	2.40e-03	-36.14	0.0	-1401.94	-185.24	8.22	126.19	-2697.87	-3886.47
		-7290.44	-2697.87	0.01	0.0	16.7	-1387.71	-221.38	8.22	126.19	-2638.39	-7290.44
74	60	-3892.55	2817.27	1.56e-03	-36.14	0.0	-1429.19	-179.25	-8.19	-120.96	2817.27	-3892.55
		-7190.91	2758.24	-0.01	0.0	16.7	-1414.96	-215.39	-8.19	-120.96	2758.24	-7190.91
74	69	-3884.72	-2657.01	2.59e-03	-36.14	0.0	-1401.49	-186.71	-4.29	133.95	-2657.01	-3884.72
		-7312.56	-2672.18	0.01	0.0	16.7	-1387.26	-222.85	-4.29	133.95	-2672.18	-7312.56
74	72	-3894.30	2792.03	1.37e-03	-36.14	0.0	-1429.64	-177.78	4.32	-128.72	2776.41	-3894.30
		-7168.80	2776.41	-0.01	0.0	16.7	-1415.41	-213.92	4.32	-128.72	2792.03	-7168.80
74	81	-3864.25	-750.89	4.02e-03	-36.14	0.0	-1408.43	-197.63	2.55	39.38	-768.80	-3864.25
		-7476.56	-768.80	3.47e-03	0.0	16.7	-1394.19	-233.77	2.55	39.38	-750.89	-7476.56
74	87	-3862.44	877.85	4.02e-03	-36.14	0.0	-1416.23	-197.74	1.38	-37.10	873.18	-3862.44
		-7475.64	873.18	-3.36e-03	0.0	16.7	-1401.99	-233.88	1.38	-37.10	877.85	-7475.64
74	90	-5398.93	90.72	2.74e-03	-50.26	0.0	-1886.87	-252.29	0.02	4.00	90.42	-5398.93
		-1.004e+04	90.42	2.31e-04	0.0	16.7	-1867.07	-302.55	0.02	4.00	90.72	-1.004e+04
74	93	-2159.35	54.11	0.05	-68.76	0.0	-1280.48	-613.42	1.53e-03	2.45	54.08	-2159.35
		-1.300e+04	54.08	1.36e-04	0.0	16.7	-1266.25	-682.18	1.53e-03	2.45	54.11	-1.300e+04
74	94	-2914.06	69.50	0.05	-75.82	0.0	-1516.13	-648.44	3.73e-03	3.14	69.44	-2914.06
		-1.440e+04	69.44	1.76e-04	0.0	16.7	-1499.11	-724.26	3.73e-03	3.14	69.50	-1.440e+04
74	95	-1484.69	65.74	-0.05	-3.52	0.0	-1550.66	248.92	0.03	2.78	65.32	-1484.69
		-5619.67	65.32	1.65e-04	0.0	16.7	-1536.43	245.41	0.03	2.78	65.74	-5619.67
74	101	-3889.51	59.93	1.98e-03	-36.14	0.0	-1415.57	-182.25	0.01	2.62	59.70	-3889.51
		-7240.68	59.70	1.50e-04	0.0	16.7	-1401.34	-218.38	0.01	2.62	59.93	-7240.68
74	102	-4191.39	66.08	2.13e-03	-38.96	0.0	-1509.83	-196.25	0.01	2.89	65.84	-4191.39
		-7800.55	65.84	1.67e-04	0.0	16.7	-1494.48	-235.22	0.01	2.89	66.08	-7800.55
74	103	-3889.51	59.93	1.98e-03	-36.14	0.0	-1415.57	-182.25	0.01	2.62	59.70	-3889.51
		-7240.68	59.70	1.50e-04	0.0	16.7	-1401.34	-218.38	0.01	2.62	59.93	-7240.68
75	2	1.893e+04	-92.16	-0.09	-217.32	0.0	-4657.03	482.62	1.07	28.34	-145.58	228.46
		228.46	-145.58	-1.80e-04	0.0	50.0	-4571.44	265.29	1.07	28.34	-92.16	1.893e+04
75	10	4.556e+04	-73.74	-0.32	-331.92	0.0	-3756.49	1060.67	0.84	22.63	-115.92	826.18
		826.18	-115.92	-1.44e-04	0.0	50.0	-3683.37	728.75	0.84	22.63	-73.74	4.556e+04
75	11	3.764e+04	-32.28	-0.28	-240.65	0.0	-1855.82	858.51	0.36	9.65	-50.23	728.45
		728.45	-50.23	-6.22e-05	0.0	50.0	-1818.64	617.86	0.36	9.65	-32.28	3.764e+04
75	15	-536.32	-38.03	0.20	51.85	0.0	-2385.25	-437.39	0.44	11.15	-60.13	-536.32
		-2.111e+04	-60.13	-7.45e-05	0.0	50.0	-2348.07	-385.54	0.44	11.15	-38.03	-2.111e+04
75	30	9106.29	2.084e+04	-0.04	-108.01	0.0	-2369.76	233.75	-99.83	1621.82	2.084e+04	92.77
		92.77	1.587e+04	0.03	0.0	50.0	-2327.22	125.74	-99.83	1621.82	1.587e+04	9106.29
75	31	9775.65	-1.595e+04	-0.05	-108.01	0.0	-2418.01	247.46	100.78	-1596.75	-2.097e+04	129.15
		129.15	-2.097e+04	-0.03	0.0	50.0	-2375.47	139.45	100.78	-1596.75	-1.595e+04	9775.65
75	37	9750.56	1.989e+04	-0.05	-108.01	0.0	-2363.08	246.93	-91.17	1589.47	1.989e+04	130.53
		130.53	1.534e+04	0.02	0.0	50.0	-2320.54	138.92	-91.17	1589.47	1.534e+04	9750.56
75	40	9131.38	-1.542e+04	-0.04	-108.01	0.0	-2424.68	234.28	92.12	-1564.41	-2.002e+04	91.39
		91.39	-2.002e+04	-0.02	0.0	50.0	-2382.14	126.27	92.12	-1564.41	-1.542e+04	9131.38
75	51	1.052e+04	-4824.51	-0.06	-108.01	0.0	-2391.64	262.62	30.71	-471.62	-6353.38	173.71
		173.71	-6353.38	-7.81e-03	0.0	50.0	-2349.10	154.61	30.71	-471.62	-4824.51	1.052e+04
75	52	8372.15	-4804.36	-0.04	-108.01	0.0	-2412.47	218.75	30.41	-468.62	-6318.30	47.79
		47.79	-6318.30	-7.77e-03	0.0	50.0	-2369.93	110.74	30.41	-468.62	-4804.36	8372.15
75	62	9226.94	9713.57	-0.04	-108.01	0.0	-2383.18	236.22	-46.91	762.65	9713.57	99.78
		99.78	7387.50	0.01	0.0	50.0	-2340.64	128.21	-46.91	762.65	7387.50	9226.94
75	63	9655.00	-7471.17	-0.05	-108.01	0.0	-2404.58	244.99	47.87	-737.59	-9845.17	122.13
		122.13	-9845.17	-0.01	0.0	50.0	-2362.04	136.98	47.87	-737.59	-7471.17	9655.00
75	69	9642.74	9242.14	-0.05	-108.01	0.0	-2378.95	244.73	-42.39	748.21	9242.14	122.80
		122.80	7127.83	0.01	0.0	50.0	-2336.41	136.72	-42.39	748.21	7127.83	9642.74
75	72	9239.21	-7211.50	-0.04	-108.01	0.0	-2408.81	236.48	43.35	-723.14	-9373.75	99.11
		99.11	-9373.75	-0.01	0.0	50.0	-2366.27	128.47	43.35	-723.14	-7211.50	9239.21
75	83	1.014e+04	-2276.34	-0.05	-108.01	0.0	-2390.97	254.81	14.78	-213.36	-3009.60	149.24
		149.24	-3009.60	-3.70e-03	0.0	50.0	-2348.43	146.80	14.78	-213.36	-2276.34	1.014e+04
75	84	8750.75	-2263.81	-0.04	-108.01	0.0	-2404.42	226.48	14.59	-211.48	-2987.64	72.48
		72.48	-2987.64	-3.67e-03	0.0	50.0	-2361.88	118.47	14.59	-211.48	-2263.81	8750.75
75	90	1.309e+04	-62.56	-0.06	-150.21	0.0	-3241.64	333.79	0.72	19.14	-98.75	157.17
		157.17	-98.75	-1.22e-04	0.0	50.0	-3182.48	183.58	0.72	19.14	-62.56	1.309e+04
75	93	2.902e+04	-39.92	-0.20	-205.51	0.0	-2217.40	672.57	0.45	12.03	-62.50	532.55
		532.55	-62.50	-7.74e-05	0.0	50.0	-2174.87	467.06	0.45	12.03	-39.92	2.902e+04
75	94	3.085e+04	-50.28	-0.21	-226.61	0.0	-2641.28	719.16	0.57	15.33	-78.97	555.65
		555.65	-78.97	-9.78e-05	0.0	50.0	-2590.43	492.55	0.57	15.33	-50.28	3.085e+04
75	95	-310.63	-43.75	0.11	-10.51	0.0	-2570.36	-191.36	0.51	13.03	-69.11	-310.63
		-1.014e+04	-69.11	-8.56e-05	0.0	50.0	-2527.82	-201.87	0.51	13.03	-43.75	-1.014e+04
75	101	9440.97	-41.84	-0.05	-108.01	0.0	-2393.88	240.60	0.48	12.53	-65.80	110.96
		110.96	-65.80	-8.15e-05	0.0	50.0	-2351.34	132.60	0.48	12.53	-41.84	9440.97
75	102	1.017e+04	-45.98	-0.05	-116.45	0.0	-2563.43	259.24	0.53	13.85	-72.39	120.20
		120.20	-72.39	-8.97e-05	0.0	50.0	-2517.57	142.79	0.53	13.85	-45.98	1.017e+04
75	103	9440.97	-41.84	-0.05	-108.01	0.0	-2393.88	240.60	0.48	12.53	-65.80	110.96

		110.96	-65.80	-8.15e-05	0.0	50.0	-2351.34	132.60	0.48	12.53	-41.84	9440.97
76	2	2.702e+04	-12.02	-0.09	-325.98	0.0	-4571.44	265.24	1.07	28.34	-92.16	1.893e+04
		1.893e+04	-92.16	-6.49e-04	0.0	75.0	-4443.05	-60.74	1.07	28.34	-12.02	2.660e+04
76	10	8.155e+04	-10.48	-0.36	-497.87	0.0	-3683.38	728.71	0.84	22.63	-73.74	4.556e+04
		4.556e+04	-73.74	-5.18e-04	0.0	75.0	-3573.68	230.84	0.84	22.63	-10.48	8.155e+04
76	11	7.044e+04	-5.36	-0.32	-360.97	0.0	-1818.65	617.84	0.36	9.65	-32.28	3.764e+04
		3.764e+04	-32.28	-2.26e-04	0.0	75.0	-1762.88	256.86	0.36	9.65	-5.36	7.044e+04
76	15	-2.111e+04	-4.86	0.24	77.78	0.0	-2348.07	-385.57	0.44	11.16	-38.03	-2.111e+04
		-4.711e+04	-38.03	-2.68e-04	0.0	75.0	-2292.30	-307.79	0.44	11.16	-4.86	-4.711e+04
76	30	1.282e+04	1.587e+04	-0.04	-162.01	0.0	-2327.16	126.73	-98.68	1621.64	1.587e+04	9106.29
		9106.29	8538.05	0.11	0.0	75.0	-2263.35	-35.27	-98.68	1621.64	8538.05	1.254e+04
76	31	1.421e+04	-8549.83	-0.05	-162.01	0.0	-2375.53	138.40	99.63	-1596.57	-1.595e+04	9775.65
		9775.65	-1.595e+04	-0.11	0.0	75.0	-2311.72	-23.60	99.63	-1596.57	-8549.83	1.408e+04
76	37	1.415e+04	1.534e+04	-0.05	-162.01	0.0	-2320.60	137.90	-90.34	1589.30	1.534e+04	9750.56
		9750.56	8577.74	0.10	0.0	75.0	-2256.79	-24.11	-90.34	1589.30	8577.74	1.402e+04
76	40	1.287e+04	-8589.51	-0.04	-162.01	0.0	-2382.08	127.24	91.30	-1564.24	-1.542e+04	9131.38
		9131.38	-1.542e+04	-0.10	0.0	75.0	-2318.27	-34.77	91.30	-1564.24	-8589.51	1.260e+04
76	50	1.137e+04	4740.84	-0.03	-162.01	0.0	-2353.38	113.90	-29.40	496.63	4740.84	8364.42
		8364.42	2558.85	0.03	0.0	75.0	-2289.57	-48.11	-29.40	496.63	2558.85	1.083e+04
76	51	1.581e+04	-2570.62	-0.06	-162.01	0.0	-2349.31	151.24	30.36	-471.56	-2570.62	1.578e+04
		1.052e+04	-4824.51	-0.03	0.0	75.0	-2285.50	-10.77	30.36	-471.56	-2570.62	1.578e+04
76	62	1.307e+04	7387.51	-0.04	-162.01	0.0	-2340.60	128.84	-46.31	762.57	7387.51	9226.94
		9226.94	3976.61	0.05	0.0	75.0	-2276.79	-33.17	-46.31	762.57	3976.61	1.281e+04
76	63	1.395e+04	-3988.38	-0.05	-162.01	0.0	-2362.08	136.30	47.27	-737.50	-7471.18	9655.00
		9655.00	-7471.18	-0.05	0.0	75.0	-2298.27	-25.71	47.27	-737.50	-3988.38	1.380e+04
76	69	1.392e+04	7127.84	-0.05	-162.01	0.0	-2336.46	136.06	-41.99	748.13	7127.84	9642.74
		9642.74	3993.84	0.05	0.0	75.0	-2272.65	-25.95	-41.99	748.13	3993.84	1.377e+04
76	72	1.309e+04	-4005.62	-0.04	-162.01	0.0	-2366.23	129.08	42.95	-723.06	-7211.51	9239.21
		9239.21	-7211.51	-0.05	0.0	75.0	-2302.42	-32.93	42.95	-723.06	-4005.62	1.285e+04
76	82	1.211e+04	2192.67	-0.04	-162.01	0.0	-2354.12	120.52	-13.64	238.40	2192.67	8746.92
		8746.92	1189.71	0.01	0.0	75.0	-2290.31	-41.49	-13.64	238.40	1189.71	1.171e+04
76	83	1.497e+04	-1201.49	-0.05	-162.01	0.0	-2348.56	144.62	14.60	-213.33	-2276.34	1.014e+04
		1.014e+04	-2276.34	-0.02	0.0	75.0	-2284.75	-17.39	14.60	-213.33	-1201.49	1.491e+04
76	90	1.870e+04	-8.29	-0.06	-225.31	0.0	-3182.48	183.55	0.72	19.14	-62.56	1.309e+04
		1.309e+04	-62.56	-4.40e-04	0.0	75.0	-3093.74	-41.77	0.72	19.14	-8.29	1.841e+04
76	93	5.249e+04	-6.05	-0.23	-308.26	0.0	-2174.87	467.04	0.45	12.03	-39.92	2.902e+04
		2.902e+04	-39.92	-2.80e-04	0.0	75.0	-2111.06	158.78	0.45	12.03	-6.05	5.249e+04
76	94	5.504e+04	-7.25	-0.24	-339.91	0.0	-2590.44	492.53	0.57	15.34	-50.28	3.085e+04
		3.085e+04	-50.28	-3.53e-04	0.0	75.0	-2514.16	152.62	0.57	15.34	-7.25	5.504e+04
76	95	-1.014e+04	-5.72	0.14	-15.76	0.0	-2527.82	-201.90	0.51	13.03	-43.75	-1.014e+04
		-2.587e+04	-43.75	-3.08e-04	0.0	75.0	-2464.01	-217.66	0.51	13.03	-5.72	-2.587e+04
76	101	1.351e+04	-5.89	-0.04	-162.01	0.0	-2351.34	132.57	0.48	12.53	-41.84	9440.97
		9440.97	-41.84	-2.94e-04	0.0	75.0	-2287.53	-29.44	0.48	12.53	-5.89	1.331e+04
76	102	1.455e+04	-6.37	-0.05	-174.67	0.0	-2517.57	142.76	0.53	13.85	-45.98	1.017e+04
		1.017e+04	-45.98	-3.23e-04	0.0	75.0	-2448.77	-31.90	0.53	13.85	-6.37	1.433e+04
76	103	1.351e+04	-5.89	-0.04	-162.01	0.0	-2351.34	132.57	0.48	12.53	-41.84	9440.97
		9440.97	-41.84	-2.94e-04	0.0	75.0	-2287.53	-29.44	0.48	12.53	-5.89	1.331e+04
77	2	2.660e+04	68.11	-0.02	-325.98	0.0	-4443.05	-60.66	1.07	28.34	-12.02	2.660e+04
		9821.21	-12.02	-7.14e-04	0.0	75.0	-4314.66	-386.64	1.07	28.34	68.11	9821.21
77	10	8.555e+04	52.79	-0.15	-497.88	0.0	-3573.68	230.90	0.84	22.63	-10.48	8.019e+04
		8.019e+04	-10.48	-5.76e-04	0.0	75.0	-3463.99	-266.98	0.84	22.63	52.79	8.019e+04
77	11	7.729e+04	21.55	-0.14	-360.98	0.0	-1762.87	256.89	0.36	9.65	-5.36	7.044e+04
		7.044e+04	-5.36	-2.56e-04	0.0	75.0	-1707.11	-104.08	0.36	9.65	21.55	7.617e+04
77	15	-4.711e+04	28.30	0.13	77.78	0.0	-2292.30	-307.75	0.44	11.15	-4.86	-4.711e+04
		-6.728e+04	-4.86	-2.94e-04	0.0	75.0	-2236.53	-229.98	0.44	11.15	28.30	-6.728e+04
77	33	1.378e+04	8578.84	-0.01	-162.01	0.0	-2258.65	-27.65	-85.32	1590.28	8578.84	1.378e+04
		5633.37	2260.68	0.15	0.0	75.0	-2194.84	-189.66	-85.32	1590.28	2260.68	5633.37
77	36	1.283e+04	-2200.55	-8.41e-03	-162.01	0.0	-2316.42	-31.15	86.28	-1565.21	-8590.61	1.283e+04
		4422.47	-8590.61	-0.15	0.0	75.0	-2252.61	-193.16	86.28	-1565.21	-2200.55	4422.47
77	37	1.402e+04	8577.71	-0.01	-162.01	0.0	-2256.96	-26.73	-85.27	1589.45	8577.71	1.402e+04
		5937.76	2255.63	0.15	0.0	75.0	-2193.15	-188.74	-85.27	1589.45	2255.63	5937.76
77	40	1.260e+04	-2195.51	-7.90e-03	-162.01	0.0	-2318.11	-32.07	86.22	-1564.39	-8589.49	1.260e+04
		4118.08	-8589.49	-0.15	0.0	75.0	-2254.30	-194.08	86.22	-1564.39	-2195.51	4118.08
77	50	1.083e+04	2558.84	-4.30e-03	-162.01	0.0	-2289.02	-39.08	-27.30	496.67	2558.84	1.083e+04
		1826.02	632.61	0.05	0.0	75.0	-2225.22	-201.09	-27.30	496.67	632.61	1826.02
77	51	1.578e+04	-572.48	-0.01	-162.01	0.0	-2286.04	-19.72	28.26	-471.61	-2570.62	1.578e+04
		8229.82	-2570.62	-0.05	0.0	75.0	-2222.24	-181.73	28.26	-471.61	-572.48	8229.82
77	65	1.362e+04	3994.47	-9.83e-03	-162.01	0.0	-2273.83	-28.22	-39.60	748.72	3994.47	1.362e+04
		5430.65	1095.29	0.07	0.0	75.0	-2210.03	-190.23	-39.60	748.72	1095.29	5430.65
77	68	1.299e+04	-1035.16	-8.65e-03	-162.01	0.0	-2301.23	-30.58	40.56	-723.66	-4006.24	1.299e+04
		4625.18	-4006.24	-0.07	0.0	75.0	-2237.43	-192.59	40.56	-723.66	-1035.16	4625.18
77	69	1.377e+04	3993.83	-0.01	-162.01	0.0	-2272.75	-27.64	-39.56	748.20	3993.83	1.377e+04
		5623.31	1092.06	0.07	0.0	75.0	-2208.95	-189.65	-39.56	748.20	1092.06	5623.31
77	72	1.285e+04	-1031.93	-8.33e-03	-162.01	0.0	-2302.31	-31.16	40.52	-723.13	-4005.60	1.285e+04
		4432.53	-4005.60	-0.07	0.0	75.0	-2238.51	-193.17	40.52	-723.13	-1031.93	4432.53
77	82	1.171e+04	1189.71	-5.93e-03	-162.01	0.0	-2289.96	-35.64	-12.58	238.42	1189.71	1.171e+04
		2962.93	348.14	0.02	0.0	75.0	-2226.15	-197.65	-12.58	238.42	348.14	2962.93

77	83	1.491e+04	-288.01	-0.01	-162.01	0.0	-2285.11	-23.16	13.54	-213.35	-1201.48	1.491e+04
		7092.90	-1201.48	-0.02	0.0	75.0	-2221.30	-185.17	13.54	-213.35	-288.01	7092.90
77	90	1.841e+04	45.99	-0.01	-225.32	0.0	-3093.74	-41.71	0.72	19.14	-8.29	1.841e+04
		6830.41	-8.29	-4.85e-04	0.0	75.0	-3005.00	-267.03	0.72	19.14	45.99	6830.41
77	93	5.556e+04	27.81	-0.10	-308.26	0.0	-2111.06	158.82	0.45	12.03	-6.05	5.249e+04
		5.249e+04	-6.05	-3.13e-04	0.0	75.0	-2047.25	-149.45	0.45	12.03	27.81	5.284e+04
77	94	5.761e+04	35.78	-0.10	-339.91	0.0	-2514.16	152.66	0.57	15.34	-7.25	5.504e+04
		5.374e+04	-7.25	-3.93e-04	0.0	75.0	-2437.89	-187.25	0.57	15.34	35.78	5.374e+04
77	95	-2.587e+04	32.31	0.08	-15.76	0.0	-2464.01	-217.62	0.51	13.03	-5.72	-2.587e+04
		-4.279e+04	-5.72	-3.39e-04	0.0	75.0	-2400.20	-233.38	0.51	13.03	32.31	-4.279e+04
77	101	1.331e+04	30.06	-9.23e-03	-162.01	0.0	-2287.53	-29.40	0.48	12.53	-5.89	1.331e+04
		5027.92	-5.89	-3.26e-04	0.0	75.0	-2223.73	-191.41	0.48	12.53	30.06	5027.92
77	102	1.433e+04	33.25	-9.80e-03	-174.67	0.0	-2448.77	-31.86	0.53	13.85	-6.37	1.433e+04
		5388.42	-6.37	-3.58e-04	0.0	75.0	-2379.98	-206.53	0.53	13.85	33.25	5388.42
77	103	1.331e+04	30.06	-9.23e-03	-162.01	0.0	-2287.53	-29.40	0.48	12.53	-5.89	1.331e+04
		5027.92	-5.89	-3.26e-04	0.0	75.0	-2223.73	-191.41	0.48	12.53	30.06	5027.92
78	9	654.93	-19.95	-0.36	-35.40	0.0	46.78	17.70	0.10	0.14	-34.18	0.0
		0.0	-34.18	-1.99e-04	0.0	148.0	46.78	-17.70	0.10	0.14	-19.95	0.0
78	10	654.93	-19.01	-0.37	-35.40	0.0	54.03	17.70	0.09	0.14	-32.30	0.0
		0.0	-32.30	-1.88e-04	0.0	148.0	54.03	-17.70	0.09	0.14	-19.01	0.0
78	11	503.79	-18.35	-0.29	-27.23	0.0	20.08	13.62	0.09	0.12	-31.79	0.0
		0.0	-31.79	-1.84e-04	0.0	148.0	20.08	-13.62	0.09	0.12	-18.35	0.0
78	13	654.93	1.03	-0.15	-35.40	0.0	136.80	17.70	-7.38e-03	0.02	1.03	0.0
		0.0	-0.07	4.82e-06	0.0	148.0	136.80	-17.70	-7.38e-03	0.02	-0.07	0.0
78	14	654.93	2.91	-0.17	-35.40	0.0	144.05	17.70	-0.01	0.01	2.91	0.0
		0.0	0.87	1.55e-05	0.0	148.0	144.05	-17.70	-0.01	0.01	0.87	0.0
78	16	503.79	5.30	-0.10	-27.23	0.0	117.35	13.62	-0.02	-2.57e-03	5.30	0.0
		0.0	2.47	2.97e-05	0.0	148.0	117.35	-13.62	-0.02	-2.57e-03	2.47	0.0
78	25	503.79	1.798e+04	-0.19	-27.23	0.0	67.99	13.62	-114.79	315.19	1.798e+04	0.0
		0.0	-1117.37	0.09	0.0	148.0	67.99	-13.62	-114.79	315.19	-1117.37	0.0
78	26	503.79	1.798e+04	-0.19	-27.23	0.0	67.98	13.62	-114.83	315.12	1.798e+04	0.0
		0.0	-1116.32	0.09	0.0	148.0	67.98	-13.62	-114.83	315.12	-1116.32	0.0
78	27	503.79	1100.31	-0.19	-27.23	0.0	68.44	13.62	114.91	-315.00	-1.801e+04	0.0
		0.0	-1.801e+04	-0.09	0.0	148.0	68.44	-13.62	114.91	-315.00	1100.31	0.0
78	38	503.79	1.576e+04	-0.19	-27.23	0.0	67.97	13.62	-95.03	307.26	1.576e+04	0.0
		0.0	1697.71	0.08	0.0	148.0	67.97	-13.62	-95.03	307.26	1697.71	0.0
78	39	503.79	-1713.72	-0.19	-27.23	0.0	68.45	13.62	95.10	-307.14	-1.579e+04	0.0
		0.0	-1.579e+04	-0.08	0.0	148.0	68.45	-13.62	95.10	-307.14	-1713.72	0.0
78	57	503.79	9973.10	-0.19	-27.23	0.0	68.10	13.62	-64.08	149.89	9973.10	0.0
		0.0	-562.11	0.05	0.0	148.0	68.10	-13.62	-64.08	149.89	-562.11	0.0
78	58	503.79	9977.12	-0.19	-27.23	0.0	68.10	13.62	-64.11	149.85	9977.12	0.0
		0.0	-561.43	0.05	0.0	148.0	68.10	-13.62	-64.11	149.85	-561.43	0.0
78	59	503.79	545.42	-0.19	-27.23	0.0	68.32	13.62	64.18	-149.73	-1.000e+04	0.0
		0.0	-1.000e+04	-0.05	0.0	148.0	68.32	-13.62	64.18	-149.73	545.42	0.0
78	70	503.79	8607.44	-0.19	-27.23	0.0	68.09	13.62	-51.94	147.11	8607.44	0.0
		0.0	921.29	0.04	0.0	148.0	68.09	-13.62	-51.94	147.11	921.29	0.0
78	71	503.79	-937.31	-0.19	-27.23	0.0	68.32	13.62	52.01	-146.99	-8634.19	0.0
		0.0	-8634.19	-0.04	0.0	148.0	68.32	-13.62	52.01	-146.99	-937.31	0.0
78	93	503.79	-14.63	-0.26	-27.23	0.0	38.20	13.62	0.07	0.10	-25.11	0.0
		0.0	-25.11	-1.46e-04	0.0	148.0	38.20	-13.62	0.07	0.10	-14.63	0.0
78	94	503.79	-14.01	-0.27	-27.23	0.0	43.04	13.62	0.07	0.10	-23.86	0.0
		0.0	-23.86	-1.39e-04	0.0	148.0	43.04	-13.62	0.07	0.10	-14.01	0.0
78	95	503.79	-1.38	-0.12	-27.23	0.0	98.21	13.62	1.75e-03	0.02	-1.64	0.0
		0.0	-1.64	-1.02e-05	0.0	148.0	98.21	-13.62	1.75e-03	0.02	-1.38	0.0
78	96	503.79	-0.38	-0.13	-27.23	0.0	103.05	13.62	-2.52e-03	0.02	-0.38	0.0
		0.0	-0.76	-3.14e-06	0.0	148.0	103.05	-13.62	-2.52e-03	0.02	-0.76	0.0
78	101	503.79	-8.01	-0.19	-27.23	0.0	68.21	13.62	0.04	0.06	-13.38	0.0
		0.0	-13.38	-7.80e-05	0.0	148.0	68.21	-13.62	0.04	0.06	-8.01	0.0
78	102	503.79	-7.76	-0.19	-27.23	0.0	70.14	13.62	0.03	0.06	-12.87	0.0
		0.0	-12.87	-7.52e-05	0.0	148.0	70.14	-13.62	0.03	0.06	-7.76	0.0
78	103	503.79	-8.01	-0.19	-27.23	0.0	68.21	13.62	0.04	0.06	-13.38	0.0
		0.0	-13.38	-7.80e-05	0.0	148.0	68.21	-13.62	0.04	0.06	-8.01	0.0
79	1	654.93	-8.93	0.25	-35.40	0.0	0.0	17.70	-0.16	0.02	-8.93	0.0
		0.0	-32.92	1.74e-04	0.0	148.0	0.0	-17.70	-0.16	0.02	-32.92	0.0
79	9	654.93	-17.82	0.18	-35.40	0.0	0.0	17.70	-0.32	0.02	-17.82	0.0
		0.0	-64.62	3.41e-04	0.0	148.0	0.0	-17.70	-0.32	0.02	-64.62	0.0
79	14	654.93	1.57	0.34	-35.40	0.0	0.0	17.70	7.01e-03	0.02	0.54	0.0
		0.0	0.54	-8.49e-06	0.0	148.0	0.0	-17.70	7.01e-03	0.02	1.57	0.0
79	16	503.79	7.05	0.27	-27.23	0.0	0.0	13.62	0.03	0.02	2.16	0.0
		0.0	2.16	-3.76e-05	0.0	148.0	0.0	-13.62	0.03	0.02	7.05	0.0
79	25	503.79	1.519e+04	0.19	-27.23	0.0	-9.90e-05	13.62	89.77	-295.32	1920.01	0.0
		0.0	1920.01	-0.08	0.0	148.0	-9.90e-05	-13.62	89.77	-295.32	1.519e+04	0.0
79	30	503.79	1.519e+04	0.19	-27.23	0.0	-1.04e-04	13.62	89.80	-295.31	1920.57	0.0
		0.0	1920.57	-0.08	0.0	148.0	-1.04e-04	-13.62	89.80	-295.31	1.519e+04	0.0
79	31	503.79	-1934.70	0.19	-27.23	0.0	1.04e-04	13.62	-90.06	295.36	-1934.70	0.0
		0.0	-1.525e+04	0.08	0.0	148.0	1.04e-04	-13.62	-90.06	295.36	-1.525e+04	0.0
79	34	503.79	1.742e+04	0.19	-27.23	0.0	-2.94e-05	13.62	109.70	-302.93	1379.46	0.0

		0.0	1379.46	-0.09	0.0	148.0	-2.94e-05	-13.62	109.70	-302.93	1.742e+04	0.0
79	35	503.79	-1393.58	0.19	-27.23	0.0	2.94e-05	13.62	-109.96	302.97	-1393.58	0.0
		0.0	-1.748e+04	0.09	0.0	148.0	2.94e-05	-13.62	-109.96	302.97	-1.748e+04	0.0
79	57	503.79	8333.27	0.19	-27.23	0.0	-6.43e-05	13.62	49.46	-141.81	1020.74	0.0
		0.0	1020.74	-0.04	0.0	148.0	-6.43e-05	-13.62	49.46	-141.81	8333.27	0.0
79	62	503.79	8336.09	0.19	-27.23	0.0	-6.76e-05	13.62	49.48	-141.81	1021.09	0.0
		0.0	1021.09	-0.04	0.0	148.0	-6.76e-05	-13.62	49.48	-141.81	8336.09	0.0
79	63	503.79	-1035.22	0.19	-27.23	0.0	6.76e-05	13.62	-49.74	141.85	-1035.22	0.0
		0.0	-8388.58	0.04	0.0	148.0	6.76e-05	-13.62	-49.74	141.85	-8388.58	0.0
79	66	503.79	9707.90	0.19	-27.23	0.0	-1.58e-05	13.62	61.67	-144.46	9707.90	0.0
		0.0	677.39	-0.05	0.0	148.0	-1.58e-05	-13.62	61.67	-144.46	9707.90	0.0
79	67	503.79	-691.52	0.19	-27.23	0.0	1.58e-05	13.62	-61.93	144.50	-691.52	0.0
		0.0	-9760.40	0.05	0.0	148.0	1.58e-05	-13.62	-61.93	144.50	-9760.40	0.0
79	89	503.79	-7.06	0.19	-27.23	0.0	0.0	13.62	-0.13	0.02	-7.06	0.0
		0.0	-26.25	1.38e-04	0.0	148.0	0.0	-13.62	-0.13	0.02	-26.25	0.0
79	93	503.79	-12.99	0.14	-27.23	0.0	0.0	13.62	-0.23	0.02	-12.99	0.0
		0.0	-47.38	2.50e-04	0.0	148.0	0.0	-13.62	-0.23	0.02	-47.38	0.0
79	96	503.79	-0.75	0.25	-27.23	0.0	0.0	13.62	-0.02	0.02	-0.75	0.0
		0.0	-3.25	1.69e-05	0.0	148.0	0.0	-13.62	-0.02	0.02	-3.25	0.0
79	101	503.79	-7.06	0.19	-27.23	0.0	0.0	13.62	-0.13	0.02	-7.06	0.0
		0.0	-26.25	1.38e-04	0.0	148.0	0.0	-13.62	-0.13	0.02	-26.25	0.0
79	102	503.79	-6.91	0.19	-27.23	0.0	0.0	13.62	-0.13	0.02	-6.91	0.0
		0.0	-25.50	1.34e-04	0.0	148.0	0.0	-13.62	-0.13	0.02	-25.50	0.0
79	103	503.79	-7.06	0.19	-27.23	0.0	0.0	13.62	-0.13	0.02	-7.06	0.0
		0.0	-26.25	1.38e-04	0.0	148.0	0.0	-13.62	-0.13	0.02	-26.25	0.0
81	9	654.93	22.09	-0.36	-35.40	0.0	67.54	17.70	-0.05	0.05	22.09	0.0
		0.0	14.73	1.31e-04	0.0	148.0	67.54	-17.70	-0.05	0.05	14.73	0.0
81	10	654.93	20.78	-0.37	-35.40	0.0	79.22	17.70	-0.05	0.04	20.78	0.0
		0.0	14.11	1.24e-04	0.0	148.0	79.22	-17.70	-0.05	0.04	14.11	0.0
81	11	503.79	20.65	-0.29	-27.23	0.0	32.78	13.62	-0.05	0.05	20.65	0.0
		0.0	13.52	1.22e-04	0.0	148.0	32.78	-13.62	-0.05	0.05	13.52	0.0
81	13	654.93	-0.17	-0.15	-35.40	0.0	156.76	17.70	5.83e-03	-8.17e-03	-1.03	0.0
		0.0	-1.03	-5.24e-06	0.0	148.0	156.76	-17.70	5.83e-03	-8.17e-03	-0.17	0.0
81	14	654.93	-0.79	-0.17	-35.40	0.0	168.44	17.70	0.01	-0.02	-2.34	0.0
		0.0	-2.34	-1.26e-05	0.0	148.0	168.44	-17.70	0.01	-0.02	-0.79	0.0
81	16	503.79	-2.00	-0.10	-27.23	0.0	133.67	13.62	0.01	-0.01	-3.77	0.0
		0.0	-3.77	-2.16e-05	0.0	148.0	133.67	-13.62	0.01	-0.01	-2.00	0.0
81	29	503.79	1.811e+04	-0.19	-27.23	0.0	83.30	13.62	-115.04	312.25	1.811e+04	0.0
		0.0	-1188.72	0.09	0.0	148.0	83.30	-13.62	-115.04	312.25	-1188.72	0.0
81	32	503.79	1200.33	-0.19	-27.23	0.0	81.52	13.62	115.00	-312.21	-1.809e+04	0.0
		0.0	-1.809e+04	-0.09	0.0	148.0	81.52	-13.62	115.00	-312.21	1200.33	0.0
81	33	503.79	1.590e+04	-0.19	-27.23	0.0	83.33	13.62	-95.37	304.38	1.590e+04	0.0
		0.0	1785.05	0.08	0.0	148.0	83.33	-13.62	-95.37	304.38	1785.05	0.0
81	34	503.79	1.590e+04	-0.19	-27.23	0.0	83.30	13.62	-95.35	304.31	1.590e+04	0.0
		0.0	1784.36	0.08	0.0	148.0	83.30	-13.62	-95.35	304.31	1784.36	0.0
81	35	503.79	-1772.75	-0.19	-27.23	0.0	81.52	13.62	95.31	-304.27	-1.588e+04	0.0
		0.0	-1.588e+04	-0.08	0.0	148.0	81.52	-13.62	95.31	-304.27	-1772.75	0.0
81	36	503.79	-1773.44	-0.19	-27.23	0.0	81.49	13.62	95.33	-304.34	-1.588e+04	0.0
		0.0	-1.588e+04	-0.08	0.0	148.0	81.49	-13.62	95.33	-304.34	-1773.44	0.0
81	59	503.79	600.81	-0.19	-27.23	0.0	82.00	13.62	64.04	-148.47	-1.000e+04	0.0
		0.0	-1.000e+04	-0.05	0.0	148.0	82.00	-13.62	64.04	-148.47	600.81	0.0
81	61	503.79	1.002e+04	-0.19	-27.23	0.0	82.83	13.62	-64.09	148.50	1.002e+04	0.0
		0.0	-588.87	0.05	0.0	148.0	82.83	-13.62	-64.09	148.50	-588.87	0.0
81	64	503.79	600.48	-0.19	-27.23	0.0	81.99	13.62	64.05	-148.47	-1.001e+04	0.0
		0.0	-1.001e+04	-0.05	0.0	148.0	81.99	-13.62	64.05	-148.47	600.48	0.0
81	65	503.79	8662.64	-0.19	-27.23	0.0	82.84	13.62	-51.99	145.77	8662.64	0.0
		0.0	968.61	0.04	0.0	148.0	82.84	-13.62	-51.99	145.77	968.61	0.0
81	66	503.79	8661.31	-0.19	-27.23	0.0	82.83	13.62	-51.98	145.73	8661.31	0.0
		0.0	968.16	0.04	0.0	148.0	82.83	-13.62	-51.98	145.73	968.16	0.0
81	68	503.79	-957.00	-0.19	-27.23	0.0	81.97	13.62	51.96	-145.74	-8645.58	0.0
		0.0	-8645.58	-0.04	0.0	148.0	81.97	-13.62	51.96	-145.74	-957.00	0.0
81	93	503.79	16.24	-0.26	-27.23	0.0	52.67	13.62	-0.04	0.04	16.24	0.0
		0.0	10.77	9.65e-05	0.0	148.0	52.67	-13.62	-0.04	0.04	10.77	0.0
81	94	503.79	15.36	-0.27	-27.23	0.0	60.46	13.62	-0.03	0.03	15.36	0.0
		0.0	10.36	9.16e-05	0.0	148.0	60.46	-13.62	-0.03	0.03	10.36	0.0
81	95	503.79	0.84	-0.12	-27.23	0.0	112.15	13.62	9.51e-05	-9.53e-04	0.83	0.0
		0.0	0.83	5.41e-06	0.0	148.0	112.15	-13.62	9.51e-05	-9.53e-04	0.84	0.0
81	96	503.79	0.43	-0.13	-27.23	0.0	119.93	13.62	3.21e-03	-5.98e-03	-0.05	0.0
		0.0	-0.05	0.0	0.0	148.0	119.93	-13.62	3.21e-03	-5.98e-03	0.43	0.0
81	101	503.79	8.53	-0.19	-27.23	0.0	82.41	13.62	-0.02	0.02	8.53	0.0
		0.0	5.80	5.10e-05	0.0	148.0	82.41	-13.62	-0.02	0.02	5.80	0.0
81	102	503.79	8.18	-0.19	-27.23	0.0	85.52	13.62	-0.02	0.02	8.18	0.0
		0.0	5.64	4.90e-05	0.0	148.0	85.52	-13.62	-0.02	0.02	5.64	0.0
81	103	503.79	8.53	-0.19	-27.23	0.0	82.41	13.62	-0.02	0.02	8.53	0.0
		0.0	5.80	5.10e-05	0.0	148.0	82.41	-13.62	-0.02	0.02	5.80	0.0
82	1	654.93	16.83	0.25	-35.40	0.0	0.0	17.70	0.07	-0.13	7.14	0.0
		0.0	7.14	-9.32e-05	0.0	148.0	0.0	-17.70	0.07	-0.13	16.83	0.0

82	9	654.93	32.76	0.18	-35.40	0.0	0.0	17.70	0.12	-0.25	14.31	0.0
		0.0	14.31	-1.82e-04	0.0	148.0	0.0	-17.70	0.12	-0.25	32.76	0.0
82	14	654.93	-0.11	0.34	-35.40	0.0	0.0	17.70	3.34e-03	-2.15e-03	-0.60	0.0
		0.0	-0.60	1.58e-06	0.0	148.0	0.0	-17.70	3.34e-03	-2.15e-03	-0.11	0.0
82	16	503.79	-1.82	0.27	-27.23	0.0	0.0	13.62	-9.51e-03	0.02	-1.82	0.0
		0.0	-3.23	1.86e-05	0.0	148.0	0.0	-13.62	-9.51e-03	0.02	-3.23	0.0
82	26	503.79	1.593e+04	0.19	-27.23	0.0	-8.25e-05	13.62	95.73	-306.06	1763.15	0.0
		0.0	1763.15	-0.08	0.0	148.0	-8.25e-05	-13.62	95.73	-306.06	1.593e+04	0.0
82	27	503.79	-1751.79	0.19	-27.23	0.0	8.25e-05	13.62	-95.63	305.86	-1751.79	0.0
		0.0	-1.590e+04	0.08	0.0	148.0	8.25e-05	-13.62	-95.63	305.86	-1.590e+04	0.0
82	29	503.79	1.593e+04	0.19	-27.23	0.0	-7.70e-05	13.62	95.75	-306.07	1763.61	0.0
		0.0	1763.61	-0.08	0.0	148.0	-7.70e-05	-13.62	95.75	-306.07	1.593e+04	0.0
82	35	503.79	1175.07	0.19	-27.23	0.0	5.45e-05	13.62	-115.29	313.67	1175.07	0.0
		0.0	-1.811e+04	0.09	0.0	148.0	5.45e-05	-13.62	-115.29	313.67	-1.811e+04	0.0
82	37	503.79	1.814e+04	0.19	-27.23	0.0	-4.90e-05	13.62	115.42	-313.88	-1163.26	0.0
		0.0	-1163.26	-0.09	0.0	148.0	-4.90e-05	-13.62	115.42	-313.88	1.814e+04	0.0
82	40	503.79	1174.61	0.19	-27.23	0.0	4.90e-05	13.62	-115.31	313.68	1174.61	0.0
		0.0	-1.811e+04	0.09	0.0	148.0	4.90e-05	-13.62	-115.31	313.68	-1.811e+04	0.0
82	58	503.79	8681.18	0.19	-27.23	0.0	-5.09e-05	13.62	52.19	-146.52	958.19	0.0
		0.0	958.19	-0.04	0.0	148.0	-5.09e-05	-13.62	52.19	-146.52	8681.18	0.0
82	59	503.79	-946.83	0.19	-27.23	0.0	5.09e-05	13.62	-52.08	146.31	-946.83	0.0
		0.0	-8654.62	0.04	0.0	148.0	5.09e-05	-13.62	-52.08	146.31	-8654.62	0.0
82	61	503.79	8683.20	0.19	-27.23	0.0	-4.75e-05	13.62	52.20	-146.52	958.48	0.0
		0.0	958.48	-0.04	0.0	148.0	-4.75e-05	-13.62	52.20	-146.52	8683.20	0.0
82	69	503.79	1.004e+04	0.19	-27.23	0.0	-2.74e-05	13.62	64.29	-149.22	-576.42	0.0
		0.0	-576.42	-0.05	0.0	148.0	-2.74e-05	-13.62	64.29	-149.22	1.004e+04	0.0
82	72	503.79	587.78	0.19	-27.23	0.0	2.74e-05	13.62	-64.19	149.02	587.78	0.0
		0.0	-1.002e+04	0.05	0.0	148.0	2.74e-05	-13.62	-64.19	149.02	-1.002e+04	0.0
82	89	503.79	13.28	0.19	-27.23	0.0	0.0	13.62	0.05	-0.10	5.68	0.0
		0.0	5.68	-7.36e-05	0.0	148.0	0.0	-13.62	0.05	-0.10	13.28	0.0
82	93	503.79	23.90	0.14	-27.23	0.0	0.0	13.62	0.09	-0.18	10.46	0.0
		0.0	10.46	-1.33e-04	0.0	148.0	0.0	-13.62	0.09	-0.18	23.90	0.0
82	96	503.79	1.99	0.25	-27.23	0.0	0.0	13.62	9.93e-03	-0.02	0.52	0.0
		0.0	0.52	-1.04e-05	0.0	148.0	0.0	-13.62	9.93e-03	-0.02	1.99	0.0
82	101	503.79	13.28	0.19	-27.23	0.0	0.0	13.62	0.05	-0.10	5.68	0.0
		0.0	5.68	-7.36e-05	0.0	148.0	0.0	-13.62	0.05	-0.10	13.28	0.0
82	102	503.79	13.01	0.19	-27.23	0.0	0.0	13.62	0.05	-0.10	5.53	0.0
		0.0	5.53	-7.20e-05	0.0	148.0	0.0	-13.62	0.05	-0.10	13.01	0.0
82	103	503.79	13.28	0.19	-27.23	0.0	0.0	13.62	0.05	-0.10	5.68	0.0
		0.0	5.68	-7.36e-05	0.0	148.0	0.0	-13.62	0.05	-0.10	13.28	0.0
93	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-159.14	0.0	0.0
		0.0	0.0	0.0	0.0	390.0	0.0	0.0	0.0	-159.14	0.0	0.0
93	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-126.55	0.0	0.0
		0.0	0.0	0.0	0.0	390.0	0.0	0.0	0.0	-126.55	0.0	0.0
93	57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-120.35	0.0	0.0
		0.0	0.0	0.0	0.0	390.0	0.0	0.0	0.0	-120.35	0.0	0.0
93	89	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-110.96	0.0	0.0
		0.0	0.0	0.0	0.0	390.0	0.0	0.0	0.0	-110.96	0.0	0.0
93	101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-110.96	0.0	0.0
		0.0	0.0	0.0	0.0	390.0	0.0	0.0	0.0	-110.96	0.0	0.0
93	103	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-110.96	0.0	0.0
		0.0	0.0	0.0	0.0	390.0	0.0	0.0	0.0	-110.96	0.0	0.0
94	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-72.63	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	-72.63	0.0	0.0
94	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-53.60	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	-53.60	0.0	0.0
94	57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-61.00	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	-61.00	0.0	0.0
94	89	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-71.77	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	-71.77	0.0	0.0
94	101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-71.77	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	-71.77	0.0	0.0
94	103	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-71.77	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	-71.77	0.0	0.0
95	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.85	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	5.85	0.0	0.0
95	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.87	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	3.87	0.0	0.0
95	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.06	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	2.06	0.0	0.0
95	45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.58	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	3.58	0.0	0.0
95	51	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.30	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	5.30	0.0	0.0
95	57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.31	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	3.31	0.0	0.0
95	77	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.02	0.0	0.0

		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	4.02	0.0	0.0
95	83	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.87	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	4.87	0.0	0.0
95	89	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.45	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	4.45	0.0	0.0
95	94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.13	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	3.13	0.0	0.0
95	101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.45	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	4.45	0.0	0.0
95	102	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.49	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	4.49	0.0	0.0
95	103	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.45	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	4.45	0.0	0.0
96	1	0.0	117.27	0.0	0.0	0.0	0.0	0.0	0.60	159.06	-117.27	0.0
		0.0	-117.27	-0.04	0.0	390.0	0.0	0.0	0.60	159.06	117.27	0.0
96	2	0.0	168.70	0.0	0.0	0.0	0.0	0.0	0.87	228.36	-168.70	0.0
		0.0	-168.70	-0.05	0.0	390.0	0.0	0.0	0.87	228.36	168.70	0.0
96	25	0.0	83.13	0.0	0.0	0.0	0.0	0.0	0.43	97.03	-83.13	0.0
		0.0	-83.13	-0.03	0.0	390.0	0.0	0.0	0.43	97.03	83.13	0.0
96	49	0.0	84.17	0.0	0.0	0.0	0.0	0.0	0.43	49.98	-84.17	0.0
		0.0	-84.17	-0.03	0.0	390.0	0.0	0.0	0.43	49.98	84.17	0.0
96	57	0.0	82.43	0.0	0.0	0.0	0.0	0.0	0.42	102.38	-82.43	0.0
		0.0	-82.43	-0.03	0.0	390.0	0.0	0.0	0.42	102.38	82.43	0.0
96	85	0.0	83.17	0.0	0.0	0.0	0.0	0.0	0.43	73.74	-83.17	0.0
		0.0	-83.17	-0.03	0.0	390.0	0.0	0.0	0.43	73.74	83.17	0.0
96	89	0.0	81.70	0.0	0.0	0.0	0.0	0.0	0.42	110.89	-81.70	0.0
		0.0	-81.70	-0.02	0.0	390.0	0.0	0.0	0.42	110.89	81.70	0.0
96	90	0.0	115.99	0.0	0.0	0.0	0.0	0.0	0.59	157.10	-115.99	0.0
		0.0	-115.99	-0.04	0.0	390.0	0.0	0.0	0.59	157.10	115.99	0.0
96	101	0.0	81.70	0.0	0.0	0.0	0.0	0.0	0.42	110.89	-81.70	0.0
		0.0	-81.70	-0.02	0.0	390.0	0.0	0.0	0.42	110.89	81.70	0.0
96	102	0.0	88.56	0.0	0.0	0.0	0.0	0.0	0.45	120.13	-88.56	0.0
		0.0	-88.56	-0.03	0.0	390.0	0.0	0.0	0.45	120.13	88.56	0.0
96	103	0.0	81.70	0.0	0.0	0.0	0.0	0.0	0.42	110.89	-81.70	0.0
		0.0	-81.70	-0.02	0.0	390.0	0.0	0.0	0.42	110.89	81.70	0.0
97	1	0.0	904.37	0.0	0.0	0.0	0.0	0.0	5.65	65.50	-904.37	0.0
		0.0	-904.37	-0.19	0.0	320.0	0.0	0.0	5.65	65.50	904.37	0.0
97	10	0.0	1512.21	0.0	0.0	0.0	0.0	0.0	9.45	1482.83	-1512.21	0.0
		0.0	-1512.21	-0.31	0.0	320.0	0.0	0.0	9.45	1482.83	1512.21	0.0
97	25	0.0	668.67	0.0	0.0	0.0	0.0	0.0	4.18	82.87	-668.67	0.0
		0.0	-668.67	-0.14	0.0	320.0	0.0	0.0	4.18	82.87	668.67	0.0
97	39	0.0	690.55	0.0	0.0	0.0	0.0	0.0	4.32	87.71	-690.55	0.0
		0.0	-690.55	-0.14	0.0	320.0	0.0	0.0	4.32	87.71	690.55	0.0
97	57	0.0	674.08	0.0	0.0	0.0	0.0	0.0	4.21	76.30	-674.08	0.0
		0.0	-674.08	-0.14	0.0	320.0	0.0	0.0	4.21	76.30	674.08	0.0
97	71	0.0	684.40	0.0	0.0	0.0	0.0	0.0	4.28	79.10	-684.40	0.0
		0.0	-684.40	-0.14	0.0	320.0	0.0	0.0	4.28	79.10	684.40	0.0
97	89	0.0	678.74	0.0	0.0	0.0	0.0	0.0	4.24	66.41	-678.74	0.0
		0.0	-678.74	-0.14	0.0	320.0	0.0	0.0	4.24	66.41	678.74	0.0
97	94	0.0	1083.96	0.0	0.0	0.0	0.0	0.0	6.77	1011.30	-1083.96	0.0
		0.0	-1083.96	-0.22	0.0	320.0	0.0	0.0	6.77	1011.30	1083.96	0.0
97	101	0.0	678.74	0.0	0.0	0.0	0.0	0.0	4.24	66.41	-678.74	0.0
		0.0	-678.74	-0.14	0.0	320.0	0.0	0.0	4.24	66.41	678.74	0.0
97	102	0.0	692.39	0.0	0.0	0.0	0.0	0.0	4.33	53.49	-692.39	0.0
		0.0	-692.39	-0.14	0.0	320.0	0.0	0.0	4.33	53.49	692.39	0.0
97	103	0.0	678.74	0.0	0.0	0.0	0.0	0.0	4.24	66.41	-678.74	0.0
		0.0	-678.74	-0.14	0.0	320.0	0.0	0.0	4.24	66.41	678.74	0.0
98	1	0.0	2.67	0.0	0.0	0.0	0.0	0.0	-0.02	0.06	2.67	0.0
		0.0	-2.67	5.48e-04	0.0	320.0	0.0	0.0	-0.02	0.06	-2.67	0.0
98	15	0.0	8.73	0.0	0.0	0.0	0.0	0.0	-0.05	-0.18	8.73	0.0
		0.0	-8.73	1.79e-03	0.0	320.0	0.0	0.0	-0.05	-0.18	-8.73	0.0
98	25	0.0	19.91	0.0	0.0	0.0	0.0	0.0	0.12	1.77	-19.91	0.0
		0.0	-19.91	-4.08e-03	0.0	320.0	0.0	0.0	0.12	1.77	19.91	0.0
98	36	0.0	25.94	0.0	0.0	0.0	0.0	0.0	-0.16	-1.77	25.94	0.0
		0.0	-25.94	5.31e-03	0.0	320.0	0.0	0.0	-0.16	-1.77	-25.94	0.0
98	57	0.0	7.94	0.0	0.0	0.0	0.0	0.0	0.05	0.86	-7.94	0.0
		0.0	-7.94	-1.63e-03	0.0	320.0	0.0	0.0	0.05	0.86	7.94	0.0
98	68	0.0	13.64	0.0	0.0	0.0	0.0	0.0	-0.09	-0.85	13.64	0.0
		0.0	-13.64	2.79e-03	0.0	320.0	0.0	0.0	-0.09	-0.85	-13.64	0.0
98	89	0.0	2.71	0.0	0.0	0.0	0.0	0.0	-0.02	0.02	2.71	0.0
		0.0	-2.71	5.56e-04	0.0	320.0	0.0	0.0	-0.02	0.02	-2.71	0.0
98	95	0.0	6.15	0.0	0.0	0.0	0.0	0.0	-0.04	-0.09	6.15	0.0
		0.0	-6.15	1.26e-03	0.0	320.0	0.0	0.0	-0.04	-0.09	-6.15	0.0
98	101	0.0	2.71	0.0	0.0	0.0	0.0	0.0	-0.02	0.02	2.71	0.0
		0.0	-2.71	5.56e-04	0.0	320.0	0.0	0.0	-0.02	0.02	-2.71	0.0
98	103	0.0	2.71	0.0	0.0	0.0	0.0	0.0	-0.02	0.02	2.71	0.0
		0.0	-2.71	5.56e-04	0.0	320.0	0.0	0.0	-0.02	0.02	-2.71	0.0

99	1	7369.79	0.0	0.23	-94.38	0.0	5128.12	36.20	0.0	0.0	0.0	4518.59
		0.0	0.0	0.0	0.0	411.0	5128.15	-58.18	0.0	0.0	0.0	0.0
99	2	9812.08	0.0	0.32	-94.38	0.0	7182.98	27.21	0.0	0.0	0.0	8211.23
		0.0	0.0	0.0	0.0	411.0	7183.01	-67.17	0.0	0.0	0.0	0.0
99	3	4836.73	0.0	0.14	-72.60	0.0	3163.24	31.26	0.0	0.0	0.0	2071.52
		0.0	0.0	0.0	0.0	411.0	3163.27	-41.34	0.0	0.0	0.0	0.0
99	4	7168.14	0.0	0.23	-72.60	0.0	5218.10	22.27	0.0	0.0	0.0	5764.16
		0.0	0.0	0.0	0.0	411.0	5218.12	-50.32	0.0	0.0	0.0	0.0
99	15	4424.77	0.0	0.12	-72.60	0.0	2311.99	33.04	0.0	0.0	0.0	1339.15
		0.0	0.0	0.0	0.0	411.0	2312.01	-39.56	0.0	0.0	0.0	0.0
99	29	5302.95	5.40	0.16	-72.60	0.0	3621.43	29.27	0.03	1.24e-03	-4.11	2890.05
		0.0	-4.11	-1.19e-04	0.0	411.0	3621.45	-43.33	0.03	1.24e-03	5.40	0.0
99	32	5271.97	4.11	0.16	-72.60	0.0	3588.46	29.39	-0.03	-1.24e-03	4.11	2840.48
		0.0	-5.40	1.19e-04	0.0	411.0	3588.48	-43.21	-0.03	-1.24e-03	-5.40	0.0
99	41	5311.88	2.77	0.16	-72.60	0.0	3643.01	29.23	0.01	2.45e-05	-0.08	2904.34
		0.0	-0.08	-2.96e-05	0.0	411.0	3643.04	-43.37	0.01	2.45e-05	2.77	0.0
99	44	5263.04	0.08	0.16	-72.60	0.0	3566.87	29.42	-0.01	-2.45e-05	0.08	2826.20
		0.0	-2.77	2.96e-05	0.0	411.0	3566.89	-43.18	-0.01	-2.45e-05	-2.77	0.0
99	49	5305.30	3.58	0.16	-72.60	0.0	3631.92	29.26	0.02	-2.18e-04	0.72	2893.82
		0.0	0.72	-3.38e-05	0.0	411.0	3631.94	-43.34	0.02	-2.18e-04	3.58	0.0
99	61	5295.36	3.57	0.16	-72.60	0.0	3613.67	29.30	0.02	8.23e-04	-2.73	2877.91
		0.0	-2.73	-7.86e-05	0.0	411.0	3613.69	-43.30	0.02	8.23e-04	3.57	0.0
99	64	5279.56	2.73	0.16	-72.60	0.0	3596.22	29.36	-0.02	-8.23e-04	2.73	2852.63
		0.0	-3.57	7.86e-05	0.0	411.0	3596.24	-43.24	-0.02	-8.23e-04	-3.57	0.0
99	73	5301.65	1.82	0.16	-72.60	0.0	3627.37	29.27	8.84e-03	2.14e-05	-0.07	2887.98
		0.0	-0.07	-1.95e-05	0.0	411.0	3627.39	-43.33	8.84e-03	2.14e-05	1.82	0.0
99	76	5273.26	0.07	0.16	-72.60	0.0	3582.51	29.38	-8.84e-03	-2.14e-05	0.07	2842.56
		0.0	-1.82	1.95e-05	0.0	411.0	3582.54	-43.22	-8.84e-03	-2.14e-05	-1.82	0.0
99	81	5297.72	2.34	0.16	-72.60	0.0	3620.74	29.29	0.01	-1.37e-04	0.45	2881.69
		0.0	0.45	-2.22e-05	0.0	411.0	3620.76	-43.31	0.01	-1.37e-04	2.34	0.0
99	89	5287.46	0.0	0.16	-72.60	0.0	3604.94	29.33	0.0	0.0	0.0	2865.27
		0.0	0.0	0.0	0.0	411.0	3604.96	-43.27	0.0	0.0	0.0	0.0
99	90	6867.61	0.0	0.22	-72.60	0.0	4974.85	23.34	0.0	0.0	0.0	5327.03
		0.0	0.0	0.0	0.0	411.0	4974.87	-49.26	0.0	0.0	0.0	0.0
99	95	5008.57	0.0	0.15	-72.60	0.0	3037.44	30.52	0.0	0.0	0.0	2377.02
		0.0	0.0	0.0	0.0	411.0	3037.46	-42.08	0.0	0.0	0.0	0.0
99	101	5287.46	0.0	0.16	-72.60	0.0	3604.94	29.33	0.0	0.0	0.0	2865.27
		0.0	0.0	0.0	0.0	411.0	3604.96	-43.27	0.0	0.0	0.0	0.0
99	102	5595.18	0.0	0.17	-72.60	0.0	3878.92	28.13	0.0	0.0	0.0	3357.62
		0.0	0.0	0.0	0.0	411.0	3878.95	-44.47	0.0	0.0	0.0	0.0
99	103	5287.46	0.0	0.16	-72.60	0.0	3604.94	29.33	0.0	0.0	0.0	2865.27
		0.0	0.0	0.0	0.0	411.0	3604.96	-43.27	0.0	0.0	0.0	0.0
102	2	838.74	66.46	-0.02	-34.92	0.0	-2807.27	17.46	-2.13	-12.38	66.46	0.0
		0.0	-343.04	0.01	0.0	192.1	-2818.78	-17.46	-2.13	-12.38	-343.04	0.0
102	9	838.74	100.70	1.11	-34.92	0.0	-1831.98	17.46	-3.37	-21.43	100.70	0.0
		0.0	-546.90	0.02	0.0	192.1	-1843.48	-17.46	-3.37	-21.43	-546.90	0.0
102	10	838.74	103.40	1.11	-34.92	0.0	-2248.13	17.46	-3.43	-21.38	103.40	0.0
		0.0	-555.27	0.02	0.0	192.1	-2259.63	-17.46	-3.43	-21.38	-555.27	0.0
102	11	645.19	84.56	1.11	-26.86	0.0	-1059.69	13.43	-2.86	-18.59	84.56	0.0
		0.0	-465.24	0.02	0.0	192.1	-1068.54	-13.43	-2.86	-18.59	-465.24	0.0
102	15	645.19	5.30	-1.13	-26.86	0.0	-1345.68	13.43	-0.15	-0.68	5.30	0.0
		0.0	-24.03	1.05e-03	0.0	192.1	-1354.53	-13.43	-0.15	-0.68	-24.03	0.0
102	33	645.19	-1825.47	4.56e-03	-26.86	0.0	-1379.83	13.43	-32.10	-374.73	-1825.47	0.0
		0.0	-7984.72	0.03	0.0	192.1	-1388.68	-13.43	-32.10	-374.73	-7984.72	0.0
102	36	645.19	7488.25	-0.02	-26.86	0.0	-1383.35	13.43	29.04	355.51	1917.64	0.0
		0.0	1917.64	-0.02	0.0	192.1	-1392.20	-13.43	29.04	355.51	7488.25	0.0
102	41	645.19	-590.84	0.04	-26.86	0.0	-1376.37	13.43	-10.35	-142.79	-590.84	0.0
		0.0	-2577.57	0.01	0.0	192.1	-1385.22	-13.43	-10.35	-142.79	-2577.57	0.0
102	42	645.19	-596.99	-0.06	-26.86	0.0	-1386.66	13.43	-10.22	-137.23	-596.99	0.0
		0.0	-2557.00	0.01	0.0	192.1	-1395.51	-13.43	-10.22	-137.23	-2557.00	0.0
102	44	645.19	2081.10	-0.06	-26.86	0.0	-1386.81	13.43	7.28	123.56	683.02	0.0
		0.0	683.02	0.01	0.0	192.1	-1395.66	-13.43	7.28	123.56	2081.10	0.0
102	65	645.19	-827.55	-2.75e-03	-26.86	0.0	-1380.54	13.43	-15.79	-181.95	-827.55	0.0
		0.0	-3854.78	0.02	0.0	192.1	-1389.39	-13.43	-15.79	-181.95	-3854.78	0.0
102	68	645.19	3358.32	-0.02	-26.86	0.0	-1382.64	13.43	12.73	162.72	919.73	0.0
		0.0	919.73	8.72e-03	0.0	192.1	-1391.49	-13.43	12.73	162.72	3358.32	0.0
102	73	645.19	-250.79	0.02	-26.86	0.0	-1378.47	13.43	-5.65	-72.79	-250.79	0.0
		0.0	-1335.53	0.01	0.0	192.1	-1387.32	-13.43	-5.65	-72.79	-1335.53	0.0
102	74	645.19	-254.49	-0.04	-26.86	0.0	-1384.62	13.43	-5.57	-69.35	-254.49	0.0
		0.0	-1322.88	8.84e-03	0.0	192.1	-1393.47	-13.43	-5.57	-69.35	-1322.88	0.0
102	76	645.19	839.06	-0.04	-26.86	0.0	-1384.71	13.43	2.59	53.57	342.96	0.0
		0.0	342.96	0.01	0.0	192.1	-1393.56	-13.43	2.59	53.57	839.06	0.0
102	90	645.19	49.68	-0.01	-26.86	0.0	-1936.46	13.43	-1.61	-9.55	49.68	0.0
		0.0	-259.39	0.01	0.0	192.1	-1945.31	-13.43	-1.61	-9.55	-259.39	0.0
102	93	645.19	72.51	0.74	-26.86	0.0	-1286.26	13.43	-2.43	-15.58	72.51	0.0
		0.0	-395.30	0.02	0.0	192.1	-1295.11	-13.43	-2.43	-15.58	-395.30	0.0
102	94	645.19	74.30	0.74	-26.86	0.0	-1563.69	13.43	-2.47	-15.55	74.30	0.0

		0.0	-400.88	0.02	0.0	192.1	-1572.54	-13.43	-2.47	-15.55	-400.88	0.0
102	96	645.19	21.46	-0.76	-26.86	0.0	-1754.35	13.43	-0.67	-3.61	21.46	0.0
		0.0	-106.75	4.51e-03	0.0	192.1	-1763.20	-13.43	-0.67	-3.61	-106.75	0.0
102	101	645.19	46.09	-9.41e-03	-26.86	0.0	-1381.59	13.43	-1.53	-9.61	46.09	0.0
		0.0	-248.23	0.01	0.0	192.1	-1390.44	-13.43	-1.53	-9.61	-248.23	0.0
102	102	645.19	46.80	-0.01	-26.86	0.0	-1492.56	13.43	-1.55	-9.60	46.80	0.0
		0.0	-250.47	0.01	0.0	192.1	-1501.41	-13.43	-1.55	-9.60	-250.47	0.0
102	103	645.19	46.09	-9.41e-03	-26.86	0.0	-1381.59	13.43	-1.53	-9.61	46.09	0.0
		0.0	-248.23	0.01	0.0	192.1	-1390.44	-13.43	-1.53	-9.61	-248.23	0.0
103	1	838.74	16.13	0.01	-34.92	0.0	-1986.48	17.46	1.82	26.99	-334.31	0.0
		0.0	-334.31	-0.01	0.0	192.1	-1974.98	-17.46	1.82	26.99	16.13	0.0
103	2	838.74	14.57	0.02	-34.92	0.0	-2818.78	17.46	1.91	29.13	-352.29	0.0
		0.0	-352.29	-0.01	0.0	192.1	-2807.28	-17.46	1.91	29.13	14.57	0.0
103	9	838.74	28.71	1.14	-34.92	0.0	-2087.56	17.46	3.06	44.68	-559.74	0.0
		0.0	-559.74	-0.02	0.0	192.1	-2076.06	-17.46	3.06	44.68	28.71	0.0
103	10	838.74	27.93	1.14	-34.92	0.0	-2503.71	17.46	3.11	45.75	-568.72	0.0
		0.0	-568.72	-0.02	0.0	192.1	-2492.21	-17.46	3.11	45.75	27.93	0.0
103	12	645.19	24.80	1.13	-26.86	0.0	-1728.77	13.43	2.65	38.71	-484.74	0.0
		0.0	-484.74	-0.02	0.0	192.1	-1719.92	-13.43	2.65	38.71	24.80	0.0
103	15	645.19	0.42	-1.11	-26.86	0.0	-1110.46	13.43	0.13	2.25	-24.90	0.0
		0.0	-24.90	-7.30e-04	0.0	192.1	-1101.61	-13.43	0.13	2.25	0.42	0.0
103	25	645.19	-1858.67	0.02	-26.86	0.0	-1392.00	13.43	31.95	385.92	-7991.05	0.0
		0.0	-7991.05	0.02	0.0	192.1	-1383.15	-13.43	31.95	385.92	-1858.67	0.0
103	28	645.19	7482.67	-5.10e-03	-26.86	0.0	-1388.89	13.43	-29.17	-345.11	7482.67	0.0
		0.0	1884.00	-0.03	0.0	192.1	-1380.04	-13.43	-29.17	-345.11	1884.00	0.0
103	42	645.19	-553.65	-0.04	-26.86	0.0	-1384.29	13.43	10.52	125.33	-2564.20	0.0
		0.0	-2564.20	-7.69e-03	0.0	192.1	-1375.44	-13.43	10.52	125.33	-553.65	0.0
103	43	645.19	2055.82	0.06	-26.86	0.0	-1396.59	13.43	-7.74	-84.52	2055.82	0.0
		0.0	578.98	-0.01	0.0	192.1	-1387.74	-13.43	-7.74	-84.52	578.98	0.0
103	48	645.19	2074.89	-0.04	-26.86	0.0	-1384.44	13.43	-7.39	-114.39	2074.89	0.0
		0.0	648.21	-0.01	0.0	192.1	-1375.59	-13.43	-7.39	-114.39	648.21	0.0
103	54	645.19	-631.07	-0.03	-26.86	0.0	-1385.57	13.43	10.11	147.38	-2564.99	0.0
		0.0	-2564.99	7.72e-03	0.0	192.1	-1376.72	-13.43	10.11	147.38	-631.07	0.0
103	57	645.19	-860.79	0.02	-26.86	0.0	-1391.37	13.43	15.64	192.93	-3861.00	0.0
		0.0	-3861.00	-9.43e-03	0.0	192.1	-1382.52	-13.43	15.64	192.93	-860.79	0.0
103	60	645.19	3352.62	-1.73e-03	-26.86	0.0	-1389.52	13.43	-12.86	-152.12	3352.62	0.0
		0.0	886.12	-0.01	0.0	192.1	-1380.67	-13.43	-12.86	-152.12	886.12	0.0
103	74	645.19	-252.35	-0.02	-26.86	0.0	-1386.76	13.43	5.64	69.25	-1329.44	0.0
		0.0	-1329.44	-7.87e-03	0.0	192.1	-1377.91	-13.43	5.64	69.25	-252.35	0.0
103	75	645.19	821.06	0.04	-26.86	0.0	-1394.12	13.43	-2.86	-28.45	821.06	0.0
		0.0	277.68	-8.31e-03	0.0	192.1	-1385.27	-13.43	-2.86	-28.45	277.68	0.0
103	86	645.19	-288.32	-0.01	-26.86	0.0	-1387.53	13.43	5.45	79.78	-1330.10	0.0
		0.0	-1330.10	-5.30e-03	0.0	192.1	-1378.68	-13.43	5.45	79.78	-288.32	0.0
103	89	645.19	12.67	9.41e-03	-26.86	0.0	-1390.44	13.43	1.39	20.40	-254.19	0.0
		0.0	-254.19	-8.04e-03	0.0	192.1	-1381.59	-13.43	1.39	20.40	12.67	0.0
103	90	645.19	11.63	0.01	-26.86	0.0	-1945.31	13.43	1.45	21.83	-266.17	0.0
		0.0	-266.17	-8.30e-03	0.0	192.1	-1936.46	-13.43	1.45	21.83	11.63	0.0
103	93	645.19	21.05	0.76	-26.86	0.0	-1457.83	13.43	2.21	32.20	-404.47	0.0
		0.0	-404.47	-0.01	0.0	192.1	-1448.98	-13.43	2.21	32.20	21.05	0.0
103	94	645.19	20.53	0.76	-26.86	0.0	-1735.26	13.43	2.24	32.91	-410.46	0.0
		0.0	-410.46	-0.01	0.0	192.1	-1726.41	-13.43	2.24	32.91	20.53	0.0
103	95	645.19	4.28	-0.74	-26.86	0.0	-1323.06	13.43	0.56	8.61	-103.91	0.0
		0.0	-103.91	-3.22e-03	0.0	192.1	-1314.21	-13.43	0.56	8.61	4.28	0.0
103	101	645.19	12.67	9.41e-03	-26.86	0.0	-1390.44	13.43	1.39	20.40	-254.19	0.0
		0.0	-254.19	-8.04e-03	0.0	192.1	-1381.59	-13.43	1.39	20.40	12.67	0.0
103	102	645.19	12.46	0.01	-26.86	0.0	-1501.42	13.43	1.40	20.69	-256.59	0.0
		0.0	-256.59	-8.09e-03	0.0	192.1	-1492.57	-13.43	1.40	20.69	12.46	0.0
103	103	645.19	12.67	9.41e-03	-26.86	0.0	-1390.44	13.43	1.39	20.40	-254.19	0.0
		0.0	-254.19	-8.04e-03	0.0	192.1	-1381.59	-13.43	1.39	20.40	12.67	0.0
104	2	1.316e+04	-125.51	-0.02	-580.31	0.0	-5042.11	513.53	0.73	-9.92	-180.27	-3880.38
		-3880.38	-180.27	-6.35e-04	0.0	75.0	-4813.55	-66.78	0.73	-9.92	-125.51	1.287e+04
104	10	1.163e+05	-231.87	0.36	-893.25	0.0	-3965.31	64.15	1.02	-16.47	-308.10	1.161e+05
		8.741e+04	-308.10	-1.07e-03	2.07e-04	75.0	-3770.80	-829.10	1.02	-16.47	-231.87	8.741e+04
104	11	1.178e+05	-208.59	0.37	-647.05	0.0	-1880.12	-154.41	0.77	-14.01	-266.30	1.178e+05
		8.200e+04	-266.30	-9.17e-04	2.07e-04	75.0	-1782.58	-801.46	0.77	-14.01	-208.59	8.200e+04
104	14	-6.543e+04	-27.92	-0.39	-94.50	0.0	-4699.99	808.86	0.32	-3.10	-52.11	-1.225e+05
		-1.225e+05	-52.11	-1.92e-04	-2.07e-04	75.0	-4505.48	714.36	0.32	-3.10	-27.92	-6.543e+04
104	16	-6.896e+04	-0.27	-0.38	65.27	0.0	-3324.25	667.32	0.14	-0.77	-10.47	-1.215e+05
		-1.215e+05	-10.47	-4.47e-05	-2.07e-04	75.0	-3192.66	732.59	0.14	-0.77	-0.27	-6.896e+04
104	25	7548.80	-6945.98	-5.69e-03	-284.83	0.0	-2559.20	242.63	-31.95	65.32	-6945.98	-197.74
		-197.74	-9129.46	0.13	0.0	75.0	-2447.02	-42.19	-31.95	65.32	-9129.46	7320.31
104	28	5531.13	8919.98	-0.01	-284.83	0.0	-2545.72	259.47	32.84	-80.08	6669.23	-3324.02
		-3324.02	6669.23	-0.13	0.0	75.0	-2433.54	-25.36	32.84	-80.08	8919.98	5453.90
104	41	9948.39	-2229.06	6.80e-03	-284.83	0.0	-2545.55	223.26	-8.92	12.27	-2229.06	3394.27
		3394.27	-2834.58	0.04	0.0	75.0	-2433.37	-61.57	-8.92	12.27	-2834.58	9458.17
104	44	3316.04	2625.10	-0.02	-284.83	0.0	-2559.36	278.85	9.82	-27.03	1952.31	-6916.03
		-6916.03	1952.31	-0.04	0.0	75.0	-2447.19	-5.98	9.82	-27.03	2625.10	3316.04

104	46	3323.32	-1735.28	-0.02	-284.83	0.0	-2565.21	278.80	-10.23	24.93	-1735.28	-6905.34
		-6905.34	-2452.86	0.04	0.0	75.0	-2453.03	-6.03	-10.23	24.93	-2452.86	3323.32
104	47	9940.47	2243.38	6.81e-03	-284.83	0.0	-2539.71	223.31	11.13	-39.69	1458.53	3383.57
		3383.57	1458.53	-0.04	0.0	75.0	-2427.53	-61.52	11.13	-39.69	2243.38	9450.89
104	57	7141.10	-3367.63	-6.96e-03	-284.83	0.0	-2555.31	246.03	-15.01	33.94	-3367.63	-827.92
		-827.92	-4325.55	0.06	0.0	75.0	-2443.13	-38.80	-15.01	33.94	-4325.55	6944.39
104	60	5932.61	4116.07	-0.01	-284.83	0.0	-2549.61	256.08	15.90	-48.70	3090.88	-2693.84
		-2693.84	3090.88	-0.06	0.0	75.0	-2437.43	-28.75	15.90	-48.70	4116.07	5829.82
104	73	8556.64	-1137.15	-3.19e-03	-284.83	0.0	-2547.97	234.43	-3.97	3.68	-1137.15	1321.63
		1321.63	-1384.90	0.02	0.0	75.0	-2435.80	-50.39	-3.97	3.68	-1384.90	8223.55
104	76	4589.38	1175.42	-0.02	-284.83	0.0	-2556.94	267.67	4.87	-18.44	860.40	-4843.40
		-4843.40	860.40	-0.02	0.0	75.0	-2444.76	-17.16	4.87	-18.44	1175.42	4550.66
104	78	4593.20	-889.20	-0.02	-284.83	0.0	-2559.71	267.65	-4.67	9.36	-889.20	-4838.18
		-4838.18	-1198.54	0.02	0.0	75.0	-2447.53	-17.18	-4.67	9.36	-1198.54	4554.39
104	79	8552.63	989.06	-3.18e-03	-284.83	0.0	-2545.21	234.46	5.57	-24.13	612.45	1316.41
		1316.41	612.45	-0.02	0.0	75.0	-2433.03	-50.37	5.57	-24.13	989.06	8219.82
104	90	9094.26	-98.90	-0.01	-400.08	0.0	-3498.40	353.75	0.53	-7.56	-138.58	-2634.02
		-2634.02	-138.58	-4.86e-04	0.0	75.0	-3340.83	-46.33	0.53	-7.56	-98.90	8894.36
104	93	7.779e+04	-172.72	0.24	-551.08	0.0	-2307.57	2.82	0.68	-11.84	-223.70	7.779e+04
		5.733e+04	-223.70	-7.72e-04	1.38e-04	75.0	-2195.39	-548.26	0.68	-11.84	-172.72	5.733e+04
104	94	7.752e+04	-169.80	0.24	-608.70	0.0	-2780.54	54.16	0.72	-11.92	-223.81	7.735e+04
		5.859e+04	-223.81	-7.75e-04	1.38e-04	75.0	-2645.66	-554.54	0.72	-11.92	-169.80	5.859e+04
104	96	-4.331e+04	-33.84	-0.26	-76.20	0.0	-3270.32	550.64	0.26	-3.01	-53.15	-8.175e+04
		-8.175e+04	-53.15	-1.91e-04	-1.38e-04	75.0	-3135.45	474.44	0.26	-3.01	-33.84	-4.331e+04
104	101	6536.85	-104.74	-9.20e-03	-284.83	0.0	-2552.46	251.05	0.45	-7.38	-138.37	-1760.88
		-1760.88	-138.37	-4.80e-04	0.0	75.0	-2440.28	-33.78	0.45	-7.38	-104.74	6387.10
104	102	7048.34	-103.57	-9.91e-03	-307.88	0.0	-2741.65	271.59	0.46	-7.42	-138.42	-1935.51
		-1935.51	-138.42	-4.81e-04	0.0	75.0	-2620.39	-36.29	0.46	-7.42	-103.57	6888.56
104	103	6536.85	-104.74	-9.20e-03	-284.83	0.0	-2552.46	251.05	0.45	-7.38	-138.37	-1760.88
		-1760.88	-138.37	-4.80e-04	0.0	75.0	-2440.28	-33.78	0.45	-7.38	-104.74	6387.10
105	2	1.316e+04	-382.74	0.02	-580.31	0.0	-4816.36	66.78	1.33	14.87	-482.63	1.287e+04
		-3881.03	-482.63	1.03e-03	0.0	75.0	-5044.91	-513.53	1.33	14.87	-382.74	-3881.03
105	10	-6.475e+04	-602.59	0.39	-94.50	0.0	-4512.16	-697.51	1.98	23.67	-751.33	-6.475e+04
		-1.206e+05	-751.33	1.63e-03	-2.07e-04	75.0	-4706.67	-792.01	1.98	23.67	-602.59	-1.206e+05
105	15	1.159e+05	-29.34	-0.37	-647.05	0.0	-1780.52	784.60	0.12	1.11	-38.15	8.132e+04
		8.132e+04	-38.15	7.74e-05	2.07e-04	75.0	-1878.06	137.55	0.12	1.11	-29.34	1.159e+05
105	33	5570.25	-7089.87	0.01	-284.83	0.0	-2456.42	25.65	33.58	-62.43	-9367.43	5491.74
		-3265.69	-9367.43	-0.13	0.0	75.0	-2568.60	-259.18	33.58	-62.43	-7089.87	-3265.69
105	36	7508.12	8697.90	4.27e-03	-284.83	0.0	-2428.07	41.89	-31.82	83.57	8697.90	7282.26
		-256.86	6552.30	0.13	0.0	75.0	-2540.25	-242.94	-31.82	83.57	6552.30	-256.86
105	41	3370.89	-2001.83	0.02	-284.83	0.0	-2460.11	6.48	11.68	-15.77	-2753.61	3370.89
		-6824.18	-2753.61	-0.04	0.0	75.0	-2572.29	-278.35	11.68	-15.77	-2001.83	-6824.18
105	44	9886.29	2084.08	-7.93e-03	-284.83	0.0	-2424.38	61.06	-9.92	36.91	2084.08	9403.12
		3301.62	1464.25	0.04	0.0	75.0	-2536.56	-223.77	-9.92	36.91	1464.25	3301.62
105	46	9893.06	-2223.77	-7.92e-03	-284.83	0.0	-2430.25	61.11	10.14	-15.12	-2994.70	9409.27
		3311.07	-2994.70	-0.04	0.0	75.0	-2542.43	-223.72	10.14	-15.12	-2223.77	3311.07
105	47	3364.74	2325.16	0.02	-284.83	0.0	-2454.24	6.44	-8.38	36.26	2325.16	3364.74
		-6833.63	1686.19	0.04	0.0	75.0	-2566.42	-278.39	-8.38	36.26	1686.19	-6833.63
105	65	5954.70	-3506.88	0.01	-284.83	0.0	-2449.53	28.91	16.53	-30.97	-4560.37	5850.62
		-2662.70	-4560.37	-0.06	0.0	75.0	-2561.71	-255.92	16.53	-30.97	-3506.88	-2662.70
105	68	7118.73	3890.84	6.20e-03	-284.83	0.0	-2434.96	38.64	-14.77	52.11	3890.84	6923.39
		-859.85	2969.30	0.06	0.0	75.0	-2547.14	-246.19	-14.77	52.11	2969.30	-859.85
105	73	4622.91	-1103.21	0.02	-284.83	0.0	-2452.56	17.45	6.07	-2.47	-1472.03	4582.84
		-4789.73	-1472.03	-0.02	0.0	75.0	-2564.74	-267.38	6.07	-2.47	-1103.21	-4789.73
105	76	8520.12	802.49	-3.61e-03	-284.83	0.0	-2431.93	50.09	-4.31	23.61	802.49	8191.16
		1267.18	565.63	0.02	0.0	75.0	-2544.11	-234.73	-4.31	23.61	565.63	1267.18
105	78	8523.46	-1184.09	-3.61e-03	-284.83	0.0	-2434.72	50.12	5.23	-4.22	-1571.85	8194.22
		1271.77	-1571.85	-0.02	0.0	75.0	-2546.90	-234.71	5.23	-4.22	-1184.09	1271.77
105	79	4619.75	902.32	0.02	-284.83	0.0	-2449.77	17.43	-3.47	25.36	902.32	4579.79
		-4794.33	646.51	0.02	0.0	75.0	-2561.95	-267.40	-3.47	25.36	646.51	-4794.33
105	90	9094.08	-287.07	0.01	-400.08	0.0	-3342.93	46.32	0.98	11.19	-360.80	8894.22
		-2634.49	-360.80	7.72e-04	0.0	75.0	-3500.50	-353.75	0.98	11.19	-287.07	-2634.49
105	94	-4.285e+04	-433.63	0.26	-76.20	0.0	-3140.13	-463.20	1.42	17.06	-539.93	-4.285e+04
		-8.045e+04	-539.93	1.18e-03	-1.38e-04	75.0	-3275.01	-539.40	1.42	17.06	-433.63	-8.045e+04
105	95	7.649e+04	-113.08	-0.24	-551.08	0.0	-2194.70	537.02	0.39	4.39	-142.62	5.688e+04
		5.688e+04	-142.62	3.04e-04	1.38e-04	75.0	-2306.88	-14.06	0.39	4.39	-113.08	5.688e+04
105	101	6536.72	-268.79	9.07e-03	-284.83	0.0	-2442.25	33.77	0.88	10.57	-334.77	6387.00
		-1761.28	-334.77	7.31e-04	0.0	75.0	-2554.42	-251.06	0.88	10.57	-268.79	-1761.28
105	102	7048.19	-272.44	9.77e-03	-307.88	0.0	-2622.38	36.28	0.90	10.69	-339.97	6888.45
		-1935.92	-339.97	7.39e-04	0.0	75.0	-2743.64	-271.60	0.90	10.69	-272.44	-1935.92
105	103	6536.72	-268.79	9.07e-03	-284.83	0.0	-2442.25	33.77	0.88	10.57	-334.77	6387.00
		-1761.28	-334.77	7.31e-04	0.0	75.0	-2554.42	-251.06	0.88	10.57	-268.79	-1761.28
106	2	1.705e+04	-94.66	0.02	-352.76	0.0	-7440.72	-687.28	-1.40	-61.91	-94.66	1.705e+04
		-2.233e+04	-158.54	3.16e-04	0.0	45.6	-7301.78	-1040.04	-1.40	-61.91	-158.54	-2.233e+04
106	9	1.402e+05	-162.22	0.02	-490.45	0.0	-4836.35	-363.72	-2.41	-97.18	-162.22	1.402e+05
		1.125e+05	-272.31	5.53e-04	7.50e-05	45.6	-4738.79	-854.17	-2.41	-97.18	-272.31	1.125e+05
106	10	1.427e+05	-162.19	0.02	-542.99	0.0	-5899.88	-466.29	-2.41	-99.00	-162.19	1.427e+05

		1.091e+05	-272.15	5.51e-04	7.50e-05	45.6	-5781.63	-1009.28	-2.41	-99.00	-272.15	1.091e+05
106	11	1.356e+05	-140.39	0.01	-393.33	0.0	-2801.19	-174.45	-2.09	-82.35	-140.39	1.356e+05
		1.187e+05	-235.78	4.81e-04	7.50e-05	45.6	-2741.89	-567.78	-2.09	-82.35	-235.78	1.187e+05
106	14	-1.135e+05	-27.19	0.02	-57.44	0.0	-6854.50	-703.14	-0.40	-21.19	-27.19	-1.135e+05
		-1.469e+05	-45.26	8.51e-05	-7.50e-05	45.6	-6736.25	-760.58	-0.40	-21.19	-45.26	-1.469e+05
106	16	-1.182e+05	-5.36	0.02	39.68	0.0	-4819.34	-513.86	-0.07	-6.36	-5.36	-1.182e+05
		-1.407e+05	-8.73	1.30e-05	-7.50e-05	45.6	-4739.35	-474.19	-0.07	-6.36	-8.73	-1.407e+05
106	25	1.021e+04	-2251.99	9.26e-03	-173.14	0.0	-3740.95	-336.84	-112.45	1029.13	-2251.99	1.021e+04
		-9094.36	-7068.75	0.11	0.0	45.6	-3672.76	-509.98	-112.45	1029.13	-7068.75	-9094.36
106	28	6839.41	6824.22	9.25e-03	-173.14	0.0	-3730.49	-337.10	110.28	-1117.58	2106.24	6839.41
		-1.248e+04	2106.24	-0.11	0.0	45.6	-3662.29	-510.24	110.28	-1117.58	6824.22	-1.248e+04
106	41	1.409e+04	-770.49	9.41e-03	-173.14	0.0	-3723.98	-336.72	-34.66	272.42	-770.49	1.409e+04
		-5208.70	-2257.78	0.03	0.0	45.6	-3655.78	-509.86	-34.66	272.42	-2257.78	-5208.70
106	44	2959.60	2013.25	9.10e-03	-173.14	0.0	-3747.46	-337.21	32.50	-360.88	624.74	2959.60
		-1.636e+04	624.74	-0.03	0.0	45.6	-3679.27	-510.35	32.50	-360.88	2013.25	-1.636e+04
106	46	2970.11	-405.94	9.07e-03	-173.14	0.0	-3753.27	-337.17	-32.09	264.51	-405.94	2970.11
		-1.635e+04	-1718.83	0.03	0.0	45.6	-3685.07	-510.32	-32.09	264.51	-1718.83	-1.635e+04
106	47	1.408e+04	1474.30	9.44e-03	-173.14	0.0	-3718.18	-336.76	29.92	-352.96	260.19	1.408e+04
		-5220.25	260.19	-0.03	0.0	45.6	-3649.98	-509.90	29.92	-352.96	1474.30	-5220.25
106	57	9531.05	-1226.53	9.26e-03	-173.14	0.0	-3737.69	-336.89	-53.04	456.96	-1226.53	9531.05
		-9776.14	-3426.32	0.05	0.0	45.6	-3669.49	-510.03	-53.04	456.96	-3426.32	-9776.14
106	60	7518.95	3181.79	9.25e-03	-173.14	0.0	-3733.75	-337.04	50.88	-545.42	1080.78	7518.95
		-1.179e+04	1080.78	-0.05	0.0	45.6	-3665.56	-510.19	50.88	-545.42	3181.79	-1.179e+04
106	76	5197.17	900.91	9.16e-03	-173.14	0.0	-3743.09	-337.11	14.61	-191.29	300.41	5197.17
		-1.412e+04	300.41	-0.01	0.0	45.6	-3674.90	-510.26	14.61	-191.29	900.91	-1.412e+04
106	77	1.185e+04	-328.20	9.35e-03	-173.14	0.0	-3728.35	-336.82	-15.75	93.81	-328.20	1.185e+04
		-7450.71	-945.46	0.02	0.0	45.6	-3660.15	-509.96	-15.75	93.81	-945.46	-7450.71
106	78	5202.25	-268.45	9.15e-03	-173.14	0.0	-3745.85	-337.09	-15.52	101.05	-268.45	5202.25
		-1.411e+04	-875.21	0.02	0.0	45.6	-3677.65	-510.23	-15.52	101.05	-875.21	-1.411e+04
106	79	1.185e+04	630.68	9.36e-03	-173.14	0.0	-3725.59	-336.84	13.35	-189.51	122.70	1.185e+04
		-7456.21	122.70	-0.01	0.0	45.6	-3657.40	-509.98	13.35	-189.51	630.68	-7456.21
106	90	1.180e+04	-72.83	0.01	-243.20	0.0	-5153.76	-473.72	-1.08	-46.65	-72.83	1.180e+04
		-1.534e+04	-122.04	2.44e-04	0.0	45.6	-5057.98	-716.92	-1.08	-46.65	-122.04	-1.534e+04
106	93	9.393e+04	-117.87	0.01	-334.99	0.0	-3417.51	-258.01	-1.76	-70.16	-117.87	9.393e+04
		7.453e+04	-197.89	4.02e-04	5.00e-05	45.6	-3349.32	-593.01	-1.76	-70.16	-197.89	7.453e+04
106	94	9.557e+04	-117.85	0.02	-370.02	0.0	-4126.54	-326.39	-1.75	-71.37	-117.85	9.557e+04
		7.225e+04	-197.78	4.01e-04	5.00e-05	45.6	-4044.54	-696.41	-1.75	-71.37	-197.78	7.225e+04
106	96	-7.524e+04	-27.85	0.01	-46.32	0.0	-4762.95	-484.29	-0.41	-19.50	-27.85	-7.524e+04
		-9.838e+04	-46.53	9.03e-05	-5.00e-05	45.6	-4680.96	-530.61	-0.41	-19.50	-46.53	-9.838e+04
106	101	8525.00	-72.88	9.25e-03	-173.14	0.0	-3735.72	-336.97	-1.08	-44.23	-72.88	8525.00
		-1.078e+04	-122.27	2.47e-04	0.0	45.6	-3667.52	-510.11	-1.08	-44.23	-122.27	-1.078e+04
106	102	9179.92	-72.87	0.01	-187.15	0.0	-4019.33	-364.32	-1.08	-44.71	-72.87	9179.92
		-1.170e+04	-122.22	2.46e-04	0.0	45.6	-3945.61	-551.47	-1.08	-44.71	-122.22	-1.170e+04
106	103	8525.00	-72.88	9.25e-03	-173.14	0.0	-3735.72	-336.97	-1.08	-44.23	-72.88	8525.00
		-1.078e+04	-122.27	2.47e-04	0.0	45.6	-3667.52	-510.11	-1.08	-44.23	-122.27	-1.078e+04
107	2	-3881.03	-343.57	0.01	-227.54	0.0	-5044.92	-513.45	1.33	14.86	-382.74	-3881.03
		-2.233e+04	-382.74	-1.99e-04	0.0	29.4	-5134.54	-740.99	1.33	14.86	-343.57	-2.233e+04
107	10	-1.206e+05	-544.27	0.08	-37.05	0.0	-4706.68	-791.93	1.98	23.66	-602.59	-1.206e+05
		-1.444e+05	-602.59	-3.01e-04	-1.24e-04	29.4	-4782.95	-828.99	1.98	23.66	-544.27	-1.444e+05
107	15	1.170e+05	-25.88	-0.06	-253.71	0.0	-1878.06	137.58	0.12	1.11	-25.88	1.170e+05
		1.159e+05	-29.34	-1.61e-05	1.24e-04	29.4	-1916.31	-116.13	0.12	1.11	-25.88	1.162e+05
107	33	-3265.69	-5329.19	7.74e-03	-111.68	0.0	-2568.82	-255.24	62.28	-62.47	-7089.87	-3265.69
		-1.241e+04	-7089.87	-0.06	0.0	29.4	-2612.80	-366.92	62.28	-62.47	-5329.19	-1.241e+04
107	36	-256.86	6552.30	5.90e-03	-111.68	0.0	-2540.04	-246.79	-60.52	83.60	6552.30	-256.86
		-9155.95	4843.35	0.06	0.0	29.4	-2584.03	-358.48	-60.52	83.60	4843.35	-9155.95
107	41	-6824.18	-1493.31	9.83e-03	-111.68	0.0	-2572.94	-265.31	18.12	-15.80	-2001.83	-6824.18
		-1.627e+04	-2001.83	-0.02	0.0	29.4	-2616.93	-376.99	18.12	-15.80	-1493.31	-1.627e+04
107	44	3301.62	1464.25	3.81e-03	-111.68	0.0	-2535.91	-236.72	-16.36	36.93	1464.25	3301.62
		-5301.88	1007.47	0.02	0.0	29.4	-2579.90	-348.41	-16.36	36.93	1007.47	-5301.88
107	46	3311.07	-1675.25	3.82e-03	-111.68	0.0	-2541.79	-236.68	19.22	-15.13	-2223.77	3311.07
		-5291.58	-2223.77	-0.02	0.0	29.4	-2585.78	-348.36	19.22	-15.13	-1675.25	-5291.58
107	47	-6833.63	1686.19	9.82e-03	-111.68	0.0	-2567.07	-265.36	-17.46	36.26	1686.19	-6833.63
		-1.628e+04	1189.41	0.02	0.0	29.4	-2611.05	-377.04	-17.46	36.26	1189.41	-1.628e+04
107	65	-2662.70	-2693.63	7.37e-03	-111.68	0.0	-2561.84	-253.55	29.51	-30.99	-3506.88	-2662.70
		-1.176e+04	-3506.88	-0.03	0.0	29.4	-2605.83	-365.23	29.51	-30.99	-2693.63	-1.176e+04
107	68	-859.85	2969.30	6.27e-03	-111.68	0.0	-2547.02	-248.49	-27.75	52.12	2969.30	-859.85
		-9808.89	2207.79	0.03	0.0	29.4	-2591.00	-360.17	-27.75	52.12	2207.79	-9808.89
107	73	-4789.73	-859.40	8.62e-03	-111.68	0.0	-2565.13	-259.57	8.93	-2.48	-1103.21	-4789.73
		-1.407e+04	-1103.21	-8.98e-03	0.0	29.4	-2609.12	-371.25	8.93	-2.48	-859.40	-1.407e+04
107	76	1267.18	565.63	5.02e-03	-111.68	0.0	-2543.73	-242.47	-7.17	23.62	565.63	1267.18
		-7505.29	373.56	8.71e-03	0.0	29.4	-2587.71	-354.15	-7.17	23.62	373.56	-7505.29
107	78	1271.77	-920.63	5.03e-03	-111.68	0.0	-2546.51	-242.44	9.42	-4.23	-1184.09	1271.77
		-7500.35	-1184.09	-9.00e-03	0.0	29.4	-2590.50	-354.13	9.42	-4.23	-920.63	-7500.35
107	79	-4794.33	646.51	8.61e-03	-111.68	0.0	-2562.34	-259.59	-7.66	25.36	646.51	-4794.33
		-1.407e+04	434.79	8.73e-03	0.0	29.4	-2606.33	-371.27	-7.66	25.36	434.79	-1.407e+04
107	90	-2634.49	-258.16	9.42e-03	-156.87	0.0	-3500.51	-353.70	0.98	11.19	-287.07	-2634.49
		-1.534e+04	-287.07	-1.47e-04	0.0	29.4	-3562.29	-510.57	0.98	11.19	-258.16	-1.534e+04

