

E Appendix E

IDL programmes and measurements

The following IDL codes were written to plot the spectra obtained from the New Technology Telescope (NTT) at La Silla, Chile and the Anglo Australian Telescope (AAT) in Australia. The NTT code is fully described in Section 2.2.1 and the AAT code is fully described in Section 2.2.2.

1. `lb_dibs_2012.pro`: Code to plot all spectra obtained at the NTT
2. `lmcb.pro`: Code to plot the LMC blue spectra obtained at the AAT
3. `lmcr.pro`: Code to plot the LMC red spectra obtained at the AAT
4. `smcb.pro`: Code to plot the SMC blue spectra obtained at the AAT
5. `smcr.pro`: Code to plot the SMC red spectra obtained at the AAT

The following data files contain all the measurements made by the above IDL codes. Each line corresponds to the measurements made by the IDL code for on target star. Some of these data files are large and the page will need expanding a lot to see the data displayed on a single line.

1. `measures_LB.dat`: Measurement taken by running IDL code `lb_dibs_2012.pro`
2. `measures_lmcb.dat`: Measurement taken by running IDL code `lmcb.pro`
3. `measures_lmcr.dat`: Measurement taken by running IDL code `lmcr.pro`
4. `measures_smcb.dat`: Measurement taken by running IDL code `smcb.pro`
5. `measures_smcr.dat`: Measurement taken by running IDL code `smcr.pro`

On the following page there is a table for Local Bubble project which displays the column number and description of the entry in that column. This is a subset of the measurements made from that data

The four data files for the Magellanic Cloud data are included on the CD in full and are exactly as described in the discussion of the code in Chapter 2.

E.1 measures_LB.dat

NOTE

Column 8: ‘Selection value’ is a value calculated to aid a decision on whether or not a spectral feature detection was considered to be valid. A value greater than 20 was considered a significant detection.

a Flag value of 1 denotes a true detection of spectral feature.

a Flag value of 0 denotes a false detection of spectral feature.

Table E.1: measurements made by the IDL code lb_dibs_2012.pro.

Column	Description	Column	Description
1	target name	2	RA
3	DEC	4	gl
5	gb	6	Distance
7	EW 5780 Å DIB	8	error in EW 5780 Å DIB
9	selection value 5780 Å	10	Chi squared 5780 Å
11	EW 5797 Å DIB	12	error in EW 5797 Å DIB
13	selection value 5797 Å	14	Chi squared 5797 Å
15	EW 5850 Å DIB	16	error in EW 5850 Å DIB
17	selection value 5850 Å	18	Chi squared 5850 Å
19	EW He	20	error in He
21	selection value He	22	Chi squared He
23	EW Na 1st	24	error in Na 1st
25	EW Na 2nd	26	error in Na 2nd
27	selection value Na 1st	28	selection value Na 2nd
29	Chi squared Na	30	EW 6196 Å DIB
31	error in EW 6196 Å DIB	32	EW 6203 Å DIB
33	error in EW 6203 Å DIB	34	selection value 6196 Å
35	selection value 6203 Å	36	Chi squared
37	EW 6270 Å DIB	38	error in EW 6270 Å DIB
39	selection value 6270 Å	40	Chi squared 6270 Å
41	EW 6283 Å DIB	42	error in EW 6283 Å DIB
43	selection value 6283 Å	44	Chi squared 6283 Å
45	EW 6614 Å DIB	44	error in EW 66614 Å DIB
47	selection value 66614 Å	48	Chi squared 6614 Å
49	flag 5780 Å DIB	50	flag 5797 Å DIB
51	flag 5850 Å DIB	52	flag He
53	flag Na 1st	54	flag Na 2nd
55	flag Na dip	56	flag 5196 Å DIB
57	flag 6203 Å DIB	58	flag 6270 Å DIB
59	flag 6283 Å DIB	60	flag 6614 Å DIB

lb_dibs_2012.pro

PRO lb_dibs

```
;=====
;This code plots the spectra obtained at the NTT in La Silla during March and august 2011 and August 2012 for the Local bubble
project. Each spectrum is plotted with the absorption lines of He, Na and the main DIBs that lie within the wavelength range, the EW of
each absorption line is calculated together with the error in that measurement. Each spectrum has eight plots associated with it that
show the region around each of the absorption lines of interest. The first plot for each spectrum has the label of the target star included.
```

```
;=====
```

```
spectrum = FLTARR(2022)
```

```
wavelength = FLTARR(2022)
```

```
wavecorrect= FLTARR(2022)
```

```
wavelengthc= FLTARR(2022)
```

```
ra = FLTARR(238)
```

```
dec = FLTARR(238)
```

```
spt = STRARR(238)
```

```
chisq = FLTARR(238)
```

```
chi2 = FLTARR(238)
```

star = STRARR(238)

info = STRARR(238)

perror = FLTARR(7)

baseb = FLTARR(6)

basec = FLTARR(3)

base5780 = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]},9)

const5780 = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]},4)

const5797 = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]},4)

base5850 = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]},3)

const5850 = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]},4)

baseHe = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]},3)

constHe = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]},4)

baseNa2nd = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]},3)

baseNa1 = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]},3)

Na2nd = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]},5)

constNa1 = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]},5)

const6196_6203 = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]},7)

const6270 = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]},4)

const6283 = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]},5)

const6614 = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]},4)

nspectra = 238

ninfo = 238

stari = ''

starm = ''

sp = ''

cm = FLTARR(5)

cw = FLTARR(5)

wc = FLTARR(5, 2)