107	94	-8.045e+04	-391.96	0.05	-29.88	0.0	-3275.02	-539.35	1.42	17.05	-433.63	-8.045e+04
		-9.675e+04	-433.63	-2.16e-04	-8.28e-05	29.4	-3327.90	-569.23	1.42	17.05	-391.96	-9.675e+04
107	95	7.649e+04	-101.50	-0.04	-216.08	0.0	-2306.88	-14.02	0.39	4.39	-113.08	7.649e+04
		7.290e+04	-113.08	-5.81e-05	8.28e-05	29.4	-2350.87	-230.10	0.39	4.39	-101.50	7.290e+04
107	101	-1761.28	-242.92	6.82e-03	-111.68	0.0	-2554.43	-251.02	0.88	10.57	-268.79	-1761.28
		-1.079e+04	-268.79	-1.33e-04	0.0	29.4	-2598.42	-362.70	0.88	10.57	-242.92	-1.079e+04
107	102	-1935.92	-245.97	7.34e-03	-120.72	0.0	-2743.64	-271.55	0.90	10.69	-272.45	-1935.92
		-1.170e+04	-272.45	-1.36e-04	0.0	29.4	-2791.19	-392.27	0.90	10.69	-245.97	-1.170e+04
107	103	-1761.28	-242.92	6.82e-03	-111.68	0.0	-2554.43	-251.02	0.88	10.57	-268.79	-1761.28
		-1.079e+04	-268.79	-1.33e-04	0.0	29.4	-2598.42	-362.70	0.88	10.57	-242.92	-1.079e+04
108	2	-3880.38	-180.27	-0.01	-227.54	0.0	-5131.73	740.99	0.73	-9.91	-201.73	-2.233e+04
		-2.233e+04	-201.73	2.14e-05	0.0	29.4	-5042.11	513.45	0.73	-9.91	-180.27	-3880.38
108	10	1.161e+05	-308.11	0.06	-350.25	0.0	-4041.59	414.33	1.02	-16.46	-337.99	1.091e+05
		1.091e+05	-337.99	4.24e-05	1.24e-04	29.4	-3965.31	64.09	1.02	-16.46	-308.11	1.161e+05
108	11	1.192e+05	-266.30	0.06	-253.71	0.0	-1918.37	99.26	0.77	-14.00	-288.92	1.187e+05
		1.178e+05	-288.92	3.94e-05	1.24e-04	29.4	-1880.12	-154.44	0.77	-14.00	-266.30	1.178e+05
108	14	-1.225e+05	-52.11	-0.08	-37.05	0.0	-4776.27	845.84	0.32	-3.10	-61.61	-1.469e+05
		-1.469e+05	-61.61	-5.22e-06	-1.24e-04	29.4	-4700.00	808.79	0.32	-3.10	-52.11	-1.225e+05
108	15	-1.208e+05	-10.31	-0.07	59.49	0.0	-2653.06	530.77	0.08	-0.64	-12.54	-1.373e+05
		-1.373e+05	-12.54	-2.26e-06	-1.24e-04	29.4	-2614.81	590.26	0.08	-0.64	-10.31	-1.208e+05
108	25	-197.74	-5223.09	-5.96e-03	-111.68	0.0	-2603.05	358.28	-60.90	65.36	-5223.09	-9094.36
		-9094.36	-6945.98	0.06	0.0	29.4	-2559.07	246.60	-60.90	65.36	-6945.98	-197.74
108	28	-3324.02	6669.23	-7.68e-03	-111.68	0.0	-2589.85	367.11	61.79	-80.12	4919.97	-1.248e+04
		-1.248e+04	4919.97	-0.06	0.0	29.4	-2545.86	255.43	61.79	-80.12	6669.23	-3324.02
108	41	3394.27	-1724.21	-3.89e-03	-111.68	0.0	-2589.07	348.36	-17.85	12.28	-1724.21	-5208.70
		-5208.70	-2229.06	0.02	0.0	29.4	-2545.08	236.67	-17.85	12.28	-2229.06	3394.27
108	44	-6916.03	1952.31	-9.75e-03	-111.68	0.0	-2603.83	377.04	18.75	-27.04	1421.08	-1.636e+04
		-1.636e+04	1421.08	-0.02	0.0	29.4	-2559.84	265.36	18.75	-27.04	1952.31	-6916.03
108	46	-6905.34	-1261.49	-9.76e-03	-111.68	0.0	-2609.68	376.98	-16.82	24.95	-1261.49	-1.635e+04
		-1.635e+04	-1735.27	0.02	0.0	29.4	-2565.69	265.30	-16.82	24.95	-1735.27	-6905.34
108	47	3383.57	1458.53	-3.88e-03	-111.68	0.0	-2583.23	348.41	17.72	-39.71	958.36	-5220.25
		-5220.25	958.36	-0.02	0.0	29.4	-2539.24	236.73	17.72	-39.71	1458.53	3383.57
108	57	-827.92	-2592.37	-6.30e-03	-111.68	0.0	-2599.22	360.05	-28.14	33.95	-2592.37	-9776.14
		-9776.14	-3367.63	0.03	0.0	29.4	-2555.23	248.37	-28.14	33.95	-3367.63	-827.92
108	60	-2693.84	3090.88	-7.34e-03	-111.68	0.0	-2593.69	365.34	29.04	-48.71	2289.24	-1.179e+04
		-1.179e+04	2289.24	-0.03	0.0	29.4	-2549.70	253.66	29.04	-48.71	3090.88	-2693.84
108	73	1321.63	-915.51	-5.07e-03	-111.68	0.0	-2591.68	354.12	-8.07	3.68	-915.51	-7450.67
		-7450.67	-1137.15	8.83e-03	0.0	29.4	-2547.69	242.44	-8.07	3.68	-1137.15	1321.63
108	76	-4843.40	860.40	-8.57e-03	-111.68	0.0	-2601.22	371.27	8.96	-18.44	612.38	-1.412e+04
		-1.412e+04	612.38	-8.81e-03	0.0	29.4	-2557.23	259.59	8.96	-18.44	860.40	-4843.40
108	78	-4838.18	-681.90	-8.58e-03	-111.68	0.0	-2603.99	371.24	-7.62	9.37	-681.90	-1.411e+04
		-1.411e+04	-889.20	8.89e-03	0.0	29.4	-2560.00	259.56	-7.62	9.37	-889.20	-4838.18
108	79	1316.41	612.45	-5.06e-03	-111.68	0.0	-2588.91	354.15	8.52	-24.13	378.77	-7456.21
		-7456.21	378.77	-8.88e-03	0.0	29.4	-2544.92	242.47	8.52	-24.13	612.45	1316.41
108	90	-2634.02	-138.58	-9.42e-03	-156.87	0.0	-3560.19	510.57	0.53	-7.55	-154.14	-1.534e+04
		-1.534e+04	-154.14	1.71e-05	0.0	29.4	-3498.40	353.70	0.53	-7.55	-138.58	-2634.02
108	93	7.779e+04	-223.70	0.04	-216.08	0.0	-2351.56	218.86	0.68	-11.83	-243.69	7.453e+04
		7.453e+04	-243.69	3.22e-05	8.28e-05	29.4	-2307.57	2.78	0.68	-11.83	-223.70	7.779e+04
108	94	7.735e+04	-223.81	0.04	-238.67	0.0	-2833.43	292.80	0.72	-11.92	-244.98	7.225e+04
		7.225e+04	-244.98	3.12e-05	8.28e-05	29.4	-2780.54	54.12	0.72	-11.92	-223.81	7.735e+04
108	95	-8.131e+04	-53.04	-0.05	-7.28	0.0	-2841.35	506.53	0.22	-2.92	-59.43	-9.610e+04
		-9.610e+04	-59.43	5.96e-06	-8.28e-05	29.4	-2797.36	499.25	0.22	-2.92	-53.04	-8.131e+04
108	96	-8.175e+04	-53.15	-0.05	-29.88	0.0	-3323.22	580.47	0.26	-3.01	-60.72	-9.838e+04
		-9.838e+04	-60.72	5.14e-06	-8.28e-05	29.4	-3270.33	550.59	0.26	-3.01	-53.15	-8.175e+04
108	101	-1760.88	-138.37	-6.82e-03	-111.68	0.0	-2596.45	362.70	0.45	-7.38	-151.56	-1.078e+04
		-1.078e+04	-151.56	1.90e-05	0.0	29.4	-2552.46	251.01	0.45	-7.38	-138.37	-1760.88
108	102	-1935.51	-138.42	-7.34e-03	-120.72	0.0	-2789.20	392.27	0.46	-7.41	-152.08	-1.170e+04
		-1.170e+04	-152.08	1.86e-05	0.0	29.4	-2741.65	271.55	0.46	-7.41	-138.42	-1935.51
108	103	-1760.88	-138.37	-6.82e-03	-111.68	0.0	-2596.45	362.70	0.45	-7.38	-151.56	-1.078e+04
		-1.078e+04	-151.56	1.90e-05	0.0	29.4	-2552.46	251.01	0.45	-7.38	-138.37	-1760.88
109	2	1.287e+04	-482.63	-0.03	-580.30	0.0	-4587.79	647.16	1.33	14.86	-582.53	-1.390e+04
		-1.390e+04	-582.53	3.65e-03	0.0	75.0	-4816.35	66.86	1.33	14.86	-482.63	1.287e+04
109	10	-1.598e+04	-751.33	0.54	-94.49	0.0	-4317.65	-602.94	1.98	23.66	-900.09	-1.598e+04
		-6.475e+04	-900.09	5.73e-03	-2.29e-04	75.0	-4512.17	-697.43	1.98	23.66	-751.33	-6.475e+04
109	11	-1.009e+04	-614.60	0.55	151.71	0.0	-2425.62	-876.81	1.58	19.63	-732.75	-1.009e+04
		-7.016e+04	-732.75	4.71e-03	-2.29e-04	75.0	-2523.17	-725.11	1.58	19.63	-614.60	-7.016e+04
109	14	8.673e+04	-174.89	-0.59	-893.24	0.0	-3574.99	1705.54	0.53	5.14	-214.30	-7689.53
		-7689.53	-214.30	1.31e-03	2.29e-04	75.0	-3769.51	812.30	0.53	5.14	-174.89	8.673e+04
109	15	8.132e+04	-38.15	-0.58	-647.04	0.0	-1682.96	1431.67	0.12	1.11	-46.96	-1794.87
		-1794.87	-46.96	2.85e-04	2.29e-04	75.0	-1780.51	784.63	0.12	1.11	-38.15	8.132e+04
109	33	5491.74	-7675.89	-3.75e-03	-284.83	0.0	-2344.00	306.99	-26.82	-62.50	-7675.89	-6850.68
		-6850.68	-9367.43	-0.08	0.0	75.0	-2456.19	22.16	-26.82	-62.50	-9367.43	5491.74
109	36	7282.26	8697.90	-0.02	-284.83	0.0	-2316.12	330.29	28.58	83.63	6874.40	-6809.08
		-6809.08	6874.40	0.09	0.0	75.0	-2428.30	45.46	28.58	83.63	8697.90	7282.26
109	41	3370.89	-2568.22	0.02	-284.83	0.0	-2347.20	279.43	-3.10	-15.81	-2568.22	-6905.39
		-6905.39	-2753.61	-0.03	0.0	75.0	-2459.38	-5.39	-3.10	-15.81	-2753.61	3370.89
109	43	3364.88	1992.58	0.02	-284.83	0.0	-2341.30	279.35	6.70	43.89	1719.37	-6907.35

		-6907.35	1719.37	0.03	0.0	75.0	-2453.48	-5.47	6.70	43.89	1992.58	3364.88
109	44	9403.12	2084.08	-0.04	-284.83	0.0	-2312.92	357.85	4.86	36.94	1766.73	-6754.37
		-6754.37	1766.73	0.03	0.0	75.0	-2425.10	73.02	4.86	36.94	2084.08	9403.12
109	46	9409.27	-2557.48	-0.04	-284.83	0.0	-2318.78	357.92	-8.43	-15.14	-2557.48	-6752.75
		-6752.75	-2994.70	-0.02	0.0	75.0	-2430.96	73.10	-8.43	-15.14	-2994.70	9409.27
109	65	5850.62	-3794.94	-6.87e-03	-284.83	0.0	-2337.21	311.66	-13.42	-31.00	-3794.94	-6842.54
		-6842.54	-4560.37	-0.04	0.0	75.0	-2449.39	26.84	-13.42	-31.00	-4560.37	5850.62
109	68	6923.39	3890.84	-0.02	-284.83	0.0	-2322.91	325.61	15.18	52.13	2993.45	-6817.23
		-6817.23	2993.45	0.04	0.0	75.0	-2435.10	40.79	15.18	52.13	3890.84	6923.39
109	73	4582.84	-1415.27	6.33e-03	-284.83	0.0	-2339.94	295.19	-1.34	-2.49	-1415.27	-6875.17
		-6875.17	-1472.03	-0.01	0.0	75.0	-2452.13	10.36	-1.34	-2.49	-1472.03	4582.84
109	75	4579.91	746.35	6.33e-03	-284.83	0.0	-2337.15	295.15	4.23	27.90	584.54	-6876.36
		-6876.36	584.54	0.02	0.0	75.0	-2449.34	10.32	4.23	27.90	746.35	4579.91
109	76	8191.16	802.49	-0.03	-284.83	0.0	-2320.18	342.09	3.10	23.62	613.79	-6784.59
		-6784.59	613.79	0.02	0.0	75.0	-2432.36	57.26	3.10	23.62	802.49	8191.16
109	78	8194.22	-1403.06	-0.03	-284.83	0.0	-2322.95	342.13	-4.03	-4.23	-1403.06	-6783.67
		-6783.67	-1571.85	-9.92e-03	0.0	75.0	-2435.14	57.30	-4.03	-4.23	-1571.85	8194.22
109	90	8894.22	-360.80	-0.02	-400.07	0.0	-3185.35	446.45	0.98	11.18	-434.52	-9586.92
		-9586.92	-434.52	2.74e-03	0.0	75.0	-3342.93	46.38	0.98	11.18	-360.80	8894.22
109	93	-9593.92	-526.91	0.36	-18.58	0.0	-2577.61	-450.86	1.37	16.74	-629.34	-9593.92
		-4.410e+04	-629.34	4.03e-03	-1.53e-04	75.0	-2689.80	-469.43	1.37	16.74	-526.91	-4.410e+04
109	94	-1.097e+04	-539.93	0.36	-76.20	0.0	-3005.26	-386.95	1.42	17.05	-646.23	-1.097e+04
		-4.285e+04	-646.23	4.12e-03	-1.53e-04	75.0	-3140.14	-463.15	1.42	17.05	-539.93	-4.285e+04
109	95	5.688e+04	-142.62	-0.39	-551.07	0.0	-2082.51	1088.13	0.39	4.39	-172.15	-4065.84
		-4065.84	-172.15	1.08e-03	1.53e-04	75.0	-2194.69	537.06	0.39	4.39	-142.62	5.688e+04
109	96	5.813e+04	-155.63	-0.39	-608.70	0.0	-2510.15	1152.04	0.45	4.70	-189.04	-5444.37
		-5444.37	-189.04	1.17e-03	1.53e-04	75.0	-2645.03	543.34	0.45	4.70	-155.63	5.813e+04
109	101	6387.00	-334.77	-0.01	-284.83	0.0	-2330.06	318.64	0.88	10.57	-400.74	-6829.88
		-6829.88	-400.74	2.55e-03	0.0	75.0	-2442.24	33.81	0.88	10.57	-334.77	6387.00
109	102	6888.45	-339.97	-0.01	-307.87	0.0	-2501.12	344.20	0.90	10.69	-407.50	-7381.29
		-7381.29	-407.50	2.59e-03	0.0	75.0	-2622.38	36.33	0.90	10.69	-339.97	6888.45
109	103	6387.00	-334.77	-0.01	-284.83	0.0	-2330.06	318.64	0.88	10.57	-400.74	-6829.88
		-6829.88	-400.74	2.55e-03	0.0	75.0	-2442.24	33.81	0.88	10.57	-334.77	6387.00
110	2	-1.390e+04	-582.53	-7.03e-03	-129.45	0.0	-4536.85	776.36	1.33	14.89	-604.81	-2.581e+04
		-2.581e+04	-604.81	1.23e-03	0.0	16.7	-4587.83	646.91	1.33	14.89	-582.53	-1.390e+04
110	10	-6067.17	-900.09	0.13	-21.08	0.0	-4274.23	-582.09	1.98	23.71	-933.28	-6067.17
		-1.598e+04	-933.28	1.92e-03	-4.71e-05	16.7	-4317.62	-603.17	1.98	23.71	-900.09	-1.598e+04
110	11	4866.94	-732.75	0.13	33.84	0.0	-2403.81	-910.78	1.58	19.67	-759.11	4866.94
		-1.009e+04	-759.11	1.57e-03	-4.71e-05	16.7	-2425.57	-876.94	1.58	19.67	-732.75	-1.009e+04
110	14	-7689.53	-214.30	-0.14	-199.25	0.0	-3531.70	1904.60	0.53	5.15	-223.08	-3.789e+04
		-3.789e+04	-223.08	4.43e-04	4.71e-05	16.7	-3575.08	1705.35	0.53	5.15	-214.30	-7689.53
110	15	-1794.87	-46.96	-0.14	-144.33	0.0	-1661.28	1575.91	0.12	1.11	-48.92	-2.695e+04
		-2.695e+04	-48.92	9.68e-05	4.71e-05	16.7	-1683.04	1431.58	0.12	1.11	-46.96	-1794.87
110	33	-6850.68	-6706.86	-4.20e-03	-63.53	0.0	-2318.91	370.05	-61.70	-62.26	-6706.86	-1.251e+04
		-1.251e+04	-6706.86	-0.01	0.0	16.7	-2343.93	306.52	-61.70	-62.26	-6757.89	-6850.68
110	36	-6809.08	6874.40	-2.72e-03	-63.53	0.0	-2291.20	394.04	63.46	83.43	6874.40	-6809.08
		-1.287e+04	5875.94	0.01	0.0	16.7	-2316.22	330.51	63.46	83.43	6874.40	-6809.08
110	41	-6905.39	-2400.31	-5.92e-03	-63.53	0.0	-2321.95	341.58	-11.02	-15.69	-2400.31	-1.209e+04
		-1.209e+04	-2568.22	-3.93e-03	0.0	16.7	-2346.97	278.05	-11.02	-15.69	-2568.22	-6905.39
110	42	-6752.41	-2320.89	-9.95e-04	-63.53	0.0	-2294.06	422.61	-12.95	-22.64	-2320.89	-1.329e+04
		-1.329e+04	-2520.86	-4.03e-03	0.0	16.7	-2319.08	359.08	-12.95	-22.64	-2520.86	-6752.41
110	44	-6754.37	1766.73	-9.95e-04	-63.53	0.0	-2288.17	422.51	12.78	36.86	1569.39	-1.329e+04
		-1.329e+04	1569.39	5.64e-03	0.0	16.7	-2313.19	358.98	12.78	36.86	1766.73	-6754.37
110	65	-6842.54	-3359.18	-3.90e-03	-63.53	0.0	-2312.15	374.87	-28.99	-30.89	-3359.18	-1.258e+04
		-1.258e+04	-3794.94	-5.36e-03	0.0	16.7	-2337.17	311.33	-28.99	-30.89	-3794.94	-6842.54
110	68	-6817.23	2993.46	-3.02e-03	-63.53	0.0	-2297.96	389.23	30.75	52.06	2528.26	-1.280e+04
		-1.280e+04	2528.26	7.06e-03	0.0	16.7	-2322.98	325.69	30.75	52.06	2993.46	-6817.23
110	73	-6875.17	-1348.91	-4.93e-03	-63.53	0.0	-2314.79	357.85	-4.76	-2.43	-1348.91	-1.233e+04
		-1.233e+04	-1415.27	-1.36e-03	0.0	16.7	-2339.81	294.31	-4.76	-2.43	-1415.27	-6875.17
110	74	-6783.41	-1299.93	-1.99e-03	-63.53	0.0	-2298.11	406.31	-5.94	-6.70	-1299.93	-1.305e+04
		-1.305e+04	-1386.03	-1.43e-03	0.0	16.7	-2323.13	342.77	-5.94	-6.70	-1386.03	-6783.41
110	76	-6784.59	613.79	-1.99e-03	-63.53	0.0	-2295.33	406.25	6.52	23.60	517.99	-1.305e+04
		-1.305e+04	517.99	3.07e-03	0.0	16.7	-2320.35	342.71	6.52	23.60	613.79	-6784.59
110	90	-9586.92	-434.52	-4.85e-03	-89.24	0.0	-3150.23	535.52	0.98	11.21	-450.97	-1.780e+04
		-1.780e+04	-450.97	9.19e-04	0.0	16.7	-3185.38	446.28	0.98	11.21	-434.52	-9586.92
110	93	-2083.66	-629.34	0.09	-4.14	0.0	-2552.57	-446.85	1.37	16.77	-652.19	-2083.66
		-9593.92	-652.19	1.35e-03	-3.14e-05	16.7	-2577.59	-450.99	1.37	16.77	-629.34	-9593.92
110	94	-4638.44	-646.23	0.09	-17.00	0.0	-2975.16	-370.11	1.42	17.08	-669.95	-4638.44
		-1.097e+04	-669.95	1.38e-03	-3.14e-05	16.7	-3005.24	-387.11	1.42	17.08	-646.23	-1.097e+04
110	95	-4065.84	-172.15	-0.09	-122.92	0.0	-2057.55	1210.94	0.39	4.40	-178.73	-2.330e+04
		-2.330e+04	-178.73	3.63e-04	3.14e-05	16.7	-2082.57	1088.02	0.39	4.40	-172.15	-4065.84
110	96	-5444.37	-189.04	-0.09	-135.78	0.0	-2480.13	1287.68	0.45	4.71	-196.48	-2.585e+04
		-2.585e+04	-196.48	3.95e-04	3.14e-05	16.7	-2510.22	1151.90	0.45	4.71	-189.04	-5444.37
110	101	-6829.88	-400.74	-3.46e-03	-63.53	0.0	-2305.06	382.05	0.88	10.59	-415.46	-1.269e+04
		-1.269e+04	-415.46	8.55e-04	0.0	16.7	-2330.08	318.51	0.88	10.59	-400.74	-6829.88
110	102	-7381.29	-407.50	-3.74e-03	-68.68	0.0	-2474.09	412.74	0.90	10.71	-422.56	-1.371e+04
		-1.371e+04	-422.56	8.68e-04	0.0	16.7	-2501.14	344.07	0.90	10.71	-407.50	-7381.29

110	103	-6829.88	-400.74	-3.46e-03	-63.53	0.0	-2305.06	382.05	0.88	10.59	-415.46	-1.269e+04
		-1.269e+04	-415.46	8.55e-04	0.0	16.7	-2330.08	318.51	0.88	10.59	-400.74	-6829.88
111	2	3.308e+04	445.05	0.16	-386.87	0.0	-7900.65	-473.43	3.24	46.58	282.98	3.308e+04
		-259.58	282.98	-5.51e-04	0.0	50.0	-8053.03	-860.30	3.24	46.58	445.05	-259.58
111	10	1905.73	697.56	-0.28	-63.00	0.0	-7217.99	504.13	5.09	76.70	443.16	-2.173e+04
		-2.173e+04	443.16	-8.64e-04	0.0	50.0	-7347.67	441.13	5.09	76.70	697.56	1905.73
111	11	2073.49	573.02	-0.34	101.14	0.0	-3924.58	704.73	4.18	64.92	363.83	-3.569e+04
		-3.569e+04	363.83	-7.10e-04	0.0	50.0	-3989.61	805.87	4.18	64.92	573.02	2073.49
111	14	7.815e+04	158.90	0.55	-595.50	0.0	-6319.87	-1310.35	1.15	14.88	101.20	7.815e+04
		-2258.83	101.20	-1.97e-04	0.0	50.0	-6449.55	-1905.85	1.15	14.88	158.90	-2258.83
111	15	6.418e+04	34.36	0.48	-431.36	0.0	-3026.46	-1109.74	0.25	3.11	21.86	6.418e+04
		-2091.07	21.86	-4.26e-05	0.0	50.0	-3091.49	-1541.11	0.25	3.11	34.36	-2091.07
111	33	1.581e+04	2.751e+04	0.07	-189.89	0.0	-3978.59	-221.33	154.83	-1039.60	1.979e+04	1.581e+04
		-5.83	1.979e+04	-0.03	0.0	50.0	-4053.37	-411.22	154.83	-1039.60	2.751e+04	-5.83
111	36	1.687e+04	-1.939e+04	0.08	-189.89	0.0	-3945.52	-244.14	-150.29	1108.31	-1.939e+04	1.687e+04
		-83.14	-2.689e+04	0.03	0.0	50.0	-4020.31	-434.02	-150.29	1108.31	-2.689e+04	-83.14
111	41	1.455e+04	8021.76	0.06	-189.89	0.0	-3987.75	-194.46	44.16	-264.20	5818.23	1.455e+04
		81.09	5818.23	-9.88e-03	0.0	50.0	-4062.54	-384.35	44.16	-264.20	8021.76	81.09
111	42	1.814e+04	7754.90	0.10	-189.89	0.0	-3942.27	-271.07	41.66	-272.82	5675.95	1.814e+04
		-169.44	5675.95	-9.55e-03	0.0	50.0	-4017.06	-460.95	41.66	-272.82	7754.90	-169.44
111	44	1.813e+04	-5423.25	0.10	-189.89	0.0	-3936.36	-271.01	-39.62	332.91	-5423.25	1.813e+04
		-170.06	-7399.93	9.11e-03	0.0	50.0	-4011.14	-460.90	-39.62	332.91	-7399.93	-170.06
111	48	1.813e+04	-5744.33	0.10	-189.89	0.0	-3936.40	-271.01	-44.63	352.62	-5744.33	1.813e+04
		-170.07	-7970.34	9.82e-03	0.0	50.0	-4011.19	-460.90	-44.63	352.62	-7970.34	-170.07
111	65	1.602e+04	1.303e+04	0.08	-189.89	0.0	-3970.77	-225.91	73.97	-467.21	9343.79	1.602e+04
		-21.42	9343.79	-0.02	0.0	50.0	-4045.56	-415.80	73.97	-467.21	1.303e+04	-21.42
111	68	1.666e+04	-8948.81	0.08	-189.89	0.0	-3953.34	-239.56	-69.43	535.92	-8948.81	1.666e+04
		-67.55	-1.241e+04	0.02	0.0	50.0	-4028.13	-429.45	-69.43	535.92	-1.241e+04	-67.55
111	73	1.527e+04	3931.93	0.07	-189.89	0.0	-3977.06	-209.84	22.10	-104.64	2830.40	1.527e+04
		30.83	2830.40	-4.85e-03	0.0	50.0	-4051.85	-399.73	22.10	-104.64	3931.93	30.83
111	74	1.741e+04	3768.04	0.09	-189.89	0.0	-3949.86	-255.66	20.57	-109.97	2743.04	1.741e+04
		-119.50	2743.04	-4.64e-03	0.0	50.0	-4024.65	-445.54	20.57	-109.97	3768.04	-119.50
111	76	1.741e+04	-2435.43	0.09	-189.89	0.0	-3947.05	-255.63	-17.56	173.34	-2435.43	1.741e+04
		-119.79	-3310.10	4.08e-03	0.0	50.0	-4021.84	-445.51	-17.56	173.34	-3310.10	-119.79
111	80	1.741e+04	-2586.15	0.09	-189.89	0.0	-3947.06	-255.63	-19.94	182.40	-2586.15	1.741e+04
		-119.80	-3578.64	4.41e-03	0.0	50.0	-4021.85	-445.51	-19.94	182.40	-3578.64	-119.80
111	90	2.284e+04	333.33	0.11	-266.72	0.0	-5471.02	-326.50	2.43	35.41	211.89	2.284e+04
		-155.19	211.89	-4.13e-04	0.0	50.0	-5576.07	-593.21	2.43	35.41	333.33	-155.19
111	93	1343.70	490.47	-0.20	-12.39	0.0	-4261.43	372.09	3.58	54.96	311.48	-1.695e+04
		-1.695e+04	311.48	-6.08e-04	0.0	50.0	-4336.22	359.70	3.58	54.96	490.47	1343.70
111	94	1288.35	501.68	-0.18	-50.80	0.0	-5015.91	325.21	3.66	55.49	318.68	-1.370e+04
		-1.370e+04	318.68	-6.22e-04	0.0	50.0	-5105.83	274.41	3.66	55.49	501.68	1288.35
111	95	4.963e+04	131.36	0.35	-367.39	0.0	-3662.68	-837.56	0.96	13.75	83.50	4.963e+04
		-1432.67	83.50	-1.63e-04	0.0	50.0	-3737.47	-1204.95	0.96	13.75	131.36	-1432.67
111	96	5.288e+04	142.57	0.37	-405.80	0.0	-4417.16	-884.44	1.04	14.28	90.70	5.288e+04
		-1488.02	90.70	-1.77e-04	0.0	50.0	-4507.08	-1290.24	1.04	14.28	142.57	-1488.02
111	101	1.634e+04	310.92	0.08	-189.89	0.0	-3962.05	-232.74	2.27	34.35	197.49	1.634e+04
		-44.48	197.49	-3.85e-04	0.0	50.0	-4036.84	-422.62	2.27	34.35	310.92	-44.48
111	102	1.764e+04	315.40	0.08	-205.25	0.0	-4263.85	-251.49	2.30	34.56	200.37	1.764e+04
		-66.62	200.37	-3.91e-04	0.0	50.0	-4344.69	-456.74	2.30	34.56	315.40	-66.62
111	103	1.634e+04	310.92	0.08	-189.89	0.0	-3962.05	-232.74	2.27	34.35	197.49	1.634e+04
		-44.48	197.49	-3.85e-04	0.0	50.0	-4036.84	-422.62	2.27	34.35	310.92	-44.48
112	2	4.756e+04	282.98	0.15	-580.30	0.0	-7672.10	106.96	3.24	46.58	39.89	4.682e+04
		3.308e+04	39.89	-1.99e-03	0.0	75.0	-7900.66	-473.34	3.24	46.58	282.98	3.308e+04
112	10	-2.173e+04	443.16	-0.36	-94.49	0.0	-7023.47	598.70	5.09	76.70	61.56	-6.309e+04
		-6.309e+04	61.56	-3.12e-03	-1.40e-04	75.0	-7217.98	504.21	5.09	76.70	443.16	-2.173e+04
112	11	-3.569e+04	363.83	-0.43	151.71	0.0	-3827.02	553.07	4.18	64.93	50.04	-8.286e+04
		-8.286e+04	50.04	-2.56e-03	-1.40e-04	75.0	-3924.57	704.78	4.18	64.93	363.83	-3.569e+04
112	14	1.429e+05	101.20	0.62	-893.24	0.0	-6125.37	-417.04	1.15	14.88	14.65	1.429e+05
		7.815e+04	14.65	-7.11e-04	1.40e-04	75.0	-6319.89	-1310.28	1.15	14.88	101.20	7.815e+04
112	15	1.231e+05	21.86	0.56	-647.04	0.0	-2928.92	-462.67	0.25	3.11	3.12	1.231e+05
		6.418e+04	3.12	-1.54e-04	1.40e-04	75.0	-3026.47	-1109.71	0.25	3.11	21.86	6.418e+04
112	33	2.235e+04	1.979e+04	0.07	-284.83	0.0	-3866.27	61.77	152.32	-1039.38	8450.52	2.186e+04
		1.581e+04	8450.52	-0.13	0.0	75.0	-3978.45	-223.06	152.32	-1039.38	1.979e+04	1.581e+04
112	36	2.460e+04	-8395.83	0.08	-284.83	0.0	-3833.48	42.50	-147.79	1108.10	-8395.83	2.437e+04
		1.687e+04	-1.939e+04	0.13	0.0	75.0	-3945.66	-242.32	-147.79	1108.10	-1.939e+04	1.687e+04
112	41	1.983e+04	5818.23	0.05	-284.83	0.0	-3875.15	84.49	43.52	-264.13	2604.03	1.889e+04
		1.455e+04	2604.03	-0.04	0.0	75.0	-3987.33	-200.33	43.52	-264.13	5818.23	1.455e+04
112	42	2.739e+04	5675.96	0.10	-284.83	0.0	-3830.50	19.72	41.17	-272.75	2570.16	2.734e+04
		1.814e+04	2570.16	-0.04	0.0	75.0	-3942.69	-265.10	41.17	-272.75	5675.96	1.814e+04
112	43	1.982e+04	-2515.47	0.05	-284.83	0.0	-3869.24	84.54	-36.64	341.47	-2515.47	1.888e+04
		1.454e+04	-5280.98	0.04	0.0	75.0	-3981.43	-200.28	-36.64	341.47	-5280.98	1.454e+04
112	44	2.738e+04	-2549.34	0.10	-284.83	0.0	-3824.60	19.77	-38.98	332.85	-2549.34	2.733e+04
		1.813e+04	-5423.26	0.04	0.0	75.0	-3936.78	-265.05	-38.98	332.85	-5423.26	1.813e+04
112	65	2.280e+04	9343.79	0.07	-284.83	0.0	-3858.51	57.90	72.75	-467.11	3954.80	2.236e+04
		1.602e+04	3954.80	-0.06	0.0	75.0	-3970.69	-226.92	72.75	-467.11	9343.79	1.602e+04
112	68	2.414e+04	-3900.10	0.08	-284.83	0.0	-3841.24	46.37	-68.21	535.82	-3900.10	2.386e+04

		1.666e+04	-8948.82	0.06	0.0	75.0	-3953.43	-238.46	-68.21	535.82	-8948.82	1.666e+04
112	73	2.126e+04	2830.41	0.06	-284.83	0.0	-3864.63	71.49	21.78	-104.60	1230.90	2.059e+04
		1.527e+04	1230.90	-0.02	0.0	75.0	-3976.81	-213.34	21.78	-104.60	2830.41	1.527e+04
112	74	2.578e+04	2743.04	0.09	-284.83	0.0	-3837.93	32.75	20.34	-109.94	1210.10	2.564e+04
		1.741e+04	1210.10	-0.02	0.0	75.0	-3950.11	-252.07	20.34	-109.94	2743.04	1.741e+04
112	75	2.126e+04	-1155.41	0.06	-284.83	0.0	-3861.82	71.51	-15.80	178.65	-1155.41	2.058e+04
		1.527e+04	-2348.07	0.02	0.0	75.0	-3974.00	-213.31	-15.80	178.65	-2348.07	1.527e+04
112	76	2.577e+04	-1176.20	0.09	-284.83	0.0	-3835.12	32.78	-17.24	173.32	-1176.20	2.563e+04
		1.741e+04	-2435.43	0.02	0.0	75.0	-3947.30	-252.05	-17.24	173.32	-2435.43	1.741e+04
112	90	3.283e+04	211.89	0.10	-400.07	0.0	-5313.45	73.64	2.43	35.41	29.73	3.232e+04
		2.284e+04	29.73	-1.49e-03	0.0	75.0	-5471.02	-326.44	2.43	35.41	211.89	2.284e+04
112	93	-1.695e+04	311.48	-0.25	-18.58	0.0	-4149.24	390.71	3.58	54.96	42.99	-4.556e+04
		-4.556e+04	42.99	-2.19e-03	-9.31e-05	75.0	-4261.42	372.14	3.58	54.96	311.48	-1.695e+04
112	94	-1.370e+04	318.68	-0.24	-76.20	0.0	-4881.03	401.46	3.66	55.49	44.18	-4.095e+04
		-4.095e+04	44.18	-2.24e-03	-9.31e-05	75.0	-5015.91	325.26	3.66	55.49	318.68	-1.370e+04
112	95	9.178e+04	83.50	0.40	-551.07	0.0	-3550.51	-286.45	0.96	13.75	11.71	9.178e+04
		4.963e+04	11.71	-5.87e-04	9.31e-05	75.0	-3662.69	-837.52	0.96	13.75	83.50	4.963e+04
112	96	9.638e+04	90.70	0.42	-608.70	0.0	-4282.29	-275.70	1.04	14.28	12.90	9.638e+04
		5.288e+04	12.90	-6.38e-04	9.31e-05	75.0	-4417.17	-884.39	1.04	14.28	90.70	5.288e+04
112	101	2.347e+04	197.49	0.08	-284.83	0.0	-3849.87	52.13	2.27	34.36	27.35	2.311e+04
		1.634e+04	27.35	-1.39e-03	0.0	75.0	-3962.06	-232.69	2.27	34.36	197.49	1.634e+04
112	102	2.534e+04	200.37	0.08	-307.87	0.0	-4142.59	56.43	2.30	34.57	27.82	2.495e+04
		1.764e+04	27.82	-1.41e-03	0.0	75.0	-4263.85	-251.44	2.30	34.57	200.37	1.764e+04
112	103	2.347e+04	197.49	0.08	-284.83	0.0	-3849.87	52.13	2.27	34.36	27.35	2.311e+04
		1.634e+04	27.35	-1.39e-03	0.0	75.0	-3962.06	-232.69	2.27	34.36	197.49	1.634e+04
113	2	4.682e+04	39.89	0.03	-580.31	0.0	-7443.54	687.14	3.24	46.58	-203.20	1.705e+04
		1.705e+04	-203.20	-2.21e-03	0.0	75.0	-7672.10	106.83	3.24	46.58	39.89	4.682e+04
113	10	-6.309e+04	61.56	-0.21	-94.50	0.0	-6828.96	693.08	5.09	76.70	-320.05	-1.115e+05
		-1.115e+05	-320.05	-3.45e-03	-1.62e-04	75.0	-7023.48	598.58	5.09	76.70	61.56	-6.309e+04
113	11	-8.286e+04	50.04	-0.22	151.71	0.0	-3729.49	401.30	4.18	64.93	-263.76	-1.186e+05
		-1.186e+05	-263.76	-2.83e-03	-1.62e-04	75.0	-3827.03	553.00	4.18	64.93	50.04	-8.286e+04
113	14	1.502e+05	14.65	0.26	-893.25	0.0	-5930.85	476.11	1.15	14.88	-71.89	1.407e+05
		1.407e+05	-71.89	-7.91e-04	1.62e-04	75.0	-6125.36	-417.14	1.15	14.88	14.65	1.429e+05
113	15	1.355e+05	3.12	0.25	-647.05	0.0	-2831.37	184.32	0.25	3.11	-15.61	1.336e+05
		1.231e+05	-15.61	-1.71e-04	1.62e-04	75.0	-2928.92	-462.72	0.25	3.11	3.12	1.231e+05
113	25	2.186e+04	8564.91	0.01	-284.83	0.0	-3753.98	341.81	124.94	-973.83	-1420.88	6899.65
		6899.65	-1420.88	-0.17	0.0	75.0	-3866.16	56.98	124.94	-973.83	8564.91	2.186e+04
113	28	2.437e+04	1135.29	0.02	-284.83	0.0	-3721.41	331.98	-120.41	1042.54	1135.29	1.015e+04
		1.015e+04	-8510.21	0.17	0.0	75.0	-3833.59	47.15	-120.41	1042.54	-8510.21	2.437e+04
113	41	1.889e+04	2604.03	-3.66e-03	-284.83	0.0	-3762.16	353.48	39.80	-264.18	-596.57	3061.16
		3061.16	-596.57	-0.05	0.0	75.0	-3874.34	68.65	39.80	-264.18	2604.03	1.889e+04
113	42	2.734e+04	2570.16	0.02	-284.83	0.0	-3719.12	320.27	38.19	-272.80	-441.95	1.400e+04
		1.400e+04	-441.95	-0.05	0.0	75.0	-3831.30	35.44	38.19	-272.80	2570.16	2.734e+04
113	44	2.733e+04	310.98	0.02	-284.83	0.0	-3713.23	320.31	-35.27	332.89	310.98	1.399e+04
		1.399e+04	-2549.33	0.05	0.0	75.0	-3825.41	35.48	-35.27	332.89	-2549.33	2.733e+04
113	47	1.888e+04	432.68	-3.68e-03	-284.83	0.0	-3756.31	353.52	-37.46	361.22	432.68	3051.74
		3051.74	-2481.14	0.05	0.0	75.0	-3868.49	68.69	-37.46	361.22	-2481.14	1.888e+04
113	57	2.236e+04	4007.63	0.01	-284.83	0.0	-3746.22	339.84	59.67	-437.00	-897.35	7551.01
		7551.01	-897.35	-0.08	0.0	75.0	-3858.40	55.01	59.67	-437.00	4007.63	2.236e+04
113	60	2.386e+04	611.77	0.02	-284.83	0.0	-3729.17	333.95	-55.14	505.71	611.77	9497.81
		9497.81	-3952.94	0.08	0.0	75.0	-3841.35	49.12	-55.14	505.71	-3952.94	2.386e+04
113	73	2.059e+04	1230.90	7.35e-03	-284.83	0.0	-3751.96	346.82	19.94	-104.63	-412.39	5256.54
		5256.54	-412.39	-0.03	0.0	75.0	-3864.14	61.99	19.94	-104.63	1230.90	2.059e+04
113	74	2.564e+04	1210.10	0.02	-284.83	0.0	-3726.23	326.96	18.95	-109.96	-317.39	1.180e+04
		1.180e+04	-317.39	-0.03	0.0	75.0	-3838.41	42.13	18.95	-109.96	1210.10	2.564e+04
113	76	2.563e+04	126.80	0.02	-284.83	0.0	-3723.43	326.98	-15.40	173.34	126.80	1.179e+04
		1.179e+04	-1176.20	0.02	0.0	75.0	-3835.61	42.15	-15.40	173.34	-1176.20	2.563e+04
113	79	2.058e+04	155.52	7.32e-03	-284.83	0.0	-3749.18	346.83	-16.20	187.72	155.52	5251.90
		5251.90	-1139.55	0.02	0.0	75.0	-3861.36	62.00	-16.20	187.72	-1139.55	2.058e+04
113	90	3.232e+04	29.73	0.02	-400.08	0.0	-5155.88	473.62	2.43	35.41	-152.44	1.180e+04
		1.180e+04	-152.44	-1.65e-03	0.0	75.0	-5313.45	73.54	2.43	35.41	29.73	3.232e+04
113	93	-4.556e+04	42.99	-0.14	-18.58	0.0	-4037.07	409.22	3.58	54.96	-225.51	-7.555e+04
		-7.555e+04	-225.51	-2.43e-03	-7.74e-05	75.0	-4149.25	390.64	3.58	54.96	42.99	-4.556e+04
113	94	-4.095e+04	44.18	-0.14	-76.20	0.0	-4746.16	477.58	3.66	55.49	-230.33	-7.392e+04
		-7.392e+04	-230.33	-2.48e-03	-7.74e-05	75.0	-4881.03	401.38	3.66	55.49	44.18	-4.095e+04
113	95	9.736e+04	11.71	0.17	-551.08	0.0	-3438.32	264.57	0.96	13.75	-60.07	9.260e+04
		9.178e+04	-60.07	-6.51e-04	7.74e-05	75.0	-3550.50	-286.51	0.96	13.75	11.71	9.178e+04
113	96	1.011e+05	12.90	0.17	-608.70	0.0	-4147.41	332.93	1.04	14.28	-64.90	9.424e+04
		9.424e+04	-64.90	-7.08e-04	7.74e-05	75.0	-4282.29	-275.77	1.04	14.28	12.90	9.638e+04
113	101	2.311e+04	27.35	0.01	-284.83	0.0	-3737.69	336.90	2.27	34.36	-142.79	8524.41
		8524.41	-142.79	-1.54e-03	0.0	75.0	-3849.87	52.07	2.27	34.36	27.35	2.311e+04
113	102	2.495e+04	27.82	0.01	-307.88	0.0	-4021.33	364.24	2.30	34.57	-144.72	9179.31
		9179.31	-144.72	-1.56e-03	0.0	75.0	-4142.59	56.36	2.30	34.57	27.82	2.495e+04
113	103	2.311e+04	27.35	0.01	-284.83	0.0	-3737.69	336.90	2.27	34.36	-142.79	8524.41
		8524.41	-142.79	-1.54e-03	0.0	75.0	-3849.87	52.07	2.27	34.36	27.35	2.311e+04
114	2	1.705e+04	-203.21	-0.02	-352.76	0.0	-7304.59	1040.04	3.24	46.58	-350.98	-2.233e+04
		-2.233e+04	-350.98	-8.85e-04	0.0	45.6	-7443.53	687.27	3.24	46.58	-203.21	1.705e+04

114	10	-1.115e+05	-320.05	0.01	-57.44	0.0	-6710.70	750.65	5.09	76.70	-552.04	-1.444e+05
		-1.444e+05	-552.04	-1.38e-03	-7.50e-05	45.6	-6828.95	693.20	5.09	76.70	-320.05	-1.115e+05
114	14	1.407e+05	-71.89	-0.03	-542.99	0.0	-5812.59	1019.21	1.15	14.88	-124.50	1.066e+05
		1.066e+05	-124.50	-3.20e-04	7.50e-05	45.6	-5930.84	476.22	1.15	14.88	-71.89	1.407e+05
114	15	1.336e+05	-15.61	-0.03	-393.33	0.0	-2772.07	577.71	0.25	3.11	-26.99	1.162e+05
		1.162e+05	-26.99	-6.87e-05	7.50e-05	45.6	-2831.37	184.38	0.25	3.11	-15.61	1.336e+05
114	33	6899.79	-2341.93	-9.11e-03	-173.14	0.0	-3685.38	509.92	113.67	-1039.56	-7208.27	-1.241e+04
		-1.241e+04	-7208.27	-0.11	0.0	45.6	-3753.57	336.77	113.67	-1039.56	-2341.93	6899.79
114	36	1.015e+04	6715.82	-9.40e-03	-173.14	0.0	-3653.61	510.30	-109.14	1108.27	6715.82	-9155.95
		-9155.95	2056.34	0.11	0.0	45.6	-3721.80	337.16	-109.14	1108.27	2056.34	1.015e+04
114	41	3061.16	-596.57	-8.90e-03	-173.14	0.0	-3693.18	509.62	33.78	-264.18	-1990.12	-1.627e+04
		-1.627e+04	-1990.12	-0.03	0.0	45.6	-3761.38	336.48	33.78	-264.18	-596.57	3061.16
114	44	1.399e+04	1497.68	-9.60e-03	-173.14	0.0	-3645.81	510.59	-29.25	332.89	1497.68	-5301.88
		-5301.88	310.98	0.03	0.0	45.6	-3714.00	337.45	-29.25	332.89	310.98	1.399e+04
114	46	1.400e+04	-718.27	-9.58e-03	-173.14	0.0	-3651.65	510.55	35.34	-292.52	-2234.76	-5291.58
		-5291.58	-2234.76	-0.03	0.0	45.6	-3719.84	337.41	35.34	-292.52	-718.27	1.400e+04
114	47	3051.74	1742.32	-8.93e-03	-173.14	0.0	-3687.34	509.66	-30.81	361.22	1742.32	-1.628e+04
		-1.628e+04	432.68	0.03	0.0	45.6	-3755.53	336.52	-30.81	361.22	432.68	3051.74
114	65	7551.17	-1309.74	-9.17e-03	-173.14	0.0	-3677.82	510.00	54.25	-467.20	-3560.50	-1.176e+04
		-1.176e+04	-3560.50	-0.05	0.0	45.6	-3746.02	336.85	54.25	-467.20	-1309.74	7551.17
114	68	9497.65	3068.06	-9.34e-03	-173.14	0.0	-3661.16	510.22	-49.71	535.90	3068.06	-9808.89
		-9808.89	1024.15	0.05	0.0	45.6	-3729.36	337.08	-49.71	535.90	1024.15	9497.65
114	73	5256.54	-412.39	-9.05e-03	-173.14	0.0	-3683.29	509.82	17.01	-104.63	-1089.60	-1.407e+04
		-1.407e+04	-1089.60	-0.02	0.0	45.6	-3751.49	336.68	17.01	-104.63	-412.39	5256.54
114	76	1.179e+04	597.15	-9.46e-03	-173.14	0.0	-3655.69	510.40	-12.48	173.34	597.15	-7505.29
		-7505.29	126.80	0.01	0.0	45.6	-3723.89	337.25	-12.48	173.34	126.80	1.179e+04
114	78	1.180e+04	-441.10	-9.45e-03	-173.14	0.0	-3658.47	510.37	17.65	-119.02	-1179.03	-7500.35
		-7500.35	-1179.03	-0.02	0.0	45.6	-3726.67	337.23	17.65	-119.02	-441.10	1.180e+04
114	79	5251.90	686.58	-9.06e-03	-173.14	0.0	-3680.52	509.84	-13.11	187.72	686.58	-1.407e+04
		-1.407e+04	155.51	0.01	0.0	45.6	-3748.71	336.70	-13.11	187.72	155.51	5251.90
114	90	1.180e+04	-152.44	-0.01	-243.20	0.0	-5060.08	716.92	2.43	35.41	-263.17	-1.534e+04
		-1.534e+04	-263.17	-6.62e-04	0.0	45.6	-5155.87	473.72	2.43	35.41	-152.44	1.180e+04
114	94	-7.392e+04	-230.33	7.34e-03	-46.32	0.0	-4664.16	523.99	3.66	55.49	-397.21	-9.675e+04
		-9.675e+04	-397.21	-9.91e-04	-5.00e-05	45.6	-4746.15	477.67	3.66	55.49	-230.33	-7.392e+04
114	95	9.260e+04	-60.07	-0.02	-334.99	0.0	-3370.12	599.63	0.96	13.75	-103.71	7.290e+04
		7.290e+04	-103.71	-2.61e-04	5.00e-05	45.6	-3438.32	264.63	0.96	13.75	-60.07	9.260e+04
114	96	9.424e+04	-64.90	-0.02	-370.02	0.0	-4065.42	703.03	1.04	14.27	-112.18	7.062e+04
		7.062e+04	-112.18	-2.85e-04	5.00e-05	45.6	-4147.41	333.01	1.04	14.27	-64.90	9.424e+04
114	101	8524.41	-142.79	-9.25e-03	-173.14	0.0	-3669.49	510.11	2.27	34.35	-246.22	-1.079e+04
		-1.079e+04	-246.22	-6.14e-04	0.0	45.6	-3737.69	336.96	2.27	34.35	-142.79	8524.41
114	102	9179.31	-144.72	-0.01	-187.15	0.0	-3947.61	551.47	2.30	34.56	-249.61	-1.170e+04
		-1.170e+04	-249.61	-6.23e-04	0.0	45.6	-4021.32	364.31	2.30	34.56	-144.72	9179.31
114	103	8524.41	-142.79	-9.25e-03	-173.14	0.0	-3669.49	510.11	2.27	34.35	-246.22	-1.079e+04
		-1.079e+04	-246.22	-6.14e-04	0.0	45.6	-3737.69	336.96	2.27	34.35	-142.79	8524.41
115	2	1.287e+04	-70.76	0.03	-580.30	0.0	-4813.55	-66.87	0.73	-9.91	-125.51	1.287e+04
		-1.390e+04	-125.51	-1.32e-03	0.0	75.0	-4584.99	-647.17	0.73	-9.91	-70.76	-1.390e+04
115	9	8.553e+04	-164.54	0.58	-806.80	0.0	-3095.38	-819.74	0.96	-16.33	-236.25	8.553e+04
		-6203.54	-236.25	-2.35e-03	2.29e-04	75.0	-2934.90	-1626.55	0.96	-16.33	-164.54	-6203.54
115	10	8.741e+04	-155.62	0.59	-893.24	0.0	-3770.79	-829.17	1.02	-16.46	-231.87	8.741e+04
		-8271.33	-231.87	-2.33e-03	2.29e-04	75.0	-3576.27	-1722.41	1.02	-16.46	-155.62	-8271.33
115	11	8.200e+04	-150.87	0.58	-647.04	0.0	-1782.56	-801.49	0.77	-14.00	-208.60	8.200e+04
		-2376.61	-208.60	-2.05e-03	2.29e-04	75.0	-1685.02	-1448.53	0.77	-14.00	-150.87	-2376.61
115	15	-9505.62	0.99	-0.56	151.71	0.0	-2517.27	741.96	0.08	-0.64	-4.65	-7.084e+04
		-7.084e+04	-4.65	-6.59e-05	-2.29e-04	75.0	-2419.72	893.67	0.08	-0.64	0.99	-9505.62
115	16	-1.157e+04	9.91	-0.55	65.27	0.0	-3192.68	732.54	0.14	-0.77	-0.27	-6.896e+04
		-6.896e+04	-0.27	-4.62e-05	-2.29e-04	75.0	-3061.09	797.81	0.14	-0.77	9.91	-1.157e+04
115	25	7320.31	-7344.71	0.02	-284.83	0.0	-2447.15	-46.11	28.52	65.40	-9129.46	7320.31
		-6815.25	-9129.46	0.09	0.0	75.0	-2334.97	-330.93	28.52	65.40	-7344.71	-6815.25
115	28	5453.90	8919.98	5.34e-03	-284.83	0.0	-2433.41	-21.53	-27.62	-80.15	8919.98	5453.90
		-6844.89	7202.50	-0.09	0.0	75.0	-2321.22	-306.35	-27.62	-80.15	7202.50	-6844.89
115	34	5478.17	-7208.25	5.35e-03	-284.83	0.0	-2452.87	-21.83	16.75	93.24	-8006.56	5478.17
		-6839.62	-8006.56	0.10	0.0	75.0	-2340.69	-306.65	16.75	93.24	-7208.25	-6839.62
115	35	7296.03	7797.08	0.02	-284.83	0.0	-2427.69	-45.81	-15.85	-108.00	7797.08	7296.03
		-6820.53	7066.03	-0.10	0.0	75.0	-2315.50	-330.63	-15.85	-108.00	7066.03	-6820.53
115	41	9458.17	-2275.21	0.04	-284.83	0.0	-2433.84	-74.26	9.45	12.29	-2834.58	9458.17
		-6789.69	-2834.58	0.02	0.0	75.0	-2321.65	-359.08	9.45	12.29	-2275.21	-6789.69
115	44	3316.04	2625.10	-0.01	-284.83	0.0	-2446.72	6.62	-8.56	-27.05	2625.10	3316.04
		-6870.46	2133.00	-0.03	0.0	75.0	-2334.54	-278.20	-8.56	-27.05	2133.00	-6870.46
115	57	6944.39	-3464.60	0.02	-284.83	0.0	-2443.21	-41.16	14.96	33.97	-4325.55	6944.39
		-6821.18	-4325.55	0.04	0.0	75.0	-2331.02	-325.99	14.96	33.97	-3464.60	-6821.18
115	60	5829.82	4116.07	8.16e-03	-284.83	0.0	-2437.35	-26.47	-14.07	-48.73	4116.07	5829.82
		-6838.97	3322.38	-0.04	0.0	75.0	-2325.17	-311.30	-14.07	-48.73	3322.38	-6838.97
115	73	8223.55	-1102.73	0.03	-284.83	0.0	-2436.07	-58.00	5.16	3.69	-1384.90	8223.55
		-6805.72	-1384.90	0.01	0.0	75.0	-2323.89	-342.83	5.16	3.69	-1102.73	-6805.72
115	76	4550.66	1175.42	-2.42e-03	-284.83	0.0	-2444.49	-9.63	-4.27	-18.45	1175.42	4550.66
		-6854.42	960.52	-0.01	0.0	75.0	-2332.30	-294.46	-4.27	-18.45	960.52	-6854.42
115	78	4554.39	-1055.88	-2.42e-03	-284.83	0.0	-2447.25	-9.68	2.87	9.38	-1198.54	4554.39

		-6853.54	-1198.54	0.01	0.0	75.0	-2335.07	-294.51	2.87	9.38	-1055.88	-6853.54
115	79	8219.82	989.06	0.03	-284.83	0.0	-2433.30	-57.95	-1.97	-24.14	989.06	8219.82
		-6806.61	913.67	-0.01	0.0	75.0	-2321.12	-342.78	-1.97	-24.14	913.67	-6806.61
115	90	8894.36	-59.21	0.02	-400.07	0.0	-3340.83	-46.39	0.53	-7.56	-98.90	8894.36
		-9587.12	-98.90	-1.02e-03	0.0	75.0	-3183.25	-446.46	0.53	-7.56	-59.21	-9587.12
115	93	5.733e+04	-121.73	0.39	-551.07	0.0	-2195.38	-548.30	0.68	-11.83	-172.72	5.733e+04
		-4453.74	-172.72	-1.71e-03	1.53e-04	75.0	-2083.19	-1099.38	0.68	-11.83	-121.73	-4453.74
115	94	5.859e+04	-115.78	0.39	-608.70	0.0	-2645.65	-554.59	0.72	-11.92	-169.80	5.859e+04
		-5832.26	-169.80	-1.70e-03	1.53e-04	75.0	-2510.77	-1163.28	0.72	-11.92	-115.78	-5832.26
115	95	-9206.41	-20.48	-0.37	-18.58	0.0	-2685.18	480.67	0.22	-2.92	-36.76	-4.456e+04
		-4.456e+04	-36.76	-3.89e-04	-1.53e-04	75.0	-2573.00	462.09	0.22	-2.92	-20.48	-9206.41
115	96	-1.058e+04	-14.54	-0.36	-76.20	0.0	-3135.45	474.38	0.26	-3.01	-33.84	-4.331e+04
		-4.331e+04	-33.84	-3.76e-04	-1.53e-04	75.0	-3000.57	398.18	0.26	-3.01	-14.54	-1.058e+04
115	101	6387.10	-71.11	0.01	-284.83	0.0	-2440.28	-33.82	0.45	-7.38	-104.74	6387.10
		-6830.07	-104.74	-1.05e-03	0.0	75.0	-2328.10	-318.64	0.45	-7.38	-71.11	-6830.07
115	102	6888.56	-68.73	0.01	-307.87	0.0	-2620.39	-36.33	0.46	-7.41	-103.57	6888.56
		-7381.48	-103.57	-1.05e-03	0.0	75.0	-2499.13	-344.21	0.46	-7.41	-68.73	-7381.48
115	103	6387.10	-71.11	0.01	-284.83	0.0	-2440.28	-33.82	0.45	-7.38	-104.74	6387.10
		-6830.07	-104.74	-1.05e-03	0.0	75.0	-2328.10	-318.64	0.45	-7.38	-71.11	-6830.07
116	1	7369.79	0.0	-0.23	-94.38	0.0	5128.15	58.18	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	5128.12	-36.20	0.0	0.0	0.0	4518.59
116	2	9812.08	0.0	-0.32	-94.38	0.0	7183.01	67.17	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	7182.98	-27.21	0.0	0.0	0.0	8211.23
116	3	4836.73	0.0	-0.14	-72.60	0.0	3163.27	41.34	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	3163.24	-31.26	0.0	0.0	0.0	2071.52
116	9	7827.52	0.0	-0.25	-94.38	0.0	5979.41	59.97	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	5979.38	-34.41	0.0	0.0	0.0	5250.97
116	15	4424.77	0.0	-0.12	-72.60	0.0	2312.01	39.56	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	2311.99	-33.04	0.0	0.0	0.0	1339.15
116	29	5302.95	5.40	-0.16	-72.60	0.0	3621.46	43.33	-0.02	-1.63e-03	5.40	0.0
		0.0	-4.11	1.16e-04	0.0	411.0	3621.43	-29.27	-0.02	-1.63e-03	-4.11	2890.05
116	32	5271.97	4.11	-0.16	-72.60	0.0	3588.47	43.21	0.02	1.63e-03	-5.40	0.0
		0.0	-5.40	-1.16e-04	0.0	411.0	3588.45	-29.39	0.02	1.63e-03	4.11	2840.48
116	41	5311.88	2.77	-0.16	-72.60	0.0	3643.07	43.37	-3.95e-04	-8.36e-04	2.77	0.0
		0.0	-0.08	-2.73e-05	0.0	411.0	3643.05	-29.23	-3.95e-04	-8.36e-04	-0.08	2904.34
116	43	5305.19	2.77	-0.16	-72.60	0.0	3637.54	43.34	0.01	2.45e-05	-0.08	0.0
		0.0	-0.08	-8.41e-05	0.0	411.0	3637.51	-29.26	0.01	2.45e-05	2.77	2893.65
116	44	5263.04	0.08	-0.16	-72.60	0.0	3566.86	43.18	3.95e-04	8.36e-04	-2.77	0.0
		0.0	-2.77	2.73e-05	0.0	411.0	3566.84	-29.42	3.95e-04	8.36e-04	0.08	2826.20
116	61	5295.36	3.57	-0.16	-72.60	0.0	3613.70	43.30	-0.01	-1.08e-03	3.57	0.0
		0.0	-2.73	7.70e-05	0.0	411.0	3613.67	-29.30	-0.01	-1.08e-03	-2.73	2877.91
116	64	5279.56	2.73	-0.16	-72.60	0.0	3596.23	43.24	0.01	1.08e-03	-3.57	0.0
		0.0	-3.57	-7.70e-05	0.0	411.0	3596.21	-29.36	0.01	1.08e-03	2.73	2852.63
116	73	5301.65	1.82	-0.16	-72.60	0.0	3627.41	43.33	-3.45e-04	-5.48e-04	1.82	0.0
		0.0	-0.07	-1.75e-05	0.0	411.0	3627.39	-29.27	-3.45e-04	-5.48e-04	-0.07	2887.98
116	75	5298.47	1.82	-0.16	-72.60	0.0	3624.78	43.31	8.84e-03	2.14e-05	-0.07	0.0
		0.0	-0.07	-5.50e-05	0.0	411.0	3624.76	-29.29	8.84e-03	2.14e-05	1.82	2882.89
116	76	5273.26	0.07	-0.16	-72.60	0.0	3582.52	43.22	3.45e-04	5.48e-04	-1.82	0.0
		0.0	-1.82	1.75e-05	0.0	411.0	3582.49	-29.38	3.45e-04	5.48e-04	0.07	2842.56
116	89	5287.46	0.0	-0.16	-72.60	0.0	3604.96	43.27	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	3604.94	-29.33	0.0	0.0	0.0	2865.27
116	90	6867.61	0.0	-0.22	-72.60	0.0	4974.87	49.26	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	4974.85	-23.34	0.0	0.0	0.0	5327.03
116	93	5592.61	0.0	-0.17	-72.60	0.0	4172.47	44.46	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	4172.45	-28.14	0.0	0.0	0.0	3353.52
116	95	5008.57	0.0	-0.15	-72.60	0.0	3037.46	42.08	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	3037.44	-30.52	0.0	0.0	0.0	2377.02
116	101	5287.46	0.0	-0.16	-72.60	0.0	3604.96	43.27	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	3604.94	-29.33	0.0	0.0	0.0	2865.27
116	102	5595.18	0.0	-0.17	-72.60	0.0	3878.95	44.47	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	3878.92	-28.13	0.0	0.0	0.0	3357.62
116	103	5287.46	0.0	-0.16	-72.60	0.0	3604.96	43.27	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	3604.94	-29.33	0.0	0.0	0.0	2865.27
117	2	-1.390e+04	-58.55	7.03e-03	-129.45	0.0	-4585.02	-646.92	0.73	-9.92	-70.76	-1.390e+04
		-2.581e+04	-70.76	-3.57e-04	0.0	16.7	-4534.05	-776.36	0.73	-9.92	-58.55	-2.581e+04
117	9	-6203.54	-148.54	0.14	-179.97	0.0	-2934.99	-1626.39	0.96	-16.34	-164.53	-6203.54
		-3.492e+04	-164.53	-6.61e-04	4.71e-05	16.7	-2899.20	-1806.36	0.96	-16.34	-148.54	-3.492e+04
117	10	-8271.33	-138.60	0.14	-199.25	0.0	-3576.36	-1722.21	1.02	-16.47	-155.61	-8271.33
		-3.875e+04	-155.61	-6.50e-04	4.71e-05	16.7	-3532.98	-1921.46	1.02	-16.47	-138.60	-3.875e+04
117	11	-2376.61	-137.99	0.14	-144.33	0.0	-1685.09	-1448.44	0.77	-14.01	-150.87	-2376.61
		-2.782e+04	-150.87	-5.81e-04	4.71e-05	16.7	-1663.34	-1592.77	0.77	-14.01	-137.99	-2.782e+04
117	15	5730.28	2.25	-0.13	33.84	0.0	-2419.67	893.80	0.08	-0.64	0.99	-9505.62
		-9505.62	0.99	-1.50e-05	-4.71e-05	16.7	-2397.91	927.64	0.08	-0.64	2.25	5730.28
117	16	1898.10	12.18	-0.13	14.56	0.0	-3061.04	797.97	0.14	-0.77	9.91	-1.157e+04
		-1.157e+04	9.91	-4.87e-06	-4.71e-05	16.7	-3031.69	812.53	0.14	-0.77	12.18	1898.10
117	25	-6815.25	-6351.25	5.11e-03	-63.53	0.0	-2335.01	-331.37	63.49	65.17	-7344.71	-6815.25
		-1.288e+04	-7344.71	0.01	0.0	16.7	-2309.99	-394.90	63.49	65.17	-6351.25	-1.288e+04

117	28	-6844.89	7202.50	1.81e-03	-63.53	0.0	-2321.22	-305.66	-62.59	-79.93	7202.50	-6844.89
		-1.250e+04	6224.04	-0.01	0.0	16.7	-2296.20	-369.20	-62.59	-79.93	6224.04	-1.250e+04
117	34	-6839.62	-6535.82	1.81e-03	-63.53	0.0	-2340.67	-306.06	43.19	92.89	-7208.25	-6839.62
		-1.249e+04	-7208.25	0.02	0.0	16.7	-2315.65	-369.60	43.19	92.89	-6535.82	-1.249e+04
117	35	-6820.53	7066.04	5.11e-03	-63.53	0.0	-2315.55	-330.97	-42.29	-107.66	7066.04	-6820.53
		-1.289e+04	6408.62	-0.02	0.0	16.7	-2290.53	-394.51	-42.29	-107.66	6408.62	-1.289e+04
117	41	-6789.69	-1981.91	8.96e-03	-63.53	0.0	-2321.76	-360.65	19.96	12.22	-2275.21	-6789.69
		-1.335e+04	-2275.21	3.70e-03	0.0	16.7	-2296.74	-424.18	19.96	12.22	-1981.91	-1.335e+04
117	43	-6791.47	2084.59	8.96e-03	-63.53	0.0	-2315.96	-360.50	-17.74	-31.73	2084.59	-6791.47
		-1.336e+04	1784.34	-4.31e-03	0.0	16.7	-2290.94	-424.04	-17.74	-31.73	1784.34	-1.336e+04
117	57	-6821.18	-3005.20	4.45e-03	-63.53	0.0	-2331.05	-326.20	30.59	33.87	-3464.60	-6821.18
		-1.281e+04	-3464.60	5.93e-03	0.0	16.7	-2306.03	-389.74	30.59	33.87	-3005.20	-1.281e+04
117	60	-6838.97	3322.39	2.47e-03	-63.53	0.0	-2325.17	-310.83	-29.70	-48.64	3322.39	-6838.97
		-1.257e+04	2878.00	-6.51e-03	0.0	16.7	-2300.15	-374.36	-29.70	-48.64	2878.00	-1.257e+04
117	73	-6805.72	-965.86	6.75e-03	-63.53	0.0	-2323.96	-343.71	9.87	3.66	-1102.73	-6805.72
		-1.309e+04	-1102.73	1.56e-03	0.0	16.7	-2298.94	-407.25	9.87	3.66	-965.86	-1.309e+04
117	75	-6806.77	930.68	6.75e-03	-63.53	0.0	-2321.20	-343.63	-8.15	-21.36	930.68	-6806.77
		-1.309e+04	795.19	-2.17e-03	0.0	16.7	-2296.18	-407.16	-8.15	-21.36	795.19	-1.309e+04
117	78	-6853.54	-950.77	1.92e-04	-63.53	0.0	-2335.03	-293.39	6.28	9.33	-1055.88	-6853.54
		-1.229e+04	-1055.88	1.97e-03	0.0	16.7	-2310.01	-356.92	6.28	9.33	-950.77	-1.229e+04
117	79	-6806.61	913.67	6.75e-03	-63.53	0.0	-2321.19	-343.64	-5.38	-24.10	913.67	-6806.61
		-1.309e+04	823.57	-2.55e-03	0.0	16.7	-2296.17	-407.18	-5.38	-24.10	823.57	-1.309e+04
117	90	-9587.12	-50.36	4.85e-03	-89.24	0.0	-3183.28	-446.28	0.53	-7.56	-59.21	-9587.12
		-1.780e+04	-59.21	-2.80e-04	0.0	16.7	-3148.13	-535.53	0.53	-7.56	-50.36	-1.780e+04
117	93	-4453.74	-110.35	0.09	-122.92	0.0	-2083.25	-1099.26	0.68	-11.84	-121.73	-4453.74
		-2.387e+04	-121.73	-4.82e-04	3.14e-05	16.7	-2058.23	-1222.19	0.68	-11.84	-110.35	-2.387e+04
117	94	-5832.26	-103.73	0.10	-135.78	0.0	-2510.84	-1163.15	0.72	-11.93	-115.78	-5832.26
		-2.643e+04	-115.78	-4.76e-04	3.14e-05	16.7	-2480.75	-1298.93	0.72	-11.93	-103.73	-2.643e+04
117	95	-1508.18	-16.85	-0.09	-4.14	0.0	-2572.97	462.23	0.22	-2.93	-20.48	-1508.18
		-9206.41	-20.48	-1.05e-04	-3.14e-05	16.7	-2547.95	458.09	0.22	-2.93	-16.85	-9206.41
117	96	-4062.97	-10.23	-0.09	-17.00	0.0	-3000.55	398.35	0.26	-3.01	-14.54	-4062.97
		-1.058e+04	-14.54	-9.82e-05	-3.14e-05	16.7	-2970.47	381.35	0.26	-3.01	-10.23	-1.058e+04
117	101	-6830.07	-63.60	3.46e-03	-63.53	0.0	-2328.11	-318.52	0.45	-7.38	-71.11	-6830.07
		-1.269e+04	-71.11	-2.94e-04	0.0	16.7	-2303.09	-382.05	0.45	-7.38	-63.60	-1.269e+04
117	102	-7381.48	-60.95	3.74e-03	-68.68	0.0	-2499.15	-344.07	0.46	-7.42	-68.73	-7381.48
		-1.371e+04	-68.73	-2.91e-04	0.0	16.7	-2472.10	-412.75	0.46	-7.42	-60.95	-1.371e+04
117	103	-6830.07	-63.60	3.46e-03	-63.53	0.0	-2328.11	-318.52	0.45	-7.38	-71.11	-6830.07
		-1.269e+04	-71.11	-2.94e-04	0.0	16.7	-2303.09	-382.05	0.45	-7.38	-63.60	-1.269e+04
118	2	3.309e+04	185.58	-0.16	-386.87	0.0	-8050.22	860.30	-1.40	-61.91	185.58	-258.05
		-258.05	115.52	2.30e-04	0.0	50.0	-7897.85	473.43	-1.40	-61.91	115.52	3.309e+04
118	9	7.377e+04	320.76	-0.53	-537.88	0.0	-5264.27	1787.83	-2.42	-97.18	320.76	-2170.80
		-2170.80	200.01	3.98e-04	0.0	50.0	-5157.29	1249.96	-2.42	-97.18	200.01	7.377e+04
118	10	7.865e+04	320.21	-0.56	-595.50	0.0	-6418.59	1915.78	-2.41	-99.00	320.21	-2253.70
		-2253.70	199.60	3.97e-04	0.0	50.0	-6288.91	1320.28	-2.41	-99.00	199.60	7.865e+04
118	11	6.468e+04	278.10	-0.49	-431.36	0.0	-3061.31	1551.04	-2.09	-82.35	278.10	-2086.46
		-2086.46	173.47	3.45e-04	0.0	50.0	-2996.28	1119.67	-2.09	-82.35	173.47	6.468e+04
118	15	2070.66	9.95	0.35	101.14	0.0	-4015.94	-815.81	-0.08	-4.54	9.95	2070.66
		-3.619e+04	6.12	1.23e-05	0.0	50.0	-3950.91	-714.67	-0.08	-4.54	6.12	-3.619e+04
118	16	1987.76	9.40	0.33	43.51	0.0	-5170.26	-687.86	-0.07	-6.36	9.40	1987.76
		-3.132e+04	5.72	1.17e-05	0.0	50.0	-5082.53	-644.35	-0.07	-6.36	5.72	-3.132e+04
118	25	1.689e+04	2.733e+04	-0.08	-189.89	0.0	-4039.71	434.42	-153.47	1029.17	2.733e+04	-80.91
		-80.91	1.967e+04	0.03	0.0	50.0	-3964.93	244.54	-153.47	1029.17	1.967e+04	1.689e+04
118	28	1.579e+04	-1.949e+04	-0.07	-189.89	0.0	-4030.04	410.82	151.30	-1117.62	-2.704e+04	-6.17
		-6.17	-2.704e+04	-0.03	0.0	50.0	-3955.25	220.93	151.30	-1117.62	-1.949e+04	1.579e+04
118	41	1.817e+04	8373.79	-0.10	-189.89	0.0	-4021.79	461.63	-47.50	272.43	8373.79	-172.12
		-172.12	6004.08	0.01	0.0	50.0	-3947.01	271.75	-47.50	272.43	6004.08	1.817e+04
118	46	1.452e+04	7638.40	-0.06	-189.89	0.0	-4053.76	383.67	-40.95	264.52	7638.40	85.84
		85.84	5595.05	9.41e-03	0.0	50.0	-3978.98	193.78	-40.95	264.52	5595.05	1.452e+04
118	47	1.816e+04	-5415.80	-0.10	-189.89	0.0	-4015.99	461.57	38.79	-352.98	-7350.82	-172.92
		-172.92	-7350.82	-9.05e-03	0.0	50.0	-3941.20	271.69	38.79	-352.98	-5415.80	1.816e+04
118	57	1.667e+04	1.285e+04	-0.08	-189.89	0.0	-4036.61	429.67	-72.67	456.98	1.285e+04	-66.14
		-66.14	9230.88	0.02	0.0	50.0	-3961.82	239.79	-72.67	456.98	9230.88	1.667e+04
118	60	1.601e+04	-9051.64	-0.08	-189.89	0.0	-4033.14	415.57	70.51	-545.44	-1.256e+04	-20.94
		-20.94	-1.256e+04	-0.02	0.0	50.0	-3958.35	225.68	70.51	-545.44	-9051.64	1.601e+04
118	73	1.743e+04	4002.21	-0.09	-189.89	0.0	-4026.70	445.95	-23.00	102.84	4002.21	-120.75
		-120.75	2856.67	4.94e-03	0.0	50.0	-3951.92	256.06	-23.00	102.84	2856.67	1.743e+04
118	78	1.525e+04	3631.78	-0.07	-189.89	0.0	-4045.81	399.32	-19.68	101.06	3631.78	34.04
		34.04	2651.59	4.47e-03	0.0	50.0	-3971.02	209.44	-19.68	101.06	2651.59	1.525e+04
118	79	1.743e+04	-2472.34	-0.09	-189.89	0.0	-4023.94	445.92	17.51	-189.52	-3344.21	-121.12
		-121.12	-3344.21	-4.12e-03	0.0	50.0	-3949.16	256.03	17.51	-189.52	-2472.34	1.743e+04
118	90	2.284e+04	143.05	-0.11	-266.72	0.0	-5573.96	593.21	-1.08	-46.65	143.05	-154.08
		-154.08	89.08	1.77e-04	0.0	50.0	-5468.91	326.49	-1.08	-46.65	89.08	2.284e+04
118	93	4.996e+04	233.17	-0.36	-367.39	0.0	-3716.67	1211.57	-1.76	-70.16	233.17	-1429.25
		-1429.25	145.41	2.89e-04	0.0	50.0	-3641.88	844.18	-1.76	-70.16	145.41	4.996e+04
118	94	5.321e+04	232.80	-0.37	-405.80	0.0	-4486.21	1296.86	-1.75	-71.38	232.80	-1484.51
		-1484.51	145.14	2.89e-04	0.0	50.0	-4396.29	891.06	-1.75	-71.38	145.14	5.321e+04
118	95	1342.16	54.41	0.20	-12.39	0.0	-4353.09	-366.33	-0.41	-18.29	54.41	1342.16

		-1.728e+04	33.84	6.75e-05	0.0	50.0	-4278.30	-378.71	-0.41	-18.29	33.84	-1.728e+04
118	96	1286.90	54.04	0.19	-50.80	0.0	-5122.63	-281.03	-0.41	-19.50	54.04	1286.90
		-1.403e+04	33.57	6.70e-05	0.0	50.0	-5032.71	-331.83	-0.41	-19.50	33.57	-1.403e+04
118	101	1.634e+04	143.79	-0.08	-189.89	0.0	-4034.88	422.62	-1.08	-44.23	143.79	-43.54
		-43.54	89.62	1.78e-04	0.0	50.0	-3960.09	232.73	-1.08	-44.23	89.62	1.634e+04
118	102	1.764e+04	143.64	-0.08	-205.25	0.0	-4342.69	456.74	-1.08	-44.71	143.64	-65.65
		-65.65	89.52	1.78e-04	0.0	50.0	-4261.85	251.49	-1.08	-44.71	89.52	1.764e+04
118	103	1.634e+04	143.79	-0.08	-189.89	0.0	-4034.88	422.62	-1.08	-44.23	143.79	-43.54
		-43.54	89.62	1.78e-04	0.0	50.0	-3960.09	232.73	-1.08	-44.23	89.62	1.634e+04
119	2	4.756e+04	115.52	-0.15	-580.30	0.0	-7897.85	473.34	-1.40	-61.91	115.52	3.309e+04
		3.309e+04	10.43	8.17e-04	0.0	75.0	-7669.29	-106.96	-1.40	-61.91	10.43	4.682e+04
119	9	1.373e+05	200.01	-0.61	-806.80	0.0	-5157.30	1249.90	-2.42	-97.18	200.01	7.377e+04
		7.377e+04	18.89	1.41e-03	1.40e-04	75.0	-4996.83	443.09	-2.41	-97.18	18.89	1.373e+05
119	10	1.442e+05	199.60	-0.64	-893.24	0.0	-6288.93	1320.21	-2.41	-99.00	199.60	7.865e+04
		7.865e+04	18.70	1.41e-03	1.40e-04	75.0	-6094.41	426.97	-2.41	-99.00	18.70	1.442e+05
119	11	1.244e+05	173.47	-0.57	-647.04	0.0	-2996.29	1119.64	-2.09	-82.35	173.47	6.468e+04
		6.468e+04	16.54	1.23e-03	1.40e-04	75.0	-2898.74	472.60	-2.09	-82.35	16.54	1.244e+05
119	15	-3.619e+04	6.12	0.44	151.71	0.0	-3950.90	-714.71	-0.08	-4.54	6.12	-3.619e+04
		-8.411e+04	0.37	4.34e-05	-1.40e-04	75.0	-3853.35	-563.00	-0.08	-4.54	0.37	-8.411e+04
119	16	-3.132e+04	5.72	0.42	65.27	0.0	-5082.52	-644.40	-0.07	-6.36	5.72	-3.132e+04
		-7.720e+04	0.19	4.07e-05	-1.40e-04	75.0	-4950.93	-579.13	-0.07	-6.36	0.19	-7.720e+04
119	25	2.464e+04	1.967e+04	-0.08	-284.83	0.0	-3964.99	242.67	-150.98	1028.95	1.967e+04	1.689e+04
		1.689e+04	8430.14	0.13	0.0	75.0	-3852.80	-42.15	-150.98	1028.95	8430.14	2.441e+04
119	28	2.231e+04	-8413.39	-0.07	-284.83	0.0	-3955.19	222.71	148.81	-1117.41	-1.949e+04	1.579e+04
		1.579e+04	-1.949e+04	-0.13	0.0	75.0	-3843.01	-62.12	148.81	-1117.41	-8413.39	2.181e+04
119	41	2.746e+04	6004.08	-0.10	-284.83	0.0	-3947.21	265.70	-46.71	272.37	6004.08	1.817e+04
		1.817e+04	2544.99	0.04	0.0	75.0	-3835.03	-19.13	-46.71	272.37	2544.99	2.741e+04
119	44	1.976e+04	-2528.24	-0.05	-284.83	0.0	-3972.97	199.68	44.55	-360.83	-5824.84	1.451e+04
		1.451e+04	-5824.84	-0.04	0.0	75.0	-3860.78	-85.14	44.55	-360.83	-2528.24	1.881e+04
119	46	1.977e+04	5595.05	-0.05	-284.83	0.0	-3978.77	199.74	-40.44	264.46	5595.05	1.452e+04
		1.452e+04	2556.88	0.04	0.0	75.0	-3866.59	-85.09	-40.44	264.46	2556.88	1.882e+04
119	47	2.745e+04	-2540.13	-0.10	-284.83	0.0	-3941.41	265.64	38.27	-352.92	-5415.81	1.816e+04
		1.816e+04	-5415.81	-0.04	0.0	75.0	-3829.23	-19.18	38.27	-352.92	-2540.13	2.741e+04
119	57	2.416e+04	9230.89	-0.08	-284.83	0.0	-3961.86	238.65	-71.46	456.88	9230.89	1.667e+04
		1.667e+04	3934.98	0.06	0.0	75.0	-3849.68	-46.17	-71.46	456.88	3934.98	2.389e+04
119	60	2.277e+04	-3918.23	-0.07	-284.83	0.0	-3958.32	226.73	69.29	-545.34	-9051.64	1.601e+04
		1.601e+04	-9051.64	-0.06	0.0	75.0	-3846.14	-58.10	69.29	-545.34	-3918.23	2.233e+04
119	73	2.582e+04	2856.67	-0.09	-284.83	0.0	-3952.04	252.43	-22.61	102.81	2856.67	1.743e+04
		1.743e+04	1192.58	0.02	0.0	75.0	-3839.86	-32.40	-22.61	102.81	1192.58	2.568e+04
119	76	2.122e+04	-1175.84	-0.06	-284.83	0.0	-3968.14	212.95	20.44	-191.27	-2677.43	1.525e+04
		1.525e+04	-2677.43	-0.02	0.0	75.0	-3855.95	-71.87	20.44	-191.27	-1175.84	2.054e+04
119	78	2.122e+04	2651.59	-0.06	-284.83	0.0	-3970.90	212.98	-19.43	101.03	2651.59	1.525e+04
		1.525e+04	1194.59	0.02	0.0	75.0	-3858.71	-71.84	-19.43	101.03	1194.59	2.054e+04
119	79	2.582e+04	-1177.84	-0.09	-284.83	0.0	-3949.28	252.40	17.26	-189.49	-2472.35	1.743e+04
		1.743e+04	-2472.35	-0.02	0.0	75.0	-3837.10	-32.42	17.26	-189.49	-1177.84	2.568e+04
119	90	3.283e+04	89.08	-0.10	-400.07	0.0	-5468.92	326.43	-1.08	-46.65	89.08	2.284e+04
		2.284e+04	8.13	6.30e-04	0.0	75.0	-5311.34	-73.64	-1.08	-46.65	8.13	3.232e+04
119	93	9.261e+04	145.41	-0.41	-551.07	0.0	-3641.89	844.14	-1.76	-70.17	145.41	4.996e+04
		4.996e+04	13.76	1.03e-03	9.31e-05	75.0	-3529.70	293.07	-1.76	-70.17	13.76	9.261e+04
119	94	9.721e+04	145.14	-0.43	-608.70	0.0	-4396.30	891.01	-1.75	-71.38	145.14	5.321e+04
		5.321e+04	13.64	1.03e-03	9.31e-05	75.0	-4261.42	282.32	-1.75	-71.38	13.64	9.721e+04
119	95	-1.728e+04	33.84	0.26	-18.58	0.0	-4278.29	-378.76	-0.41	-18.29	33.84	-1.728e+04
		-4.639e+04	2.99	2.39e-04	-9.31e-05	75.0	-4166.11	-397.34	-0.41	-18.29	2.99	-4.639e+04
119	96	-1.403e+04	33.57	0.25	-76.20	0.0	-5032.71	-331.89	-0.41	-19.51	33.57	-1.403e+04
		-4.178e+04	2.86	2.37e-04	-9.31e-05	75.0	-4897.83	-408.09	-0.41	-19.51	2.86	-4.178e+04
119	101	2.347e+04	89.62	-0.08	-284.83	0.0	-3960.09	232.69	-1.08	-44.23	89.62	1.634e+04
		1.634e+04	8.37	6.33e-04	0.0	75.0	-3847.91	-52.13	-1.08	-44.23	8.37	2.311e+04
119	102	2.534e+04	89.51	-0.08	-307.87	0.0	-4261.86	251.44	-1.08	-44.71	89.51	1.764e+04
		1.764e+04	8.32	6.33e-04	0.0	75.0	-4140.59	-56.44	-1.08	-44.71	8.32	2.495e+04
119	103	2.347e+04	89.62	-0.08	-284.83	0.0	-3960.09	232.69	-1.08	-44.23	89.62	1.634e+04
		1.634e+04	8.37	6.33e-04	0.0	75.0	-3847.91	-52.13	-1.08	-44.23	8.37	2.311e+04
120	2	4.682e+04	10.44	-0.03	-580.31	0.0	-7669.29	-106.83	-1.40	-61.91	10.44	4.682e+04
		1.705e+04	-94.65	8.74e-04	0.0	75.0	-7440.74	-687.14	-1.40	-61.91	-94.65	1.705e+04
120	9	1.464e+05	18.89	-0.26	-806.81	0.0	-4996.82	443.18	-2.41	-97.18	18.89	1.373e+05
		1.373e+05	-162.22	1.52e-03	1.62e-04	75.0	-4836.35	-363.63	-2.41	-97.18	-162.22	1.402e+05
120	10	1.518e+05	18.70	-0.27	-893.25	0.0	-6094.40	427.07	-2.41	-99.00	18.70	1.442e+05
		1.427e+05	-162.19	1.51e-03	1.62e-04	75.0	-5899.89	-466.18	-2.41	-99.00	-162.19	1.427e+05
120	11	1.373e+05	16.54	-0.26	-647.05	0.0	-2898.74	472.65	-2.09	-82.35	16.54	1.244e+05
		1.244e+05	-140.39	1.32e-03	1.62e-04	75.0	-2801.19	-174.39	-2.09	-82.35	-140.39	1.356e+05
120	15	-8.411e+04	0.37	0.23	151.71	0.0	-3853.36	-562.94	-0.08	-4.54	0.37	-8.411e+04
		-1.206e+05	-5.39	4.55e-05	-1.62e-04	75.0	-3755.82	-411.23	-0.08	-4.54	-5.39	-1.206e+05
120	33	2.441e+04	8543.65	-0.02	-284.83	0.0	-3853.07	-46.95	-123.67	963.50	8543.65	2.441e+04
		1.021e+04	-1358.26	0.17	0.0	75.0	-3740.89	-331.78	-123.67	963.50	-1358.26	1.021e+04
120	36	2.181e+04	1212.52	-0.01	-284.83	0.0	-3842.75	-57.18	121.50	-1051.95	-8526.90	2.181e+04
		6839.48	-8526.90	-0.17	0.0	75.0	-3730.57	-342.01	121.50	-1051.95	1212.52	6839.48
120	41	2.741e+04	2544.99	-0.02	-284.83	0.0	-3835.59	-35.21	-42.11	272.41	2544.99	2.741e+04
		1.409e+04	-770.49	0.05	0.0	75.0	-3723.41	-320.04	-42.11	272.41	-770.49	1.409e+04

120	44	1.881e+04	624.74	-6.63e-03	-284.83	0.0	-3860.23	-68.92	39.94	-360.87	-2528.24	1.881e+04
		2959.60	-2528.24	-0.05	0.0	75.0	-3748.05	-353.75	39.94	-360.87	624.74	2959.60
120	46	1.882e+04	2556.87	-6.66e-03	-284.83	0.0	-3866.03	-68.88	-37.32	-264.50	2556.87	1.882e+04
		2970.11	-405.94	0.05	0.0	75.0	-3753.85	-353.71	-37.32	264.50	-405.94	2970.11
120	47	2.741e+04	260.19	-0.02	-284.83	0.0	-3829.78	-35.26	35.15	-352.96	-2540.12	2.741e+04
		1.408e+04	-2540.12	-0.05	0.0	75.0	-3717.60	-320.09	35.15	-352.96	260.19	1.408e+04
120	65	2.389e+04	3987.29	-0.02	-284.83	0.0	-3849.78	-49.02	-58.44	426.89	3987.29	2.389e+04
		9531.07	-833.33	0.08	0.0	75.0	-3737.60	-333.85	-58.44	426.89	-833.33	9531.07
120	68	2.233e+04	687.58	-0.01	-284.83	0.0	-3846.04	-55.12	56.27	-515.35	-3970.54	2.233e+04
		7518.94	-3970.54	-0.08	0.0	75.0	-3733.86	-339.95	56.27	-515.35	687.58	7518.94
120	73	2.568e+04	1192.58	-0.02	-284.83	0.0	-3840.19	-41.99	-20.36	102.83	1192.58	2.568e+04
		1.185e+04	-446.16	0.03	0.0	75.0	-3728.01	-326.82	-20.36	102.83	-446.16	1.185e+04
120	78	2.054e+04	1194.59	-9.72e-03	-284.83	0.0	-3858.38	-62.12	-17.95	101.05	1194.59	2.054e+04
		5202.25	-268.45	0.02	0.0	75.0	-3746.20	-346.95	-17.95	101.05	-268.45	5202.25
120	79	2.568e+04	122.70	-0.02	-284.83	0.0	-3837.43	-42.01	15.79	-189.51	-1177.84	2.568e+04
		1.185e+04	-1177.84	-0.02	0.0	75.0	-3725.25	-326.84	15.79	-189.51	122.70	1.185e+04
120	80	2.054e+04	182.45	-9.70e-03	-284.83	0.0	-3855.62	-62.14	16.40	-182.27	-1191.53	2.054e+04
		5197.16	-1191.53	-0.02	0.0	75.0	-3743.44	-346.97	16.40	-182.27	182.45	5197.16
120	90	3.232e+04	8.13	-0.02	-400.08	0.0	-5311.34	-73.55	-1.08	-46.65	8.13	3.232e+04
		1.180e+04	-72.83	6.74e-04	0.0	75.0	-5153.77	-473.62	-1.08	-46.65	-72.83	1.180e+04
120	93	9.844e+04	13.76	-0.18	-551.08	0.0	-3529.70	293.13	-1.76	-70.17	13.76	9.261e+04
		9.261e+04	-117.87	1.10e-03	7.74e-05	75.0	-3417.52	-257.95	-1.76	-70.17	-117.87	9.393e+04
120	94	1.021e+05	13.64	-0.18	-608.70	0.0	-4261.42	282.39	-1.75	-71.38	13.64	9.721e+04
		9.557e+04	-117.85	1.10e-03	7.74e-05	75.0	-4126.54	-326.31	-1.75	-71.38	-117.85	9.557e+04
120	95	-4.639e+04	2.99	0.15	-18.58	0.0	-4166.12	-397.26	-0.41	-18.29	2.99	-4.639e+04
		-7.688e+04	-27.88	2.56e-04	-7.74e-05	75.0	-4053.94	-415.84	-0.41	-18.29	-27.88	-7.688e+04
120	101	2.311e+04	8.38	-0.01	-284.83	0.0	-3847.91	-52.07	-1.08	-44.23	8.38	2.311e+04
		8525.00	-72.87	6.79e-04	0.0	75.0	-3735.73	-336.90	-1.08	-44.23	-72.87	8525.00
120	102	2.495e+04	8.33	-0.02	-307.88	0.0	-4140.59	-56.36	-1.08	-44.71	8.33	2.495e+04
		9179.92	-72.87	6.78e-04	0.0	75.0	-4019.34	-364.24	-1.08	-44.71	-72.87	9179.92
120	103	2.311e+04	8.38	-0.01	-284.83	0.0	-3847.91	-52.07	-1.08	-44.23	8.38	2.311e+04
		8525.00	-72.87	6.79e-04	0.0	75.0	-3735.73	-336.90	-1.08	-44.23	-72.87	8525.00
121	1	5220.37	0.0	0.14	-94.38	0.0	3025.04	45.38	0.0	0.0	0.0	743.33
		0.0	0.0	0.0	0.0	411.0	3025.07	-49.00	0.0	0.0	0.0	0.0
121	2	6335.55	0.0	0.19	-94.38	0.0	4157.37	40.43	0.0	0.0	0.0	2777.97
		0.0	0.0	0.0	0.0	411.0	4157.40	-53.95	0.0	0.0	0.0	0.0
121	15	3430.62	0.0	0.08	-72.60	0.0	1432.96	37.76	0.0	0.0	0.0	-598.32
		-598.32	0.0	0.0	0.0	411.0	1432.98	-34.84	0.0	0.0	0.0	0.0
121	25	3875.65	12.59	0.10	-72.60	0.0	2171.94	35.59	0.06	3.69e-03	-12.24	291.74
		0.0	-12.24	-3.46e-04	0.0	411.0	2171.96	-37.01	0.06	3.69e-03	12.59	0.0
121	28	3819.27	12.24	0.09	-72.60	0.0	2107.50	35.86	-0.06	-3.69e-03	12.24	178.99
		0.0	-12.59	3.46e-04	0.0	411.0	2107.52	-36.74	-0.06	-3.69e-03	-12.59	0.0
121	29	3874.09	12.66	0.10	-72.60	0.0	2168.69	35.60	0.06	3.67e-03	-12.16	288.64
		0.0	-12.16	-3.43e-04	0.0	411.0	2168.71	-37.00	0.06	3.67e-03	12.66	0.0
121	32	3820.82	12.16	0.09	-72.60	0.0	2110.75	35.86	-0.06	-3.67e-03	12.16	182.10
		0.0	-12.66	3.43e-04	0.0	411.0	2110.78	-36.74	-0.06	-3.67e-03	-12.66	0.0
121	35	3825.69	0.59	0.10	-72.60	0.0	2120.90	35.83	-1.15e-03	-1.77e-04	0.59	191.83
		0.0	-0.24	1.66e-05	0.0	411.0	2120.92	-36.77	-1.15e-03	-1.77e-04	-0.24	0.0
121	57	3861.17	8.30	0.10	-72.60	0.0	2155.92	35.66	0.04	2.43e-03	-8.07	262.79
		0.0	-8.07	-2.28e-04	0.0	411.0	2155.94	-36.94	0.04	2.43e-03	8.30	0.0
121	61	3860.18	8.35	0.10	-72.60	0.0	2153.84	35.66	0.04	2.42e-03	-8.02	260.80
		0.0	-8.02	-2.26e-04	0.0	411.0	2153.86	-36.93	0.04	2.42e-03	8.35	0.0
121	64	3834.74	8.02	0.10	-72.60	0.0	2125.61	35.79	-0.04	-2.42e-03	8.02	209.94
		0.0	-8.35	2.26e-04	0.0	411.0	2125.63	-36.81	-0.04	-2.42e-03	-8.35	0.0
121	73	3857.69	2.84	0.10	-72.60	0.0	2157.32	35.68	0.01	6.26e-04	-2.07	255.83
		0.0	-2.07	-6.02e-05	0.0	411.0	2157.35	-36.92	0.01	6.26e-04	2.84	0.0
121	76	3837.23	2.07	0.10	-72.60	0.0	2122.12	35.78	-0.01	-6.26e-04	2.07	214.90
		0.0	-2.84	6.02e-05	0.0	411.0	2122.14	-36.82	-0.01	-6.26e-04	-2.84	0.0
121	79	3850.70	0.46	0.10	-72.60	0.0	2150.18	35.71	1.45e-03	-1.40e-04	0.46	241.85
		0.0	0.30	1.31e-05	0.0	411.0	2150.20	-36.89	1.45e-03	-1.40e-04	0.30	0.0
121	89	3847.46	0.0	0.10	-72.60	0.0	2139.72	35.73	0.0	0.0	0.0	235.37
		0.0	0.0	0.0	0.0	411.0	2139.74	-36.87	0.0	0.0	0.0	0.0
121	90	4566.88	0.0	0.13	-72.60	0.0	2894.61	32.43	0.0	0.0	0.0	1591.79
		0.0	0.0	0.0	0.0	411.0	2894.63	-40.17	0.0	0.0	0.0	0.0
121	95	3715.35	0.0	0.09	-72.60	0.0	1830.81	36.37	0.0	0.0	0.0	-28.86
		-28.86	0.0	0.0	0.0	411.0	1830.84	-36.23	0.0	0.0	0.0	0.0
121	101	3847.46	0.0	0.10	-72.60	0.0	2139.72	35.73	0.0	0.0	0.0	235.37
		0.0	0.0	0.0	0.0	411.0	2139.74	-36.87	0.0	0.0	0.0	0.0
121	102	3983.10	0.0	0.10	-72.60	0.0	2290.70	35.07	0.0	0.0	0.0	506.65
		0.0	0.0	0.0	0.0	411.0	2290.72	-37.53	0.0	0.0	0.0	0.0
121	103	3847.46	0.0	0.10	-72.60	0.0	2139.72	35.73	0.0	0.0	0.0	235.37
		0.0	0.0	0.0	0.0	411.0	2139.74	-36.87	0.0	0.0	0.0	0.0
124	2	838.74	24.07	-0.01	-34.92	0.0	-1585.35	17.46	-1.04	-9.46	24.07	0.0
		0.0	-175.89	6.65e-03	0.0	192.1	-1596.85	-17.46	-1.04	-9.46	-175.89	0.0
124	9	838.74	16.09	0.62	-34.92	0.0	-1045.95	17.46	-0.65	-5.75	16.09	0.0
		0.0	-109.58	4.25e-03	0.0	192.1	-1057.46	-17.46	-0.65	-5.75	-109.58	0.0
124	11	645.19	9.32	0.62	-26.86	0.0	-611.51	13.43	-0.36	-3.08	9.32	0.0

		0.0	-59.87	2.37e-03	0.0	192.1	-620.36	-13.43	-0.36	-3.08	-59.87	0.0
124	14	838.74	19.86	-0.64	-34.92	0.0	-1436.67	17.46	-0.89	-8.26	19.86	0.0
		0.0	-150.71	5.63e-03	0.0	192.1	-1448.18	-17.46	-0.89	-8.26	-150.71	0.0
124	33	645.19	-2137.90	1.88e-03	-26.86	0.0	-789.21	13.43	-14.90	-106.13	-2137.90	0.0
		0.0	-4981.29	-0.13	0.0	192.1	-798.06	-13.43	-14.90	-106.13	-4981.29	0.0
124	36	645.19	4824.69	-0.01	-26.86	0.0	-792.38	13.43	13.97	97.69	2159.74	0.0
		0.0	2159.74	0.14	0.0	192.1	-801.23	-13.43	13.97	97.69	4824.69	0.0
124	41	645.19	-672.32	0.02	-26.86	0.0	-787.22	13.43	-4.62	-46.87	-672.32	0.0
		0.0	-1555.59	-0.04	0.0	192.1	-796.07	-13.43	-4.62	-46.87	-1555.59	0.0
124	42	645.19	-670.59	-0.03	-26.86	0.0	-794.03	13.43	-4.53	-48.57	-670.59	0.0
		0.0	-1540.87	-0.04	0.0	192.1	-802.88	-13.43	-4.53	-48.57	-1540.87	0.0
124	44	645.19	1399.00	-0.03	-26.86	0.0	-794.37	13.43	3.69	38.43	694.16	0.0
		0.0	694.16	0.05	0.0	192.1	-803.22	-13.43	3.69	38.43	1399.00	0.0
124	55	645.19	1396.01	0.01	-26.86	0.0	-788.77	13.43	3.84	26.84	656.30	0.0
		0.0	656.30	0.04	0.0	192.1	-797.63	-13.43	3.84	26.84	1396.01	0.0
124	65	645.19	-993.08	-2.66e-03	-26.86	0.0	-789.87	13.43	-7.23	-53.47	-993.08	0.0
		0.0	-2364.84	-0.06	0.0	192.1	-798.72	-13.43	-7.23	-53.47	-2364.84	0.0
124	68	645.19	2208.25	-0.01	-26.86	0.0	-791.72	13.43	6.30	45.03	1014.92	0.0
		0.0	1014.92	0.06	0.0	192.1	-800.57	-13.43	6.30	45.03	2208.25	0.0
124	73	645.19	-308.16	0.01	-26.86	0.0	-788.52	13.43	-2.41	-25.62	-308.16	0.0
		0.0	-768.28	-0.02	0.0	192.1	-797.37	-13.43	-2.41	-25.62	-768.28	0.0
124	74	645.19	-307.12	-0.02	-26.86	0.0	-792.91	13.43	-2.36	-26.71	-307.12	0.0
		0.0	-759.09	-0.02	0.0	192.1	-801.76	-13.43	-2.36	-26.71	-759.09	0.0
124	76	645.19	611.68	-0.02	-26.86	0.0	-793.07	13.43	1.48	17.18	330.00	0.0
		0.0	330.00	0.02	0.0	192.1	-801.92	-13.43	1.48	17.18	611.68	0.0
124	87	645.19	609.79	5.97e-03	-26.86	0.0	-789.45	13.43	1.55	10.87	312.58	0.0
		0.0	312.58	0.02	0.0	192.1	-798.30	-13.43	1.55	10.87	609.79	0.0
124	90	645.19	16.34	-7.76e-03	-26.86	0.0	-1096.60	13.43	-0.70	-6.40	16.34	0.0
		0.0	-118.96	4.50e-03	0.0	192.1	-1105.45	-13.43	-0.70	-6.40	-118.96	0.0
124	93	645.19	11.02	0.41	-26.86	0.0	-737.01	13.43	-0.45	-3.93	11.02	0.0
		0.0	-74.75	2.90e-03	0.0	192.1	-745.86	-13.43	-0.45	-3.93	-74.75	0.0
124	96	645.19	13.53	-0.43	-26.86	0.0	-997.49	13.43	-0.60	-5.60	13.53	0.0
		0.0	-102.17	3.82e-03	0.0	192.1	-1006.34	-13.43	-0.60	-5.60	-102.17	0.0
124	101	645.19	10.92	-6.13e-03	-26.86	0.0	-790.80	13.43	-0.46	-4.22	10.92	0.0
		0.0	-78.30	2.98e-03	0.0	192.1	-799.65	-13.43	-0.46	-4.22	-78.30	0.0
124	102	645.19	12.00	-6.43e-03	-26.86	0.0	-851.96	13.43	-0.51	-4.66	12.00	0.0
		0.0	-86.43	3.29e-03	0.0	192.1	-860.81	-13.43	-0.51	-4.66	-86.43	0.0
124	103	645.19	10.92	-6.13e-03	-26.86	0.0	-790.80	13.43	-0.46	-4.22	10.92	0.0
		0.0	-78.30	2.98e-03	0.0	192.1	-799.65	-13.43	-0.46	-4.22	-78.30	0.0
125	2	838.74	17.32	0.01	-34.92	0.0	-1596.85	17.46	1.01	11.64	-177.09	0.0
		0.0	-177.09	-6.20e-03	0.0	192.1	-1585.35	-17.46	1.01	11.64	-177.09	0.0
125	9	838.74	10.65	0.64	-34.92	0.0	-1196.17	17.46	0.63	7.51	-110.55	0.0
		0.0	-110.55	-3.89e-03	0.0	192.1	-1184.67	-17.46	0.63	7.51	-110.55	0.0
125	14	838.74	15.20	-0.62	-34.92	0.0	-1309.47	17.46	0.87	9.77	-151.54	0.0
		0.0	-151.54	-5.32e-03	0.0	192.1	-1297.96	-17.46	0.87	9.77	-151.54	0.0
125	15	645.19	7.40	-0.62	-26.86	0.0	-643.01	13.43	0.41	4.48	-70.80	0.0
		0.0	-70.80	-2.51e-03	0.0	192.1	-634.16	-13.43	0.41	4.48	-70.80	0.0
125	25	645.19	-2140.58	0.01	-26.86	0.0	-800.28	13.43	14.88	107.67	-4981.97	0.0
		0.0	-4981.97	0.13	0.0	192.1	-791.43	-13.43	14.88	107.67	-2140.58	0.0
125	27	645.19	4819.85	0.01	-26.86	0.0	-801.42	13.43	-13.95	-96.70	4819.85	0.0
		0.0	2155.94	-0.14	0.0	192.1	-792.57	-13.43	-13.95	-96.70	2155.94	0.0
125	28	645.19	4824.27	-3.45e-03	-26.86	0.0	-799.02	13.43	-13.98	-97.25	4824.27	0.0
		0.0	2156.27	-0.14	0.0	192.1	-790.17	-13.43	-13.98	-97.25	2156.27	0.0
125	42	645.19	-636.07	-0.02	-26.86	0.0	-795.47	13.43	4.74	34.96	-1541.75	0.0
		0.0	-1541.75	0.04	0.0	192.1	-786.62	-13.43	4.74	34.96	-636.07	0.0
125	43	645.19	1384.05	0.03	-26.86	0.0	-803.82	13.43	-3.83	-24.54	1384.05	0.0
		0.0	651.76	-0.04	0.0	192.1	-794.97	-13.43	-3.83	-24.54	651.76	0.0
125	57	645.19	-995.78	0.01	-26.86	0.0	-800.15	13.43	7.21	54.83	-2365.41	0.0
		0.0	-2365.41	0.06	0.0	192.1	-791.30	-13.43	7.21	54.83	-995.78	0.0
125	59	645.19	2204.96	0.01	-26.86	0.0	-800.69	13.43	-6.29	-44.06	2204.96	0.0
		0.0	1011.29	-0.06	0.0	192.1	-791.84	-13.43	-6.29	-44.06	1011.29	0.0
125	60	645.19	2207.72	-1.85e-03	-26.86	0.0	-799.14	13.43	-6.31	-44.41	2207.72	0.0
		0.0	1011.48	-0.06	0.0	192.1	-790.29	-13.43	-6.31	-44.41	1011.48	0.0
125	74	645.19	-292.89	-0.01	-26.86	0.0	-796.98	13.43	2.45	19.47	-759.80	0.0
		0.0	-759.80	0.02	0.0	192.1	-788.13	-13.43	2.45	19.47	-292.89	0.0
125	75	645.19	602.11	0.02	-26.86	0.0	-802.31	13.43	-1.55	-9.05	602.11	0.0
		0.0	308.59	-0.02	0.0	192.1	-793.46	-13.43	-1.55	-9.05	308.59	0.0
125	90	645.19	11.75	7.76e-03	-26.86	0.0	-1105.45	13.43	0.68	7.88	-119.78	0.0
		0.0	-119.78	-4.20e-03	0.0	192.1	-1096.60	-13.43	0.68	7.88	-11.75	0.0
125	93	645.19	7.31	0.43	-26.86	0.0	-838.33	13.43	0.43	5.13	-75.41	0.0
		0.0	-75.41	-2.66e-03	0.0	192.1	-829.48	-13.43	0.43	5.13	-7.31	0.0
125	95	645.19	8.39	-0.41	-26.86	0.0	-760.96	13.43	0.47	5.30	-82.28	0.0
		0.0	-82.28	-2.91e-03	0.0	192.1	-752.11	-13.43	0.47	5.30	8.39	0.0
125	96	645.19	10.34	-0.41	-26.86	0.0	-913.86	13.43	0.59	6.63	-102.74	0.0
		0.0	-102.74	-3.61e-03	0.0	192.1	-905.01	-13.43	0.59	6.63	10.34	0.0
125	101	645.19	7.85	6.00e-03	-26.86	0.0	-799.65	13.43	0.45	5.21	-78.85	0.0
		0.0	-78.85	-2.78e-03	0.0	192.1	-790.80	-13.43	0.45	5.21	7.85	0.0

125	102	645.19	8.63	6.35e-03	-26.86	0.0	-860.81	13.43	0.50	5.75	-87.03	0.0
		0.0	-87.03	-3.07e-03	0.0	192.1	-851.96	-13.43	0.50	5.75	8.63	0.0
125	103	645.19	7.85	6.00e-03	-26.86	0.0	-799.65	13.43	0.45	5.21	-78.85	0.0
		0.0	-78.85	-2.78e-03	0.0	192.1	-790.80	-13.43	0.45	5.21	7.85	0.0
126	2	7493.90	-129.94	-0.01	-325.98	0.0	-2955.90	287.30	-0.02	-6.00	-129.94	-2000.63
		-2000.63	-131.16	-4.04e-04	0.0	75.0	-2827.51	-38.69	-0.02	-6.00	-131.16	7322.21
126	11	6.602e+04	-40.65	0.20	-360.98	0.0	-1172.46	-84.51	0.03	-2.09	-42.76	6.602e+04
		4.614e+04	-42.76	-1.66e-04	0.0	75.0	-1116.69	-445.48	0.03	-2.09	-40.65	4.614e+04
126	14	-3.658e+04	-113.12	-0.22	-59.13	0.0	-2767.70	452.88	-0.04	-5.15	-113.12	-6.833e+04
		-6.833e+04	-116.10	-3.37e-04	0.0	75.0	-2658.02	393.75	-0.04	-5.15	-116.10	-3.658e+04
126	26	3263.55	-2216.29	-8.13e-03	-162.01	0.0	-1572.45	146.26	-41.79	259.10	-2216.29	-1683.00
		-1683.00	-5057.60	0.15	0.0	75.0	-1508.64	-15.76	-41.79	259.10	-5057.60	3210.77
126	27	4345.49	4941.14	-3.29e-03	-162.01	0.0	-1513.90	137.19	41.79	-264.50	2100.24	-6.23
		-6.23	2100.24	-0.15	0.0	75.0	-1450.09	-24.82	41.79	-264.50	4941.14	4207.74
126	34	3263.20	-1404.86	-8.13e-03	-162.01	0.0	-1572.87	146.26	-42.24	278.76	-1404.86	-1683.67
		-1683.67	-4468.36	0.15	0.0	75.0	-1509.06	-15.75	-42.24	278.76	-4468.36	3210.47
126	35	4345.84	4351.90	-3.29e-03	-162.01	0.0	-1513.48	137.19	42.24	-284.16	1288.82	-5.56
		-5.56	1288.82	-0.15	0.0	75.0	-1449.67	-24.82	42.24	-284.16	4351.90	4208.04
126	41	5779.20	-689.85	3.76e-03	-162.01	0.0	-1545.91	125.70	-12.61	76.43	-689.85	2125.91
		2125.91	-1547.58	0.05	0.0	75.0	-1482.10	-36.31	-12.61	76.43	-1547.58	5478.11
126	44	1940.40	1431.12	-0.01	-162.01	0.0	-1540.44	157.75	12.61	-81.84	573.81	-3815.14
		-3815.14	573.81	-0.05	0.0	75.0	-1476.63	-4.26	12.61	-81.84	1431.12	1940.40
126	58	3449.74	-1193.11	-7.12e-03	-162.01	0.0	-1557.13	144.69	-19.61	120.77	-1193.11	-1394.33
		-1394.33	-2414.53	0.07	0.0	75.0	-1493.32	-17.32	-19.61	120.77	-2414.53	3382.33
126	59	4159.30	2298.07	-3.97e-03	-162.01	0.0	-1529.22	138.75	19.60	-126.18	1077.06	-294.90
		-294.90	1077.06	-0.07	0.0	75.0	-1465.41	-23.26	19.60	-126.18	2298.07	4036.18
126	66	3449.52	-733.66	-7.12e-03	-162.01	0.0	-1557.32	144.70	-19.70	128.70	-733.66	-1394.73
		-1394.73	-2123.78	0.07	0.0	75.0	-1493.51	-17.31	-19.70	128.70	-2123.78	3382.12
126	67	4159.53	2007.32	-3.97e-03	-162.01	0.0	-1529.02	138.75	19.69	-134.10	617.62	-294.50
		-294.50	617.62	-0.07	0.0	75.0	-1465.22	-23.26	19.69	-134.10	2007.32	4036.39
126	73	5066.75	-388.58	-1.73e-03	-162.01	0.0	-1543.46	131.39	-5.93	34.72	-388.58	1070.82
		1070.82	-758.50	0.02	0.0	75.0	-1479.65	-30.62	-5.93	34.72	-758.50	4849.75
126	76	2591.69	642.04	-0.01	-162.01	0.0	-1542.89	152.06	5.93	-40.12	272.53	-2760.05
		-2760.05	272.53	-0.02	0.0	75.0	-1479.08	-9.95	5.93	-40.12	642.04	2568.76
126	90	5202.67	-87.94	-7.35e-03	-225.32	0.0	-2064.33	198.27	-9.68e-03	-4.06	-87.94	-1339.91
		-1339.91	-88.66	-2.76e-04	0.0	75.0	-1975.59	-27.04	-9.68e-03	-4.06	-88.66	5081.15
126	93	4.362e+04	-53.05	0.13	-308.26	0.0	-1408.06	3.06	0.02	-2.59	-54.28	4.362e+04
		3.229e+04	-54.28	-1.92e-04	0.0	75.0	-1344.25	-305.20	0.02	-2.59	-53.05	3.229e+04
126	96	-2.419e+04	-76.72	-0.15	-47.41	0.0	-1938.87	308.66	-0.03	-3.50	-76.72	-4.556e+04
		-4.556e+04	-78.63	-2.32e-04	0.0	75.0	-1862.59	261.25	-0.03	-3.50	-78.63	-2.419e+04
126	101	3804.52	-58.02	-5.39e-03	-162.01	0.0	-1543.17	141.72	-2.78e-03	-2.70	-58.02	-844.62
		-844.62	-58.23	-1.91e-04	0.0	75.0	-1479.37	-20.29	-2.78e-03	-2.70	-58.23	3709.25
126	102	4084.15	-64.00	-5.78e-03	-174.67	0.0	-1647.41	153.03	-4.16e-03	-2.97	-64.00	-943.67
		-943.67	-64.32	-2.08e-04	0.0	75.0	-1578.61	-21.64	-4.16e-03	-2.97	-64.32	3983.63
126	103	3804.52	-58.02	-5.39e-03	-162.01	0.0	-1543.17	141.72	-2.78e-03	-2.70	-58.02	-844.62
		-844.62	-58.23	-1.91e-04	0.0	75.0	-1479.37	-20.29	-2.78e-03	-2.70	-58.23	3709.25
127	2	7493.92	-156.31	0.01	-325.98	0.0	-2827.85	38.69	0.28	6.64	-177.66	7322.23
		-2000.63	-177.66	4.54e-04	0.0	75.0	-2956.24	-287.30	0.28	6.64	-156.31	-2000.63
127	7	3353.57	-53.85	4.70e-03	-141.60	0.0	-1319.37	18.11	0.09	2.33	-60.82	3266.79
		-685.19	-60.82	1.77e-04	0.0	75.0	-1375.14	-123.49	0.09	2.33	-53.85	-685.19
127	10	-3.621e+04	-127.57	0.22	-59.13	0.0	-2655.78	-384.60	0.24	5.43	-145.84	-3.621e+04
		-6.728e+04	-145.84	3.91e-04	0.0	75.0	-2765.47	-443.73	0.24	5.43	-127.57	-6.728e+04
127	15	6.496e+04	-60.34	-0.20	-360.98	0.0	-1119.34	436.33	0.09	2.59	-67.38	4.577e+04
		4.577e+04	-67.38	1.73e-04	0.0	75.0	-1175.10	75.35	0.09	2.59	-60.34	6.496e+04
127	25	3271.17	-1417.57	8.15e-03	-162.01	0.0	-1510.24	15.83	42.40	-278.82	-4489.57	3217.73
		-1670.77	-4489.57	-0.15	0.0	75.0	-1574.05	-146.19	42.40	-278.82	-1417.57	-1670.77
127	28	4337.89	4330.81	2.50e-03	-162.01	0.0	-1448.79	24.75	-42.15	284.81	4330.81	4200.80
		-18.47	1277.55	0.15	0.0	75.0	-1512.60	-137.26	-42.15	284.81	1277.55	-18.47
127	33	3270.94	-2257.52	8.15e-03	-162.01	0.0	-1509.82	15.82	41.98	-259.47	-5083.59	3217.54
		-1671.28	-5083.59	-0.15	0.0	75.0	-1573.62	-146.19	41.98	-259.47	-2257.52	-1671.28
127	36	4338.12	4924.82	2.50e-03	-162.01	0.0	-1449.21	24.75	-41.73	265.46	4924.82	4200.99
		-17.96	2117.49	0.15	0.0	75.0	-1513.02	-137.26	-41.73	265.46	2117.49	-17.96
127	42	5744.04	-457.75	-4.47e-03	-162.01	0.0	-1479.08	36.03	12.74	-80.93	-1390.89	5448.23
		2074.86	-1390.89	-0.05	0.0	75.0	-1542.89	-125.98	12.74	-80.93	-457.75	2074.86
127	43	1970.30	1232.12	0.01	-162.01	0.0	-1479.95	4.55	-12.49	86.92	1232.12	1970.30
		-3764.10	317.72	0.05	0.0	75.0	-1543.75	-157.46	-12.49	86.92	317.72	-3764.10
127	57	3454.89	-746.44	7.13e-03	-162.01	0.0	-1494.32	17.36	19.84	-128.64	-2144.95	3387.02
		-1386.07	-2144.95	-0.07	0.0	75.0	-1558.13	-144.65	19.84	-128.64	-746.44	-1386.07
127	60	4154.17	1986.19	3.52e-03	-162.01	0.0	-1464.71	23.21	-19.59	134.63	1986.19	4031.50
		-303.17	606.42	0.07	0.0	75.0	-1528.52	-138.80	-19.59	134.63	606.42	-303.17
127	65	3454.78	-1229.19	7.13e-03	-162.01	0.0	-1494.13	17.36	19.79	-120.99	-2440.31	3386.94
		-1386.32	-2440.31	-0.07	0.0	75.0	-1557.94	-144.65	19.79	-120.99	-1229.19	-1386.32
127	68	4154.28	2281.55	3.52e-03	-162.01	0.0	-1464.90	23.21	-19.54	126.98	2281.55	4031.59
		-302.91	1089.17	0.07	0.0	75.0	-1528.71	-138.80	-19.54	126.98	1089.17	-302.91
127	74	5044.97	-262.45	-2.28e-03	-162.01	0.0	-1477.72	30.44	5.99	-36.10	-691.79	4830.52
		1037.96	-691.79	-0.02	0.0	75.0	-1541.53	-131.57	5.99	-36.10	-262.45	1037.96
127	75	2611.80	533.02	0.01	-162.01	0.0	-1481.30	10.14	-5.74	42.09	533.02	2588.01

		-2727.20	122.43	0.02	0.0	75.0	-1545.11	-151.88	-5.74	42.09	122.43	-2727.20
127	90	5202.68	-105.84	7.25e-03	-225.32	0.0	-1975.82	27.04	0.19	4.50	-120.24	5081.16
		-1339.91	-120.24	3.10e-04	0.0	75.0	-2064.56	-198.27	0.19	4.50	-105.84	-1339.91
127	91	3804.43	-66.94	5.32e-03	-162.01	0.0	-1479.44	20.29	0.12	2.87	-75.79	3709.17
		-844.80	-75.79	2.10e-04	0.0	75.0	-1543.24	-141.72	0.12	2.87	-66.94	-844.80
127	94	-2.394e+04	-86.68	0.15	-47.41	0.0	-1861.10	-255.15	0.16	3.69	-99.03	-2.394e+04
		-4.486e+04	-99.03	2.68e-04	0.0	75.0	-1937.38	-302.56	0.16	3.69	-86.68	-4.486e+04
127	95	4.292e+04	-71.26	-0.13	-308.26	0.0	-1346.08	299.10	0.12	3.05	-80.16	3.205e+04
		3.205e+04	-80.16	2.07e-04	0.0	75.0	-1409.89	-9.16	0.12	3.05	-71.26	4.292e+04
127	101	3804.53	-70.01	5.32e-03	-162.01	0.0	-1479.51	20.29	0.12	2.99	-79.38	3709.26
		-844.62	-79.38	2.14e-04	0.0	75.0	-1543.32	-141.72	0.12	2.99	-70.01	-844.62
127	102	4084.16	-77.18	5.71e-03	-174.67	0.0	-1578.78	21.64	0.14	3.30	-87.55	3983.64
		-943.68	-87.55	2.33e-04	0.0	75.0	-1647.57	-153.03	0.14	3.30	-77.18	-943.68
127	103	3804.53	-70.01	5.32e-03	-162.01	0.0	-1479.51	20.29	0.12	2.99	-79.38	3709.26
		-844.62	-79.38	2.14e-04	0.0	75.0	-1543.32	-141.72	0.12	2.99	-70.01	-844.62
128	2	9821.18	-68.82	0.01	-198.16	0.0	-4314.64	-386.72	-1.06	-28.65	-68.82	9821.18
		-1.233e+04	-117.00	2.63e-04	0.0	45.6	-4236.60	-584.88	-1.06	-28.65	-117.00	-1.233e+04
128	10	8.019e+04	-54.42	0.01	-302.65	0.0	-3463.97	-267.05	-0.82	-23.36	-54.42	8.019e+04
		6.112e+04	-91.64	1.91e-04	0.0	45.6	-3397.29	-569.70	-0.82	-23.36	-91.64	6.112e+04
128	11	7.617e+04	-23.26	7.86e-03	-219.43	0.0	-1707.09	-104.11	-0.33	-10.42	-23.26	7.617e+04
		6.642e+04	-38.39	6.65e-05	0.0	45.6	-1673.19	-323.54	-0.33	-10.42	-38.39	6.642e+04
128	14	-6.325e+04	-59.68	0.01	-35.94	0.0	-3993.41	-392.95	-0.93	-24.19	-59.68	-6.325e+04
		-8.199e+04	-101.96	2.38e-04	0.0	45.6	-3926.73	-428.89	-0.93	-24.19	-101.96	-8.199e+04
128	26	4118.41	1935.41	4.69e-03	-98.48	0.0	-2253.61	-191.39	-81.24	1595.78	1935.41	4118.41
		-6852.46	-2424.32	0.10	0.0	45.6	-2214.82	-289.87	-81.24	1595.78	-2424.32	-6852.46
128	27	5937.38	2319.84	5.02e-03	-98.48	0.0	-2193.83	-191.52	80.30	-1621.63	-1997.29	5937.38
		-5039.07	-1997.29	-0.10	0.0	45.6	-2155.04	-290.00	80.30	-1621.63	2319.84	-5039.07
128	34	4117.64	2188.71	4.69e-03	-98.48	0.0	-2254.04	-191.39	-77.40	1564.38	2188.71	4117.64
		-6853.23	-1536.09	0.10	0.0	45.6	-2215.25	-289.87	-77.40	1564.38	-1536.09	-6853.23
128	35	5938.15	1431.61	5.02e-03	-98.48	0.0	-2193.40	-191.51	76.47	-1590.23	-2250.60	5938.15
		-5038.30	-2250.60	-0.10	0.0	45.6	-2154.61	-290.00	76.47	-1590.23	1431.61	-5038.30
128	41	8229.39	571.33	4.90e-03	-98.48	0.0	-2222.84	-191.01	-24.78	471.45	571.33	8229.39
		-2724.74	-747.78	0.03	0.0	45.6	-2184.05	-289.50	-24.78	471.45	-747.78	-2724.74
128	44	1826.40	643.30	4.81e-03	-98.48	0.0	-2224.60	-191.89	23.85	-497.30	-633.22	1826.40
		-9166.79	-633.22	-0.03	0.0	45.6	-2185.81	-290.37	23.85	-497.30	643.30	-9166.79
128	58	4432.65	1000.51	4.78e-03	-98.48	0.0	-2238.15	-191.44	-38.18	736.76	1000.51	4432.65
		-6540.73	-1302.92	0.05	0.0	45.6	-2199.36	-289.93	-38.18	736.76	-1302.92	-6540.73
128	59	5623.14	1198.44	4.94e-03	-98.48	0.0	-2209.29	-191.46	37.24	-762.61	-1062.39	5623.14
		-5350.80	-1062.39	-0.05	0.0	45.6	-2170.50	-289.94	37.24	-762.61	1198.44	-5350.80
128	66	4432.18	1025.17	4.78e-03	-98.48	0.0	-2238.35	-191.44	-36.34	722.91	1025.17	4432.18
		-6541.16	-799.17	0.05	0.0	45.6	-2199.56	-289.93	-36.34	722.91	-799.17	-6541.16
128	67	5623.61	694.69	4.94e-03	-98.48	0.0	-2209.09	-191.46	35.41	-748.76	-1087.05	5623.61
		-5350.37	-1087.05	-0.05	0.0	45.6	-2170.30	-289.94	35.41	-748.76	694.69	-5350.37
128	73	7092.53	286.41	4.89e-03	-98.48	0.0	-2221.69	-191.18	-11.83	213.09	286.41	7092.53
		-3868.94	-417.18	0.01	0.0	45.6	-2182.90	-289.66	-11.83	213.09	-417.18	-3868.94
128	76	2963.26	312.70	4.82e-03	-98.48	0.0	-2225.75	-191.72	10.90	-238.94	-348.29	2963.26
		-8022.59	-348.29	-0.01	0.0	45.6	-2186.96	-290.21	10.90	-238.94	312.70	-8022.59
128	90	6830.39	-46.63	7.18e-03	-136.97	0.0	-3004.99	-267.08	-0.71	-19.43	-46.63	6830.39
		-8468.77	-79.18	1.76e-04	0.0	45.6	-2951.04	-404.05	-0.71	-19.43	-79.18	-8468.77
128	93	5.284e+04	-29.19	7.36e-03	-187.39	0.0	-2047.24	-149.48	-0.43	-12.65	-29.19	5.284e+04
		4.176e+04	-48.80	9.54e-05	0.0	45.6	-2008.45	-336.87	-0.43	-12.65	-48.80	4.176e+04
128	94	5.374e+04	-37.04	8.52e-03	-206.63	0.0	-2437.87	-187.30	-0.55	-15.90	-37.04	5.374e+04
		4.049e+04	-62.27	1.28e-04	0.0	45.6	-2391.50	-393.93	-0.55	-15.90	-62.27	4.049e+04
128	96	-4.189e+04	-40.54	7.24e-03	-28.82	0.0	-2790.84	-271.24	-0.63	-16.45	-40.54	-4.189e+04
		-5.491e+04	-69.15	1.60e-04	0.0	45.6	-2744.47	-300.06	-0.63	-16.45	-69.15	-5.491e+04
128	101	5027.89	-30.94	4.86e-03	-98.48	0.0	-2223.72	-191.45	-0.47	-12.93	-30.94	5027.89
		-5945.76	-52.24	1.11e-04	0.0	45.6	-2184.93	-289.94	-0.47	-12.93	-52.24	-5945.76
128	102	5388.39	-34.08	5.32e-03	-106.18	0.0	-2379.97	-206.58	-0.52	-14.23	-34.08	5388.39
		-6450.36	-57.63	1.24e-04	0.0	45.6	-2338.15	-312.76	-0.52	-14.23	-57.63	-6450.36
128	103	5027.89	-30.94	4.86e-03	-98.48	0.0	-2223.72	-191.45	-0.47	-12.93	-30.94	5027.89
		-5945.76	-52.24	1.11e-04	0.0	45.6	-2184.93	-289.94	-0.47	-12.93	-52.24	-5945.76
129	2	-2000.63	-147.94	7.83e-03	-127.82	0.0	-2956.25	-287.25	0.28	6.64	-156.31	-2000.63
		-1.233e+04	-156.31	-6.08e-05	0.0	29.4	-3006.59	-415.07	0.28	6.64	-147.94	-1.233e+04
129	7	-685.19	-51.11	3.58e-03	-55.52	0.0	-1375.14	-123.47	0.09	2.33	-53.85	-685.19
		-5132.60	-53.85	-1.27e-05	0.0	29.4	-1397.01	-178.99	0.09	2.33	-51.11	-5132.60
129	10	-6.728e+04	-120.40	0.05	-23.18	0.0	-2765.47	-443.68	0.24	5.43	-127.57	-6.728e+04
		-8.066e+04	-127.57	-4.18e-05	0.0	29.4	-2808.48	-466.87	0.24	5.43	-120.40	-8.066e+04
129	15	6.555e+04	-57.57	-0.04	-141.54	0.0	-1175.10	75.37	0.09	2.59	-60.34	6.496e+04
		6.496e+04	-60.34	-2.41e-05	0.0	29.4	-1196.97	-66.17	0.09	2.59	-57.57	6.510e+04
129	25	-1670.77	-714.00	4.62e-03	-63.52	0.0	-1574.24	-144.03	54.24	-278.84	-1417.57	-1670.77
		-6840.40	-1417.57	-0.06	0.0	29.4	-1599.26	-207.55	54.24	-278.84	-714.00	-6840.40
129	28	-18.47	1277.54	3.46e-03	-63.52	0.0	-1512.41	-139.37	-53.99	284.83	1277.54	-18.47
		-5051.14	581.32	0.06	0.0	29.4	-1537.43	-202.90	-53.99	284.83	581.32	-5051.14
129	33	-1671.28	-1259.84	4.62e-03	-63.52	0.0	-1573.81	-144.03	56.45	-259.49	-2257.52	-1671.28
		-6841.05	-2257.52	-0.06	0.0	29.4	-1598.83	-207.56	56.45	-259.49	-1259.84	-6841.05
129	36	-17.96	2117.49	3.46e-03	-63.52	0.0	-1512.83	-139.37	-56.20	265.48	2117.49	-17.96
		-5050.50	1127.16	0.06	0.0	29.4	-1537.85	-202.89	-56.20	265.48	1127.16	-5050.50

129	42	2074.86	-277.37	2.33e-03	-63.52	0.0	-1542.33	-133.18	16.34	-80.93	-457.75	2074.86
		-2775.65	-457.75	-0.02	0.0	29.4	-1567.35	-196.70	16.34	-80.93	-277.37	-2775.65
129	43	-3764.10	317.72	5.75e-03	-63.52	0.0	-1544.32	-150.22	-16.09	86.92	317.72	-3764.10
		-9115.89	144.69	0.02	0.0	29.4	-1569.34	-213.75	-16.09	86.92	144.69	-9115.89
129	57	-1386.07	-446.23	4.40e-03	-63.52	0.0	-1558.25	-143.24	25.35	-128.65	-746.44	-1386.07
		-6532.52	-746.44	-0.03	0.0	29.4	-1583.27	-206.76	25.35	-128.65	-446.23	-6532.52
129	60	-303.17	606.41	3.67e-03	-63.52	0.0	-1528.40	-140.16	-25.10	134.64	606.41	-303.17
		-5359.02	313.55	0.03	0.0	29.4	-1553.42	-203.68	-25.10	134.64	313.55	-5359.02
129	65	-1386.32	-842.99	4.40e-03	-63.52	0.0	-1558.06	-143.24	26.37	-121.00	-1229.19	-1386.32
		-6532.86	-1229.19	-0.03	0.0	29.4	-1583.08	-206.77	26.37	-121.00	-842.99	-6532.86
129	68	-302.91	1089.16	3.67e-03	-63.52	0.0	-1528.59	-140.16	-26.12	126.99	1089.16	-302.91
		-5358.69	710.31	0.03	0.0	29.4	-1553.61	-203.68	-26.12	126.99	710.31	-5358.69
129	74	1037.96	-190.93	2.93e-03	-63.52	0.0	-1541.17	-136.21	7.68	-36.11	-262.45	1037.96
		-3901.69	-262.45	-8.89e-03	0.0	29.4	-1566.19	-199.73	7.68	-36.11	-190.93	-3901.69
129	75	-2727.20	122.43	5.15e-03	-63.52	0.0	-1545.48	-147.19	-7.43	42.09	122.43	-2727.20
		-7989.85	58.25	8.85e-03	0.0	29.4	-1570.50	-210.72	-7.43	42.09	58.25	-7989.85
129	90	-1339.91	-100.19	5.46e-03	-88.35	0.0	-2064.57	-198.24	0.19	4.50	-105.84	-1339.91
		-8468.77	-105.84	-4.00e-05	0.0	29.4	-2099.36	-286.59	0.19	4.50	-100.19	-8468.77
129	91	-844.80	-63.46	4.04e-03	-63.52	0.0	-1543.25	-141.70	0.12	2.87	-66.94	-844.80
		-5945.98	-66.94	-1.98e-05	0.0	29.4	-1568.27	-205.23	0.12	2.87	-63.46	-5945.98
129	94	-4.486e+04	-81.83	0.03	-18.59	0.0	-1937.38	-302.53	0.16	3.69	-86.68	-4.486e+04
		-5.403e+04	-86.68	-2.74e-05	0.0	29.4	-1967.29	-321.12	0.16	3.69	-81.83	-5.403e+04
129	95	4.292e+04	-67.77	-0.02	-120.87	0.0	-1409.89	-9.14	0.12	3.05	-71.26	4.292e+04
		4.087e+04	-71.26	-2.74e-05	0.0	29.4	-1434.91	-130.01	0.12	3.05	-67.77	4.087e+04
129	101	-844.62	-66.34	4.04e-03	-63.52	0.0	-1543.32	-141.70	0.12	2.99	-70.01	-844.62
		-5945.77	-70.01	-2.32e-05	0.0	29.4	-1568.34	-205.22	0.12	2.99	-66.34	-5945.77
129	102	-943.68	-73.11	4.32e-03	-68.49	0.0	-1647.57	-153.01	0.14	3.29	-77.18	-943.68
		-6450.37	-77.18	-2.65e-05	0.0	29.4	-1674.55	-221.50	0.14	3.29	-73.11	-6450.37
129	103	-844.62	-66.34	4.04e-03	-63.52	0.0	-1543.32	-141.70	0.12	2.99	-70.01	-844.62
		-5945.77	-70.01	-2.32e-05	0.0	29.4	-1568.34	-205.22	0.12	2.99	-66.34	-5945.77
130	2	-2000.63	-129.47	-7.83e-03	-127.82	0.0	-3006.25	415.07	-0.02	-5.99	-129.47	-1.233e+04
		-1.233e+04	-129.94	3.70e-05	0.0	29.4	-2955.91	287.25	-0.02	-5.99	-129.94	-2000.63
130	11	6.676e+04	-42.76	0.04	-141.54	0.0	-1194.33	57.01	0.03	-2.09	-43.59	6.642e+04
		6.602e+04	-43.59	3.59e-06	0.0	29.4	-1172.46	-84.53	0.03	-2.09	-42.76	6.602e+04
130	14	-6.833e+04	-111.95	-0.05	-23.18	0.0	-2810.72	476.02	-0.04	-5.15	-111.95	-8.199e+04
		-8.199e+04	-113.12	3.75e-05	0.0	29.4	-2767.71	452.84	-0.04	-5.15	-113.12	-6.833e+04
130	26	-1683.00	-1206.18	-4.60e-03	-63.52	0.0	-1597.61	207.55	-56.33	259.13	-1206.18	-6852.46
		-6852.46	-2216.29	0.06	0.0	29.4	-1572.59	144.02	-56.33	259.13	-2216.29	-1683.00
130	27	-6.23	2100.24	-3.47e-03	-63.52	0.0	-1538.78	202.90	56.32	-264.53	1090.30	-5039.07
		-5039.07	1090.30	-0.06	0.0	29.4	-1513.76	139.38	56.32	-264.53	2100.24	-6.23
130	34	-1683.67	-712.66	-4.60e-03	-63.52	0.0	-1598.04	207.55	-54.11	278.77	-712.66	-6853.23
		-6853.23	-1404.86	0.06	0.0	29.4	-1573.02	144.02	-54.11	278.77	-1404.86	-1683.67
130	35	-5.56	1288.81	-3.47e-03	-63.52	0.0	-1538.35	202.90	54.10	-284.18	596.78	-5038.30
		-5038.30	596.78	-0.06	0.0	29.4	-1513.33	139.37	54.10	-284.18	1288.81	-5.56
130	41	2125.91	-386.47	-2.37e-03	-63.52	0.0	-1570.47	196.71	-16.91	76.44	-386.47	-2724.74
		-2724.74	-689.85	0.02	0.0	29.4	-1545.45	133.18	-16.91	76.44	-689.85	2125.91
130	44	-3815.14	573.81	-5.71e-03	-63.52	0.0	-1565.92	213.74	16.91	-81.84	270.58	-9166.79
		-9166.79	270.58	-0.02	0.0	29.4	-1540.90	150.22	16.91	-81.84	573.81	-3815.14
130	58	-1394.33	-804.11	-4.39e-03	-63.52	0.0	-1582.24	206.76	-26.25	120.78	-804.11	-6540.73
		-6540.73	-1193.11	0.03	0.0	29.4	-1557.22	143.24	-26.25	120.78	-1193.11	-1394.33
130	59	-294.90	1077.06	-3.68e-03	-63.52	0.0	-1554.15	203.69	26.24	-126.19	688.23	-5350.80
		-5350.80	688.23	-0.03	0.0	29.4	-1529.13	140.16	26.24	-126.19	1077.06	-294.90
130	66	-1394.73	-441.75	-4.39e-03	-63.52	0.0	-1582.44	206.76	-25.23	128.71	-441.75	-6541.16
		-6541.16	-733.66	0.03	0.0	29.4	-1557.42	143.24	-25.23	128.71	-733.66	-1394.73
130	67	-294.50	617.62	-3.68e-03	-63.52	0.0	-1553.95	203.69	25.22	-134.11	325.87	-5350.37
		-5350.37	325.87	-0.03	0.0	29.4	-1528.93	140.16	25.22	-134.11	617.62	-294.50
130	73	1070.82	-271.63	-2.96e-03	-63.52	0.0	-1568.18	199.74	-7.89	34.72	-271.63	-3868.94
		-3868.94	-388.58	8.86e-03	0.0	29.4	-1543.16	136.21	-7.89	34.72	-388.58	1070.82
130	76	-2760.05	272.53	-5.12e-03	-63.52	0.0	-1568.21	210.71	7.88	-40.12	155.74	-8022.59
		-8022.59	155.74	-8.83e-03	0.0	29.4	-1543.19	147.19	7.88	-40.12	272.53	-2760.05
130	90	-1339.91	-87.65	-5.46e-03	-88.35	0.0	-2099.13	286.59	-9.68e-03	-4.06	-87.65	-8468.77
		-8468.77	-87.94	2.41e-05	0.0	29.4	-2064.34	198.24	-9.68e-03	-4.06	-87.94	-1339.91
130	93	4.362e+04	-54.28	0.02	-120.87	0.0	-1433.08	123.91	0.02	-2.58	-54.28	4.176e+04
		4.176e+04	-54.76	8.43e-06	0.0	29.4	-1408.06	3.04	0.02	-2.58	-54.76	4.362e+04
130	96	-4.556e+04	-75.97	-0.03	-18.59	0.0	-1968.78	327.22	-0.03	-3.50	-75.97	-5.491e+04
		-5.491e+04	-76.72	2.43e-05	0.0	29.4	-1938.87	308.63	-0.03	-3.50	-76.72	-4.556e+04
130	101	-844.62	-57.94	-4.04e-03	-63.52	0.0	-1568.20	205.22	-2.78e-03	-2.70	-57.94	-5945.76
		-5945.76	-58.02	1.32e-05	0.0	29.4	-1543.18	141.70	-2.78e-03	-2.70	-58.02	-844.62
130	102	-943.67	-63.88	-4.32e-03	-68.49	0.0	-1674.38	221.50	-4.16e-03	-2.97	-63.88	-6450.36
		-6450.36	-64.01	1.54e-05	0.0	29.4	-1647.41	153.01	-4.16e-03	-2.97	-64.01	-943.67
130	103	-844.62	-57.94	-4.04e-03	-63.52	0.0	-1568.20	205.22	-2.78e-03	-2.70	-57.94	-5945.76
		-5945.76	-58.02	1.32e-05	0.0	29.4	-1543.18	141.70	-2.78e-03	-2.70	-58.02	-844.62
131	2	7322.23	-177.66	-0.01	-325.98	0.0	-2699.46	364.72	0.28	6.64	-177.66	7322.23
		-7807.14	-199.01	1.42e-03	0.0	75.0	-2827.85	38.74	0.28	6.64	-199.01	-7807.14
131	7	3266.79	-60.82	-6.17e-03	-141.60	0.0	-1263.60	159.73	0.09	2.33	-60.82	3266.79
		-3402.82	-67.80	5.09e-04	0.0	75.0	-1319.37	18.13	0.09	2.33	-67.80	-3402.82
131	11	-6316.71	-65.03	0.31	77.78	0.0	-1463.88	-477.86	0.11	2.43	-73.48	-6316.71

		-3.924e+04	-73.48	5.47e-04	0.0	75.0	-1519.65	-400.08	0.11	2.43	-65.03	-3.924e+04
131	14	4.880e+04	-148.19	-0.33	-497.87	0.0	-2145.77	949.75	0.23	5.59	-165.07	-3761.18
		-3761.18	-165.07	1.18e-03	0.0	75.0	-2255.46	451.88	0.23	5.59	-148.19	4.880e+04
131	15	4.577e+04	-67.38	-0.32	-360.97	0.0	-1063.56	797.32	0.09	2.59	-74.43	-488.91
		-488.91	-74.43	5.40e-04	0.0	75.0	-1119.33	436.35	0.09	2.59	-67.38	4.577e+04
131	25	3217.73	-4489.57	-2.13e-03	-162.01	0.0	-1446.22	175.92	20.02	-278.90	-5914.21	-3901.90
		-3901.90	-5914.21	-0.13	0.0	75.0	-1510.03	13.91	20.02	-278.90	-4489.57	3217.73
131	28	4200.80	5736.71	-0.01	-162.01	0.0	-1385.18	188.72	-19.77	284.89	5736.71	-3877.08
		-3877.08	4330.81	0.13	0.0	75.0	-1448.99	26.71	-19.77	284.89	4330.81	4200.80
131	33	3217.54	-5083.58	-2.13e-03	-162.01	0.0	-1445.80	175.92	17.16	-259.55	-6002.66	-3901.82
		-3901.82	-6002.66	-0.13	0.0	75.0	-1509.61	13.91	17.16	-259.55	-5083.58	3217.54
131	36	4200.99	5825.16	-0.01	-162.01	0.0	-1385.61	188.72	-16.91	265.54	5825.16	-3877.16
		-3877.16	4924.82	0.13	0.0	75.0	-1449.42	26.72	-16.91	265.54	4924.82	4200.99
131	42	5448.23	-1390.89	-0.02	-162.01	0.0	-1415.86	204.69	5.96	-80.95	-1832.04	-3825.27
		-3825.27	-1832.04	-0.04	0.0	75.0	-1479.67	42.68	5.96	-80.95	-1390.89	5448.23
131	47	1970.35	1681.07	0.01	-162.01	0.0	-1415.67	159.95	-4.85	81.13	1681.07	-3953.74
		-3953.74	1410.33	0.04	0.0	75.0	-1479.48	-2.06	-4.85	81.13	1410.33	1970.35
131	57	3387.02	-2144.95	-3.69e-03	-162.01	0.0	-1430.38	178.14	9.65	-128.68	-2804.37	-3898.50
		-3898.50	-2804.37	-0.06	0.0	75.0	-1494.19	16.13	9.65	-128.68	-2144.95	3387.02
131	60	4031.50	2626.87	-0.01	-162.01	0.0	-1401.03	186.50	-9.40	134.66	2626.87	-3880.48
		-3880.48	1986.19	0.06	0.0	75.0	-1464.84	24.50	-9.40	134.66	1986.19	4031.50
131	65	3386.94	-2440.31	-3.69e-03	-162.01	0.0	-1430.19	178.14	9.51	-121.03	-2844.69	-3898.46
		-3898.46	-2844.69	-0.06	0.0	75.0	-1494.00	16.13	9.51	-121.03	-2440.31	3386.94
131	68	4031.59	2667.19	-0.01	-162.01	0.0	-1401.22	186.51	-9.26	127.02	2667.19	-3880.52
		-3880.52	2281.55	0.06	0.0	75.0	-1465.03	24.50	-9.26	127.02	2281.55	4031.59
131	74	4830.52	-691.79	-0.02	-162.01	0.0	-1414.30	196.75	2.90	-36.11	-900.71	-3848.80
		-3848.80	-900.71	-0.02	0.0	75.0	-1478.11	34.74	2.90	-36.11	-691.79	4830.52
131	79	2588.04	735.31	4.48e-03	-162.01	0.0	-1417.17	167.89	-2.60	39.81	735.31	-3930.20
		-3930.20	621.63	0.02	0.0	75.0	-1480.98	5.88	-2.60	39.81	621.63	2588.04
131	90	5081.16	-120.24	-9.77e-03	-225.31	0.0	-1887.08	252.39	0.19	4.50	-134.64	-5398.90
		-5398.90	-134.64	9.66e-04	0.0	75.0	-1975.82	27.08	0.19	4.50	-120.24	5081.16
131	91	3709.17	-75.79	-7.05e-03	-162.01	0.0	-1415.63	182.32	0.12	2.87	-84.65	-3889.50
		-3889.50	-84.65	6.23e-04	0.0	75.0	-1479.44	20.31	0.12	2.87	-75.79	3709.17
131	93	-5832.09	-78.60	0.20	-15.76	0.0	-1549.14	-242.74	0.13	2.94	-88.43	-5832.09
		-2.463e+04	-88.43	6.48e-04	0.0	75.0	-1612.95	-258.50	0.13	2.94	-78.60	-2.463e+04
131	95	3.205e+04	-80.16	-0.22	-308.26	0.0	-1282.26	607.38	0.12	3.05	-89.07	-1946.89
		-1946.89	-80.17	6.44e-04	0.0	75.0	-1346.07	299.12	0.12	3.05	-80.16	3.205e+04
131	96	3.273e+04	-100.59	-0.22	-339.91	0.0	-1517.95	642.42	0.15	3.80	-112.01	-2701.60
		-2701.60	-112.01	8.04e-04	0.0	75.0	-1594.23	302.51	0.15	3.80	-100.59	3.273e+04
131	101	3709.26	-79.38	-7.05e-03	-162.01	0.0	-1415.70	182.32	0.12	2.99	-88.75	-3889.49
		-3889.49	-88.75	6.46e-04	0.0	75.0	-1479.51	20.31	0.12	2.99	-79.38	3709.26
131	102	3983.64	-87.55	-7.59e-03	-174.67	0.0	-1509.98	196.34	0.14	3.29	-97.93	-4191.37
		-4191.37	-97.93	7.10e-04	0.0	75.0	-1578.77	21.67	0.14	3.29	-87.55	3983.64
131	103	3709.26	-79.38	-7.05e-03	-162.01	0.0	-1415.70	182.32	0.12	2.99	-88.75	-3889.49
		-3889.49	-88.75	6.46e-04	0.0	75.0	-1479.51	20.31	0.12	2.99	-79.38	3709.26
132	2	-7807.14	-199.01	-3.96e-03	-72.71	0.0	-2670.84	437.28	0.28	6.65	-203.78	-1.451e+04
		-1.451e+04	-203.78	4.61e-04	0.0	16.7	-2699.48	364.57	0.28	6.65	-199.01	-7807.14
132	7	-3402.82	-67.80	-1.73e-03	-31.59	0.0	-1251.17	191.24	0.09	2.33	-69.35	-6338.05
		-6338.05	-69.35	1.62e-04	0.0	16.7	-1263.61	159.66	0.09	2.33	-67.80	-3402.82
132	11	1824.10	-73.48	0.07	17.35	0.0	-1451.41	-495.29	0.11	2.43	-75.36	1824.10
		-6316.71	-75.36	1.75e-04	0.0	16.7	-1463.85	-477.94	0.11	2.43	-73.48	-6316.71
132	14	-3761.18	-165.07	-0.08	-111.06	0.0	-2121.36	1060.69	0.23	5.60	-168.83	-2.058e+04
		-2.058e+04	-168.83	3.83e-04	0.0	16.7	-2145.82	949.64	0.23	5.60	-165.07	-3761.18
132	15	-488.91	-74.43	-0.08	-80.52	0.0	-1051.16	877.78	0.09	2.59	-76.00	-1.450e+04
		-1.450e+04	-76.00	1.74e-04	0.0	16.7	-1063.60	797.26	0.09	2.59	-74.43	-488.91
132	25	-3901.90	-5914.23	-2.38e-03	-36.14	0.0	-1431.93	211.80	6.92	-278.58	-5949.71	-7141.71
		-7141.71	-5949.71	-0.02	0.0	16.7	-1446.16	175.66	6.92	-278.58	-5914.23	-3901.90
132	28	-3877.08	5768.03	-1.57e-03	-36.14	0.0	-1371.03	224.97	-6.67	284.58	5768.03	-7339.60
		-7339.60	5736.73	0.03	0.0	16.7	-1385.26	188.83	-6.67	284.58	5736.73	-3877.08
132	33	-3901.82	-5874.29	-2.38e-03	-36.14	0.0	-1431.51	211.80	-14.02	-259.23	-5874.29	-7141.32
		-7141.32	-6002.68	-0.02	0.0	16.7	-1445.74	175.66	-14.02	-259.23	-6002.68	-3901.82
132	36	-3877.16	5825.18	-1.57e-03	-36.14	0.0	-1371.45	224.97	14.27	265.23	5825.18	-7340.00
		-7340.00	5692.61	0.02	0.0	16.7	-1385.69	188.83	14.27	265.23	5692.61	-3877.16
132	46	-3825.24	-1821.13	-6.29e-04	-36.14	0.0	-1401.68	241.46	-4.27	-75.05	-1821.13	-7566.05
		-7566.05	-1858.58	-6.92e-03	0.0	16.7	-1415.91	205.32	-4.27	-75.05	-1858.58	-3825.24
132	48	-3829.07	1689.06	-6.28e-04	-36.14	0.0	-1385.12	241.27	4.25	82.19	1689.06	-7567.00
		-7567.00	1648.16	7.33e-03	0.0	16.7	-1399.35	205.14	4.25	82.19	1689.06	-3829.07
132	57	-3898.50	-2804.37	-2.24e-03	-36.14	0.0	-1416.12	214.08	4.32	-128.53	-2821.97	-7176.91
		-7176.91	-2821.97	-0.01	0.0	16.7	-1430.35	177.94	4.32	-128.53	-2804.37	-3898.50
132	60	-3880.48	2640.29	-1.72e-03	-36.14	0.0	-1386.84	222.69	-4.07	134.52	2640.29	-7304.40
		-7304.40	2626.87	0.01	0.0	16.7	-1401.08	186.55	-4.07	134.52	2626.87	-3880.48
132	65	-3898.46	-2787.76	-2.24e-03	-36.14	0.0	-1415.93	214.08	-8.29	-120.88	-2787.76	-7176.63
		-7176.63	-2844.70	-0.01	0.0	16.7	-1430.16	177.94	-8.29	-120.88	-2844.70	-3898.46
132	68	-3880.52	2667.20	-1.72e-03	-36.14	0.0	-1387.03	222.69	8.54	126.88	2667.20	-7304.68
		-7304.68	2606.08	0.01	0.0	16.7	-1401.27	186.55	8.54	126.88	2606.08	-3880.52
132	78	-3848.79	-896.85	-1.11e-03	-36.14	0.0	-1400.12	233.27	-2.49	-33.77	-896.85	-7450.93
		-7450.93	-912.81	-3.12e-03	0.0	16.7	-1414.36	197.13	-2.49	-33.77	-912.81	-3848.79

132	80	-3850.57	740.31	-1.11e-03	-36.14	0.0	-1392.40	233.18	2.57	40.49	720.79	-7451.45
		-7451.45	720.79	3.52e-03	0.0	16.7	-1406.63	197.04	2.57	40.49	740.31	-3850.57
132	90	-5398.90	-134.64	-2.74e-03	-50.26	0.0	-1867.30	302.55	0.19	4.51	-137.86	-1.004e+04
		-1.004e+04	-137.86	3.13e-04	0.0	16.7	-1887.09	252.29	0.19	4.51	-134.64	-5398.90
132	91	-3889.50	-84.65	-1.98e-03	-36.14	0.0	-1401.40	218.38	0.12	2.88	-86.62	-7240.64
		-7240.64	-86.62	2.00e-04	0.0	16.7	-1415.64	182.24	0.12	2.88	-84.65	-3889.50
132	93	-1799.21	-88.43	0.05	-3.52	0.0	-1534.90	-239.31	0.13	2.94	-90.63	-1799.21
		-5832.09	-90.63	2.08e-04	0.0	16.7	-1549.13	-242.82	0.13	2.94	-88.43	-5832.09
132	95	-1946.89	-89.07	-0.05	-68.76	0.0	-1268.06	676.07	0.12	3.05	-91.05	-1.268e+04
		-1.268e+04	-91.05	2.08e-04	0.0	16.7	-1282.30	607.31	0.12	3.05	-89.07	-1946.89
132	96	-2701.60	-112.01	-0.05	-75.82	0.0	-1500.97	718.16	0.15	3.81	-114.56	-1.408e+04
		-1.408e+04	-114.56	2.60e-04	0.0	16.7	-1517.98	642.33	0.15	3.81	-112.01	-2701.60
132	101	-3889.49	-88.75	-1.98e-03	-36.14	0.0	-1401.48	218.38	0.12	3.00	-90.84	-7240.66
		-7240.66	-90.84	2.08e-04	0.0	16.7	-1415.71	182.24	0.12	3.00	-88.75	-3889.49
132	102	-4191.37	-97.93	-2.13e-03	-38.96	0.0	-1494.64	235.22	0.14	3.30	-100.24	-7800.52
		-7800.52	-100.24	2.29e-04	0.0	16.7	-1509.99	196.25	0.14	3.30	-97.93	-4191.37
132	103	-3889.49	-88.75	-1.98e-03	-36.14	0.0	-1401.48	218.38	0.12	3.00	-90.84	-7240.66
		-7240.66	-90.84	2.08e-04	0.0	16.7	-1415.71	182.24	0.12	3.00	-88.75	-3889.49
133	2	1.893e+04	176.35	0.09	-217.32	0.0	-4571.77	-265.29	1.30	26.66	111.52	1.893e+04
		228.38	111.52	-2.19e-04	0.0	50.0	-4657.37	-482.62	1.30	26.66	176.35	228.38
133	7	8264.14	58.45	0.04	-94.40	0.0	-2083.37	-116.15	0.44	9.33	36.58	8264.14
		96.45	36.58	-7.25e-05	0.0	50.0	-2120.55	-210.55	0.44	9.33	58.45	96.45
133	11	-520.31	60.84	-0.19	51.85	0.0	-2328.26	380.22	0.46	9.37	37.96	-2.083e+04
		-2.083e+04	37.96	-7.54e-05	0.0	50.0	-2365.44	432.07	0.46	9.37	60.84	-520.31
133	14	4.528e+04	149.13	0.31	-331.92	0.0	-3703.57	-723.43	1.09	22.81	94.49	4.528e+04
		810.04	94.49	-1.85e-04	0.0	50.0	-3776.70	-1055.35	1.09	22.81	149.13	810.04
133	15	3.736e+04	68.26	0.27	-240.65	0.0	-1838.69	-612.53	0.50	10.76	43.22	3.736e+04
		712.32	43.22	-8.46e-05	0.0	50.0	-1875.87	-853.18	0.50	10.76	68.26	712.32
133	25	9136.10	2.004e+04	0.04	-108.01	0.0	-2383.62	-126.37	92.27	-1566.19	1.543e+04	9136.10
		91.95	1.543e+04	-0.02	0.0	50.0	-2426.16	-234.38	92.27	-1566.19	2.004e+04	91.95
133	28	9745.74	-1.533e+04	0.05	-108.01	0.0	-2319.35	-138.82	-91.12	1590.22	-1.533e+04	9745.74
		129.86	-1.988e+04	0.02	0.0	50.0	-2361.89	-246.83	-91.12	1590.22	-1.988e+04	129.86
133	33	9136.00	2.098e+04	0.04	-108.01	0.0	-2383.21	-126.37	100.95	-1597.58	1.596e+04	9136.00
		91.94	1.596e+04	-0.03	0.0	50.0	-2425.75	-234.38	100.95	-1597.58	2.098e+04	91.94
133	36	9745.85	-1.586e+04	0.05	-108.01	0.0	-2319.77	-138.82	-99.80	1621.61	-1.586e+04	9745.85
		129.86	-2.083e+04	0.03	0.0	50.0	-2362.31	-246.83	-99.80	1621.61	-2.083e+04	129.86
133	42	1.050e+04	6042.38	0.06	-108.01	0.0	-2345.09	-154.19	27.87	-459.75	4650.25	1.050e+04
		171.82	4650.25	-7.42e-03	0.0	50.0	-2387.63	-262.20	27.87	-459.75	6042.38	171.82
133	45	8391.34	6370.20	0.04	-108.01	0.0	-2374.39	-111.14	30.86	-472.28	4833.90	8391.34
		49.61	4833.90	-7.83e-03	0.0	50.0	-2416.93	-219.15	30.86	-472.28	6370.20	49.61
133	57	9242.33	9390.79	0.04	-108.01	0.0	-2367.27	-128.54	43.47	-724.32	7222.03	9242.33
		99.43	7222.03	-0.01	0.0	50.0	-2409.81	-236.54	43.47	-724.32	9390.79	99.43
133	60	9639.52	-7123.94	0.05	-108.01	0.0	-2335.71	-136.66	-42.32	748.36	-7123.94	9639.52
		122.37	-9235.09	0.01	0.0	50.0	-2378.24	-244.66	-42.32	748.36	-9235.09	122.37
133	65	9242.28	9860.12	0.04	-108.01	0.0	-2367.08	-128.53	48.04	-738.21	7478.90	9242.28
		99.43	7478.90	-0.01	0.0	50.0	-2409.62	-236.54	48.04	-738.21	9860.12	99.43
133	68	9639.56	-7380.82	0.05	-108.01	0.0	-2335.89	-136.66	-46.89	762.24	-7380.82	9639.56
		122.38	-9704.42	0.01	0.0	50.0	-2378.43	-244.66	-46.89	762.24	-9704.42	122.38
133	74	1.012e+04	2856.33	0.05	-108.01	0.0	-2345.86	-146.53	13.31	-207.82	2192.24	1.012e+04
		148.06	2192.24	-3.51e-03	0.0	50.0	-2388.40	-254.54	13.31	-207.82	2856.33	148.06
133	77	8763.12	3025.39	0.04	-108.01	0.0	-2364.81	-118.73	14.93	-213.94	2285.27	8763.12
		73.56	2285.27	-3.72e-03	0.0	50.0	-2407.35	-226.74	14.93	-213.94	3025.39	73.56
133	90	1.309e+04	119.08	0.06	-150.21	0.0	-3182.71	-183.58	0.88	18.07	75.25	1.309e+04
		157.11	75.25	-1.48e-04	0.0	50.0	-3241.87	-333.79	0.88	18.07	119.08	157.11
133	91	9441.11	73.78	0.05	-108.01	0.0	-2351.41	-132.59	0.55	11.53	46.37	9441.11
		111.20	46.37	-9.15e-05	0.0	50.0	-2393.95	-240.60	0.55	11.53	73.78	111.20
133	93	-299.98	75.37	-0.11	-10.51	0.0	-2514.68	198.32	0.56	11.55	47.29	-9953.40
		-9953.40	47.29	-9.34e-05	0.0	50.0	-2557.22	187.81	0.56	11.55	75.37	-299.98
133	95	2.884e+04	80.32	0.20	-205.51	0.0	-2188.30	-463.51	0.59	12.48	50.79	2.884e+04
		521.78	50.79	-9.95e-05	0.0	50.0	-2230.84	-669.02	0.59	12.48	80.32	521.78
133	96	3.066e+04	100.94	0.21	-226.61	0.0	-2603.91	-489.01	0.74	15.51	63.90	3.066e+04
		544.88	63.90	-1.25e-04	0.0	50.0	-2654.76	-715.61	0.74	15.51	100.94	544.88
133	101	9440.92	77.85	0.05	-108.01	0.0	-2351.49	-132.60	0.58	12.02	49.04	9440.92
		110.90	49.04	-9.65e-05	0.0	50.0	-2394.03	-240.60	0.58	12.02	77.85	110.90
133	102	1.017e+04	86.09	0.05	-116.45	0.0	-2517.73	-142.79	0.64	13.23	54.29	1.017e+04
		120.14	54.29	-1.07e-04	0.0	50.0	-2563.59	-259.24	0.64	13.23	86.09	120.14
133	103	9440.92	77.85	0.05	-108.01	0.0	-2351.49	-132.60	0.58	12.02	49.04	9440.92
		110.90	49.04	-9.65e-05	0.0	50.0	-2394.03	-240.60	0.58	12.02	77.85	110.90
134	2	2.702e+04	111.52	0.09	-325.98	0.0	-4443.38	60.74	1.30	26.66	14.29	2.660e+04
		1.893e+04	14.29	-7.85e-04	0.0	75.0	-4571.77	-265.24	1.30	26.66	111.52	1.893e+04
134	11	-2.083e+04	37.96	-0.24	77.78	0.0	-2272.49	302.47	0.46	9.37	3.65	-4.643e+04
		-4.643e+04	3.65	-2.68e-04	0.0	75.0	-2328.26	380.24	0.46	9.37	37.96	-2.083e+04
134	14	8.086e+04	94.49	0.35	-497.87	0.0	-3593.89	-225.51	1.09	22.81	12.53	8.086e+04
		4.528e+04	12.53	-6.65e-04	0.0	75.0	-3703.58	-723.39	1.09	22.81	94.49	4.528e+04
134	15	6.976e+04	43.22	0.32	-360.97	0.0	-1782.93	-251.54	0.50	10.76	5.65	6.976e+04
		3.736e+04	5.65	-3.04e-04	0.0	75.0	-1838.70	-612.51	0.50	10.76	43.22	3.736e+04
134	25	1.288e+04	1.543e+04	0.04	-162.01	0.0	-2319.70	34.68	91.45	-1566.01	8590.99	1.261e+04

		9136.10	8590.99	-0.10	0.0	75.0	-2383.51	-127.33	91.45	-1566.01	1.543e+04	9136.10
134	28	1.414e+04	-8579.32	0.05	-162.01	0.0	-2255.66	24.20	-90.30	1590.05	-8579.32	1.401e+04
		9745.74	-1.533e+04	0.10	0.0	75.0	-2319.47	-137.81	-90.30	1590.05	-1.533e+04	9745.74
134	33	1.288e+04	1.596e+04	0.04	-162.01	0.0	-2319.28	34.68	99.79	-1597.40	8549.22	1.261e+04
		9136.00	8549.22	-0.11	0.0	75.0	-2383.09	-127.32	99.79	-1597.40	1.596e+04	9136.00
134	36	1.414e+04	-8537.55	0.05	-162.01	0.0	-2256.08	24.19	-98.64	1621.43	-8537.55	1.401e+04
		9745.85	-1.586e+04	0.11	0.0	75.0	-2319.89	-137.81	-98.64	1621.43	-1.586e+04	9745.85
134	42	1.576e+04	4650.26	0.06	-162.01	0.0	-2281.61	11.14	27.64	-459.70	2579.10	1.574e+04
		1.050e+04	2579.10	-0.03	0.0	75.0	-2345.42	-150.87	27.64	-459.70	4650.26	1.050e+04
134	43	1.141e+04	-2567.43	0.03	-162.01	0.0	-2293.74	47.74	-26.48	483.73	-2567.43	1.088e+04
		8384.75	-4552.17	0.03	0.0	75.0	-2357.55	-114.27	-26.48	483.73	-4552.17	8384.75
134	57	1.310e+04	7222.03	0.04	-162.01	0.0	-2303.39	32.86	43.07	-724.24	4006.51	1.285e+04
		9242.33	4006.51	-0.05	0.0	75.0	-2367.20	-129.14	43.07	-724.24	7222.03	9242.33
134	60	1.392e+04	-3994.84	0.05	-162.01	0.0	-2271.97	26.01	-41.92	748.28	-3994.84	1.376e+04
		9639.52	-7123.95	0.05	0.0	75.0	-2335.78	-135.99	-41.92	748.28	-7123.95	9639.52
134	65	1.310e+04	7478.91	0.04	-162.01	0.0	-2303.20	32.87	47.43	-738.13	3988.05	1.285e+04
		9242.28	3988.05	-0.05	0.0	75.0	-2367.01	-129.14	47.43	-738.13	7478.91	9242.28
134	68	1.392e+04	-3976.38	0.05	-162.01	0.0	-2272.16	26.01	-46.28	762.16	-3976.38	1.376e+04
		9639.56	-7380.83	0.05	0.0	75.0	-2335.97	-136.00	-46.28	762.16	-7380.83	9639.56
134	74	1.494e+04	2192.24	0.05	-162.01	0.0	-2282.27	17.63	13.20	-207.79	1204.69	1.487e+04
		1.012e+04	1204.69	-0.01	0.0	75.0	-2346.08	-144.38	13.20	-207.79	2192.24	1.012e+04
134	75	1.214e+04	-1193.02	0.04	-162.01	0.0	-2293.09	41.25	-12.04	231.83	-1193.02	1.174e+04
		8760.01	-2094.15	0.01	0.0	75.0	-2356.90	-120.76	-12.04	231.83	-2094.15	8760.01
134	90	1.870e+04	75.25	0.06	-225.31	0.0	-3093.96	41.77	0.88	18.07	9.51	1.841e+04
		1.309e+04	9.51	-5.30e-04	0.0	75.0	-3182.71	-183.55	0.88	18.07	75.25	1.309e+04
134	93	-9953.40	47.29	-0.14	-15.76	0.0	-2450.86	214.11	0.56	11.55	5.17	-2.542e+04
		-2.542e+04	5.17	-3.34e-04	0.0	75.0	-2514.67	198.35	0.56	11.55	47.29	-9953.40
134	95	5.204e+04	50.79	0.23	-308.26	0.0	-2124.49	-155.23	0.59	12.48	6.50	5.204e+04
		2.884e+04	6.50	-3.58e-04	0.0	75.0	-2188.30	-463.49	0.59	12.48	50.79	2.884e+04
134	96	5.459e+04	63.90	0.24	-339.91	0.0	-2527.63	-149.07	0.74	15.51	8.34	5.459e+04
		3.066e+04	8.34	-4.50e-04	0.0	75.0	-2603.91	-488.98	0.74	15.51	63.90	3.066e+04
134	101	1.351e+04	49.04	0.04	-162.01	0.0	-2287.68	29.44	0.58	12.02	5.84	1.331e+04
		9440.92	5.84	-3.46e-04	0.0	75.0	-2351.49	-132.57	0.58	12.02	49.04	9440.92
134	102	1.455e+04	54.28	0.05	-174.67	0.0	-2448.94	31.90	0.64	13.23	6.57	1.433e+04
		1.017e+04	6.57	-3.83e-04	0.0	75.0	-2517.73	-142.76	0.64	13.23	54.28	1.017e+04
134	103	1.351e+04	49.04	0.04	-162.01	0.0	-2287.68	29.44	0.58	12.02	5.84	1.331e+04
		9440.92	5.84	-3.46e-04	0.0	75.0	-2351.49	-132.57	0.58	12.02	49.04	9440.92
135	2	2.660e+04	14.29	0.02	-325.98	0.0	-4314.99	386.64	1.30	26.66	-82.95	9821.17
		9821.17	-82.95	-8.63e-04	0.0	75.0	-4443.38	60.66	1.30	26.66	14.29	2.660e+04
135	11	-4.643e+04	3.65	-0.12	77.78	0.0	-2216.72	224.65	0.46	9.37	-30.67	-6.619e+04
		-6.619e+04	-30.67	-2.88e-04	0.0	75.0	-2272.49	302.43	0.46	9.37	3.65	-4.643e+04
135	14	8.469e+04	12.53	0.14	-497.88	0.0	-3484.19	272.31	1.09	22.81	-69.43	7.911e+04
		7.911e+04	-69.43	-7.33e-04	0.0	75.0	-3593.88	-225.57	1.09	22.81	12.53	8.086e+04
135	15	7.633e+04	5.65	0.14	-360.98	0.0	-1727.15	109.41	0.50	10.76	-31.91	7.509e+04
		6.976e+04	-31.91	-3.35e-04	0.0	75.0	-1782.92	-251.57	0.50	10.76	5.65	6.976e+04
135	25	1.261e+04	8590.97	7.21e-03	-162.01	0.0	-2255.66	194.05	86.36	-1566.16	2189.68	4132.34
		4132.34	2189.68	-0.15	0.0	75.0	-2319.47	32.04	86.36	-1566.16	8590.97	1.261e+04
135	28	1.401e+04	-2264.42	0.01	-162.01	0.0	-2192.08	188.77	-85.21	1590.20	-2264.42	5923.43
		5923.43	-8579.30	0.15	0.0	75.0	-2255.89	26.76	-85.21	1590.20	-8579.30	1.401e+04
135	42	1.574e+04	2579.09	0.01	-162.01	0.0	-2218.50	181.87	26.16	-459.74	617.72	8171.60
		8171.60	617.72	-0.05	0.0	75.0	-2282.31	19.85	26.16	-459.74	2579.09	1.574e+04
135	43	1.088e+04	-692.46	2.74e-03	-162.01	0.0	-2229.24	200.96	-25.01	483.78	-692.46	1884.17
		1884.17	-2567.42	0.04	0.0	75.0	-2293.05	38.94	-25.01	483.78	-2567.42	1.088e+04
135	57	1.285e+04	4006.50	7.67e-03	-162.01	0.0	-2239.43	193.15	40.64	-724.31	1023.64	4442.01
		4442.01	1023.64	-0.07	0.0	75.0	-2303.24	31.14	40.64	-724.31	4006.50	1.285e+04
135	60	1.376e+04	-1098.39	9.64e-03	-162.01	0.0	-2208.31	189.67	-39.49	748.35	-1098.39	5613.76
		5613.76	-3994.83	0.07	0.0	75.0	-2272.12	27.66	-39.49	748.35	-3994.83	1.376e+04
135	74	1.487e+04	1204.69	0.01	-162.01	0.0	-2218.91	185.26	12.50	-207.81	272.63	7055.32
		7055.32	272.63	-0.02	0.0	75.0	-2282.72	23.25	12.50	-207.81	1204.69	1.487e+04
135	75	1.174e+04	-347.37	4.85e-03	-162.01	0.0	-2228.83	197.56	-11.35	231.85	-347.37	3000.46
		3000.46	-1193.01	0.02	0.0	75.0	-2292.64	35.55	-11.35	231.85	-1193.01	1.174e+04
135	90	1.841e+04	9.51	0.01	-225.32	0.0	-3005.22	267.03	0.88	18.07	-56.23	6830.38
		6830.38	-56.23	-5.82e-04	0.0	75.0	-3093.96	41.71	0.88	18.07	9.51	1.841e+04
135	93	-2.542e+04	5.17	-0.08	-15.76	0.0	-2387.06	229.83	0.56	11.55	-36.96	-4.207e+04
		-4.207e+04	-36.96	-3.62e-04	0.0	75.0	-2450.87	214.07	0.56	11.55	5.17	-2.542e+04
135	95	5.497e+04	6.50	0.10	-308.26	0.0	-2060.68	153.00	0.59	12.48	-37.79	5.212e+04
		5.204e+04	-37.79	-3.93e-04	0.0	75.0	-2124.49	-155.27	0.59	12.48	6.50	5.204e+04
135	96	5.704e+04	8.34	0.10	-339.91	0.0	-2451.36	190.80	0.74	15.51	-47.21	5.302e+04
		5.302e+04	-47.21	-4.95e-04	0.0	75.0	-2527.63	-149.11	0.74	15.51	8.34	5.459e+04
135	101	1.331e+04	5.84	8.65e-03	-162.01	0.0	-2223.87	191.41	0.58	12.02	-37.37	5027.89
		5027.89	-37.37	-3.77e-04	0.0	75.0	-2287.68	29.40	0.58	12.02	5.84	1.331e+04
135	102	1.433e+04	6.57	9.13e-03	-174.67	0.0	-2380.14	206.53	0.64	13.23	-41.14	5388.38
		5388.38	-41.14	-4.18e-04	0.0	75.0	-2448.94	31.86	0.64	13.23	6.57	1.433e+04
135	103	1.331e+04	5.84	8.65e-03	-162.01	0.0	-2223.87	191.41	0.58	12.02	-37.37	5027.89
		5027.89	-37.37	-3.77e-04	0.0	75.0	-2287.68	29.40	0.58	12.02	5.84	1.331e+04
136	2	9821.17	-82.95	-0.01	-198.16	0.0	-4236.94	584.88	1.30	26.66	-142.06	-1.233e+04
		-1.233e+04	-142.06	-3.38e-04	0.0	45.6	-4314.99	386.72	1.30	26.66	-82.95	9821.17

136	7	4446.53	-29.01	-4.11e-03	-86.08	0.0	-1937.92	253.14	0.44	9.33	-48.95	-5132.60
		-5132.60	-48.95	-1.04e-04	0.0	45.6	-1971.82	167.07	0.44	9.33	-29.01	4446.53
136	10	-6.217e+04	-68.19	6.60e-03	-35.94	0.0	-3907.07	423.57	1.05	21.42	-116.04	-8.066e+04
		-8.066e+04	-116.04	-2.63e-04	0.0	45.6	-3973.76	387.63	1.05	21.42	-68.19	-6.217e+04
136	14	7.911e+04	-69.43	-0.02	-302.65	0.0	-3417.51	575.03	1.09	22.81	-119.25	5.979e+04
		5.979e+04	-119.25	-2.89e-04	0.0	45.6	-3484.19	272.37	1.09	22.81	-69.43	7.911e+04
136	15	7.509e+04	-31.91	-0.01	-219.43	0.0	-1693.25	328.87	0.50	10.76	-54.75	6.510e+04
		6.510e+04	-54.75	-1.32e-04	0.0	45.6	-1727.15	109.44	0.50	10.76	-31.91	7.509e+04
136	25	4132.34	2189.70	-4.66e-03	-98.48	0.0	-2216.64	289.60	77.57	-1566.12	-1547.94	-6840.40
		-6840.40	-1547.94	-0.10	0.0	45.6	-2255.43	191.11	77.57	-1566.12	2189.70	4132.34
136	28	5923.43	1420.66	-5.05e-03	-98.48	0.0	-2153.51	290.27	-76.41	1590.16	1420.66	-5051.14
		-5051.14	-2264.45	0.10	0.0	45.6	-2192.30	191.79	-76.41	1590.16	-2264.45	5923.43
136	33	4131.85	1962.82	-4.66e-03	-98.48	0.0	-2216.22	289.60	81.40	-1597.52	-2468.50	-6841.05
		-6841.05	-2468.50	-0.10	0.0	45.6	-2255.01	191.12	81.40	-1597.52	1962.82	4131.85
136	36	5923.93	2341.22	-5.05e-03	-98.48	0.0	-2153.93	290.27	-80.25	1621.55	2341.22	-5050.50
		-5050.50	-2037.56	0.10	0.0	45.6	-2192.72	191.79	-80.25	1621.55	-2037.56	5923.93
136	42	8171.60	617.72	-5.00e-03	-98.48	0.0	-2180.39	290.41	23.58	-459.73	-491.92	-2775.65
		-2775.65	-491.92	-0.03	0.0	45.6	-2219.18	191.93	23.58	-459.73	617.72	8171.60
136	43	1884.17	364.64	-4.71e-03	-98.48	0.0	-2189.77	289.46	-22.43	483.76	364.64	-9115.89
		-9115.89	-692.47	0.03	0.0	45.6	-2228.56	190.97	-22.43	483.76	-692.47	1884.17
136	57	4442.01	1023.66	-4.76e-03	-98.48	0.0	-2200.50	289.75	36.48	-724.29	-811.12	-6532.52
		-6532.52	-811.12	-0.05	0.0	45.6	-2239.29	191.27	36.48	-724.29	1023.66	4442.01
136	60	5613.76	683.85	-4.96e-03	-98.48	0.0	-2169.66	290.12	-35.33	748.33	683.85	-5359.02
		-5359.02	-1098.40	0.05	0.0	45.6	-2208.45	191.64	-35.33	748.33	-1098.40	5613.76
136	65	4441.77	1020.62	-4.76e-03	-98.48	0.0	-2200.31	289.75	38.32	-738.18	-1341.25	-6532.86
		-6532.86	-1341.25	-0.05	0.0	45.6	-2239.10	191.27	38.32	-738.18	1020.62	4441.77
136	68	5614.00	1213.98	-4.96e-03	-98.48	0.0	-2169.84	290.12	-37.17	762.22	1213.98	-5358.69
		-5358.69	-1095.37	0.05	0.0	45.6	-2208.63	191.64	-37.17	762.22	-1095.37	5614.00
136	74	7055.32	272.63	-4.96e-03	-98.48	0.0	-2180.56	290.25	11.29	-207.81	-277.08	-3901.69
		-3901.69	-277.08	-0.01	0.0	45.6	-2219.35	191.77	11.29	-207.81	272.63	7055.32
136	75	3000.46	149.80	-4.75e-03	-98.48	0.0	-2189.59	289.62	-10.14	231.84	149.80	-7989.85
		-7989.85	-347.38	0.01	0.0	45.6	-2228.38	191.13	-10.14	231.84	-347.38	3000.46
136	90	6830.38	-56.23	-7.18e-03	-136.97	0.0	-2951.27	404.05	0.88	18.07	-96.19	-8468.77
		-8468.77	-96.19	-2.27e-04	0.0	45.6	-3005.22	267.08	0.88	18.07	-56.23	6830.38
136	91	5027.77	-35.85	-4.86e-03	-98.48	0.0	-2185.00	289.94	0.55	11.53	-60.84	-5945.98
		-5945.98	-60.84	-1.35e-04	0.0	45.6	-2223.79	191.45	0.55	11.53	-35.85	5027.77
136	94	-4.117e+04	-46.39	4.32e-03	-28.82	0.0	-2731.36	296.51	0.71	14.58	-78.84	-5.403e+04
		-5.403e+04	-78.84	-1.77e-04	0.0	45.6	-2777.73	267.69	0.71	14.58	-46.39	-4.117e+04
136	95	5.212e+04	-37.79	-0.01	-187.39	0.0	-2021.89	340.42	0.59	12.48	-64.71	4.087e+04
		4.087e+04	-64.71	-1.54e-04	0.0	45.6	-2060.68	153.03	0.59	12.48	-37.79	5.212e+04
136	96	5.302e+04	-47.22	-0.01	-206.63	0.0	-2404.99	397.48	0.74	15.51	-80.99	3.961e+04
		3.961e+04	-80.99	-1.95e-04	0.0	45.6	-2451.35	190.85	0.74	15.51	-47.22	5.302e+04
136	101	5027.89	-37.37	-4.86e-03	-98.48	0.0	-2185.08	289.94	0.58	12.02	-63.64	-5945.77
		-5945.77	-63.64	-1.45e-04	0.0	45.6	-2223.87	191.45	0.58	12.02	-37.37	5027.89
136	102	5388.38	-41.14	-5.32e-03	-106.18	0.0	-2338.32	312.76	0.64	13.23	-70.15	-6450.37
		-6450.37	-70.15	-1.61e-04	0.0	45.6	-2380.14	206.58	0.64	13.23	-41.14	5388.38
136	103	5027.89	-37.37	-4.86e-03	-98.48	0.0	-2185.08	289.94	0.58	12.02	-63.64	-5945.77
		-5945.77	-63.64	-1.45e-04	0.0	45.6	-2223.87	191.45	0.58	12.02	-37.37	5027.89
137	2	7322.21	-131.16	0.01	-325.98	0.0	-2827.51	-38.74	-0.02	-5.99	-131.16	7322.21
		-7807.19	-132.37	-1.12e-03	0.0	75.0	-2699.12	-364.72	-0.02	-5.99	-132.37	-7807.19
137	10	4.917e+04	-99.24	0.33	-497.87	0.0	-2252.66	-461.03	0.02	-4.80	-100.57	4.917e+04
		-4079.87	-100.57	-8.90e-04	0.0	75.0	-2142.97	-958.91	0.02	-4.80	-99.24	-4079.87
137	11	4.614e+04	-38.54	0.32	-360.97	0.0	-1116.69	-445.50	0.03	-2.09	-40.65	4.614e+04
		-807.58	-40.65	-3.87e-04	0.0	75.0	-1060.92	-806.47	0.03	-2.09	-38.54	-807.58
137	15	-5998.08	-56.19	-0.31	77.78	0.0	-1522.05	409.24	-0.03	-2.43	-56.19	-3.961e+04
		-3.961e+04	-58.39	-4.67e-04	0.0	75.0	-1466.28	487.01	-0.03	-2.43	-58.39	-5998.08
137	26	3210.77	-5057.59	3.02e-03	-162.01	0.0	-1508.50	-13.73	-16.66	259.18	-5057.59	3210.77
		-3895.60	-5972.83	0.13	0.0	75.0	-1444.69	-175.74	-16.66	259.18	-5972.83	-3895.60
137	27	4207.74	5855.96	0.01	-162.01	0.0	-1450.23	-26.90	16.65	-264.58	4941.13	4207.74
		-3883.43	4941.13	-0.13	0.0	75.0	-1386.42	-188.90	16.65	-264.58	5855.96	-3883.43
137	34	3210.47	-4468.35	3.02e-03	-162.01	0.0	-1508.92	-13.72	-19.82	278.83	-4468.35	3210.47
		-3895.38	-5883.82	0.13	0.0	75.0	-1445.11	-175.73	-19.82	278.83	-5883.82	-3895.38
137	35	4208.04	5766.94	0.01	-162.01	0.0	-1449.81	-26.90	19.81	-284.23	4351.89	4208.04
		-3883.65	4351.89	-0.13	0.0	75.0	-1386.00	-188.91	19.81	-284.23	5766.94	-3883.65
137	41	5478.11	-1547.58	0.02	-162.01	0.0	-1482.55	-43.39	-5.13	76.46	-1547.58	5478.11
		-3846.32	-1829.81	0.04	0.0	75.0	-1418.74	-205.40	-5.13	76.46	-1829.81	-3846.32
137	48	1940.49	1686.22	-6.36e-03	-162.01	0.0	-1476.06	2.76	6.08	-87.75	1254.35	1940.49
		-3932.78	1254.35	-0.04	0.0	75.0	-1412.25	-159.25	6.08	-87.75	1686.22	-3932.78
137	58	3382.33	-2414.53	4.45e-03	-162.01	0.0	-1493.23	-16.01	-9.09	120.81	-2414.53	3382.33
		-3894.40	-2814.63	0.06	0.0	75.0	-1429.42	-178.02	-9.09	120.81	-2814.63	-3894.40
137	59	4036.18	2697.75	9.65e-03	-162.01	0.0	-1465.50	-24.62	9.09	-126.21	2298.07	4036.18
		-3884.63	2298.07	-0.06	0.0	75.0	-1401.69	-186.62	9.09	-126.21	2697.75	-3884.63
137	66	3382.12	-2123.78	4.45e-03	-162.01	0.0	-1493.42	-16.01	-9.48	128.74	-2123.78	3382.12
		-3894.29	-2773.96	0.06	0.0	75.0	-1429.61	-178.01	-9.48	128.74	-2773.96	-3894.29
137	67	4036.39	2657.08	9.65e-03	-162.01	0.0	-1465.31	-24.62	9.47	-134.14	2007.31	4036.39
		-3884.74	2007.31	-0.06	0.0	75.0	-1401.50	-186.63	9.47	-134.14	2657.08	-3884.74
137	73	4849.75	-758.50	0.02	-162.01	0.0	-1479.94	-35.20	-2.82	34.73	-758.50	4849.75