wave5780ave=5760. + FINDGEN(200)*0.25

spect5780ave=0.*wave5780ave

wave5797ave=5760. + FINDGEN(200)*0.25

spect5797ave=0.*wave5797ave

wave5850ave=5835. + FINDGEN(200)*0.25

spect5850ave=0.*wave5850ave

waveHeave=5868. + FINDGEN(200)*0.25

spectHeave=0.*waveHeave

waveNa1ave=5880. + FINDGEN(200)*0.25

spectNa1ave=0.*waveNa1ave

wave6196_6203ave=6180. + FINDGEN(200)*0.25

spect6196_6203ave=0.*wave6196_6203ave

wave6270ave=6255. + FINDGEN(200)*0.25

spect6270ave=0.*wave6270ave

wave6283ave=6265. + FINDGEN(200)*0.25

spect6283ave=0.*wave6283ave

wave6614ave=6600. + FINDGEN(200)*0.25

```
spect6614ave=0.*wave6614ave
```

```
TVLCT, 255, 0, 0, 1 ;red
```

```
TVLCT, 0, 255, 0, 2 ;green
```

```
TVLCT, 0, 0, 255, 3 ;blue
```

```
;=====
```

```
OPENR, 1, 'redfits_lb_dibs_2012.cat'
```

```
FOR i = 0, nspectra -1 DO BEGIN
```

```
  READF, 1, stari, format='(A13)'
```

```
  star[i] =stari
```

```
CLOSE, 1
```

```
OPENR, 1, 'target_info.dat'
```

```
FOR m = 0, ninfo - 1 DO BEGIN
```



```
READF, 1, starm, r1, r2, r3, d1, d2, d3, pm1, pm2, p, Vm, sp,  
FORMAT='(A8,1X,I2,1X,I2,1X,F4.1,1X,I3,1X,I2,1X,F4.1,1X,F7.2,1X,F7.2,1X,F5.2,1X,F5.3,1X,A10)'
```

```
ra[m] = r1 + r2/60. + r3/3600.
```

```
dec[m] = d1 + d1/ABS(d1)*(d2/60. + d3/3600.)
```

```
spt[m] = sp
```

```
dist[m] = p
```

```
ENDFOR
```

```
OPENW, 2, 'measures.dat'
```

```
OPENW, 3, 'plots.dat'
```

```
;convert RA and DEC into galactic coordinates.
```

```
gl =FLTARR(238)
```

```
gb =FLTARR(238)
```

```
glc    =FLTARR(238)
```

```
gbc    =FLTARR(238)
```

```
npoints = 238
```

```
OPENR, 4, 'ra_dec.dat'
```

```
OPENW, 5, 'galcoord.dat'
```

```
FOR n = 0, npoints - 1 DO BEGIN
```

```
  READF, 4, rac, decc, FORMAT='(F5.2,1X,F6.2)'
```

```
  GLACTC,(rac),(decc),2000,gl,gb,1
```

```
  PRINTF,5, gl, gb
```

```
  glc[n] = gl
```

```
  gbc[n] = gb
```

```
ENDFOR
```

```
SET_PLOT,'PS'
```

```
DEVICE, /COLOR, /landscape
```

```
!X.MARGIN=[10,3]
```

```
!Y.MARGIN=[4,2]
```

```
!X.MARGIN=!X.MARGIN/3
```

```
!Y.MARGIN=!Y.MARGIN/3
```

```
!P.MULTI=[0, 8, 8]
```

```
!x.charsize=0.5
```

```
!y.charsize=0.5
```

```
FOR k = 0, nspectra -1 DO BEGIN
```

```
    spectrum  = MRDFITS(star[k], 0, header)
```

```
    name      = FXPAR(header, 'OBJECT')
```

```
    npixels   = FXPAR(header, 'NAXIS1')
```

```
    wavestart = FXPAR(header, 'CRVAL1')
```

```
pixelstart = FXPAR(header, 'CRPIX1')
```

```
wavestep  = FXPAR(header, 'CDELTA1')
```

```
wavelength = wavestart + (FINDGEN(npixels)+1-pixelstart)*wavestep
```

```
valid=where(wavelength gt 6272. and wavelength lt 6280.)
```

```
wavecorrect=FINDGEN(npixels)
```

```
wavecorrect[*]=6278.-wavelength(where(ABS(spectrum-MIN(spectrum(valid))) lt 0.0001))
```

```
wavelength=wavelength+wavecorrect
```

```
;=====
```

```
;FOR THE 5780 DIB
```

```
measures5780  = FLTARR(4, 238)
```

```
pcerror      = FLTARR(4, 238)
```

```
ew1          = FLTARR(238)
```

```
ew1err       = FLTARR(238)
```

ew1select = FLTARR(238)

w1 = 5750

w2 = 5830

wc[0, 0] = 5765

wc[0, 1] = 5771

wc[1, 0] = 5772

wc[1, 1] = 5776

wc[2, 0] = 5785

wc[2, 1] = 5795

wc[3, 0] = 5801

wc[3, 1] = 5805

wc[4, 0] = 5806

wc[4, 1] = 5810

;XXXXXXXXXXXXXXXX baseline fitting XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

a0 = 1

a1 = 0

a2 = 0

a3 = -0.1

a4 = 5785

a5 = 0.4

a6 = -0.1

a7 = 5780.6

a8 = 1.25

polgauss = '(p[0] +p[1]*x +p[2]*x^2)+(p[3]*exp(-(X-p[4])^2/(2.*p[5]^2))))' ;

polgauss2 = '(p[0] +p[1]*x +p[2]*x^2)+(p[3]*exp(-(X-p[4])^2/(2.*p[5]^2)))) +(p[6]*exp(-(X-p[7])^2/(2.*p[8]^2))))'

base5780[3].LIMITED[1] = 1

base5780[3].LIMITS[1] = 0

$\text{base5780}[4].\text{LIMITED}[0] = 1$

$\text{base5780}[4].\text{LIMITED}[1] = 1$

$\text{base5780}[4].\text{LIMITS}[0] = a4-2.$

$\text{base5780}[4].\text{LIMITS}[1] = a4+2.$

$\text{base5780}[5].\text{LIMITED}[0] = 1$

$\text{base5780}[5].\text{LIMITED}[1] = 1$

$\text{base5780}[5].\text{LIMITS}[0] = 0.2$

$\text{base5780}[5].\text{LIMITS}[1] = 0.7$

$\text{base5780}[6].\text{LIMITED}[1] = 1$

$\text{base5780}[6].\text{LIMITS}[1] = 0$

$\text{base5780}[7].\text{LIMITED}[0] = 1$

$\text{base5780}[7].\text{LIMITED}[1] = 1$

$\text{base5780}[7].\text{LIMITS}[0] = a7-2$

$\text{base5780}[7].\text{LIMITS}[1] = a7+2$

$\text{base5780}[8].\text{LIMITED}[0] = 1$

$\text{base5780}[8].\text{LIMITED}[1] = 1$

base5780[8].LIMITS[0] = a8/2.

base5780[8].LIMITS[1] = 2.*a8

base5780[0].VALUE = a0

base5780[1].VALUE = a1

base5780[2].VALUE = a2

base5780[3].VALUE = a3

base5780[4].VALUE = a4

base5780[5].VALUE = a5

base5780[6].VALUE = a6

base5780[7].VALUE = a7

base5780[8].VALUE = a8

;=====fitting a baseline to normalise the spectrum=====

wdib = WHERE(wavelength GE w1 AND wavelength LE w2)

baseline1 = MEDIAN(spectrum[wdib])

spect1 = spectrum/baseline1


```
waveselect = WHERE((wavelength GE wc[0,0] AND wavelength LE wc[0,1]) OR (wavelength GE wc[1,0] AND wavelength LE wc[1,1])  
OR (wavelength GE wc[2,0] AND wavelength LE wc[2,1]) OR (wavelength GE wc[3,0] AND wavelength LE wc[3,1]) OR (wavelength GE  
wc[4,0] AND wavelength LE wc[4,1]) OR (wavelength GE 5773 AND wavelength LE 5789))
```

```
base = MPFITEXPR(polgauss2, wavelength[waveselect], spect1[waveselect], PARINFO=base5780, /quiet)
```

```
baseb[0]=base[0]
```

```
baseb[1]=base[1]
```

```
baseb[2]=base[2]
```

```
baseb[3]=base[3]
```

```
baseb[4]=base[4]
```

```
baseb[5]=base[5]
```

```
baseline5780 = MPEVALEXPR(polgauss, wavelength, baseb)
```

```
spect5780 = spect1/baseline5780
```

```
;XXXXXXXXXXXXXXXXXXXXXXXXXXXX DIB fitting XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
a0 = -0.1
```