		-3862.55	-883.46	0.02	0.0	75.0	-1416.13	-197.21	-2.82	34.73	-883.46	-3862.55
137	80	2568.82	754.38	-1.78e-03	-162.01	0.0	-1478.74	-5.43	2.93	-42.51	554.81	2568.82
		-3916.51	554.81	-0.02	0.0	75.0	-1414.93	-167.44	2.93	-42.51	754.38	-3916.51
137	90	5081.15	-88.66	9.77e-03	-225.31	0.0	-1975.59	-27.08	-9.68e-03	-4.06	-88.66	5081.15
		-5398.94	-89.39	-7.59e-04	0.0	75.0	-1886.85	-252.39	-9.68e-03	-4.06	-89.39	-5398.94
137	93	3.229e+04	-51.82	0.22	-308.26	0.0	-1344.24	-305.23	0.02	-2.58	-53.05	3.229e+04
		-2159.35	-53.05	-4.81e-04	0.0	75.0	-1280.43	-613.48	0.02	-2.58	-51.82	-2159.35
137	94	3.298e+04	-67.30	0.22	-339.91	0.0	-1592.36	-308.61	0.01	-3.27	-68.27	3.298e+04
		-2914.06	-68.27	-6.07e-04	0.0	75.0	-1516.08	-648.52	0.01	-3.27	-67.30	-2914.06
137	95	-5619.68	-63.41	-0.20	-15.76	0.0	-1614.48	264.60	-0.02	-2.82	-63.41	-2.487e+04
		-2.487e+04	-65.06	-5.35e-04	0.0	75.0	-1550.67	248.84	-0.02	-2.82	-65.06	-5619.68
137	101	3709.25	-58.23	7.05e-03	-162.01	0.0	-1479.36	-20.31	-2.78e-03	-2.70	-58.23	3709.25
		-3889.52	-58.44	-5.08e-04	0.0	75.0	-1415.55	-182.32	-2.78e-03	-2.70	-58.44	-3889.52
137	102	3983.63	-64.32	7.59e-03	-174.67	0.0	-1578.61	-21.67	-4.16e-03	-2.97	-64.32	3983.63
		-4191.40	-64.63	-5.58e-04	0.0	75.0	-1509.81	-196.34	-4.16e-03	-2.97	-64.63	-4191.40
137	103	3709.25	-58.23	7.05e-03	-162.01	0.0	-1479.36	-20.31	-2.78e-03	-2.70	-58.23	3709.25
		-3889.52	-58.44	-5.08e-04	0.0	75.0	-1415.55	-182.32	-2.78e-03	-2.70	-58.44	-3889.52
138	1	5220.37	0.0	-0.14	-94.38	0.0	3025.07	49.00	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	3025.04	-45.38	0.0	0.0	0.0	743.33
138	2	6335.55	0.0	-0.19	-94.38	0.0	4157.40	53.95	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	4157.37	-40.43	0.0	0.0	0.0	2777.97
138	15	3430.62	0.0	-0.08	-72.60	0.0	1432.98	34.84	0.0	0.0	0.0	0.0
		-598.32	0.0	0.0	0.0	411.0	1432.96	-37.76	0.0	0.0	0.0	-598.32
138	25	3875.65	12.59	-0.10	-72.60	0.0	2171.98	37.01	-0.06	-3.80e-03	12.59	0.0
		0.0	-12.24	3.46e-04	0.0	411.0	2171.96	-35.59	-0.06	-3.80e-03	-12.24	291.74
138	28	3819.27	12.24	-0.10	-72.60	0.0	2107.51	36.74	0.06	3.80e-03	-12.59	0.0
		0.0	-12.59	-3.46e-04	0.0	411.0	2107.49	-35.86	0.06	3.80e-03	12.24	178.99
138	29	3874.09	12.66	-0.10	-72.60	0.0	2168.72	37.00	-0.06	-3.82e-03	12.66	0.0
		0.0	-12.16	3.43e-04	0.0	411.0	2168.70	-35.60	-0.06	-3.82e-03	-12.16	288.64
138	32	3820.82	12.16	-0.10	-72.60	0.0	2110.77	36.74	0.06	3.82e-03	-12.66	0.0
		0.0	-12.66	-3.43e-04	0.0	411.0	2110.75	-35.86	0.06	3.82e-03	12.16	182.10
138	33	3875.48	0.59	-0.10	-72.60	0.0	2171.59	37.01	-1.15e-03	-1.77e-04	0.59	0.0
		0.0	-0.24	6.67e-06	0.0	411.0	2171.57	-35.59	-1.15e-03	-1.77e-04	-0.24	291.41
138	57	3861.17	8.30	-0.10	-72.60	0.0	2155.95	36.94	-0.04	-2.50e-03	8.30	0.0
		0.0	-8.07	2.28e-04	0.0	411.0	2155.93	-35.66	-0.04	-2.50e-03	-8.07	262.79
138	61	3860.18	8.35	-0.10	-72.60	0.0	2153.86	36.93	-0.04	-2.52e-03	8.35	0.0
		0.0	-8.02	2.26e-04	0.0	411.0	2153.84	-35.66	-0.04	-2.52e-03	-8.02	260.80
138	64	3834.74	8.02	-0.10	-72.60	0.0	2125.62	36.81	0.04	2.52e-03	-8.35	0.0
		0.0	-8.35	-2.26e-04	0.0	411.0	2125.60	-35.79	0.04	2.52e-03	8.02	209.94
138	65	3861.09	0.39	-0.10	-72.60	0.0	2155.78	36.94	-7.74e-04	-1.17e-04	0.39	0.0
		0.0	-0.16	4.49e-06	0.0	411.0	2155.75	-35.66	-7.74e-04	-1.17e-04	-0.16	262.64
138	73	3857.69	2.84	-0.10	-72.60	0.0	2157.37	36.92	-0.01	-8.56e-04	2.84	0.0
		0.0	-2.07	5.86e-05	0.0	411.0	2157.35	-35.68	-0.01	-8.56e-04	-2.07	255.83
138	76	3837.23	2.07	-0.10	-72.60	0.0	2122.12	36.82	0.01	8.56e-04	-2.84	0.0
		0.0	-2.84	-5.86e-05	0.0	411.0	2122.10	-35.78	0.01	8.56e-04	2.07	214.90
138	89	3847.46	0.0	-0.10	-72.60	0.0	2139.74	36.87	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	2139.72	-35.73	0.0	0.0	0.0	235.37
138	90	4566.88	0.0	-0.13	-72.60	0.0	2894.63	40.17	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	2894.61	-32.43	0.0	0.0	0.0	1591.79
138	95	3715.35	0.0	-0.09	-72.60	0.0	1830.84	36.23	0.0	0.0	0.0	0.0
		-28.86	0.0	0.0	0.0	411.0	1830.81	-36.37	0.0	0.0	0.0	-28.86
138	101	3847.46	0.0	-0.10	-72.60	0.0	2139.74	36.87	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	2139.72	-35.73	0.0	0.0	0.0	235.37
138	102	3983.10	0.0	-0.10	-72.60	0.0	2290.72	37.53	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	2290.70	-35.07	0.0	0.0	0.0	506.65
138	103	3847.46	0.0	-0.10	-72.60	0.0	2139.74	36.87	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	411.0	2139.72	-35.73	0.0	0.0	0.0	235.37
139	2	-7807.19	-132.37	3.96e-03	-72.71	0.0	-2699.14	-364.57	-0.02	-6.00	-132.37	-7807.19
		-1.451e+04	-132.64	-3.48e-04	0.0	16.7	-2670.50	-437.28	-0.02	-6.00	-132.64	-1.451e+04
139	10	-4079.87	-98.94	0.08	-111.06	0.0	-2143.02	-958.79	0.02	-4.80	-99.24	-4079.87
		-2.105e+04	-99.24	-2.73e-04	0.0	16.7	-2118.56	-1069.85	0.02	-4.80	-98.94	-2.105e+04
139	11	-807.58	-38.06	0.08	-80.52	0.0	-1060.96	-806.42	0.03	-2.09	-38.54	-807.58
		-1.497e+04	-38.54	-1.15e-04	0.0	16.7	-1048.52	-886.93	0.03	-2.09	-38.06	-1.497e+04
139	15	2295.89	-58.39	-0.07	17.35	0.0	-1466.25	487.09	-0.03	-2.44	-58.39	-5998.08
		-5998.08	-58.88	-1.47e-04	0.0	16.7	-1453.81	504.44	-0.03	-2.44	-58.88	2295.89
139	26	-3895.60	-5842.16	1.03e-03	-36.14	0.0	-1444.67	-175.41	13.84	258.86	-5972.85	-3895.60
		-7129.63	-5972.85	0.02	0.0	16.7	-1430.43	-211.55	13.84	258.86	-5842.16	-7129.63
139	27	-3883.43	5855.97	2.92e-03	-36.14	0.0	-1386.46	-189.08	-13.84	-264.27	5855.97	-3883.43
		-7351.74	5725.19	-0.02	0.0	16.7	-1372.23	-225.22	-13.84	-264.27	5725.19	-7351.74
139	34	-3895.38	-5883.83	1.03e-03	-36.14	0.0	-1445.09	-175.41	-6.73	278.51	-5883.83	-3895.38
		-7129.55	-5917.44	0.02	0.0	16.7	-1430.86	-211.54	-6.73	278.51	-5917.44	-7129.55
139	35	-3883.65	5800.47	2.92e-03	-36.14	0.0	-1386.04	-189.08	6.72	-283.92	5766.95	-3883.65
		-7351.81	5766.95	-0.03	0.0	16.7	-1371.81	-225.22	6.72	-283.92	5800.47	-7351.81
139	45	-3846.25	-1803.11	5.14e-03	-36.14	0.0	-1418.95	-206.27	-2.17	82.26	-1803.11	-3846.25
		-7604.66	-1812.30	7.37e-03	0.0	16.7	-1404.72	-242.41	-2.17	82.26	-1812.30	-7604.66
139	47	-3850.17	1702.44	5.13e-03	-36.14	0.0	-1402.14	-206.07	1.89	-86.57	1691.64	-3850.17
		-7605.73	1691.64	-7.69e-03	0.0	16.7	-1387.91	-242.21	1.89	-86.57	1702.44	-7605.73

139	58	-3894.40	-2755.38	1.37e-03	-36.14	0.0	-1429.41	-177.78	8.18	120.66	-2814.63	-3894.40
		-7168.99	-2814.63	0.01	0.0	16.7	-1415.18	-213.91	8.18	120.66	-2755.38	-7168.99
139	59	-3884.63	2697.75	2.59e-03	-36.14	0.0	-1401.72	-186.71	-8.18	-126.07	2697.75	-3884.63
		-7312.38	2638.41	-0.01	0.0	16.7	-1387.48	-222.85	-8.18	-126.07	2638.41	-7312.38
139	66	-3894.29	-2773.97	1.37e-03	-36.14	0.0	-1429.60	-177.77	-4.14	128.59	-2773.97	-3894.29
		-7168.98	-2789.60	0.01	0.0	16.7	-1415.37	-213.91	-4.14	128.59	-2789.60	-7168.98
139	67	-3884.74	2672.63	2.59e-03	-36.14	0.0	-1401.52	-186.72	4.14	-133.99	2672.63	-3884.74
		-7312.38	2657.09	-0.01	0.0	16.7	-1387.29	-222.86	4.14	-133.99	2657.09	-7312.38
139	77	-3862.52	-871.26	4.02e-03	-36.14	0.0	-1416.24	-197.74	-1.34	37.06	-871.26	-3862.52
		-7475.87	-875.30	3.35e-03	0.0	16.7	-1402.01	-233.88	-1.34	37.06	-875.30	-7475.87
139	79	-3864.35	762.95	4.02e-03	-36.14	0.0	-1408.40	-197.65	1.16	-41.77	762.95	-3864.35
		-7476.50	757.75	-3.67e-03	0.0	16.7	-1394.17	-233.78	1.16	-41.77	757.75	-7476.50
139	90	-5398.94	-89.39	2.74e-03	-50.26	0.0	-1886.86	-252.29	-9.68e-03	-4.07	-89.39	-5398.94
		-1.004e+04	-89.55	-2.36e-04	0.0	16.7	-1867.07	-302.55	-9.68e-03	-4.07	-89.55	-1.004e+04
139	93	-2159.35	-51.55	0.05	-68.76	0.0	-1280.47	-613.42	0.02	-2.59	-51.55	-2159.35
		-1.300e+04	-51.82	-1.46e-04	0.0	16.7	-1266.24	-682.18	0.02	-2.59	-51.82	-1.300e+04
139	94	-2914.06	-67.08	0.05	-75.82	0.0	-1516.12	-648.44	0.01	-3.27	-67.30	-2914.06
		-1.440e+04	-67.30	-1.86e-04	0.0	16.7	-1499.10	-724.26	0.01	-3.27	-67.08	-1.440e+04
139	95	-1484.70	-65.06	-0.05	-3.52	0.0	-1550.66	248.92	-0.02	-2.82	-65.06	-1484.70
		-5619.68	-65.42	-1.67e-04	0.0	16.7	-1536.43	245.41	-0.02	-2.82	-65.42	-5619.68
139	101	-3889.51	-58.44	1.98e-03	-36.14	0.0	-1415.56	-182.25	-2.78e-03	-2.70	-58.44	-3889.51
		-7240.68	-58.49	-1.57e-04	0.0	16.7	-1401.33	-218.38	-2.78e-03	-2.70	-58.49	-7240.68
139	102	-4191.40	-64.63	2.13e-03	-38.96	0.0	-1509.82	-196.25	-4.16e-03	-2.98	-64.63	-4191.40
		-7800.55	-64.70	-1.72e-04	0.0	16.7	-1494.48	-235.22	-4.16e-03	-2.98	-64.70	-7800.55
139	103	-3889.51	-58.44	1.98e-03	-36.14	0.0	-1415.56	-182.25	-2.78e-03	-2.70	-58.44	-3889.51
		-7240.68	-58.49	-1.57e-04	0.0	16.7	-1401.33	-218.38	-2.78e-03	-2.70	-58.49	-7240.68
140	2	1.893e+04	142.56	-0.09	-217.32	0.0	-4657.02	482.62	-1.06	-28.66	142.56	228.40
		228.40	89.72	1.77e-04	0.0	50.0	-4571.43	265.29	-1.06	-28.66	89.72	1.893e+04
140	10	4.556e+04	108.82	-0.32	-331.92	0.0	-3756.48	1060.67	-0.82	-23.36	108.82	826.15
		826.15	68.01	1.35e-04	0.0	50.0	-3683.35	728.75	-0.82	-23.36	68.01	4.556e+04
140	11	3.764e+04	43.13	-0.28	-240.65	0.0	-1855.81	858.51	-0.33	-10.42	43.13	728.43
		728.43	26.53	5.35e-05	0.0	50.0	-1818.63	617.86	-0.33	-10.42	26.53	3.764e+04
140	15	-536.39	60.13	0.20	51.85	0.0	-2385.26	-437.39	-0.44	-11.24	60.13	-536.39
		-2.111e+04	37.97	7.45e-05	0.0	50.0	-2348.08	-385.54	-0.44	-11.24	37.97	-2.111e+04
140	25	9775.10	2.096e+04	-0.05	-108.01	0.0	-2417.96	247.44	-100.71	1596.81	2.096e+04	129.16
		129.16	1.595e+04	0.03	0.0	50.0	-2375.42	139.44	-100.71	1596.81	1.595e+04	9775.10
140	28	9106.77	-1.587e+04	-0.04	-108.01	0.0	-2369.80	233.76	99.78	-1622.66	-2.084e+04	92.67
		92.67	-2.084e+04	-0.03	0.0	50.0	-2327.26	125.75	99.78	-1622.66	-1.587e+04	9106.77
140	34	9131.15	2.001e+04	-0.04	-108.01	0.0	-2424.60	234.27	-92.04	1564.44	2.001e+04	91.39
		91.39	1.541e+04	0.02	0.0	50.0	-2382.06	126.27	-92.04	1564.44	1.541e+04	9131.15
140	35	9750.72	-1.534e+04	-0.05	-108.01	0.0	-2363.15	246.93	91.11	-1590.29	-1.989e+04	130.45
		130.45	-1.989e+04	-0.02	0.0	50.0	-2320.61	138.92	91.11	-1590.29	-1.534e+04	9750.72
140	41	1.052e+04	6351.97	-0.06	-108.01	0.0	-2391.68	262.62	-30.71	471.47	6351.97	173.69
		173.69	4822.88	7.81e-03	0.0	50.0	-2349.14	154.61	-30.71	471.47	4822.88	1.052e+04
140	42	8371.85	6309.68	-0.04	-108.01	0.0	-2412.39	218.74	-30.34	468.23	6309.68	47.76
		47.76	4798.88	7.76e-03	0.0	50.0	-2369.85	110.73	-30.34	468.23	4798.88	8371.85
140	57	9654.51	9838.74	-0.05	-108.01	0.0	-2404.56	244.98	-47.81	737.39	9838.74	122.12
		122.12	7467.11	0.01	0.0	50.0	-2362.02	136.97	-47.81	737.39	7467.11	9654.51
140	60	9227.35	-7388.86	-0.04	-108.01	0.0	-2383.20	236.23	46.88	-763.25	-9713.77	99.71
		99.71	-9713.77	-0.01	0.0	50.0	-2340.66	128.22	46.88	-763.25	-7388.86	9227.35
140	66	9239.00	9366.24	-0.04	-108.01	0.0	-2408.76	236.47	-43.28	722.94	9366.24	99.09
		99.09	7206.75	0.01	0.0	50.0	-2366.23	128.47	-43.28	722.94	7206.75	9239.00
140	67	9642.87	-7128.50	-0.05	-108.01	0.0	-2378.99	244.73	42.35	-748.79	-9241.28	122.74
		122.74	-9241.28	-0.01	0.0	50.0	-2336.45	136.73	42.35	-748.79	-7128.50	9642.87
140	73	1.013e+04	3007.58	-0.05	-108.01	0.0	-2391.00	254.81	-14.78	213.09	3007.58	149.21
		149.21	2274.42	3.70e-03	0.0	50.0	-2348.46	146.80	-14.78	213.09	2274.42	1.013e+04
140	74	8750.51	2980.71	-0.04	-108.01	0.0	-2404.37	226.47	-14.54	211.07	2980.71	72.44
		72.44	2259.25	3.67e-03	0.0	50.0	-2361.83	118.46	-14.54	211.07	2259.25	8750.51
140	90	1.309e+04	96.14	-0.06	-150.21	0.0	-3241.64	333.79	-0.71	-19.43	96.14	157.12
		157.12	60.45	1.19e-04	0.0	50.0	-3182.48	183.58	-0.71	-19.43	60.45	1.309e+04
140	93	2.902e+04	56.81	-0.20	-205.51	0.0	-2217.39	672.57	-0.43	-12.65	56.81	532.52
		532.52	35.31	7.05e-05	0.0	50.0	-2174.86	467.06	-0.43	-12.65	35.31	2.902e+04
140	94	3.085e+04	73.64	-0.21	-226.61	0.0	-2641.27	719.16	-0.55	-15.90	73.64	555.63
		555.63	45.97	9.13e-05	0.0	50.0	-2590.42	492.55	-0.55	-15.90	45.97	3.085e+04
140	95	-310.69	68.15	0.11	-10.51	0.0	-2570.36	-191.36	-0.50	-13.20	68.15	-310.69
		-1.014e+04	42.94	8.45e-05	0.0	50.0	-2527.82	-201.87	-0.50	-13.20	42.94	-1.014e+04
140	101	9440.93	62.48	-0.05	-108.01	0.0	-2393.88	240.60	-0.47	-12.93	62.48	110.92
		110.92	39.12	7.75e-05	0.0	50.0	-2351.34	132.60	-0.47	-12.93	39.12	9440.93
140	102	1.017e+04	69.21	-0.05	-116.45	0.0	-2563.43	259.24	-0.52	-14.23	69.21	120.16
		120.16	43.39	8.58e-05	0.0	50.0	-2517.57	142.79	-0.52	-14.23	43.39	1.017e+04
140	103	9440.93	62.48	-0.05	-108.01	0.0	-2393.88	240.60	-0.47	-12.93	62.48	110.92
		110.92	39.12	7.75e-05	0.0	50.0	-2351.34	132.60	-0.47	-12.93	39.12	9440.93
141	2	2.702e+04	89.72	-0.09	-325.98	0.0	-4571.43	265.24	-1.06	-28.66	89.72	1.893e+04
		1.893e+04	10.45	6.33e-04	0.0	75.0	-4443.04	-60.74	-1.06	-28.66	10.45	2.660e+04
141	10	8.154e+04	68.01	-0.36	-497.87	0.0	-3683.36	728.71	-0.82	-23.37	68.01	4.556e+04
		4.556e+04	6.79	4.80e-04	0.0	75.0	-3573.67	230.84	-0.82	-23.37	6.79	8.154e+04
141	11	7.044e+04	26.53	-0.32	-360.97	0.0	-1818.64	617.84	-0.33	-10.42	26.53	3.764e+04

		3.764e+04	1.64	1.88e-04	0.0	75.0	-1762.87	256.86	-0.33	-10.42	1.64	7.044e+04
141	15	-2.111e+04	37.97	0.24	77.78	0.0	-2348.07	-385.57	-0.44	-11.24	37.97	-2.111e+04
		-4.711e+04	4.73	2.67e-04	0.0	75.0	-2292.30	-307.79	-0.44	-11.24	4.73	-4.711e+04
141	25	1.421e+04	1.595e+04	-0.05	-162.01	0.0	-2375.48	138.40	-99.57	1596.64	1.595e+04	9775.10
		9775.10	8547.83	0.11	0.0	75.0	-2311.67	-23.61	-99.57	1596.64	8547.83	1.408e+04
141	28	1.282e+04	-8539.65	-0.04	-162.01	0.0	-2327.20	126.74	98.63	-1622.49	-1.587e+04	9106.77
		9106.77	-1.587e+04	-0.11	0.0	75.0	-2263.39	-35.26	98.63	-1622.49	-8539.65	1.254e+04
141	34	1.287e+04	1.541e+04	-0.04	-162.01	0.0	-2382.00	127.23	-91.22	1564.27	1.541e+04	9131.15
		9131.15	8587.41	0.10	0.0	75.0	-2318.19	-34.78	-91.22	1564.27	8587.41	1.260e+04
141	35	1.415e+04	-8579.23	-0.05	-162.01	0.0	-2320.68	137.91	90.29	-1590.12	-1.534e+04	9750.72
		9750.72	-1.534e+04	-0.10	0.0	75.0	-2256.87	-24.10	90.29	-1590.12	-8579.23	1.402e+04
141	41	1.581e+04	4822.89	-0.06	-162.01	0.0	-2349.35	151.24	-30.36	471.41	4822.89	1.052e+04
		1.052e+04	2569.00	0.03	0.0	75.0	-2285.54	-10.77	-30.36	471.41	2569.00	1.578e+04
141	44	1.137e+04	-2560.82	-0.03	-162.01	0.0	-2353.33	113.90	29.42	-497.27	-4744.64	8364.45
		8364.45	-4744.64	-0.03	0.0	75.0	-2289.52	-48.11	29.42	-497.27	-2560.82	1.083e+04
141	57	1.395e+04	7467.11	-0.05	-162.01	0.0	-2362.06	136.29	-47.22	737.31	7467.11	9654.51
		9654.51	3986.45	0.05	0.0	75.0	-2298.25	-25.72	-47.22	737.31	3986.45	1.380e+04
141	60	1.307e+04	-3978.27	-0.04	-162.01	0.0	-2340.62	128.85	46.28	-763.16	-7388.86	9227.35
		9227.35	-7388.86	-0.05	0.0	75.0	-2276.81	-33.16	46.28	-763.16	-3978.27	1.282e+04
141	66	1.309e+04	7206.76	-0.04	-162.01	0.0	-2366.19	129.08	-42.89	722.86	7206.76	9239.00
		9239.00	4003.63	0.05	0.0	75.0	-2302.38	-32.93	-42.89	722.86	4003.63	1.284e+04
141	67	1.392e+04	-3995.45	-0.05	-162.01	0.0	-2336.49	136.06	41.96	-748.71	-7128.51	9642.87
		9642.87	-7128.51	-0.05	0.0	75.0	-2272.68	-25.95	41.96	-748.71	-3995.45	1.377e+04
141	73	1.497e+04	2274.42	-0.05	-162.01	0.0	-2348.59	144.61	-14.59	213.07	2274.42	1.013e+04
		1.013e+04	1199.84	0.02	0.0	75.0	-2284.78	-17.39	-14.59	213.07	1199.84	1.491e+04
141	76	1.211e+04	-1191.65	-0.04	-162.01	0.0	-2354.09	120.52	13.66	-238.92	-2196.17	8746.96
		8746.96	-2196.17	-0.01	0.0	75.0	-2290.28	-41.48	13.66	-238.92	-1191.65	1.171e+04
141	90	1.870e+04	60.44	-0.06	-225.31	0.0	-3182.48	183.55	-0.71	-19.43	60.44	1.309e+04
		1.309e+04	6.91	4.26e-04	0.0	75.0	-2303.73	-41.77	-0.71	-19.43	6.91	1.841e+04
141	93	5.249e+04	35.31	-0.23	-308.26	0.0	-2174.86	467.04	-0.43	-12.65	35.31	2.902e+04
		2.902e+04	3.06	2.50e-04	0.0	75.0	-2111.05	158.78	-0.43	-12.65	3.06	5.249e+04
141	94	5.504e+04	45.97	-0.24	-339.91	0.0	-2590.43	492.53	-0.55	-15.90	45.97	3.085e+04
		3.085e+04	4.47	3.25e-04	0.0	75.0	-2514.15	152.62	-0.55	-15.90	4.47	5.504e+04
141	95	-1.014e+04	42.94	0.14	-15.76	0.0	-2527.82	-201.90	-0.50	-13.20	42.94	-1.014e+04
		-2.587e+04	5.12	3.03e-04	0.0	75.0	-2464.01	-217.66	-0.50	-13.20	5.12	-2.587e+04
141	101	1.351e+04	39.12	-0.04	-162.01	0.0	-2351.34	132.57	-0.47	-12.93	39.12	9440.93
		9440.93	4.09	2.76e-04	0.0	75.0	-2287.53	-29.44	-0.47	-12.93	4.09	1.331e+04
141	102	1.455e+04	43.39	-0.05	-174.67	0.0	-2517.57	142.76	-0.52	-14.23	43.39	1.017e+04
		1.017e+04	4.65	3.06e-04	0.0	75.0	-2448.77	-31.90	-0.52	-14.23	4.65	1.433e+04
141	103	1.351e+04	39.12	-0.04	-162.01	0.0	-2351.34	132.57	-0.47	-12.93	39.12	9440.93
		9440.93	4.09	2.76e-04	0.0	75.0	-2287.53	-29.44	-0.47	-12.93	4.09	1.331e+04
142	2	2.660e+04	10.45	-0.02	-325.98	0.0	-4443.04	-60.66	-1.06	-28.66	10.45	2.660e+04
		9821.18	-68.82	6.89e-04	0.0	75.0	-4314.65	-386.64	-1.06	-28.66	-68.82	9821.18
142	10	8.555e+04	6.79	-0.15	-497.88	0.0	-3573.66	230.90	-0.82	-23.36	6.79	8.154e+04
		8.019e+04	-54.42	5.17e-04	0.0	75.0	-3463.97	-266.98	-0.82	-23.36	-54.42	8.019e+04
142	11	7.729e+04	1.64	-0.14	-360.98	0.0	-1762.86	256.89	-0.33	-10.42	1.64	7.044e+04
		7.044e+04	-23.26	1.97e-04	0.0	75.0	-1707.09	-104.08	-0.33	-10.42	-23.26	7.617e+04
142	15	-4.711e+04	4.73	0.13	77.78	0.0	-2292.31	-307.75	-0.44	-11.24	4.73	-4.711e+04
		-6.728e+04	-28.51	2.93e-04	0.0	75.0	-2236.54	-229.98	-0.44	-11.24	-28.51	-6.728e+04
142	33	1.408e+04	8588.56	-0.01	-162.01	0.0	-2312.26	-26.30	-86.24	1565.39	8588.56	1.408e+04
		6030.12	2195.49	0.15	0.0	75.0	-2248.45	-188.32	-86.24	1565.39	2195.49	6030.12
142	34	1.260e+04	8587.39	-7.90e-03	-162.01	0.0	-2318.02	-32.07	-86.16	1564.42	8587.39	1.260e+04
		4117.64	2188.68	0.15	0.0	75.0	-2254.22	-194.08	-86.16	1564.42	2188.68	4117.64
142	35	1.402e+04	-2250.57	-0.01	-162.01	0.0	-2257.04	-26.73	85.23	-1590.27	-8579.20	1.402e+04
		5938.15	-8579.20	-0.15	0.0	75.0	-2193.23	-188.74	85.23	-1590.27	-2250.57	5938.15
142	36	1.254e+04	-2257.38	-7.44e-03	-162.01	0.0	-2262.80	-32.50	85.31	-1591.24	-8580.38	1.254e+04
		4025.66	-8580.38	-0.15	0.0	75.0	-2198.99	-194.51	85.31	-1591.24	-2257.38	4025.66
142	41	1.578e+04	2568.99	-0.01	-162.01	0.0	-2286.08	-19.72	-28.26	471.46	2568.99	1.578e+04
		8229.39	571.32	0.05	0.0	75.0	-2222.28	-181.73	-28.26	471.46	571.32	8229.39
142	44	1.083e+04	-633.21	-4.30e-03	-162.01	0.0	-2288.98	-39.08	27.33	-497.31	-2560.81	1.083e+04
		1826.40	-2560.81	-0.05	0.0	75.0	-2225.17	-201.09	27.33	-497.31	-633.21	1826.40
142	65	1.380e+04	4004.30	-0.01	-162.01	0.0	-2298.55	-27.44	-40.53	723.54	4004.30	1.380e+04
		5666.98	1029.51	0.07	0.0	75.0	-2234.74	-189.45	-40.53	723.54	1029.51	5666.98
142	66	1.284e+04	4003.62	-8.33e-03	-162.01	0.0	-2302.27	-31.16	-40.48	722.93	4003.62	1.284e+04
		4432.18	1025.15	0.07	0.0	75.0	-2238.46	-193.17	-40.48	722.93	1025.15	4432.18
142	67	1.377e+04	-1087.04	-0.01	-162.01	0.0	-2272.79	-27.64	39.54	-748.78	-3995.44	1.377e+04
		5623.61	-3995.44	-0.07	0.0	75.0	-2208.98	-189.65	39.54	-748.78	-1087.04	5623.61
142	68	1.282e+04	-1091.40	-8.11e-03	-162.01	0.0	-2276.51	-31.36	39.59	-749.39	-3996.12	1.282e+04
		4388.81	-3996.12	-0.07	0.0	75.0	-2212.70	-193.37	39.59	-749.39	-1091.40	4388.81
142	73	1.491e+04	1199.83	-0.01	-162.01	0.0	-2285.14	-23.16	-13.53	213.09	1199.83	1.491e+04
		7092.53	286.40	0.02	0.0	75.0	-2221.33	-185.17	-13.53	213.09	286.40	7092.53
142	76	1.171e+04	-348.29	-5.93e-03	-162.01	0.0	-2289.92	-35.64	12.60	-238.94	-1191.65	1.171e+04
		2963.26	-1191.65	-0.02	0.0	75.0	-2226.12	-197.65	12.60	-238.94	-348.29	2963.26
142	90	1.841e+04	6.91	-0.01	-225.32	0.0	-3093.73	-41.71	-0.71	-19.43	6.91	1.841e+04
		6830.39	-46.63	4.64e-04	0.0	75.0	-3004.99	-267.03	-0.71	-19.43	-46.63	6830.39
142	93	5.556e+04	3.06	-0.10	-308.26	0.0	-2111.05	158.82	-0.43	-12.65	3.06	5.249e+04
		5.249e+04	-29.19	2.66e-04	0.0	75.0	-2047.24	-149.45	-0.43	-12.65	-29.19	5.284e+04

142	94	5.761e+04	4.47	-0.10	-339.91	0.0	-2514.15	152.66	-0.55	-15.90	4.47	5.504e+04
		5.374e+04	-37.04	3.49e-04	0.0	75.0	-2437.88	-187.25	-0.55	-15.90	-37.04	5.374e+04
142	95	-2.587e+04	5.12	0.08	-15.76	0.0	-2464.01	-217.62	-0.50	-13.20	5.12	-2.587e+04
		-4.279e+04	-32.69	3.31e-04	0.0	75.0	-2400.20	-233.38	-0.50	-13.20	-32.69	-4.279e+04
142	101	1.331e+04	4.09	-9.23e-03	-162.01	0.0	-2287.53	-29.40	-0.47	-12.93	4.09	1.331e+04
		5027.89	-30.94	2.99e-04	0.0	75.0	-2223.72	-191.41	-0.47	-12.93	-30.94	5027.89
142	102	1.433e+04	4.65	-9.80e-03	-174.67	0.0	-2448.77	-31.86	-0.52	-14.23	4.65	1.433e+04
		5388.39	-34.08	3.32e-04	0.0	75.0	-2379.98	-206.53	-0.52	-14.23	-34.08	5388.39
142	103	1.331e+04	4.09	-9.23e-03	-162.01	0.0	-2287.53	-29.40	-0.47	-12.93	4.09	1.331e+04
		5027.89	-30.94	2.99e-04	0.0	75.0	-2223.72	-191.41	-0.47	-12.93	-30.94	5027.89
143	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	159.09	0.0	0.0
		0.0	0.0	0.0	0.0	390.0	0.0	0.0	0.0	159.09	0.0	0.0
143	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	129.16	0.0	0.0
		0.0	0.0	0.0	0.0	390.0	0.0	0.0	0.0	129.16	0.0	0.0
143	57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	122.12	0.0	0.0
		0.0	0.0	0.0	0.0	390.0	0.0	0.0	0.0	122.12	0.0	0.0
143	89	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	110.92	0.0	0.0
		0.0	0.0	0.0	0.0	390.0	0.0	0.0	0.0	110.92	0.0	0.0
143	101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	110.92	0.0	0.0
		0.0	0.0	0.0	0.0	390.0	0.0	0.0	0.0	110.92	0.0	0.0
143	103	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	110.92	0.0	0.0
		0.0	0.0	0.0	0.0	390.0	0.0	0.0	0.0	110.92	0.0	0.0
144	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.85	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	66.85	0.0	0.0
144	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1427.55	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	-1427.55	0.0	0.0
144	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.71	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	46.71	0.0	0.0
144	45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.67	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	-3.67	0.0	0.0
144	57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.92	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	54.92	0.0	0.0
144	77	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.86	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	24.86	0.0	0.0
144	89	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.37	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	67.37	0.0	0.0
144	94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-928.89	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	-928.89	0.0	0.0
144	101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.37	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	67.37	0.0	0.0
144	102	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.51	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	54.51	0.0	0.0
144	103	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.37	0.0	0.0
		0.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	67.37	0.0	0.0
145	1	0.0	117.26	0.0	0.0	0.0	0.0	0.0	-0.60	-159.07	117.26	0.0
		0.0	-117.26	0.04	0.0	390.0	0.0	0.0	-0.60	-159.07	-117.26	0.0
145	2	0.0	168.70	0.0	0.0	0.0	0.0	0.0	-0.87	-228.38	168.70	0.0
		0.0	-168.70	0.05	0.0	390.0	0.0	0.0	-0.87	-228.38	-168.70	0.0
145	25	0.0	81.40	0.0	0.0	0.0	0.0	0.0	-0.42	-91.95	81.40	0.0
		0.0	-81.40	0.02	0.0	390.0	0.0	0.0	-0.42	-91.95	-81.40	0.0
145	43	0.0	84.15	0.0	0.0	0.0	0.0	0.0	-0.43	-49.98	84.15	0.0
		0.0	-84.15	0.03	0.0	390.0	0.0	0.0	-0.43	-49.98	-84.15	0.0
145	57	0.0	81.65	0.0	0.0	0.0	0.0	0.0	-0.42	-99.43	81.65	0.0
		0.0	-81.65	0.02	0.0	390.0	0.0	0.0	-0.42	-99.43	-81.65	0.0
145	75	0.0	83.16	0.0	0.0	0.0	0.0	0.0	-0.43	-73.74	83.16	0.0
		0.0	-83.16	0.03	0.0	390.0	0.0	0.0	-0.43	-73.74	-83.16	0.0
145	89	0.0	81.70	0.0	0.0	0.0	0.0	0.0	-0.42	-110.90	81.70	0.0
		0.0	-81.70	0.02	0.0	390.0	0.0	0.0	-0.42	-110.90	-81.70	0.0
145	90	0.0	115.99	0.0	0.0	0.0	0.0	0.0	-0.59	-157.11	115.99	0.0
		0.0	-115.99	0.04	0.0	390.0	0.0	0.0	-0.59	-157.11	-115.99	0.0
145	101	0.0	81.70	0.0	0.0	0.0	0.0	0.0	-0.42	-110.90	81.70	0.0
		0.0	-81.70	0.02	0.0	390.0	0.0	0.0	-0.42	-110.90	-81.70	0.0
145	102	0.0	88.55	0.0	0.0	0.0	0.0	0.0	-0.45	-120.14	88.55	0.0
		0.0	-88.55	0.03	0.0	390.0	0.0	0.0	-0.45	-120.14	-88.55	0.0
145	103	0.0	81.70	0.0	0.0	0.0	0.0	0.0	-0.42	-110.90	81.70	0.0
		0.0	-81.70	0.02	0.0	390.0	0.0	0.0	-0.42	-110.90	-81.70	0.0
146	1	0.0	901.71	0.0	0.0	0.0	0.0	0.0	-5.64	-65.55	901.71	0.0
		0.0	-901.71	0.18	0.0	320.0	0.0	0.0	-5.64	-65.55	-901.71	0.0
146	10	0.0	1516.68	0.0	0.0	0.0	0.0	0.0	-9.48	-1483.13	1516.68	0.0
		0.0	-1516.68	0.31	0.0	320.0	0.0	0.0	-9.48	-1483.13	-1516.68	0.0
146	25	0.0	687.42	0.0	0.0	0.0	0.0	0.0	-4.30	-87.65	687.42	0.0
		0.0	-687.42	0.14	0.0	320.0	0.0	0.0	-4.30	-87.65	-687.42	0.0
146	33	0.0	687.74	0.0	0.0	0.0	0.0	0.0	-4.30	-87.69	687.74	0.0
		0.0	-687.74	0.14	0.0	320.0	0.0	0.0	-4.30	-87.69	-687.74	0.0
146	57	0.0	681.51	0.0	0.0	0.0	0.0	0.0	-4.26	-79.08	681.51	0.0
		0.0	-681.51	0.14	0.0	320.0	0.0	0.0	-4.26	-79.08	-681.51	0.0
146	65	0.0	681.65	0.0	0.0	0.0	0.0	0.0	-4.26	-79.09	681.65	0.0

		0.0	-681.65	0.14	0.0	320.0	0.0	0.0	-4.26	-79.09	-681.65	0.0
146	89	0.0	676.03	0.0	0.0	0.0	0.0	0.0	-4.23	-66.42	676.03	0.0
		0.0	-676.03	0.14	0.0	320.0	0.0	0.0	-4.23	-66.42	-676.03	0.0
146	94	0.0	1086.02	0.0	0.0	0.0	0.0	0.0	-6.79	-1011.48	1086.02	0.0
		0.0	-1086.02	0.22	0.0	320.0	0.0	0.0	-6.79	-1011.48	-1086.02	0.0
146	101	0.0	676.03	0.0	0.0	0.0	0.0	0.0	-4.23	-66.42	676.03	0.0
		0.0	-676.03	0.14	0.0	320.0	0.0	0.0	-4.23	-66.42	-676.03	0.0
146	102	0.0	690.22	0.0	0.0	0.0	0.0	0.0	-4.31	-53.52	690.22	0.0
		0.0	-690.22	0.14	0.0	320.0	0.0	0.0	-4.31	-53.52	-690.22	0.0
146	103	0.0	676.03	0.0	0.0	0.0	0.0	0.0	-4.23	-66.42	676.03	0.0
		0.0	-676.03	0.14	0.0	320.0	0.0	0.0	-4.23	-66.42	-676.03	0.0
147	9	15.11	8.79	-2.11e-03	0.0	0.0	4.38	4.13e-03	9.67e-04	-8.79	8.48	13.79
		13.79	8.48	-1.26e-03	0.0	320.0	4.38	4.13e-03	9.67e-04	-8.79	8.79	15.11
147	16	-0.30	-0.98	-4.93e-04	0.0	0.0	-1.10	7.23e-03	2.10e-03	-20.87	-1.66	-2.61
		-2.61	-1.66	-1.69e-04	0.0	320.0	-1.10	7.23e-03	2.10e-03	-20.87	-0.98	-0.30
147	25	1961.05	2466.85	-0.04	0.0	0.0	-3.73	-12.26	15.44	-13.35	-2472.38	1961.05
		-1962.59	-2472.38	-0.05	0.0	320.0	-3.73	-12.26	15.44	-13.35	2466.85	-1962.59
147	28	1976.31	2478.50	-0.04	0.0	0.0	6.93	12.27	-15.43	-12.85	2478.50	-1951.30
		-1951.30	-2459.44	-0.05	0.0	320.0	6.93	12.27	-15.43	-12.85	-2459.44	1976.31
147	30	1960.83	2466.76	-0.04	0.0	0.0	-3.77	-12.26	15.43	-13.37	-2472.31	1960.83
		-1962.82	-2472.31	-0.05	0.0	320.0	-3.77	-12.26	15.43	-13.37	2466.76	-1962.82
147	31	1976.54	2478.43	-0.04	0.0	0.0	6.97	12.27	-15.43	-12.83	2478.43	-1951.08
		-1951.08	-2459.36	-0.05	0.0	320.0	6.97	12.27	-15.43	-12.83	-2459.36	1976.54
147	38	1929.56	2407.21	-0.04	0.0	0.0	-3.78	-12.06	15.06	-13.37	-2412.59	1929.56
		-1931.32	-2412.59	-0.05	0.0	320.0	-3.78	-12.06	15.06	-13.37	2407.21	-1931.32
147	39	1945.04	2418.70	-0.04	0.0	0.0	6.98	12.08	-15.06	-12.83	2418.70	-1919.81
		-1919.81	-2399.81	-0.05	0.0	320.0	6.98	12.08	-15.06	-12.83	-2399.81	1945.04
147	57	917.07	1152.93	-0.02	0.0	0.0	-1.01	-5.71	7.20	-13.22	-1151.95	917.07
		-911.44	-1151.95	-0.02	0.0	320.0	-1.01	-5.71	7.20	-13.22	1152.93	-911.44
147	60	925.16	1158.07	-0.02	0.0	0.0	4.20	5.73	-7.20	-12.98	1158.07	-907.33
		-907.33	-1145.53	-0.02	0.0	320.0	4.20	5.73	-7.20	-12.98	-1145.53	925.16
147	62	916.96	1152.87	-0.02	0.0	0.0	-1.03	-5.71	7.20	-13.23	-1151.90	916.96
		-911.56	-1151.90	-0.02	0.0	320.0	-1.03	-5.71	7.20	-13.23	1152.87	-911.56
147	63	925.28	1158.01	-0.02	0.0	0.0	4.23	5.73	-7.20	-12.97	1158.01	-907.21
		-907.21	-1145.46	-0.02	0.0	320.0	4.23	5.73	-7.20	-12.97	-1145.46	925.28
147	70	902.54	1124.40	-0.02	0.0	0.0	-1.06	-5.62	7.02	-13.23	-1123.35	902.54
		-897.02	-1123.35	-0.02	0.0	320.0	-1.06	-5.62	7.02	-13.23	1124.40	-897.02
147	71	910.74	1129.47	-0.02	0.0	0.0	4.26	5.64	-7.02	-12.97	1129.47	-892.80
		-892.80	-1116.99	-0.02	0.0	320.0	4.26	5.64	-7.02	-12.97	-1116.99	910.74
147	93	11.27	6.56	-1.58e-03	0.0	0.0	3.25	4.42e-03	1.36e-03	-7.74	6.12	9.85
		9.85	6.12	-9.42e-04	0.0	320.0	3.25	4.42e-03	1.36e-03	-7.74	6.56	11.27
147	96	1.81	0.37	-3.77e-04	0.0	0.0	-0.31	6.05e-03	1.62e-03	-18.14	-0.15	-0.13
		-0.13	-0.15	-1.07e-04	0.0	320.0	-0.31	6.05e-03	1.62e-03	-18.14	0.37	1.81
147	101	6.86	3.70	-9.98e-04	0.0	0.0	1.60	6.21e-03	2.01e-03	-13.10	3.06	4.87
		4.87	3.06	-5.43e-04	0.0	320.0	1.60	6.21e-03	2.01e-03	-13.10	3.70	6.86
147	102	6.60	3.51	-9.53e-04	0.0	0.0	1.49	5.43e-03	1.60e-03	-12.97	3.00	4.86
		4.86	3.00	-5.14e-04	0.0	320.0	1.49	5.43e-03	1.60e-03	-12.97	3.51	6.60
147	103	6.86	3.70	-9.98e-04	0.0	0.0	1.60	6.21e-03	2.01e-03	-13.10	3.06	4.87
		4.87	3.06	-5.43e-04	0.0	320.0	1.60	6.21e-03	2.01e-03	-13.10	3.70	6.86
148	9	80.73	11.48	-0.01	0.0	0.0	-18.06	0.08	7.50e-03	0.49	9.08	56.42
		56.42	9.08	-1.70e-03	0.0	320.0	-18.06	0.08	7.50e-03	0.49	11.48	80.73
148	10	79.72	12.79	-0.01	0.0	0.0	-18.18	0.09	0.01	0.84	8.47	51.49
		51.49	8.47	-1.86e-03	0.0	320.0	-18.18	0.09	0.01	0.84	12.79	79.72
148	15	5.42	4.84	2.62e-03	0.0	0.0	-0.56	-0.07	-0.03	-1.40	4.84	5.42
		-16.57	-3.80	8.84e-04	0.0	320.0	-0.56	-0.07	-0.03	-1.40	-3.80	-16.57
148	16	0.49	4.23	2.50e-03	0.0	0.0	-0.68	-0.06	-0.02	-1.05	4.23	0.49
		-17.57	-2.49	6.88e-04	0.0	320.0	-0.68	-0.06	-0.02	-1.05	-2.49	-17.57
148	33	4910.28	101.14	-0.10	0.0	0.0	-2.20	-30.77	0.59	-0.31	-87.17	4910.28
		-4935.50	-87.17	-4.20e-03	0.0	320.0	-2.20	-30.77	0.59	-0.31	101.14	-4935.50
148	34	4910.96	100.62	-0.10	0.0	0.0	-1.27	-30.77	0.59	-0.35	-86.63	4910.96
		-4936.55	-86.63	-4.19e-03	0.0	320.0	-1.27	-30.77	0.59	-0.35	100.62	-4936.55
148	35	4992.34	98.74	-0.10	0.0	0.0	-14.92	30.78	-0.60	-0.43	98.74	-4857.18
		-4857.18	-93.94	3.82e-03	0.0	320.0	-14.92	30.78	-0.60	-0.43	-93.94	4992.34
148	36	4991.29	99.28	-0.10	0.0	0.0	-13.99	30.77	-0.61	-0.47	99.28	-4856.50
		-4856.50	-94.46	3.83e-03	0.0	320.0	-13.99	30.77	-0.61	-0.47	-94.46	4991.29
148	66	2309.07	56.06	-0.05	0.0	0.0	-4.75	-14.37	0.31	-0.37	-44.75	2309.07
		-2290.93	-44.75	-2.25e-03	0.0	320.0	-4.75	-14.37	0.31	-0.37	56.06	-2290.93
148	67	2346.72	56.86	-0.05	0.0	0.0	-11.44	14.38	-0.33	-0.41	56.86	-2255.29
		-2255.29	-49.38	1.87e-03	0.0	320.0	-11.44	14.38	-0.33	-0.41	-49.38	2346.72
148	68	2346.09	57.22	-0.05	0.0	0.0	-10.87	14.38	-0.33	-0.44	57.22	-2254.90
		-2254.90	-49.73	1.88e-03	0.0	320.0	-10.87	14.38	-0.33	-0.44	-49.73	2346.09
148	93	57.82	7.73	-7.82e-03	0.0	0.0	-13.09	0.05	2.15e-03	0.18	7.04	42.61
		42.61	7.04	-1.17e-03	0.0	320.0	-13.09	0.05	2.15e-03	0.18	7.73	57.82
148	94	57.16	8.60	-7.70e-03	0.0	0.0	-13.17	0.06	6.15e-03	0.41	6.63	39.33
		39.33	6.63	-1.27e-03	0.0	320.0	-13.17	0.06	6.15e-03	0.41	8.60	57.16
148	95	11.16	5.07	1.62e-03	0.0	0.0	-3.10	-0.04	-0.02	-0.96	5.07	11.16
		-2.04	-1.04	6.27e-04	0.0	320.0	-3.10	-0.04	-0.02	-0.96	-1.04	-2.04

148	96	7.88	4.67	1.26e-03	0.0	0.0	-3.18	-0.03	-0.02	-0.73	4.67	7.88
		-2.70	-0.17	4.96e-04	0.0	320.0	-3.18	-0.03	-0.02	-0.73	-0.17	-2.70
148	101	27.89	6.05	-3.86e-03	0.0	0.0	-8.10	3.14e-03	-8.48e-03	-0.39	6.05	26.89
		26.89	3.34	-5.95e-04	0.0	320.0	-8.10	3.14e-03	-8.48e-03	-0.39	3.34	27.89
148	102	27.63	5.89	-3.81e-03	0.0	0.0	-8.13	6.42e-03	-6.88e-03	-0.30	5.89	25.57
		25.57	3.69	-6.31e-04	0.0	320.0	-8.13	6.42e-03	-6.88e-03	-0.30	3.69	27.63
148	103	27.89	6.05	-3.86e-03	0.0	0.0	-8.10	3.14e-03	-8.48e-03	-0.39	6.05	26.89
		26.89	3.34	-5.95e-04	0.0	320.0	-8.10	3.14e-03	-8.48e-03	-0.39	3.34	27.89
149	5	11.61	2.47	-6.26e-04	0.0	0.0	6.41	0.05	-0.05	0.34	2.47	-4.93
		-4.93	-13.90	1.55e-03	0.0	320.0	6.41	0.05	-0.05	0.34	-13.90	11.61
149	9	18.65	-4.90	-9.89e-04	0.0	0.0	9.42	0.08	-0.02	-0.03	-4.90	-8.09
		-8.09	-12.17	1.08e-03	0.0	320.0	9.42	0.08	-0.02	-0.03	-12.17	18.65
149	15	1.36	8.16	1.32e-04	0.0	0.0	-0.42	-0.01	-0.05	0.50	8.16	1.36
		-2.85	-7.01	1.79e-03	0.0	320.0	-0.42	-0.01	-0.05	0.50	-7.01	-2.85
149	16	1.50	6.28	1.51e-04	0.0	0.0	-0.62	-0.02	-0.03	0.42	6.28	1.50
		-3.49	-4.65	1.39e-03	0.0	320.0	-0.62	-0.02	-0.03	0.42	-4.65	-3.49
149	34	1386.53	2694.19	0.05	0.0	0.0	-5.00	-9.86	-16.34	0.10	2694.19	1386.53
		-1773.11	-2533.76	-0.06	0.0	320.0	-5.00	-9.86	-16.34	0.10	-2533.76	-1773.11
149	35	1786.84	2517.08	-0.05	0.0	0.0	12.83	9.92	16.28	0.31	-2691.36	-1392.38
		-1392.38	-2691.36	0.06	0.0	320.0	12.83	9.92	16.28	0.31	2517.08	1786.84
149	66	651.79	1258.91	0.02	0.0	0.0	-0.46	-4.60	-7.64	0.15	1258.91	651.79
		-824.22	-1187.05	-0.03	0.0	320.0	-0.46	-4.60	-7.64	0.15	-1187.05	-824.22
149	67	837.95	1170.37	-0.02	0.0	0.0	8.29	4.66	7.58	0.26	-1256.07	-657.64
		-657.64	-1256.07	0.03	0.0	320.0	8.29	4.66	7.58	0.26	1170.37	837.95
149	91	8.84	2.37	-4.72e-04	0.0	0.0	4.85	0.04	-0.04	0.27	2.37	-3.72
		-3.72	-11.05	1.25e-03	0.0	320.0	4.85	0.04	-0.04	0.27	-11.05	8.84
149	93	13.53	-2.54	-7.14e-04	0.0	0.0	6.86	0.06	-0.02	0.03	-2.54	-5.82
		-5.82	-9.90	8.95e-04	0.0	320.0	6.86	0.06	-0.02	0.03	-9.90	13.53
149	95	0.20	5.37	-3.17e-05	0.0	0.0	0.97	7.16e-04	-0.04	0.38	5.37	-0.03
		-0.03	-6.78	1.28e-03	0.0	320.0	0.97	7.16e-04	-0.04	0.38	-6.78	0.20
149	96	0.07	4.12	-4.83e-05	0.0	0.0	0.83	-9.16e-04	-0.03	0.33	4.12	0.07
		-0.23	-5.20	1.01e-03	0.0	320.0	0.83	-9.16e-04	-0.03	0.33	-5.20	-0.23
149	101	6.87	1.42	-3.72e-04	0.0	0.0	3.91	0.03	-0.03	0.20	1.42	-2.92
		-2.92	-8.34	9.32e-04	0.0	320.0	3.91	0.03	-0.03	0.20	-8.34	6.87
149	102	6.70	0.92	-3.68e-04	0.0	0.0	3.86	0.03	-0.03	0.18	0.92	-2.89
		-2.89	-7.71	8.42e-04	0.0	320.0	3.86	0.03	-0.03	0.18	-7.71	6.70
149	103	6.87	1.42	-3.72e-04	0.0	0.0	3.91	0.03	-0.03	0.20	1.42	-2.92
		-2.92	-8.34	9.32e-04	0.0	320.0	3.91	0.03	-0.03	0.20	-8.34	6.87
150	9	908.56	696.63	0.24	0.0	0.0	-8.84	-5.55	-4.32	1487.97	696.63	908.56
		-866.20	-684.64	0.15	0.0	320.0	-8.84	-5.55	-4.32	1487.97	-684.64	-866.20
150	10	870.63	721.39	0.23	0.0	0.0	-9.37	-5.29	-4.47	1487.95	721.39	870.63
		-823.36	-708.67	0.16	0.0	320.0	-9.37	-5.29	-4.47	1487.95	-708.67	-823.36
150	15	90.25	34.25	-0.02	0.0	0.0	-1.27	0.53	-0.21	-1488.35	34.25	-79.75
		-79.75	-33.26	7.54e-03	0.0	320.0	-1.27	0.53	-0.21	-1488.35	-33.26	90.25
150	25	4958.18	419.02	0.15	0.0	0.0	55.76	-29.43	-2.73	19.92	419.02	4958.18
		-4464.47	-456.88	0.07	0.0	320.0	55.76	-29.43	-2.73	19.92	-456.88	-4464.47
150	33	4958.35	215.12	0.15	0.0	0.0	56.02	-29.43	-1.22	19.91	215.12	4958.35
		-4464.73	-172.20	0.07	0.0	320.0	56.02	-29.43	-1.22	19.91	-172.20	-4464.73
150	34	4953.29	213.31	0.15	0.0	0.0	56.96	-29.39	-1.21	-20.39	213.31	4953.29
		-4454.41	-169.77	0.07	0.0	320.0	56.96	-29.39	-1.21	-20.39	-169.77	-4454.41
150	35	3779.68	422.24	0.13	0.0	0.0	-65.75	25.03	-2.73	20.07	422.24	-4232.58
		-4232.58	-454.49	0.07	0.0	320.0	-65.75	25.03	-2.73	20.07	-454.49	3779.68
150	57	2504.23	370.80	0.12	0.0	0.0	26.65	-14.89	-2.37	11.85	370.80	2504.23
		-2263.01	-389.10	0.07	0.0	320.0	26.65	-14.89	-2.37	11.85	-389.10	-2263.01
150	65	2504.27	263.73	0.12	0.0	0.0	26.86	-14.89	-1.57	11.84	263.73	2504.27
		-2263.13	-237.25	0.07	0.0	320.0	26.86	-14.89	-1.57	11.84	-237.25	-2263.13
150	66	2501.18	262.63	0.12	0.0	0.0	27.44	-14.86	-1.57	-12.26	262.63	2501.18
		-2256.79	-235.79	0.07	0.0	320.0	27.44	-14.86	-1.57	-12.26	-235.79	-2256.79
150	67	1582.06	372.91	0.09	0.0	0.0	-36.23	10.50	-2.37	11.93	372.91	-1780.47
		-1780.47	-388.47	0.07	0.0	320.0	-36.23	10.50	-2.37	11.93	-388.47	1582.06
150	93	664.63	499.70	0.17	0.0	0.0	-6.33	-4.06	-3.10	991.97	499.70	664.63
		-634.72	-491.16	0.11	0.0	320.0	-6.33	-4.06	-3.10	991.97	-491.16	-634.72
150	94	639.34	516.20	0.17	0.0	0.0	-6.68	-3.89	-3.20	991.95	516.20	639.34
		-606.17	-507.18	0.11	0.0	320.0	-6.68	-3.89	-3.20	991.95	-507.18	-606.17
150	95	56.08	135.85	0.02	0.0	0.0	-2.46	-0.30	-0.84	-992.29	135.85	56.08
		-40.01	-133.10	0.03	0.0	320.0	-2.46	-0.30	-0.84	-992.29	-133.10	-40.01
150	101	360.35	317.77	0.10	0.0	0.0	-4.40	-2.18	-1.97	-0.16	317.77	360.35
		-337.37	-312.13	0.07	0.0	320.0	-4.40	-2.18	-1.97	-0.16	-312.13	-337.37
150	102	350.24	324.38	0.09	0.0	0.0	-4.54	-2.11	-2.01	-0.17	324.38	350.24
		-325.94	-318.54	0.07	0.0	320.0	-4.54	-2.11	-2.01	-0.17	-318.54	-325.94
150	103	360.35	317.77	0.10	0.0	0.0	-4.40	-2.18	-1.97	-0.16	317.77	360.35
		-337.37	-312.13	0.07	0.0	320.0	-4.40	-2.18	-1.97	-0.16	-312.13	-337.37
151	2	286.85	56.31	0.13	0.0	0.0	-2.35	-1.54	-0.32	-2.03e-03	56.31	286.85
		-315.56	-67.77	0.03	0.0	390.0	-2.35	-1.54	-0.32	-2.03e-03	-67.77	-315.56
151	7	63.97	15.25	0.06	0.0	0.0	-0.79	-0.44	-0.10	-5.73e-04	15.25	63.97
		-107.26	-24.42	0.01	0.0	390.0	-0.79	-0.44	-0.10	-5.73e-04	-24.42	-107.26
151	25	3749.48	143.86	0.22	0.0	0.0	-17.80	-20.98	-0.71	-17.87	143.86	3749.48

		-4435.79	-140.29	0.01	0.0	390.0	-17.80	-20.98	-0.71	-17.87	-140.29	-4435.79
151	28	4154.48	78.63	-0.11	0.0	0.0	15.71	19.68	0.43	17.86	-97.63	-3526.07
		-3526.07	-97.63	0.01	0.0	390.0	15.71	19.68	0.43	17.86	78.63	4154.48
151	33	3749.57	80.33	0.22	0.0	0.0	-18.09	-20.98	0.44	-17.86	-98.12	3749.57
		-4435.77	-98.12	0.01	0.0	390.0	-18.09	-20.98	0.44	-17.86	80.33	-4435.77
151	35	4151.39	145.55	-0.11	0.0	0.0	15.85	19.71	-0.72	-17.69	145.55	-3533.48
		-3533.48	-142.83	0.01	0.0	390.0	15.85	19.71	-0.72	-17.69	-142.83	4151.39
151	36	4154.46	144.35	-0.11	0.0	0.0	16.00	19.68	-0.71	17.86	144.35	-3526.16
		-3526.16	-141.98	0.01	0.0	390.0	16.00	19.68	-0.71	17.86	-141.98	4154.46
151	65	1809.01	33.96	0.13	0.0	0.0	-10.73	-10.13	0.18	-10.89	-42.24	1809.01
		-2143.43	-42.24	0.01	0.0	390.0	-10.73	-10.13	0.18	-10.89	33.96	-2143.43
151	67	1860.18	89.21	0.06	0.0	0.0	8.55	8.85	-0.46	-10.78	89.21	-1590.14
		-1590.14	-96.14	0.01	0.0	390.0	8.55	8.85	-0.46	-10.78	-96.14	1860.18
151	68	1862.12	88.47	0.06	0.0	0.0	8.65	8.83	-0.46	10.89	88.47	-1585.60
		-1585.60	-95.61	0.01	0.0	390.0	8.65	8.83	-0.46	10.89	-95.61	1862.12
151	90	189.42	37.52	0.09	0.0	0.0	-1.59	-1.03	-0.21	-1.36e-03	37.52	189.42
		-213.47	-46.03	0.02	0.0	390.0	-1.59	-1.03	-0.21	-1.36e-03	-46.03	-213.47
151	91	96.59	20.97	0.06	0.0	0.0	-0.99	-0.59	-0.13	-7.76e-04	20.97	96.59
		-134.04	-29.82	0.01	0.0	390.0	-0.99	-0.59	-0.13	-7.76e-04	-29.82	-134.04
151	101	111.70	23.12	0.06	0.0	0.0	-1.04	-0.65	-0.14	-8.57e-04	23.12	111.70
		-140.65	-30.83	0.01	0.0	390.0	-1.04	-0.65	-0.14	-8.57e-04	-30.83	-140.65
151	102	127.25	26.00	0.07	0.0	0.0	-1.15	-0.72	-0.15	-9.57e-04	26.00	127.25
		-155.22	-33.87	0.01	0.0	390.0	-1.15	-0.72	-0.15	-9.57e-04	-33.87	-155.22
151	103	111.70	23.12	0.06	0.0	0.0	-1.04	-0.65	-0.14	-8.57e-04	23.12	111.70
		-140.65	-30.83	0.01	0.0	390.0	-1.04	-0.65	-0.14	-8.57e-04	-30.83	-140.65
152	9	917.47	695.59	-0.24	0.0	0.0	-8.98	5.59	4.31	-1488.47	-683.59	-869.96
		-869.96	-683.59	-0.15	0.0	320.0	-8.98	5.59	4.31	-1488.47	695.59	917.47
152	10	876.19	719.41	-0.23	0.0	0.0	-9.48	5.31	4.46	-1488.79	-706.71	-824.41
		-824.41	-706.71	-0.16	0.0	320.0	-9.48	5.31	4.46	-1488.79	719.41	876.19
152	15	80.58	38.43	0.02	0.0	0.0	-1.33	-0.47	0.24	1489.72	-37.33	80.58
		-68.97	-37.33	-8.42e-03	0.0	320.0	-1.33	-0.47	0.24	1489.72	38.43	-68.97
152	31	4808.83	430.43	-0.19	0.0	0.0	56.17	28.77	2.78	-19.68	-463.80	-4401.78
		-4401.78	-463.80	-0.07	0.0	320.0	56.17	28.77	2.78	-19.68	430.43	4808.83
152	37	3706.43	415.29	-0.09	0.0	0.0	-66.33	-24.28	2.70	-19.53	-453.88	3706.43
		-4068.33	-453.88	-0.07	0.0	320.0	-66.33	-24.28	2.70	-19.53	415.29	-4068.33
152	39	4811.34	224.76	-0.19	0.0	0.0	56.48	28.78	1.26	-19.69	-175.39	-4402.93
		-4402.93	-175.39	-0.07	0.0	320.0	56.48	28.78	1.26	-19.69	224.76	4811.34
152	40	4806.15	222.99	-0.19	0.0	0.0	57.36	28.73	1.25	20.61	-173.00	-4392.84
		-4392.84	-173.00	-0.07	0.0	320.0	57.36	28.73	1.25	20.61	222.99	4806.15
152	63	2439.97	376.55	-0.13	0.0	0.0	26.84	14.60	2.40	-11.55	-393.14	-2237.10
		-2237.10	-393.14	-0.07	0.0	320.0	26.84	14.60	2.40	-11.55	376.55	2439.97
152	69	1545.06	371.02	-0.10	0.0	0.0	-36.60	-10.13	2.37	-11.46	-389.55	1545.06
		-1700.23	-389.55	-0.07	0.0	320.0	-36.60	-10.13	2.37	-11.46	371.02	-1700.23
152	71	2441.22	268.32	-0.13	0.0	0.0	27.09	14.61	1.59	-11.56	-238.77	-2237.68
		-2237.68	-238.77	-0.07	0.0	320.0	27.09	14.61	1.59	-11.56	268.32	2441.22
152	72	2438.05	267.25	-0.13	0.0	0.0	27.64	14.58	1.59	12.54	-237.34	-2231.48
		-2231.48	-237.34	-0.07	0.0	320.0	27.64	14.58	1.59	12.54	267.25	2438.05
152	93	672.66	499.45	-0.17	0.0	0.0	-6.44	4.10	3.09	-992.15	-490.89	-638.79
		-638.79	-490.89	-0.11	0.0	320.0	-6.44	4.10	3.09	-992.15	499.45	672.66
152	94	645.15	515.33	-0.17	0.0	0.0	-6.78	3.92	3.19	-992.36	-506.31	-608.42
		-608.42	-506.31	-0.11	0.0	320.0	-6.78	3.92	3.19	-992.36	515.33	645.15
152	95	65.16	138.83	-0.02	0.0	0.0	-2.53	0.35	0.86	993.23	-135.99	-47.63
		-47.63	-135.99	-0.03	0.0	320.0	-2.53	0.35	0.86	993.23	138.83	65.16
152	101	368.91	319.14	-0.10	0.0	0.0	-4.48	2.23	1.98	0.54	-313.44	-343.21
		-343.21	-313.44	-0.07	0.0	320.0	-4.48	2.23	1.98	0.54	319.14	368.91
152	102	357.91	325.49	-0.09	0.0	0.0	-4.62	2.15	2.02	0.46	-319.61	-331.06
		-331.06	-319.61	-0.07	0.0	320.0	-4.62	2.15	2.02	0.46	325.49	357.91
152	103	368.91	319.14	-0.10	0.0	0.0	-4.48	2.23	1.98	0.54	-313.44	-343.21
		-343.21	-313.44	-0.07	0.0	320.0	-4.48	2.23	1.98	0.54	319.14	368.91
153	2	287.71	56.33	-0.13	0.0	0.0	-2.38	1.55	0.32	0.02	-67.79	-316.50
		-316.50	-67.79	-0.03	0.0	390.0	-2.38	1.55	0.32	0.02	56.33	287.71
153	7	64.17	15.13	-0.06	0.0	0.0	-0.82	0.44	0.10	0.02	-24.37	-108.35
		-108.35	-24.37	-0.01	0.0	390.0	-0.82	0.44	0.10	0.02	15.13	64.17
153	26	4158.61	81.09	-0.18	0.0	0.0	15.52	-19.72	-0.44	-14.19	81.09	4158.61
		-3538.46	-98.99	-0.01	0.0	390.0	15.52	-19.72	-0.44	-14.19	-98.99	-3538.46
153	27	3762.42	145.10	0.16	0.0	0.0	-17.65	21.02	0.72	14.21	-142.68	-4441.47
		-4441.47	-142.68	-0.01	0.0	390.0	-17.65	21.02	0.72	14.21	145.10	3762.42
153	33	4155.51	147.14	-0.18	0.0	0.0	15.94	-19.75	0.73	13.97	-144.78	4155.51
		-3544.29	-144.78	-0.01	0.0	390.0	15.94	-19.75	0.73	13.97	147.14	-3544.29
153	36	3768.25	83.19	0.16	0.0	0.0	-18.08	21.05	-0.45	-13.94	83.19	-4438.37
		-4438.37	-101.03	-0.01	0.0	390.0	-18.08	21.05	-0.45	-13.94	-101.03	3768.25
153	37	4155.58	147.34	-0.18	0.0	0.0	15.81	-19.75	0.73	17.69	-144.93	4155.58
		-3544.90	-144.93	-0.01	0.0	390.0	15.81	-19.75	0.73	17.69	147.34	-3544.90
153	65	1861.67	90.26	-0.09	0.0	0.0	8.58	-8.86	0.47	8.49	-97.55	1861.67
		-1595.04	-97.55	-0.01	0.0	390.0	8.58	-8.86	0.47	8.49	90.26	-1595.04
153	66	1863.60	89.78	-0.09	0.0	0.0	8.50	-8.85	0.46	-8.59	-97.17	1863.60
		-1591.44	-97.17	-0.01	0.0	390.0	8.50	-8.85	0.46	-8.59	89.78	-1591.44

153	67	1815.41	35.58	-0.09	0.0	0.0	-10.63	10.15	-0.19	8.62	35.58	-2146.46
		-2146.46	-43.67	-0.01	0.0	390.0	-10.63	10.15	-0.19	8.62	-43.67	1815.41
153	68	1819.00	35.96	-0.09	0.0	0.0	-10.72	10.16	-0.19	-8.46	35.96	-2144.54
		-2144.54	-44.15	-0.01	0.0	390.0	-10.72	10.16	-0.19	-8.46	-44.15	1819.00
153	69	1861.73	90.39	-0.09	0.0	0.0	8.50	-8.87	0.47	10.79	-97.64	1861.73
		-1595.43	-97.64	-0.01	0.0	390.0	8.50	-8.87	0.47	10.79	90.39	-1595.43
153	90	189.98	37.52	-0.09	0.0	0.0	-1.61	1.04	0.21	0.01	-46.02	-214.21
		-214.21	-46.02	-0.02	0.0	390.0	-1.61	1.04	0.21	0.01	37.52	189.98
153	91	96.88	20.88	-0.06	0.0	0.0	-1.02	0.59	0.13	0.02	-29.78	-135.02
		-135.02	-29.78	-0.01	0.0	390.0	-1.02	0.59	0.13	0.02	20.88	96.88
153	101	111.98	23.06	-0.06	0.0	0.0	-1.07	0.65	0.14	0.01	-30.80	-141.43
		-141.43	-30.80	-0.01	0.0	390.0	-1.07	0.65	0.14	0.01	23.06	111.98
153	102	127.58	25.95	-0.07	0.0	0.0	-1.18	0.73	0.15	0.01	-33.84	-155.99
		-155.99	-33.84	-0.01	0.0	390.0	-1.18	0.73	0.15	0.01	25.95	127.58
153	103	111.98	23.06	-0.06	0.0	0.0	-1.07	0.65	0.14	0.01	-30.80	-141.43
		-141.43	-30.80	-0.01	0.0	390.0	-1.07	0.65	0.14	0.01	23.06	111.98

Trave	M3 mx/mn	M2 mx/mn	D 2 / D 3	Q 2 / Q 3	N	V 2	V 3	T
	-1.469e+05	-3.318e+04	-1.13	-2094.21	-8053.07	-1921.47	-162.30	-2418.92
	1.518e+05	3.311e+04	1.14	668.12	7183.05	1915.78	160.58	2327.42

Trave f.	Cmb	M3 mx/mn	M2 mx/mn	D 2 / D 3	Pt	Pos.	N	V 2	V 3	T	M 2	M 3
		daN cm	daN cm	cm	daN/cm2	cm	daN	daN	daN	daN cm	daN cm	daN cm
83	11	-0.98	0.10	0.05	-0.18	0.0	-1.17	328.75	-6.43e-04	1.44	0.10	-3.019e+04
		-3.019e+04	0.0	0.0		148.0	-1.17	-0.04	-6.43e-04	2.41e-05	0.0	-0.98
83	14	1.354e+05	0.0	0.04	-0.59	0.0	11.54	-1770.90	1.50e-03	-0.07	-0.22	1.354e+05
		4.31	-0.22	0.0		148.0	11.54	0.18	1.50e-03	-3.85e-05	0.0	4.31
83	33	4.157e+04	577.09	-6.07e-03	-0.32	0.0	4.25	-562.79	-3.90	-369.82	577.09	4.157e+04
		2.88	0.0	-7.07e-05		148.0	4.25	0.18	-3.90	-965.05	0.0	2.88
83	36	4.104e+04	0.0	6.08e-03	-0.32	0.0	4.31	-570.36	3.90	371.07	-577.17	4.104e+04
		-0.28	-577.17	7.01e-05		148.0	4.31	-0.07	3.90	965.05	0.0	-0.28
83	37	4.157e+04	575.82	-6.07e-03	-0.32	0.0	4.25	-562.77	-3.89	-370.27	575.82	4.157e+04
		2.86	0.0	-7.15e-05		148.0	4.25	0.18	-3.89	-965.47	0.0	2.86
83	38	4.155e+04	576.66	-6.08e-03	-0.32	0.0	4.25	-563.03	-3.90	-368.89	576.66	4.155e+04
		2.49	0.0	-6.96e-05		148.0	4.25	0.15	-3.90	-964.11	0.0	2.49
83	39	4.106e+04	0.0	6.06e-03	-0.32	0.0	4.31	-570.12	3.90	370.14	-576.74	4.106e+04
		0.11	-576.74	6.90e-05		148.0	4.31	-0.04	3.90	964.11	0.0	0.11
83	65	4.143e+04	279.97	-5.66e-03	-0.31	0.0	4.27	-564.75	-1.89	-216.22	279.97	4.143e+04
		2.33	0.0	-4.59e-05		148.0	4.27	0.13	-1.89	-577.55	0.0	2.33
83	68	4.118e+04	0.0	5.66e-03	-0.31	0.0	4.29	-568.40	1.89	217.47	-280.05	4.118e+04
		0.27	-280.05	4.53e-05		148.0	4.29	-0.02	1.89	577.55	0.0	0.27
83	69	4.143e+04	279.15	-5.66e-03	-0.31	0.0	4.27	-564.73	-1.89	-216.52	279.15	4.143e+04
		2.31	0.0	-4.64e-05		148.0	4.27	0.13	-1.89	-577.83	0.0	2.31
83	70	4.142e+04	279.69	-5.66e-03	-0.31	0.0	4.27	-564.89	-1.89	-215.62	279.69	4.142e+04
		2.07	0.0	-4.51e-05		148.0	4.27	0.11	-1.89	-576.95	0.0	2.07
83	71	4.119e+04	0.0	5.66e-03	-0.31	0.0	4.29	-568.26	1.89	216.87	-279.77	4.119e+04
		0.52	-279.77	4.44e-05		148.0	4.29	-1.46e-03	1.89	576.95	0.0	0.52
83	93	-0.08	0.04	0.04	-0.23	0.0	0.80	-9.54	-2.68e-04	1.15	0.04	-3449.44
		-3488.21	0.0	0.0		148.0	0.80	-6.00e-03	-2.68e-04	1.42e-05	0.0	-0.08
83	96	9.283e+04	0.0	0.02	-0.42	0.0	8.11	-1216.30	9.58e-04	0.06	-0.14	9.283e+04
		2.90	-0.14	0.0		148.0	8.11	0.12	9.58e-04	-2.61e-05	0.0	2.90
83	101	4.130e+04	0.0	5.28e-03	-0.30	0.0	4.28	-566.57	2.59e-04	0.62	-0.04	4.130e+04
		1.30	-0.04	0.0		148.0	4.28	0.05	2.59e-04	-4.82e-06	0.0	1.30
83	102	4.401e+04	0.0	5.57e-03	-0.31	0.0	4.42	-603.65	3.28e-04	0.61	-0.05	4.401e+04
		1.39	-0.05	0.0		148.0	4.42	0.06	3.28e-04	-5.72e-06	0.0	1.39
83	103	4.130e+04	0.0	5.28e-03	-0.30	0.0	4.28	-566.57	2.59e-04	0.62	-0.04	4.130e+04
		1.30	-0.04	0.0		148.0	4.28	0.05	2.59e-04	-4.82e-06	0.0	1.30
84	6	2.085e+05	1.08	7.91e-03	-0.49	0.0	-3.21	-1466.07	0.06	-3.21	-6.84	2.085e+05
		9.211e+04	-6.84	0.0		140.0	-3.21	-209.06	0.06	-4.13	1.08	9.211e+04
84	9	1.012e+05	1.87	-0.05	-0.38	0.0	-13.89	-1055.46	0.09	-4.73	-10.19	1.012e+05
		-1.172e+04	-10.19	0.0		140.0	-13.89	-632.53	0.09	-6.21	1.87	-1.172e+04
84	10	1.201e+05	1.76	-0.05	-0.40	0.0	-14.82	-1186.29	0.08	-4.79	-10.10	1.201e+05
		-1329.43	-10.10	0.0		140.0	-14.82	-623.35	0.08	-6.20	1.76	-1329.43
84	11	5.616e+04	1.76	-0.05	-0.26	0.0	-12.38	-740.83	0.08	-4.10	-9.00	5.616e+04
		-3.349e+04	-9.00	0.0		140.0	-12.38	-611.48	0.08	-5.45	1.76	-3.349e+04
84	15	1.203e+05	0.35	0.04	-0.39	0.0	8.42	-494.27	-4.44e-03	0.19	0.35	1.203e+05
		9.883e+04	-0.27	0.0		140.0	8.42	410.62	-4.44e-03	0.31	-0.27	1.101e+05
84	33	9.741e+04	607.90	-4.63e-03	-0.32	0.0	-2.20	-665.81	18.57	-4097.60	-3130.38	9.741e+04
		4.308e+04	-3130.38	-1.21e-04		140.0	-2.20	-92.71	18.57	-3497.16	607.90	4.308e+04
84	34	9.739e+04	606.15	-4.64e-03	-0.32	0.0	-2.20	-665.85	18.55	-4094.08	-3126.66	9.739e+04
		4.306e+04	-3126.66	-1.21e-04		140.0	-2.20	-92.82	18.55	-3493.85	606.15	4.306e+04
84	35	9.525e+04	3118.11	4.63e-03	-0.32	0.0	-2.56	-681.73	-18.48	4090.13	3118.11	9.525e+04
		4.251e+04	-604.75	1.21e-04		140.0	-2.56	-100.14	-18.48	3488.72	-604.75	4.251e+04
84	36	9.524e+04	3121.82	4.64e-03	-0.32	0.0	-2.56	-681.77	-18.50	4093.64	3121.82	9.524e+04
		4.250e+04	-606.50	1.21e-04		140.0	-2.56	-100.25	-18.50	3492.03	-606.50	4.250e+04

84	37	9.741e+04	607.45	-4.63e-03	-0.32	0.0	-2.20	-665.81	18.56	-4098.02	-3129.28	9.741e+04
		4.308e+04	-3129.28	-1.21e-04		140.0	-2.20	-92.70	18.56	-3497.64	607.45	4.308e+04
84	40	9.523e+04	3120.72	4.64e-03	-0.32	0.0	-2.56	-681.77	-18.49	4094.07	3120.72	9.523e+04
		4.250e+04	-606.06	1.21e-04		140.0	-2.56	-100.26	-18.49	3492.50	-606.06	4.250e+04
84	65	9.683e+04	347.48	-4.12e-03	-0.32	0.0	-2.29	-670.03	11.12	-2377.47	-1874.01	9.683e+04
		4.293e+04	-1874.01	-7.18e-05		140.0	-2.29	-94.68	11.12	-2022.24	347.48	4.293e+04
84	66	9.683e+04	346.34	-4.13e-03	-0.32	0.0	-2.29	-670.05	11.11	-2375.26	-1871.62	9.683e+04
		4.292e+04	-1871.62	-7.18e-05		140.0	-2.29	-94.74	11.11	-2020.16	346.34	4.292e+04
84	67	9.582e+04	1863.06	4.12e-03	-0.31	0.0	-2.47	-677.54	-11.03	2371.31	1863.06	9.582e+04
		4.266e+04	-344.95	7.11e-05		140.0	-2.47	-98.22	-11.03	2015.03	-344.95	4.266e+04
84	68	9.581e+04	1865.45	4.13e-03	-0.31	0.0	-2.47	-677.56	-11.04	2373.52	1865.45	9.581e+04
		4.265e+04	-346.08	7.12e-05		140.0	-2.47	-98.28	-11.04	2017.11	-346.08	4.265e+04
84	69	9.683e+04	347.19	-4.12e-03	-0.32	0.0	-2.29	-670.02	11.11	-2377.77	-1873.31	9.683e+04
		4.293e+04	-1873.31	-7.20e-05		140.0	-2.29	-94.67	11.11	-2022.57	347.19	4.293e+04
84	72	9.581e+04	1864.75	4.13e-03	-0.31	0.0	-2.47	-677.56	-11.04	2373.82	1864.75	9.581e+04
		4.265e+04	-345.80	7.13e-05		140.0	-2.47	-98.29	-11.04	2017.44	-345.80	4.265e+04
84	92	1.465e+05	0.85	5.55e-03	-0.36	0.0	-2.19	-1029.72	0.04	-2.39	-5.16	1.465e+05
		6.413e+04	-5.16	0.0		140.0	-2.19	-154.87	0.04	-3.10	0.85	6.413e+04
84	93	7.494e+04	1.37	-0.03	-0.28	0.0	-9.31	-755.98	0.06	-3.40	-7.39	7.494e+04
		-5085.16	-7.39	0.0		140.0	-9.31	-437.18	0.06	-4.49	1.37	-5085.16
84	94	8.749e+04	1.30	-0.03	-0.30	0.0	-9.93	-843.20	0.06	-3.44	-7.33	8.749e+04
		1841.16	-7.33	0.0		140.0	-9.93	-431.06	0.06	-4.48	1.30	1841.16
84	95	1.177e+05	0.02	0.03	-0.37	0.0	4.55	-591.61	8.45e-03	-0.55	-1.16	1.177e+05
		8.619e+04	-1.16	0.0		140.0	4.55	244.22	8.45e-03	-0.65	0.02	8.619e+04
84	101	9.632e+04	0.70	3.66e-03	-0.31	0.0	-2.38	-673.79	0.04	-1.98	-4.28	9.632e+04
		4.279e+04	-4.28	0.0		140.0	-2.38	-96.48	0.04	-2.57	0.70	4.279e+04
84	102	1.013e+05	0.67	3.86e-03	-0.31	0.0	-2.63	-708.68	0.04	-1.99	-4.25	1.013e+05
		4.556e+04	-4.25	0.0		140.0	-2.63	-94.03	0.04	-2.56	0.67	4.556e+04
84	103	9.632e+04	0.70	3.66e-03	-0.31	0.0	-2.38	-673.79	0.04	-1.98	-4.28	9.632e+04
		4.279e+04	-4.28	0.0		140.0	-2.38	-96.48	0.04	-2.57	0.70	4.279e+04
85	9	2.960e+05	3.17	0.08	-0.50	0.0	-14.97	-1798.25	-0.05	1.21	3.17	2.960e+05
		9.701e+04	-9.16	0.0		246.0	-14.97	-26.21	-0.05	-1.37	-9.16	9.701e+04
85	10	3.148e+05	3.32	0.08	-0.53	0.0	-16.49	-1924.36	-0.05	1.51	3.32	3.148e+05
		1.152e+05	-9.11	0.0		246.0	-16.49	101.63	-0.05	-0.96	-9.11	1.160e+05
85	15	1.274e+05	0.31	0.08	-0.33	0.0	8.31	627.15	-2.11e-04	0.51	0.31	-8.105e+04
		-8.105e+04	0.26	0.0		246.0	8.31	1273.75	-2.11e-04	0.72	0.26	1.274e+05
85	33	9.869e+04	-2802.74	-2.07e-03	-0.32	0.0	-2.60	-504.26	-2.15	-1324.71	-2802.74	9.461e+04
		6.396e+04	-3329.70	1.07e-03		246.0	-2.60	546.66	-2.15	-2357.51	-3329.70	9.869e+04
85	34	9.867e+04	-2805.94	-2.08e-03	-0.32	0.0	-2.60	-504.42	-2.14	-1319.44	-2805.94	9.459e+04
		6.395e+04	-3325.97	1.07e-03		246.0	-2.60	546.51	-2.14	-2352.37	-3325.97	9.867e+04
85	35	9.649e+04	3318.23	1.29e-03	-0.32	0.0	-3.19	-513.93	2.10	1320.94	2808.96	9.230e+04
		6.225e+04	2808.96	-1.07e-03		246.0	-3.19	538.31	2.10	2351.80	3318.23	9.649e+04
85	36	9.648e+04	3321.96	1.28e-03	-0.32	0.0	-3.19	-514.08	2.10	1326.21	2805.77	9.228e+04
		6.225e+04	2805.77	-1.07e-03		246.0	-3.19	538.16	2.10	2356.94	3321.96	9.648e+04
85	37	9.869e+04	-2803.87	-2.07e-03	-0.32	0.0	-2.60	-504.24	-2.15	-1325.33	-2803.87	9.461e+04
		6.396e+04	-3328.60	1.08e-03		246.0	-2.60	546.67	-2.15	-2358.15	-3328.60	9.869e+04
85	40	9.647e+04	3320.87	1.28e-03	-0.32	0.0	-3.19	-514.10	2.10	1326.83	2806.90	9.228e+04
		6.225e+04	2806.90	-1.07e-03		246.0	-3.19	538.14	2.10	2357.58	3320.87	9.647e+04
85	65	9.810e+04	-1675.97	-1.47e-03	-0.32	0.0	-2.75	-506.84	-1.29	-791.67	-1675.97	9.399e+04
		6.350e+04	-1993.63	6.46e-04		246.0	-2.75	544.44	-1.29	-1409.33	-1993.63	9.810e+04
85	66	9.809e+04	-1678.02	-1.48e-03	-0.32	0.0	-2.75	-506.94	-1.29	-788.25	-1678.02	9.398e+04
		6.350e+04	-1991.23	6.45e-04		246.0	-2.75	544.35	-1.29	-1405.99	-1991.23	9.809e+04
85	67	9.707e+04	1983.49	6.93e-04	-0.32	0.0	-3.03	-511.41	1.24	789.75	1681.05	9.290e+04
		6.270e+04	1681.05	-6.45e-04		246.0	-3.03	540.47	1.24	1405.42	1983.49	9.707e+04
85	68	9.706e+04	1985.89	6.92e-04	-0.32	0.0	-3.03	-511.50	1.25	793.17	1678.99	9.289e+04
		6.270e+04	1678.99	-6.45e-04		246.0	-3.03	540.38	1.25	1408.75	1985.89	9.706e+04
85	69	9.810e+04	-1676.70	-1.47e-03	-0.32	0.0	-2.75	-506.83	-1.29	-792.08	-1676.70	9.400e+04
		6.350e+04	-1992.92	6.47e-04		246.0	-2.75	544.45	-1.29	-1409.75	-1992.92	9.810e+04
85	72	9.706e+04	1985.19	6.91e-04	-0.32	0.0	-3.03	-511.52	1.25	793.58	1679.73	9.289e+04
		6.270e+04	1679.73	-6.46e-04		246.0	-3.03	540.37	1.25	1409.18	1985.19	9.706e+04
85	93	2.044e+05	2.27	0.05	-0.37	0.0	-9.93	-1230.58	-0.04	0.82	2.27	2.044e+05
		7.223e+04	-6.63	0.0		246.0	-9.93	18.21	-0.04	-1.07	-6.63	7.223e+04
85	94	2.169e+05	2.37	0.05	-0.38	0.0	-10.94	-1314.65	-0.04	1.02	2.37	2.169e+05
		8.371e+04	-6.60	0.0		246.0	-10.94	103.43	-0.04	-0.80	-6.60	8.492e+04
85	95	1.229e+05	0.76	0.05	-0.33	0.0	4.14	212.24	-7.55e-03	0.68	0.76	-1.750e+04
		-1.750e+04	-1.10	0.0		246.0	4.14	1066.61	-7.55e-03	0.50	-1.10	1.229e+05
85	101	9.758e+04	1.51	-9.37e-04	-0.31	0.0	-2.89	-509.17	-0.02	0.75	1.51	9.344e+04
		6.310e+04	-3.87	0.0		246.0	-2.89	542.41	-0.02	-0.29	-3.87	9.758e+04
85	102	1.027e+05	1.55	-9.85e-04	-0.31	0.0	-3.30	-542.80	-0.02	0.83	1.55	9.845e+04
		6.606e+04	-3.85	0.0		246.0	-3.30	576.50	-0.02	-0.18	-3.85	1.027e+05
85	103	9.758e+04	1.51	-9.37e-04	-0.31	0.0	-2.89	-509.17	-0.02	0.75	1.51	9.344e+04
		6.310e+04	-3.87	0.0		246.0	-2.89	542.41	-0.02	-0.29	-3.87	9.758e+04
86	7	1.431e+05	0.89	5.25e-03	-0.35	0.0	-2.72	206.70	1.24e-03	-6.07	0.72	5.696e+04
		5.696e+04	0.72	0.0		140.0	-2.72	1031.58	1.24e-03	-6.94	0.89	1.431e+05
86	10	3.099e+05	1.93	0.03	-0.58	0.0	-3.95	232.89	5.11e-03	-10.20	1.21	1.582e+05
		1.582e+05	1.21	0.0		140.0	-3.95	1883.09	5.11e-03	-11.60	1.93	3.099e+05
86	14	-8826.46	1.09	0.04	-0.34	0.0	-4.49	17.00	6.83e-03	-0.22	0.13	-2.488e+04

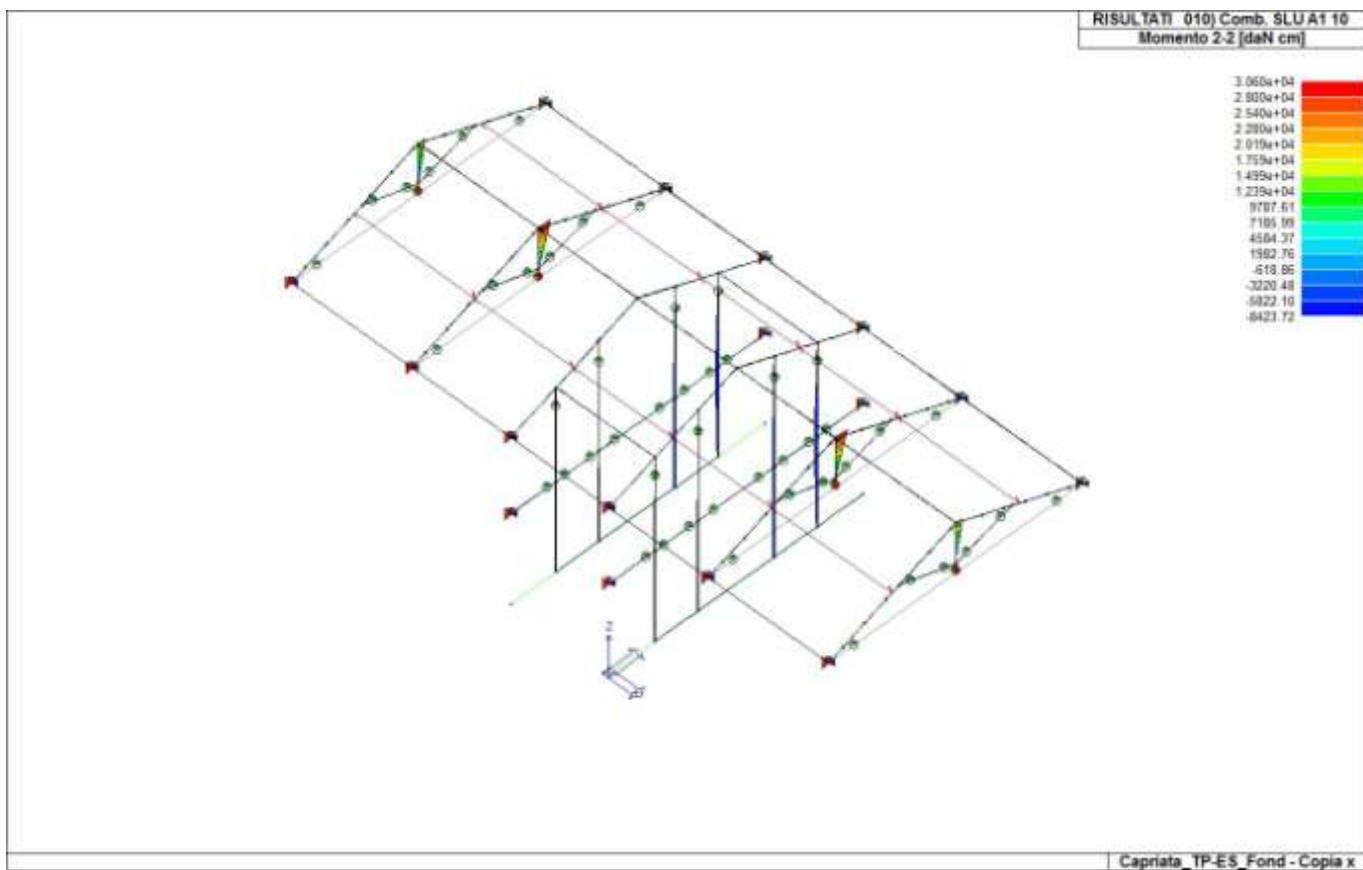
	-2.488e+04	0.13	0.0		140.0	-4.49	279.19	6.83e-03	-0.16	1.09	-8826.46
86	15 -5.576e+04	0.42	0.04	-0.20	0.0	-3.38	0.98	2.99e-03	0.54	1.54e-03	-5.576e+04
	-7.233e+04	1.54e-03	0.0		140.0	-3.38	-174.08	2.99e-03	0.66	0.42	-7.233e+04
86	16 -4.563e+04	0.63	0.04	-0.23	0.0	-3.47	-7.40	4.60e-03	0.83	-0.01	-4.563e+04
	-5.352e+04	-0.01	0.0		140.0	-3.47	-40.88	4.60e-03	1.01	0.63	-5.352e+04
86	26 9.620e+04	612.40	-4.61e-03	-0.32	0.0	-3.10	107.75	-18.33	-3357.64	612.40	4.051e+04
	4.051e+04	-3115.13	1.08e-04		140.0	-3.10	692.88	-18.33	-3961.18	-3115.13	9.620e+04
86	27 9.400e+04	3116.99	4.59e-03	-0.32	0.0	-3.20	102.90	18.33	3348.99	-611.33	3.975e+04
	3.975e+04	-611.33	-1.08e-04		140.0	-3.20	677.38	18.33	3951.36	3116.99	9.400e+04
86	29 9.621e+04	613.19	-4.59e-03	-0.32	0.0	-3.10	107.84	-18.32	-3362.01	613.19	4.053e+04
	4.053e+04	-3113.11	1.10e-04		140.0	-3.10	692.95	-18.32	-3965.58	-3113.11	9.621e+04
86	32 9.399e+04	3114.97	4.61e-03	-0.32	0.0	-3.20	102.80	18.33	3353.36	-612.12	3.973e+04
	3.973e+04	-612.12	-1.10e-04		140.0	-3.20	677.31	18.33	3955.75	3114.97	9.399e+04
86	37 9.624e+04	324.28	-4.60e-03	-0.32	0.0	-3.10	108.03	-17.48	-5271.95	324.28	4.053e+04
	4.053e+04	-2589.78	1.22e-03		140.0	-3.10	693.17	-17.48	-5875.57	-2589.78	9.624e+04
86	40 9.396e+04	2591.64	4.62e-03	-0.32	0.0	-3.20	102.62	17.48	5263.30	-323.21	3.973e+04
	3.973e+04	-323.21	-1.22e-03		140.0	-3.20	677.09	17.48	5865.75	2591.64	9.396e+04
86	58 9.562e+04	351.97	-3.98e-03	-0.32	0.0	-3.13	106.48	-10.96	-1951.40	351.97	4.031e+04
	4.031e+04	-1862.33	6.41e-05		140.0	-3.13	688.80	-10.96	-2308.42	-1862.33	9.562e+04
86	59 9.458e+04	1864.19	3.97e-03	-0.32	0.0	-3.17	104.17	10.96	1942.75	-351.42	3.995e+04
	3.995e+04	-350.90	-6.41e-05		140.0	-3.17	681.46	10.96	2298.60	1864.19	9.458e+04
86	61 9.563e+04	352.49	-3.97e-03	-0.32	0.0	-3.13	106.53	-10.95	-1954.22	352.49	4.032e+04
	4.032e+04	-1861.04	6.55e-05		140.0	-3.13	688.84	-10.95	-2311.25	-1861.04	9.563e+04
86	64 9.457e+04	1862.90	3.98e-03	-0.32	0.0	-3.18	104.11	10.96	1945.57	-351.42	3.994e+04
	3.994e+04	-351.42	-6.55e-05		140.0	-3.18	681.42	10.96	2301.43	1862.90	9.457e+04
86	69 9.564e+04	160.32	-3.97e-03	-0.32	0.0	-3.13	106.62	-10.45	-3111.40	160.32	4.032e+04
	4.032e+04	-1547.28	7.36e-04		140.0	-3.13	688.94	-10.45	-3467.70	-1547.28	9.564e+04
86	72 9.456e+04	1549.14	3.98e-03	-0.32	0.0	-3.18	104.02	10.46	3102.75	-159.25	3.994e+04
	3.994e+04	-159.25	-7.36e-04		140.0	-3.18	681.32	10.46	3457.87	1549.14	9.456e+04
86	91 1.325e+05	0.96	4.81e-03	-0.34	0.0	-2.89	170.51	2.23e-03	-5.41	0.65	5.425e+04
	5.425e+04	0.65	0.0		140.0	-2.89	954.27	2.23e-03	-6.16	0.96	1.325e+05
86	94 2.139e+05	1.35	0.02	-0.42	0.0	-3.03	171.70	3.32e-03	-7.46	0.89	1.079e+05
	1.079e+05	0.89	0.0		140.0	-3.03	1308.57	3.32e-03	-8.49	1.35	2.139e+05
86	95 -1.113e+04	0.65	0.03	-0.24	0.0	-3.33	33.36	3.39e-03	-1.00	0.18	-2.089e+04
	-2.089e+04	0.18	0.0		140.0	-3.33	150.50	3.39e-03	-1.10	0.65	-1.113e+04
86	96 1406.66	0.79	0.03	-0.26	0.0	-3.39	27.78	4.47e-03	-0.81	0.17	-1.414e+04
	-1.414e+04	0.17	0.0		140.0	-3.39	239.30	4.47e-03	-0.86	0.79	1406.66
86	101 9.510e+04	0.93	3.41e-03	-0.31	0.0	-3.15	105.32	2.82e-03	-4.32	0.54	4.013e+04
	4.013e+04	0.54	0.0		140.0	-3.15	685.13	2.82e-03	-4.91	0.93	9.510e+04
86	102 1.001e+05	0.99	3.57e-03	-0.31	0.0	-3.17	103.09	3.25e-03	-4.25	0.53	4.283e+04
	4.283e+04	0.53	0.0		140.0	-3.17	720.65	3.25e-03	-4.82	0.99	1.001e+05
86	103 9.510e+04	0.93	3.41e-03	-0.31	0.0	-3.15	105.32	2.82e-03	-4.32	0.54	4.013e+04
	4.013e+04	0.54	0.0		140.0	-3.15	685.13	2.82e-03	-4.91	0.93	9.510e+04
87	10 1.552e+05	0.08	0.03	-0.63	0.0	-1.06	-0.22	5.55e-04	-2.64e-05	0.0	5.74
	5.74	0.0	0.0		148.0	-1.06	2048.42	5.55e-04	-1.47	0.08	1.552e+05
87	11 1.233e+05	0.0	0.03	-0.50	0.0	1.19	-0.17	-1.71e-04	-2.22e-05	0.0	4.44
	4.44	-0.03	0.0		148.0	1.19	1612.81	-1.71e-04	-1.42	-0.03	1.233e+05
87	14 0.47	0.22	-0.05	-0.27	0.0	-11.54	0.01	1.47e-03	-5.15e-05	0.0	0.47
	-1.696e+04	0.0	0.0		148.0	-11.54	-155.48	1.47e-03	0.07	0.22	-1.696e+04
87	15 -0.83	0.11	-0.04	-0.13	0.0	-9.29	0.06	7.48e-04	-4.74e-05	0.0	-0.83
	-4.881e+04	0.0	0.0		148.0	-9.29	-591.09	7.48e-04	0.12	0.11	-4.881e+04
87	26 4.212e+04	574.48	-6.16e-03	-0.32	0.0	-4.24	0.10	3.88	-961.43	0.0	3.00
	3.00	0.0	6.09e-05		148.0	-4.24	577.25	3.88	-368.07	574.48	4.212e+04
87	27 4.135e+04	0.0	6.15e-03	-0.32	0.0	-4.30	-0.22	-3.88	961.43	0.0	1.00
	1.00	-574.36	-6.06e-05		148.0	-4.30	566.54	-3.88	366.84	-574.36	4.135e+04
87	28 4.133e+04	0.0	6.16e-03	-0.32	0.0	-4.30	-0.25	-3.87	963.75	0.0	0.61
	0.61	-572.97	-6.28e-05		148.0	-4.30	566.31	-3.87	369.04	-572.97	4.133e+04
87	37 4.214e+04	562.34	-6.15e-03	-0.32	0.0	-4.24	0.08	3.80	-477.45	0.0	3.36
	3.36	0.0	1.13e-03		148.0	-4.24	577.54	3.80	-202.02	562.34	4.214e+04
87	38 4.212e+04	562.62	-6.17e-03	-0.32	0.0	-4.24	0.05	3.80	-475.12	0.0	2.99
	2.99	0.0	1.13e-03		148.0	-4.24	577.26	3.80	-199.77	562.62	4.212e+04
87	39 4.134e+04	0.0	6.15e-03	-0.32	0.0	-4.31	-0.18	-3.80	475.12	0.0	1.01
	1.01	-562.49	-1.13e-03		148.0	-4.31	566.53	-3.80	198.54	-562.49	4.134e+04
87	58 4.191e+04	280.12	-5.54e-03	-0.31	0.0	-4.26	0.03	1.89	-575.27	0.0	2.65
	2.65	0.0	3.99e-05		148.0	-4.26	574.41	1.89	-215.50	280.12	4.191e+04
87	59 4.155e+04	0.0	5.53e-03	-0.31	0.0	-4.29	-0.16	-1.89	575.27	0.0	1.34
	1.34	-279.99	-3.97e-05		148.0	-4.29	569.38	-1.89	214.27	-279.99	4.155e+04
87	60 4.154e+04	0.0	5.54e-03	-0.31	0.0	-4.29	-0.18	-1.89	576.77	0.0	1.09
	1.09	-279.09	-4.12e-05		148.0	-4.29	569.25	-1.89	215.70	-279.09	4.154e+04
87	69 4.193e+04	268.02	-5.53e-03	-0.31	0.0	-4.26	0.02	1.81	-285.72	0.0	2.89
	2.89	0.0	6.85e-04		148.0	-4.26	574.57	1.81	-107.80	268.02	4.193e+04
87	70 4.191e+04	268.20	-5.54e-03	-0.31	0.0	-4.26	1.34e-04	1.81	-284.20	0.0	2.65
	2.65	0.0	6.83e-04		148.0	-4.26	574.40	1.81	-106.33	268.20	4.191e+04
87	71 4.155e+04	0.0	5.53e-03	-0.31	0.0	-4.29	-0.13	-1.81	284.20	0.0	1.35
	1.35	-268.07	-6.83e-04		148.0	-4.29	569.38	-1.81	105.10	-268.07	4.155e+04
87	93 9.911e+04	0.02	0.02	-0.44	0.0	-0.78	-0.14	1.20e-04	-2.47e-05	0.0	3.76
	3.76	0.0	0.0		148.0	-0.78	1306.53	1.20e-04	-1.13	0.02	9.911e+04