$$a1 = 5780.6$$

$$a2 = 1.25$$

$$a3 = 1$$

$$\text{Gauss} = 'p[0]*\exp(-(X-p[1])^2/(2.*p[2]^2))+p[3]'$$

$$\text{const5780}[0].\text{LIMITED}[1] = 1$$

$$\text{const5780}[0].\text{LIMITS}[1] = 0$$

$$\text{const5780}[1].\text{LIMITED}[0] = 1$$

$$\text{const5780}[1].\text{LIMITED}[1] = 1$$

$$\text{const5780}[1].\text{LIMITS}[0] = a1-2$$

$$\text{const5780}[1].\text{LIMITS}[1] = a1+2$$

$$\text{const5780}[2].\text{LIMITED}[0] = 1$$

$$\text{const5780}[2].\text{LIMITED}[1] = 1$$

$$\text{const5780}[2].\text{LIMITS}[0] = a2/2$$

```
const5780[2].LIMITS[1] = 2*a2
```

```
const5780[0].VALUE      = a0
```

```
const5780[1].VALUE      = a1
```

```
const5780[2].VALUE      = a2
```

```
const5780[3].VALUE      = a3
```

```
valid    = WHERE((wavelength GE 5753 AND wavelength LE 5770) OR (wavelength GE 5800 AND wavelength LE 5830))
```

```
deviation = STDEV(spect5780[valid]-1)
```

```
weights = 0.*spect5780 + deviation
```

```
w5780    = WHERE(wavelength GE 5773 AND wavelength LE 5788)
```

```
result=MPFITEXPR(Gauss, wavelength[w5780], spect5780[w5780], weights[w5780], PARINFO=const5780, BESTNORM=chi2,  
perror=perror, /quiet)
```

```
fitted=MPEVALEXPR(Gauss, wavelength, result)
```

```
;=====scale errors=====
```

```
x          = spect5780[w5780]
```

```
chisq[k]    = chi2/N_ELEMENTS(x)
```

```
dof         = N_ELEMENTS(x) - N_ELEMENTS(result)
```

```
pcerror[*, k] = perror * SQRT (chi2/dof)
```

```
;=====
```

```
;compute equivalent width
```

```
measures5780[*, k]    = result
```

```
DIB5780              = measures5780[1, k]
```

```
ew1[k]               = -1.* result[0] * result[2] *SQRT(2*!PI)
```

```
;=====
```

```
;compute error in ew
```

```
ew1err[k]            = SQRT((SQRT(2*!PI))^2*((pcerror[0, k] * result[2])^2 + (result[0] * pcerror[2, k])^2))
```

```
ewlselect[k] = ewl[k]/ewlerr[k]
```

```
PRINTF, 2, name, spt[k], measures5780[*,k], pccerror[*,k], chisq[k], ewl[k], ewlerr[k], ewlselect[k], FORMAT='(/,A9,1X,A10,  
1X,F7.4,1X,F7.2,1X,F4.2,1X,F4.2,1X,F8.5,1X,F5.3,1X,F5.3,1X,F5.3,1X,F6.3,1X,F6.3,1X,F11.4,1x,F5.1,$)'
```

```
PRINTF, 3, name, ra[k], dec[k], glc[k], gbc[k], dist[k], ewl[k], ewlerr[k], ewlselect[k], chisq[k],  
FORMAT='(/A9,1X,F5.2,1X,F6.2,1X,F7.2,1X,F7.2,1X,F5.2,1X,F6.3,1X,F11.4,1x,F5.1,1X,F6.3,$)'
```

```
;=====
```

```
;FOR THE 5797 DIB
```

```
measures  = FLTARR(4, 238)
```

```
pcerror   = FLTARR(4, 238)
```

```
ewl        = FLTARR(238)
```

```
ewlerr     = FLTARR(238)
```

```
ewlselect  = FLTARR(238)
```

$$w1 = 5750$$

$$w2 = 5830$$

$$wc[0, 0] = 5765$$

$$a0 = -0.05$$

$$a1 = \text{DIB5780} + 16.5$$

$$a2 = 1$$

$$a3 = 1$$

$$\text{Gauss} = '(p[0] * \exp(-(X - p[1])^2 / (2 * p[2]^2))) + p[3]'$$

$$\text{pol} = 'p[0] + p[1] * x + p[2] * x^2'$$

$$\text{const5797}[0].\text{LIMITED}[1] = 1$$

$$\text{const5797}[0].\text{LIMITS}[1] = 0$$

const5797[1].LIMITED[0] = 1

const5797[1].LIMITED[1] = 1

const5797[1].LIMITS[0] = a1-0.5

const5797[1].LIMITS[1] = a1+0.5

const5797[2].LIMITED[0] = 1

const5797[2].LIMITED[1] = 1

const5797[2].LIMITS[0] = a2/2

const5797[2].LIMITS[1] = 2*a2

const5797[0].VALUE = a0

const5797[1].VALUE = a1

const5797[2].VALUE = a2

const5797[3].VALUE = a3

;=====fitting a baseline to normalise the spectrum=====

wdib = WHERE(wavelength GE w1 AND wavelength LE w2)

baseline1a = MEDIAN(spectrum[wdib]) ;

```
spect1a = spectrum/baseline1a
```

```
basec[0]=base[0]
```

```
basec[1]=base[1]
```

```
basec[2]=base[2]
```

```
baseline5797 = MPEVALEXPB(pol, wavelength, basec)
```

```
spect5797 = spect1a/baseline5797
```

```
;===== end of normalising the spectrum=====
```

```
valid    = WHERE((wavelength GE 5753 AND wavelength LE 5770) OR (wavelength GE 5800 AND wavelength LE 5830))
```

```
deviation = STDEV(spect5797[valid]-1)
```

```
weightsa = 0.*spect5797 + deviation
```

```
w5797    = WHERE(wavelength GE 5791 AND wavelength LE 5803)
```



```
resulta=MPFITEXPR(Gauss, wavelength[w5797], spect5797[w5797], weightsa[w5797], PARINFO=const5797, BESTNORM=chi2,  
perror=perror, /quiet)
```

```
fitteda=MPEVALEXPR(Gauss, wavelength, resulta)
```

```
;=====scale errors=====
```

```
x          = spect5797[w5797]
```

```
chisq[k]    = chi2/N_ELEMENTS(x)
```

```
dof          = N_ELEMENTS(x) - N_ELEMENTS(resulta)
```

```
pcerror[*, k] = perror * SQRT (chi2/dof)
```

```
spect5780res=RESAMPLE(wavelength, spect5780, wave5780ave)
```

```
spect5780ave= spect5780ave + spect5780res
```

```
spect5797res=RESAMPLE(wavelength, spect5797, wave5797ave)
```

```
spect5797ave= spect5797ave + spect5797res
```

```
PLOT, wavelength, spect5780, XRange=[5765.,5810.]
```

```
OPlot, wavelength, spect5797, COLOR=3
```

```
OPlot, wavelength, spect5780
```

```
OPlot, wavelength[w5780], fitted[w5780], THICK=2, COLOR =1
```

```
OPlot, wavelength[w5797], fitteda[w5797], THICK=2, COLOR =2
```

```
mini=min(spect5780(where(wavelength GT 5765 AND wavelength LT 5810)))
```

```
maxi=max(spect5780(where(wavelength GT 5765 AND wavelength LT 5810)))
```

```
xyouts,5808,mini+0.1*(maxi-mini),name,/data,alignment=1,charsize=0.3
```

```
;=====
```

```
;compute equivalent width
```

```
measures[*, k] = resulta
```

```
ew1[k] = -1.* resulta[0] * resulta[2] *SQRT(2*!PI)
```

```
;=====
```

```
;compute error in ew
```

```
ew1err[k] = SQRT((SQRT(2*!PI))^2*((pcerror[0, k] * resulta[2])^2 + (resulta[0] * pcerror[2, k])^2))
```

```
ew1select[k] = ew1[k]/ew1err[k]
```

```
PRINTF, 2, measures[*], pcerror[*], chisq[k], ew1[k], ew1err[k], ew1select[k],  
FORMAT='(1X,F7.4,1X,F7.2,1X,F4.2,1X,F4.2,1X,F13.3,1X,F10.3,1X,F13.3,1X,F10.3,1X,F6.3,1X,F6.3,1X,F13.5,1X,F5.1,$)'
```

```
PRINTF, 3, ew1[k], ew1err[k], ew1select[k], chisq[k], FORMAT='(1X,F6.3,1X,F13.5,1X,F5.1,1X,F6.3,$)'
```

```
;=====
```

```
; FOR THE 5850 DIB
```

```
measures = FLTARR(4, 238)
```

```
pcerror = FLTARR(4, 238)
```

ew1 = FLTARR(238)

ew1err = FLTARR(238)

ew1select = FLTARR(238)

w1 = 5840

w2 = 5870

wc[0, 0] = 5837

wc[0, 1] = 5839

wc[1, 0] = 5840

wc[1, 1] = 5842

wc[2, 0] = 5857

wc[2, 1] = 5859

wc[3, 0] = 5860

wc[3, 1] = 5865

;XXXXXXXXXXXXXXXXXXXXXXXXX baseline fitting XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

a0 = 1

a1 = 0

a2 = 0

pol = 'p[0] +p[1]*x'

base5850[0].VALUE = a0

base5850[1].VALUE = a1

base5850[2].VALUE = a2

;=====fitting a baseline to normalise the spectrum=====

wdib = WHERE(wavelength GE w1 AND wavelength LE w2)

baseline2 = MEDIAN(spectrum[wdib])

spect2 = spectrum/baseline2

waveselect = WHERE((wavelength GE wc[0,0] AND wavelength LE wc[0,1]) OR (wavelength GE wc[1,0] AND wavelength LE wc[1,1])
OR (wavelength GE wc[2,0] AND wavelength LE wc[2,1]) OR (wavelength GE wc[3,0] AND wavelength LE wc[3,1]))

```
base = MPFITEXPR(pol, wavelength[waveselect], spect2[waveselect], PARINFO=base5850, /quiet)
```

```
baseline5850 = MPEVALEXPR(pol, wavelength, base )
```

```
spect5850 = spect2/baseline5850
```

```
;===== end of normalising the spectrum=====
```

```
;XXXXXXXXXXXXXXXXXXXXXXXXXXXXX DIB fitting XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
a0 = -0.01
```

```
a1 = DIB5780+69.6
```

```
a2 = 1
```

```
a3 = 1
```

```
gauss = '(p[0]*exp(-(X-p[1])^2/(2.*p[2]^2)))+p[3]'
```

const5850[0].LIMITED[1] = 1

const5850[0].LIMITS[1] = 0

const5850[1].LIMITED[0] = 1

const5850[1].LIMITED[1] = 1

const5850[1].LIMITS[0] = a1-0.5

const5850[1].LIMITS[1] = a1+0.5

const5850[2].LIMITED[0] = 1

const5850[2].LIMITED[1] = 1

const5850[2].LIMITS[0] = a2/2

const5850[2].LIMITS[1] = 2*a2

const5850[0].VALUE = a0

const5850[1].VALUE = a1

const5850[2].VALUE = a2

const5850[3].VALUE = a3

valid = WHERE((wavelength GE 5830 AND wavelength LE 5845) OR (wavelength GE 5855 AND wavelength LE 5865))

```
deviation = STDEV(spect5850[valid]-1)
```

```
weights = 0.*spect5850 + deviation
```

```
w5850 = WHERE(wavelength GE 5845 AND wavelength LE 5856)
```

```
result=MPFITEXPR(gauss, wavelength[w5850], spect5850[w5850], weights[w5850], PARINFO=const5850, BESTNORM=chi2,  
perror=perror, /quiet)
```

```
fitted=MPEVALEXPR(gauss, wavelength, result)
```

```
;=====scale errors=====
```

```
x          = spect5850[w5850]
```

```
chisq[k]    = chi2/N_ELEMENTS(x)
```

```
dof         = N_ELEMENTS(x) - N_ELEMENTS(result)
```

```
perror[*, k] = perror * SQRT (chi2/dof)
```



```
spect5850res=RESAMPLE(wavelength, spect5850, wave5850ave)
```

```
spect5850ave= spect5850ave + spect5850res
```

```
PLOT, wavelength, spect5850, XRANGE=[5835.,5865.]
```

```
OPlot, wavelength[w5850], fitted[w5850], THICK=2, COLOR=1
```

```
;=====
```

```
;compute equivalent width
```

```
measures[*, k]      = result
```

```
ew1[k]              = -1.* result[0] * result[2] *SQRT(2*!PI)
```

```
;=====
```

```
;compute error in ew
```

```
ew1err[k]      = SQRT((SQRT(2*!PI))^2*((pcerror[0, k] * result[2])^2 + (result[0] * pcerror[2, k])^2))
```

```
ew1select[k] = ew1[k]/ew1err[k]
```

```
PRINTF, 2, measures[*, k], pcerror[*, k], chisq[k], ew1[k], ew1err[k], ew1select[k],  
FORMAT='(1X,F7.4,1X,F7.2,1X,F4.2,1X,F7.4,1X,F13.5,1X,F13.5,1X,F13.5,1X,F13.5,1X,F6.3,1X,F6.3,1X,F11.4,1X,F5.1,$)'
```

```
PRINTF, 3, ew1[k], ew1err[k], ew1select[k], chisq[k], FORMAT='(1X,F6.3,1X,F11.4,1X,F5.1,1X,F6.3,$)'
```

```
;=====
```

```
; FOR THE He LINE
```

```
;XXXXXXXXXXXXXXXXXXXXX WAVESELECT METHOD XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
measures  = FLTARR(4, 238)
```

```
pcerror   = FLTARR(4, 238)
```

```
ew1       = FLTARR(238)
```

ew1err = FLTARR(238)

ew1select = FLTARR(238)

w1 = 5865

w2 = 5885

wc[0, 0] = 5867

wc[0, 1] = 5869

wc[1, 0] = 5870

wc[1, 1] = 5872

wc[2, 0] = 5879

wc[2, 1] = 5881

wc[3, 0] = 5882

wc[3, 1] = 5884

;XXX BASELINE FITTING XXXXXXXXXXXXXXXXXXXX

a0 = 1

a1 = 0

a2 = 0

pol = 'p[0] +p[1]*x'

baseHe[0].VALUE = a0

baseHe[1].VALUE = a1

baseHe[2].VALUE = a2

;=====fitting a baseline to normalise the spectrum=====

wdib = WHERE(wavelength GE w1 AND wavelength LE w2)

baseline3 = MEDIAN(spectrum[wdib])

spect3 = spectrum/baseline3

waveselect = WHERE((wavelength GE wc[0,0] AND wavelength LE wc[0,1]) OR (wavelength GE wc[1,0] AND wavelength LE wc[1,1])
OR (wavelength GE wc[2,0] AND wavelength LE wc[2,1]) OR (wavelength GE wc[3,0] AND wavelength LE wc[3,1]))

```
base = MPFITEXPR(pol, wavelength[waveselect], spect3[waveselect], PARINFO=baseHe, /quiet)
```

```
baselineHe = MPEVALEXPR(pol, wavelength, base)
```

```
spectHe = spect3/baselineHe
```

```
;===== end of normalising the spectrum=====
```

```
;XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX DIB FITTING XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
a0 = -1
```

```
a1 = 5875.6
```

```
a2 = 1.3
```

```
a3 = 1
```

```
gauss = '(p[0]*exp(-(X-p[1])^2/(2.*p[2]^2)))+p[3]'
```

`constHe[0].LIMITED[1] = 1`

`constHe[0].LIMITS[1] = 0`

`constHe[1].LIMITED[0] = 1`

`constHe[1].LIMITED[1] = 1`

`constHe[1].LIMITS[0] = a1-2*a2`

`constHe[1].LIMITS[1] = a1+2*a2`

`constHe[2].LIMITED[0] = 1`

`constHe[2].LIMITED[1] = 1`

`constHe[2].LIMITS[0] = a2/2`

`constHe[2].LIMITS[1] = 2*a2`

`constHe[0].VALUE = a0`

`constHe[1].VALUE = a1`

`constHe[2].VALUE = a2`

`constHe[3].VALUE = a3`

```
valid      = WHERE((wavelength GE 5861 AND wavelength LE 5871) OR (wavelength GE 5878 AND wavelength LE 5883))
```

```
deviation = STDEV(spectHe[valid]-1)
```

```
weights = 0.*spectHe + deviation
```

```
wHe = WHERE(wavelength GE 5870 AND wavelength LE 5882)
```

```
result=MPFITEXPR(gauss, wavelength[wHe], spectHe[wHe], weights[wHe], PARINFO=constHe, BESTNORM=chi2, perror=perror,  
/quiet)
```

```
fitted=MPEVALEXPR(gauss, wavelength, result)
```

```
;=====scale errors=====
```

```
x          = spectHe[wHe]
```

```
chisq[k]    = chi2/N_ELEMENTS(x)
```

```
dof         = N_ELEMENTS(x) - N_ELEMENTS(result)
```

```
pcerror[*, k] = perror * SQRT (chi2/dof)
```

```
spectHeres=RESAMPLE(wavelength, spectHe, waveHeave)
```

```
spectHeave= spectHeave + spectHeres
```

```
PLOT, wavelength, spectHe, XRANGE=[5868.,5882.]
```

```
OPLOT, wavelength[wHe], fitted[wHe], THICK=2, COLOR=1
```

```
;=====
```

```
;compute equivalent width
```

```
measures[*, k] = result
```

```
;the profile is a gaussian so ew1 is given by:
```

```
ew1[k] = -1.* result[0] * result[2] *SQRT(2*!PI)
```

```
;=====
```



```
;compute error in ew
```

```
ew1err[k]      = SQRT((SQRT(2*!PI))^2*((pcerror[0, k] * result[2])^2 + (result[0] * pcerror[2, k])^2))
```

```
ew1select[k] = ew1[k]/ew1err[k]
```

```
PRINTF, 2, measures[*, k], pcerror[*, k], chisq[k], ew1[k], ew1err[k], ew1select[k],  
FORMAT='(1X,F7.4,1X,F7.2,1X,F4.2,1X,F4.2,1X,F8.5,1X,F7.3,1X,F7.3,1X,F5.3,1X,F6.3,F6.3,1X,F9.4,1X,F5.1,$)'
```

```
PRINTF, 3, ew1[k], ew1err[k], ew1select[k], chisq[k], FORMAT='(1X,F6.3,1X,F9.4,1X,F5.1,1X,F6.3,$)'
```

```
;=====
```

```
;FOR THE NaI D2 LINE and NaI D1 LINE
```

```
;XXXXXXXXXXXXXXXXXXXXX 2nd order VERSION XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
measures  = FLTARR(5, 238)
```

```
pcerror   = FLTARR(5, 238)
```

```
ew1       = FLTARR(238)
```