87	94	1.060e+05	0.05	0.02	-0.45	0.0	-1.13	-0.15	3.35e-04	-2.31e-05	0.0	3.97
		3.97	0.0	0.0		148.0	-1.13	1401.17	3.35e-04	-1.08	0.05	1.060e+05
87	95	0.24	0.11	-0.03	-0.20	0.0	-7.77	0.01	7.33e-04	-4.15e-05	0.0	0.24
		-1.565e+04	0.0	0.0		148.0	-7.77	-162.74	7.33e-04	-0.10	0.11	-1.565e+04
87	96	0.45	0.14	-0.03	-0.21	0.0	-8.12	2.87e-03	9.47e-04	-3.99e-05	0.0	0.45
		-8718.99	0.0	0.0		148.0	-8.12	-68.09	9.47e-04	-0.06	0.14	-8718.99
87	101	4.173e+04	0.06	4.98e-03	-0.30	0.0	-4.27	-0.06	4.27e-04	-3.31e-05	0.0	2.00
		2.00	0.0	0.0		148.0	-4.27	571.89	4.27e-04	-0.62	0.06	4.173e+04
87	102	4.450e+04	0.08	5.23e-03	-0.31	0.0	-4.41	-0.07	5.12e-04	-3.25e-05	0.0	2.08
		2.08	0.0	0.0		148.0	-4.41	609.75	5.12e-04	-0.60	0.08	4.450e+04
87	103	4.173e+04	0.06	4.98e-03	-0.30	0.0	-4.27	-0.06	4.27e-04	-3.31e-05	0.0	2.00
		2.00	0.0	0.0		148.0	-4.27	571.89	4.27e-04	-0.62	0.06	4.173e+04
88	9	1.35	1.34	-0.05	-0.30	0.0	1.03	38.04	-9.08e-03	-0.74	1.34	-8976.11
		-8976.11	0.0	0.0		148.0	1.03	7.85e-03	-9.08e-03	6.72e-06	0.0	1.35
88	11	0.55	1.17	-0.05	-0.18	0.0	-0.88	328.03	-7.93e-03	-0.68	1.17	-3.014e+04
		-3.014e+04	0.0	0.0		148.0	-0.88	-0.02	-7.93e-03	0.0	0.0	0.55
88	14	1.353e+05	0.14	-0.04	-0.59	0.0	11.97	-1770.77	-9.28e-04	0.03	0.14	1.353e+05
		3.99	0.0	0.0		148.0	11.97	0.17	-9.28e-04	3.71e-05	0.0	3.99
88	16	1.142e+05	0.0	-0.04	-0.48	0.0	10.06	-1480.77	2.22e-04	0.10	-0.03	1.142e+05
		3.19	-0.03	0.0		148.0	10.06	0.15	2.22e-04	3.09e-05	0.0	3.19
88	32	4.104e+04	0.0	5.26e-03	-0.32	0.0	4.50	-570.28	3.88	215.36	-573.87	4.104e+04
		-1.17	-573.87	1.12e-03		148.0	4.50	-0.08	3.88	469.18	0.0	-1.17
88	33	4.156e+04	580.37	-5.42e-03	-0.32	0.0	4.59	-562.77	-3.92	-362.63	580.37	4.156e+04
		2.46	0.0	-7.49e-05		148.0	4.59	0.19	-3.92	-950.32	0.0	2.46
88	36	4.103e+04	0.0	5.26e-03	-0.32	0.0	4.50	-570.40	3.91	362.04	-579.23	4.103e+04
		1.24	-579.23	7.54e-05		148.0	4.50	-0.07	3.91	950.32	0.0	1.24
88	64	4.117e+04	0.0	5.31e-03	-0.31	0.0	4.52	-568.37	1.85	113.63	-273.35	4.117e+04
		-0.14	-273.35	6.80e-04		148.0	4.52	-0.02	1.85	280.70	0.0	-0.14
88	65	4.143e+04	282.25	-5.38e-03	-0.31	0.0	4.56	-564.74	-1.91	-210.94	282.25	4.143e+04
		2.23	0.0	-4.79e-05		148.0	4.56	0.13	-1.91	-568.63	0.0	2.23
88	68	4.117e+04	0.0	5.31e-03	-0.31	0.0	4.52	-568.43	1.90	210.35	-281.11	4.117e+04
		1.47	-281.11	4.84e-05		148.0	4.52	-0.01	1.90	568.63	0.0	1.47
88	93	1.06	0.97	-0.04	-0.23	0.0	1.11	-10.18	-6.57e-03	-0.54	0.97	-3402.13
		-3446.67	0.0	0.0		148.0	1.11	9.71e-03	-6.57e-03	6.12e-06	0.0	1.06
88	96	9.280e+04	0.17	-0.02	-0.42	0.0	8.40	-1216.05	-1.13e-03	-0.02	0.17	9.280e+04
		2.83	0.0	0.0		148.0	8.40	0.12	-1.13e-03	2.64e-05	0.0	2.83
88	101	4.130e+04	0.57	-5.34e-03	-0.30	0.0	4.54	-566.59	-3.85e-03	-0.29	0.57	4.130e+04
		1.85	0.0	0.0		148.0	4.54	0.06	-3.85e-03	1.59e-05	0.0	1.85
88	102	4.402e+04	0.57	-5.63e-03	-0.31	0.0	4.71	-603.81	-3.85e-03	-0.29	0.57	4.402e+04
		1.93	0.0	0.0		148.0	4.71	0.06	-3.85e-03	1.62e-05	0.0	1.93
88	103	4.130e+04	0.57	-5.34e-03	-0.30	0.0	4.54	-566.59	-3.85e-03	-0.29	0.57	4.130e+04
		1.85	0.0	0.0		148.0	4.54	0.06	-3.85e-03	1.59e-05	0.0	1.85
89	6	2.085e+05	5.94	-7.98e-03	-0.49	0.0	-1.43	-1466.77	-0.04	1.46	5.94	2.085e+05
		9.210e+04	0.26	0.0		140.0	-1.43	-208.63	-0.04	1.89	0.26	9.210e+04
89	9	1.017e+05	8.73	-0.05	-0.38	0.0	-12.52	-1058.82	-0.06	1.81	8.73	1.017e+05
		-1.163e+04	0.30	0.0		140.0	-12.52	-634.94	-0.06	2.51	0.30	-1.163e+04
89	10	1.208e+05	8.67	-0.05	-0.40	0.0	-13.15	-1191.28	-0.06	1.92	8.67	1.208e+05
		-1187.24	0.34	0.0		140.0	-13.15	-627.13	-0.06	2.59	0.34	-1187.24
89	11	5.647e+04	7.68	-0.05	-0.26	0.0	-11.54	-742.94	-0.05	1.45	7.68	5.647e+04
		-3.343e+04	0.23	0.0		140.0	-11.54	-613.02	-0.05	2.10	0.23	-3.343e+04
89	15	1.195e+05	0.04	-0.04	-0.39	0.0	9.21	-489.79	1.65e-03	0.24	-0.19	1.195e+05
		9.838e+04	-0.19	0.0		140.0	9.21	415.45	1.65e-03	0.17	0.04	1.100e+05
89	16	1.385e+05	0.08	-0.04	-0.42	0.0	8.58	-622.25	2.38e-03	0.34	-0.25	1.385e+05
		1.098e+05	-0.25	0.0		140.0	8.58	423.26	2.38e-03	0.25	0.08	1.204e+05
89	33	9.726e+04	606.50	-3.79e-03	-0.32	0.0	-1.57	-665.37	18.36	-4090.07	-3102.69	9.726e+04
		4.305e+04	-3102.69	-1.26e-04		140.0	-1.57	-91.65	18.36	-3484.64	606.50	4.305e+04
89	34	9.724e+04	605.31	3.80e-03	-0.32	0.0	-1.57	-665.42	18.37	-4087.81	-3105.23	9.724e+04
		4.303e+04	-3105.23	-1.26e-04		140.0	-1.57	-91.78	18.37	-3482.46	605.31	4.303e+04
89	35	9.510e+04	3112.67	-3.64e-03	-0.32	0.0	-1.31	-681.19	-18.42	4089.59	3112.67	9.510e+04
		4.248e+04	-605.00	1.27e-04		140.0	-1.31	-99.08	-18.42	3484.79	-605.00	4.248e+04
89	36	9.508e+04	3110.12	3.66e-03	-0.32	0.0	-1.30	-681.24	-18.41	4091.85	3110.12	9.508e+04
		4.246e+04	-606.19	1.26e-04		140.0	-1.30	-99.21	-18.41	3486.97	-606.19	4.246e+04
89	65	9.669e+04	348.07	-3.75e-03	-0.32	0.0	-1.50	-669.56	10.96	-2365.37	-1854.40	9.669e+04
		4.289e+04	-1854.40	-7.38e-05		140.0	-1.50	-93.62	10.96	-2008.06	348.07	4.289e+04
89	66	9.668e+04	347.30	3.76e-03	-0.32	0.0	-1.50	-669.58	10.97	-2363.92	-1856.06	9.668e+04
		4.288e+04	-1856.06	-7.42e-05		140.0	-1.50	-93.70	10.97	-2006.66	347.30	4.288e+04
89	67	9.567e+04	1863.49	-3.69e-03	-0.32	0.0	-1.38	-677.03	-11.02	2365.70	1863.49	9.567e+04
		4.262e+04	-347.00	7.45e-05		140.0	-1.38	-97.15	-11.02	2008.99	-347.00	4.262e+04
89	68	9.566e+04	1861.83	3.69e-03	-0.32	0.0	-1.37	-677.06	-11.01	2367.15	1861.83	9.566e+04
		4.261e+04	-347.77	7.41e-05		140.0	-1.37	-97.23	-11.01	2010.40	-347.77	4.261e+04
89	92	1.464e+05	4.47	-5.61e-03	-0.36	0.0	-0.96	-1029.66	-0.03	1.06	4.47	1.464e+05
		6.411e+04	0.18	0.0		140.0	-0.96	-154.05	-0.03	1.40	0.18	6.411e+04
89	93	7.518e+04	6.34	-0.03	-0.28	0.0	-8.36	-757.69	-0.04	1.30	6.34	7.518e+04
		-5045.76	0.21	0.0		140.0	-8.36	-438.25	-0.04	1.81	0.21	-5045.76
89	94	8.790e+04	6.29	-0.03	-0.30	0.0	-8.78	-846.00	-0.04	1.37	6.29	8.790e+04
		1915.93	0.24	0.0		140.0	-8.78	-433.05	-0.04	1.86	0.24	1915.93
89	95	1.172e+05	1.09	-0.03	-0.37	0.0	5.48	-588.92	-7.18e-03	0.48	1.09	1.172e+05

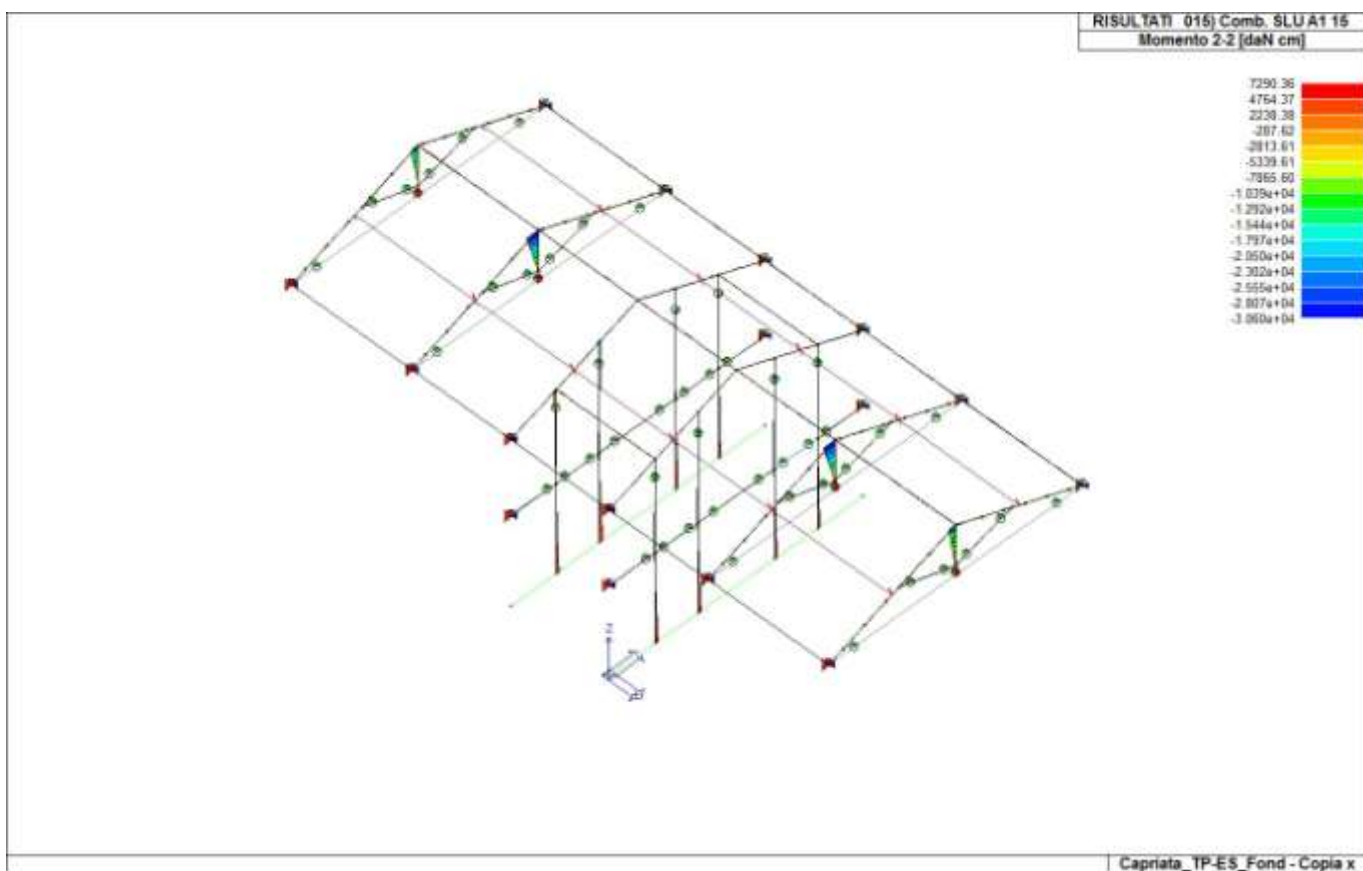
		8.597e+04	0.09	0.0		140.0	5.48	247.40	-7.18e-03	0.53	0.09	9.055e+04
89	101	9.617e+04	3.72	-3.72e-03	-0.31	0.0	-1.44	-673.31	-0.03	0.89	3.72	9.617e+04
		4.275e+04	0.15	0.0		140.0	-1.44	-95.43	-0.03	1.17	0.15	4.275e+04
89	102	1.013e+05	3.70	-3.91e-03	-0.31	0.0	-1.61	-708.63	-0.03	0.92	3.70	1.013e+05
		4.554e+04	0.16	0.0		140.0	-1.61	-93.35	-0.03	1.19	0.16	4.554e+04
89	103	9.617e+04	3.72	-3.72e-03	-0.31	0.0	-1.44	-673.31	-0.03	0.89	3.72	9.617e+04
		4.275e+04	0.15	0.0		140.0	-1.44	-95.43	-0.03	1.17	0.15	4.275e+04
90	2	1.735e+05	4.36	-1.66e-03	-0.46	0.0	-3.80	-972.95	0.02	-3.37	-1.20	1.684e+05
		1.098e+05	-1.20	-1.04e-06		246.0	-3.80	1013.33	0.02	-2.85	4.36	1.735e+05
90	9	2.968e+05	7.95	0.08	-0.50	0.0	-12.36	-1799.99	0.03	-5.38	-0.34	2.968e+05
		9.750e+04	-0.34	-1.62e-06		246.0	-12.36	-27.07	0.03	-4.14	7.95	9.750e+04
90	10	3.157e+05	7.92	0.08	-0.53	0.0	-13.33	-1925.04	0.03	-5.49	-0.65	3.157e+05
		1.159e+05	-0.65	-1.66e-06		246.0	-13.33	101.46	0.03	-4.30	7.92	1.168e+05
90	15	1.265e+05	-0.11	0.08	-0.33	0.0	9.79	616.24	1.49e-03	-0.10	-0.48	-7.992e+04
		-7.992e+04	-0.48	0.0		246.0	9.79	1267.33	1.49e-03	-0.21	-0.11	1.265e+05
90	26	9.846e+04	-2804.14	-9.77e-04	-0.32	0.0	-1.31	-510.30	2.08	-2409.35	-3316.04	9.538e+04
		6.418e+04	-3316.04	-1.07e-03		246.0	-1.31	543.26	2.08	-1360.75	-2804.14	9.846e+04
90	27	9.635e+04	3315.33	-9.30e-04	-0.32	0.0	-0.92	-519.05	-2.05	2404.59	3315.33	9.322e+04
		6.255e+04	2810.95	1.07e-03		246.0	-0.92	535.22	-2.05	1356.97	2810.95	9.635e+04
90	33	9.851e+04	-1675.85	-9.68e-04	-0.32	0.0	-1.32	-510.05	-2.03	-1355.96	-2806.35	9.543e+04
		6.421e+04	-3304.63	1.06e-03		246.0	-1.32	543.53	-2.03	-2400.77	-3304.63	9.851e+04
90	36	9.630e+04	3311.45	-9.39e-04	-0.32	0.0	-0.91	-519.30	2.06	1351.20	2805.64	9.317e+04
		6.252e+04	2805.64	-1.06e-03		246.0	-0.91	534.96	2.06	2396.99	3311.45	9.630e+04
90	58	9.790e+04	-1675.85	-9.65e-04	-0.32	0.0	-1.21	-512.61	1.25	-1437.64	-1983.53	9.548e+04
		6.375e+04	-1983.53	-6.43e-04		246.0	-1.21	541.14	1.25	-815.07	-1675.85	9.790e+04
90	65	9.793e+04	-1678.53	-9.60e-04	-0.32	0.0	-1.21	-512.47	-1.21	-812.54	-1678.53	9.484e+04
		6.377e+04	-1975.13	6.39e-04		246.0	-1.21	541.29	-1.21	-1433.04	-1975.13	9.793e+04
90	67	9.689e+04	1983.60	-9.42e-04	-0.32	0.0	-1.02	-516.76	1.24	806.47	1679.32	9.378e+04
		6.297e+04	1679.32	-6.40e-04		246.0	-1.02	537.30	1.24	1428.01	1983.60	9.689e+04
90	68	9.688e+04	1981.95	-9.47e-04	-0.32	0.0	-1.02	-516.88	1.24	807.78	1677.81	9.376e+04
		6.297e+04	1677.81	-6.40e-04		246.0	-1.02	537.19	1.24	1429.26	1981.95	9.688e+04
90	90	1.231e+05	3.37	-1.18e-03	-0.34	0.0	-2.40	-681.41	0.02	-2.53	-0.76	1.195e+05
		7.841e+04	-0.76	0.0		246.0	-2.40	710.61	0.02	-2.11	3.37	1.231e+05
90	93	2.050e+05	5.76	0.05	-0.37	0.0	-8.11	-1232.77	0.02	-3.87	-0.19	2.050e+05
		7.245e+04	-0.19	-1.16e-06		246.0	-8.11	17.01	0.02	-2.96	5.76	7.245e+04
90	94	2.176e+05	5.75	0.05	-0.38	0.0	-8.76	-1316.14	0.02	-3.94	-0.39	2.176e+05
		8.414e+04	-0.39	-1.19e-06		246.0	-8.76	102.70	0.02	-3.07	5.75	8.533e+04
90	95	1.224e+05	1.05	0.05	-0.33	0.0	5.88	203.43	6.41e-03	-0.89	-0.53	-1.644e+04
		-1.644e+04	-0.53	0.0		246.0	5.88	1061.47	6.41e-03	-0.81	1.05	1.224e+05
90	101	9.740e+04	3.41	-9.54e-04	-0.31	0.0	-1.12	-514.67	0.02	-2.38	-0.36	9.430e+04
		6.337e+04	-0.36	0.0		246.0	-1.12	539.24	0.02	-1.89	3.41	9.740e+04
90	102	1.026e+05	3.40	-1.00e-03	-0.31	0.0	-1.37	-548.02	0.02	-2.41	-0.44	9.933e+04
		6.638e+04	-0.44	0.0		246.0	-1.37	573.52	0.02	-1.93	3.40	1.026e+05
90	103	9.740e+04	3.41	-9.54e-04	-0.31	0.0	-1.12	-514.67	0.02	-2.38	-0.36	9.430e+04
		6.337e+04	-0.36	0.0		246.0	-1.12	539.24	0.02	-1.89	3.41	9.740e+04
91	9	2.921e+05	0.57	-0.03	-0.56	0.0	-1.77	253.01	0.01	1.82	-1.21	1.475e+05
		1.475e+05	-1.21	0.0		140.0	-1.77	1761.33	0.01	2.52	0.57	2.921e+05
91	10	3.112e+05	0.23	-0.03	-0.58	0.0	-2.13	247.57	0.01	1.93	-1.21	1.575e+05
		1.575e+05	-1.21	0.0		140.0	-2.13	1896.70	0.01	2.61	0.23	3.112e+05
91	11	2.470e+05	0.86	-0.04	-0.44	0.0	-1.60	224.07	0.01	1.46	-1.06	1.270e+05
		1.270e+05	-1.06	0.0		140.0	-1.60	1436.79	0.01	2.10	0.86	2.470e+05
91	15	-5.610e+04	0.04	-0.04	-0.20	0.0	2.86	4.70	-4.22e-03	0.18	0.04	-5.610e+04
		-7.180e+04	-0.55	0.0		140.0	2.86	-165.59	-4.22e-03	0.11	-0.55	-7.180e+04
91	26	9.688e+04	606.74	-3.38e-03	-0.32	0.0	0.37	114.71	-18.39	-3473.50	606.74	4.009e+04
		4.009e+04	-3113.53	1.23e-04		140.0	0.37	701.52	-18.39	-4078.71	-3113.53	9.688e+04
91	27	9.471e+04	3113.55	3.36e-03	-0.32	0.0	0.57	109.38	18.40	3475.23	-607.76	3.939e+04
		3.939e+04	-607.76	-1.24e-04		140.0	0.57	686.08	18.40	4081.00	3113.55	9.471e+04
91	33	9.693e+04	318.20	3.37e-03	-0.32	0.0	0.37	114.99	-17.51	-5343.53	318.20	4.012e+04
		4.012e+04	-2583.75	1.22e-03		140.0	0.37	701.83	-17.51	-5949.59	-2583.75	9.693e+04
91	36	9.466e+04	2583.77	-3.37e-03	-0.32	0.0	0.58	109.10	17.52	5345.26	-319.22	3.936e+04
		3.936e+04	-319.22	-1.22e-03		140.0	0.58	685.77	17.52	5951.88	2583.77	9.466e+04
91	58	9.631e+04	348.74	-3.38e-03	-0.32	0.0	0.42	113.32	-10.99	-2002.50	348.74	3.991e+04
		3.991e+04	-1862.51	7.25e-05		140.0	0.42	697.46	-10.99	-2359.42	-1862.51	9.631e+04
91	59	9.528e+04	1862.53	3.36e-03	-0.32	0.0	0.52	110.77	11.00	2004.23	-349.76	3.957e+04
		3.957e+04	-349.76	-7.33e-05		140.0	0.52	690.14	11.00	2361.71	1862.53	9.528e+04
91	65	9.633e+04	156.61	3.37e-03	-0.32	0.0	0.42	113.46	-10.46	-3139.09	156.61	3.992e+04
		3.992e+04	-1545.07	7.31e-04		140.0	0.42	697.61	-10.46	-3495.45	-1545.07	9.633e+04
91	68	9.526e+04	1545.09	-3.37e-03	-0.32	0.0	0.52	110.63	10.47	3140.83	-157.63	3.956e+04
		3.956e+04	-157.63	-7.32e-04		140.0	0.52	689.99	10.47	3497.74	1545.09	9.526e+04
91	93	2.021e+05	0.48	-0.02	-0.40	0.0	-1.01	185.17	9.69e-03	1.29	-0.88	1.008e+05
		1.008e+05	-0.88	0.0		140.0	-1.01	1227.93	9.69e-03	1.81	0.48	2.021e+05
91	94	2.148e+05	0.25	-0.02	-0.42	0.0	-1.26	181.54	8.07e-03	1.37	-0.88	1.074e+05
		1.074e+05	-0.88	0.0		140.0	-1.26	1318.17	8.07e-03	1.87	0.25	2.148e+05
91	95	-1.048e+04	-0.14	-0.03	-0.25	0.0	1.96	38.92	-2.27e-03	0.44	-0.14	-2.128e+04
		-2.128e+04	-0.46	0.0		140.0	1.96	159.67	-2.27e-03	0.48	-0.46	-1.048e+04
91	101	9.579e+04	9.17e-03	-3.37e-03	-0.31	0.0	0.47	112.05	3.71e-03	0.87	-0.51	3.974e+04
		3.974e+04	-0.51	0.0		140.0	0.47	693.80	3.71e-03	1.15	9.17e-03	9.579e+04

91	102	1.009e+05	-0.08	-3.55e-03	-0.31	0.0	0.38	110.59	3.06e-03	0.90	-0.51	4.241e+04
		4.241e+04	-0.51	0.0		140.0	0.38	729.90	3.06e-03	1.17	-0.08	1.009e+05
91	103	9.579e+04	9.17e-03	-3.37e-03	-0.31	0.0	0.47	112.05	3.71e-03	0.87	-0.51	3.974e+04
		3.974e+04	-0.51	0.0		140.0	0.47	693.80	3.71e-03	1.15	9.17e-03	9.579e+04
92	10	1.550e+05	0.0	-0.03	-0.63	0.0	-1.65	-0.19	-2.96e-03	2.90e-05	0.0	4.11
		4.11	-0.44	0.0		148.0	-1.65	2046.04	-2.96e-03	0.71	-0.44	1.550e+05
92	11	1.233e+05	0.0	-0.03	-0.50	0.0	0.90	-0.16	-2.06e-03	2.61e-05	0.0	3.43
		3.43	-0.30	0.0		148.0	0.90	1612.10	-2.06e-03	0.68	-0.30	1.233e+05
92	14	-2.33	0.0	-0.05	-0.27	0.0	-11.99	0.05	-1.20e-03	8.76e-06	0.0	-2.33
		-1.657e+04	-0.18	0.0		148.0	-11.99	-150.41	-1.20e-03	-0.03	-0.18	-1.657e+04
92	15	-3.01	0.0	-0.04	-0.14	0.0	-9.43	0.08	-3.01e-04	5.80e-06	0.0	-3.01
		-4.829e+04	-0.04	0.0		148.0	-9.43	-584.35	-3.01e-04	-0.07	-0.04	-4.829e+04
92	16	-2.66	0.0	-0.04	-0.16	0.0	-10.07	0.07	-5.77e-04	4.45e-06	0.0	-2.66
		-3.800e+04	-0.09	0.0		148.0	-10.07	-443.67	-5.77e-04	-0.10	-0.09	-3.800e+04
92	26	4.228e+04	574.66	-4.96e-03	-0.32	0.0	-4.59	0.05	3.88	-949.47	0.0	3.23
		3.23	0.0	7.39e-05		148.0	-4.59	579.34	3.88	-360.82	574.66	4.228e+04
92	27	4.156e+04	0.0	4.91e-03	-0.32	0.0	-4.49	-0.13	-3.89	949.47	0.0	-2.57
		-2.57	-575.04	-7.47e-05		148.0	-4.49	569.36	-3.89	361.41	-575.04	4.156e+04
92	32	4.154e+04	0.0	-4.92e-03	-0.32	0.0	-4.49	-0.16	-3.88	950.34	0.0	-2.93
		-2.93	-574.30	-7.41e-05		148.0	-4.49	569.11	-3.88	362.20	-574.30	4.154e+04
92	33	4.230e+04	565.79	4.95e-03	-0.32	0.0	-4.59	0.11	3.82	-469.52	0.0	0.68
		0.68	0.0	1.12e-03		148.0	-4.59	579.67	3.82	-214.93	565.79	4.230e+04
92	36	4.154e+04	0.0	-4.92e-03	-0.32	0.0	-4.49	-0.19	-3.83	469.52	0.0	-0.03
		-0.03	-566.18	-1.12e-03		148.0	-4.49	569.04	-3.83	215.52	-566.18	4.154e+04
92	58	4.209e+04	279.78	-4.95e-03	-0.31	0.0	-4.56	8.67e-03	1.89	-568.00	0.0	2.25
		2.25	0.0	4.75e-05		148.0	-4.56	576.69	1.89	-209.48	279.78	4.209e+04
92	59	4.175e+04	0.0	4.92e-03	-0.31	0.0	-4.52	-0.09	-1.89	568.00	0.0	-1.59
		-1.59	-280.16	-4.84e-05		148.0	-4.52	572.02	-1.89	210.07	-280.16	4.175e+04
92	64	4.174e+04	0.0	-4.93e-03	-0.31	0.0	-4.52	-0.11	-1.89	568.56	0.0	-1.82
		-1.82	-279.68	-4.79e-05		148.0	-4.52	571.87	-1.89	210.58	-279.68	4.174e+04
92	65	4.210e+04	269.54	4.94e-03	-0.31	0.0	-4.56	0.05	1.82	-280.85	0.0	0.55
		0.55	0.0	6.78e-04		148.0	-4.56	576.87	1.82	-113.38	269.54	4.210e+04
92	68	4.174e+04	0.0	-4.93e-03	-0.31	0.0	-4.52	-0.13	-1.82	280.85	0.0	0.10
		0.10	-269.92	-6.79e-04		148.0	-4.52	571.83	-1.82	113.97	-269.92	4.174e+04
92	93	9.911e+04	0.0	-0.02	-0.44	0.0	-1.09	-0.12	-1.88e-03	2.25e-05	0.0	2.47
		2.47	-0.28	0.0		148.0	-1.09	1306.50	-1.88e-03	0.55	-0.28	9.911e+04
92	94	1.060e+05	0.0	-0.02	-0.45	0.0	-1.52	-0.13	-2.07e-03	2.16e-05	0.0	2.70
		2.70	-0.31	0.0		148.0	-1.52	1400.29	-2.07e-03	0.52	-0.31	1.060e+05
92	95	-1.82	0.0	-0.03	-0.20	0.0	-7.99	0.04	-7.13e-04	8.97e-06	0.0	-1.82
		-1.527e+04	-0.11	0.0		148.0	-7.99	-157.80	-7.13e-04	0.05	-0.11	-1.527e+04
92	96	-1.58	0.0	-0.03	-0.21	0.0	-8.41	0.03	-8.97e-04	8.07e-06	0.0	-1.58
		-8407.63	-0.13	0.0		148.0	-8.41	-64.01	-8.97e-04	0.03	-0.13	-8407.63
92	101	4.192e+04	0.0	-4.93e-03	-0.30	0.0	-4.54	-0.04	-1.30e-03	1.57e-05	0.0	0.33
		0.33	-0.19	0.0		148.0	-4.54	574.35	-1.30e-03	0.30	-0.19	4.192e+04
92	102	4.466e+04	0.0	-5.20e-03	-0.31	0.0	-4.71	-0.04	-1.37e-03	1.54e-05	0.0	0.42
		0.42	-0.20	0.0		148.0	-4.71	611.87	-1.37e-03	0.29	-0.20	4.466e+04
92	103	4.192e+04	0.0	-4.93e-03	-0.30	0.0	-4.54	-0.04	-1.30e-03	1.57e-05	0.0	0.33
		0.33	-0.19	0.0		148.0	-4.54	574.35	-1.30e-03	0.30	-0.19	4.192e+04

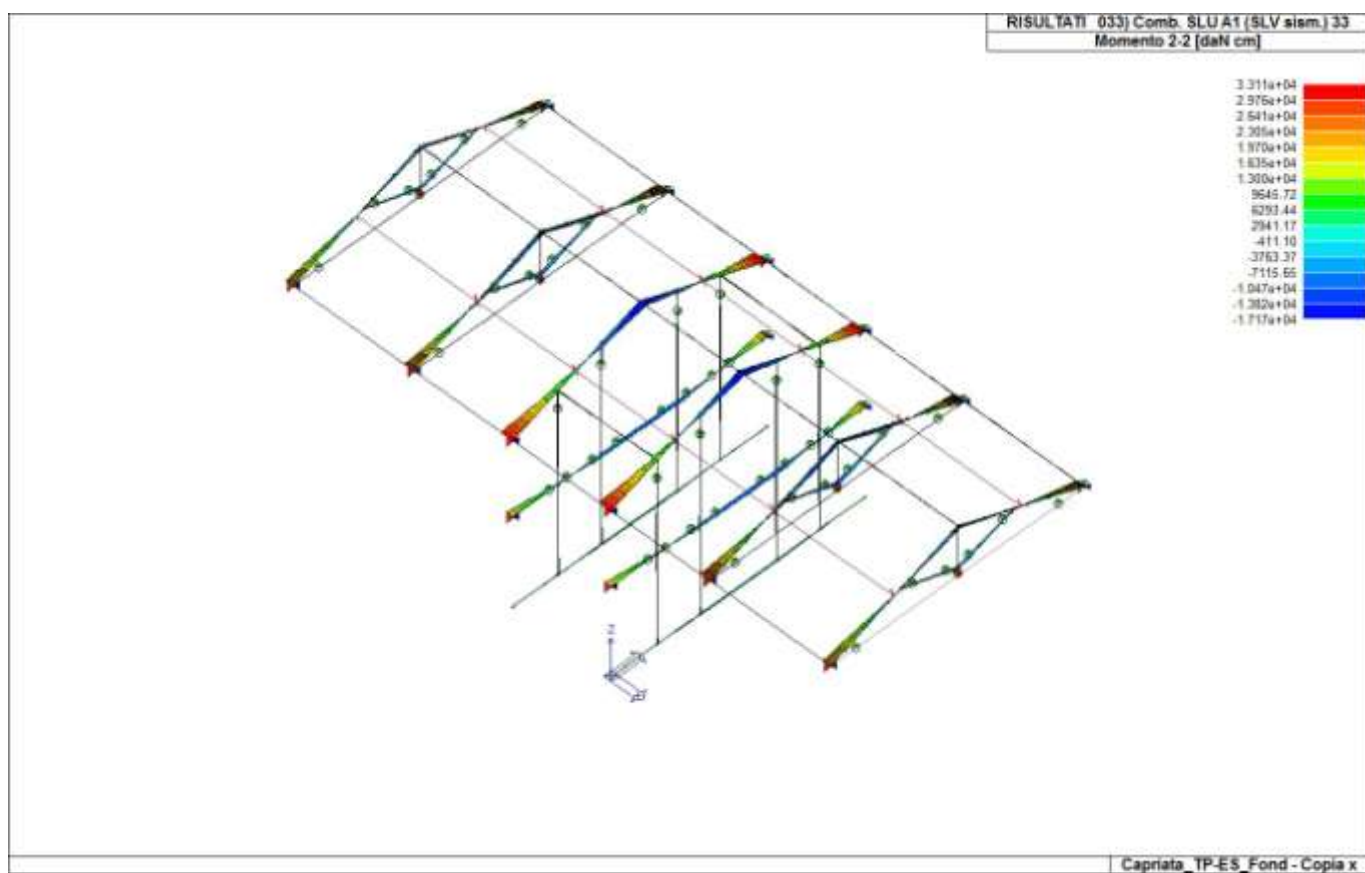
Trave f.	M3 mx/mn	M2 mx/mn	D 2 / D 3	Pt	N	V 2	V 3	T
	-8.105e+04	-3329.70	-0.05	-0.63	-16.49	-1925.04	-18.50	-5949.59
	3.157e+05	3321.96	0.08	-0.13	11.97	2048.42	18.57	5951.88



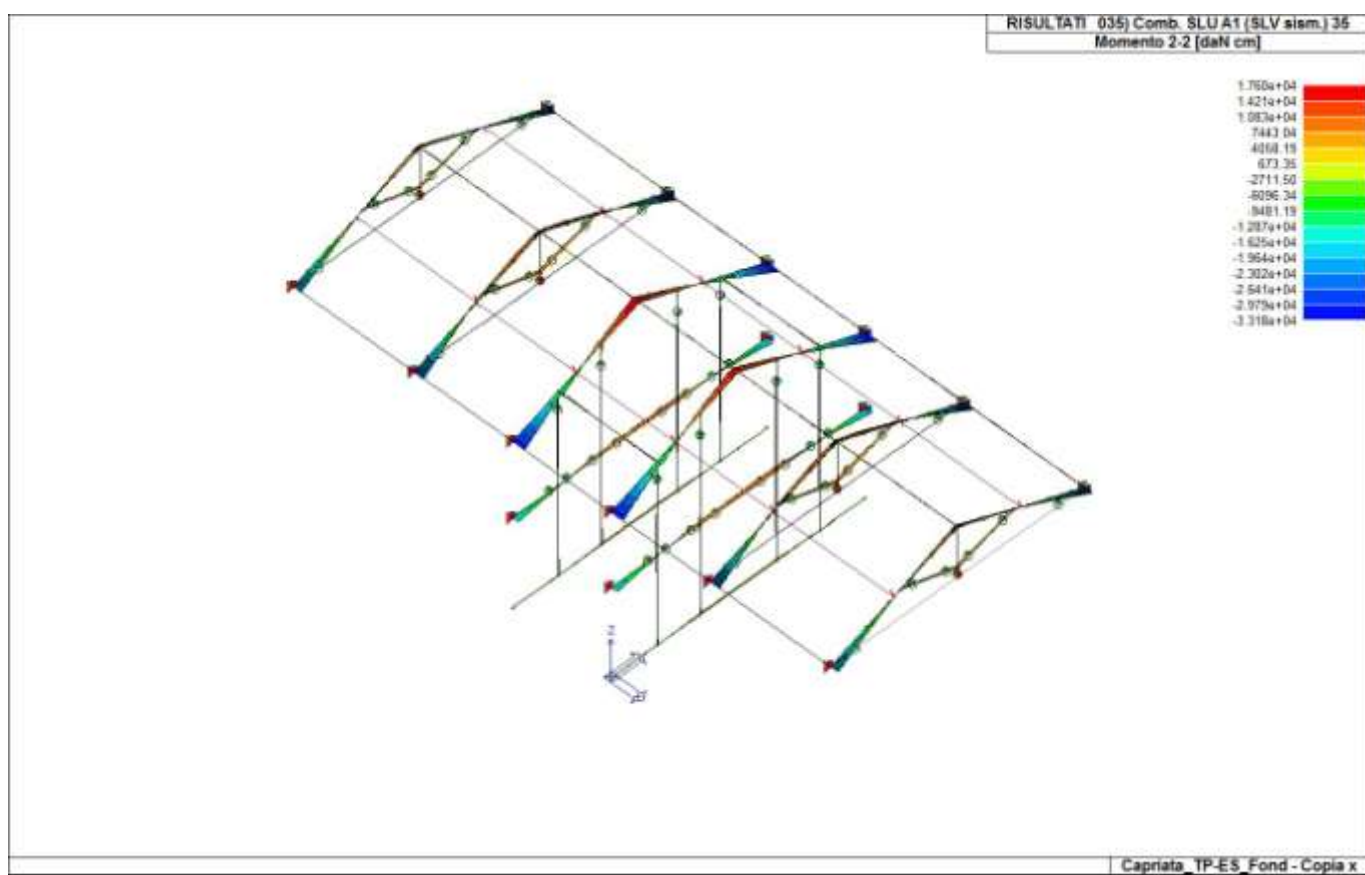
43_RIS_M2_010_Comb. SLU A1 10



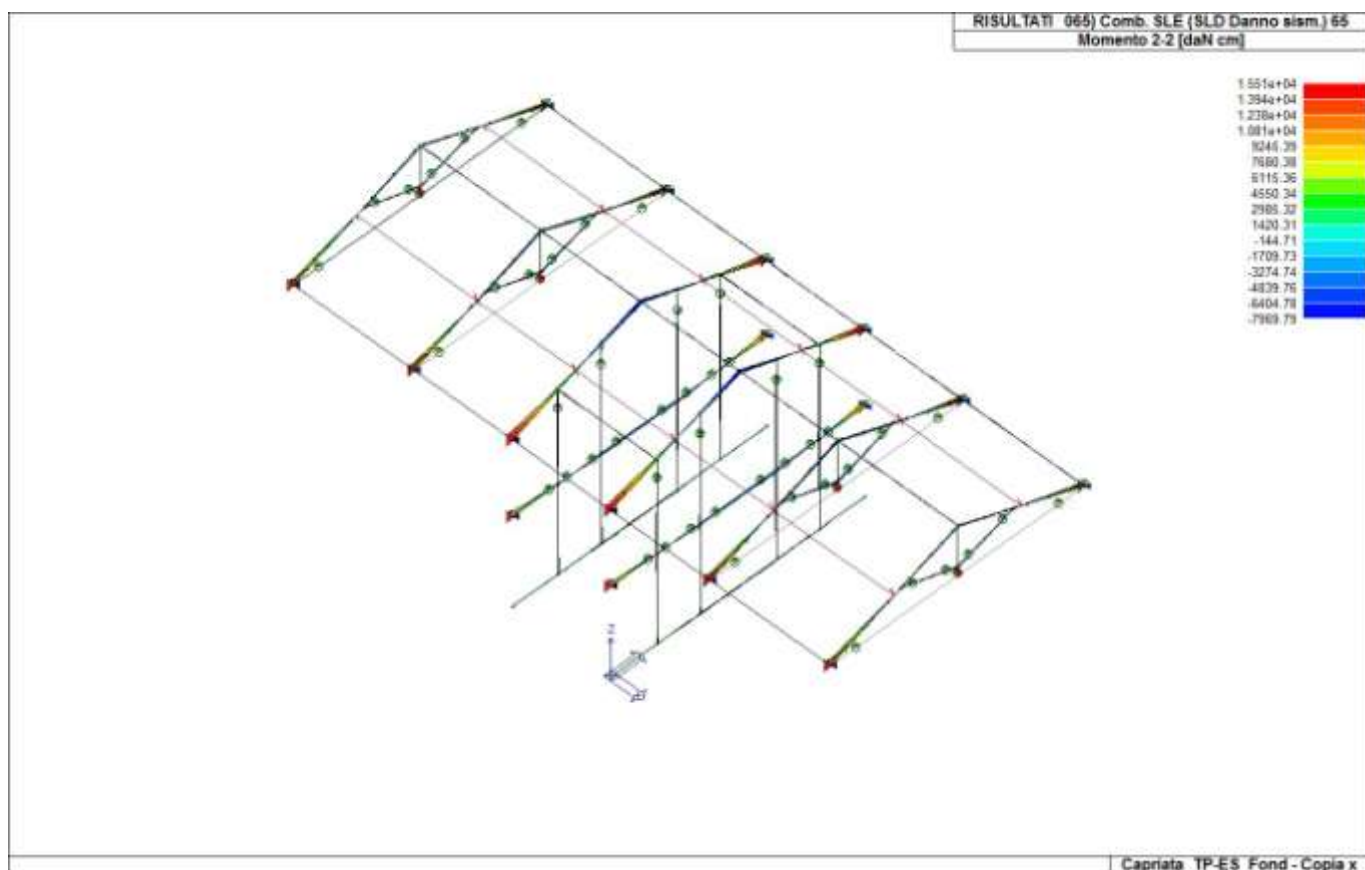
43_RIS_M2_015_Comb. SLU A1 15



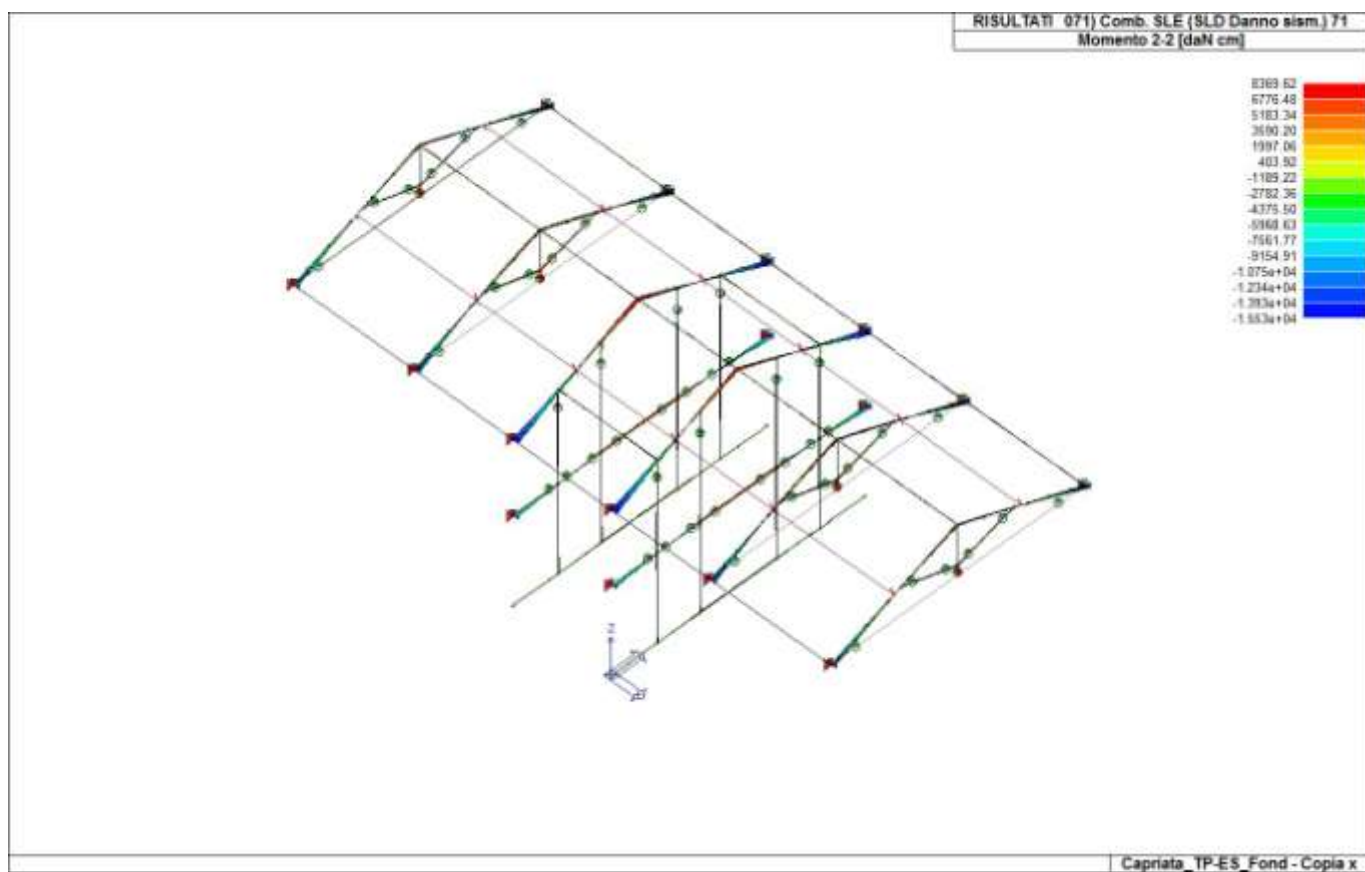
43_RIS_M2_033_Comb. SLU A1 (SLV sism.) 33



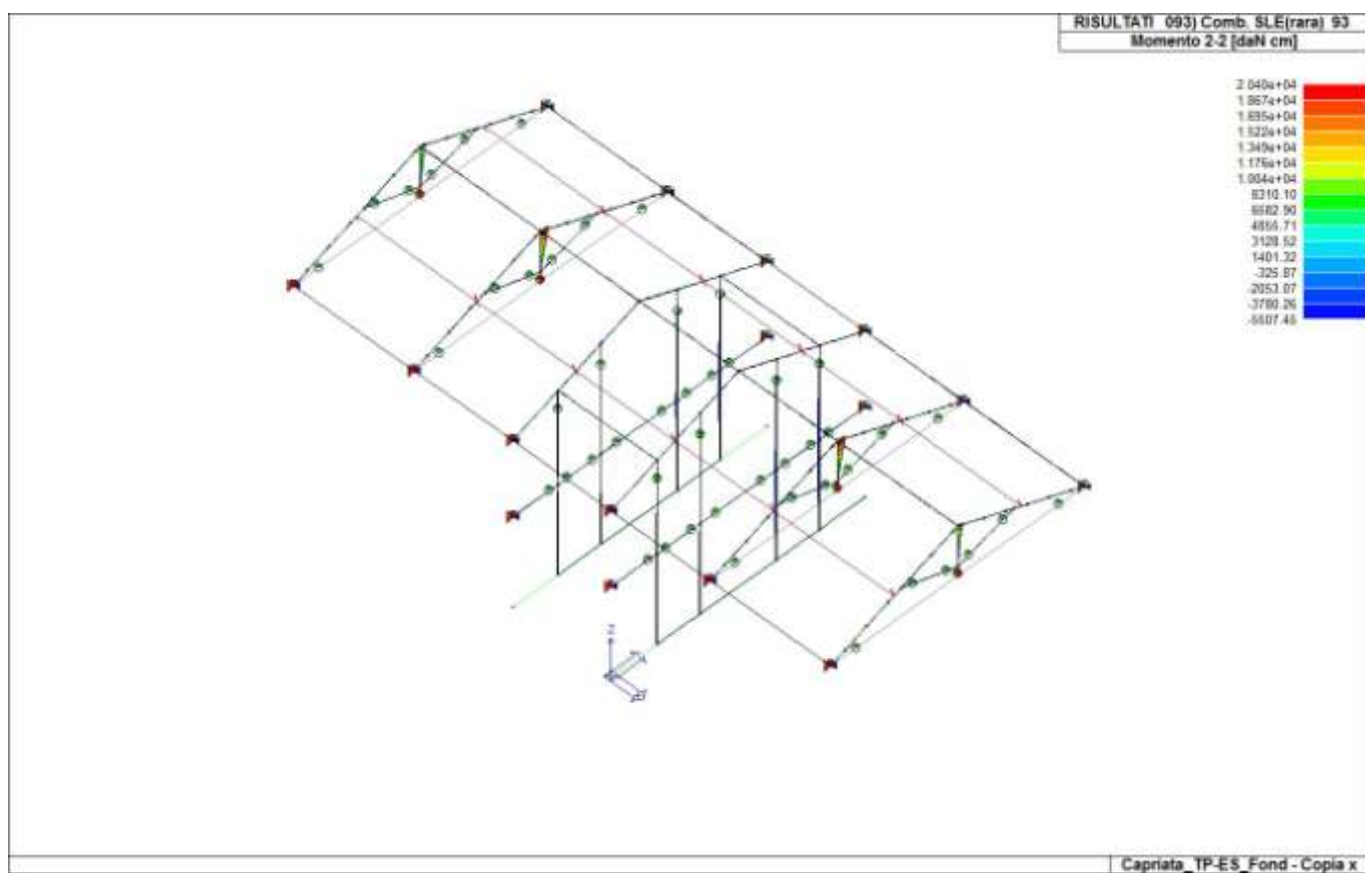
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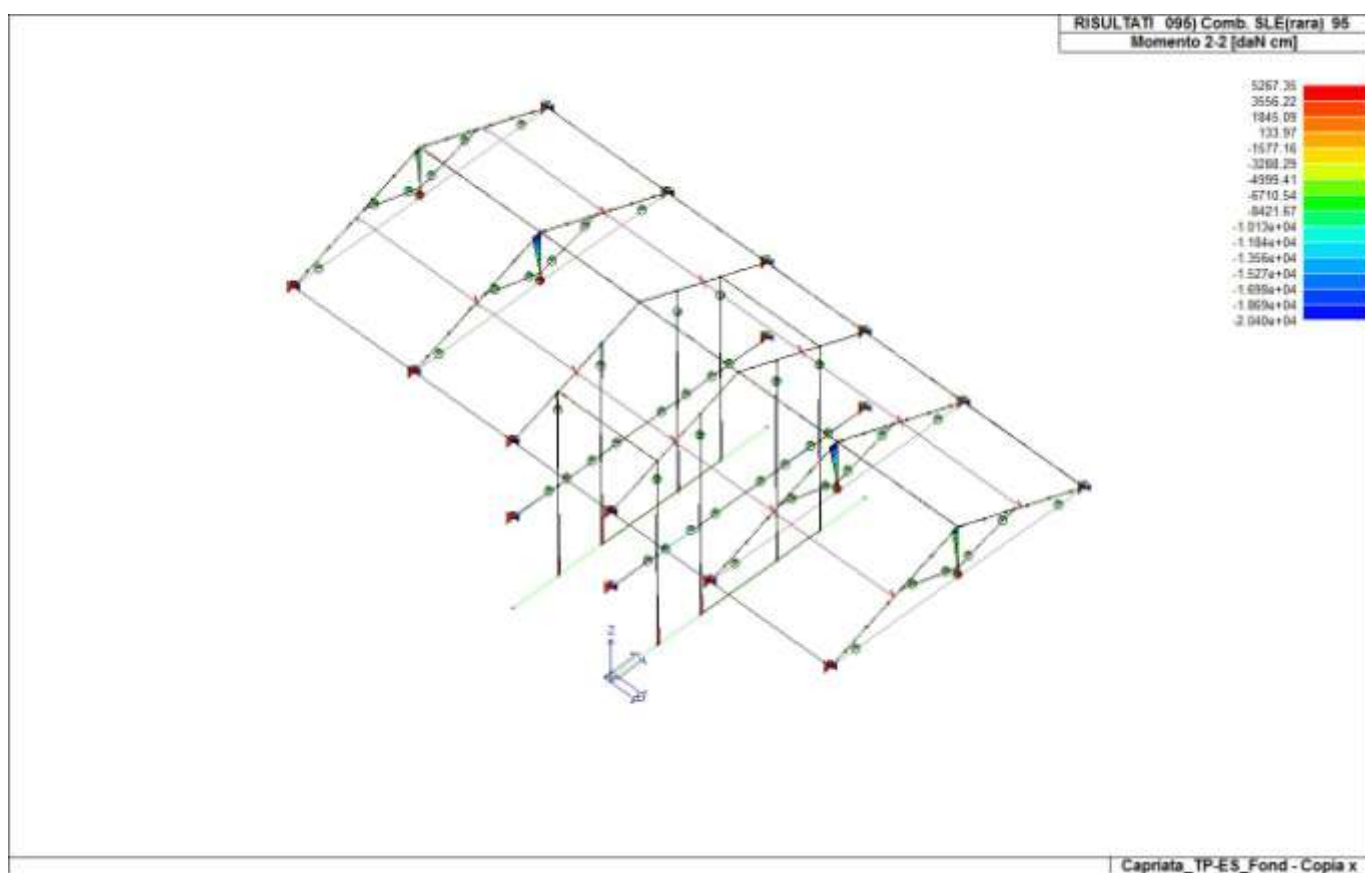
43_RIS_M2_065_Comb. SLE (SLD Danno sism.) 65



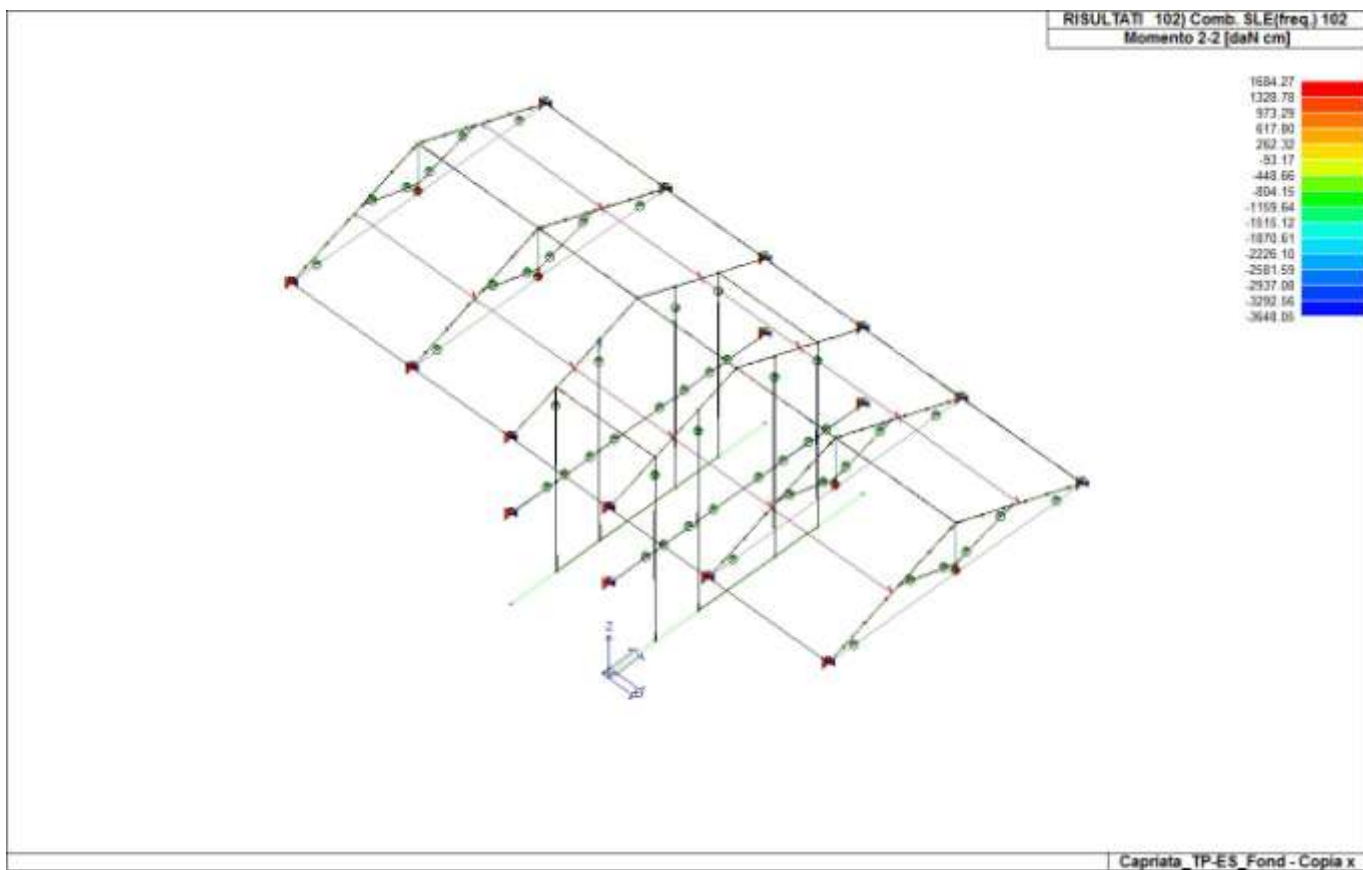
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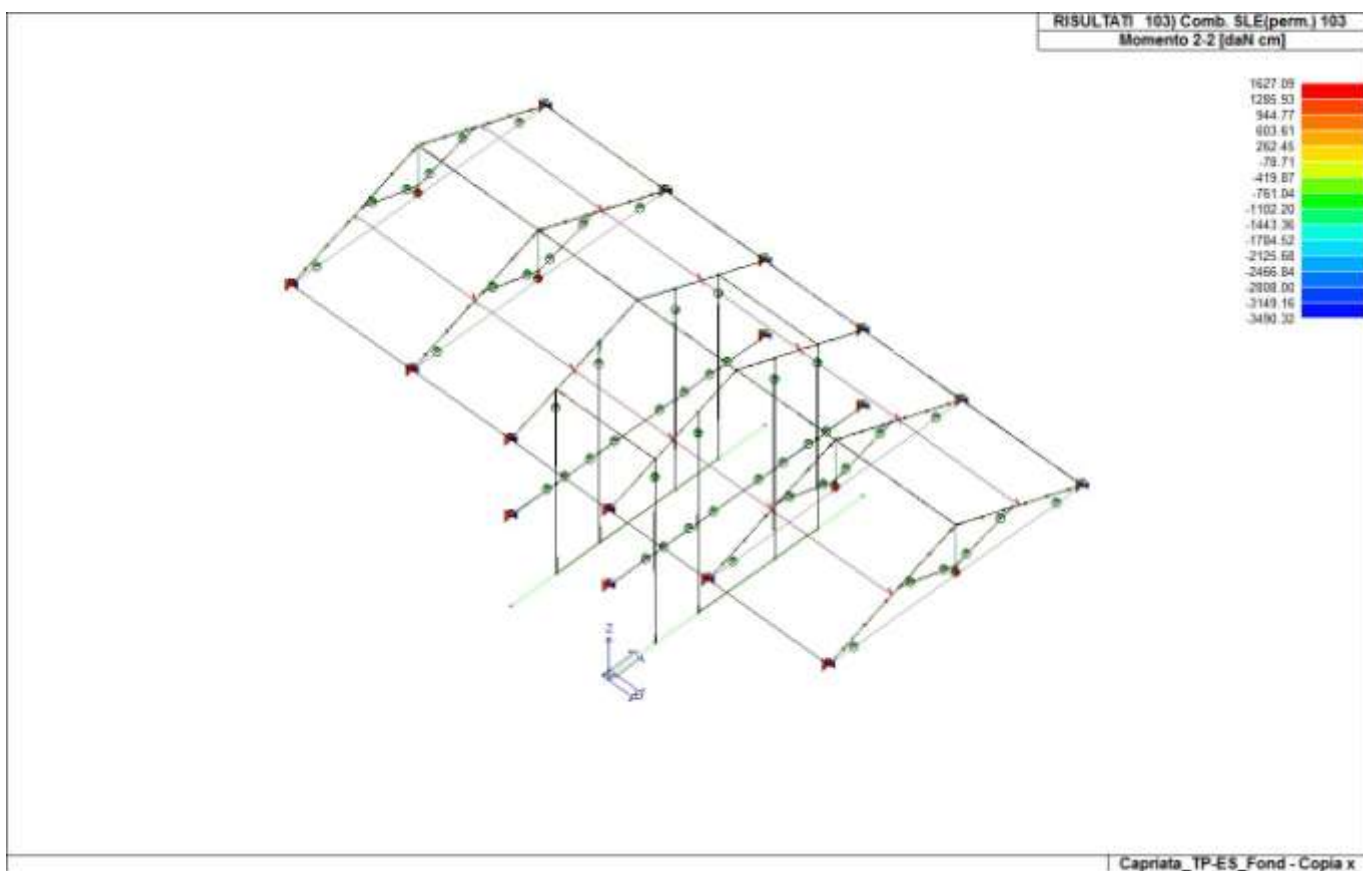
43_RIS_M2_093_Comb. SLE(rara) 93



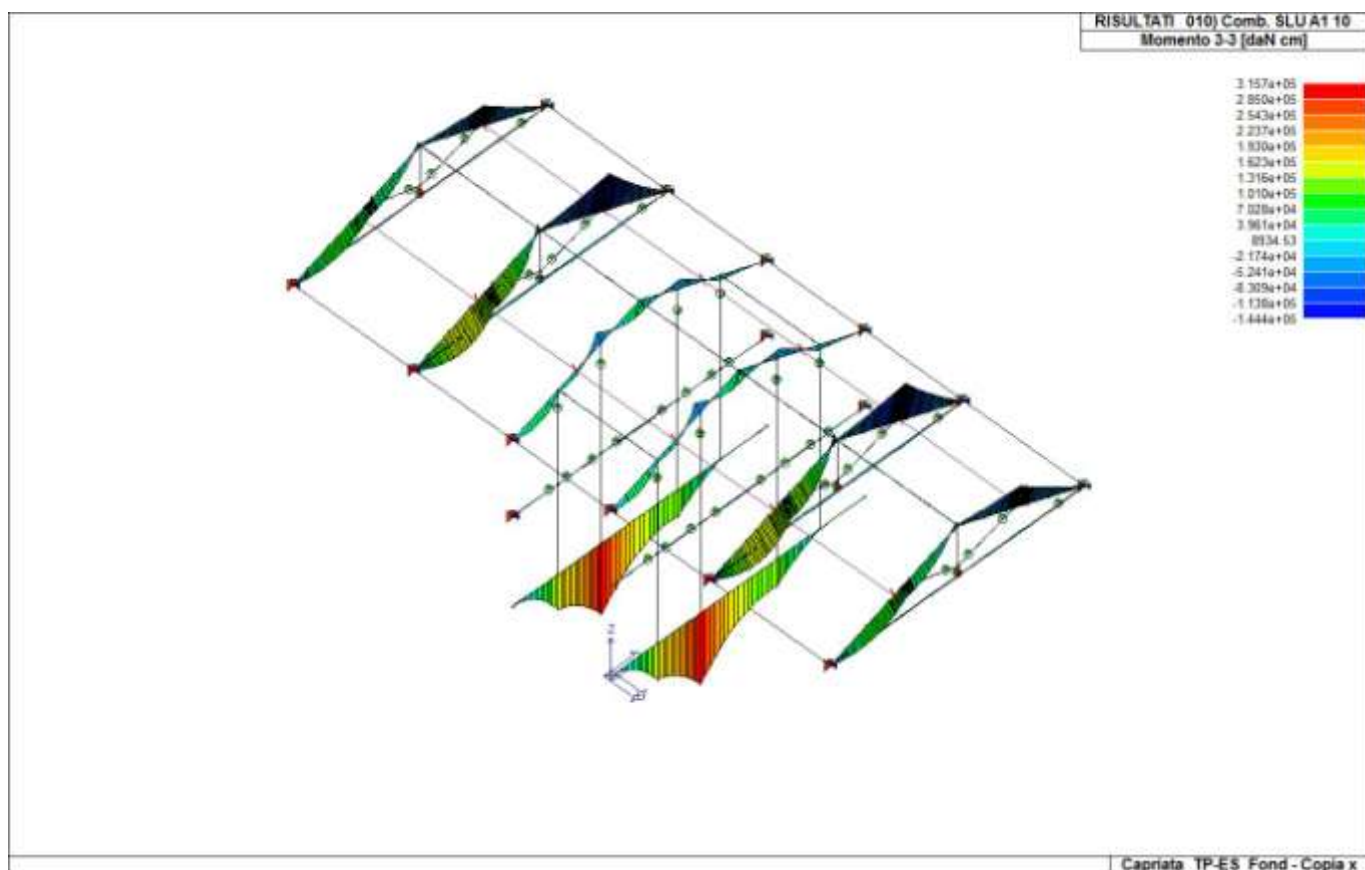
43_RIS_M2_095_Comb. SLE(rara) 95



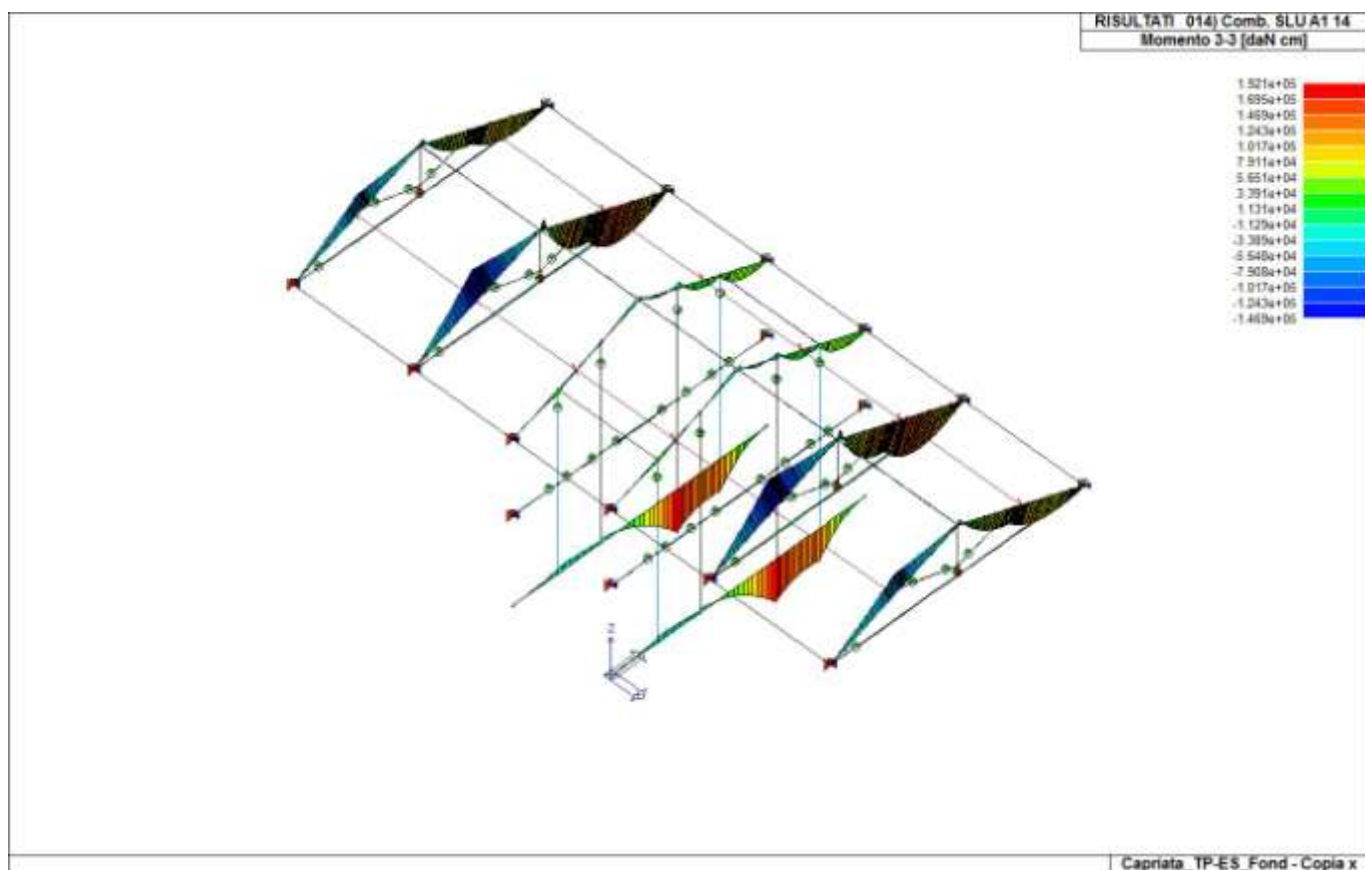
43_RIS_M2_102_Comb. SLE(freq.) 102



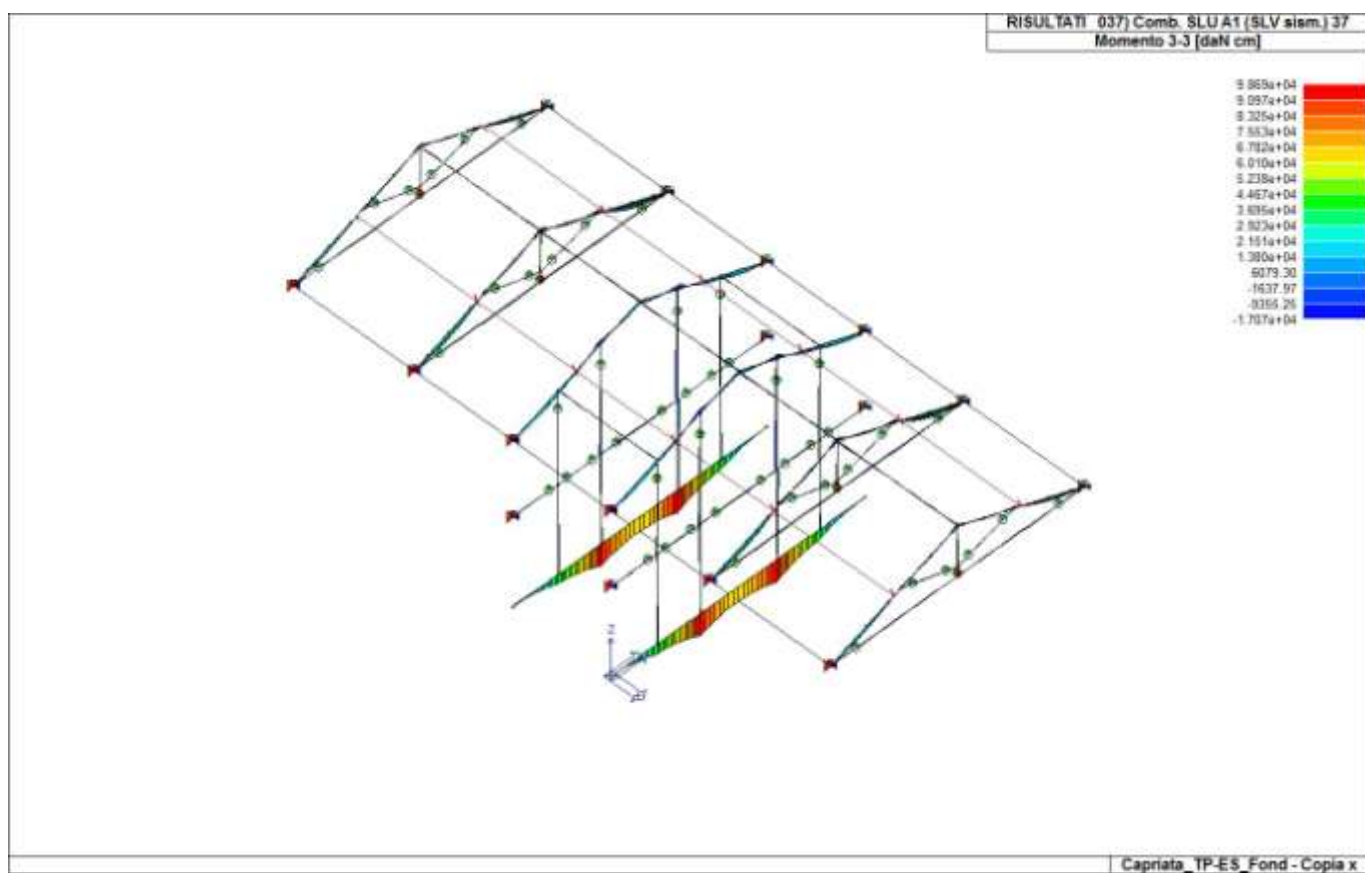
43_RIS_M2_103_Comb. SLE(perm.) 103



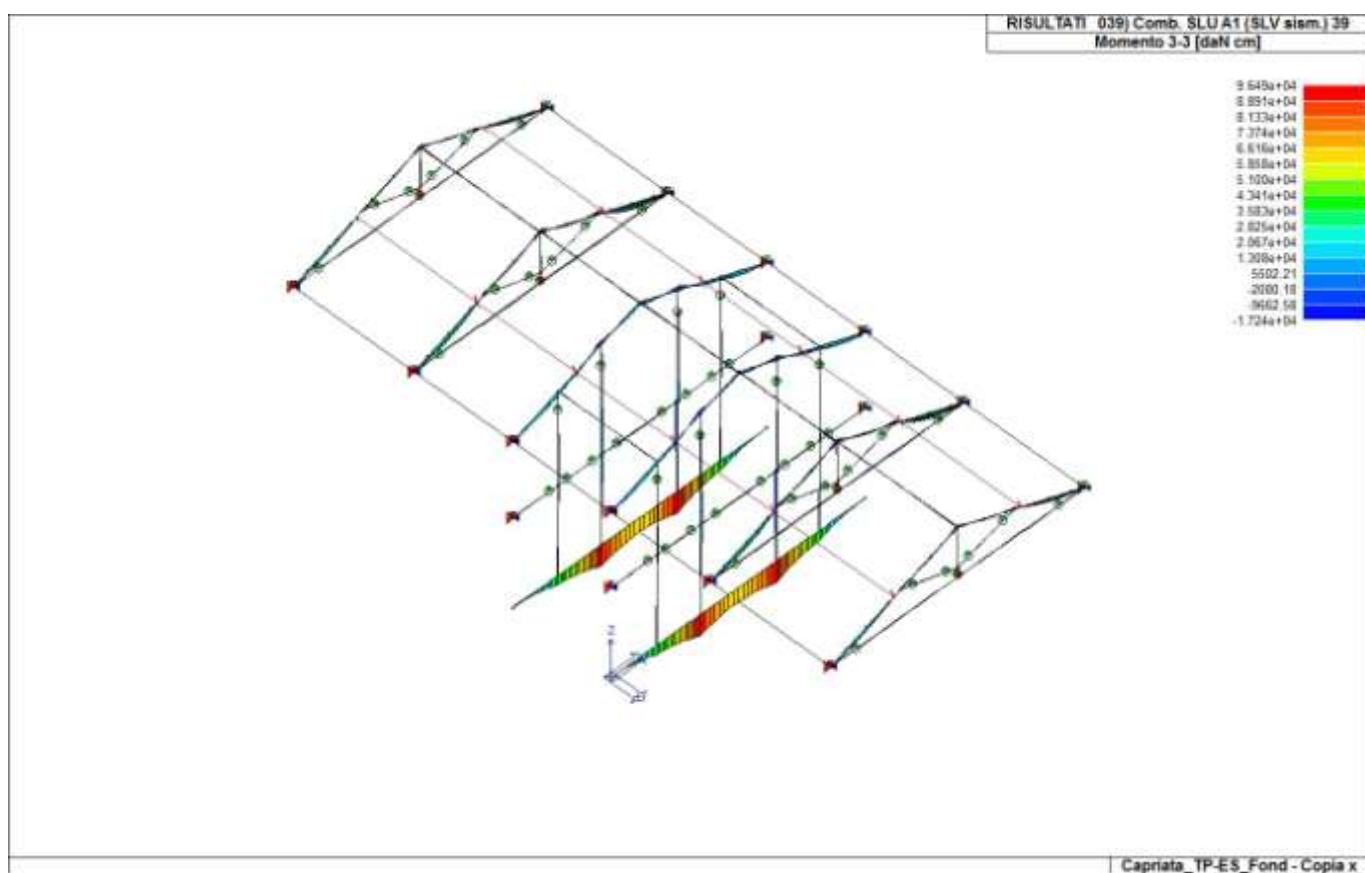
43_RIS_M3_010_Comb. SLU A1 10



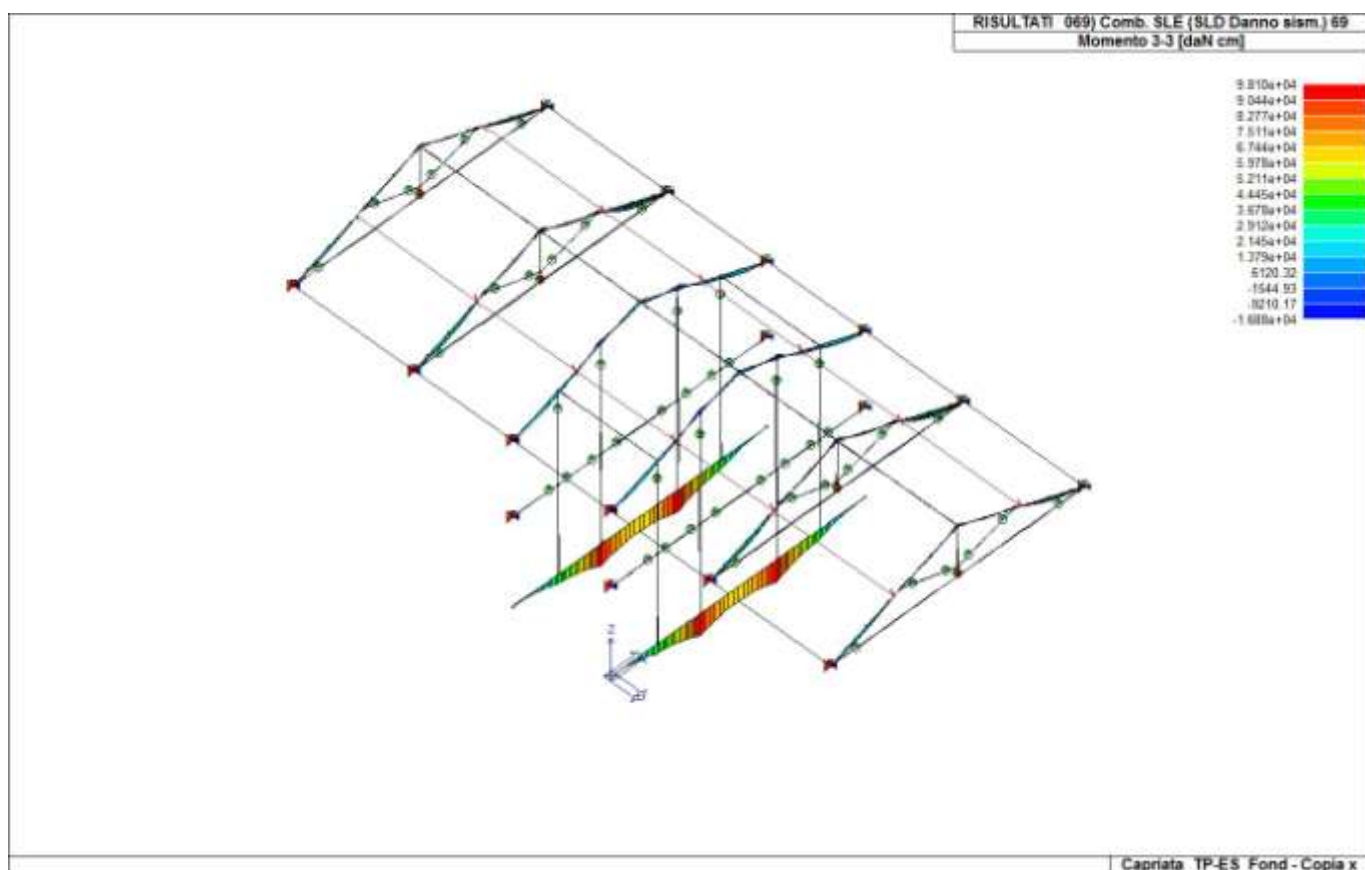
43_RIS_M3_014_Comb. SLU A1 14



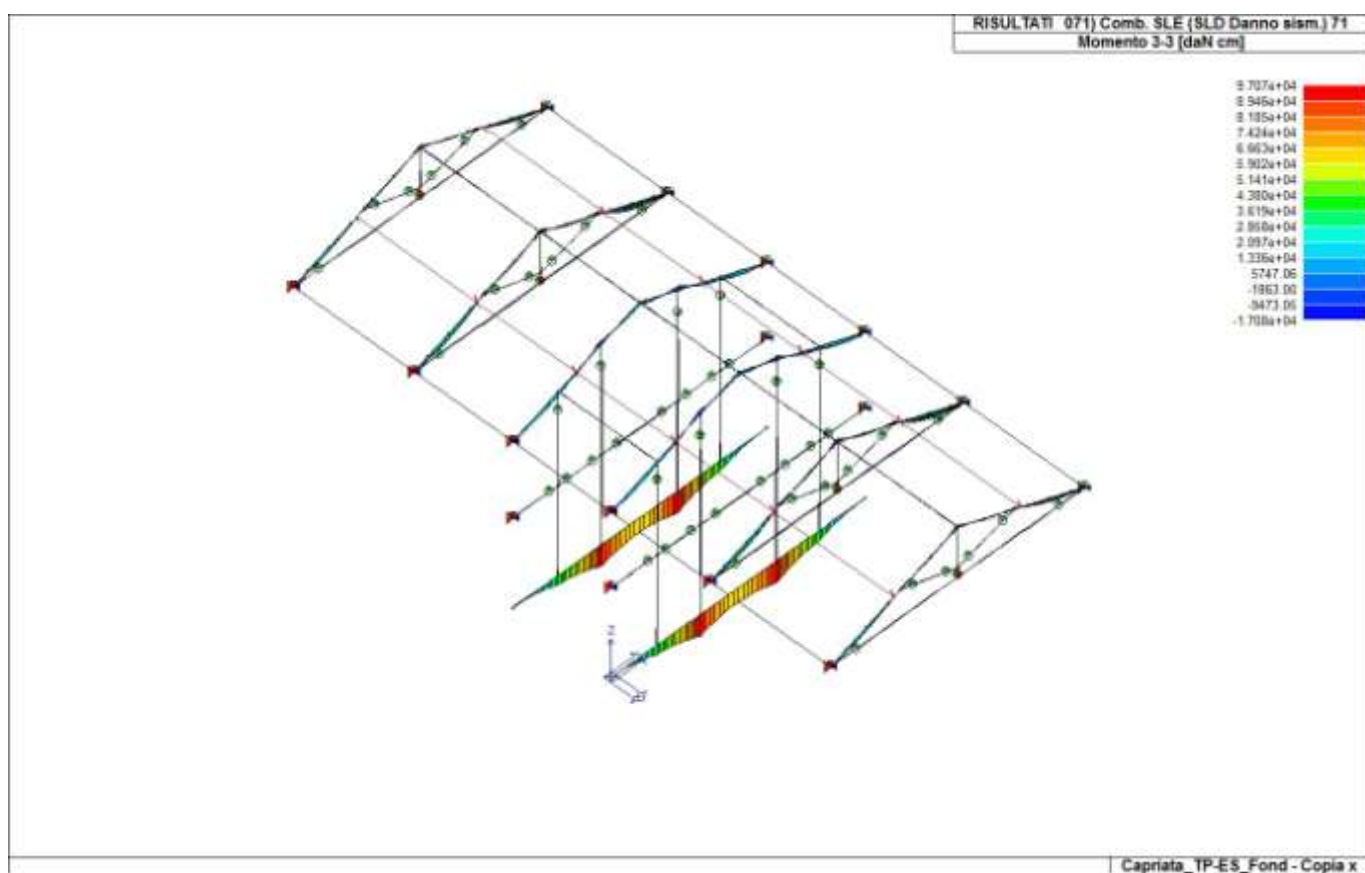
43_RIS_M3_037_Comb. SLU A1 (SLV sism.) 37



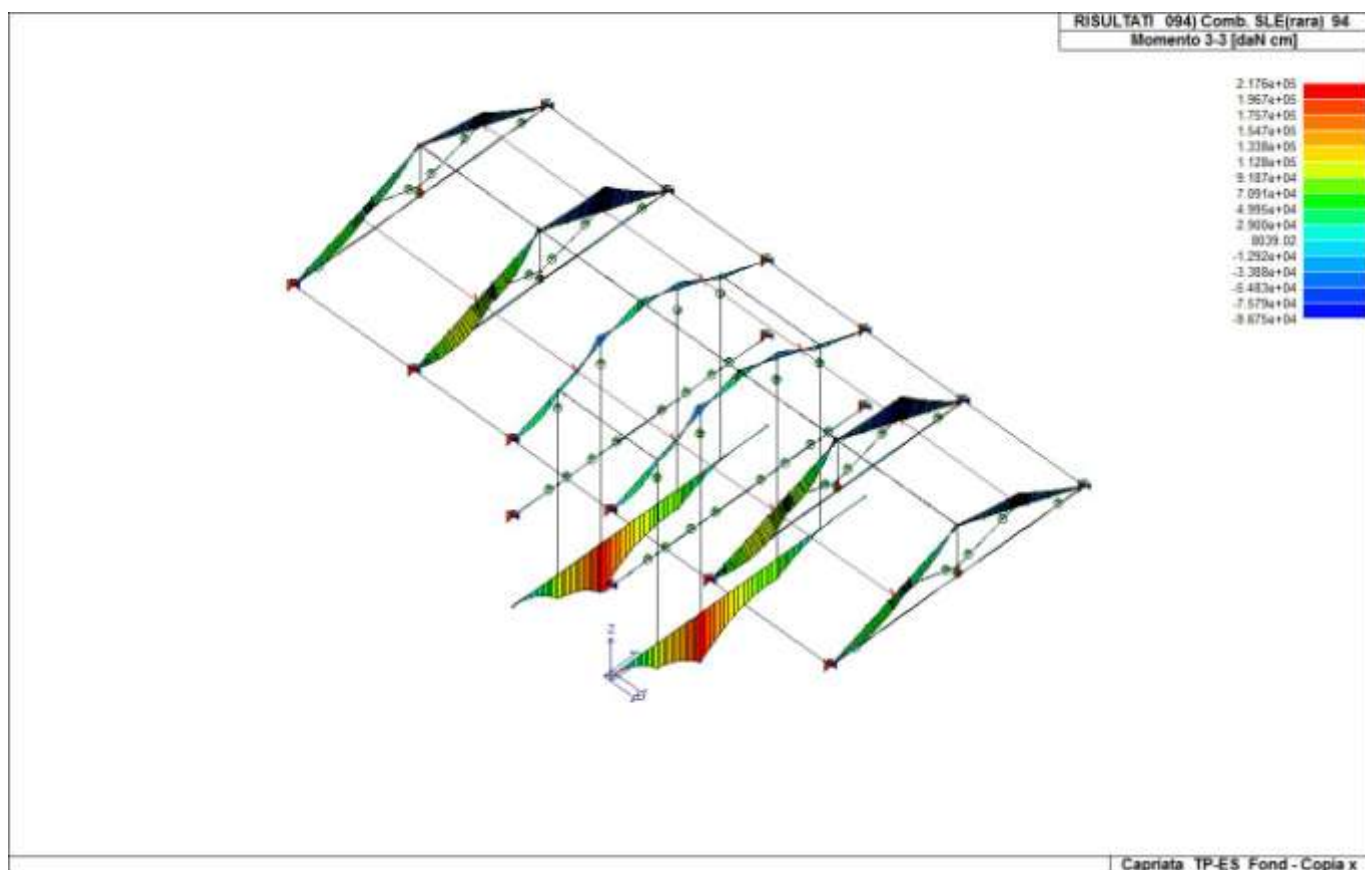
43_RIS_M3_039_Comb. SLU A1 (SLV sism.) 39