ew2 = FLTARR(238)

ew1err = FLTARR(238)

ew2err = FLTARR(238)

ew1select = FLTARR(238)

ew2select = FLTARR(238)

w1 = 5875

w2 = 5910

wc[0, 0] = 5880

wc[0, 1] = 5883

wc[1, 0] = 5883

wc[1, 1] = 5886

wc[2, 0] = 5893

wc[2, 1] = 5894

wc[3, 0] = 5900

wc[3, 1] = 5904

```
wc[4, 0] = 5904
```

```
wc[4, 1] = 5908
```

```
;XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  BASELINE FITTING  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
a0 = 1
```

```
a1 = 0
```

```
a2 = 0
```

```
pol = 'p[0] +p[1]*x +p[2]*x^2'      ;
```

```
baseNa2nd[0].VALUE      = a0
```

```
baseNa2nd[1].VALUE      = a1
```

```
baseNa2nd[2].VALUE      = a2
```

```
;=====fitting a baseline to normalise the spectrum=====
```

```
wdib = WHERE(wavelength GE w1 AND wavelength LE w2)
```

```
baseline4a = MEDIAN(spectrum[wdeb])
```

```
spect4a = spectrum/baseline4a
```

```
waveselect = WHERE((wavelength GE wc[0,0] AND wavelength LE wc[0,1]) OR (wavelength GE wc[1,0] AND wavelength LE wc[1,1])  
OR (wavelength GE wc[2,0] AND wavelength LE wc[2,1]) OR (wavelength GE wc[3,0] AND wavelength LE wc[3,1]) OR (wavelength GE  
wc[4,0] AND wavelength LE wc[4,1]))
```

```
basea = MPFITEXPR(pol, wavelength[waveselect], spect4a[waveselect], PARINFO=baseNa2nd, /quiet)
```

```
baselineNa1a = MPEVALEXPR(pol, wavelength, basea)
```

```
spectNa1a = spect4a/baselineNa1a
```

```
;===== end of normalising the spectrum=====
```

```
;XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX PROFILE FITTING XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
a0 = -1
```

$$a1 = 5889.95$$

$$a2 = 1$$

$$a3 = -0.2$$

$$a4 = 1$$

$$\text{gauss2nd} = '(p[0]*\exp(-(X-p[1])^2/(2.*p[2]^2)))+(p[3]*\exp(-(X-p[1]-5.97)^2/(2.*p[2]^2)))+p[4]'$$

$$\text{Na2nd}[0].\text{LIMITED}[1] = 1$$

$$\text{Na2nd}[0].\text{LIMITS}[1] = 0$$

$$\text{Na2nd}[1].\text{LIMITED}[0] = 1$$

$$\text{Na2nd}[1].\text{LIMITED}[1] = 1$$

$$\text{Na2nd}[1].\text{LIMITS}[0] = a1-2*a2$$

$$\text{Na2nd}[1].\text{LIMITS}[1] = a1+2*a2$$

$$\text{Na2nd}[2].\text{LIMITED}[0] = 1$$

$$\text{Na2nd}[2].\text{LIMITED}[1] = 1$$

$$\text{Na2nd}[2].\text{LIMITS}[0] = a2/2$$

Na2nd[2].LIMITS[1] = 2*a2

Na2nd[3].LIMITED[1] = 1

Na2nd[3].LIMITS[1] = 0

Na2nd[0].VALUE = a0

Na2nd[1].VALUE = a1

Na2nd[2].VALUE = a2

Na2nd[3].VALUE = a3

Na2nd[4].VALUE = a4

valid = WHERE((wavelength GE 5878 AND wavelength LE 5883) OR (wavelength GE 5900 AND wavelength LE 5910))

deviationa = STDEV(spectNa1a[valid]-1)

weightsa = 0.*spectNa1a + deviationa

wNa1a = WHERE(wavelength GE 5884 AND wavelength LE 5901)

```
resulta=MPFITEXPR(gauss2nd, wavelength[wNa1a], spectNa1a[wNa1a], weightsa[wNa1a], PARINFO=Na2nd, BESTNORM=chi2,  
perror=perror, /quiet)
```

```
fitteda=MPEVALEXPR(gauss2nd, wavelength, resulta)
```

```
;XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX WAVESELECT VERSION 1st order version XXXXXXXXXXXXXXXXXXXXXXXX
```

```
;to take measurements for the two Na lines
```

```
measures  = FLTARR(5, 238)
```

```
pcerror   = FLTARR(5, 238)
```

```
ew1       = FLTARR(238)
```

```
ew2       = FLTARR(238)
```

```
ew1err    = FLTARR(238)
```

```
ew2err    = FLTARR(238)
```

```
ew1select = FLTARR(238)
```

```
ew2select = FLTARR(238)
```

```
;XXXXXXXXXXXXXXXXXXXXXXXXXXXXX BASELINE FITTING XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
a0 = 1
```

```
a1 = 0
```

```
a2 = 0
```

```
pol = 'p[0] +p[1]*x'
```

```
baseNa1[0].VALUE = a0
```

```
baseNa1[1].VALUE = a1
```

```
baseNa1[2].VALUE = a2
```

```
;=====fitting a baseline to normalise the spectrum=====
```

```
wdib = WHERE(wavelength GE w1 AND wavelength LE w2)
```

```
baseline4 = MEDIAN(spectrum[wdib])
```

```
spect4 = spectrum/baseline4
```



```
waveselect = WHERE((wavelength GE wc[0,0] AND wavelength LE wc[0,1]) OR (wavelength GE wc[1,0] AND wavelength LE wc[1,1])  
OR (wavelength GE wc[2,0] AND wavelength LE wc[2,1]) OR (wavelength GE wc[3,0] AND wavelength LE wc[3,1]) OR (wavelength GE  
wc[4,0] AND wavelength LE wc[4,1]))
```

```
base = MPFITEXPR(pol, wavelength[waveselect], spect4[waveselect], PARINFO=baseNa1, /quiet)
```

```
baselineNa1 = MPEVALEXPR(pol, wavelength, base)
```

```
spectNa1 = spect4/baselineNa1
```

```
spectNa1sub = spectNa1/fitteda
```

```
;===== end of normalising the spectrum=====
```

```
;XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX PROFILE FITTING XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
a0 = -1
```

$$a1 = 5889.95$$

$$a2 = 1$$

$$a3 = -0.2$$

$$a4 = 1$$

$$\text{gauss} = 'p[0]*\exp(-(X-p[1])^2/(2.*p[2]^2)))+(p[3]*\exp(-(X-p[1]-5.97)^2/(2.*p[2]^2)))+p[4]'$$

$$\text{constNa1}[0].\text{LIMITED}[1] = 1$$

$$\text{constNa1}[0].\text{LIMITS}[1] = 0$$

$$\text{constNa1}[1].\text{LIMITED}[0] = 1$$

$$\text{constNa1}[1].\text{LIMITED}[1] = 1$$

$$\text{constNa1}[1].\text{LIMITS}[0] = a1-2*a2$$

$$\text{constNa1}[1].\text{LIMITS}[1] = a1+2*a2$$

$$\text{constNa1}[2].\text{LIMITED}[0] = 1$$

$$\text{constNa1}[2].\text{LIMITED}[1] = 1$$

$$\text{constNa1}[2].\text{LIMITS}[0] = a2/2$$

constNa1[2].LIMITS[1] = 2*a2

constNa1[3].LIMITED[1] = 1

constNa1[3].LIMITS[1] = 0

constNa1[0].VALUE = a0

constNa1[1].VALUE = a1

constNa1[2].VALUE = a2

constNa1[3].VALUE = a3

constNa1[4].VALUE = a4

valid = WHERE((wavelength GE 5878 AND wavelength LE 5883) OR (wavelength GE 5900 AND wavelength LE 5910))

deviation = STDEV(spectNa1[valid]-1)

weights = 0.*spectNa1 + deviation

wNa1 = WHERE(wavelength GE 5884 AND wavelength LE 5901)

```
result=MPFITEXPR(gauss, wavelength[wNa1], spectNa1[wNa1], weights[wNa1], PARINFO=constNa1, BESTNORM=chi2, perror=perror,  
/quiet)
```

```
fitted=MPEVALEXPR(gauss, wavelength, result)
```

```
;=====scale errors=====
```

```
x          = spectNa1[wNa1]
```

```
chisq[k]    = chi2/N_ELEMENTS(x)
```

```
dof         = N_ELEMENTS(x) - N_ELEMENTS(result)
```

```
pcerror[*, k] = perror * SQRT (chi2/dof)
```

```
spectNa1res=RESAMPLE(wavelength, spectNa1, waveNa1ave)
```

```
spectNa1ave= spectNa1ave + spectNa1res
```

```
PLOT, wavelength, spectNa1, XRANGE=[5880.,5905.]
```

```
OPLOT, wavelength[wNa1], fitted[wNa1], THICK=2, COLOR=1
```

```
OPlot, wavelength, spectNa1sub, THICK=1, COLOR=3
```

```
measures[*, k] = result
```

```
ew1[k] = -1.* result[0] * result[2] *SQRT(2*!PI)
```

```
ew2[k] = -1.* result[3] * result[2] *SQRT(2*!PI)
```

```
;=====
```

```
;compute error in ew
```

```
ew1err[k] = SQRT((SQRT(2*!PI))^2*((pcerror[0, k] * result[2])^2 + (result[0] * pcerror[2, k])^2))
```

```
ew2err[k] = SQRT((SQRT(2*!PI))^2*((pcerror[3, k] * result[2])^2 + (result[3] * pcerror[2, k])^2))
```

```
ew1select[k] = ew1[k]/ew1err[k]
```

```
ew2select[k] = ew2[k]/ew2err[k]
```

```
PRINTF, 2, measures[*, k], pccerror[*, k], chisq[k], ew1[k], ew2[k], ew1err[k], ew2err[k], ew1select[k], ew2select[k],  
FORMAT='(1X,F7.4,1X,F7.2,1X,F4.2,1X,F7.4,1X,F6.2,1X,F5.2,1X,F8.5,1X,F5.3,1X,F13.5,1X,F13.5,1X,F13.5,1X,F6.3,F6.3,1X,F6.3  
,1X,F9.4,1X,F9.4,1X,F5.1,1X,F5.1,$)'
```

```
PRINTF, 3, ew1[k], ew1err[k], ew2[k], ew2err[k], ew1select[k], ew2select[k], chisq[k],  
FORMAT='(1X,F6.3,1X,F9.4,1X,F6.3,1X,F9.4,1X,F5.1,1X,F5.1,1X,F6.3,$)'
```

```
;=====
```

```
; FOR THE 6196 DIB and 6203 DIB
```

```
;XXXXXXXXXXXXXXXXX leave as 2nd order XXXXXXXXXXXXXXXX
```

```
measures  = FLTARR(7, 238)
```

```
pcerror   = FLTARR(7, 238)
```

```
ew1       = FLTARR(238)
```

```
ew2       = FLTARR(238)
```

```
ew1err    = FLTARR(238)
```

```
ew2err    = FLTARR(238)
```

```
ew1select = FLTARR(238)
```

```
ew2select = FLTARR(238)
```

$$w1 = 6180$$

$$w2 = 6220$$

$$wc[0, 0] = 6180$$

$$cw[0] = 6183$$

$$wc[0, 1] = 6186$$

$$wc[1, 0] = 6187$$

$$cw[1] = 6190$$

$$wc[1, 1] = 6193$$

$$wc[2, 0] = 6198$$

$$cw[2] = 6199$$

$$wc[2, 1] = 6200$$

$$wc[3, 0] = 6208$$

$$cw[3] = 6211$$

$$wc[3, 1] = 6214$$

$$wc[4, 0] = 6214$$

$$cw[4] = 6218$$

$$wc[4, 1] = 6220$$

$$a0 = -0.05$$

$$a1 = \text{DIB5780} + 415.6$$

$$a2 = 0.7$$

$$a3 = -0.1$$

$$a4 = \text{DIB5780} + 422.6$$

$$a5 = 1$$

$$a6 = 1$$

$$\text{gauss} = 'p[0]*\exp(-(X-p[1])^2/(2.*p[2]^2)))+(p[3]*\exp(-(X-p[4])^2/(2.*p[5]^2)))+p[6]'$$

$$\text{pol} = 'p[0] + p[1]*x + p[2]*x^2'$$

const6196_6203[0].LIMITED[1] = 1

const6196_6203[0].LIMITS[1] = 0

const6196_6203[1].LIMITED[0] = 1

const6196_6203[1].LIMITED[1] = 1

const6196_6203[1].LIMITS[0] = $a1 - 0.5$

const6196_6203[1].LIMITS[1] = $a1 + 0.5$

const6196_6203[2].LIMITED[0] = 1

const6196_6203[2].LIMITED[1] = 1

const6196_6203[2].LIMITS[0] = $a2/2$

const6196_6203[2].LIMITS[1] = $2*a2$

const6196_6203[3].LIMITED[1] = 1

const6196_6203[3].LIMITS[1] = 0

const6196_6203[4].LIMITED[0] = 1

const6196_6203[4].LIMITED[1] = 1

const6196_6203[4].LIMITS[0] = $a4 - 0.75$

const6196_6203[4].LIMITS[1] = $a4 + 0.75$

```
const6196_6203[5].LIMITED[0] = 1
```

```
const6196_6203[5].LIMITED[1] = 1
```

```
const6196_6203[5].LIMITS[0] = a5/2
```

```
const6196_6203[5].LIMITS[1] = 2*a5
```

```
const6196_6203[0].VALUE = a0
```

```
const6196_6203[1].VALUE = a1
```

```
const6196_6203[2].VALUE = a2
```

```
const6196_6203[3].VALUE = a3
```

```
const6196_6203[4].VALUE = a4
```

```
const6196_6203[5].VALUE = a5
```

```
const6196_6203[6].VALUE = a6
```

```
;=====fitting a baseline to normalise the spectrum=====
```

```
wdib = WHERE(wavelength GE w1 AND wavelength LE w2)
```

```
baseline5 = MEDIAN(spectrum[wdib])
```

```
spect5 = spectrum/baseline5
```

```
FOR p = 0, 4 DO BEGIN
```

```
  valid = WHERE(wavelength GE wc[p, 0] AND wavelength LE wc[p,1])
```

```
  cm[p] = MEDIAN(spect5[valid])
```

```
ENDFOR
```

```
a = MPFITEXPR(pol, cw, cm, /quiet)
```

```
baseline6196_6203 = MPEVALEXPR(pol, wavelength, a)
```

```
spect6196_6203 = spect5/baseline6196_6203
```

```
;===== end of normalising the spectrum=====
```

```
valid    = WHERE((wavelength GE 6176 AND wavelength LE 6190) OR (wavelength GE 6208 AND wavelength LE 6225))
```

```
deviation = STDEV(spect6196_6203[valid]-1)
```

```
weights = 0.*spect6196_6203 + deviation
```

```
w6196_6203 = WHERE(wavelength GE 6190 AND wavelength LE 6212)
```

```
result=MPFITEXPR(gauss, wavelength[w6196_6203], spect6196_6203[w6196_6203], weights[w6196_6203], PARINFO=const6196_6203,  
BESTNORM=chi2, perror=perror, /quiet)
```

```
fitted=MPEVALEXPR(gauss, wavelength, result)
```

```
;=====scale errors=====
```

```
x          = spect6196_6203[w6196_6203]
```

```
chisq[k]    = chi2/N_ELEMENTS(x)
```

```
dof         = N_ELEMENTS(x) - N_ELEMENTS(result)
```

```
pcerror[*, k] = perror * SQRT (chi2/dof)
```

```
spect6196_6203res=RESAMPLE(wavelength, spect6196_6203, wave6196_6203ave)
```

```
spect6196_6203ave= spect6196_6203ave + spect6196_6203res
```

```
PLOT, wavelength, spect6196_6203, XRANGE=[6180.,6220.]
```

```
OPlot, wavelength[w6196_6203], fitted[w6196_6203], THICK=2, COLOR=1
```

```
;=====
```

```
;compute equivalent width
```

```
measures[*, k] = result
```

```
ew1[k] = -1.* result[0] * result[2] *SQRT(2*!PI)
```

```
ew2[k] = -1.* result[3] * result[5] *SQRT(2*!PI)
```

```
;=====
```

```
;compute error in ew
```

```
ew1err[k] = SQRT((SQRT(2*!PI))^2*((pcerror[0, k] * result[2])^2 + (result[0] * pcerror[2, k])^2))
```

```
ew2err[k]      = SQRT((SQRT(2*!PI))^2*((pcerror[3, k] * result[5])^2 + (result[3] * pcerror[5, k])^2))
```

```
ew1select[k] = ew1[k]/ew1err[k]
```

```
ew2select[k] = ew2[k]/ew2err[k]
```

```
PRINTF, 2, measures[* , k], pcerror[* , k], chisq[k], ew1[k], ew2[k], ew1err[k], ew2err[k], ew1select[k], ew2select[k],  
FORMAT='(1X,F7.4,1X,F7.2,1X,F4.2,1X,F7.4,1X,F7.2,1X,F4.2,1X,F4.2,1X,F13.5,1X,F10.3,1X,F12.3,1X,F10.3,1X,F10.3,1X,F13.3,1  
X,F5.3,1X,F6.3,F6.3,1X,F6.3,1X,F11.4,1X,F11.4,1X,F5.1,1X,F5.1,$)'
```

```
PRINTF, 3, ew1[k], ew1err[k], ew2[k], ew2err[k], ew1select[k], ew2select[k], chisq[k],  
FORMAT='(1X,F6.3,1X,F11.4,1X,F6.3,1X,F11.4,F5.1,1X,F5.1,1X,F6.3,$)'
```

```
;=====
```

```
; FOR THE 6270 DIB
```

```
;XXXXXXXXXXXXXXXX ORIGINAL FOR LOOP METHOD XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
measures  = FLTARR(4, 238)
```

```
pcerror   = FLTARR(4, 238)
```

```
ew1       = FLTARR(238)
```