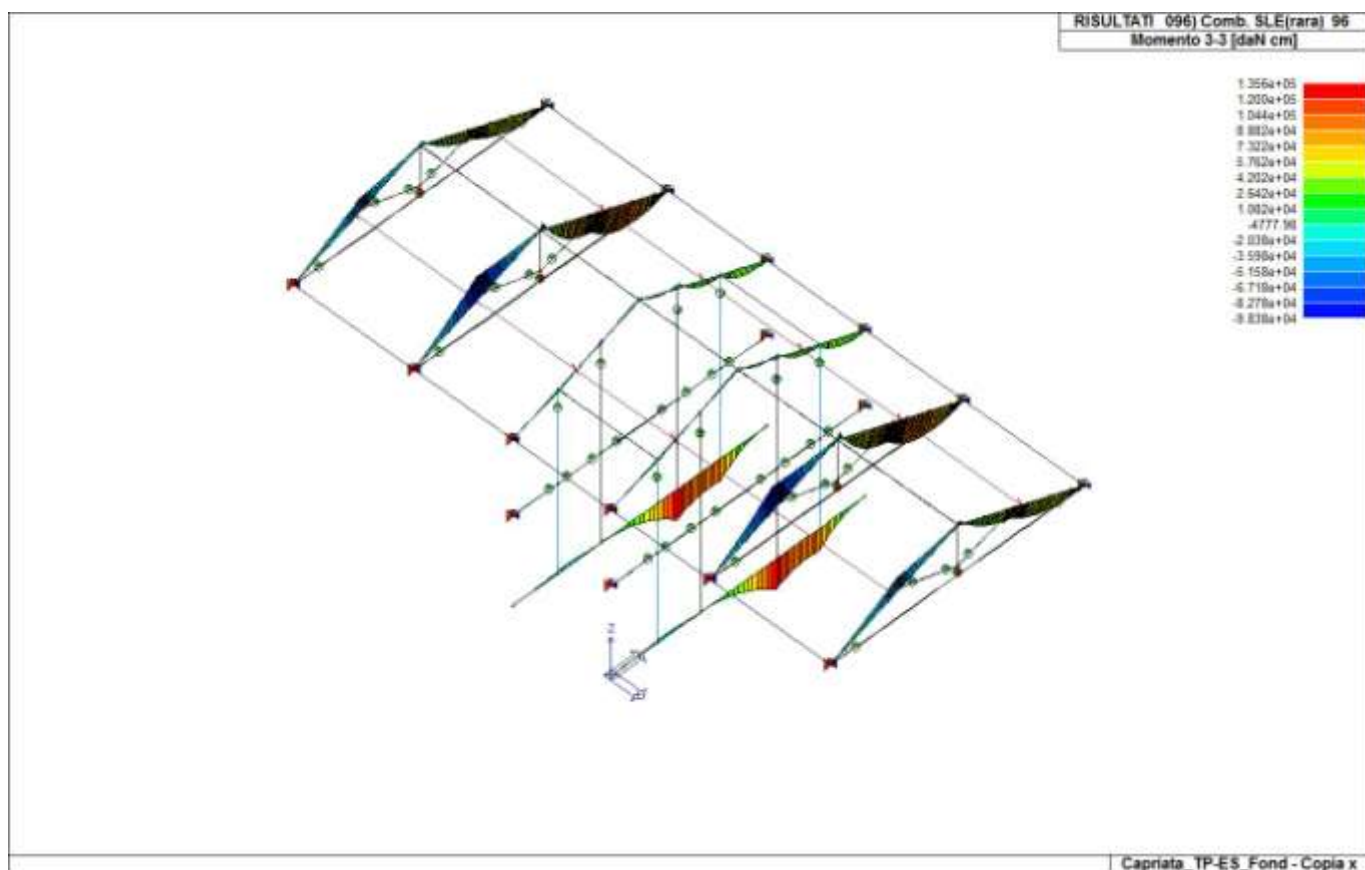
43_RIS_M3_069_Comb. SLE (SLD Danno sism.) 69



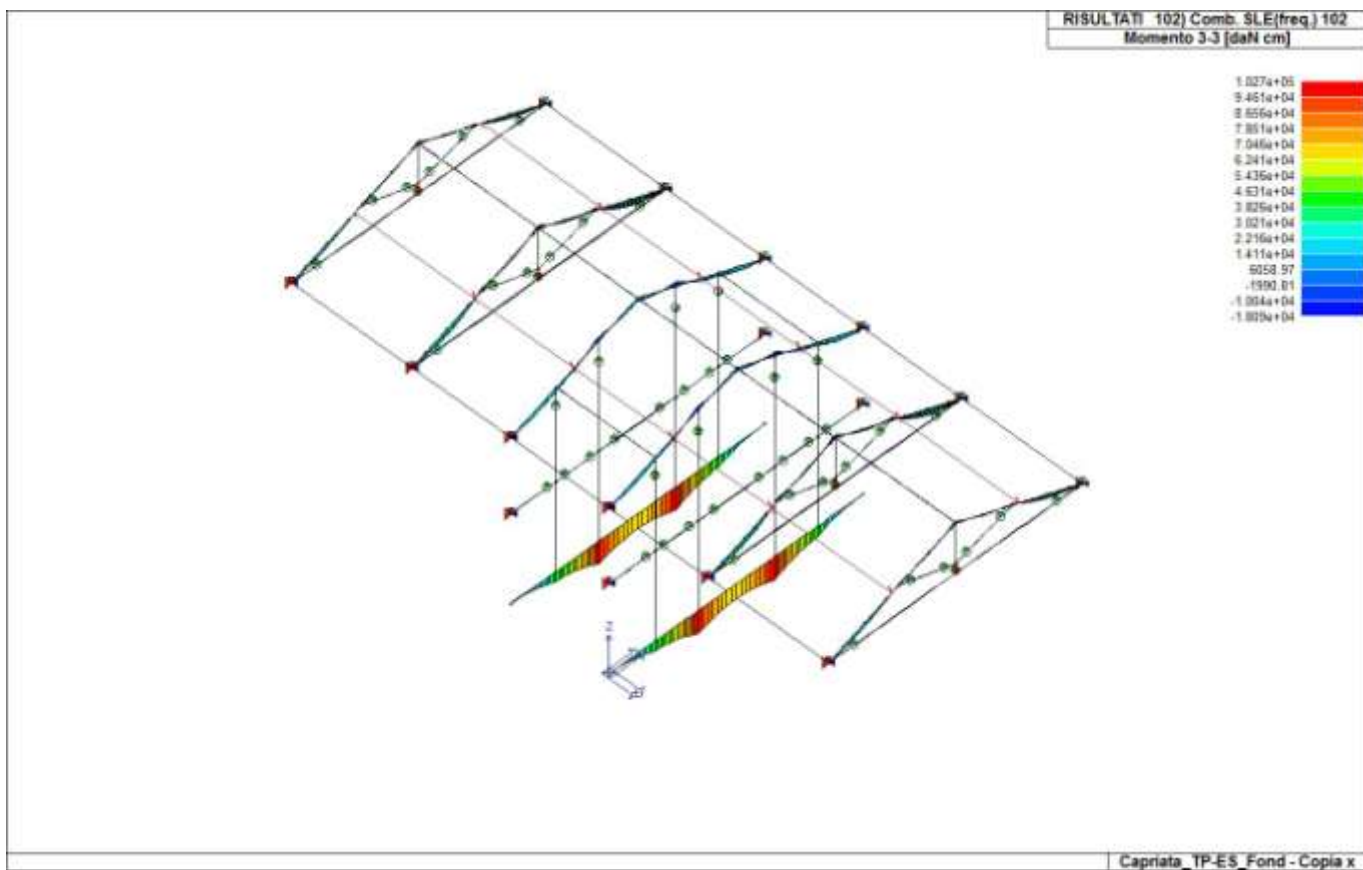
43_RIS_M3_071_Comb. SLE (SLD Danno sism.) 71



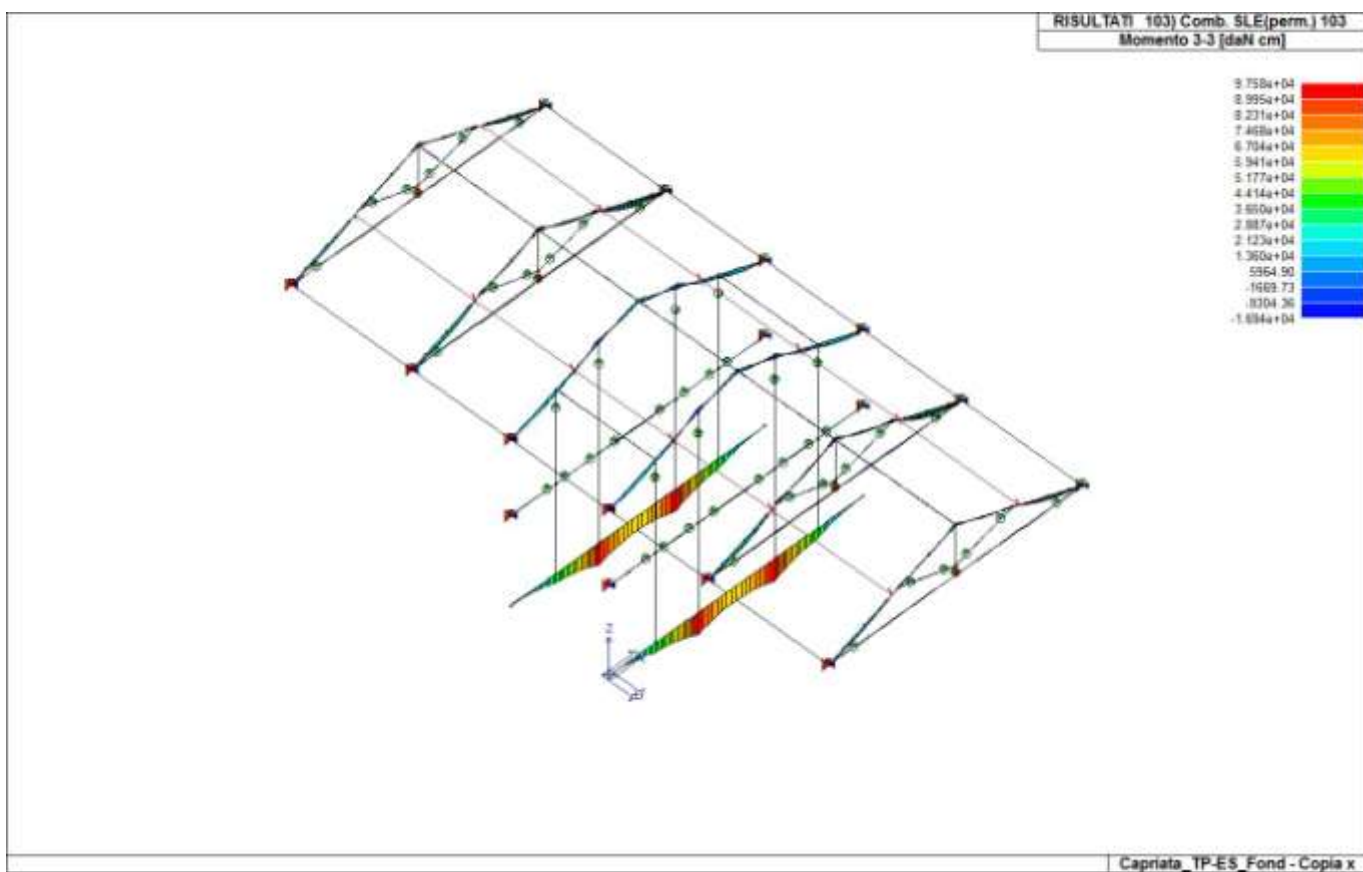
43_RIS_M3_094_Comb. SLE(rara) 94



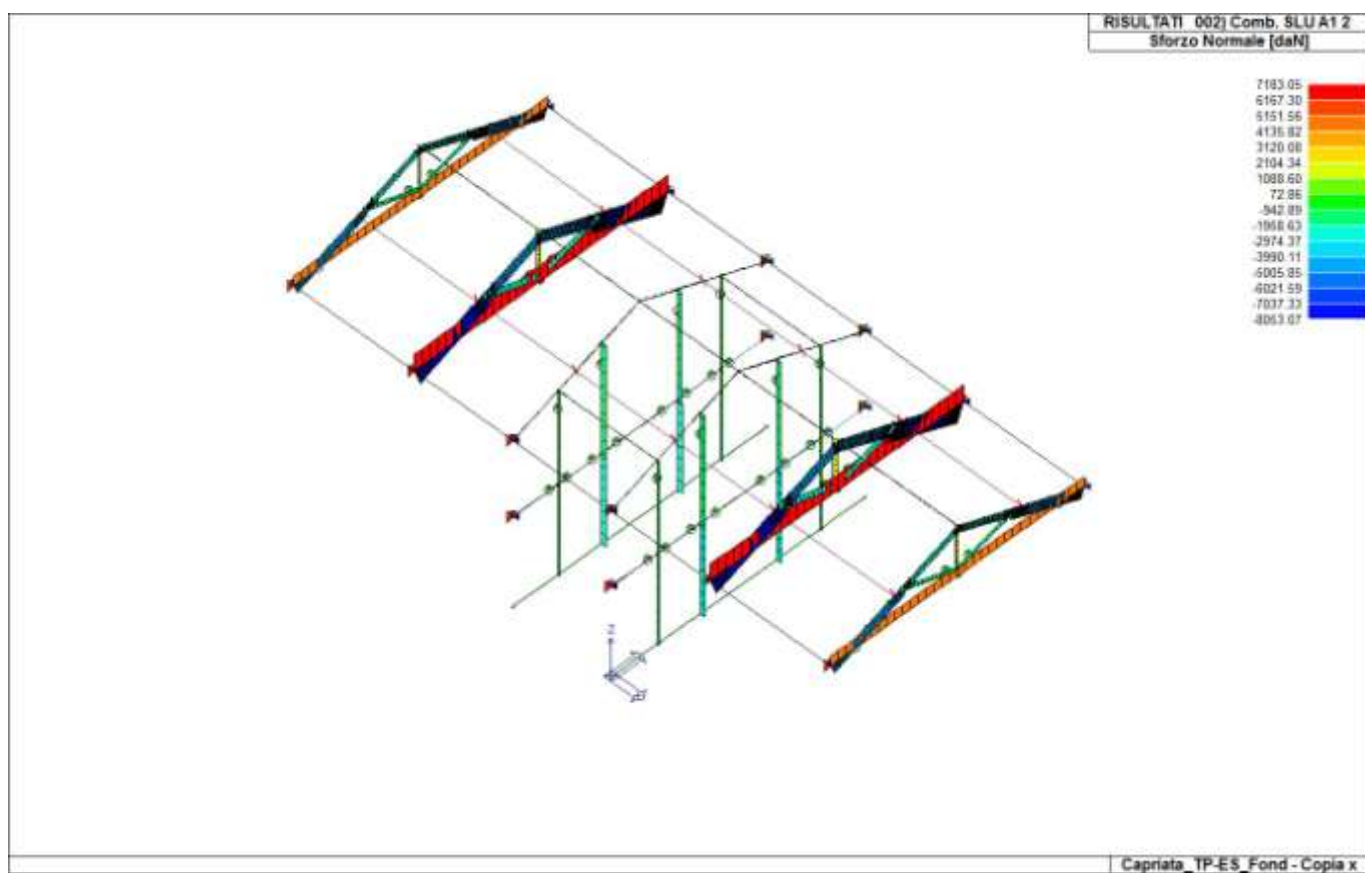
43_RIS_M3_096_Comb. SLE(rara) 96



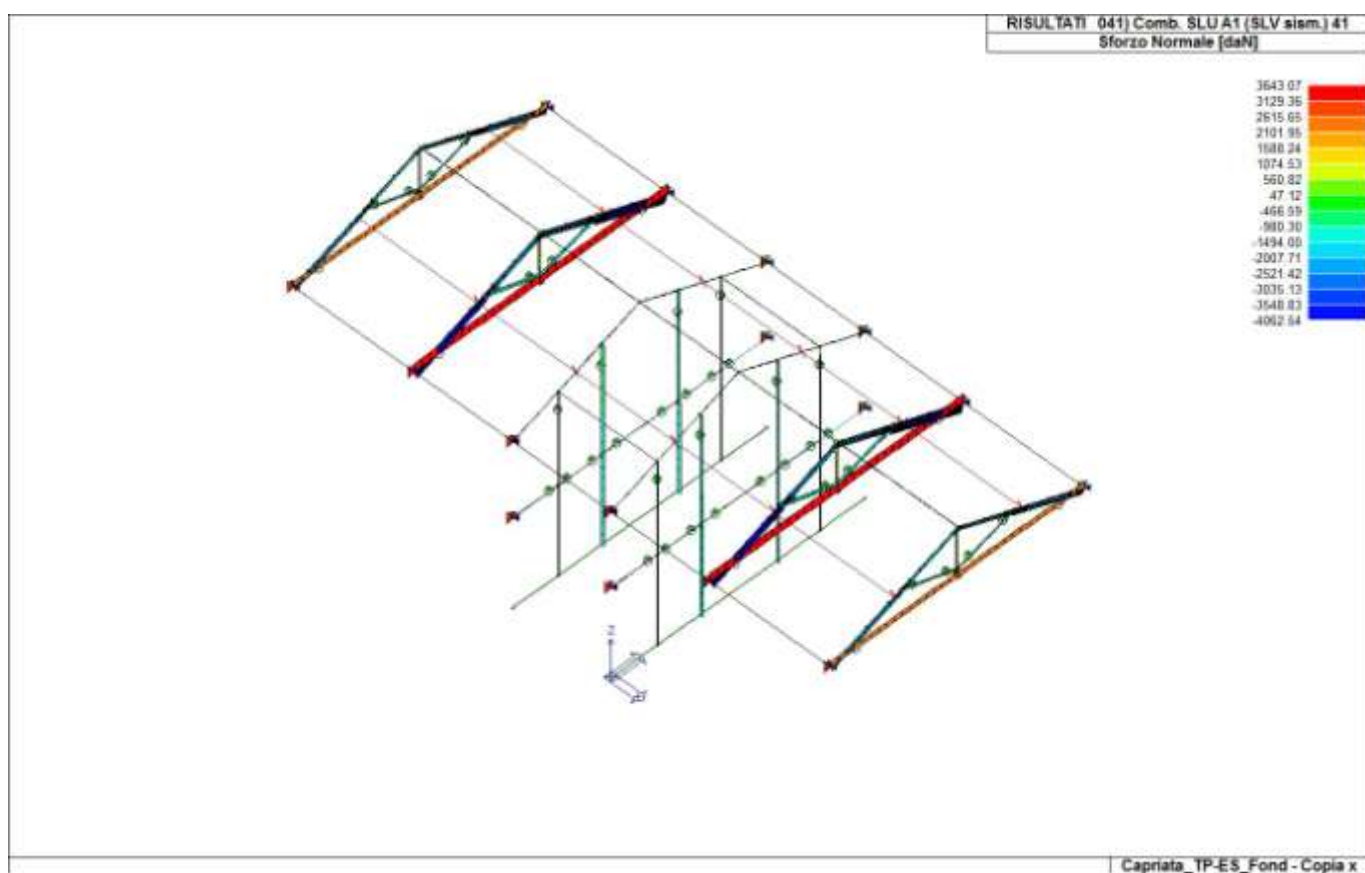
43_RIS_M3_102_Comb. SLE(freq.) 102



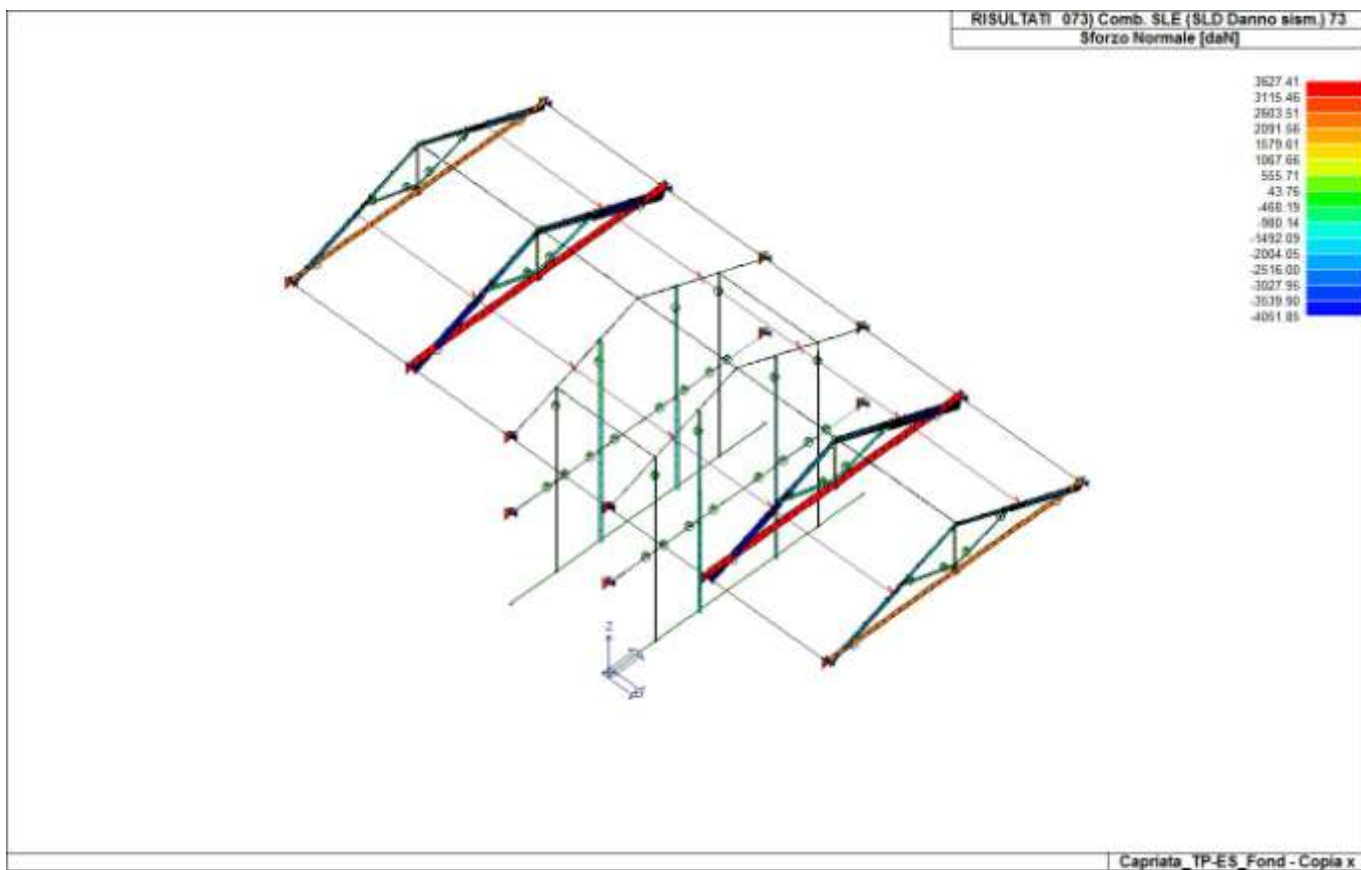
43_RIS_M3_103_Comb. SLE(perm.) 103



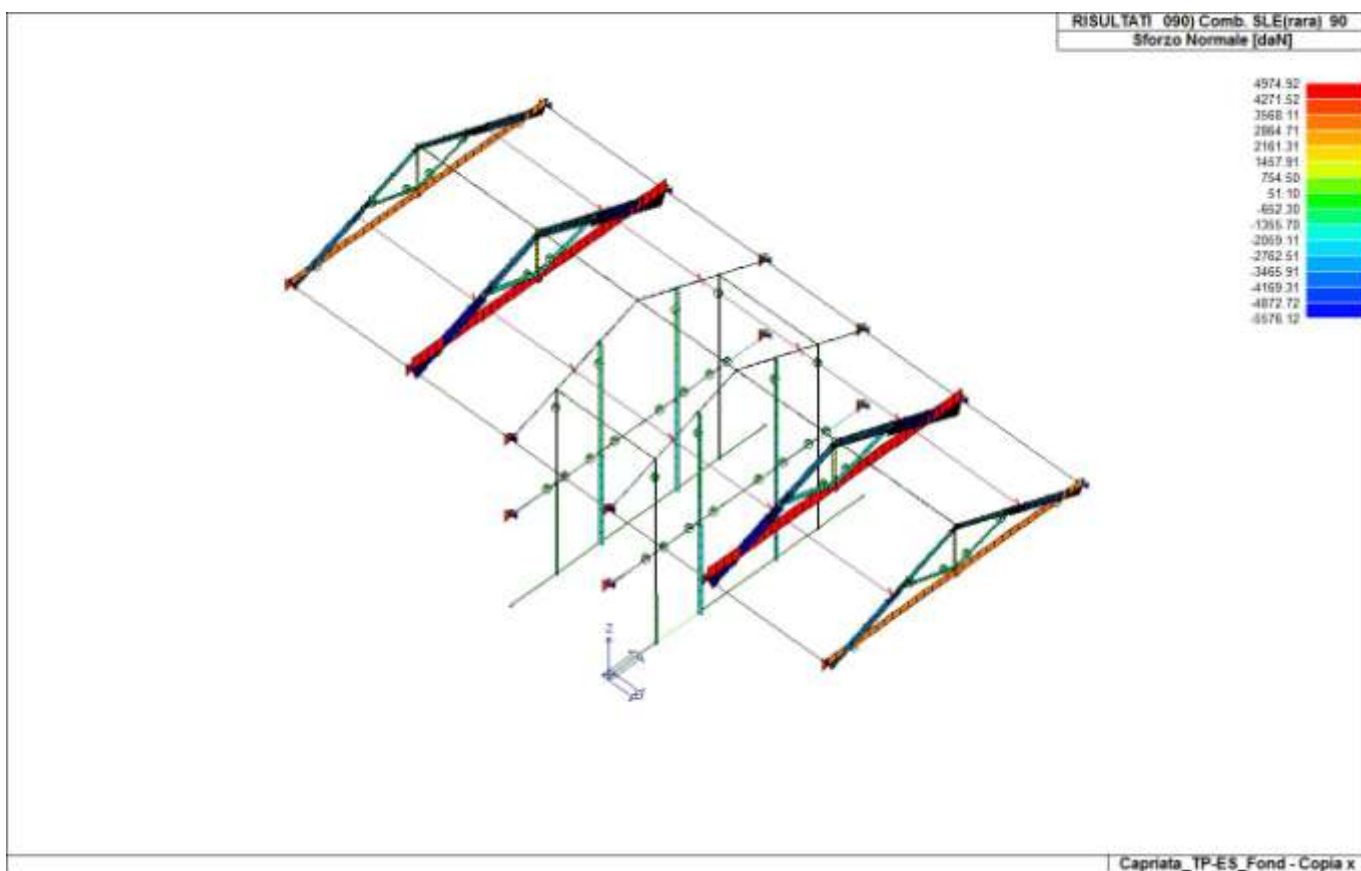
43_RIS_N_002_Comb. SLU A1 2



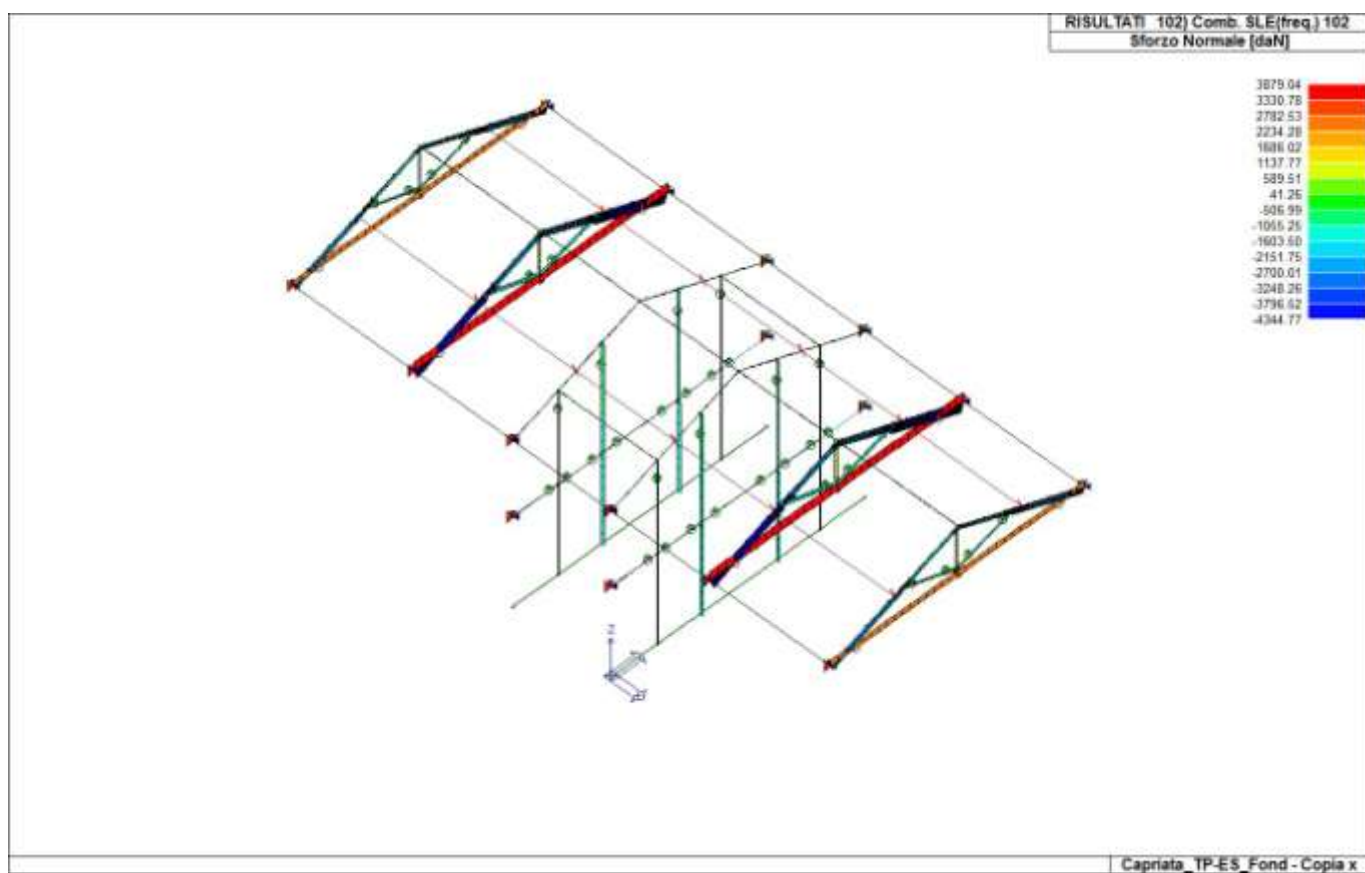
43_RIS_N_041_Comb. SLU A1 (SLV sism.) 41



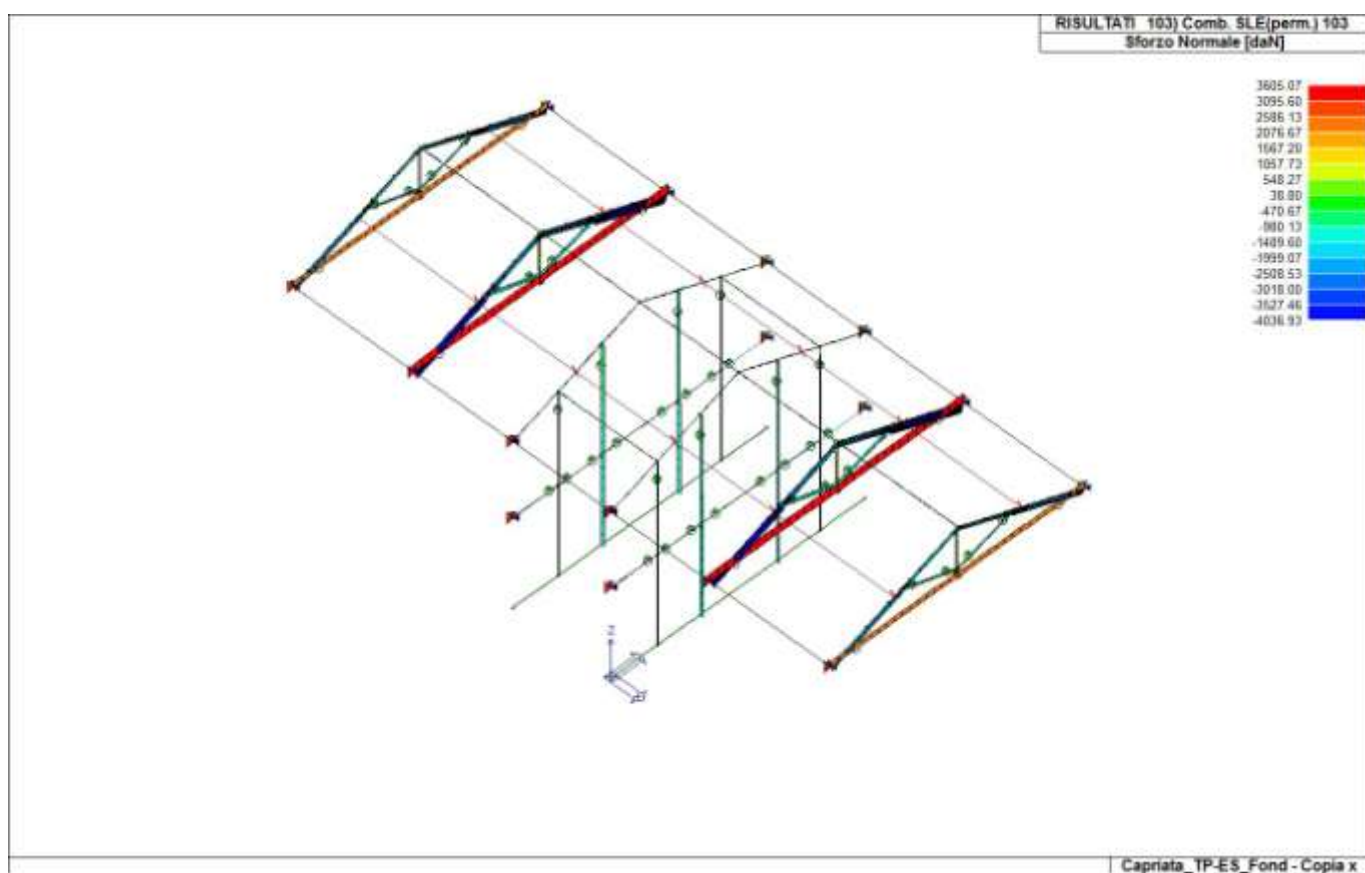
43_RIS_N_073_Comb. SLE (SLD Danno sism.) 73



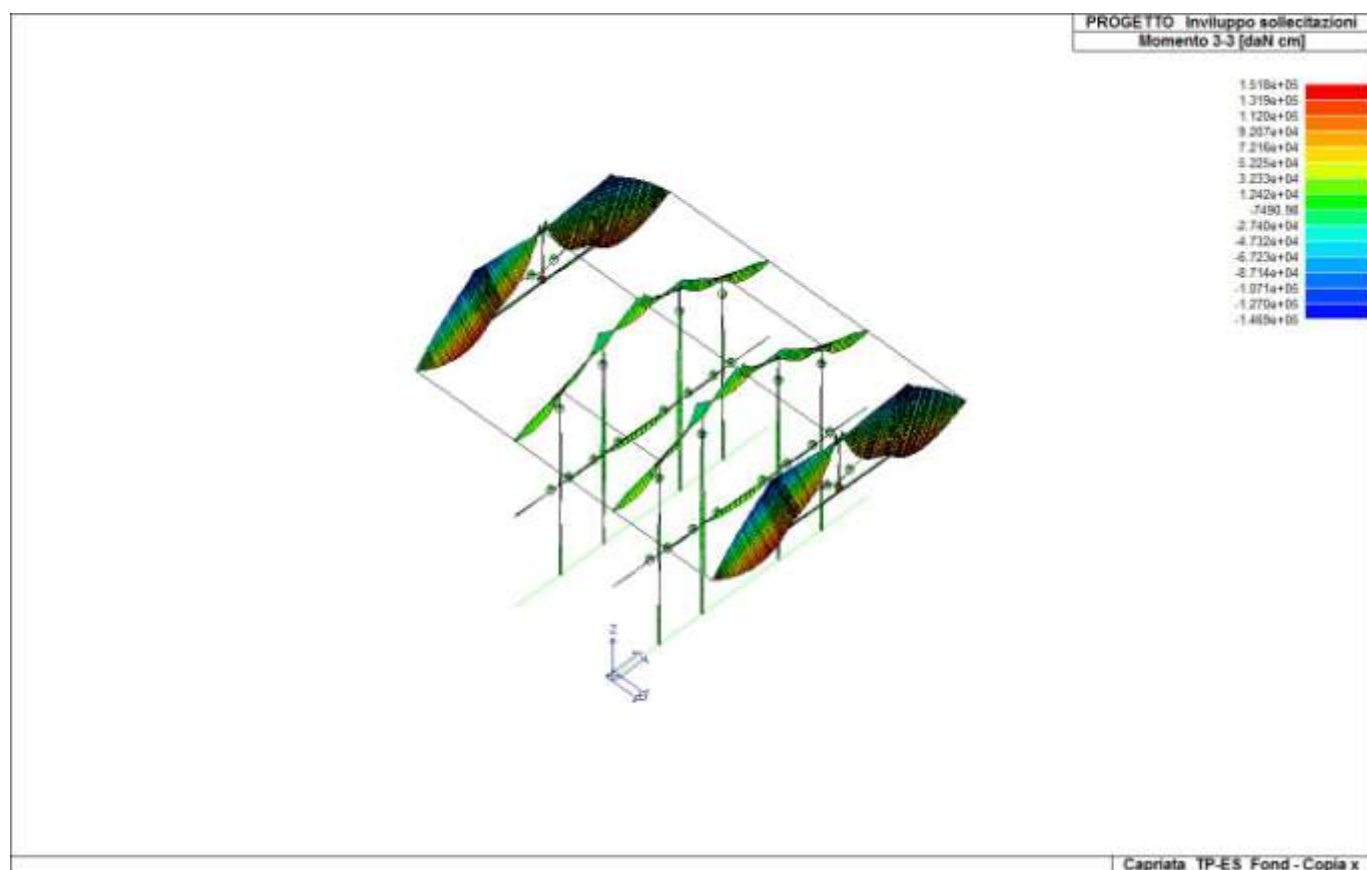
43_RIS_N_090_Comb. SLE(rara) 90



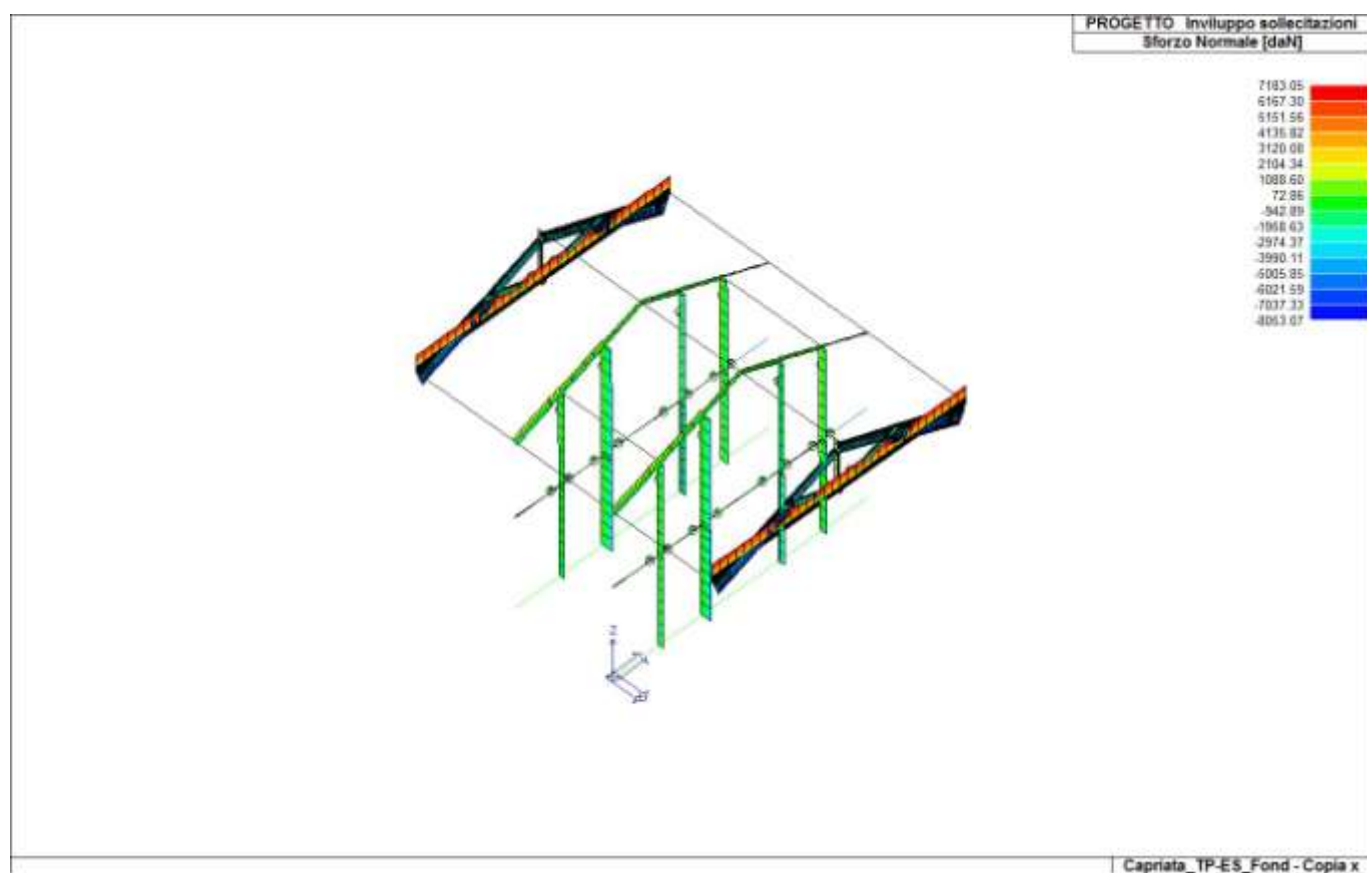
43_RIS_N_102_Comb. SLE(freq.) 102



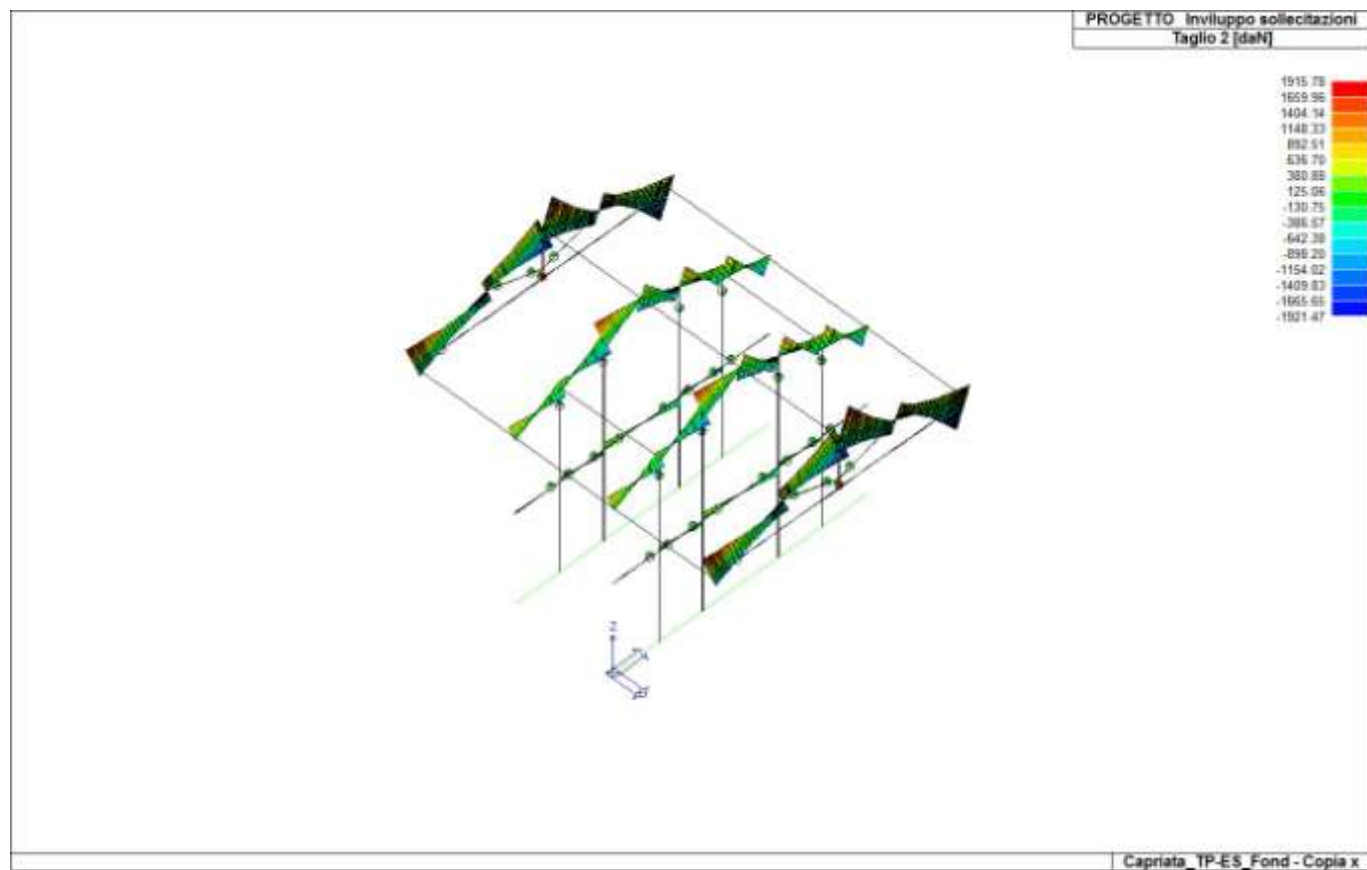
43_RIS_N_103_Comb. SLE(perm.) 103



LEGNO_INV_M



LEGNO_INV_N



LEGNO_INV_V

VERIFICHE ELEMENTI TRAVE E/O PILASTRO IN C.A.

LEGENDA TABELLA VERIFICHE ELEMENTI TRAVE E/O PILASTRO IN C.A.

In tabella vengono riportati per ogni elemento il numero identificativo ed il codice di verifica con le sigle **Ok** o **NV**.

Nel caso in cui si sia proceduto alla progettazione con il metodo degli stati limite (**S.L.**) vengono riportati: il rapporto x/d , le verifiche per sollecitazioni proporzionali e la verifica per compressione media con l'indicazione delle combinazioni in cui si sono attinti i rispettivi valori.

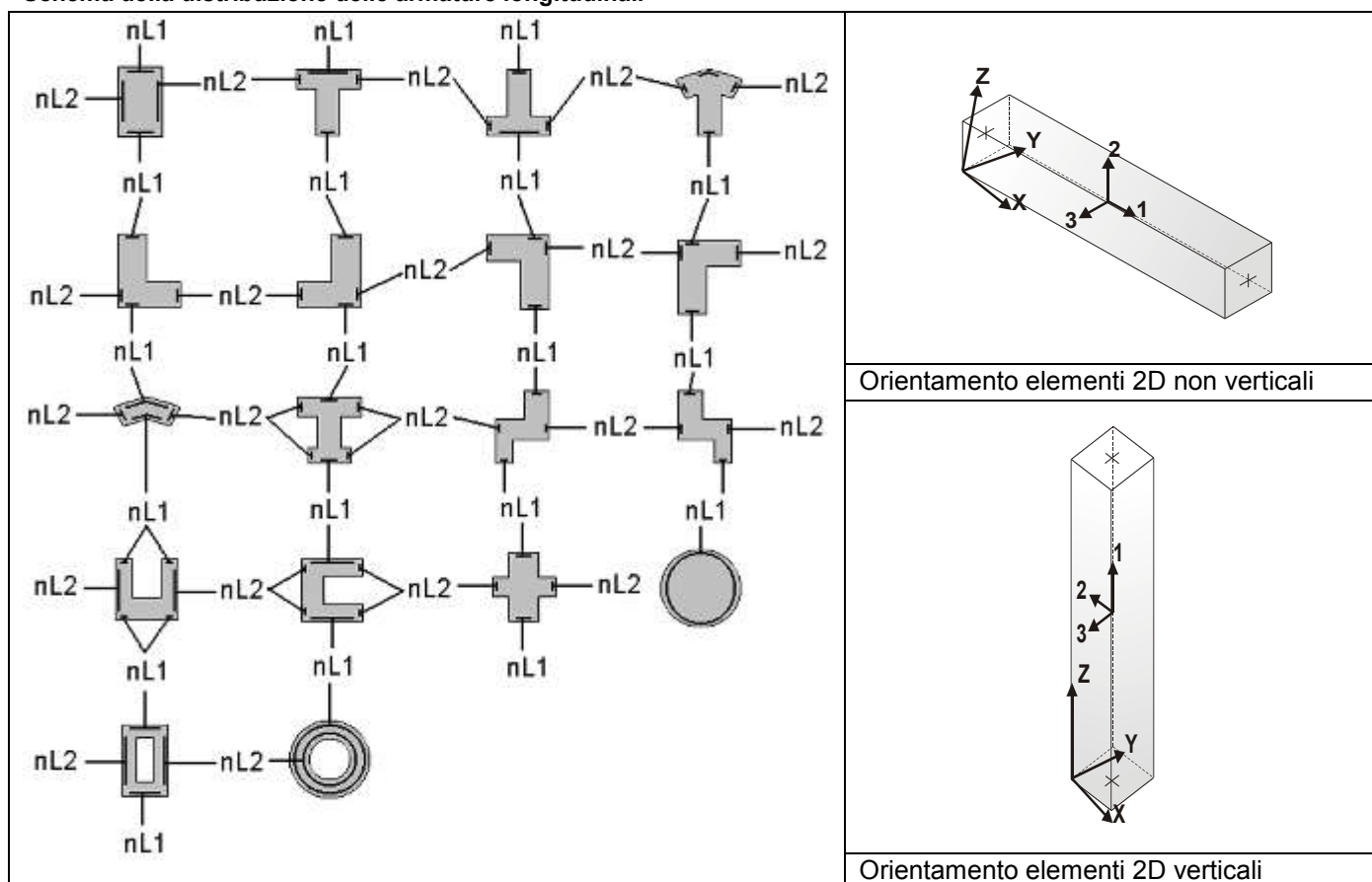
Nel caso in cui si sia proceduto alla progettazione con le tensioni ammissibili (**T.A.**) vengono riportate le massime tensioni nell'elemento (massima compressione nel calcestruzzo, massima compressione media nel calcestruzzo, massima tensione nell'acciaio, massima tensione tangenziale) con l'indicazione delle combinazioni in cui si sono attinti i rispettivi valori.

Nel caso in cui la struttura abbia comportamento dissipativo e sia prevista la progettazione con il criterio della gerarchia delle resistenze (**G.R.**) vengono riportate le verifiche di sovrarresistenza e del nodo.

Per gli elementi tipo pilastro sono riportati numero e diametro dei ferri di vertice, numero e diametro di ferri disposti lungo i lati L1 (paralleli alla base della sezione) e lungo i lati L2 (paralleli all'altezza della sezione).

Per gli elementi tipo trave sono riportati infine le quantità di armatura inferiore e superiore.

Schema della distribuzione delle armature longitudinali



PROGETTAZIONE DELLE FONDAZIONI

Il D.M.17/01/2018 - par: 7.2.5 prevede:

“Sia per CD“A” sia per CD“B” il dimensionamento delle strutture di fondazione e la verifica di sicurezza del complesso fondazione-terreno devono essere eseguiti assumendo come azione in fondazione, trasmessa dagli elementi soprastanti, una tra le seguenti:

- quella derivante dall'analisi strutturale eseguita ipotizzando comportamento strutturale non dissipativo;
- [...];
- quella trasferita dagli elementi soprastanti nell'ipotesi di comportamento strutturale dissipativo, amplificata di un coefficiente pari a 1,30 in CD“A” e 1,10 in CD“B”;

Nel contesto visualizzazione risultati e nella stampa della relazione sulle fondazioni PRO_SAP mostra le sollecitazioni che derivano dall'analisi non incrementate sia in termini di pressioni sul terreno che in termini di sollecitazioni.

La progettazione degli elementi strutturali con proprietà fondazione è effettuata da PRO_SAP (per travi e platee) o da PRO_CAD Plinti (per plinti e pali di fondazione) incrementando le sollecitazioni delle combinazioni con sisma di un coefficiente pari 1.1 in CDB e 1.3 in CDA per pali, plinti, travi e platee.

Per i bicchieri dei plinti di fondazione prefabbricati l'incremento delle sollecitazioni ha un fattore pari a 1.2 in CDB e 1.35 in CDA.

N.B.: nel caso di comportamento strutturale non dissipativo la progettazione viene effettuata senza nessun incremento.

Le verifiche geotecniche vengono effettuate dal modulo geotecnico incrementando automaticamente le sollecitazioni del fattore 1.1 in CDB e 1.3 in CDA per pali, plinti, travi e platee.

N.B.: nel caso di comportamento strutturale non dissipativo le verifiche geotecniche vengono effettuate senza nessun incremento.

Simbologia adottata nelle tabelle di verifica

Per le verifiche agli S.L. dei pilastri è presente una tabella con i simboli di seguito descritti:

M_P X Y	Numero della pilastrata (P) e posizione in pianta (X,Y)
Pilas.	numero identificativo dell'elemento D2
Note	Codici identificativi delle sezione (s) e materiale (m) pilastro
Stato	Codici relativi all'esito delle verifiche effettuate appresso descritte
Quota	Quota sezione di verifica
%Af	Percentuale di area di armatura rispetto a quella di calcestruzzo
r. snell.	Rapporto di snellezza λ su λ^* : valore superiore a 1 per elementi snelli nel caso in cui viene effettuata la verifica con il metodo diretto dello stato di equilibrio
Armat. long.	Numero e diametro (d) dei ferri di armatura longitudinale distinti in ferri di vertice + ferri di lato nelle posizioni nL1 e nL2, come da schemi in figura precedente
V N/M	Verifica a pressoflessione con rapporto E_d/R_d : valore minore o uguale a 1 per verifica positiva
V N sis	Verifica a compressione solo calcestruzzo con rapporto N_{sd}/N_{rd} ed N_{rd} calcolato come al punto 7.4.4.2.1: valore minore o uguale a 1 per verifica positiva
Staffe	Dati tratto di staffatura oggetto di verifica, nello specifico: numero delle braccia, diametro, passo, lunghezza L tratto
V V/T cls	Verifica a taglio/torsione con rapporto V_{ed}/V_{rd} : valore minore o uguale a 1 per verifica positiva
Rif. cmb.	Riferimento combinazioni da cui si generano le verifiche più gravose per il pilastro

Per le verifiche alla G.R. dei pilastri è presente una tabella con i simboli di seguito descritti:

Pilas.	numero identificativo dell'elemento D2 pilastro
sovr. Xi (Xf)	Verifica sovrarresistenza come da formula 7.4.4 in direzione X, alla base (i) ed alla sommità (f): rapporto tra i momenti resistenti dei pilastri e delle travi. La verifica è positiva se maggiore del γ_{Rd} adottato
sovr. Yi (Yf)	Verifica sovrarresistenza come da formula 7.4.4 in direzione Y, alla base (i) ed alla sommità (f): rapporto tra i momenti resistenti dei pilastri e delle travi. La verifica è positiva se maggiore del γ_{Rd} adottato
M 2-2 i (f)	Valore del momento resistente 2-2 alla base (i) ed alla sommità (f) con massimo momento in presenza dello sforzo normale di calcolo
M 3-3 i (f)	Valore del momento resistente 3-3 alla base (i) ed alla sommità (f) con massimo momento in presenza dello sforzo normale di calcolo
Luce per V	Luce di calcolo per la definizione del taglio (generato dai momenti resistenti)
V M2-2 (M3-3)	Valore del taglio generato dai momenti resistenti 2-2 (3-3)

Per le verifiche dei dettagli costruttivi per la duttilità è presente una tabella con i simboli di seguito descritti:

(Non presente nel caso di comportamento strutturale non dissipativo)

Pilas	Numero identificativo D2 pilastro
-------	-----------------------------------

ni	Sforzo assiale adimensionalizzato di progetto relativo alla combinazione sismica SLV
alfaomega	Prodotto tra il coefficiente di efficacia del confinamento e il rapporto meccanico dell'armatura trasversale di confinamento all'interno del nodo
V.7.4.29 2-2 (3-3)	Rapporto tra la domanda di staffe minima nel nodo e il rapporto meccanico dell'armatura trasversale di confinamento inserito all'interno del nodo in direzione 2 (3)
V. 7.4.29 Stato	Codici relativi all'esito della verifica 7.4.29
dmu_fi 2-2 (3-3)	Domanda in duttilità di curvatura in direzione 2 (3)
cmu_fi 2-2 (3-3)	Capacità in duttilità di curvatura in direzione 2 (3)
V. dutt. 2-2 (3-3)	Rapporto tra la domanda in duttilità di curvatura e la capacità in duttilità di curvatura in direzione 2 (3)

Per le verifiche nodi trave-pilastro di elementi nuovi è presente una tabella con i simboli di seguito descritti:

Nodo	Numero identificativo del nodo trave-pilastro
Stato	Esito delle verifiche
Pilastro	Numero identificativo D2 pilastro
Diam st	Diametro staffe nodo
Passo	Passo staffe nodo
n. br. 2 (3)	Numero braccia staffe per il taglio in direzione 2 (3)
Bj2 (3)	Larghezza effettiva del nodo per il taglio in direzione 2 (3)
Hjc2 (3)	Distanza tra le giaciture più esterne delle armature del pilastro per il taglio in direzione 2 (3)
V. 7.4.8	Rapporto tra il taglio V_{jbd} e il taglio resistente come da formula 7.4.8
V. Ash	Rapporto tra il passo staffe calcolato secondo il capitolo 7.4.4.3.1. e il passo staffe effettivamente inserita nel nodo. Nel caso di valore indica passo staffe utilizzato deriva dalle formule presenti nel paragrafo 7.4.4.3.1. Nel caso di valore minore di 1 il passo staffe utilizzato deriva del pilastro superiore o inferiore al nodo
7.4.10	Check passo staffe valutato in funzione della formula 7.4.10: <ul style="list-style-type: none"> • SI il passo staffe è calcolato utilizzando la formula 7.4.10; • NO il passo staffe è calcolato utilizzando le formule 7.4.11 e/o 7.4.12; • NR calcolo passo staffe non richiesto;
Rif. comb.	Riferimento combinazioni da cui si generano le verifiche più gravose per il nodo

Per le verifiche nodi trave-pilastro di elementi esistenti è presente una tabella con i simboli di seguito descritti:

Pilastro I	Numero identificativo D2 del pilastro inferiore.
Pilastro S	Numero identificativo D2 del pilastro superiore.
Nodo	Numero identificativo del nodo trave-pilastro.
SL cod	Stato limite di riferimento e relativo esito delle verifiche.
ver. (+)	Fattore di sicurezza nei riguardi della verifica di resistenza a compressione (verificato se < 1.00).
V +	Azione di Taglio presente al di sopra del nodo nella verifica di resistenza a compressione.
V + af s	Sollecitazione di trazione presente nell' armatura longitudinale superiore della trave nella verifica di resistenza a compressione.
N +	Azione Assiale presente al di sopra del nodo nella verifica di resistenza a compressione.
ver. (-)	Fattore di sicurezza nei riguardi della verifica di resistenza a trazione (verificato se < 1.00).
V -	Azione di Taglio presente al di sopra del nodo nella verifica di resistenza a trazione.
V - af s	Sollecitazione di trazione presente nell' armatura longitudinale superiore della trave nella verifica di resistenza a trazione.
N -	Azione Assiale presente al di sopra del nodo nella verifica di resistenza a trazione.
AreaV2	Area resistente del nodo in direzione 2 ($A_{j2}=b_{j2}*h_{jc2}$).
AreaV3	Area resistente del nodo in direzione 3 ($A_{j3}=b_{j3}*h_{jc3}$).
Rif. comb.	Combinazione (direzione) di riferimento nella verifica di trazione.

Per le verifiche agli S.L. delle travi è presente una tabella con i simboli di seguito descritti:

M_T Z P P	Numero della travata (T), quota media (Z), n° pilastrata iniziale (P) e finale (P) (nodo in assenza di pilastrata)
Trave	numero identificativo dell'elemento D2
Note	Codici identificativi sezione (s) e materiale (m) trave; sono inoltre presenti le sigle relative all'esito delle verifiche effettuate appresso descritte
%Af	Percentuale di area di armatura rispetto a quella di calcestruzzo
Af inf.	Area di armatura longitudinale posta all'intradosso
Af sup	Area di armatura longitudinale posta all'estradosso
Af long.	Area complessiva armatura longitudinale
x/d	rapporto tra posizione dell'asse neutro e altezza utile
V N/M	Verifica a pressoflessione rapporto E_d/R_d : valore minore o uguale a 1 per verifica positiva
Staffe	Dati tratto di staffatura oggetto di verifica, nello specifico: numero delle braccia, diametro, passo, lunghezza L tratto
V V/T cls	Verifica a taglio/torsione con rapporto V_{ed}/V_{rd} : valore minore o uguale a 1 per verifica positiva

Rif. cmb.	Riferimento combinazioni da cui si generano le verifiche più gravose per la trave
-----------	---

Per le verifiche alla G.R. delle travi è presente una tabella con i simboli di seguito descritti:

Trave	numero identificativo dell'elemento D2 trave
M negativo i (f)	Valore del momento resistente negativo all' estremità iniziale i (finale f) della trave
M positivo i (f)	Valore del momento resistente positivo all' estremità iniziale i (finale f) della trave
Luce per V	Luce di calcolo per la definizione del taglio (generato dai momenti resistenti)
V M-i M+f	Taglio generato dai momenti resistenti negativo i e positivo f
V M+i M-f	Taglio generato dai momenti resistenti positivo i e negativo f
VEd, min	Valore di taglio minimo per verifica condizioni p.to 7.4.4.1.1 armatura diagonale (solo per CD "A")
VEd, max	Valore di taglio massimo per verifica condizioni p.to 7.4.4.1.1 armatura diagonale (solo per CD "A")
Vr1	Valore di taglio come da formula 7.4.1 per armatura diagonale (solo per CD "A")
As	Area singolo ordine armature diagonali come da formula 7.4.2 (solo per CD "A")

Per le verifiche a taglio ciclico di travi e pilastri esistenti è presente una tabella con i simboli di seguito descritti:

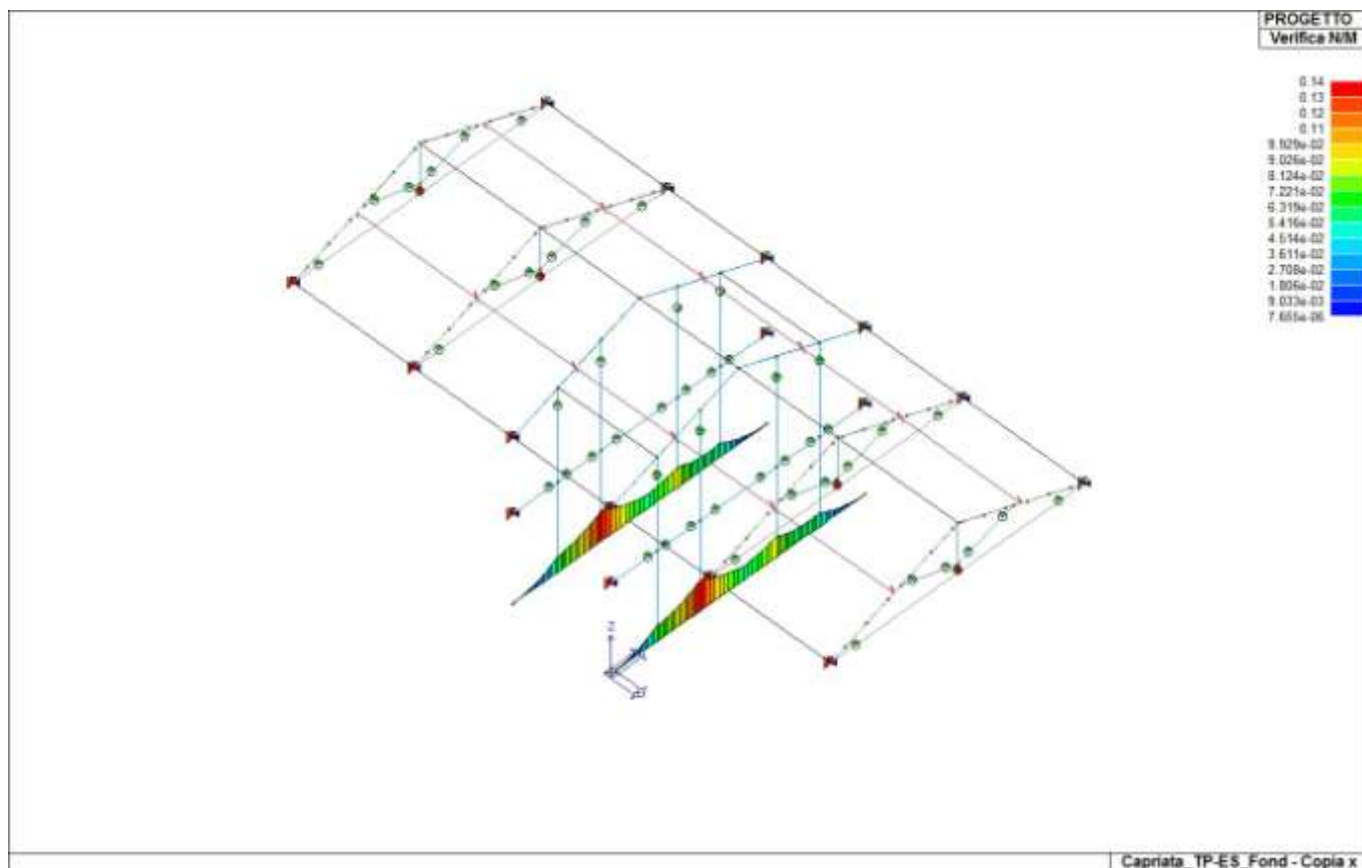
Trave/Pilastro	Numero identificativo dell'elemento D2 trave/pilastro
V. SLV	Codice relativo all'esito delle verifiche
Nodo	Numero identificativo del nodo di verifica
Ver. VC	Fattore di sicurezza nei confronti della verifica a taglio ciclico (verificato se < 1.00)
Direz.	Direzione di verifica
N fr	Valore di sforzo normale calcolato con fattore di comportamento fragile
V fr	Valore di taglio calcolato con fattore di comportamento fragile
M fr	Valore di momento calcolato con fattore di comportamento fragile
N dutt	Valore di sforzo normale calcolato con fattore di comportamento duttile
LV	Lunghezza di taglio
Mud,pl	Parte plastica della domanda di duttilità
V cic	Resistenza a taglio in condizioni cicliche (C8.7.2.8)
Cmb	Riferimento combinazioni da cui si generano le verifiche più gravose

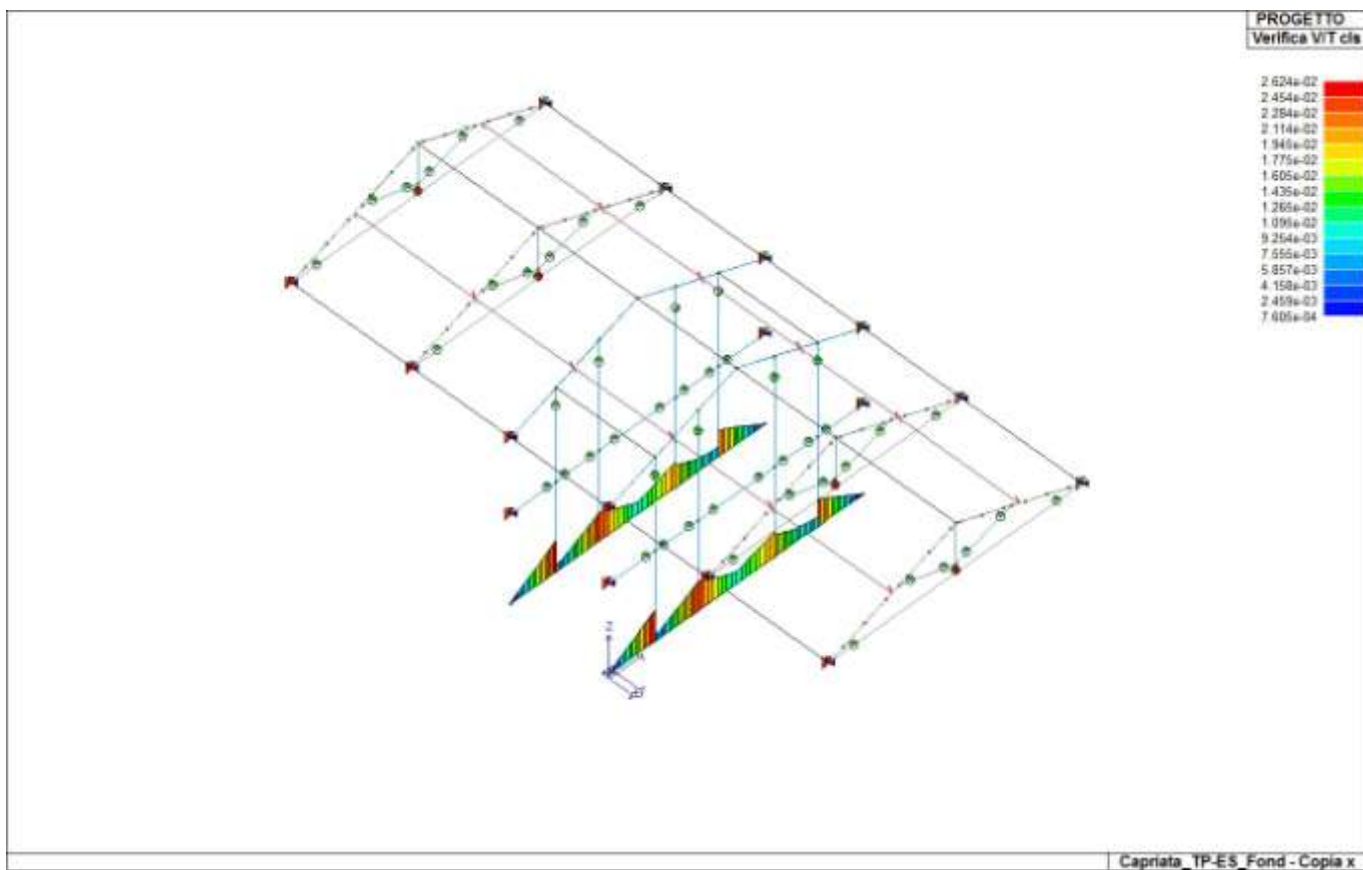
Per le verifiche alle T.A. di pilastri e travi è presente una tabella con i simboli di seguito descritti:

M_P X Y	Numero della pilastrata (P) e posizione in pianta (X,Y)
M_T Z P P	Numero della travata, quota media pilastrata iniziale e finale (nodo in assenza di pilastrata)
Pilas. o Trave	numero identificativo dell'elemento D2
Note	Viene riportato il codice relativo alla sezione(s) e relativo al materiale(m); nella terza riga viene riportato il valore delle snellezze in direzione 2-2 e 3-3
Stato	Codici di verifica relativi alle tensioni normali e alle tensioni tangenziali
Quota	Ascissa del punto di verifica
%Af	Percentuale di area di armatura rispetto a quella di calcestruzzo
Armat. long.	Numero e diametro dei ferri di armatura longitudinale: ferri di vertice + ferri di lato (come da fig. precedente)
Af inf.	Area di armatura longitudinale posta all'intradosso della trave
Af sup	Area di armatura longitudinale posta all'estradosso della trave
Sc max	Massima tensione di compressione del calcestruzzo
Sc med	Massima tensione media di compressione del calcestruzzo
Sf max	Tensione massima nell'acciaio
staffe	Vengono riportati i dati del tratto di staffatura in cui cade la sezione di verifica; in particolare: numero dei bracci, diametro, passo, lunghezza tratto
Tau max	Tensione massima tangenziale nel cls
Rif. comb	Combinazioni in cui si generano i seguenti valori di tensione: Sc max, Sc med, Sf max, Tau max
AfV	area dell'armatura atta ad assorbire le azioni di taglio
AfT	area dell'armatura atta ad assorbire le azioni di torsione
Scorr. P	Scorrimento dei piegati
Af long.	Area del ferro longitudinale aggiuntivo per assorbire la torsione

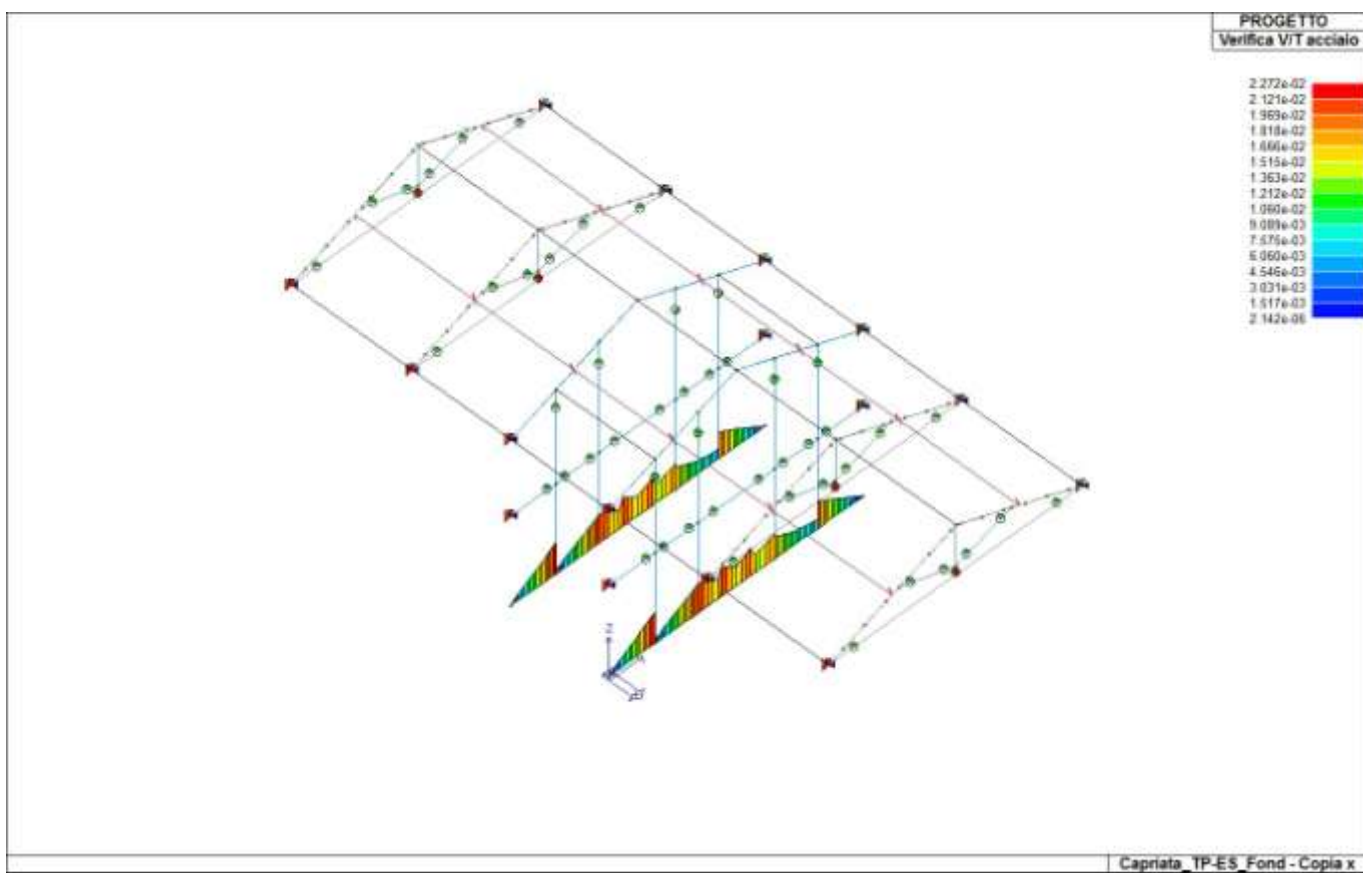
Trave	Note	Pos. cm	%Af	Af inf.	Af. sup	Af long.	M_T= 17	Z=0.0	P=1	P=11	Staffe Rif. cmb L=cm
							x/d	V N/M	V V/T cls	V V/T acc	
87	ok,ok	0.0	0.25	8.0	8.0	0.0	0.06	7.65e-06	7.72e-04	2.81e-06	4d8/15 L=148 25,32,32
	s=4,m=3	148.0	0.25	8.0	8.0	0.0	0.06	0.07	0.03	0.02	4d8/15 L=148 10,10,18
86	ok,ok	0.0	0.25	8.0	8.0	0.0	0.06	0.07	5.54e-03	2.68e-03	4d8/15 L=140 10,37,17
	s=4,m=3	140.0	0.25	8.0	8.0	0.0	0.06	0.13	0.02	0.02	4d8/15 L=140 10,10,18
85	ok,ok	0.0	0.25	8.0	8.0	0.0	0.06	0.13	0.02	0.02	4d8/15 L=76 10,10,18
	s=4,m=3	123.0	0.25	8.0	8.0	0.0	0.06	0.07	0.01	0.01	4d8/25 L=93 10,14,22

		246.0	0.25	8.0	8.0	0.0	0.06	0.09	0.02	0.02	4d8/15 L=76 6,14,22
84	ok,ok	0.0	0.25	8.0	8.0	0.0	0.06	0.09	0.02	0.02	4d8/15 L=140 6,6,6
	s=4,m=3	140.0	0.25	8.0	8.0	0.0	0.06	0.06	8.11e-03	7.02e-03	4d8/15 L=140 14,9,17
83	ok,ok	0.0	0.25	8.0	8.0	0.0	0.06	0.06	0.02	0.02	4d8/15 L=148 14,14,22
	s=4,m=3	148.0	0.25	8.0	8.0	0.0	0.06	6.90e-05	7.72e-04	2.17e-06	4d8/15 L=148 45,37,29
M_T= 18 Z=0.0 P=2 P=12											
Trave	Note	Pos.	%Af	Af inf.	Af. sup	Af long.	x/d	V N/M	V V/T cls	V V/T acc	Staffe Rif. cmb
92	ok,ok	0.0	0.25	8.0	8.0	0.0	0.06	8.28e-06	7.61e-04	2.14e-06	4d8/15 L=148 29,32,18
	s=4,m=3	148.0	0.25	8.0	8.0	0.0	0.06	0.07	0.03	0.02	4d8/15 L=148 10,10,18
91	ok,ok	0.0	0.25	8.0	8.0	0.0	0.06	0.07	5.68e-03	2.81e-03	4d8/15 L=140 10,37,17
	s=4,m=3	140.0	0.25	8.0	8.0	0.0	0.06	0.13	0.02	0.02	4d8/15 L=140 10,10,18
90	ok,ok	0.0	0.25	8.0	8.0	0.0	0.06	0.14	0.02	0.02	4d8/15 L=76 10,10,18
	s=4,m=3	123.0	0.25	8.0	8.0	0.0	0.06	0.07	0.01	0.01	4d8/25 L=93 10,14,22
		246.0	0.25	8.0	8.0	0.0	0.06	0.09	0.02	0.02	4d8/15 L=76 6,14,22
89	ok,ok	0.0	0.25	8.0	8.0	0.0	0.06	0.09	0.02	0.02	4d8/15 L=140 6,6,6
	s=4,m=3	140.0	0.25	8.0	8.0	0.0	0.06	0.06	8.14e-03	7.04e-03	4d8/15 L=140 14,9,17
88	ok,ok	0.0	0.25	8.0	8.0	0.0	0.06	0.06	0.02	0.02	4d8/15 L=148 14,14,22
	s=4,m=3	148.0	0.25	8.0	8.0	0.0	0.06	7.50e-05	7.61e-04	2.22e-06	4d8/15 L=148 29,33,25
Trave											
			%Af	Af inf.	Af. sup	Af long.	x/d	V N/M	V V/T cls	V V/T acc	
			0.25	8.04	8.04	0.0	0.06	0.14	0.03	0.02	





71_PRO_CA_TRV_VER_VRCD



71_PRO_CA_TRV_VER_VRSD

STATI LIMITE D' ESERCIZIO

LEGENDA TABELLA STATI LIMITE D' ESERCIZIO

In tabella vengono riportati i valori di interesse per il controllo degli stati limite d'esercizio.

In particolare vengono riportati, in relazione al tipo di elemento strutturale, i risultati relativi alle tre categorie di combinazione considerate:

- Combinazioni rare
- Combinazioni frequenti
- Combinazioni quasi permanenti.

I valori di interesse sono i seguenti:

rRfck	rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni rare [normalizzato a 1]
rRfyk	rapporto tra la massima tensione nell'acciaio e la tensione fyk in combinazioni rare [normalizzato a 1]
rPfck	rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni quasi permanenti [normalizzato a 1]
wR	apertura caratteristica delle fessure in combinazioni rare [mm]
wF	apertura caratteristica delle fessure in combinazioni frequenti [mm]
wP	apertura caratteristica delle fessure in combinazioni quasi permanenti [mm]
dR	massima deformazione in combinazioni rare
dF	massima deformazione in combinazioni frequenti
dP	massima deformazione in combinazioni quasi permanenti

Per ognuno dei nove valori soprariportati viene indicata (Rif.cmb) la combinazione in cui si è verificato.

In relazione al tipo di elemento strutturale i valori sono selezionati nel modo seguente:

pilastri	rRfck	rRfyk	rPfck	per sezioni significative
travi	rRfck	rRfyk	rPfck	per sezioni significative
	wR	wF	wP	per sezioni significative
	dR	dF	dP	massimi in campata
setti e gusci	rRfck	rRfyk	rPfck	massimi nei nodi dell'elemento
	wR	wF	wP	massimi nei nodi dell'elemento

Si precisa che i valori di massima deformazione per travi sono riferiti al piano verticale (piano locale 1-2 con momenti flettenti 3-3).

Trave	Pos.	rRfck	rRfyk	rPfck	Rif. cmb	wR	wF	wP	Rif. cmb	dR	dF	dP	Rif. cmb
	cm					mm	mm	mm		cm	cm	cm	
83	0.0	0.01	0.05	8.61e-03	96,96,103	0.0	0.0	0.0	0,0,0	0.10	0.02	0.0194	102,103
	148.0	0.0	1.42e-04	0.0	0,96,0	0.0	0.0	0.0	0,0,0				
84	0.0	0.02	0.07	0.02	92,92,103	0.0	0.0	0.0	0,0,0	-0.09	0.01	0.0194	102,103
	140.0	0.02	0.05	8.94e-03	96,96,103	0.0	0.0	0.0	0,0,0				
85	0.0	0.03	0.11	0.02	94,94,103	0.0	0.0	0.0	0,0,0	0.14	-2.67e-03	-2.55e-03	94,102,103
	123.0	0.02	0.05	0.01	94,94,103	0.0	0.0	0.0	0,0,0				
	246.0	0.02	0.07	0.02	92,92,103	0.0	0.0	0.0	0,0,0				
86	0.0	0.02	0.05	8.38e-03	94,94,103	0.0	0.0	0.0	0,0,0	0.08	9.78e-03	9.34e-03	96,102,103
	140.0	0.03	0.10	0.02	94,94,103	0.0	0.0	0.0	0,0,0				
87	0.0	1.31e-05	1.35e-05	9.51e-06	96,96,103	0.0	0.0	0.0	0,0,0	-0.09	0.01	0.0196	102,103
	148.0	0.02	0.05	8.72e-03	94,94,103	0.0	0.0	0.0	0,0,0				
88	0.0	0.01	0.05	8.61e-03	96,96,103	0.0	0.0	0.0	0,0,0	-0.10	-0.02	-0.0194	102,103
	148.0	0.0	1.47e-04	0.0	0,96,0	0.0	0.0	0.0	0,0,0				
89	0.0	0.02	0.07	0.02	92,92,103	0.0	0.0	0.0	0,0,0	-0.09	-0.01	-0.0194	102,103
	140.0	0.02	0.05	8.93e-03	96,96,103	0.0	0.0	0.0	0,0,0				
90	0.0	0.03	0.11	0.02	94,94,103	0.0	0.0	0.0	0,0,0	0.14	-2.69e-03	-2.56e-03	94,102,103
	123.0	0.02	0.05	0.01	94,94,103	0.0	0.0	0.0	0,0,0				
	246.0	0.02	0.07	0.02	92,92,103	0.0	0.0	0.0	0,0,0				
91	0.0	0.02	0.05	8.29e-03	94,94,103	0.0	0.0	0.0	0,0,0	-0.08	-9.71e-03	-9.23e-03	96,102,103
	140.0	0.03	0.10	0.02	94,94,103	0.0	0.0	0.0	0,0,0				
92	0.0	1.38e-05	1.42e-05	9.81e-06	96,96,103	0.0	0.0	0.0	0,0,0	-0.09	-0.01	-0.0196	102,103
	148.0	0.02	0.05	8.76e-03	94,94,103	0.0	0.0	0.0	0,0,0				
Trave		rRfck	rRfyk	rPfck		wR	wF	wP		dR	dF	dP	
										-0.10	-0.02	-0.01	
		0.03	0.11	0.02		0.0	0.0	0.0		0.14	0.02	0.01	

VERIFICHE S.L. ELEMENTI IN LEGNO

Il programma consente la verifica dei seguenti tipi di elementi:

1. Aste 2. Travi 3. Pilastri

L'esito delle verifiche è espresso con un codice come di seguito indicato:

ok: verifica con esito positivo

NV: verifica con esito negativo

Le verifiche sono condotte in ottemperanza alle NTC 17 Gennaio 2018, oppure seguendo le indicazioni analitiche riportate nella norma tecnica UNI EN 1995-1-1:2005 "Eurocodice 5 - Progettazione delle strutture di legno - Parte 1-1: Regole generali - Regole comuni e regole per gli edifici" ; in particolare le verifiche effettuate sono riconducibili ai punti:

NTC 2018

- 4.4.8 Stati limite ultimi
- 4.4.8.1.7 Tensoflessione
- 4.4.8.1.8 Pressoflessione
- 4.4.8.1.11 Taglio e torsione
- 4.4.8.2.1 Elementi inflessi
- 4.4.8.2.2 Elementi compressi

EC5

- 2.2.2 Ultimate limit states
- 2.2.3 Serviceability limit states
- 2.4.1 Design value of material property
- 2.4.3 Design resistances
- 3.1.3 Strength modification (kmod)
- 3.1.4 Deformation modification (kdef)
- 6. Ultimate limit states
- 6.2 Design of cross-sections subjected to combined stresses
- 6.3 Stability of members

Simbologia adottata nelle tabelle di verifica

Le verifiche effettuate ai sensi delle NTC 2018 sono dettagliatamente riportate come da tabella seguente:

Elem.	Numero dell'elemento
Tipo	Codice di individuazione del tipo di elemento: Trave (T), Pilastro (P), Asta (A)
Stato	Codice della verifica: ok verificato, NV non verificato
Note	Numero della sezione (s) e del materiale (m) dell'archivio
Ver N+/M	Verifica come da formule 4.4.6a e 4.4.6b per tensoflessione, con i valori di km definiti nel par. 4.4.8.1.6
Ver N-/M	Verifica come da formule 4.4.7a e 4.4.7b per pressoflessione, con i valori di km definiti nel par. 4.4.8.1.6
Ver V/T	Verifica come da formula 4.4.10 (taglio torsione) con interazione ottenuta per quadratura del termine di taglio
Ver N(s)	Verifica instabilità a compressione come da par. 4.4.8.2.2
Kcy(z)	Fattore di instabilità Kcrit,c utilizzato nella formula 4.4.13, in funzione della snellezza relativa
Ver M(s)	Verifica instabilità laterale come da par. 4.4.8.2.1, effettuata in entrambi i piani principali y e z
Kcrit (y)/(z)	Fattore di instabilità laterale utilizzato nella formula 4.4.11 rispettivamente per la flessione y e z
w _{net R}	Massima deformazione in combinazione rara (F frequente, P quasi permanente)
w _{net Ri}	Massima deformazione in combinazione rara (F frequente, P quasi permanente) valutata a tempo infinito
kdef	Fattore di deformazione dell' elemento
Rif. cmb	Numero della combinazione in cui si è attinto il valore riportato per le verifiche

Le verifiche effettuate ai sensi dell'EC5 sono dettagliatamente riportate come da tabella seguente:

Elem.	Numero dell'elemento
Tipo	Codice di individuazione del tipo di elemento: Trave (T), Pilastro (P), Asta (A)
Stato	Codice della verifica ok verificato, NV non verificato
Note	Numero della sezione (s) e del materiale (m) dell'archivio
Ver N+/M	Verifica come da formula 6.17 e 6.18 per tensoflessione
Ver N-/M	Verifica come da formula 6.19 e 6.20 per pressoflessione
Ver V/T	Verifica come da formula 6.13 e 6.14 (taglio torsione) con interazione ottenuta per quadratura del termine di taglio
Ver N(s)	Verifica come da formula 6.23 e 6.24 per pressoflessione di elementi con snellezza relativa in un piano maggiore di 0.3
Kcy (z)	Fattore di instabilità utilizzato nella formula 6.23 (6.24)
Ver M(s)	Verifica come da formula 6.35 (effettuata in entrambi i piani principali) per instabilità laterale
Kcrit (y) (z)	Fattore di instabilità laterale utilizzato nella formula 6.35 rispettivamente per la flessione y e z
w _{net R}	Massima deformazione in combinazione rara (F frequente, P quasi permanente)
w _{net Ri}	Massima deformazione in combinazione rara (F frequente, P quasi permanente) valutata a tempo infinito
kdef	Fattore di deformazione dell' elemento
Rif. cmb	Numero della combinazione in cui si è attinto il valore riportato per le verifiche

Si sottolinea che le cinque verifiche sono espresse dal rapporto tra domanda e capacità, affinché la verifica sia positiva il

rapporto deve essere inferiore o uguale a 1. La capacità è affetta dal termine **kmod**, espressione della classe di servizio e della durata dei carichi (si considera a livello di combinazione il caso di carico di minor durata).

Le deformazioni dell' elemento espresse in rapporto ad un millesimo di lunghezza sono rappresentate dal valore istantaneo e dal valore a tempo infinito. Il valore della deformazione a tempo infinito per una combinazione di carichi è ottenuta sommando per ogni caso di carico sia il valore istantaneo che il valore ottenuto dall' aliquota quasi-permanente amplificata del fattore kdef (formula 2.2 e 2.3).