ewlerr = FLTARR(238)

ewlselect = FLTARR(238)

w1 = 6249

w2 = 6273

wc[0, 0] = 6249

cw[0] = 6252

wc[0, 1] = 6255

wc[1, 0] = 6255

cw[1] = 6257

wc[1, 1] = 6259

wc[2, 0] = 6260

cw[2] = 6262

wc[2, 1] = 6264

wc[3, 0] = 6272

cw[3] = 6273

$$\text{wc}[3, 1] = 6274$$

$$\text{a0} = -0.1$$

$$\text{a1} = \text{DIB5780} + 489.5$$

$$\text{a2} = 1$$

$$\text{a3} = 1$$

$$\text{gauss} = '(\text{p}[0] * \exp(-(X - \text{p}[1])^2 / (2 * \text{p}[2]^2))) + \text{p}[3]'$$

$$\text{pol} = '\text{p}[0] + \text{p}[1] * x + \text{p}[2] * x^2'$$

$$\text{const6270}[0].\text{LIMITED}[1] = 1$$

$$\text{const6270}[0].\text{LIMITS}[1] = 0$$

$$\text{const6270}[1].\text{LIMITED}[0] = 1$$

$$\text{const6270}[1].\text{LIMITED}[1] = 1$$

$$\text{const6270}[1].\text{LIMITS}[0] = \text{a1} - 0.5$$

const6270[1].LIMITS[1] = a1+0.5

const6270[2].LIMITED[0] = 1

const6270[2].LIMITED[1] = 1

const6270[2].LIMITS[0] = a2/2

const6270[2].LIMITS[1] = 2*a2

const6270[0].VALUE = a0

const6270[1].VALUE = a1

const6270[2].VALUE = a2

const6270[3].VALUE = a3

;=====fitting a baseline to normalise the spectrum=====

wdib = WHERE(wavelength GE w1 AND wavelength LE w2)

baseline6 = MEDIAN(spectrum[wdib])

spect6 = spectrum/baseline6

```
FOR p = 0, 3 DO BEGIN
```

```
  valid = WHERE(wavelength GE wc[p, 0] AND wavelength LE wc[p,1])
```

```
  cm[p] = MEDIAN(spect6[valid])
```

```
ENDFOR
```

```
a = MPFITEXPR(pol, cw, cm, /quiet)
```

```
baseline6270 = MPEVALEXPR(pol, wavelength, a)
```

```
spect6270 = spect6/baseline6270
```

```
;===== end of normalising the spectrum=====
```

```
valid    = WHERE((wavelength GE 6247 AND wavelength LE 6262) OR (wavelength GE 6273 AND wavelength LE 6274))
```

```
deviation = STDEV(spect6270[valid]-1)
```

```
weights = 0.*spect6270 + deviation
```

```
W6270 = WHERE(wavelength GE 6261 AND wavelength LE 6275)
```

```
result=MPFITEXPR(gauss, wavelength[W6270], spect6270[W6270], weights[W6270], PARINFO=const6270, BESTNORM=chi2,  
perror=perror, /quiet)
```

```
fitted=MPEVALEXP(gauss, wavelength, result)
```

```
;=====scale errors=====
```

```
x          = spect6270[W6270]
```

```
chisq[k]    = chi2/N_ELEMENTS(x)
```

```
dof         = N_ELEMENTS(x) - N_ELEMENTS(result)
```

```
pcerror[*, k] = perror * SQRT (chi2/dof)
```

```
spect6270res=RESAMPLE(wavelength, spect6270, wave6270ave)
```

```
spect6270ave= spect6270ave + spect6270res
```

```
PLOT, wavelength, spect6270, XRange=[6255.,6280.], YRange=[0.977,1.004]
```

```
OPLOT, wavelength[W6270], fitted[W6270], THICK=2, COLOR=1
```

```
;=====
```

```
;compute equivalent width
```

```
measures[*, k] = result
```

```
ew1[k] = -1.* result[0] * result[2] *SQRT(2*!PI)
```

```
;=====
```

```
;compute error in ew
```

```
ew1err[k] = SQRT((SQRT(2*!PI))^2*((pcerror[0, k] * result[2])^2 + (result[0] * pcerror[2, k])^2))
```

```
ew1select[k] = ew1[k]/ew1err[k]
```

```
PRINTF, 2, measures[*, k], pcerror[*, k], chisq[k], ew1[k], ew1err[k], ew1select[k],  
FORMAT='(1X,F7.4,1X,F7.2,1X,F4.2,1X,F4.2,1X,F10.5,1X,F10.5,1X,F11.5,1X,F11.5,1X,F6.3,1X,F6.3,1X,F9.4,1X,F5.1,$)'
```

```
PRINTF, 3, ew1[k], ew1err[k], ew1select[k], chisq[k], FORMAT='(1X,F6.3,1X,F9.4,1X,F5.1,1X,F6.3,$)'
```

```
;=====
;FOR THE 6283 DIB
```

```
;NOTE. **THIS DIB FALLS ON THE O2 ALPHA TELLURIC LINE.....**
```

```
measures  = FLTARR(5, 238)
```

```
pcerror   = FLTARR(5, 238)
```

```
ew1       = FLTARR(238)
```

```
ew1err    = FLTARR(238)
```

```
ew1select = FLTARR(238)
```

```
w1 = 6250
```

```
w2 = 6310
```

```
wc[0, 0] = 6250
```

```
cw[0]    = 6255.5
```

```
wc[0, 1] = 6261
```