In termini analitici il contributo del caso di carico con coefficiente di combinazione **Psi** (diverso da 0) è:

$Psi + kdef \times Psi2$

Elem.	Note	Pos. cm	Ver N+/M	Ver N-/M	Ver V/T	Rif. cmb	Ver N(s)	Kcy	Kcz	Ver M(s)	Kcrit(y)	Kcrit(z)	Rif. cmb
1 ok T,s=1,m=131		0.0	0.2		2.50e-04	9,0,13				1.28e-03	1.0	1.0	0,2
		411.0	0.2		6.24e-04	9,0,9				0.0	1.0	1.0	0,32
2 ok P,s=2,m=131		0.0	7.55e-02	3.90e-02	2.57e-02	9,36,35	0.1	0.3	0.3				13,0
		303.3	3.12e-02	6.48e-03	2.57e-02	11,35,35	0.1	0.3	0.3				13,0
3 ok T,s=2,m=131		0.0	1.57e-02		1.94e-02	33,0,29				1.96e-04	1.0	1.0	0,33
		140.0	6.13e-02		1.94e-02	29,0,29				3.55e-03	1.0	1.0	0,29
4 ok T,s=2,m=131		0.0	0.1	0.1	5.22e-02	9,33,27	0.1	1.0	1.0	5.56e-02	1.0	1.0	13,13
		150.5	0.4	0.1	0.3	9,15,9	0.2	1.0	1.0	0.1	1.0	1.0	15,9
5 ok T,s=2,m=131		0.0	0.4	0.2	0.4	9,2,9	0.2	1.0	1.0	0.1	1.0	1.0	2,9
		132.2	0.4	0.2	4.55e-02	9,15,27	0.2	1.0	1.0	0.1	1.0	1.0	15,9
6 ok P,s=2,m=131		0.0	5.09e-02	4.15e-02	1.58e-02	11,30,37	0.2	0.3	0.3				13,0
		292.0	7.32e-02	3.89e-02	1.58e-02	9,38,37	0.1	0.3	0.3				13,0
7 ok P,s=3,m=131		0.0	6.87e-02		1.44e-02	32,0,9							0,0
		132.0	0.4		1.44e-02	9,0,9							0,0
8 ok P,s=3,m=131		0.0	2.57e-03		0.0	13,0,9							0,0
		30.0	2.77e-03		0.0	13,0,9							0,0
9 ok T,s=3,m=131		0.0		2.43e-02	2.34e-02	0,29,31	6.41e-02	1.0	0.9	6.31e-02	1.0	1.0	30,13
		192.1		8.47e-02	2.34e-02	0,39,31	0.1	1.0	0.9	6.35e-02	1.0	1.0	40,13
10 ok P,s=2,m=131		0.0	4.91e-02	6.97e-02	1.59e-02	15,25,35	0.3	0.2	0.2				9,0
		358.4	4.96e-02	1.36e-02	1.59e-02	15,10,35	0.3	0.2	0.2				9,0
11 ok T,s=2,m=131		0.0	1.54e-02		1.93e-02	35,0,27				1.83e-04	1.0	1.0	0,35
		140.0	6.19e-02		1.93e-02	27,0,27				3.61e-03	1.0	1.0	0,27
12 ok P,s=2,m=131		0.0	3.55e-02	3.31e-02	2.14e-02	15,26,25	0.1	0.3	0.3				9,0
		303.3	2.13e-02	1.02e-03	2.14e-02	15,9,25	0.1	0.3	0.3				9,0
13 ok T,s=3,m=131		0.0		8.48e-02	2.40e-02	0,31,39	0.1	1.0	0.9	6.30e-02	1.0	1.0	31,2
		192.1		2.40e-02	2.40e-02	0,37,39	6.38e-02	1.0	0.9	6.28e-02	1.0	1.0	37,2
14 ok P,s=2,m=131		0.0		7.16e-02	2.07e-02	0,35,31	0.2	0.2	0.2				13,0
		358.4		1.39e-02	2.07e-02	0,29,31	0.2	0.2	0.2				13,0
15 ok T,s=2,m=131		0.0	6.83e-02	0.2	0.2	11,28,9	0.2	1.0	1.0	5.72e-02	1.0	1.0	28,13
		159.1	0.2	0.1	0.1	9,13,9	0.2	1.0	1.0	6.06e-02	1.0	1.0	13,13
16 ok P,s=2,m=131		0.0	4.28e-02	6.76e-02	1.52e-02	15,25,33	0.3	0.2	0.2				9,0
		358.4	2.90e-02	5.21e-03	1.52e-02	15,9,33	0.3	0.2	0.2				9,0
17 ok T,s=2,m=131		0.0	0.4	0.2	0.4	9,2,9	0.2	1.0	1.0	0.1	1.0	1.0	2,9
		132.2	0.4	0.2	4.32e-02	9,39,29	0.2	1.0	1.0	0.1	1.0	1.0	15,9
18 ok P,s=2,m=131		0.0	7.55e-02	3.89e-02	2.09e-02	9,38,33	0.1	0.3	0.3				13,0
		303.3	3.12e-02	1.62e-03	2.09e-02	11,13,33	0.1	0.3	0.3				13,0
19 ok T,s=2,m=131		0.0	0.2	4.84e-02	0.1	9,13,13	5.04e-02	1.0	1.0	2.15e-02	1.0	1.0	13,9
		159.1	1.30e-02	0.2	0.2	11,35,13	0.2	1.0	1.0	5.25e-02	1.0	1.0	35,39
20 ok P,s=2,m=131		0.0		7.11e-02	1.49e-02	0,37,25	0.2	0.2	0.2				13,0
		358.4		2.03e-03	1.49e-02	0,13,25	0.2	0.2	0.2				13,0
21 ok T,s=1,m=131		0.0		0.7	9.30e-02	0,13,13				0.6	1.0	1.0	0,13
		75.0		0.5	0.1	0,9,9				0.3	1.0	1.0	0,9
22 ok T,s=1,m=131		0.0		0.5	0.1	0,13,13				0.3	1.0	1.0	0,13
		75.0		0.7	8.96e-02	0,9,9				0.6	1.0	1.0	0,9
23 ok T,s=2,m=131		0.0	0.1	0.1	5.05e-02	9,35,29	0.1	1.0	1.0	5.23e-02	1.0	1.0	35,13
		150.5	0.4	0.1	0.3	9,15,9	0.1	1.0	1.0	0.1	1.0	1.0	15,9
24 ok T,s=1,m=131		0.0		0.8	6.46e-02	0,9,29				0.8	1.0	1.0	0,9
		45.6		0.9	0.1	0,13,9				0.8	1.0	1.0	0,13
25 ok T,s=1,m=131		0.0		0.7	8.96e-02	0,9,9				0.6	1.0	1.0	0,9
		29.4		0.8	9.03e-02	0,9,9				0.8	1.0	1.0	0,9
26 ok P,s=2,m=131		0.0		4.60e-02	1.09e-02	0,13,29	0.2	0.3	0.3				13,0
		292.0		7.03e-02	1.09e-02	0,38,29	0.2	0.3	0.3				5,0
27 ok T,s=2,m=131		0.0	6.03e-02		4.56e-02	27,0,5				3.48e-03	1.0	1.0	0,27
		246.0	5.76e-02		4.56e-02	35,0,5				3.17e-03	1.0	1.0	0,35
28 ok T,s=2,m=131		0.0	0.2	4.88e-02	0.1	9,13,13	5.08e-02	1.0	1.0	2.14e-02	1.0	1.0	13,9
		159.1	1.31e-02	0.2	0.2	11,37,13	0.2	1.0	1.0	5.24e-02	1.0	1.0	37,33
29 ok T,s=1,m=131		0.0		0.8	9.38e-02	0,13,13				0.8	1.0	1.0	0,13
		29.4		0.7	9.30e-02	0,13,13				0.6	1.0	1.0	0,13
30 ok P,s=2,m=131		0.0		4.63e-02	1.09e-02	0,13,27	0.2	0.3	0.3				13,0
		292.0		7.08e-02	1.09e-02	0,36,27	0.2	0.3	0.3				5,0
31 ok T,s=1,m=131		0.0		9.76e-02	0.4	0,39,13				9.20e-02	1.0	1.0	0,9
		75.0		0.5	0.1	0,13,13				0.3	1.0	1.0	0,13
32 ok T,s=1,m=131		0.0		0.2	0.6	0,13,13				0.1	1.0	1.0	0,13
		16.7		9.76e-02	0.4	0,39,13				9.20e-02	1.0	1.0	0,9
33 ok T,s=1,m=131		0.0		0.4	0.3	0,13,13				0.3	1.0	1.0	0,13

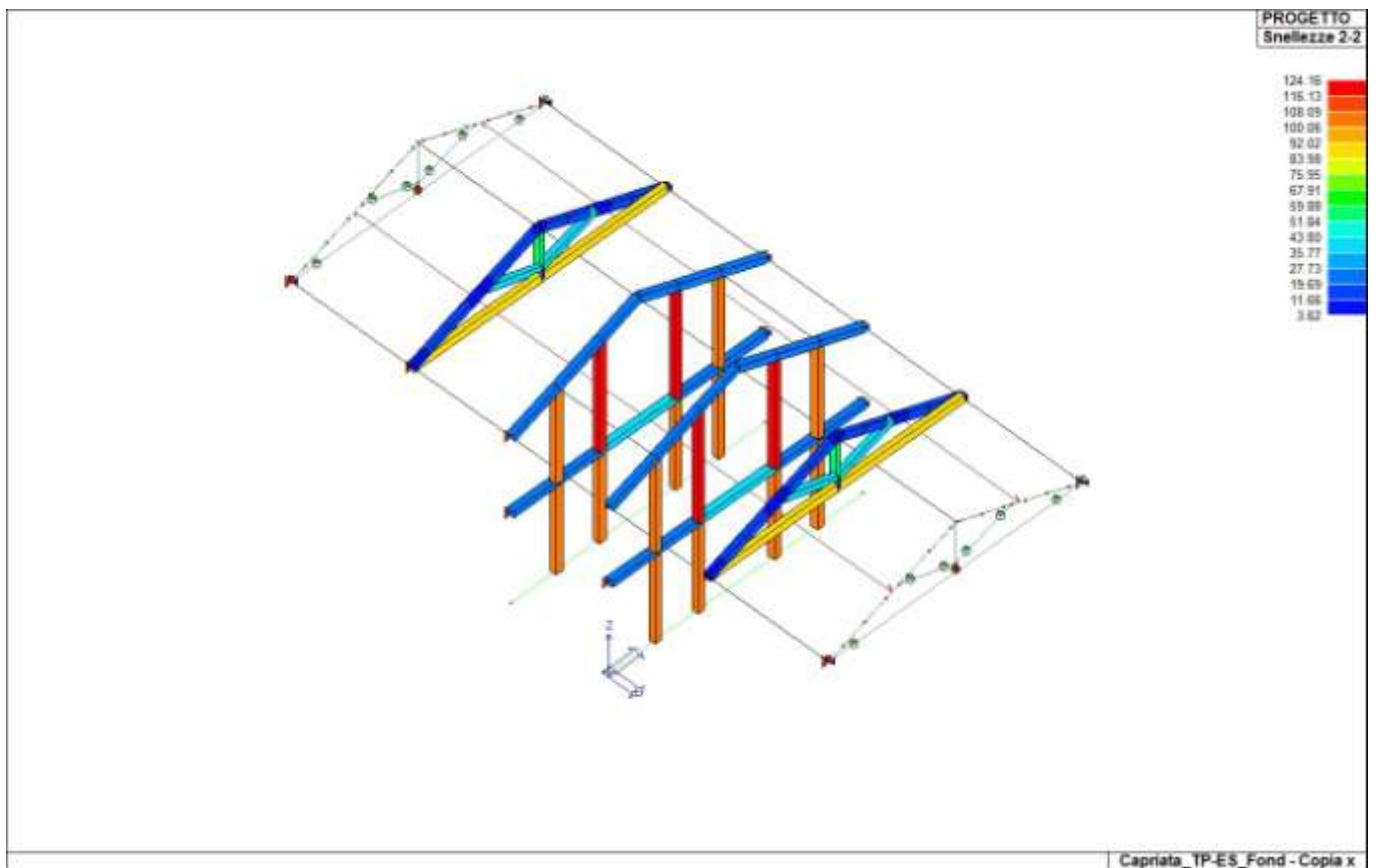
	50.0		0.2	0.5	0,39,13			0.2	1.0	1.0	0,39	
34 ok T,s=1,m=131	0.0		0.8	6.19e-02	0,13,9			0.7	1.0	1.0	0,13	
	75.0		0.4	0.3	0,13,13			0.3	1.0	1.0	0,13	
35 ok T,s=1,m=131	0.0		0.8	6.48e-02	0,13,37			0.8	1.0	1.0	0,13	
	75.0		0.8	6.18e-02	0,13,9			0.7	1.0	1.0	0,13	
36 ok T,s=2,m=131	0.0	6.05e-02		1.94e-02	37,0,37			3.57e-03	1.0	1.0	0,37	
	140.0	1.47e-02		1.94e-02	29,0,37			1.95e-04	1.0	1.0	0,29	
37 ok T,s=2,m=131	0.0	0.2	0.1	0.2	9,13,13	0.1	1.0	1.0	3.99e-02	1.0	1.0	13,9
	150.5	0.2	0.1	8.92e-02	9,29,13	0.1	1.0	1.0	2.15e-02	1.0	1.0	29,9
38 ok T,s=2,m=131	0.0	0.4	0.2	0.1	9,25,13	0.2	1.0	1.0	0.1	1.0	1.0	15,9
	132.2	0.2	0.2	0.1	9,2,13	0.2	1.0	1.0	4.11e-02	1.0	1.0	2,13
39 ok T,s=2,m=131	0.0	5.75e-02		1.86e-02	35,0,35			3.22e-03	1.0	1.0	0,35	
	140.0	1.48e-02		1.86e-02	27,0,35			1.97e-04	1.0	1.0	0,27	
40 ok T,s=2,m=131	0.0	0.4	0.2	0.1	9,31,13	0.2	1.0	1.0	0.1	1.0	1.0	15,9
	132.2	0.2	0.2	0.1	9,2,37	0.2	1.0	1.0	4.18e-02	1.0	1.0	2,13
41 ok T,s=2,m=131	0.0	0.2	0.1	0.2	9,13,13	0.1	1.0	1.0	3.96e-02	1.0	1.0	13,9
	150.5	0.2	0.1	8.86e-02	9,31,13	0.1	1.0	1.0	2.14e-02	1.0	1.0	31,9
42 ok P,s=2,m=131	0.0	6.79e-02	3.74e-02	1.09e-02	15,14,37	0.3	0.3	0.3				9,0
	292.0	3.91e-02	6.70e-02	1.09e-02	15,30,37	0.2	0.3	0.3				9,0
43 ok T,s=2,m=131	0.0	5.95e-02		4.56e-02	29,0,5			3.39e-03	1.0	1.0	0,29	
	246.0	5.96e-02		4.56e-02	37,0,5			3.41e-03	1.0	1.0	0,37	
44 ok T,s=1,m=131	0.0		0.8	0.1	0,9,13			0.8	1.0	1.0	0,9	
	45.6		0.8	6.42e-02	0,13,37			0.8	1.0	1.0	0,13	
45 ok T,s=2,m=131	0.0	6.86e-02	0.2	0.2	11,30,9	0.2	1.0	1.0	5.70e-02	1.0	1.0	30,13
	159.1	0.2	0.1	0.1	9,13,9	0.2	1.0	1.0	6.52e-02	1.0	1.0	13,13
46 ok P,s=2,m=131	0.0	5.68e-02	4.30e-02	1.57e-02	15,35,27	0.1	0.3	0.3				9,0
	292.0	2.48e-02	2.91e-02	1.57e-02	15,28,27	0.1	0.3	0.3				9,0
47 ok P,s=2,m=131	0.0	7.13e-02	3.86e-02	1.06e-02	15,14,35	0.3	0.3	0.3				9,0
	292.0	4.54e-02	6.90e-02	1.06e-02	15,25,35	0.2	0.3	0.3				9,0
48 ok T,s=1,m=131	0.0		0.5	0.1	0,9,9			0.3	1.0	1.0	0,9	
	75.0		9.45e-02	0.5	0,31,9			9.13e-02	1.0	1.0	0,13	
49 ok T,s=1,m=131	0.0	0.2		6.24e-04	9,0,9			0.0	1.0	1.0	0,32	
	411.0	0.2		2.50e-04	9,0,13			1.28e-03	1.0	1.0	0,2	
50 ok P,s=2,m=131	0.0	2.66e-02	2.92e-02	2.20e-02	15,28,27	0.1	0.3	0.3				9,0
	303.3	5.69e-02	3.67e-02	2.20e-02	13,5,27	0.1	0.3	0.3				9,0
51 ok T,s=1,m=131	0.0		9.45e-02	0.5	0,31,9			9.13e-02	1.0	1.0	0,13	
	16.7		0.2	0.6	0,9,9			0.1	1.0	1.0	0,9	
52 ok T,s=1,m=131	0.0		0.2	0.6	0,31,9			0.2	1.0	1.0	0,27	
	50.0		0.4	0.3	0,9,9			0.3	1.0	1.0	0,9	
53 ok T,s=1,m=131	0.0		0.4	0.3	0,9,9			0.3	1.0	1.0	0,9	
	75.0		0.8	6.17e-02	0,9,13			0.8	1.0	1.0	0,9	
54 ok P,s=2,m=131	0.0	6.07e-02	4.50e-02	1.58e-02	15,37,29	0.1	0.3	0.3				9,0
	292.0	3.38e-02	3.31e-02	1.58e-02	15,26,29	0.1	0.3	0.3				9,0
55 ok T,s=1,m=131	0.0		0.8	6.17e-02	0,9,13			0.8	1.0	1.0	0,9	
	75.0		0.8	6.51e-02	0,9,30			0.8	1.0	1.0	0,9	
78 ok T,s=2,m=131	0.0	0.1		1.39e-02	27,0,29			1.45e-02	1.0	1.0	0,27	
	148.0	1.34e-02		1.39e-02	35,0,29			1.32e-04	1.0	1.0	0,35	
79 ok T,s=2,m=131	0.0	1.30e-02	1.29e-02	1.32e-02	27,26,39	1.29e-02	1.0	1.0	1.68e-04	1.0	1.0	26,27
	148.0	0.1	0.1	1.32e-02	35,34,39	0.1	1.0	1.0	1.37e-02	1.0	1.0	34,35
80 ok P,s=2,m=131	0.0	5.08e-02	4.19e-02	1.54e-02	11,28,35	0.2	0.3	0.3				13,0
	292.0	7.32e-02	3.89e-02	1.54e-02	9,36,35	0.1	0.3	0.3				13,0
81 ok T,s=2,m=131	0.0	0.1		1.38e-02	29,0,25			1.47e-02	1.0	1.0	0,29	
	148.0	1.43e-02		1.38e-02	33,0,25			1.43e-04	1.0	1.0	0,33	
82 ok T,s=2,m=131	0.0	1.17e-02	1.18e-02	1.38e-02	32,29,33	1.18e-02	1.0	1.0	1.39e-04	1.0	1.0	29,29
	148.0	0.1	0.1	1.38e-02	40,37,33	0.1	1.0	1.0	1.48e-02	1.0	1.0	37,37
99 ok T,s=1,m=131	0.0	0.2		2.50e-04	9,0,13			1.28e-03	1.0	1.0	0,2	
	411.0	0.2		6.24e-04	9,0,9			0.0	1.0	1.0	0,29	
100 ok P,s=3,m=131	0.0	6.88e-02		1.44e-02	26,0,9						0,0	
	132.0	0.4		1.44e-02	9,0,9						0,0	
101 ok P,s=3,m=131	0.0	2.57e-03		0.0	13,0,26						0,0	
	30.0	2.77e-03		0.0	13,0,26						0,0	
102 ok T,s=3,m=131	0.0		2.43e-02	2.35e-02	0,27,25	6.40e-02	1.0	0.9	6.31e-02	1.0	1.0	28,13
	192.1		8.50e-02	2.35e-02	0,33,25	0.1	1.0	0.9	6.35e-02	1.0	1.0	34,13
103 ok T,s=3,m=131	0.0		8.51e-02	2.40e-02	0,25,33	0.1	1.0	0.9	6.30e-02	1.0	1.0	25,2
	192.1		2.40e-02	2.40e-02	0,35,33	6.37e-02	1.0	0.9	6.28e-02	1.0	1.0	35,2
104 ok T,s=1,m=131	0.0		0.7	9.30e-02	0,13,13			0.6	1.0	1.0	0,13	
	75.0		0.5	0.1	0,9,9			0.3	1.0	1.0	0,9	
105 ok T,s=1,m=131	0.0		0.5	0.1	0,13,13			0.3	1.0	1.0	0,13	
	75.0		0.7	8.96e-02	0,9,9			0.6	1.0	1.0	0,9	
106 ok T,s=1,m=131	0.0		0.8	6.44e-02	0,9,27			0.8	1.0	1.0	0,9	
	45.6		0.9	0.1	0,13,9			0.8	1.0	1.0	0,13	
107 ok T,s=1,m=131	0.0		0.7	8.96e-02	0,9,9			0.6	1.0	1.0	0,9	
	29.4		0.8	9.04e-02	0,9,9			0.8	1.0	1.0	0,9	
108 ok T,s=1,m=131	0.0		0.8	9.38e-02	0,13,13			0.8	1.0	1.0	0,13	
	29.4		0.7	9.30e-02	0,13,13			0.6	1.0	1.0	0,13	
109 ok T,s=1,m=131	0.0		9.78e-02	0.4	0,33,13			9.20e-02	1.0	1.0	0,9	
	75.0		0.5	0.1	0,13,13			0.3	1.0	1.0	0,13	

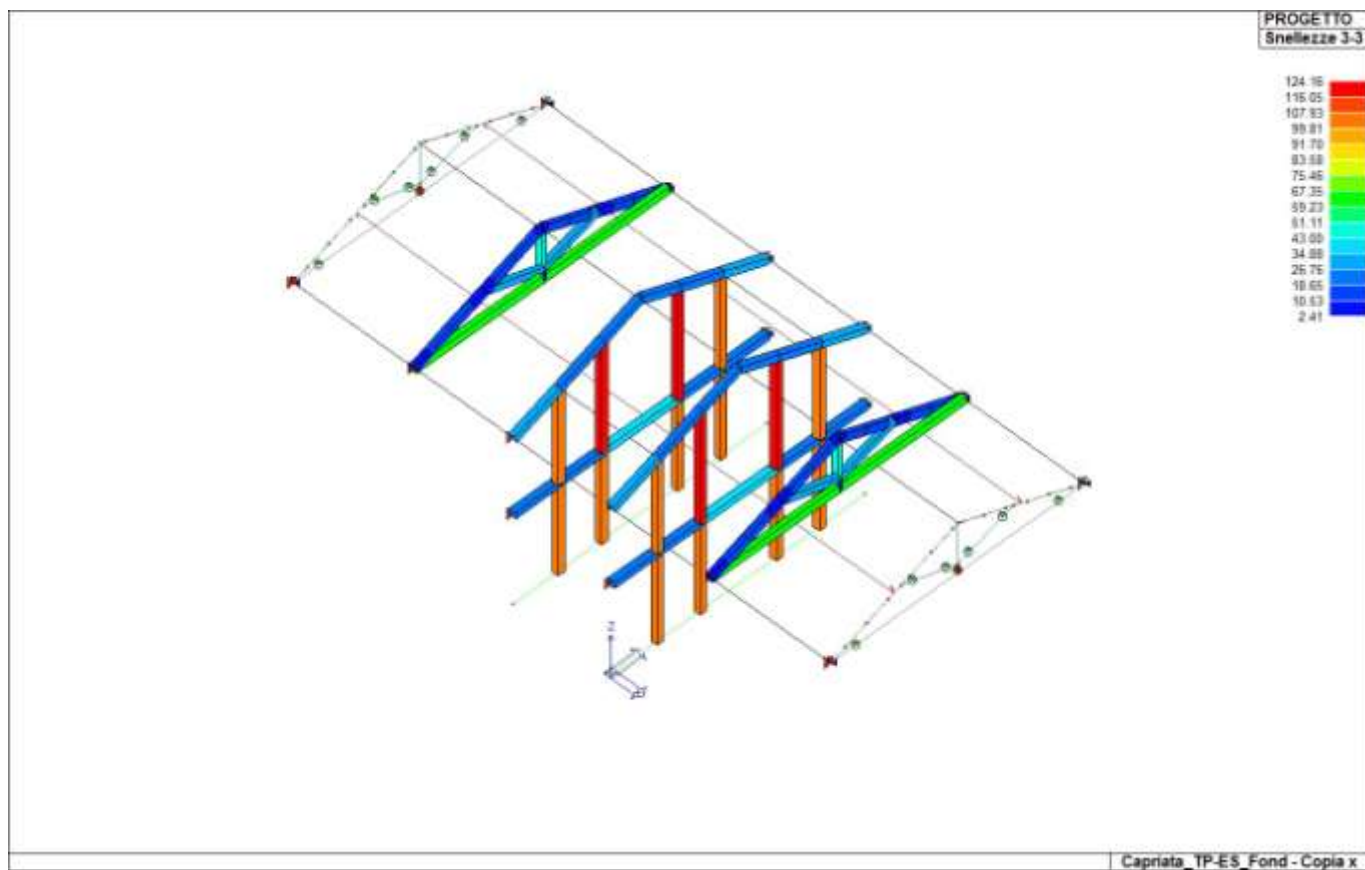
110 ok T,s=1,m=131	0.0	0.2	0.6	0,13,13	0.1	1.0	1.0	0,13
	16.7	9.78e-02	0.4	0,33,13	9.20e-02	1.0	1.0	0,9
111 ok T,s=1,m=131	0.0	0.4	0.3	0,13,13	0.3	1.0	1.0	0,13
	50.0	0.2	0.5	0,33,13	0.2	1.0	1.0	0,33
112 ok T,s=1,m=131	0.0	0.8	6.19e-02	0,13,9	0.7	1.0	1.0	0,13
	75.0	0.4	0.3	0,13,13	0.3	1.0	1.0	0,13
113 ok T,s=1,m=131	0.0	0.8	6.46e-02	0,13,35	0.8	1.0	1.0	0,13
	75.0	0.8	6.19e-02	0,13,9	0.7	1.0	1.0	0,13
114 ok T,s=1,m=131	0.0	0.8	0.1	0,9,13	0.8	1.0	1.0	0,9
	45.6	0.8	6.40e-02	0,13,35	0.8	1.0	1.0	0,13
115 ok T,s=1,m=131	0.0	0.5	0.1	0,9,9	0.3	1.0	1.0	0,9
	75.0	9.47e-02	0.5	0,25,9	9.13e-02	1.0	1.0	0,13
116 ok T,s=1,m=131	0.0	0.2	6.24e-04	9,0,9	0.0	1.0	1.0	0,29
	411.0	0.2	2.50e-04	9,0,13	1.28e-03	1.0	1.0	0,2
117 ok T,s=1,m=131	0.0	9.47e-02	0.5	0,25,9	9.13e-02	1.0	1.0	0,13
	16.7	0.2	0.6	0,9,9	0.1	1.0	1.0	0,9
118 ok T,s=1,m=131	0.0	0.2	0.6	0,25,9	0.2	1.0	1.0	0,29
	50.0	0.4	0.3	0,9,9	0.3	1.0	1.0	0,9
119 ok T,s=1,m=131	0.0	0.4	0.3	0,9,9	0.3	1.0	1.0	0,9
	75.0	0.8	6.17e-02	0,9,13	0.8	1.0	1.0	0,9
120 ok T,s=1,m=131	0.0	0.8	6.16e-02	0,9,13	0.8	1.0	1.0	0,9
	75.0	0.8	6.48e-02	0,9,28	0.8	1.0	1.0	0,9

Elem.	Ver N+/M	Ver N-/M	Ver V/T	Ver N(s)	Kcy	Kcz	Ver M(s)	Kcrit(y)	Kcrit(z)
	0.43	0.85	0.57	0.34	0.23	0.23	0.83	1.00	1.00

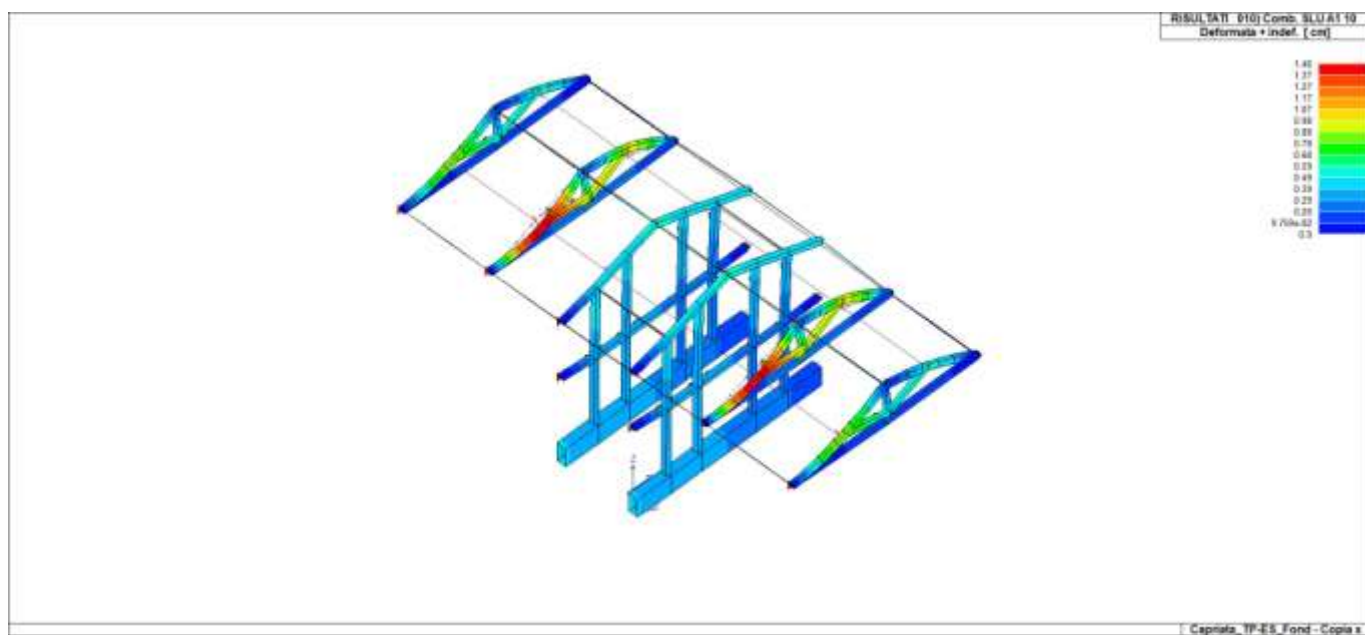
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1	0.5	0.4	0.4	90,102,103	0.8	1.0	0.9	0.7	90,102,103
2	0.8	0.4	0.4	94,102,103	0.8	1.5	0.8	0.7	94,102,103
3	0.2	5.75e-02	5.50e-02	96,102,103	0.8	0.4	0.1	9.89e-02	96,102,103
4	0.2	9.86e-02	9.66e-02	96,102,103	0.8	0.4	0.2	0.2	96,102,103
5	0.8	0.4	0.4	94,102,103	0.8	1.5	0.9	0.7	94,102,103
6	8.60e-02	3.16e-02	3.01e-02	94,102,103	0.8	0.2	6.14e-02	5.43e-02	94,102,103
7	3.9	9.21e-02	9.14e-02	93,102,103	0.8	7.0	0.2	0.2	93,102,103
8	17.2	0.4	0.4	94,102,103	0.8	31.0	0.7	0.7	94,102,103
9	4.0	5.41e-02	5.36e-02	96,102,103	0.8	7.1	0.1	9.65e-02	96,102,103
10	0.3	0.2	0.2	94,102,103	0.8	0.6	0.4	0.4	94,102,103
11	0.2	5.68e-02	5.45e-02	96,102,103	0.8	0.4	0.1	9.81e-02	96,102,103
12	0.4	0.3	0.2	94,102,103	0.8	0.7	0.5	0.4	94,102,103
13	4.0	5.24e-02	4.90e-02	94,102,103	0.8	7.1	0.1	8.83e-02	94,102,103
14	0.6	0.3	0.3	94,102,103	0.8	1.2	0.7	0.6	94,102,103
15	1.9	1.3	1.3	94,102,103	0.8	3.4	2.5	2.3	94,102,103
16	0.3	0.2	0.2	94,102,103	0.8	0.6	0.4	0.4	94,102,103
17	0.8	0.4	0.4	94,102,103	0.8	1.5	0.9	0.7	94,102,103
18	0.8	0.4	0.4	94,102,103	0.8	1.5	0.8	0.7	94,102,103
19	1.7	1.3	1.3	96,102,103	0.8	3.2	2.5	2.3	96,102,103
20	0.6	0.3	0.3	94,102,103	0.8	1.2	0.7	0.6	94,102,103
21	3.5	0.1	0.1	96,102,103	0.8	6.3	0.3	0.2	96,102,103
22	3.5	0.1	0.1	94,102,103	0.8	6.3	0.3	0.2	94,102,103
23	0.2	9.46e-02	9.04e-02	96,102,103	0.8	0.4	0.2	0.2	96,102,103
24	0.3	0.2	0.2	94,102,103	0.8	0.6	0.5	0.4	94,102,103
25	1.9	0.2	0.2	94,102,103	0.8	3.4	0.5	0.4	94,102,103
26	7.22e-02	2.25e-02	2.15e-02	94,102,103	0.8	0.1	4.36e-02	3.86e-02	94,102,103
27	0.4	8.81e-02	8.81e-02	91,101,103	0.8	0.7	0.2	0.2	91,101,103
28	1.7	1.3	1.3	96,102,103	0.8	3.2	2.5	2.3	96,102,103
29	1.8	0.2	0.2	96,102,103	0.8	3.3	0.5	0.4	96,102,103
30	7.21e-02	2.25e-02	2.15e-02	94,102,103	0.8	0.1	4.36e-02	3.86e-02	94,102,103
31	5.2	0.2	0.2	96,102,103	0.8	9.4	0.4	0.3	96,102,103
32	5.7	0.2	0.2	96,102,103	0.8	10.3	0.5	0.4	96,102,103
33	7.4	1.7	1.6	96,102,103	0.8	13.5	3.4	2.8	96,102,103
34	5.6	1.1	1.0	96,102,103	0.8	10.2	2.2	1.8	96,102,103
35	2.3	0.2	0.2	96,102,103	0.8	4.2	0.4	0.3	96,102,103
36	0.3	5.99e-02	5.73e-02	94,102,103	0.8	0.5	0.1	0.1	94,102,103
37	0.4	9.86e-02	9.62e-02	94,102,103	0.8	0.7	0.2	0.2	94,102,103
38	1.4	0.4	0.4	94,102,103	0.8	2.6	0.9	0.7	94,102,103
39	0.3	5.97e-02	5.70e-02	94,102,103	0.8	0.5	0.1	0.1	94,102,103
40	1.4	0.4	0.4	94,102,103	0.8	2.6	0.9	0.7	94,102,103
41	0.4	9.86e-02	9.57e-02	94,102,103	0.8	0.6	0.2	0.2	94,102,103
42	4.78e-02	1.10e-02	1.08e-02	94,102,103	0.8	8.64e-02	2.06e-02	1.95e-02	94,102,103
43	0.4	8.81e-02	8.81e-02	91,101,103	0.8	0.7	0.2	0.2	91,101,103
44	0.4	0.2	0.2	96,102,103	0.8	0.8	0.5	0.4	96,102,103
45	1.9	1.3	1.3	94,102,103	0.8	3.4	2.5	2.3	94,102,103
46	4.16e-02	6.33e-03	6.14e-03	94,102,103	0.8	7.50e-02	1.20e-02	1.11e-02	94,102,103
47	4.66e-02	1.22e-02	1.22e-02	93,101,103	0.8	8.39e-02	2.20e-02	2.20e-02	93,101,103
48	5.2	0.2	0.2	94,102,103	0.8	9.5	0.4	0.3	94,102,103
49	0.5	0.4	0.4	90,102,103	0.8	1.0	0.9	0.7	90,102,103

50	0.4	0.3	0.2	94,102,103	0.8	0.7	0.5	0.4	94,102,103
51	5.7	0.2	0.2	94,102,103	0.8	10.3	0.5	0.4	94,102,103
52	7.5	1.7	1.6	94,102,103	0.8	13.7	3.4	2.8	94,102,103
53	5.7	1.1	1.0	94,102,103	0.8	10.4	2.2	1.8	94,102,103
54	4.50e-02	1.21e-02	1.19e-02	94,102,103	0.8	8.12e-02	2.24e-02	2.14e-02	94,102,103
55	2.4	0.2	0.2	94,102,103	0.8	4.3	0.4	0.3	94,102,103
78	1.8	1.3	1.3	94,102,103	0.8	3.3	2.5	2.3	94,102,103
79	1.7	1.3	1.3	96,102,103	0.8	3.1	2.5	2.3	96,102,103
80	8.60e-02	3.16e-02	3.02e-02	94,102,103	0.8	0.2	6.14e-02	5.43e-02	94,102,103
81	1.8	1.3	1.3	94,102,103	0.8	3.3	2.5	2.3	94,102,103
82	1.7	1.3	1.3	96,102,103	0.8	3.1	2.5	2.3	96,102,103
99	0.5	0.4	0.4	90,102,103	0.8	1.0	0.9	0.7	90,102,103
100	3.9	9.21e-02	9.13e-02	95,102,103	0.8	7.0	0.2	0.2	95,102,103
101	17.2	0.4	0.4	94,102,103	0.8	31.0	0.7	0.7	94,102,103
102	4.0	5.38e-02	5.32e-02	96,102,103	0.8	7.1	0.1	9.58e-02	96,102,103
103	4.0	5.23e-02	4.90e-02	94,102,103	0.8	7.1	0.1	8.82e-02	94,102,103
104	3.5	0.1	0.1	96,102,103	0.8	6.3	0.3	0.2	96,102,103
105	3.5	0.1	0.1	94,102,103	0.8	6.3	0.3	0.2	94,102,103
106	0.3	0.2	0.2	94,102,103	0.8	0.6	0.5	0.4	94,102,103
107	1.9	0.2	0.2	94,102,103	0.8	3.4	0.5	0.4	94,102,103
108	1.8	0.2	0.2	96,102,103	0.8	3.3	0.5	0.4	96,102,103
109	5.2	0.2	0.2	96,102,103	0.8	9.4	0.4	0.3	96,102,103
110	5.7	0.2	0.2	96,102,103	0.8	10.3	0.5	0.4	96,102,103
111	7.4	1.7	1.6	96,102,103	0.8	13.5	3.4	2.8	96,102,103
112	5.6	1.1	1.0	96,102,103	0.8	10.2	2.2	1.8	96,102,103
113	2.3	0.2	0.2	96,102,103	0.8	4.2	0.4	0.3	96,102,103
114	0.4	0.2	0.2	96,102,103	0.8	0.8	0.5	0.4	96,102,103
115	5.2	0.2	0.2	94,102,103	0.8	9.5	0.4	0.3	94,102,103
116	0.5	0.4	0.4	90,102,103	0.8	1.0	0.9	0.7	90,102,103
117	5.7	0.2	0.2	94,102,103	0.8	10.3	0.5	0.4	94,102,103
118	7.5	1.7	1.6	94,102,103	0.8	13.7	3.4	2.8	94,102,103
119	5.7	1.1	1.0	94,102,103	0.8	10.4	2.2	1.8	94,102,103
120	2.4	0.2	0.2	94,102,103	0.8	4.3	0.4	0.3	94,102,103
Elem.	w,net R	w,net F	w,net P		w,net Ri	w,net Fi	w,net Pi		
	17.21	1.70	1.57		30.98	3.45	2.83		

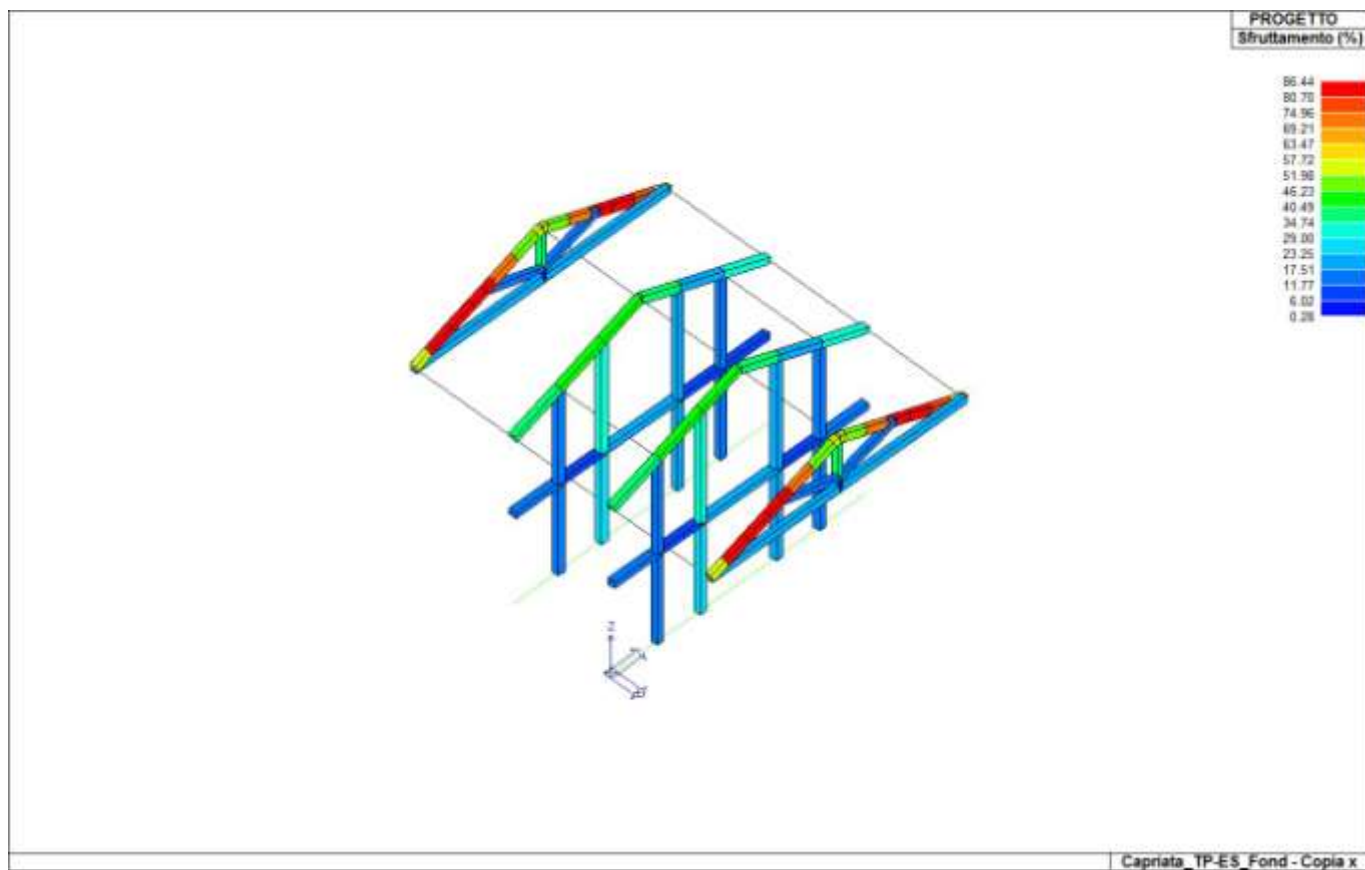




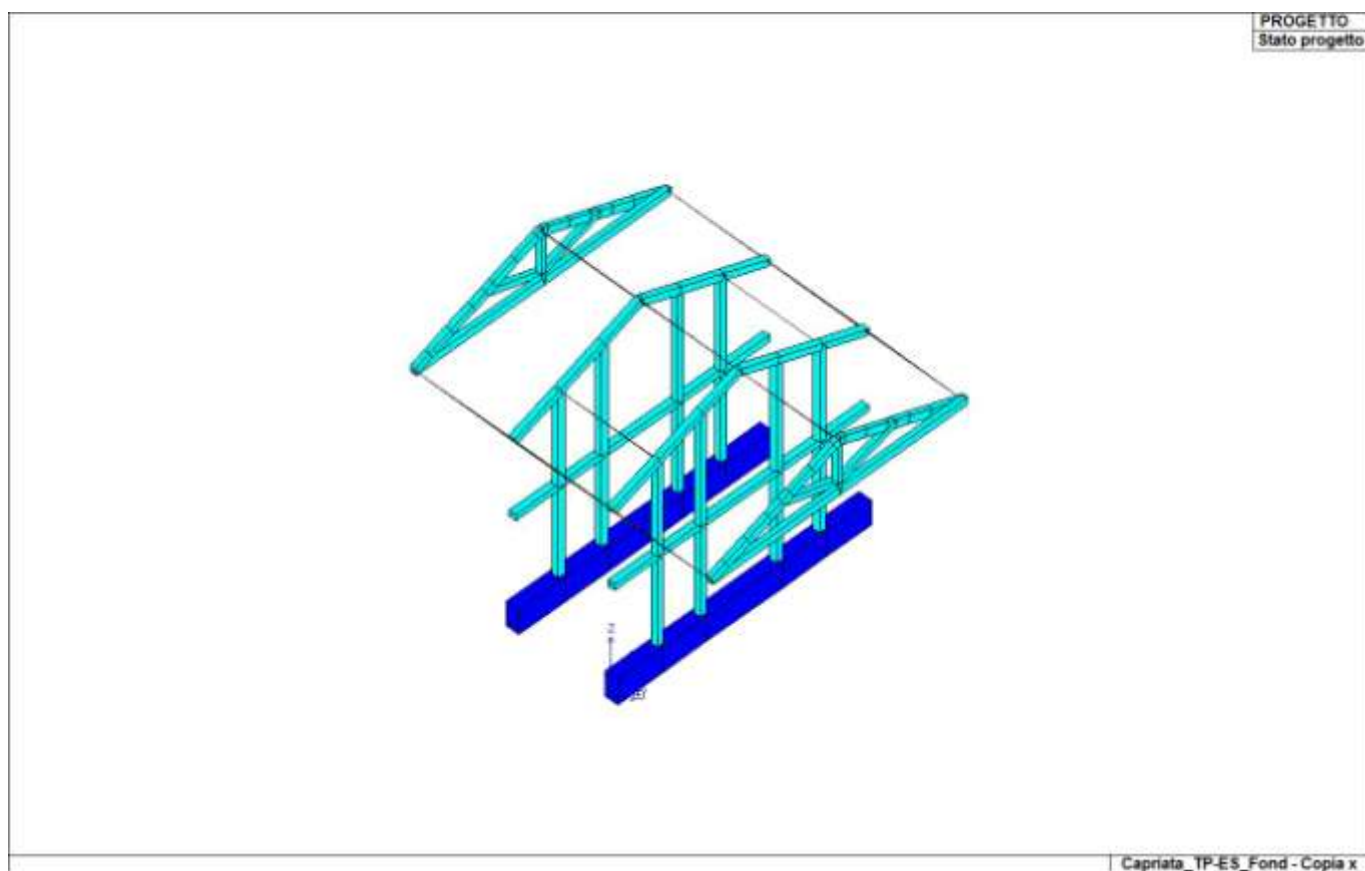
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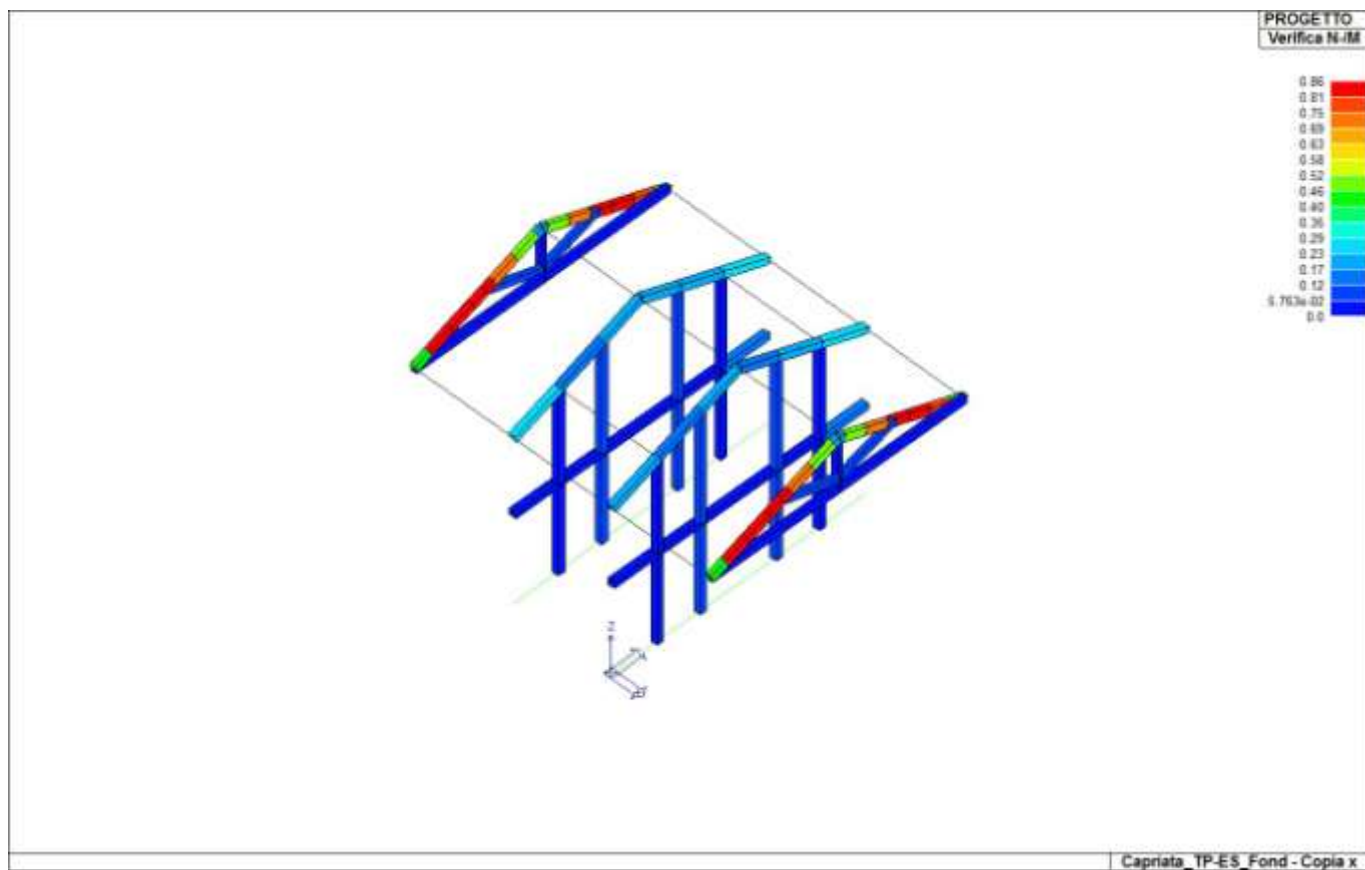
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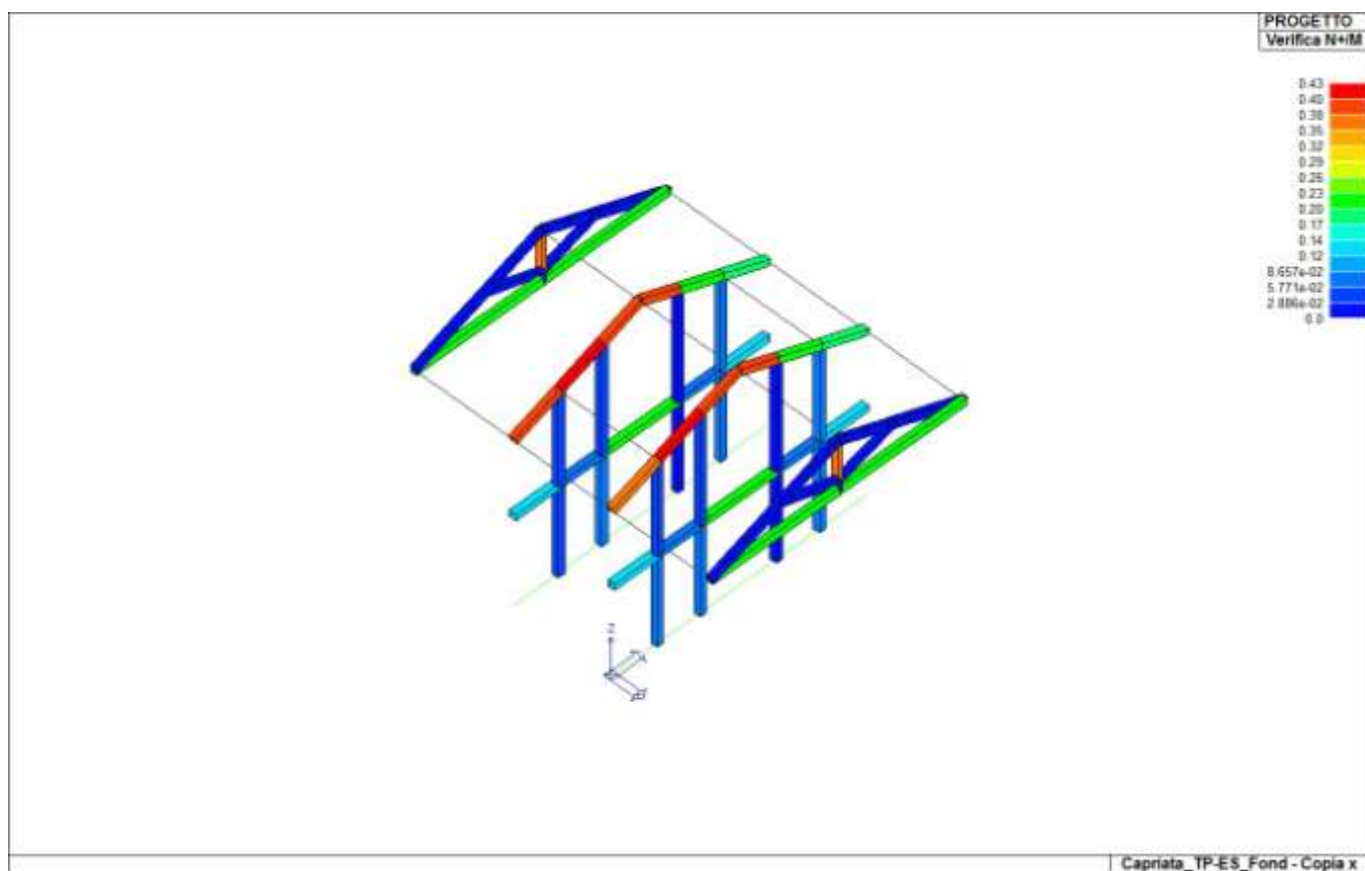
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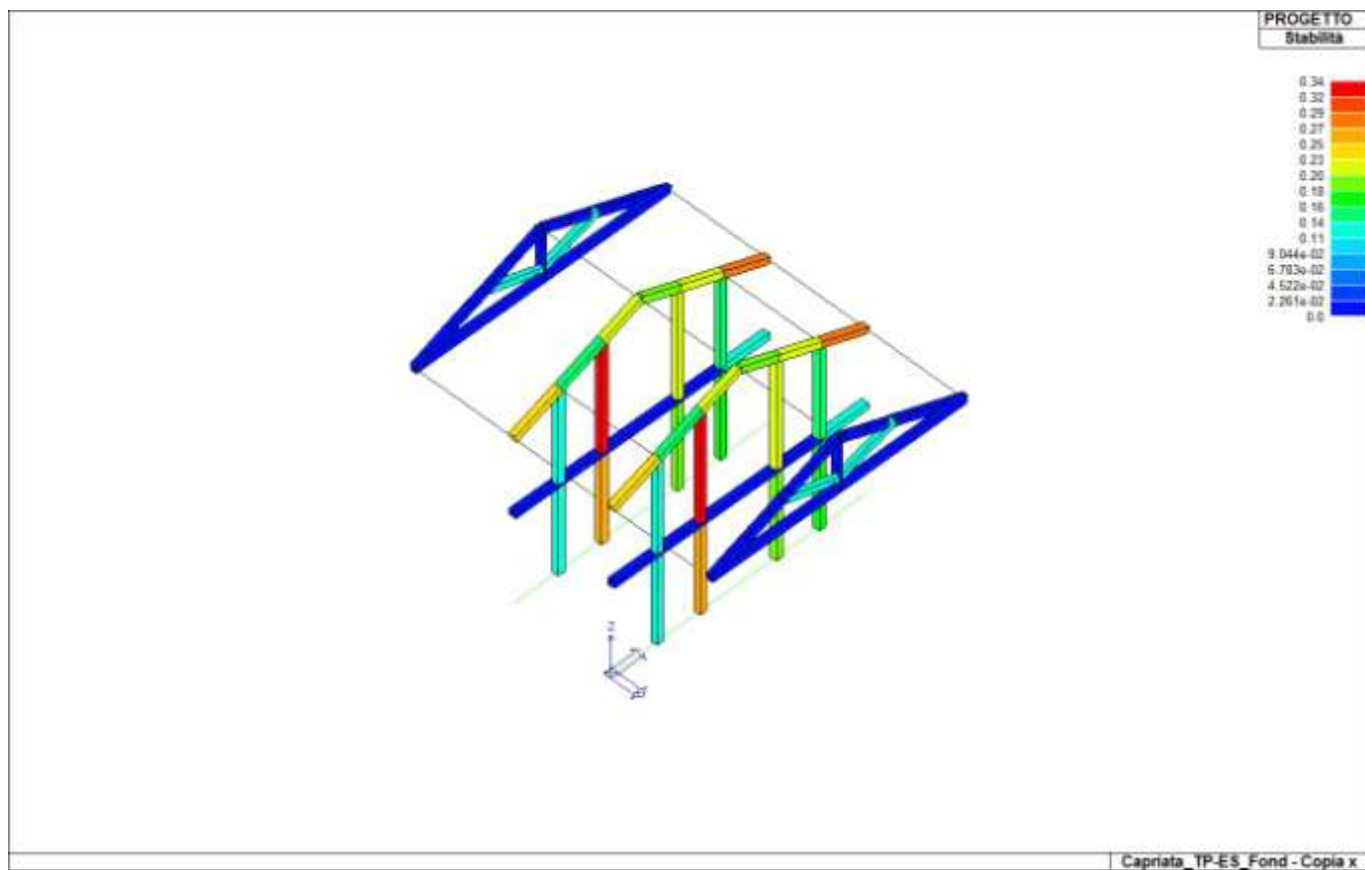
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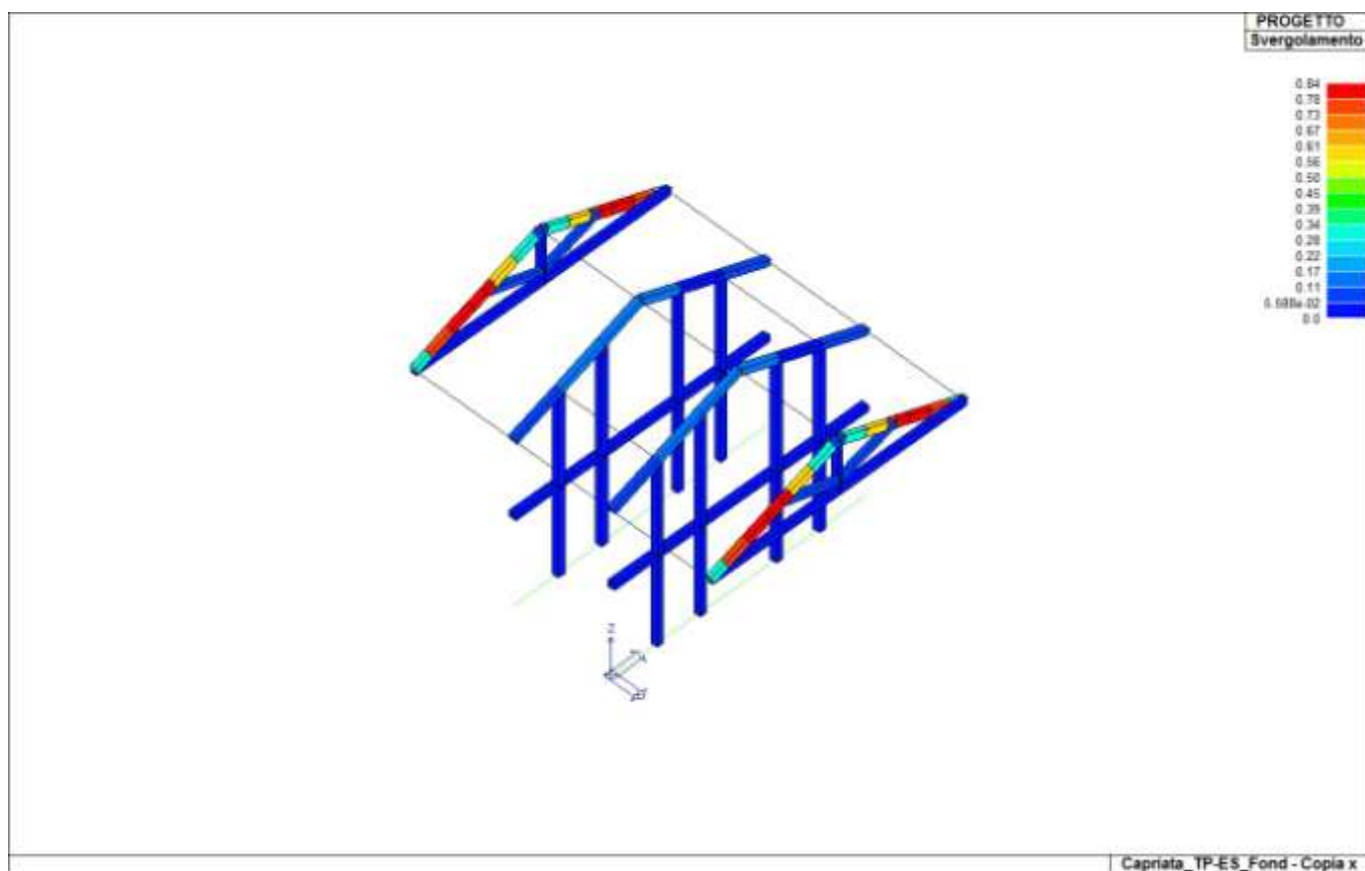
LEGNO_VER_Nneg-M



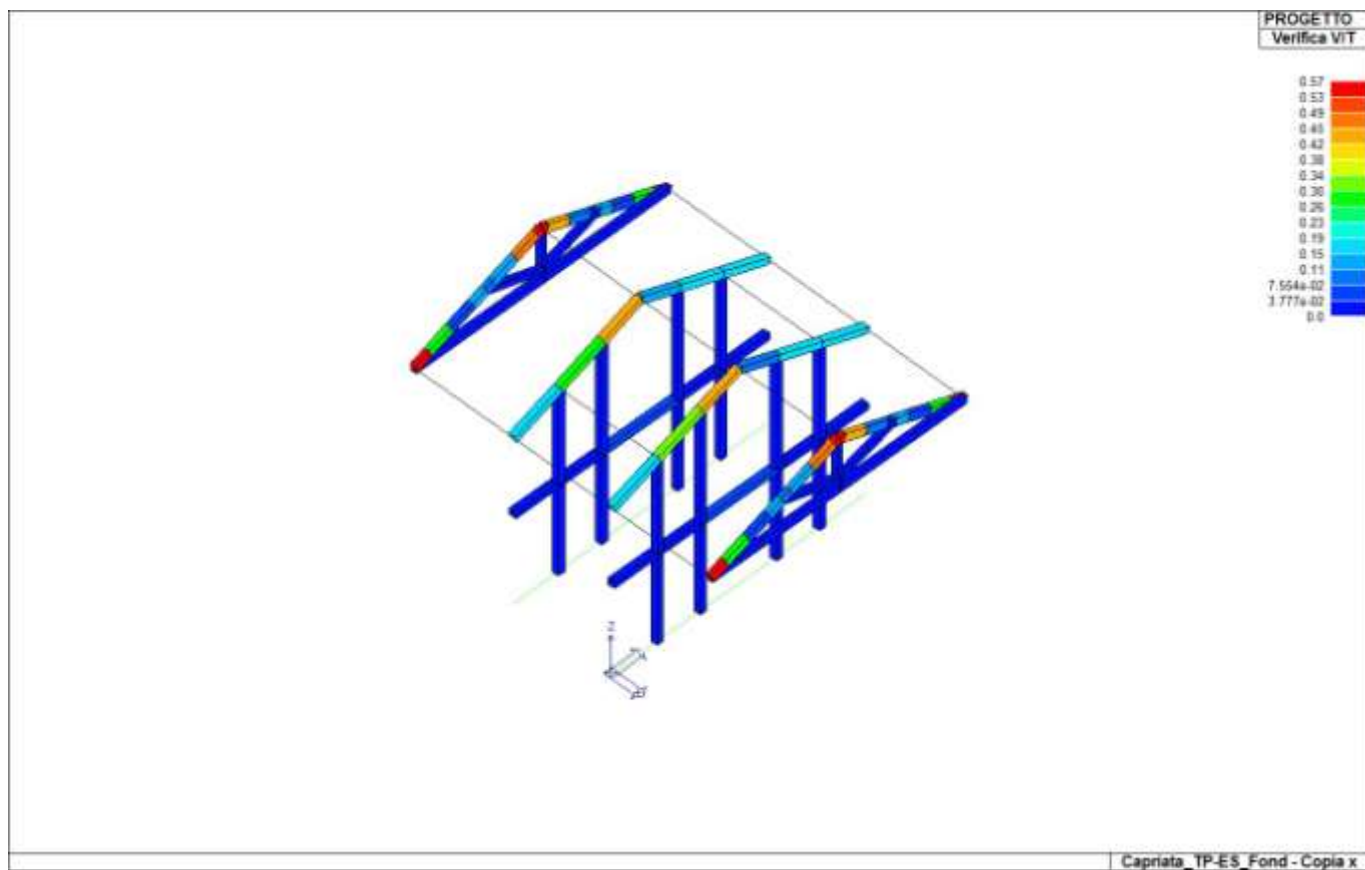
LEGNO_VER_Npos-M



LEGNO_VER_STAB



LEGNO_VER_SVERG



LEGNO_VER_V-T

RELAZIONE SUL CODICE DI CALCOLO RELATIVO ALLA

VERIFICA DELLE UNIONI DI ASTE IN LEGNO

1) Premessa

La presente relazione ha per oggetto la descrizione delle ipotesi e dei criteri adottati per l'esecuzione delle verifiche di unioni di aste in legno; contestualmente verranno illustrate le caratteristiche del relativo codice di calcolo e della sua affidabilità, le modalità di presentazione dei risultati e le informazioni generali sull'elaborazione; infine verrà espresso un giudizio motivato sull'accettabilità dei risultati.

2) Riferimenti legislativi

I criteri adottati per le verifiche delle unioni sono quelli espressamente indicati nelle seguenti disposizioni normative:

- D. M. 17.01.2018, recante le Nuove Norme Tecniche per le Costruzioni;
- Circolare del Ministero delle Infrastrutture n. 7 del 21.01.2019, recante le Istruzioni per l'applicazione delle Norme Tecniche per le Costruzioni;
- Istruzioni per la Progettazione, l'Esecuzione e il Controllo delle Strutture di Legno edita dal Consiglio Nazionale delle Ricerche (CNR 28 novembre 2007 - rev. 7 ottobre 2008).

Per quanto non espressamente riportato nella succitata normativa si è fatto riferimento alle indicazioni contenute nell'Eurocodice 5, riguardante la Progettazione delle strutture di legno.

3) Descrizione delle verifiche svolte mediante il codice di calcolo

Il programma di calcolo, nella versione attuale, consente la verifica di due fra le più diffuse tipologie di unioni di aste in legno e precisamente:

- Unioni Tradizionali o di Carpenteria Lignea;
- Unioni Meccaniche con Elementi Metallici a Gambo Cilindrico.

Le unioni della prima tipologia possono essere soltanto piane, mentre quelle appartenenti alla seconda tipologia possono essere sia piane che spaziali.

a) Unioni tradizionali

Appartengono a questa tipologia le connessioni utilizzate per il collegamento di membrature lignee caratterizzate dalla presenza di superfici intagliate e lavorate al fine di consentire la trasmissione degli sforzi tra gli elementi connessi.

Le tipologie di collegamenti tradizionali prese in considerazione sono:

- Collegamento a Dente Semplice Normale;
- Collegamento a Dente Semplice Arretrato;
- Collegamento a Dente Semplice Rinforzato;
- Collegamento a Dente Doppio.

Le predette tipologie di unioni vengono solitamente utilizzate per la realizzazione dei nodi di travature reticolari che possono ricondursi alle seguenti tipologie:

- Nodo Puntone - Catena;
- Nodo Puntone - Monaco;
- Nodo Puntone - Saetta;
- Nodo Monaco - Saetta.

Il programma, una volta valutate le sollecitazioni nelle zone di contatto dell'intaglio e lungo la superficie di scorrimento del tallone, effettua le relative verifiche secondo i criteri indicati nelle Istruzioni del CNR.

Nel caso di Dente Semplice Rinforzato, viene eseguita anche la verifica degli elementi metallici di collegamento del rinforzo all'asta principale e vengono controllate altresì le modalità costruttive in base alle prescrizioni valide per le unioni con elementi metallici.

b) Unioni con elementi metallici a gambo cilindrico

L'unione di aste in legno mediante l'impiego di elementi metallici a gambo cilindrico si caratterizza per il fatto che la trasmissione degli sforzi da un'asta all'altra avviene proprio per il tramite di questi elementi.

Gli elementi metallici a gambo cilindrico che possono essere utilizzati appartengono alle seguenti tipologie:

- Chiodi;
- Viti;
- Bulloni;
- Spinotti o Perni.

In base al materiale delle aste, si possono avere le seguenti tipologie di unioni:

- Unioni Legno - Legno;
- Unioni Pannello - Legno;
- Unioni Acciaio - Legno.

In base al numero di sezioni resistenti degli elementi metallici, si possono avere:

- Un elemento resistente ed un piano di taglio,
- Un elemento resistente e due piani di taglio;
- Due elementi resistenti e due piani di taglio.

Ogni elemento metallico ha una propria « Capacita' portante » o « Resistenza » dipendente dalle caratteristiche meccaniche e costruttive dell'elemento stesso, dalle caratteristiche fisiche e meccaniche del legno costituente le aste da collegare e dal tipo e dalla direzione delle azioni sollecitanti l'unione.

Nel caso in cui l'elemento resistente e' soggetto a sollecitazione assiale di trazione, la Capacita' Portante dipende dalle sotto elencate resistenze:

- Resistenza alla Estrazione della parte filettata del connettore;
- Resistenza alla Penetrazione della testa del connettore;
- Resistenza a Trazione del connettore.
- Resistenza allo Strappo della testa del connettore;
- Resistenza al Punzonamento della Flangia.

Nel caso in cui l'elemento resistente e' soggetto a sollecitazione assiale di compressione, la Capacita' Portante dipende dalle sotto elencate resistenze:

- Resistenza allo Sprofondamento del connettore;
- Resistenza alla Instabilita' del connettore.

In questa seconda condizione di carico, bisogna determinare anche la resistenza a compressione del legno soggetto alle azioni trasmesse dalle flange metalliche.

Nel caso di elementi resistenti soggetti a sollecitazioni taglienti, la Capacita' portante dipende dalle seguenti resistenze:

- Resistenza allo snervamento del connettore;
- Resistenza al rifollamento del materiale ligneo;
- Resistenza all'estrazione del mezzo di unione dal materiale ligneo.

Il programma, una volta valutate le azioni in ogni singolo elemento resistente, effettua le relative verifiche in base al tipo di sollecitazione agente nell'elemento stesso.

Nel caso di piu' elementi disposti sulla stessa fila, effettua anche la verifica considerando una resistenza efficace, minore della somma delle resistenze dei vari elementi.

Per queste tipologie di unioni il programma effettua anche tutte le verifiche costruttive, dimensionali, geometriche previste dalle Norme Tecniche.

Il programma fornisce altresì il valore delle rigidità traslatorie e rotatorie da utilizzare per il calcolo delle strutture tenendo conto degli scorrimenti relativi.

4) Convenzioni sulle unita' di misura e simboli adottati

Nei calcoli di verifica sono state utilizzate le seguenti unita' di misura:

- | | | | | |
|---|---|-------------------|---|-------|
| - Lunghezze e distanze | : | mm | | |
| - Sollecitazioni in fase di input | : | daN | e | daN.m |
| - Sollecitazioni in fase di output | : | N | e | N.mm |
| - Tensioni normali e tangenziali | : | N/mm ² | | |
| - Resistenze caratteristiche e di calcolo | : | N/mm ² | | |

Per quanto possibile, e' stata utilizzata la stessa simbologia riportata nelle NTC e nella Circolare del CNR. I pochi nuovi simboli adottati sono di intuitiva comprensione.

5) Affidabilita' del codice utilizzato

Il codice di calcolo e' stato sviluppato seguendo in maniera scrupolosa le ipotesi, i criteri e le indicazioni contenute nella pubblicazione denominata « VUAL » che tratta in maniera esauriente la « Verifica delle unioni delle aste in legno » secondo i criteri illustrati nelle NTC e nella Circolare del CNR.

La predetta documentazione, che viene fornita unitamente al software, contiene una esauriente descrizione delle basi teoriche e degli algoritmi impiegati, l'individuazione dei campi d'impiego, nonché casi prova interamente risolti e commentati, per i quali vengono forniti i file di input necessari a riprodurre l'elaborazione.

6) Modalita' di presentazione dei risultati

La notevole quantita' di informazioni che accompagna l'utilizzo del programma di calcolo impiegato ha richiesto una attenzione particolare sulle modalita' di presentazione dei dati e dei risultati delle verifiche, cio' al fine di riassumere, in una sintesi completa ed efficace, il comportamento della unione oggetto di verifica.

L'esito di ogni verifica puo' essere sintetizzato in uno schema grafico contenente gli elementi indispensabili alla relativa realizzazione.

7) Informazioni generali sull'elaborazione

Il software utilizzato prevede una serie di controlli automatici che consentono l'individuazione di errori di modellazione, di non rispetto delle limitazioni geometriche e l'incompatibilità delle scelte effettuate nell'utilizzo dei vari elementi costituenti l'unione.

Il codice di calcolo consente di visualizzare e controllare, sia in forma grafica che tabellare, i dati assegnati ed i risultati conseguiti in modo da avere una visione consapevole delle reali caratteristiche geometriche e meccaniche della unione.

8) Giudizio motivato di accettabilità dei risultati

I risultati delle elaborazioni sono stati sottoposti a controlli dal sottoscritto utente utilizzatore del software. Tali controlli hanno compreso il confronto con i risultati di semplici calcoli eseguiti con metodi tradizionali. Inoltre sulla base di considerazioni riguardanti gli stati tensionali e deformativi determinati, si è valutata la validità delle scelte operate in sede di schematizzazione e di modellazione della unione e delle azioni in essa agenti.

In base a quanto sopra, il sottoscritto tecnico utilizzatore del software asserisce che la elaborazione è corretta ed idonea al caso specifico, pertanto i risultati delle verifiche sono da ritenersi validi ed accettabili.

* VERIFICA DI UNA UNIONE TRADIZIONALE DI CARPENTERIA LIGNEA *

DATI RELATIVI ALLA UNIONE

* DATI GENERALI

NOME O SIGLA DELLA UNIONE	PUNTONE - CATENA
TIPOLOGIA DELLA UNIONE	Collegamento a Dente Doppio
TIPOLOGIA DEL NODO DA REALIZZARE	Catena - Puntone
TIPOLOGIA ELEMENTI DI SERRAGGIO	Nessun Elemento di Serraggio
CLASSE DI SERVIZIO DELLA STRUTTURA	2 = Materiale in Equilibrio con l'Ambiente con umidita' relariva <85%
CLASSE DI DURATA DEL CARICO	2 = Lunga Durata

* PARAMETRI PER LE VERIFICHE

	SIMBOLO	UNITA' MISURA	VALORE
COEFFICIENTE CORRETTIVO DEI PARAMETRI DI RESISTENZA	Kmod	-	0,90
COEFFICIENTE CORRETTIVO PER IL CALCOLO DELLE DEFORMAZIONI	Kdef	-	0,80
COEFFICIENTE PARZIALE DI SICUREZZA DELLA UNIONE	γM	-	1,50
COEFFICIENTE RIDUTTIVO DELLA ZONA DI CONTATTO	Cz	-	0,80

* CARATTERISTICHE DELL'ASTA PRINCIPALE

	SIMBOLO	UNITA' MISURA	VALORE
DISTANZA DEL PRIMO ESTREMO DELL'ASTA DAL NODO	DE1	mm	200
DISTANZA DEL SECONDO ESTREMO DELL'ASTA DAL NODO	DE2	mm	1200
DISTANZA DEL BORDO SINISTRO DELL'ASTA DALL'ASSE	DBs	mm	120
DISTANZA DEL BORDO DESTRO DELL'ASTA DALL'ASSE	DBd	mm	120
ALTEZZA COMPLESSIVA DELL'ASTA	Ht	mm	240
SPESSORE DELL'ASTA	Sp	mm	160
ANGOLO TRA L'ASSE DELL'ASTA E L'ASSE X DEL S.R.G.	ßX	°	0,00
NUMERO DI ARCHIVIO DEL MATERIALE DELL'ASTA	Nmt	n.	6
SOLLECITAZIONE DI SFORZO NORMALE	Nt	daN	-7500
SOLLECITAZIONE DI SFORZO TAGLIANTE	Tt	daN	50

* CARATTERISTICHE DELL'ASTA LATERALE SINISTRA

	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA MISURATA SULL'ASSE DELL'ASTA	La	mm	1200
DISTANZA DEL BORDO SINISTRO DELL'ASTA DALL'ASSE	DBs	mm	120
DISTANZA DEL BORDO DESTRO DELL'ASTA DALL'ASSE	DBd	mm	120
ALTEZZA COMPLESSIVA DELL'ASTA	Hs	mm	240
SPESSORE DELL'ASTA	Sp	mm	160
ANGOLO TRA L'ASTA PRINCIPALE E L'ASTA SINISTRA	ßs	°	22,00
NUMERO DI ARCHIVIO DEL MATERIALE DELL'ASTA	Nms	n.	6
SOLLECITAZIONE DI SFORZO NORMALE	Ns	daN	8350
SOLLECITAZIONE DI SFORZO TAGLIANTE	Ts	daN	750

* CARATTERISTICHE DELL'ASTA LATERALE DESTRA

	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA MISURATA SULL'ASSE DELL'ASTA	La	mm	0
DISTANZA DEL BORDO SINISTRO DELL'ASTA DALL'ASSE	DBs	mm	0
DISTANZA DEL BORDO DESTRO DELL'ASTA DALL'ASSE	DBd	mm	0
ALTEZZA COMPLESSIVA DELL'ASTA	Hd	mm	0
SPESSORE DELL'ASTA	Sp	mm	0
ANGOLO TRA L'ASTA PRINCIPALE E L'ASTA DESTRA	ßd	°	0,00
NUMERO DI ARCHIVIO DEL MATERIALE DELL'ASTA	Nmd	n.	0
SOLLECITAZIONE DI SFORZO NORMALE	Nd	daN	0
SOLLECITAZIONE DI SFORZO TAGLIANTE	Td	daN	0

* CARATTERISTICHE DEL RINFORZO

	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA DEL TALLONE	Lt	mm	0
LARGHEZZA DEL TALLONE	Bt	mm	0
SPESSORE DEL TALLONE	St	mm	0
NUMERO DI ARCHIVIO DEL MATERIALE DEL TALLONE	Nmr	n.	0
NUMERO DI FILE DI ELEMENTI RESISTENTI	N.F.	n.	0
NUMERO DI ELEMENTI RESISTENTI PER FILA	N.E.	n.	0
DISTANZA TRA LE FILE	D.F.	mm	0
INTERASSE TRA GLI ELEMENTI RESISTENTI	I.E.	mm	0
TIPOLOGIA DEGLI ELEMENTI RESISTENTI	T.E.	-	-
NUMERO DI ARCHIVO DEGLI ELEMENTI RESISTENTI	Ner	n.	0

CARATTERISTICHE DEI MATERIALI

* LEGNO ASTA PRINCIPALE: TIPOLOGIA N. 6	SIMBOLO	U. M.	DESCRIZIONE/VALORE
- Tipologia del Materiale di Base	TMB	-	Legno Lamellare Incollato
- Essenza Legnosa costituente il Materiale	ELM	-	Legno di Conifere
- Denominazione della Specie Legnosa	DSL	-	Abete
- Normativa Europea di Riferimento	NER	-	EN 1194
- Sigla Identificativa della Specie Legnosa	SID	-	GL28h
- Resistenza Caratteristica a Flessione	fmk	N/mm ²	28,00
- Resistenza Caratteristica a Trazione Parallela	ftok	N/mm ²	19,50
- Resistenza Caratteristica a Trazione Ortogonale	ft9ok	N/mm ²	0,45
- Resistenza Caratteristica a Compressione Parallela	fcok	N/mm ²	26,50
- Resistenza Caratteristica a Compressione Ortogonale	fc9ok	N/mm ²	3,00
- Resistenza Caratteristica a Taglio	fvk	N/mm ²	3,20
- Modulo di elastico Longitudinale Parallelo Medio	Eom	N/mm ²	12600,00
- Modulo di elastico Longitudinale Parallelo Caratter.	Eo,05	N/mm ²	10200,00
- Modulo di elastico Longitudinale Ortogonale Medio	E9om	N/mm ²	420,00
- Modulo di elastico Tangenziale Medio	Gm	N/mm ²	780,00
- Massa Volumica Caratteristica	ρk	kg/m ³	410,00
- Massa Volumica Media	ρm	kg/m ³	440,00
- Coefficiente Parziale di Sicurezza	γM	-	1,45

* LEGNO ASTA LATERALE SINISTRA: TIPOLOGIA N. 6	SIMBOLO	U. M.	DESCRIZIONE/VALORE
- Tipologia del Materiale di Base	TMB	-	Legno Lamellare Incollato
- Essenza Legnosa costituente il Materiale	ELM	-	Legno di Conifere
- Denominazione della Specie Legnosa	DSL	-	Abete
- Normativa Europea di Riferimento	NER	-	EN 1194
- Sigla Identificativa della Specie Legnosa	SID	-	GL28h
- Resistenza Caratteristica a Flessione	fmk	N/mm ²	28,00
- Resistenza Caratteristica a Trazione Parallela	ftok	N/mm ²	19,50
- Resistenza Caratteristica a Trazione Ortogonale	ft9ok	N/mm ²	0,45
- Resistenza Caratteristica a Compressione Parallela	fcok	N/mm ²	26,50
- Resistenza Caratteristica a Compressione Ortogonale	fc9ok	N/mm ²	3,00
- Resistenza Caratteristica a Taglio	fvk	N/mm ²	3,20
- Modulo di elastico Longitudinale Parallelo Medio	Eom	N/mm ²	12600,00
- Modulo di elastico Longitudinale Parallelo Caratter.	Eo,05	N/mm ²	10200,00
- Modulo di elastico Longitudinale Ortogonale Medio	E9om	N/mm ²	420,00
- Modulo di elastico Tangenziale Medio	Gm	N/mm ²	780,00
- Massa Volumica Caratteristica	ρk	kg/m ³	410,00
- Massa Volumica Media	ρm	kg/m ³	440,00
- Coefficiente Parziale di Sicurezza	γM	-	1,45

VERIFICHE DELLA UNIONE

ASTA PRINCIPALE			
* VERIFICA DELLA SEZIONE NETTA	SIMBOLO	UNITA' MISURA	VALORE
ALTEZZA NETTA DELLA SEZIONE	Hn	mm	180
AREA NETTA DELLA SEZIONE RESISTENTE	An	mm ²	28800
SOLLECITAZIONE ASSIALE AGENTE NELL'ASTA	N	N	-75000
TENSIONE ASSIALE DI CALCOLO	σn	N/mm ²	2,60
RESISTENZA ASSIALE DI CALCOLO	fnd	N/mm ²	11,70
COEFFICIENTE DI SICUREZZA A SFORZO ASSIALE	Cs	<= 1	0,22
SOLLECITAZIONE TAGLIANTE AGENTE NELL'ASTA	T	N	500
TENSIONE TANGENZIALE DI CALCOLO	τn	N/mm ²	0,03
RESISTENZA TANGENZIALE DI CALCOLO	fvd	N/mm ²	1,92
COEFFICIENTE DI SICUREZZA A SFORZO TAGLIANTE	Csv	<= 1	0,01

ASTA LATERALE SINISTRA			
* VERIFICA DEL TALLONE	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA PARTE UTILE ESTERNA DEL TALLONE	Tc	mm	177
LUNGHEZZA PARTE UTILE INTERNA PRIMO INTAGLIO	Lv1	mm	186
LUNGHEZZA PARTE UTILE INTERNA SECONDO INTAGLIO	Lv2	mm	669
SPESSORE DEL PRIMO INTAGLIO	Tv1	mm	48
SPESSORE DEL SECONDO INTAGLIO	Tv2	mm	60
SOLLECITAZIONE TAGLIANTE NEL PRIMO INTAGLIO	Tg1	N	55721
SOLLECITAZIONE TAGLIANTE NEL SECONDO INTAGLIO	Tg2	N	74610
TENSIONE TANGENZIALE DI CALCOLO PRIMO INTAGLIO	τd1	N/mm ²	1,87
TENSIONE TANGENZIALE DI CALCOLO SECONDO INTAGLIO	τd2	N/mm ²	0,70
RESISTENZA TANGENZIALE DI CALCOLO	fvd	N/mm ²	1,92
COEFFICIENTE DI SICUREZZA PRIMO INTAGLIO	Csv1	<= 1	0,98
COEFFICIENTE DI SICUREZZA SECONDO INTAGLIO	Csv2	<= 1	0,36
* VERIFICA PARTE ANTERIORE DEL DENTE	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA DELLA PARTE ANTERIORE	La	mm	49
SOLLECITAZIONE NORMALE DI COMPRESSIONE	Fa	N	56764
TENSIONE DI CALCOLO A COMPRESSIONE	σda	N/mm ²	7,26
RESISTENZA DI CALCOLO A COMPRESSIONE	fcdα	N/mm ²	12,37
COEFFICIENTE DI SICUREZZA	Csa	<= 1	0,59
* VERIFICA PARTE MEDIANA DEL DENTE	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA TOTALE DELLA PARTE MEDIANA	Lm	mm	461
LUNGHEZZA UTILE DELLA PARTE MEDIANA	Lmu	mm	369
SOLLECITAZIONE NORMALE DI COMPRESSIONE	Fm	N	19072
TENSIONE DI CALCOLO A COMPRESSIONE	σdm	N/mm ²	0,21
RESISTENZA DI CALCOLO A COMPRESSIONE	fcdm	N/mm ²	1,82
COEFFICIENTE DI SICUREZZA	Csm	<= 1	0,11
* VERIFICA PARTE POSTERIORE DEL DENTE	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA DELLA PARTE POSTERIORE	Lp	mm	65
SOLLECITAZIONE NORMALE DI COMPRESSIONE	Fp	N	22514
TENSIONE DI CALCOLO A COMPRESSIONE	σdp	N/mm ²	2,17
RESISTENZA DI CALCOLO A COMPRESSIONE	fcdp	N/mm ²	7,57
COEFFICIENTE DI SICUREZZA	Csp	<= 1	0,29

RELAZIONE SUL CODICE DI CALCOLO RELATIVO ALLA

VERIFICA DELLE UNIONI DI ASTE IN LEGNO

1) Premessa

La presente relazione ha per oggetto la descrizione delle ipotesi e dei criteri adottati per l'esecuzione delle verifiche di unioni di aste in legno; contestualmente verranno illustrate le caratteristiche del relativo codice di calcolo e della sua affidabilità, le modalità di presentazione dei risultati e le informazioni generali sull'elaborazione; infine verrà espresso un giudizio motivato sull'accettabilità dei risultati.

2) Riferimenti legislativi

I criteri adottati per le verifiche delle unioni sono quelli espressamente indicati nelle seguenti disposizioni normative:

- D. M. 17.01.2018, recante le Nuove Norme Tecniche per le Costruzioni;
- Circolare del Ministero delle Infrastrutture n. 7 del 21.01.2019, recante le Istruzioni per l'applicazione delle Norme Tecniche per le Costruzioni;
- Istruzioni per la Progettazione, l'Esecuzione e il Controllo delle Strutture di Legno edita dal Consiglio Nazionale delle Ricerche (CNR 28 novembre 2007 - rev. 7 ottobre 2008).

Per quanto non espressamente riportato nella succitata normativa si è fatto riferimento alle indicazioni contenute nell'Eurocodice 5, riguardante la Progettazione delle strutture di legno.

3) Descrizione delle verifiche svolte mediante il codice di calcolo

Il programma di calcolo, nella versione attuale, consente la verifica di due fra le più diffuse tipologie di unioni di aste in legno e precisamente:

- Unioni Tradizionali o di Carpenteria Lignea;
- Unioni Meccaniche con Elementi Metallici a Gambo Cilindrico.

Le unioni della prima tipologia possono essere soltanto piane, mentre quelle appartenenti alla seconda tipologia possono essere sia piane che spaziali.

a) Unioni tradizionali

Appartengono a questa tipologia le connessioni utilizzate per il collegamento di membrature lignee caratterizzate dalla presenza di superfici intagliate e lavorate al fine di consentire la trasmissione degli sforzi tra gli elementi connessi.

Le tipologie di collegamenti tradizionali prese in considerazione sono:

- Collegamento a Dente Semplice Normale;
- Collegamento a Dente Semplice Arretrato;
- Collegamento a Dente Semplice Rinforzato;
- Collegamento a Dente Doppio.

Le predette tipologie di unioni vengono solitamente utilizzate per la realizzazione dei nodi di travature reticolari che possono ricondursi alle seguenti tipologie:

- Nodo Puntone - Catena;
- Nodo Puntone - Monaco;
- Nodo Puntone - Saetta;
- Nodo Monaco - Saetta.

Il programma, una volta valutate le sollecitazioni nelle zone di contatto dell'intaglio e lungo la superficie di scorrimento del tallone, effettua le relative verifiche secondo i criteri indicati nelle Istruzioni del CNR.

Nel caso di Dente Semplice Rinforzato, viene eseguita anche la verifica degli elementi metallici di collegamento del rinforzo all'asta principale e vengono controllate altresì le modalità costruttive in base alle prescrizioni valide per le unioni con elementi metallici.

b) Unioni con elementi metallici a gambo cilindrico

L'unione di aste in legno mediante l'impiego di elementi metallici a gambo cilindrico si caratterizza per il fatto che la trasmissione degli sforzi da un'asta all'altra avviene proprio per il tramite di questi elementi.

Gli elementi metallici a gambo cilindrico che possono essere utilizzati appartengono alle seguenti tipologie:

- Chiodi;
- Viti;
- Bulloni;
- Spinotti o Perni.

In base al materiale delle aste, si possono avere le seguenti tipologie di unioni:

- Unioni Legno - Legno;
- Unioni Pannello - Legno;
- Unioni Acciaio - Legno.

In base al numero di sezioni resistenti degli elementi metallici, si possono avere:

- Un elemento resistente ed un piano di taglio,
- Un elemento resistente e due piani di taglio;
- Due elementi resistenti e due piani di taglio.

Ogni elemento metallico ha una propria « Capacita' portante » o « Resistenza » dipendente dalle caratteristiche meccaniche e costruttive dell'elemento stesso, dalle caratteristiche fisiche e meccaniche del legno costituente le aste da collegare e dal tipo e dalla direzione delle azioni sollecitanti l'unione.

Nel caso in cui l'elemento resistente e' soggetto a sollecitazione assiale di trazione, la Capacita' Portante dipende dalle sotto elencate resistenze:

- Resistenza alla Estrazione della parte filettata del connettore;
- Resistenza alla Penetrazione della testa del connettore;
- Resistenza a Trazione del connettore.
- Resistenza allo Strappo della testa del connettore;
- Resistenza al Punzonamento della Flangia.

Nel caso in cui l'elemento resistente e' soggetto a sollecitazione assiale di compressione, la Capacita' Portante dipende dalle sotto elencate resistenze:

- Resistenza allo Sprofondamento del connettore;
- Resistenza alla Instabilita' del connettore.

In questa seconda condizione di carico, bisogna determinare anche la resistenza a compressione del legno soggetto alle azioni trasmesse dalle flange metalliche.

Nel caso di elementi resistenti soggetti a sollecitazioni taglienti, la Capacita' portante dipende dalle seguenti resistenze:

- Resistenza allo snervamento del connettore;
- Resistenza al rifollamento del materiale ligneo;
- Resistenza all'estrazione del mezzo di unione dal materiale ligneo.

Il programma, una volta valutate le azioni in ogni singolo elemento resistente, effettua le relative verifiche in base al tipo di sollecitazione agente nell'elemento stesso.

Nel caso di piu' elementi disposti sulla stessa fila, effettua anche la verifica considerando una resistenza efficace, minore della somma delle resistenze dei vari elementi.

Per queste tipologie di unioni il programma effettua anche tutte le verifiche costruttive, dimensionali, geometriche previste dalle Norme Tecniche.

Il programma fornisce altresì il valore delle rigidità traslatorie e rotatorie da utilizzare per il calcolo delle strutture tenendo conto degli scorrimenti relativi.

4) Convenzioni sulle unita' di misura e simboli adottati

Nei calcoli di verifica sono state utilizzate le seguenti unita' di misura:

- | | | | | |
|---|---|-------------------|---|-------|
| - Lunghezze e distanze | : | mm | | |
| - Sollecitazioni in fase di input | : | daN | e | daN.m |
| - Sollecitazioni in fase di output | : | N | e | N.mm |
| - Tensioni normali e tangenziali | : | N/mm ² | | |
| - Resistenze caratteristiche e di calcolo | : | N/mm ² | | |

Per quanto possibile, e' stata utilizzata la stessa simbologia riportata nelle NTC e nella Circolare del CNR. I pochi nuovi simboli adottati sono di intuitiva comprensione.

5) Affidabilita' del codice utilizzato

Il codice di calcolo e' stato sviluppato seguendo in maniera scrupolosa le ipotesi, i criteri e le indicazioni contenute nella pubblicazione denominata « VUAL » che tratta in maniera esauriente la « Verifica delle unioni delle aste in legno » secondo i criteri illustrati nelle NTC e nella Circolare del CNR.

La predetta documentazione, che viene fornita unitamente al software, contiene una esauriente descrizione delle basi teoriche e degli algoritmi impiegati, l'individuazione dei campi d'impiego, nonché casi prova interamente risolti e commentati, per i quali vengono forniti i file di input necessari a riprodurre l'elaborazione.

6) Modalita' di presentazione dei risultati

La notevole quantita' di informazioni che accompagna l'utilizzo del programma di calcolo impiegato ha richiesto una attenzione particolare sulle modalita' di presentazione dei dati e dei risultati delle verifiche, cio' al fine di riassumere, in una sintesi completa ed efficace, il comportamento della unione oggetto di verifica.

L'esito di ogni verifica puo' essere sintetizzato in uno schema grafico contenente gli elementi indispensabili alla relativa realizzazione.

7) Informazioni generali sull'elaborazione

Il software utilizzato prevede una serie di controlli automatici che consentono l'individuazione di errori di modellazione, di non rispetto delle limitazioni geometriche e l'incompatibilità delle scelte effettuate nell'utilizzo dei vari elementi costituenti l'unione.

Il codice di calcolo consente di visualizzare e controllare, sia in forma grafica che tabellare, i dati assegnati ed i risultati conseguiti in modo da avere una visione consapevole delle reali caratteristiche geometriche e meccaniche della unione.

8) Giudizio motivato di accettabilità dei risultati

I risultati delle elaborazioni sono stati sottoposti a controlli dal sottoscritto utente utilizzatore del software. Tali controlli hanno compreso il confronto con i risultati di semplici calcoli eseguiti con metodi tradizionali. Inoltre sulla base di considerazioni riguardanti gli stati tensionali e deformativi determinati, si è valutata la validità delle scelte operate in sede di schematizzazione e di modellazione della unione e delle azioni in essa agenti.

In base a quanto sopra, il sottoscritto tecnico utilizzatore del software asserisce che la elaborazione è corretta ed idonea al caso specifico, pertanto i risultati delle verifiche sono da ritenersi validi ed accettabili.

* VERIFICA DI UNA UNIONE TRADIZIONALE DI CARPENTERIA LIGNEA *

DATI RELATIVI ALLA UNIONE

* DATI GENERALI

NOME O SIGLA DELLA UNIONE	PUNTONE - MONACO
TIPOLOGIA DELLA UNIONE	Collegamento a Dente Semplice Normale
TIPOLOGIA DEL NODO DA REALIZZARE	Monaco - Puntone, Doppio
TIPOLOGIA ELEMENTI DI SERRAGGIO	Nessun Elemento di Serraggio
CLASSE DI SERVIZIO DELLA STRUTTURA	2 = Materiale in Equilibrio con l'Ambiente con umidita' relariva <85%
CLASSE DI DURATA DEL CARICO	2 = Lunga Durata

* PARAMETRI PER LE VERIFICHE

COEFFICIENTE CORRETTIVO DEI PARAMETRI DI RESISTENZA	Kmod	-	0,90
COEFFICIENTE CORRETTIVO PER IL CALCOLO DELLE DEFORMAZIONI	Kdef	-	0,80
COEFFICIENTE PARZIALE DI SICUREZZA DELLA UNIONE	γM	-	1,50
COEFFICIENTE RIDUTTIVO DELLA ZONA DI CONTATTO	Cz	-	0,80

* CARATTERISTICHE DELL'ASTA PRINCIPALE

	SIMBOLO	UNITA' MISURA	VALORE
DISTANZA DEL PRIMO ESTREMO DELL'ASTA DAL NODO	DE1	mm	700
DISTANZA DEL SECONDO ESTREMO DELL'ASTA DAL NODO	DE2	mm	200
DISTANZA DEL BORDO SINISTRO DELL'ASTA DALL'ASSE	DBs	mm	100
DISTANZA DEL BORDO DESTRO DELL'ASTA DALL'ASSE	DBd	mm	100
ALTEZZA COMPLESSIVA DELL'ASTA	Ht	mm	200
SPESSORE DELL'ASTA	Sp	mm	160
ANGOLO TRA L'ASSE DELL'ASTA E L'ASSE X DEL S.R.G.	ßX	°	90,00
NUMERO DI ARCHIVIO DEL MATERIALE DELL'ASTA	Nmt	n.	6
SOLLECITAZIONE DI SFORZO NORMALE	Nt	daN	2000
SOLLECITAZIONE DI SFORZO TAGLIANTE	Tt	daN	-260

* CARATTERISTICHE DELL'ASTA LATERALE SINISTRA

	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA MISURATA SULL'ASSE DELL'ASTA	La	mm	1000
DISTANZA DEL BORDO SINISTRO DELL'ASTA DALL'ASSE	DBs	mm	120
DISTANZA DEL BORDO DESTRO DELL'ASTA DALL'ASSE	DBd	mm	120
ALTEZZA COMPLESSIVA DELL'ASTA	Hs	mm	240
SPESSORE DELL'ASTA	Sp	mm	160
ANGOLO TRA L'ASTA PRINCIPALE E L'ASTA SINISTRA	ßs	°	111,00
NUMERO DI ARCHIVIO DEL MATERIALE DELL'ASTA	Nms	n.	6
SOLLECITAZIONE DI SFORZO NORMALE	Ns	daN	4850
SOLLECITAZIONE DI SFORZO TAGLIANTE	Ts	daN	403

* CARATTERISTICHE DELL'ASTA LATERALE DESTRA

	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA MISURATA SULL'ASSE DELL'ASTA	La	mm	1000
DISTANZA DEL BORDO SINISTRO DELL'ASTA DALL'ASSE	DBs	mm	120
DISTANZA DEL BORDO DESTRO DELL'ASTA DALL'ASSE	DBd	mm	120
ALTEZZA COMPLESSIVA DELL'ASTA	Hd	mm	240
SPESSORE DELL'ASTA	Sp	mm	160
ANGOLO TRA L'ASTA PRINCIPALE E L'ASTA DESTRA	ßd	°	111,00
NUMERO DI ARCHIVIO DEL MATERIALE DELL'ASTA	Nmd	n.	6
SOLLECITAZIONE DI SFORZO NORMALE	Nd	daN	4850
SOLLECITAZIONE DI SFORZO TAGLIANTE	Td	daN	403

* CARATTERISTICHE DEL RINFORZO

	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA DEL TALLONE	Lt	mm	0
LARGHEZZA DEL TALLONE	Bt	mm	0
SPESSORE DEL TALLONE	St	mm	0
NUMERO DI ARCHIVIO DEL MATERIALE DEL TALLONE	Nmr	n.	0
NUMERO DI FILE DI ELEMENTI RESISTENTI	N.F.	n.	0
NUMERO DI ELEMENTI RESISTENTI PER FILA	N.E.	n.	0
DISTANZA TRA LE FILE	D.F.	mm	0
INTERASSE TRA GLI ELEMENTI RESISTENTI	I.E.	mm	0
TIPOLOGIA DEGLI ELEMENTI RESISTENTI	T.E.	-	-
NUMERO DI ARCHIVO DEGLI ELEMENTI RESISTENTI	Ner	n.	0

CARATTERISTICHE DEI MATERIALI

* LEGNO ASTA PRINCIPALE: TIPOLOGIA N. 6	SIMBOLO	U. M.	DESCRIZIONE/VALORE
- Tipologia del Materiale di Base	TMB	-	Legno Lamellare Incollato
- Essenza Legnosa costituente il Materiale	ELM	-	Legno di Conifere
- Denominazione della Specie Legnosa	DSL	-	Abete
- Normativa Europea di Riferimento	NER	-	EN 1194
- Sigla Identificativa della Specie Legnosa	SID	-	GL28h
- Resistenza Caratteristica a Flessione	fmk	N/mm ²	28,00
- Resistenza Caratteristica a Trazione Parallela	ftok	N/mm ²	19,50
- Resistenza Caratteristica a Trazione Ortogonale	ft9ok	N/mm ²	0,45
- Resistenza Caratteristica a Compressione Parallela	fcok	N/mm ²	26,50
- Resistenza Caratteristica a Compressione Ortogonale	fc9ok	N/mm ²	3,00
- Resistenza Caratteristica a Taglio	fvk	N/mm ²	3,20
- Modulo di Elastico Longitudinale Parallelo Medio	Eom	N/mm ²	12600,00
- Modulo di Elastico Longitudinale Parallelo Caratter.	Eo,o5	N/mm ²	10200,00
- Modulo di Elastico Longitudinale Ortogonale Medio	E9om	N/mm ²	420,00
- Modulo di Elastico Tangenziale Medio	Gm	N/mm ²	780,00
- Massa Volumica Caratteristica	ρk	kg/m ³	410,00
- Massa Volumica Media	ρm	kg/m ³	440,00
- Coefficiente Parziale di Sicurezza	γM	-	1,45

* LEGNO ASTA LATERALE SINISTRA: TIPOLOGIA N. 6	SIMBOLO	U. M.	DESCRIZIONE/VALORE
- Tipologia del Materiale di Base	TMB	-	Legno Lamellare Incollato
- Essenza Legnosa costituente il Materiale	ELM	-	Legno di Conifere
- Denominazione della Specie Legnosa	DSL	-	Abete
- Normativa Europea di Riferimento	NER	-	EN 1194
- Sigla Identificativa della Specie Legnosa	SID	-	GL28h
- Resistenza Caratteristica a Flessione	fmk	N/mm ²	28,00
- Resistenza Caratteristica a Trazione Parallela	ftok	N/mm ²	19,50
- Resistenza Caratteristica a Trazione Ortogonale	ft9ok	N/mm ²	0,45
- Resistenza Caratteristica a Compressione Parallela	fcok	N/mm ²	26,50
- Resistenza Caratteristica a Compressione Ortogonale	fc9ok	N/mm ²	3,00
- Resistenza Caratteristica a Taglio	fvk	N/mm ²	3,20
- Modulo di Elastico Longitudinale Parallelo Medio	Eom	N/mm ²	12600,00
- Modulo di Elastico Longitudinale Parallelo Caratter.	Eo,o5	N/mm ²	10200,00
- Modulo di Elastico Longitudinale Ortogonale Medio	E9om	N/mm ²	420,00
- Modulo di Elastico Tangenziale Medio	Gm	N/mm ²	780,00
- Massa Volumica Caratteristica	ρk	kg/m ³	410,00
- Massa Volumica Media	ρm	kg/m ³	440,00
- Coefficiente Parziale di Sicurezza	γM	-	1,45

* LEGNO ASTA LATERALE DESTRA: TIPOLOGIA N. 6	SIMBOLO	U. M.	DESCRIZIONE/VALORE
- Tipologia del Materiale di Base	TMB	-	Legno Lamellare Incollato
- Essenza Legnosa costituente il Materiale	ELM	-	Legno di Conifere
- Denominazione della Specie Legnosa	DSL	-	Abete
- Normativa Europea di Riferimento	NER	-	EN 1194
- Sigla Identificativa della Specie Legnosa	SID	-	GL28h
- Resistenza Caratteristica a Flessione	fmk	N/mm ²	28,00
- Resistenza Caratteristica a Trazione Parallela	ftok	N/mm ²	19,50
- Resistenza Caratteristica a Trazione Ortogonale	ft9ok	N/mm ²	0,45
- Resistenza Caratteristica a Compressione Parallela	fcok	N/mm ²	26,50
- Resistenza Caratteristica a Compressione Ortogonale	fc9ok	N/mm ²	3,00
- Resistenza Caratteristica a Taglio	fvk	N/mm ²	3,20
- Modulo di Elastico Longitudinale Parallelo Medio	Eom	N/mm ²	12600,00
- Modulo di Elastico Longitudinale Parallelo Caratter.	Eo,o5	N/mm ²	10200,00
- Modulo di Elastico Longitudinale Ortogonale Medio	E9om	N/mm ²	420,00
- Modulo di Elastico Tangenziale Medio	Gm	N/mm ²	780,00
- Massa Volumica Caratteristica	ρk	kg/m ³	410,00
- Massa Volumica Media	ρm	kg/m ³	440,00
- Coefficiente Parziale di Sicurezza	γM	-	1,45

VERIFICHE DELLA UNIONE

ASTA PRINCIPALE			
* VERIFICA DELLA SEZIONE NETTA	SIMBOLO	UNITA' MISURA	VALORE
ALTEZZA NETTA DELLA SEZIONE RESISTENTE	Hn	mm	133
AREA NETTA DELLA SEZIONE RESISTENTE	An	mm ²	21333
SOLLECITAZIONE ASSIALE AGENTE NELL'ASTA	N	N	20000
TENSIONE ASSIALE DI CALCOLO	σn	N/mm ²	0,94
RESISTENZA ASSIALE DI CALCOLO	fnd	N/mm ²	15,90
COEFFICIENTE DI SICUREZZA A SFORZO ASSIALE	Csn	<= 1	0,06
SOLLECITAZIONE TAGLIANTE AGENTE NELL'ASTA	T	N	-2600
TENSIONE TANGENZIALE DI CALCOLO	τn	N/mm ²	0,18
RESISTENZA TANGENZIALE DI CALCOLO	fvd	N/mm ²	1,92
COEFFICIENTE DI SICUREZZA A SFORZO TAGLIANTE	Csv	<= 1	0,10

ASTA LATERALE SINISTRA			
* VERIFICA DEL TALLONE	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA PARTE UTILE ESTERNA DEL TALLONE	Tc	mm	110
LUNGHEZZA PARTE UTILE INTERNA DEL TALLONE	Lv	mm	133
SPESSORE DELL'INTAGLIO	Tv	mm	33
SOLLECITAZIONE TAGLIANTE AGENTE NEL TALLONE	Tg	N	18463
TENSIONE TANGENZIALE DI CALCOLO	τd	N/mm ²	0,87
RESISTENZA TANGENZIALE DI CALCOLO	fvd	N/mm ²	1,92
COEFFICIENTE DI SICUREZZA A SFORZO TAGLIANTE	Csv	<= 1	0,45
* VERIFICA PARTE ANTERIORE DEL DENTE	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA DELLA PARTE ANTERIORE	La	mm	40
SOLLECITAZIONE NORMALE DI COMPRESSIONE	Fa	N	22403
TENSIONE DI CALCOLO A COMPRESSIONE	σda	N/mm ²	3,46
RESISTENZA DI CALCOLO A COMPRESSIONE	fcd _a	N/mm ²	4,53
COEFFICIENTE DI SICUREZZA	Csa	<= 1	0,76
* VERIFICA PARTE POSTERIORE DEL DENTE	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA TOTALE DELLA PARTE POSTERIORE	Lp	mm	237
LUNGHEZZA UTILE DELLA PARTE POSTERIORE	Lpu	mm	189
SOLLECITAZIONE NORMALE DI COMPRESSIONE	Fp	N	34377
TENSIONE DI CALCOLO A COMPRESSIONE	σdp	N/mm ²	1,14
RESISTENZA DI CALCOLO A COMPRESSIONE	fcd _p	N/mm ²	1,83
COEFFICIENTE DI SICUREZZA	Csp	<= 1	0,62

ASTA LATERALE DESTRA			
* VERIFICA DEL TALLONE	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA PARTE UTILE ESTERNA DEL TALLONE	Tc	mm	110
LUNGHEZZA PARTE UTILE INTERNA DEL TALLONE	Lv	mm	133
SPESSORE DELL'INTAGLIO	Tv	mm	33
SOLLECITAZIONE TAGLIANTE AGENTE NEL TALLONE	Tg	N	18463
TENSIONE TANGENZIALE DI CALCOLO	τd	N/mm ²	0,87
RESISTENZA TANGENZIALE DI CALCOLO	fvd	N/mm ²	1,92
COEFFICIENTE DI SICUREZZA A SFORZO TAGLIANTE	Csv	<= 1	0,45
* VERIFICA PARTE ANTERIORE DEL DENTE	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA DELLA PARTE ANTERIORE	La	mm	40
SOLLECITAZIONE NORMALE DI COMPRESSIONE	Fa	N	22403
TENSIONE DI CALCOLO A COMPRESSIONE	σda	N/mm ²	3,46
RESISTENZA DI CALCOLO A COMPRESSIONE	fcd _a	N/mm ²	4,53
COEFFICIENTE DI SICUREZZA	Csa	<= 1	0,76
* VERIFICA PARTE POSTERIORE DEL DENTE	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA TOTALE DELLA PARTE POSTERIORE	Lp	mm	237
LUNGHEZZA UTILE DELLA PARTE POSTERIORE	Lpu	mm	189
SOLLECITAZIONE NORMALE DI COMPRESSIONE	Fp	N	34377
TENSIONE DI CALCOLO A COMPRESSIONE	σdp	N/mm ²	1,14
RESISTENZA DI CALCOLO A COMPRESSIONE	fcd _p	N/mm ²	1,83
COEFFICIENTE DI SICUREZZA	Csp	<= 1	0,62

RELAZIONE SUL CODICE DI CALCOLO RELATIVO ALLA

VERIFICA DELLE UNIONI DI ASTE IN LEGNO

1) Premessa

La presente relazione ha per oggetto la descrizione delle ipotesi e dei criteri adottati per l'esecuzione delle verifiche di unioni di aste in legno; contestualmente verranno illustrate le caratteristiche del relativo codice di calcolo e della sua affidabilità, le modalità di presentazione dei risultati e le informazioni generali sull'elaborazione; infine verrà espresso un giudizio motivato sull'accettabilità dei risultati.

2) Riferimenti legislativi

I criteri adottati per le verifiche delle unioni sono quelli espressamente indicati nelle seguenti disposizioni normative:

- D. M. 17.01.2018, recante le Nuove Norme Tecniche per le Costruzioni;
- Circolare del Ministero delle Infrastrutture n. 7 del 21.01.2019, recante le Istruzioni per l'applicazione delle Norme Tecniche per le Costruzioni;
- Istruzioni per la Progettazione, l'Esecuzione e il Controllo delle Strutture di Legno edita dal Consiglio Nazionale delle Ricerche (CNR 28 novembre 2007 - rev. 7 ottobre 2008).

Per quanto non espressamente riportato nella succitata normativa si è fatto riferimento alle indicazioni contenute nell'Eurocodice 5, riguardante la Progettazione delle strutture di legno.

3) Descrizione delle verifiche svolte mediante il codice di calcolo

Il programma di calcolo, nella versione attuale, consente la verifica di due fra le più diffuse tipologie di unioni di aste in legno e precisamente:

- Unioni Tradizionali o di Carpenteria Lignea;
- Unioni Meccaniche con Elementi Metallici a Gambo Cilindrico.

Le unioni della prima tipologia possono essere soltanto piane, mentre quelle appartenenti alla seconda tipologia possono essere sia piane che spaziali.

a) Unioni tradizionali

Appartengono a questa tipologia le connessioni utilizzate per il collegamento di membrature lignee caratterizzate dalla presenza di superfici intagliate e lavorate al fine di consentire la trasmissione degli sforzi tra gli elementi connessi.

Le tipologie di collegamenti tradizionali prese in considerazione sono:

- Collegamento a Dente Semplice Normale;
- Collegamento a Dente Semplice Arretrato;
- Collegamento a Dente Semplice Rinforzato;
- Collegamento a Dente Doppio.

Le predette tipologie di unioni vengono solitamente utilizzate per la realizzazione dei nodi di travature reticolari che possono ricondursi alle seguenti tipologie:

- Nodo Puntone - Catena;
- Nodo Puntone - Monaco;
- Nodo Puntone - Saetta;
- Nodo Monaco - Saetta.

Il programma, una volta valutate le sollecitazioni nelle zone di contatto dell'intaglio e lungo la superficie di scorrimento del tallone, effettua le relative verifiche secondo i criteri indicati nelle Istruzioni del CNR.

Nel caso di Dente Semplice Rinforzato, viene eseguita anche la verifica degli elementi metallici di collegamento del rinforzo all'asta principale e vengono controllate altresì le modalità costruttive in base alle prescrizioni valide per le unioni con elementi metallici.

b) Unioni con elementi metallici a gambo cilindrico

L'unione di aste in legno mediante l'impiego di elementi metallici a gambo cilindrico si caratterizza per il fatto che la trasmissione degli sforzi da un'asta all'altra avviene proprio per il tramite di questi elementi.

Gli elementi metallici a gambo cilindrico che possono essere utilizzati appartengono alle seguenti tipologie:

- Chiodi;
- Viti;
- Bulloni;
- Spinotti o Perni.

In base al materiale delle aste, si possono avere le seguenti tipologie di unioni:

- Unioni Legno - Legno;
- Unioni Pannello - Legno;
- Unioni Acciaio - Legno.

In base al numero di sezioni resistenti degli elementi metallici, si possono avere:

- Un elemento resistente ed un piano di taglio,
- Un elemento resistente e due piani di taglio;
- Due elementi resistenti e due piani di taglio.

Ogni elemento metallico ha una propria « Capacita' portante » o « Resistenza » dipendente dalle caratteristiche meccaniche e costruttive dell'elemento stesso, dalle caratteristiche fisiche e meccaniche del legno costituente le aste da collegare e dal tipo e dalla direzione delle azioni sollecitanti l'unione.

Nel caso in cui l'elemento resistente e' soggetto a sollecitazione assiale di trazione, la Capacita' Portante dipende dalle sotto elencate resistenze:

- Resistenza alla Estrazione della parte filettata del connettore;
- Resistenza alla Penetrazione della testa del connettore;
- Resistenza a Trazione del connettore.
- Resistenza allo Strappo della testa del connettore;
- Resistenza al Punzonamento della Flangia.

Nel caso in cui l'elemento resistente e' soggetto a sollecitazione assiale di compressione, la Capacita' Portante dipende dalle sotto elencate resistenze:

- Resistenza allo Sprofondamento del connettore;
- Resistenza alla Instabilita' del connettore.

In questa seconda condizione di carico, bisogna determinare anche la resistenza a compressione del legno soggetto alle azioni trasmesse dalle flange metalliche.

Nel caso di elementi resistenti soggetti a sollecitazioni taglienti, la Capacita' portante dipende dalle seguenti resistenze:

- Resistenza allo snervamento del connettore;
- Resistenza al rifollamento del materiale ligneo;
- Resistenza all'estrazione del mezzo di unione dal materiale ligneo.

Il programma, una volta valutate le azioni in ogni singolo elemento resistente, effettua le relative verifiche in base al tipo di sollecitazione agente nell'elemento stesso.

Nel caso di piu' elementi disposti sulla stessa fila, effettua anche la verifica considerando una resistenza efficace, minore della somma delle resistenze dei vari elementi.

Per queste tipologie di unioni il programma effettua anche tutte le verifiche costruttive, dimensionali, geometriche previste dalle Norme Tecniche.

Il programma fornisce altresì il valore delle rigidzze traslatorie e rotatorie da utilizzare per il calcolo delle strutture tenendo conto degli scorrimenti relativi.

4) Convenzioni sulle unita' di misura e simboli adottati

Nei calcoli di verifica sono state utilizzate le seguenti unita' di misura:

- | | | | | |
|---|---|-------------------|---|-------|
| - Lunghezze e distanze | : | mm | | |
| - Sollecitazioni in fase di input | : | daN | e | daN.m |
| - Sollecitazioni in fase di output | : | N | e | N.mm |
| - Tensioni normali e tangenziali | : | N/mm ² | | |
| - Resistenze caratteristiche e di calcolo | : | N/mm ² | | |

Per quanto possibile, e' stata utilizzata la stessa simbologia riportata nelle NTC e nella Circolare del CNR. I pochi nuovi simboli adottati sono di intuitiva comprensione.

5) Affidabilita' del codice utilizzato

Il codice di calcolo e' stato sviluppato seguendo in maniera scrupolosa le ipotesi, i criteri e le indicazioni contenute nella pubblicazione denominata « VUAL » che tratta in maniera esauriente la « Verifica delle unioni delle aste in legno » secondo i criteri illustrati nelle NTC e nella Circolare del CNR.

La predetta documentazione, che viene fornita unitamente al software, contiene una esauriente descrizione delle basi teoriche e degli algoritmi impiegati, l'individuazione dei campi d'impiego, nonché casi prova interamente risolti e commentati, per i quali vengono forniti i file di input necessari a riprodurre l'elaborazione.

6) Modalita' di presentazione dei risultati

La notevole quantita' di informazioni che accompagna l'utilizzo del programma di calcolo impiegato ha richiesto una attenzione particolare sulle modalita' di presentazione dei dati e dei risultati delle verifiche, cio' al fine di riassumere, in una sintesi completa ed efficace, il comportamento della unione oggetto di verifica.

L'esito di ogni verifica puo' essere sintetizzato in uno schema grafico contenente gli elementi indispensabili alla relativa realizzazione.

7) Informazioni generali sull'elaborazione

Il software utilizzato prevede una serie di controlli automatici che consentono l'individuazione di errori di modellazione, di non rispetto delle limitazioni geometriche e l'incompatibilità delle scelte effettuate nell'utilizzo dei vari elementi costituenti l'unione.

Il codice di calcolo consente di visualizzare e controllare, sia in forma grafica che tabellare, i dati assegnati ed i risultati conseguiti in modo da avere una visione consapevole delle reali caratteristiche geometriche e meccaniche della unione.

8) Giudizio motivato di accettabilità dei risultati

I risultati delle elaborazioni sono stati sottoposti a controlli dal sottoscritto utente utilizzatore del software. Tali controlli hanno compreso il confronto con i risultati di semplici calcoli eseguiti con metodi tradizionali. Inoltre sulla base di considerazioni riguardanti gli stati tensionali e deformativi determinati, si è valutata la validità delle scelte operate in sede di schematizzazione e di modellazione della unione e delle azioni in essa agenti.

In base a quanto sopra, il sottoscritto tecnico utilizzatore del software asserisce che la elaborazione è corretta ed idonea al caso specifico, pertanto i risultati delle verifiche sono da ritenersi validi ed accettabili.

* VERIFICA DI UNA UNIONE TRADIZIONALE DI CARPENTERIA LIGNEA *

DATI RELATIVI ALLA UNIONE

* DATI GENERALI

NOME O SIGLA DELLA UNIONE	PUNTONE - SAETTA
TIPOLOGIA DELLA UNIONE	Collegamento a Dente Semplice Normale
TIPOLOGIA DEL NODO DA REALIZZARE	Puntone - Saetta
TIPOLOGIA ELEMENTI DI SERRAGGIO	Nessun Elemento di Serraggio
CLASSE DI SERVIZIO DELLA STRUTTURA	2 = Materiale in Equilibrio con l'Ambiente con umidita' relariva <85%
CLASSE DI DURATA DEL CARICO	2 = Lunga Durata

* PARAMETRI PER LE VERIFICHE	SIMBOLO	UNITA' MISURA	VALORE
COEFFICIENTE CORRETTIVO DEI PARAMETRI DI RESISTENZA	Kmod	-	0.90
COEFFICIENTE CORRETTIVO PER IL CALCOLO DELLE DEFORMAZIONI	Kdef	-	0.80
COEFFICIENTE PARZIALE DI SICUREZZA DELLA UNIONE	γM	-	1.50
COEFFICIENTE RIDUTTIVO DELLA ZONA DI CONTATTO	Cz	-	0.80
* CARATTERISTICHE DELL'ASTA PRINCIPALE	SIMBOLO	UNITA' MISURA	VALORE
DISTANZA DEL PRIMO ESTREMO DELL'ASTA DAL NODO	DE1	mm	800
DISTANZA DEL SECONDO ESTREMO DELL'ASTA DAL NODO	DE2	mm	800
DISTANZA DEL BORDO SINISTRO DELL'ASTA DALL'ASSE	DBs	mm	120
DISTANZA DEL BORDO DESTRO DELL'ASTA DALL'ASSE	DBd	mm	120
ALTEZZA COMPLESSIVA DELL'ASTA	Ht	mm	240
SPESSORE DELL'ASTA	Sp	mm	160
ANGOLO TRA L'ASSE DELL'ASTA E L'ASSE X DEL S.R.G.	ßX	°	158.00
NUMERO DI ARCHIVIO DEL MATERIALE DELL'ASTA	Nmt	n.	6
SOLLECITAZIONE DI SFORZO NORMALE	Nt	daN	3000
SOLLECITAZIONE DI SFORZO TAGLIANTE	Tt	daN	500
* CARATTERISTICHE DELL'ASTA LATERALE SINISTRA	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA MISURATA SULL'ASSE DELL'ASTA	La	mm	800
DISTANZA DEL BORDO SINISTRO DELL'ASTA DALL'ASSE	DBs	mm	100
DISTANZA DEL BORDO DESTRO DELL'ASTA DALL'ASSE	DBd	mm	100
ALTEZZA COMPLESSIVA DELL'ASTA	Hs	mm	200
SPESSORE DELL'ASTA	Sp	mm	160
ANGOLO TRA L'ASTA PRINCIPALE E L'ASTA SINISTRA	ßs	°	44.00
NUMERO DI ARCHIVIO DEL MATERIALE DELL'ASTA	Nms	n.	6
SOLLECITAZIONE DI SFORZO NORMALE	Ns	daN	1500
SOLLECITAZIONE DI SFORZO TAGLIANTE	Ts	daN	130
* CARATTERISTICHE DELL'ASTA LATERALE DESTRA	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA MISURATA SULL'ASSE DELL'ASTA	La	mm	0
DISTANZA DEL BORDO SINISTRO DELL'ASTA DALL'ASSE	DBs	mm	0
DISTANZA DEL BORDO DESTRO DELL'ASTA DALL'ASSE	DBd	mm	0
ALTEZZA COMPLESSIVA DELL'ASTA	Hd	mm	0
SPESSORE DELL'ASTA	Sp	mm	0
ANGOLO TRA L'ASTA PRINCIPALE E L'ASTA DESTRA	ßd	°	0.00
NUMERO DI ARCHIVIO DEL MATERIALE DELL'ASTA	Nmd	n.	0
SOLLECITAZIONE DI SFORZO NORMALE	Nd	daN	0
SOLLECITAZIONE DI SFORZO TAGLIANTE	Td	daN	0
* CARATTERISTICHE DEL RINFORZO	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA DEL TALLONE	Lt	mm	0
LARGHEZZA DEL TALLONE	Bt	mm	0
SPESSORE DEL TALLONE	St	mm	0
NUMERO DI ARCHIVIO DEL MATERIALE DEL TALLONE	Nmr	n.	0
NUMERO DI FILE DI ELEMENTI RESISTENTI	N.F.	n.	0
NUMERO DI ELEMENTI RESISTENTI PER FILA	N.E.	n.	0
DISTANZA TRA LE FILE	D.F.	mm	0
INTERASSE TRA GLI ELEMENTI RESISTENTI	I.E.	mm	0
TIPOLOGIA DEGLI ELEMENTI RESISTENTI	T.E.	-	-
NUMERO DI ARCHIVO DEGLI ELEMENTI RESISTENTI	Ner	n.	0

CARATTERISTICHE DEI MATERIALI

* LEGNO ASTA PRINCIPALE: TIPOLOGIA N. 6	SIMBOLO	U. M.	DESCRIZIONE/VALORE
- Tipologia del Materiale di Base	TMB	-	Legno Lamellare Incollato
- Essenza Legnosa costituente il Materiale	ELM	-	Legno di Conifere
- Denominazione della Specie Legnosa	DSL	-	Abete
- Normativa Europea di Riferimento	NER	-	EN 1194
- Sigla Identificativa della Specie Legnosa	SID	-	GL28h
- Resistenza Caratteristica a Flessione	fmk	N/mm ²	28.00
- Resistenza Caratteristica a Trazione Parallela	ftok	N/mm ²	19.50
- Resistenza Caratteristica a Trazione Ortogonale	ft9ok	N/mm ²	0.45
- Resistenza Caratteristica a Compressione Parallela	fcok	N/mm ²	26.50
- Resistenza Caratteristica a Compressione Ortogonale	fc9ok	N/mm ²	3.00
- Resistenza Caratteristica a Taglio	fvk	N/mm ²	3.20
- Modulo di elastico Longitudinale Parallelo Medio	Eom	N/mm ²	12600.00
- Modulo di elastico Longitudinale Parallelo Caratter.	Eo,o5	N/mm ²	10200.00
- Modulo di elastico Longitudinale Ortogonale Medio	E9om	N/mm ²	420.00
- Modulo di elastico Tangenziale Medio	Gm	N/mm ²	780.00
- Massa Volumica Caratteristica	ρk	kg/m ³	410.00
- Massa Volumica Media	ρm	kg/m ³	440.00
- Coefficiente Parziale di Sicurezza	γM	-	1.45

* LEGNO ASTA LATERALE SINISTRA: TIPOLOGIA N. 6	SIMBOLO	U. M.	DESCRIZIONE/VALORE
- Tipologia del Materiale di Base	TMB	-	Legno Lamellare Incollato
- Essenza Legnosa costituente il Materiale	ELM	-	Legno di Conifere
- Denominazione della Specie Legnosa	DSL	-	Abete
- Normativa Europea di Riferimento	NER	-	EN 1194
- Sigla Identificativa della Specie Legnosa	SID	-	GL28h
- Resistenza Caratteristica a Flessione	fmk	N/mm ²	28.00
- Resistenza Caratteristica a Trazione Parallela	ftok	N/mm ²	19.50
- Resistenza Caratteristica a Trazione Ortogonale	ft9ok	N/mm ²	0.45
- Resistenza Caratteristica a Compressione Parallela	fcok	N/mm ²	26.50
- Resistenza Caratteristica a Compressione Ortogonale	fc9ok	N/mm ²	3.00
- Resistenza Caratteristica a Taglio	fvk	N/mm ²	3.20
- Modulo di elastico Longitudinale Parallelo Medio	Eom	N/mm ²	12600.00
- Modulo di elastico Longitudinale Parallelo Caratter.	Eo,o5	N/mm ²	10200.00
- Modulo di elastico Longitudinale Ortogonale Medio	E9om	N/mm ²	420.00
- Modulo di elastico Tangenziale Medio	Gm	N/mm ²	780.00
- Massa Volumica Caratteristica	ρk	kg/m ³	410.00
- Massa Volumica Media	ρm	kg/m ³	440.00
- Coefficiente Parziale di Sicurezza	γM	-	1.45

VERIFICHE DELLA UNIONE

ASTA PRINCIPALE

* VERIFICA DELLA SEZIONE NETTA	SIMBOLO	UNITA' MISURA	VALORE
ALTEZZA NETTA DELLA SEZIONE RESISTENTE	Hn	mm	180
AREA NETTA DELLA SEZIONE RESISTENTE	An	mm ²	28800
SOLLECITAZIONE ASSIALE AGENTE NELL'ASTA	N	N	30000
TENSIONE ASSIALE DI CALCOLO	σn	N/mm ²	1.04
RESISTENZA ASSIALE DI CALCOLO	fnd	N/mm ²	15.90
COEFFICIENTE DI SICUREZZA A SFORZO ASSIALE	Csn	<= 1	0.07
SOLLECITAZIONE TAGLIANTE AGENTE NELL'ASTA	T	N	5000
TENSIONE TANGENZIALE DI CALCOLO	τn	N/mm ²	0.26
RESISTENZA TANGENZIALE DI CALCOLO	fvd	N/mm ²	1.92
COEFFICIENTE DI SICUREZZA A SFORZO TAGLIANTE	Csv	<= 1	0.14

ASTA LATERALE SINISTRA

* VERIFICA DEL TALLONE	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA PARTE UTILE ESTERNA DEL TALLONE	Tc	mm	480
LUNGHEZZA PARTE UTILE INTERNA DEL TALLONE	Lv	mm	504
SPESSORE DELL'INTAGLIO	Tv	mm	60
SOLLECITAZIONE TAGLIANTE AGENTE NEL TALLONE	Tg	N	11421
TENSIONE TANGENZIALE DI CALCOLO	τd	N/mm ²	0.14
RESISTENZA TANGENZIALE DI CALCOLO	fvd	N/mm ²	1.92
COEFFICIENTE DI SICUREZZA A SFORZO TAGLIANTE	Csv	<= 1	0.07
* VERIFICA PARTE ANTERIORE DEL DENTE	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA DELLA PARTE ANTERIORE	La	mm	65
SOLLECITAZIONE NORMALE DI COMPRESSIONE	Fa	N	12318
TENSIONE DI CALCOLO A COMPRESSIONE	σda	N/mm ²	1.19
RESISTENZA DI CALCOLO A COMPRESSIONE	fcd _a	N/mm ²	7.57
COEFFICIENTE DI SICUREZZA	Csa	<= 1	0.16
* VERIFICA PARTE POSTERIORE DEL DENTE	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA TOTALE DELLA PARTE POSTERIORE	Lp	mm	270
LUNGHEZZA UTILE DELLA PARTE POSTERIORE	Lpu	mm	216
SOLLECITAZIONE NORMALE DI COMPRESSIONE	Fp	N	6913
TENSIONE DI CALCOLO A COMPRESSIONE	σdp	N/mm ²	0.20
RESISTENZA DI CALCOLO A COMPRESSIONE	fcd _p	N/mm ²	1.88
COEFFICIENTE DI SICUREZZA	Csp	<= 1	0.11

RELAZIONE SUL CODICE DI CALCOLO RELATIVO ALLA

VERIFICA DELLE UNIONI DI ASTE IN LEGNO

1) Premessa

La presente relazione ha per oggetto la descrizione delle ipotesi e dei criteri adottati per l'esecuzione delle verifiche di unioni di aste in legno; contestualmente verranno illustrate le caratteristiche del relativo codice di calcolo e della sua affidabilità, le modalità di presentazione dei risultati e le informazioni generali sull'elaborazione; infine verrà espresso un giudizio motivato sull'accettabilità dei risultati.

2) Riferimenti legislativi

I criteri adottati per le verifiche delle unioni sono quelli espressamente indicati nelle seguenti disposizioni normative:

- D. M. 17.01.2018, recante le Nuove Norme Tecniche per le Costruzioni;
- Circolare del Ministero delle Infrastrutture n. 7 del 21.01.2019, recante le Istruzioni per l'applicazione delle Norme Tecniche per le Costruzioni;
- Istruzioni per la Progettazione, l'Esecuzione e il Controllo delle Strutture di Legno edita dal Consiglio Nazionale delle Ricerche (CNR 28 novembre 2007 - rev. 7 ottobre 2008).

Per quanto non espressamente riportato nella succitata normativa si è fatto riferimento alle indicazioni contenute nell'Eurocodice 5, riguardante la Progettazione delle strutture di legno.

3) Descrizione delle verifiche svolte mediante il codice di calcolo

Il programma di calcolo, nella versione attuale, consente la verifica di due fra le più diffuse tipologie di unioni di aste in legno e precisamente:

- Unioni Tradizionali o di Carpenteria Lignea;
- Unioni Meccaniche con Elementi Metallici a Gambo Cilindrico.

Le unioni della prima tipologia possono essere soltanto piane, mentre quelle appartenenti alla seconda tipologia possono essere sia piane che spaziali.

a) Unioni tradizionali

Appartengono a questa tipologia le connessioni utilizzate per il collegamento di membrature lignee caratterizzate dalla presenza di superfici intagliate e lavorate al fine di consentire la trasmissione degli sforzi tra gli elementi connessi.

Le tipologie di collegamenti tradizionali prese in considerazione sono:

- Collegamento a Dente Semplice Normale;
- Collegamento a Dente Semplice Arretrato;
- Collegamento a Dente Semplice Rinforzato;
- Collegamento a Dente Doppio.

Le predette tipologie di unioni vengono solitamente utilizzate per la realizzazione dei nodi di travature reticolari che possono ricondursi alle seguenti tipologie:

- Nodo Puntone - Catena;
- Nodo Puntone - Monaco;
- Nodo Puntone - Saetta;
- Nodo Monaco - Saetta.

Il programma, una volta valutate le sollecitazioni nelle zone di contatto dell'intaglio e lungo la superficie di scorrimento del tallone, effettua le relative verifiche secondo i criteri indicati nelle Istruzioni del CNR.

Nel caso di Dente Semplice Rinforzato, viene eseguita anche la verifica degli elementi metallici di collegamento del rinforzo all'asta principale e vengono controllate altresì le modalità costruttive in base alle prescrizioni valide per le unioni con elementi metallici.

b) Unioni con elementi metallici a gambo cilindrico

L'unione di aste in legno mediante l'impiego di elementi metallici a gambo cilindrico si caratterizza per il fatto che la trasmissione degli sforzi da un'asta all'altra avviene proprio per il tramite di questi elementi.

Gli elementi metallici a gambo cilindrico che possono essere utilizzati appartengono alle seguenti tipologie:

- Chiodi;
- Viti;
- Bulloni;
- Spinotti o Perni.

In base al materiale delle aste, si possono avere le seguenti tipologie di unioni:

- Unioni Legno - Legno;
- Unioni Pannello - Legno;
- Unioni Acciaio - Legno.

In base al numero di sezioni resistenti degli elementi metallici, si possono avere:

- Un elemento resistente ed un piano di taglio,
- Un elemento resistente e due piani di taglio;
- Due elementi resistenti e due piani di taglio.

Ogni elemento metallico ha una propria « Capacita' portante » o « Resistenza » dipendente dalle caratteristiche meccaniche e costruttive dell'elemento stesso, dalle caratteristiche fisiche e meccaniche del legno costituente le aste da collegare e dal tipo e dalla direzione delle azioni sollecitanti l'unione.

Nel caso in cui l'elemento resistente e' soggetto a sollecitazione assiale di trazione, la Capacita' Portante dipende dalle sotto elencate resistenze:

- Resistenza alla Estrazione della parte filettata del connettore;
- Resistenza alla Penetrazione della testa del connettore;
- Resistenza a Trazione del connettore.
- Resistenza allo Strappo della testa del connettore;
- Resistenza al Punzonamento della Flangia.

Nel caso in cui l'elemento resistente e' soggetto a sollecitazione assiale di compressione, la Capacita' Portante dipende dalle sotto elencate resistenze:

- Resistenza allo Sprofondamento del connettore;
- Resistenza alla Instabilita' del connettore.

In questa seconda condizione di carico, bisogna determinare anche la resistenza a compressione del legno soggetto alle azioni trasmesse dalle flange metalliche.

Nel caso di elementi resistenti soggetti a sollecitazioni taglienti, la Capacita' portante dipende dalle seguenti resistenze:

- Resistenza allo snervamento del connettore;
- Resistenza al rifollamento del materiale ligneo;
- Resistenza all'estrazione del mezzo di unione dal materiale ligneo.

Il programma, una volta valutate le azioni in ogni singolo elemento resistente, effettua le relative verifiche in base al tipo di sollecitazione agente nell'elemento stesso.

Nel caso di piu' elementi disposti sulla stessa fila, effettua anche la verifica considerando una resistenza efficace, minore della somma delle resistenze dei vari elementi.

Per queste tipologie di unioni il programma effettua anche tutte le verifiche costruttive, dimensionali, geometriche previste dalle Norme Tecniche.

Il programma fornisce altresì il valore delle rigidzze traslatorie e rotatorie da utilizzare per il calcolo delle strutture tenendo conto degli scorrimenti relativi.

4) Convenzioni sulle unita' di misura e simboli adottati

Nei calcoli di verifica sono state utilizzate le seguenti unita' di misura:

- | | | | | |
|---|---|-------------------|---|-------|
| - Lunghezze e distanze | : | mm | | |
| - Sollecitazioni in fase di input | : | daN | e | daN.m |
| - Sollecitazioni in fase di output | : | N | e | N.mm |
| - Tensioni normali e tangenziali | : | N/mm ² | | |
| - Resistenze caratteristiche e di calcolo | : | N/mm ² | | |

Per quanto possibile, e' stata utilizzata la stessa simbologia riportata nelle NTC e nella Circolare del CNR. I pochi nuovi simboli adottati sono di intuitiva comprensione.

5) Affidabilita' del codice utilizzato

Il codice di calcolo e' stato sviluppato seguendo in maniera scrupolosa le ipotesi, i criteri e le indicazioni contenute nella pubblicazione denominata « VUAL » che tratta in maniera esauriente la « Verifica delle unioni delle aste in legno » secondo i criteri illustrati nelle NTC e nella Circolare del CNR.

La predetta documentazione, che viene fornita unitamente al software, contiene una esauriente descrizione delle basi teoriche e degli algoritmi impiegati, l'individuazione dei campi d'impiego, nonché casi prova interamente risolti e commentati, per i quali vengono forniti i file di input necessari a riprodurre l'elaborazione.

6) Modalita' di presentazione dei risultati

La notevole quantita' di informazioni che accompagna l'utilizzo del programma di calcolo impiegato ha richiesto una attenzione particolare sulle modalita' di presentazione dei dati e dei risultati delle verifiche, cio' al fine di riassumere, in una sintesi completa ed efficace, il comportamento della unione oggetto di verifica.

L'esito di ogni verifica puo' essere sintetizzato in uno schema grafico contenente gli elementi indispensabili alla relativa realizzazione.

7) Informazioni generali sull'elaborazione

Il software utilizzato prevede una serie di controlli automatici che consentono l'individuazione di errori di modellazione, di non rispetto delle limitazioni geometriche e l'incompatibilit  delle scelte effettuate nell'utilizzo dei vari elementi costituenti l'unione.

Il codice di calcolo consente di visualizzare e controllare, sia in forma grafica che tabellare, i dati assegnati ed i risultati conseguiti in modo da avere una visione consapevole delle reali caratteristiche geometriche e meccaniche della unione.

8) Giudizio motivato di accettabilit  dei risultati

I risultati delle elaborazioni sono stati sottoposti a controlli dal sottoscritto utente utilizzatore del software. Tali controlli hanno compreso il confronto con i risultati di semplici calcoli eseguiti con metodi tradizionali. Inoltre sulla base di considerazioni riguardanti gli stati tensionali e deformativi determinati, si   valutata la validita' delle scelte operate in sede di schematizzazione e di modellazione della unione e delle azioni in essa agenti

In base a quanto sopra, il sottoscritto tecnico utilizzatore del software asserisce che la elaborazione   corretta ed idonea al caso specifico, pertanto i risultati delle verifiche sono da ritenersi validi ed accettabili.

* VERIFICA DI UNA UNIONE TRADIZIONALE DI CARPENTERIA LIGNEA *

DATI RELATIVI ALLA UNIONE

* DATI GENERALI

NOME O SIGLA DELLA UNIONE	SAETTA - MONACO
TIPOLOGIA DELLA UNIONE	Collegamento a Dente Semplice Normale
TIPOLOGIA DEL NODO DA REALIZZARE	Monaco - Saetta, Doppio
TIPOLOGIA ELEMENTI DI SERRAGGIO	Nessun Elemento di Serraggio
CLASSE DI SERVIZIO DELLA STRUTTURA	2 = Materiale in Equilibrio con l'Ambiente con umidita' relariva <85%
CLASSE DI DURATA DEL CARICO	2 = Lunga Durata

* PARAMETRI PER LE VERIFICHE

	SIMBOLO	UNITA' MISURA	VALORE
COEFFICIENTE CORRETTIVO DEI PARAMETRI DI RESISTENZA	Kmod	-	0,90
COEFFICIENTE CORRETTIVO PER IL CALCOLO DELLE DEFORMAZIONI	Kdef	-	0,80
COEFFICIENTE PARZIALE DI SICUREZZA DELLA UNIONE	γM	-	1,50
COEFFICIENTE RIDUTTIVO DELLA ZONA DI CONTATTO	Cz	-	0,80

* CARATTERISTICHE DELL'ASTA PRINCIPALE

	SIMBOLO	UNITA' MISURA	VALORE
DISTANZA DEL PRIMO ESTREMO DELL'ASTA DAL NODO	DE1	mm	200
DISTANZA DEL SECONDO ESTREMO DELL'ASTA DAL NODO	DE2	mm	700
DISTANZA DEL BORDO SINISTRO DELL'ASTA DALL'ASSE	DBs	mm	100
DISTANZA DEL BORDO DESTRO DELL'ASTA DALL'ASSE	DBd	mm	100
ALTEZZA COMPLESSIVA DELL'ASTA	Ht	mm	200
SPESSORE DELL'ASTA	Sp	mm	160
ANGOLO TRA L'ASSE DELL'ASTA E L'ASSE X DEL S.R.G.	ßX	°	90,00
NUMERO DI ARCHIVIO DEL MATERIALE DELL'ASTA	Nmt	n.	6
SOLLECITAZIONE DI SFORZO NORMALE	Nt	daN	-1124
SOLLECITAZIONE DI SFORZO TAGLIANTE	Tt	daN	160

* CARATTERISTICHE DELL'ASTA LATERALE SINISTRA

	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA MISURATA SULL'ASSE DELL'ASTA	La	mm	1000
DISTANZA DEL BORDO SINISTRO DELL'ASTA DALL'ASSE	DBs	mm	100
DISTANZA DEL BORDO DESTRO DELL'ASTA DALL'ASSE	DBd	mm	100
ALTEZZA COMPLESSIVA DELL'ASTA	Hs	mm	200
SPESSORE DELL'ASTA	Sp	mm	160
ANGOLO TRA L'ASTA PRINCIPALE E L'ASTA SINISTRA	ßs	°	68,00
NUMERO DI ARCHIVIO DEL MATERIALE DELL'ASTA	Nms	n.	6
SOLLECITAZIONE DI SFORZO NORMALE	Ns	daN	4850
SOLLECITAZIONE DI SFORZO TAGLIANTE	Ts	daN	403

* CARATTERISTICHE DELL'ASTA LATERALE DESTRA

	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA MISURATA SULL'ASSE DELL'ASTA	La	mm	1000
DISTANZA DEL BORDO SINISTRO DELL'ASTA DALL'ASSE	DBs	mm	120
DISTANZA DEL BORDO DESTRO DELL'ASTA DALL'ASSE	DBd	mm	120
ALTEZZA COMPLESSIVA DELL'ASTA	Hd	mm	240
SPESSORE DELL'ASTA	Sp	mm	160
ANGOLO TRA L'ASTA PRINCIPALE E L'ASTA DESTRA	ßd	°	68,00
NUMERO DI ARCHIVIO DEL MATERIALE DELL'ASTA	Nmd	n.	6
SOLLECITAZIONE DI SFORZO NORMALE	Nd	daN	1500
SOLLECITAZIONE DI SFORZO TAGLIANTE	Td	daN	130

* CARATTERISTICHE DEL RINFORZO

	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA DEL TALLONE	Lt	mm	0
LARGHEZZA DEL TALLONE	Bt	mm	0
SPESSORE DEL TALLONE	St	mm	0
NUMERO DI ARCHIVIO DEL MATERIALE DEL TALLONE	Nmr	n.	0
NUMERO DI FILE DI ELEMENTI RESISTENTI	N.F.	n.	0
NUMERO DI ELEMENTI RESISTENTI PER FILA	N.E.	n.	0
DISTANZA TRA LE FILE	D.F.	mm	0
INTERASSE TRA GLI ELEMENTI RESISTENTI	I.E.	mm	0
TIPOLOGIA DEGLI ELEMENTI RESISTENTI	T.E.	-	-
NUMERO DI ARCHIVO DEGLI ELEMENTI RESISTENTI	Ner	n.	0

CARATTERISTICHE DEI MATERIALI

* LEGNO ASTA PRINCIPALE: TIPOLOGIA N. 6	SIMBOLO	U. M.	DESCRIZIONE/VALORE
- Tipologia del Materiale di Base	TMB	-	Legno Lamellare Incollato
- Essenza Legnosa costituente il Materiale	ELM	-	Legno di Conifere
- Denominazione della Specie Legnosa	DSL	-	Abete
- Normativa Europea di Riferimento	NER	-	EN 1194
- Sigla Identificativa della Specie Legnosa	SID	-	GL28h
- Resistenza Caratteristica a Flessione	fmk	N/mm ²	28,00
- Resistenza Caratteristica a Trazione Parallela	ftok	N/mm ²	19,50
- Resistenza Caratteristica a Trazione Ortogonale	ft9ok	N/mm ²	0,45
- Resistenza Caratteristica a Compressione Parallela	fcok	N/mm ²	26,50
- Resistenza Caratteristica a Compressione Ortogonale	fc9ok	N/mm ²	3,00
- Resistenza Caratteristica a Taglio	fvk	N/mm ²	3,20
- Modulo di Elastico Longitudinale Parallelo Medio	Eom	N/mm ²	12600,00
- Modulo di Elastico Longitudinale Parallelo Caratter.	Eo,o5	N/mm ²	10200,00
- Modulo di Elastico Longitudinale Ortogonale Medio	E9om	N/mm ²	420,00
- Modulo di Elastico Tangenziale Medio	Gm	N/mm ²	780,00
- Massa Volumica Caratteristica	ρk	kg/m ³	410,00
- Massa Volumica Media	ρm	kg/m ³	440,00
- Coefficiente Parziale di Sicurezza	γM	-	1,45

* LEGNO ASTA LATERALE SINISTRA: TIPOLOGIA N. 6	SIMBOLO	U. M.	DESCRIZIONE/VALORE
- Tipologia del Materiale di Base	TMB	-	Legno Lamellare Incollato
- Essenza Legnosa costituente il Materiale	ELM	-	Legno di Conifere
- Denominazione della Specie Legnosa	DSL	-	Abete
- Normativa Europea di Riferimento	NER	-	EN 1194
- Sigla Identificativa della Specie Legnosa	SID	-	GL28h
- Resistenza Caratteristica a Flessione	fmk	N/mm ²	28,00
- Resistenza Caratteristica a Trazione Parallela	ftok	N/mm ²	19,50
- Resistenza Caratteristica a Trazione Ortogonale	ft9ok	N/mm ²	0,45
- Resistenza Caratteristica a Compressione Parallela	fcok	N/mm ²	26,50
- Resistenza Caratteristica a Compressione Ortogonale	fc9ok	N/mm ²	3,00
- Resistenza Caratteristica a Taglio	fvk	N/mm ²	3,20
- Modulo di Elastico Longitudinale Parallelo Medio	Eom	N/mm ²	12600,00
- Modulo di Elastico Longitudinale Parallelo Caratter.	Eo,o5	N/mm ²	10200,00
- Modulo di Elastico Longitudinale Ortogonale Medio	E9om	N/mm ²	420,00
- Modulo di Elastico Tangenziale Medio	Gm	N/mm ²	780,00
- Massa Volumica Caratteristica	ρk	kg/m ³	410,00
- Massa Volumica Media	ρm	kg/m ³	440,00
- Coefficiente Parziale di Sicurezza	γM	-	1,45

* LEGNO ASTA LATERALE DESTRA: TIPOLOGIA N. 6	SIMBOLO	U. M.	DESCRIZIONE/VALORE
- Tipologia del Materiale di Base	TMB	-	Legno Lamellare Incollato
- Essenza Legnosa costituente il Materiale	ELM	-	Legno di Conifere
- Denominazione della Specie Legnosa	DSL	-	Abete
- Normativa Europea di Riferimento	NER	-	EN 1194
- Sigla Identificativa della Specie Legnosa	SID	-	GL28h
- Resistenza Caratteristica a Flessione	fmk	N/mm ²	28,00
- Resistenza Caratteristica a Trazione Parallela	ftok	N/mm ²	19,50
- Resistenza Caratteristica a Trazione Ortogonale	ft9ok	N/mm ²	0,45
- Resistenza Caratteristica a Compressione Parallela	fcok	N/mm ²	26,50
- Resistenza Caratteristica a Compressione Ortogonale	fc9ok	N/mm ²	3,00
- Resistenza Caratteristica a Taglio	fvk	N/mm ²	3,20
- Modulo di Elastico Longitudinale Parallelo Medio	Eom	N/mm ²	12600,00
- Modulo di Elastico Longitudinale Parallelo Caratter.	Eo,o5	N/mm ²	10200,00
- Modulo di Elastico Longitudinale Ortogonale Medio	E9om	N/mm ²	420,00
- Modulo di Elastico Tangenziale Medio	Gm	N/mm ²	780,00
- Massa Volumica Caratteristica	ρk	kg/m ³	410,00
- Massa Volumica Media	ρm	kg/m ³	440,00
- Coefficiente Parziale di Sicurezza	γM	-	1,45

VERIFICHE DELLA UNIONE

ASTA PRINCIPALE

* VERIFICA DELLA SEZIONE NETTA	SIMBOLO	UNITA' MISURA	VALORE
ALTEZZA NETTA DELLA SEZIONE RESISTENTE	Hn	mm	133
AREA NETTA DELLA SEZIONE RESISTENTE	An	mm ²	21333
SOLLECITAZIONE ASSIALE AGENTE NELL'ASTA	N	N	-11240
TENSIONE ASSIALE DI CALCOLO	σn	N/mm ²	0,53
RESISTENZA ASSIALE DI CALCOLO	fnd	N/mm ²	11,70
COEFFICIENTE DI SICUREZZA A SFORZO ASSIALE	Csn	<= 1	0,05
SOLLECITAZIONE TAGLIANTE AGENTE NELL'ASTA	T	N	1600
TENSIONE TANGENZIALE DI CALCOLO	τn	N/mm ²	0,11
RESISTENZA TANGENZIALE DI CALCOLO	fvd	N/mm ²	1,92
COEFFICIENTE DI SICUREZZA A SFORZO TAGLIANTE	Csv	<= 1	0,06

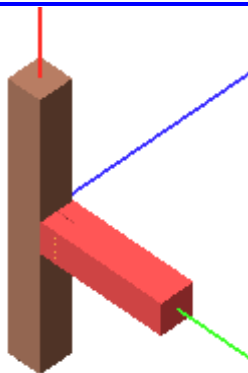
ASTA LATERALE SINISTRA

* VERIFICA DEL TALLONE	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA PARTE UTILE ESTERNA DEL TALLONE	Tc	mm	133
LUNGHEZZA PARTE UTILE INTERNA DEL TALLONE	Lv	mm	155
SPESSORE DELL'INTAGLIO	Tv	mm	33
SOLLECITAZIONE TAGLIANTE AGENTE NEL TALLONE	Tg	N	20110
TENSIONE TANGENZIALE DI CALCOLO	τd	N/mm ²	0,81
RESISTENZA TANGENZIALE DI CALCOLO	fvd	N/mm ²	1,92
COEFFICIENTE DI SICUREZZA A SFORZO TAGLIANTE	Csv	<= 1	0,42
* VERIFICA PARTE ANTERIORE DEL DENTE	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA DELLA PARTE ANTERIORE	La	mm	40
SOLLECITAZIONE NORMALE DI COMPRESSIONE	Fa	N	24257
TENSIONE DI CALCOLO A COMPRESSIONE	σda	N/mm ²	3,77
RESISTENZA DI CALCOLO A COMPRESSIONE	fcd _a	N/mm ²	4,61
COEFFICIENTE DI SICUREZZA	Csa	<= 1	0,82
* VERIFICA PARTE POSTERIORE DEL DENTE	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA TOTALE DELLA PARTE POSTERIORE	Lp	mm	196
LUNGHEZZA UTILE DELLA PARTE POSTERIORE	Lpu	mm	157
SOLLECITAZIONE NORMALE DI COMPRESSIONE	Fp	N	33400
TENSIONE DI CALCOLO A COMPRESSIONE	σdp	N/mm ²	1,33
RESISTENZA DI CALCOLO A COMPRESSIONE	fcd _p	N/mm ²	1,85
COEFFICIENTE DI SICUREZZA	Csp	<= 1	0,72

ASTA LATERALE DESTRA

* VERIFICA DEL TALLONE	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA PARTE UTILE ESTERNA DEL TALLONE	Tc	mm	111
LUNGHEZZA PARTE UTILE INTERNA DEL TALLONE	Lv	mm	133
SPESSORE DELL'INTAGLIO	Tv	mm	33
SOLLECITAZIONE TAGLIANTE AGENTE NEL TALLONE	Tg	N	5884
TENSIONE TANGENZIALE DI CALCOLO	τd	N/mm ²	0,28
RESISTENZA TANGENZIALE DI CALCOLO	fvd	N/mm ²	1,92
COEFFICIENTE DI SICUREZZA A SFORZO TAGLIANTE	Csv	<= 1	0,14
* VERIFICA PARTE ANTERIORE DEL DENTE	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA DELLA PARTE ANTERIORE	La	mm	40
SOLLECITAZIONE NORMALE DI COMPRESSIONE	Fa	N	7097
TENSIONE DI CALCOLO A COMPRESSIONE	σda	N/mm ²	1,10
RESISTENZA DI CALCOLO A COMPRESSIONE	fcd _a	N/mm ²	4,61
COEFFICIENTE DI SICUREZZA	Csa	<= 1	0,24
* VERIFICA PARTE POSTERIORE DEL DENTE	SIMBOLO	UNITA' MISURA	VALORE
LUNGHEZZA TOTALE DELLA PARTE POSTERIORE	Lp	mm	239
LUNGHEZZA UTILE DELLA PARTE POSTERIORE	Lpu	mm	191
SOLLECITAZIONE NORMALE DI COMPRESSIONE	Fp	N	10529
TENSIONE DI CALCOLO A COMPRESSIONE	σdp	N/mm ²	0,34
RESISTENZA DI CALCOLO A COMPRESSIONE	fcd _p	N/mm ²	1,83
COEFFICIENTE DI SICUREZZA	Csp	<= 1	0,19

PORTALE LEGNO LAMELLARE - Verifica secondo il D.M. 17/01/2018 dei nodi



Classe di servizio 2

L'opera è caratterizzata da un'umidità del materiale in equilibrio con l'ambiente a una temperatura di 20°C e un'umidità relativa dell'aria circostante che supera l'85% solo per poche settimane all'anno.

Coefficiente di sicurezza utilizzato

$$\gamma_M = 1,50$$

Trave lato 2+

Dimensioni sezione ($B_{el} \times H_{el}$): 160 x 200 mm

Legno: GL28h - UNI EN 14080:2013

Essenza: conifere

Massa volumica caratteristica:

$$\rho_k = 425 \text{ Kg/m}^3$$

Massa volumica media:

$$\rho_m = 460 \text{ Kg/m}^3$$

Resistenza caratteristica a trazione parallela alle fibre:

$$f_{t,0,k} = 22.30 \text{ N/mm}^2$$

Resistenza caratteristica a trazione ortogonale alle fibre:

$$f_{t,90,k} = 0.50 \text{ N/mm}^2$$

Resistenza caratteristica a compressione parallela alle fibre:

$$f_{c,0,k} = 28.00 \text{ N/mm}^2$$

Resistenza caratteristica a compressione ortogonale alle fibre:

$$f_{c,90,k} = 2.50 \text{ N/mm}^2$$

Resistenza caratteristica a taglio:

$$f_{v,k} = 3.50 \text{ N/mm}^2$$

Resistenza caratteristica a flessione:

$$f_{m,k} = 28.00 \text{ N/mm}^2$$

Coefficiente correttivo k_{mod} :

Classe durata carico	permanente	lunga	media	breve	istantanea
Classe di servizio 1	0.60	0.70	0.80	0.90	1.10
Classe di servizio 2	0.60	0.70	0.80	0.90	1.10
Classe di servizio 3	0.50	0.55	0.65	0.70	0.90

Dati unione

Unione realizzata con l'utilizzo di una staffa d'acciaio a T con l'ala fissata al continuo e l'anima inserita nell'elemento: la staffa ha dimensioni ($S_s \times H_s \times L_{anima} \times B_{ala}$) 6 x 160 x 109 x 80 mm.

Materiale staffa: Acciaio S275

Tensione caratteristica di snervamento: $f_{yk} = 275 \text{ N/mm}^2$

Tensione caratteristica di rottura: $f_{tk} = 430 \text{ N/mm}^2$

Dati connettori elemento-staffa

Spinotti: M12

Diametro $\emptyset = 12 \text{ mm}$

Limite "Johansen" per E_{fune} $L_{Ef} = 0 \%$

Numero $n = 4$ (4 righe e 1 colonna)

Materiale: Classe 8.8 (NTC18/EC3)

Tensione di snervamento: $f_{yb} = 640 \text{ N/mm}^2$

Tensione di rottura: $f_{tb} = 800 \text{ N/mm}^2$

Dati connettori staffa-continuo

Viti (installazione senza preforatura dell'elemento ligneo): 5.0 x 60 x 35

Diametro nominale	$\varnothing =$	5.00 mm
Diametro testa	$\varnothing_t =$	10.00 mm
Diametro nocciolo	$\varnothing_n =$	3.40 mm
Diametro gambo	$\varnothing_g =$	3.65 mm
Lunghezza	$L =$	60 mm
Lunghezza zona filettata	$L_f =$	35 mm
Limite "Johansen" per E_{fune}	$L_{Ef} =$	100 %
Numero	$n =$	10 (5 righe e 2 colonne)
Diametro di calcolo	$\varnothing_{ef} = 1.1 \cdot \varnothing_n =$	3.740 mm

Materiale: Classe 8.8 (NTC18/EC3)

Tensione di snervamento:	$f_{yb} =$	640 N/mm ²
Tensione di rottura:	$f_{tb} =$	800 N/mm ²

Sollecitazioni nella sezione d'attacco dell'elemento:

N.C.D.	V2 [N]	V3 [N]	N [N]	M2 [N mm]	M3 [N mm]	T [N mm]
11.5.P	5337.2	0.0	-14.3	0.0	0.0	0.0
16.10.M	177.0	0.0	-728.6	0.0	0.0	0.0
17.51.P	478.8	-156.8	-161.0	197341.0	0.0	29543.0
32.6.M	5337.2	0.0	18.6	0.0	0.0	0.0
32.7.P	5084.8	0.0	-0.4	0.0	0.0	0.0

Nota: la prima colonna della tabella riporta il numero del nodo (N), il numero della combinazione (C) e l'iniziale della classe di durata del carico (D: Permanente; Lunga durata; Media durata; Breve durata; Istantaneo).

Verifica unione elemento-staffa a T

Verifiche "lato legno" (Nodo n. 11, CMB n. 5)

Capacità caratteristica a estrazione dello spinotto	$F_{ax,Rk} =$	0 N
Momento caratteristico di snervamento	$M_{y,Rk} = 0.3 \cdot f_{tb} \cdot \varnothing^{2.6} =$	153490.8 N mm
Resistenza caratteristica a rifollamento par. alle fibre	$f_{h,0,k} = 0.082 \cdot (1 - 0.01 \cdot \varnothing) \cdot \rho_k =$	30.67 N/mm ²
Coefficiente di essenza legnosa	$k_{90} = 1.35 + 0.015 \cdot \varnothing =$	1.530
Angolo di inclinazione del carico rispetto alle fibre	$\alpha =$	89.84649°
Resistenza caratteristica a rifollamento secondo α	$f_{h,\alpha,k} = f_{h,0,k} / (k_{90} \cdot \sin^2 \alpha + \cos^2 \alpha) =$	20.04 N/mm ²

Equazioni di Johansen: piastra di qualunque spessore elemento centrale di una connessione a doppio taglio.

Capacità di carico per piano di taglio

$$F_{v,Rk} = \min [F_{v,Rk,f}, F_{v,Rk,g}, F_{v,Rk,h}] = 11831.0 \text{ N}$$

$\bullet F_{v,Rk,f} = f_{h,\alpha,k} \cdot t \cdot \varnothing =$	23331.8 N
$\bullet F_{v,Rk,g} = f_{h,\alpha,k} \cdot t \cdot \varnothing \cdot [(2 + 4 \cdot M_{y,Rk} / (f_{h,\alpha,k} \cdot \varnothing \cdot t^2))^{0.5} - 1] + E_{fune,g} =$	11831.0 N
$\bullet F_{v,Rk,h} = 2.3 \cdot (M_{y,Rk} \cdot f_{h,\alpha,k} \cdot \varnothing)^{0.5} + E_{fune,h} =$	13975.2 N
$\bullet E_{fune,g} = \min [L_{Ef} \cdot F_{v,Rk,g}, F_{ax,Rk} / 4] =$	0.0 N
$\bullet E_{fune,h} = \min [L_{Ef} \cdot F_{v,Rk,h}, F_{ax,Rk} / 4] =$	0.0 N

Resistenza di progetto dello spinotto per piano di taglio $F_{v,Rd} = k_{mod} \cdot F_{v,Rk} / \gamma_m = 4732.4 \text{ N}$

Numero efficace spinotti per ogni gruppo par. alle fibre:

Carico parallelo alle fibre	$n_{ef,\parallel} = n =$	1.000
Carico perpendicolare alle fibre	$n_{ef,\perp} = n =$	1.000
Carico reale (secondo α)	$n_{ef,\alpha} = n_{ef,\parallel} + (n_{ef,\perp} - n_{ef,\parallel}) \cdot \alpha / 90 =$	1.000
Numero di gruppi par. alle fibre	$n_g =$	4

Resistenza di progetto del giunto per piano di taglio	$F_{v,G,Rd} = n_{ef,\alpha} \cdot n_g \cdot F_{v,Rd} =$	18929.7 N
Forza agente sul giunto per piano di taglio	$F_{v,Ed} =$	2668.6 N

$$\gg F_{v,Ed} / F_{v,G,Rd} = 0.140975 \quad Ok$$

Verifiche "lato acciaio" (Nodo n. 32, CMB n. 7)

Calcolo resistenze

Resistenza a taglio degli spinotti		$F_{vb,Rd} = 0.5 \cdot f_{tb} \cdot 2 \cdot A_{res} / \gamma_{M2} =$			54286.7 N
Conn.	$F_{b,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{b,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]	
1	32388.9	32388.9	31753.9	31753.9	
2	32388.9	32388.9	48027.7	48027.7	
3	32388.9	32388.9	48027.7	48027.7	
4	32388.9	32388.9	31753.9	31753.9	

Legenda

$F_{b,x,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \varnothing \cdot S_s / \gamma_{M2}$	resistenza a rifollamento anima staffa in direzione x
$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{b,x,Rd}]$	resistenza a taglio di progetto in direzione x
$F_{b,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \varnothing \cdot S_s / \gamma_{M2}$	resistenza a rifollamento anima staffa in direzione y
$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{b,y,Rd}]$	resistenza a taglio di progetto in direzione y

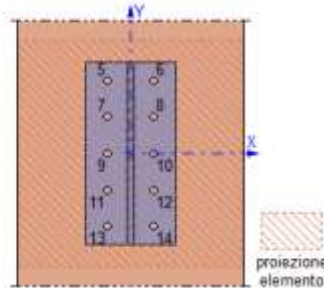
Verifica connettori

Conn.	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	FV	VER
1	1271.2	31753.9	0.040033	Ok
2	1271.2	48027.7	0.026468	Ok
3	1271.2	48027.7	0.026468	Ok
4	1271.2	31753.9	0.040033	Ok

Legenda

$F_{v,Ed}$	forza di taglio agente sullo spinotto
$F_{v,Rd}$	resistenza a taglio di progetto dello spinotto
$FV = F_{v,Ed} / F_{v,Rd}$	
VER $\rightarrow FV \leq 1$	

N	X [mm]	Y [mm]
5	-21.0	64.0
6	21.0	64.0
7	-21.0	32.0
8	21.0	32.0
9	-21.0	0.0
10	21.0	0.0
11	-21.0	-32.0
12	21.0	-32.0
13	-21.0	-64.0
14	21.0	-64.0



Verifica unione staffa a T

Verifiche "lato legno" (Nodo n. 11, CMB n. 5)

Capacità caratteristica a estrazione della vite	$F_{ax,Rk} = (\pi \cdot \varnothing_{ef} \cdot l_{ef})^{0.8} \cdot f_{ax,k} =$	4339.9 N
l_{ef}	lunghezza di penetrazione della della parte filettata meno un diametro della vite	
$f_{ax,k} = 3.6 \cdot 10^{-3} \cdot \rho_k^{1.5}$	resistenza caratteristica a estrazione della vite in direzione ortogonale alle fibre	

Momento caratteristico di snervamento	$M_{y,Rk} = 0.3 \cdot f_{tb} \cdot \varnothing_{ef}^{2.6} =$	7407.6 N mm
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Resistenza caratteristica a rifollamento par. alle fibre	$f_{h,0,k} = 0.082 \cdot (1 - 0.01 \cdot \varnothing_{ef}) \cdot \rho_k =$	33.55 N/mm ²
Coefficiente di essenza legnosa	$k_{90} = 1.35 + 0.015 \cdot \varnothing_{ef} =$	1.406
Angolo di inclinazione del carico rispetto alle fibre	$\alpha =$	0.00000°
Resistenza caratteristica a rifollamento secondo α	$f_{h,\alpha,k} = f_{h,0,k} / (k_{90} \cdot \sin^2 \alpha + \cos^2 \alpha) =$	33.55 N/mm ²

Equazioni di Johansen: piastra "spessa" in una connessione a singolo taglio.

Capacità di carico per piano di taglio	$F_{v,Rk} = \min [F_{v,Rk,c} , F_{v,Rk,d} , F_{v,Rk,e}] =$	3302.3 N
$F_{v,Rk,c} = f_{h,\alpha,k} \cdot t \cdot \varnothing_{ef} \cdot [(2 + 4 \cdot M_{y,Rk} / (f_{h,\alpha,k} \cdot \varnothing_{ef} \cdot t^2))^{0.5} - 1] + E_{fune,c} =$	4083.4 N	
$F_{v,Rk,d} = 2.3 \cdot (M_{y,Rk} \cdot f_{h,\alpha,k} \cdot \varnothing_{ef})^{0.5} + E_{fune,d} =$	3302.3 N	
$F_{v,Rk,e} = f_{h,\alpha,k} \cdot t \cdot \varnothing_{ef} =$	6775.1 N	
$E_{fune,c} = \min [L_{Ef} \cdot F_{v,Rk,c} , F_{ax,Rk} / 4] =$	1085.0 N	
$E_{fune,d} = \min [L_{Ef} \cdot F_{v,Rk,d} , F_{ax,Rk} / 4] =$	1085.0 N	

Resistenza di progetto della vite per piano di taglio	$F_{v,Rd} = k_{mod} \cdot F_{v,Rk} / \gamma_m =$	1320.9 N
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Numero efficace viti per ogni gruppo par. alle fibre:

Carico parallelo alle fibre

($a_1 = 32.00$ mm interasse connettori in direzione delle fibre)

$$n_{ef,||} = \min [n , n^{0.9} \cdot (a_1 / (13 \cdot \varnothing_{ef}))^{0.25}] = 3.834$$

Carico perpendicolare alle fibre

$$n_{ef,\perp} = n = 5.000$$

Carico reale (secondo α)

$$n_{ef,\alpha} = n_{ef,||} + (n_{ef,\perp} - n_{ef,||}) \cdot \alpha / 90 = 3.834$$

Numero di gruppi par. alle fibre

$$n_g = 2$$

Resistenza di progetto del giunto per piano di taglio

$$F_{v,G,Rd} = n_{ef,\alpha} \cdot n_g \cdot F_{v,Rd} = 10128.9 \text{ N}$$

Forza agente sul giunto per piano di taglio

$$F_{v,Ed} = 5337.2 \text{ N}$$

Resistenza di progetto ad estrazione della vite

$$F_{ax,Rd} = k_{mod} \cdot F_{ax,Rk} / \gamma_m = 1736.0 \text{ N}$$

Numero efficace viti presenti nel giunto

$$n_{ef} = n^{0.9} = 7.943$$

Resistenza di progetto ad estrazione del giunto

$$F_{ax,G,Rd} = n_{ef} \cdot F_{ax,Rd} = 13789.2 \text{ N}$$

Forza assiale agente sul giunto

$$F_{ax,Ed} = 0.0 \text{ N}$$

$$\gg (F_{ax,Ed} / F_{ax,G,Rd})^2 + (F_{v,Ed} / F_{v,G,Rd})^2 = 0.526929 \quad \text{Ok}$$

Verifiche "lato acciaio"

Calcolo resistenze

Resistenza a trazione delle viti

$$F_{tb,Rd} = 0.9 \cdot f_{tb} \cdot A_{res} / \gamma_{M2} = 5229.6 \text{ N}$$

Resistenza a punzonamento ala staffa

$$B_{p,Rd} = 0.6 \cdot \pi \cdot d_m \cdot S_s \cdot f_{tk} / \gamma_{M2} = 38905.5 \text{ N}$$

Resistenza a trazione di progetto

$$F_{t,Rd} = \min [F_{tb,Rd} , B_{p,Rd}] = 5229.6 \text{ N}$$

Resistenza a taglio delle viti

$$F_{vb,Rd} = 0.5 \cdot f_{tb} \cdot A_{res} / \gamma_{M2} = 2905.3 \text{ N}$$

Conn.	$F_{b,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{b,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]
5	6566.8	2905.3	7576.2	2905.3
6	6566.8	2905.3	7576.2	2905.3
7	6566.8	2905.3	10535.7	2905.3
8	6566.8	2905.3	10535.7	2905.3
9	6566.8	2905.3	10535.7	2905.3
10	6566.8	2905.3	10535.7	2905.3
11	6566.8	2905.3	10535.7	2905.3
12	6566.8	2905.3	10535.7	2905.3
13	6566.8	2905.3	7576.2	2905.3
14	6566.8	2905.3	7576.2	2905.3

Legenda

$$F_{b,x,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \varnothing \cdot S_s / \gamma_{M2}$$

$$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{b,x,Rd}]$$

$$F_{b,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \varnothing \cdot S_s / \gamma_{M2}$$

$$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{b,y,Rd}]$$

resistenza a rifollamento ala staffa in direzione x

resistenza a taglio di progetto in direzione x

resistenza a rifollamento ala staffa in direzione y

resistenza a taglio di progetto in direzione y

Verifica connettori

• Taglio e trazione (Nodo n. 32, CMB n. 6)

Conn.	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_1	VER
5	533.7	2905.3	1.9	5229.6	0.183957	Ok
6	533.7	2905.3	1.9	5229.6	0.183957	Ok
7	533.7	2905.3	1.9	5229.6	0.183957	Ok
8	533.7	2905.3	1.9	5229.6	0.183957	Ok
9	533.7	2905.3	1.9	5229.6	0.183957	Ok
10	533.7	2905.3	1.9	5229.6	0.183957	Ok
11	533.7	2905.3	1.9	5229.6	0.183957	Ok
12	533.7	2905.3	1.9	5229.6	0.183957	Ok
13	533.7	2905.3	1.9	5229.6	0.183957	Ok
14	533.7	2905.3	1.9	5229.6	0.183957	Ok

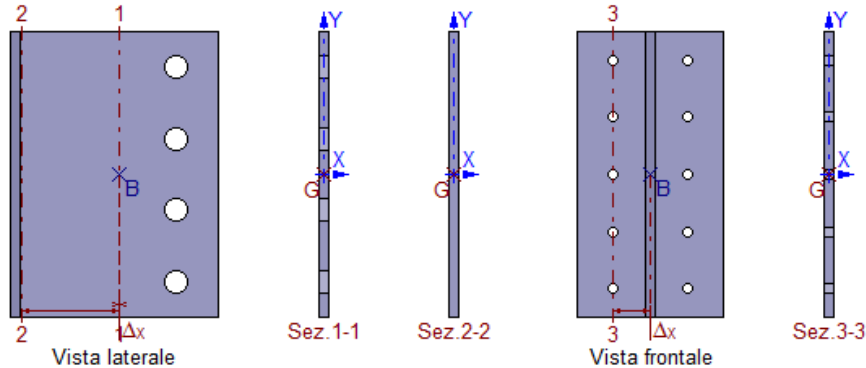
• Trazione (Nodo n. 32, CMB n. 6)

Conn.	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_2	VER
5	1.9	5229.6	0.000356	Ok
6	1.9	5229.6	0.000356	Ok
7	1.9	5229.6	0.000356	Ok
8	1.9	5229.6	0.000356	Ok
9	1.9	5229.6	0.000356	Ok
10	1.9	5229.6	0.000356	Ok
11	1.9	5229.6	0.000356	Ok
12	1.9	5229.6	0.000356	Ok
13	1.9	5229.6	0.000356	Ok
14	1.9	5229.6	0.000356	Ok

• Legenda

$F_{v,Ed}$ forza di taglio agente sulla vite
 $F_{v,Rd}$ resistenza a taglio di progetto della vite
 $F_{t,Ed}$ forza di trazione agente sulla vite
 $F_{t,Rd}$ resistenza a trazione di progetto della vite
 $FV_1 = F_{v,Ed} / F_{v,Rd} + F_{t,Ed} / (1.4 \cdot F_{t,Rd})$
 $FV_2 = F_{t,Ed} / F_{t,Rd}$
 VER $\rightarrow FV_i \leq 1$

Verifica staffa a T



Caratteristiche sezioni

Sez.	Δ_x [mm]	Y_G [mm]	X_G [mm]	A [mm ²]	A_{VY} [mm ²]	A_{VX} [mm ²]	J_{XG} [mm ⁴]	W_{XG}^* [mm ³]	J_{YG} [mm ⁴]	W_{YG}^* [mm ³]
1-1	0.00	0.00	0.00	648.0	648.0	-	1424000	17800	-	-
2-2	85.60	0.00	0.00	960.0	960.0	960.0	2048000	25600	2880	960
3-3	21.00	0.00	0.00	780.0	780.0	780.0	1679360	20992	2664	888

*valori minimi

Sollecitazioni massime

Sez.	Nodo.CMB	V_Y [N]	V_X [N]	N [N]	M_Y [N mm]	M_X [N mm]
1-1	32.6	-5337.2	-	18.6	-	0.0
2-2	17.51	-478.8	-156.8	-161.0	-210763.1	40985.3
3-3	16.10	-88.5	-364.3	0.0	7650.3	-1858.5

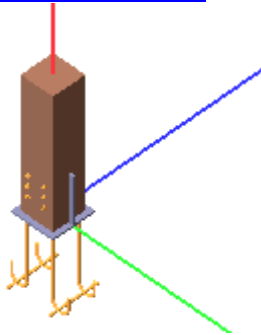
Tensioni massime

Sez.	τ_{MED} [N/mm ²]	σ_{MAX} [N/mm ²]	σ_{ID} [N/mm ²]	FV	VER
1-1	8.24	0.03	14.27	0.05	Ok
2-2	0.52	-221.31	221.32	0.85	Ok
3-3	0.48	8.70	8.74	0.03	Ok

Legenda

$FV = \sigma_{ID} / f_d$ ($f_d = f_{yk} / \gamma_{M0} = 261.90$ N/mm²)
 VER $\rightarrow FV \leq 1$

PORTALE LEGNO LAMELLARE - Verifica secondo il D.M. 17/01/2018 dei nodi: 14, 22, 24, 30, 34, 36, 40, 69



Classe di servizio 2

L'opera è caratterizzata da un'umidità del materiale in equilibrio con l'ambiente a una temperatura di 20°C e un'umidità relativa dell'aria circostante che supera l'85% solo per poche settimane all'anno.

Coefficiente di sicurezza utilizzato

$$\gamma_M = 1,50$$

Colonna

Dimensioni sezione (B_{el} x H_{el}): 160 x 200 mm

Legno: GL28h - UNI EN 14080:2013

Essenza: conifere

Massa volumica caratteristica:

$$\rho_k = 425 \text{ Kg/m}^3$$

Massa volumica media:

$$\rho_m = 460 \text{ Kg/m}^3$$

Resistenza caratteristica a trazione parallela alle fibre:

$$f_{t,0,k} = 22.30 \text{ N/mm}^2$$

Resistenza caratteristica a trazione ortogonale alle fibre:

$$f_{t,90,k} = 0.50 \text{ N/mm}^2$$

Resistenza caratteristica a compressione parallela alle fibre:

$$f_{c,0,k} = 28.00 \text{ N/mm}^2$$

Resistenza caratteristica a compressione ortogonale alle fibre:

$$f_{c,90,k} = 2.50 \text{ N/mm}^2$$

Resistenza caratteristica a taglio:

$$f_{v,k} = 3.50 \text{ N/mm}^2$$

Resistenza caratteristica a flessione:

$$f_{m,k} = 28.00 \text{ N/mm}^2$$

Coefficiente correttivo k_{mod} :

Classe durata carico	permanente	lunga	media	breve	istantanea
Classe di servizio 1	0.60	0.70	0.80	0.90	1.10
Classe di servizio 2	0.60	0.70	0.80	0.90	1.10
Classe di servizio 3	0.50	0.55	0.65	0.70	0.90

Dati unione

Unione realizzata con l'utilizzo di una staffa d'acciaio a T con l'ala ancorata al calcestruzzo e l'anima inserita nell'elemento: la staffa ha dimensioni (S_s x H_s x L_{anima} x B_{ala}) 12 x 260 x 300 x 260 mm.

Materiale staffa: Acciaio S275

Tensione caratteristica di snervamento: $f_{yk} = 275 \text{ N/mm}^2$

Tensione caratteristica di rottura: $f_{tk} = 430 \text{ N/mm}^2$

Dati connettori elemento-staffa

Bulloni: M12

Diametro $\emptyset = 12 \text{ mm}$

Limite "Johansen" per E_{fune} $L_{Ef} = 25 \%$

Numero $n = 6$ (2 righe e 3 colonne)

Diametro rondella $\emptyset_r = 22.00 \text{ mm}$

Materiale: Classe 8.8 (NTC18/EC3)

Tensione di snervamento: $f_{yb} = 640 \text{ N/mm}^2$

Tensione di rottura: $f_{tb} = 800 \text{ N/mm}^2$

Dati connettori ancoraggio staffa

Bulloni: M16

Diametro $\emptyset = 16 \text{ mm}$

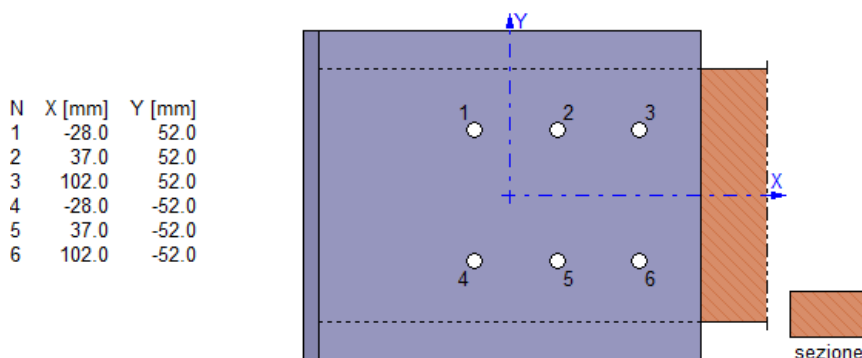
Limite "Johansen" per E_{fune} $L_{Ef} = 25 \%$
 Numero $n = 4$ (2 righe e 2 colonne)
 Materiale: Classe 8.8 (NTC18/EC3)
 Tensione di snervamento: $f_{yb} = 640 \text{ N/mm}^2$
 Tensione di rottura: $f_{tb} = 800 \text{ N/mm}^2$

Sollecitazioni:

N.C.D.	V2 [N]	V3 [N]	N [N]	M2 [N mm]	M3 [N mm]	T [N mm]
24.11.P	310.8	0.0	8692.7	-11.0	-679483.0	0.9
24.13.P	-86.2	0.0	-33148.1	11.0	441405.0	-0.9
24.14.M	-75.3	0.0	-35753.5	11.0	428156.0	-0.9
36.45.P	106.8	224.8	-1504.4	-814256.0	-118177.0	7934.0

Nota: la prima colonna della tabella riporta il numero del nodo (N), il numero della combinazione (C) e l'iniziale della classe di durata del carico (D: Permanente; Lunga durata; Media durata; Breve durata; Istantaneo).

Verifica unione elemento-staffa



Verifiche "lato legno" (Nodo n. 24, CMB n. 13)

Capacità caratteristica a estrazione del bullone $F_{ax,Rk} = F_{cr,Rd} = 1855.5 \text{ N}$
 $F_{cr,Rd} = 3 \cdot f_{c,90,k} \cdot (\phi_r^2 - \phi_f^2) \cdot \pi / 4$ capacità di carico rondella
 $\phi_f = 13.0 \text{ mm}$ diametro del foro

Momento caratteristico di snervamento $M_{y,Rk} = 0.3 \cdot f_{tb} \cdot \phi^{2.6} = 153490.8 \text{ N mm}$

Resistenza caratteristica a rifollamento par. alle fibre $f_{h,0,k} = 0.082 \cdot (1 - 0.01 \cdot \phi) \cdot \rho_k = 30.67 \text{ N/mm}^2$
 Coefficiente di essenza legnosa $k_{90} = 1.35 + 0.015 \cdot \phi = 1.530$

Equazioni di Johansen: piastra di qualunque spessore elemento centrale di una connessione a doppio taglio.

Conn.	$\alpha [^\circ]$	$f_{h,\alpha,k} [\text{N/mm}^2]$	$F_{v,Rk,f} [\text{N}]$	$F_{v,Rk,g} [\text{N}]$	$F_{v,Rk,h} [\text{N}]$	$E_{fune,g} [\text{N}]$	$E_{fune,h} [\text{N}]$	$F_{v,Rk} [\text{N}]$
1	7.80094	30.37	34167.9	16879.1	17666.4	463.9	463.9	16879.1
2	0.13239	30.67	34501.4	17017.8	17750.2	463.9	463.9	17017.8
3	8.06068	30.35	34145.7	16869.9	17660.8	463.9	463.9	16869.9
4	9.99823	30.19	33959.0	16792.3	17613.7	463.9	463.9	16792.3
5	0.17036	30.67	34501.3	17017.7	17750.2	463.9	463.9	17017.7
6	10.32835	30.15	33923.6	16777.5	17604.8	463.9	463.9	16777.5

Legenda

α angolo di inclinazione del carico rispetto alle fibre

$f_{h,\alpha,k} = f_{h,0,k} / (k_{90} \cdot \sin^2 \alpha + \cos^2 \alpha)$ resistenza caratteristica a rifollamento secondo α

$F_{v,Rk,f} = f_{h,\alpha,k} \cdot t \cdot \phi$

$F_{v,Rk,g} = f_{h,\alpha,k} \cdot t \cdot \phi \cdot [(2 + 4 \cdot M_{y,Rk} / (f_{h,\alpha,k} \cdot \phi \cdot t^2))^{0.5} - 1] + E_{fune,g}$

$F_{v,Rk,h} = 2.3 \cdot (M_{y,Rk} \cdot f_{h,\alpha,k} \cdot \phi)^{0.5} + E_{fune,h}$

$E_{fune,g,h} = \min [L_{Ef} \cdot F_{v,Rk,g,h}, F_{ax,Rk} / 4]$

$F_{v,Rk} = \min [F_{v,Rk,f}, F_{v,Rk,g}, F_{v,Rk,h}]$ capacità di carico per piano di taglio

Verifica connettori

Conn.	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	FV	VER
1	3137.9	6751.6	0.464754	Ok
2	3108.8	6807.1	0.456703	Ok
3	3139.8	6748.0	0.465302	Ok
4	2453.1	6716.9	0.365217	Ok
5	2415.9	6807.1	0.354907	Ok
6	2455.7	6711.0	0.365915	Ok

Legenda

$F_{v,Ed}$ forza di taglio agente sul bullone per piano di taglio

$F_{v,Rd} = k_{mod} \cdot F_{v,Rk} / \gamma_m$ resistenza di progetto del bullone per piano di taglio

$FV = F_{v,Ed} / F_{v,Rd}$

VER $\rightarrow FV \leq 1$

Verifiche "lato acciaio" (Nodo n. 24, CMB n. 14)**Calcolo resistenze**

Resistenza a taglio dei bulloni		$F_{vb,Rd} = 0.5 \cdot f_{tb} \cdot 2 \cdot A_{res} / \gamma_{M2} =$			54286.7 N
Conn.	$F_{b,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{b,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]	
1	129000.0	54286.7	129000.0	54286.7	
2	129000.0	54286.7	129000.0	54286.7	
3	129000.0	54286.7	129000.0	54286.7	
4	129000.0	54286.7	129000.0	54286.7	
5	129000.0	54286.7	129000.0	54286.7	
6	129000.0	54286.7	129000.0	54286.7	

Legenda

$F_{b,x,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \emptyset \cdot S_s / \gamma_{M2}$

$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{b,x,Rd}]$

$F_{b,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \emptyset \cdot S_s / \gamma_{M2}$

$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{b,y,Rd}]$

resistenza a rifollamento anima staffa in direzione x

resistenza a taglio di progetto in direzione x

resistenza a rifollamento anima staffa in direzione y

resistenza a taglio di progetto in direzione y

Verifica connettori

Conn.	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	FV	VER
1	6682.5	54286.7	0.123097	Ok
2	6631.1	54286.7	0.122149	Ok
3	6685.7	54286.7	0.123155	Ok
4	5351.2	54286.7	0.098572	Ok
5	5286.8	54286.7	0.097386	Ok
6	5355.1	54286.7	0.098645	Ok

Legenda

$F_{v,Ed}$ forza di taglio agente sul bullone

$F_{v,Rd}$ resistenza a taglio di progetto del bullone

$FV = F_{v,Ed} / F_{v,Rd}$

VER $\rightarrow FV \leq 1$

Verifica connettori ala staffa**Calcolo resistenze**

Resistenza a trazione dei bulloni	$F_{tb,Rd} = 0.9 \cdot f_{tb} \cdot A_{res} / \gamma_{M2} =$	90333.1 N
Resistenza a punzonamento ala staffa	$B_{p,Rd} = 0.6 \cdot \pi \cdot d_m \cdot S_s \cdot f_{tk} / \gamma_{M2} =$	194527.4 N
Resistenza a trazione di progetto	$F_{t,Rd} = \min [F_{tb,Rd} , B_{p,Rd}] =$	90333.1 N

Resistenza a taglio dei bulloni		$F_{vb,Rd} = 0.5 \cdot f_{tb} \cdot A_{res} / \gamma_{M2} =$			50185.1 N
Conn.	$F_{b,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{b,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]	
7	172000.0	50185.1	172000.0	50185.1	
8	172000.0	50185.1	172000.0	50185.1	

9	172000.0	50185.1	172000.0	50185.1
10	172000.0	50185.1	172000.0	50185.1

Legenda

$F_{b,x,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \emptyset \cdot S_s / \gamma_{M2}$	resistenza a rifollamento ala staffa in direzione x
$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{b,x,Rd}]$	resistenza a taglio di progetto in direzione x
$F_{b,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \emptyset \cdot S_s / \gamma_{M2}$	resistenza a rifollamento ala staffa in direzione y
$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{b,y,Rd}]$	resistenza a taglio di progetto in direzione y

Verifica connettori

- Taglio e trazione (Nodo n. 24, CMB n. 11)

Conn.	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_1	VER
7	77.7	50185.1	4191.6	90333.1	0.034693	Ok
8	77.7	50185.1	4191.6	90333.1	0.034692	Ok
9	77.7	50185.1	558.7	90333.1	0.005966	Ok
10	77.7	50185.1	558.7	90333.1	0.005966	Ok

- Trazione (Nodo n. 24, CMB n. 11)

Conn.	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_2	VER
7	4191.6	90333.1	0.046402	Ok
8	4191.6	90333.1	0.046402	Ok
9	558.7	90333.1	0.006185	Ok
10	558.7	90333.1	0.006184	Ok

- Legenda

$F_{v,Ed}$	forza di taglio agente sul bullone
$F_{v,Rd}$	resistenza a taglio di progetto del bullone
$F_{t,Ed}$	forza di trazione agente sul bullone
$F_{t,Rd}$	resistenza a trazione di progetto del bullone
$FV_1 = F_{v,Ed} / F_{v,Rd} + F_{t,Ed} / (1.4 \cdot F_{t,Rd})$	
$FV_2 = F_{t,Ed} / F_{t,Rd}$	
VER $\rightarrow FV_i \leq 1$	

Verifica staffa

Caratteristiche sezioni

Sez.	Δ_x [mm]	Y_G [mm]	X_G [mm]	A [mm ²]	A_{VY} [mm ²]	A_{VX} [mm ²]	J_{XG} [mm ⁴]	W_{XG}^* [mm ³]	J_{YG} [mm ⁴]	W_{YG}^* [mm ³]
1-1	65.00	0.00	0.00	2925.0	2925.0	-	17429530	134073	-	-
2-2	187.00	0.00	0.00	3250.0	3250.0	3250.0	18308330	140833	42318	6771
3-3	80.00	0.00	0.00	2825.0	2825.0	2825.0	15588330	119910	36784	5885
valori minimi										

Sollecitazioni massime

Sez.	Nodo.CMB	V_Y [N]	V_X [N]	N [N]	M_Y [N mm]	M_X [N mm]
1-1	24.14	75.3	-	-35753.5	-	-433050.5
2-2	36.45	-106.8	224.8	-1504.4	856293.6	138148.6
3-3	24.14	37.7	-17876.8	0.0	1430140.0	3012.0

Tensioni massime

Sez.	τ_{MED} [N/mm ²]	σ_{MAX} [N/mm ²]	σ_{ID} [N/mm ²]	FV	VER
1-1	0.03	-15.45	15.45	0.06	Ok
2-2	0.08	-127.91	127.91	0.49	Ok
3-3	6.33	243.02	243.27	0.93	Ok

Legenda

$FV = \sigma_{ID} / f_d$	($f_d = f_{yk} / \gamma_{M0} = 261.90$ N/mm ²)
VER $\rightarrow FV \leq 1$	

Ancoraggio staffa a T

Tirafondi con uncini e bolzoni

Lunghezza tirafondi	$L_t =$	640 mm (rettilineo 425 mm, arco 151 mm, terminale 64 mm)
Lunghezza minima	$L_{t,min} =$	40Ø (640 mm) Ok
Lunghezza di aderenza	$L_a =$	745 mm (l'uncino è considerato come un tratto rettilineo lungo 20Ø)
Diametro bolzoni	$\varnothing_b =$	16 mm

Calcestruzzo

Resistenza cubica caratteristica a compressione	$R_{ck} =$	35.00 N/mm ²
Resistenza cilindrica caratteristica a compressione	$f_{ck} = 0.83 \cdot R_{ck} =$	29.05 N/mm ²
Resistenza di calcolo a compressione	$f_{cd} = \alpha_{cc} \cdot f_{ck} / \gamma_C =$	16.46 N/mm ²
Resistenza caratteristica a trazione	$f_{ctk} = 0.7 \cdot 0.30 \cdot f_{ck}^{2/3} =$	1.98 N/mm ²
Resistenza tangenziale di aderenza di calcolo	$f_{bd} = 2.25 \cdot \eta \cdot f_{ctk} / \gamma_C =$	2.98 N/mm ²

Compressione massima calcestruzzo (Nodo n. 24, CMB n. 14)

$$p_{max} = 0.68 \text{ N/mm}^2 < f_{cd} \text{ Ok}$$

Verifica ancoraggio

Si verifica considerando la massima sollecitazione di trazione agente nei tirafondi (Nodo n. 24, CMB n. 11)

•Trazione di progetto dell'ancoraggio	$F_{t,an,Ed} = \max [F_{t,Ed}] =$	4191.6 N
•Resistenza a trazione per aderenza	$F_{t,ad,Rd} = L_a \cdot \pi \cdot \varnothing \cdot f_{bd} =$	111472.4 N
$F_{t,ad,Rd} > F_{t,an,Ed} \text{ Ok}$		