$$wc[1, 0] = 6262$$

$$cw[1] = 6267.5$$

$$wc[1, 1] = 6273$$

$$wc[2, 0] = 6287$$

$$cw[2] = 6287.5$$

$$wc[2, 1] = 6288$$

$$wc[3, 0] = 6294$$

$$cw[3] = 6294.5$$

$$wc[3, 1] = 6295$$

$$wc[4, 0] = 6300$$

$$cw[4] = 6300.5$$

$$wc[4, 1] = 6301$$

$$a0 = -0.1$$

$$a1 = \text{DIB5780} + 503.7$$

$$a2 = 1$$

$$a3 = 1$$

$$a4 = 0$$

$$\text{GaussLin} = '(p[0]*\exp(-(X-p[1])^2/(2.*p[2]^2))) + (P[3]+P[4]*x)'$$

$$\text{pol} = 'p[0] + p[1]*x + p[2]*x^2'$$

$$\text{const6283}[0].\text{LIMITED}[1] = 1$$

$$\text{const6283}[0].\text{LIMITS}[1] = 0$$

$$\text{const6283}[1].\text{LIMITED}[0] = 1$$

$$\text{const6283}[1].\text{LIMITED}[1] = 1$$

$$\text{const6283}[1].\text{LIMITS}[0] = a1-0.5$$

$$\text{const6283}[1].\text{LIMITS}[1] = a1+0.5$$

$$\text{const6283}[2].\text{LIMITED}[0] = 1$$

$$\text{const6283}[2].\text{LIMITED}[1] = 1$$

$$\text{const6283}[2].\text{LIMITS}[0] = a2/2$$

$$\text{const6283}[2].\text{LIMITS}[1] = 2*a2$$

const6283[0].VALUE = a0

const6283[1].VALUE = a1

const6283[2].VALUE = a2

const6283[3].VALUE = a3

const6283[4].VALUE = a4

;=====fitting a baseline to normalise the spectrum=====

wdib = WHERE(wavelength GE w1 AND wavelength LE w2)

baseline10 = MEDIAN(spectrum[wdib])

spect10 = spectrum/baseline10

FOR p = 0, 4 DO BEGIN

valid = WHERE(wavelength GE wc[p, 0] AND wavelength LE wc[p,1])

cm[p] = MEDIAN(spect10[valid])

ENDFOR


```
a = MPFITEXPR(pol, cw, cm, /quiet)
```

```
baseline6283 = MPEVALEXPR(pol, wavelength, a)
```

```
spect6283 = spect10/baseline6283
```

```
;===== end of normalising the spectrum=====
```

```
valid = WHERE((wavelength GE 6257 AND wavelength LE 6273) OR (wavelength GE 6289 AND wavelength LE 6317))
```

```
deviation = STDEV(spect6283[valid]-1)
```

```
weights = 0.*spect6283 + deviation
```

```
w6283 = WHERE(wavelength GE 6280 AND wavelength LE 6288)
```

```
result=MPFITEXPR(GaussLin, wavelength[w6283], spect6283[w6283], weights[w6283], PARINFO=const6283, BESTNORM=chi2,  
perror=perror, /quiet)
```

```
fitted=MPEVALEXPR(GaussLin, wavelength, result)
```

```
;=====scale errors=====
```

```
x          = spect6283[w6283]
```

```
chisq[k]    = chi2/N_ELEMENTS(x)
```

```
dof         = N_ELEMENTS(x) - N_ELEMENTS(result)
```

```
pcerror[* , k] = perror * SQRT (chi2/dof)
```

```
spect6283res=RESAMPLE(wavelength, spect6283, wave6283ave)
```

```
spect6283ave= spect6283ave + spect6283res
```

```
PLOT, wavelength, spect6283, XRange=[6265.,6290.]
```

```
OPLOT, wavelength[w6283], fitted[w6283], THICK=2, COLOR=1
```

```
;=====
```

```
;compute equivalent width
```

```
measures[* , k]    = result
```

```
ew1[k]      = -1.* result[0] * result[2] *SQRT(2*!PI)
```

```
;=====
```

```
;compute error in ew
```

```
ew1err[k]    = SQRT((SQRT(2*!PI))^2*((pcerror[0, k] * result[2])^2 + (result[0] * pcerror[2, k])^2))
```

```
ew1select[k] = ew1[k]/ew1err[k]
```

```
PRINTF, 2, measures[*, k], pcerror[*, k], chisq[k], ew1[k], ew1err[k], ew1select[k],  
FORMAT='(1X,F7.4,1X,F7.2,1X,F4.2,1X,F8.4,1X,F7.2,1X,F8.5,1X,F6.3,1X,F6.3,1X,F11.5,1X,F6.3,1X,F6.3,1X,F6.3,1X,F9.4,1X,F5.1  
, $)'
```

```
PRINTF, 3, ew1[k], ew1err[k], ew1select[k], chisq[k], FORMAT='(1X,F6.3,1X,F9.4,1X,F5.1,1X,F6.3, $)'
```

```
;=====
```

```
; FOR THE 6614 DIB
```

```
;;XXXXXXXXXXXXXXXXXXXXXXXXXXXXX  ORIGINAL FOR LOOP METHOD  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

measures = FLTARR(4, 238)

pcerror = FLTARR(4, 238)

ew1 = FLTARR(238)

ew1err = FLTARR(238)

ew1select = FLTARR(238)

w1 = 6598

w2 = 6620

wc[0, 0] = 6599

cw[0] = 6601

wc[0, 1] = 6603

wc[1, 0] = 6603

cw[1] = 6605

wc[1, 1] = 6607

wc[2, 0] = 6607

$$cw[2] = 6609$$

$$wc[2, 1] = 6611$$

$$wc[3, 0] = 6616$$

$$cw[3] = 6618$$

$$wc[3, 1] = 6622$$

$$a0 = -0.05$$

$$a1 = \text{DIB5780} + 833.1$$

$$a2 = 1$$

$$a3 = 1$$

$$\text{gauss} = 'p[0]*\exp(-(X-p[1])^2/(2.*p[2]^2)))+p[3]'$$

$$\text{pol} = 'p[0] + p[1]*x + p[2]*x^2'$$

$$\text{const6614}[0].\text{LIMITED}[1] = 1$$

const6614[0].LIMITS[1] = 0

const6614[1].LIMITED[0] = 1

const6614[1].LIMITED[1] = 1

const6614[1].LIMITS[0] = a1-0.8

const6614[1].LIMITS[1] = a1+0.8

const6614[2].LIMITED[0] = 1

const6614[2].LIMITED[1] = 1

const6614[2].LIMITS[0] = a2/2

const6614[2].LIMITS[1] = 2*a2

const6614[0].VALUE = a0

const6614[1].VALUE = a1

const6614[2].VALUE = a2

const6614[3].VALUE = a3

;=====fitting a baseline to normalise the spectrum=====

wdib = WHERE(wavelength GE w1 AND wavelength LE w2)

```
baseline9 = MEDIAN(spectrum[wdeb])
```

```
spect9 = spectrum/baseline9
```

```
FOR p = 0, 3 DO BEGIN
```

```
  valid = WHERE(wavelength GE wc[p, 0] AND wavelength LE wc[p,1])
```

```
  cm[p] = MEDIAN(spect9[valid])
```

```
ENDFOR
```

```
a = MPFITEXPR(pol, cw, cm, /quiet)
```

```
baseline6614 = MPEVALEXPR(pol, wavelength, a)
```

```
spect6614 = spect9/baseline6614
```

```
;===== end of normalising the spectrum=====
```

```
valid      = WHERE((wavelength GE 6599 AND wavelength LE 6607) OR (wavelength GE 6614 AND wavelength LE 6622))
```

```
deviation = STDEV(spect6614[valid]-1)
```

```
weights = 0.*spect6614 + deviation
```

```
w6614 = WHERE(wavelength GE 6610 AND wavelength LE 6618)
```

```
result=MPFITEXPR(gauss, wavelength[w6614], spect6614[w6614], weights[w6614], PARINFO=const6614, BESTNORM=chi2,  
perror=perror, /quiet)
```

```
fitted=MPEVALEXPR(gauss, wavelength, result)
```

```
;=====scale errors=====
```

```
x          = spect6614[w6614]
```

```
chisq[k]    = chi2/N_ELEMENTS(x)
```

```
dof         = N_ELEMENTS(x) - N_ELEMENTS(result)
```

```
pcerror[*, k] = perror * SQRT (chi2/dof)
```

```
spect6614res=RESAMPLE(wavelength, spect6614, wave6614ave)
```



```
spect6614ave= spect6614ave + spect6614res
```

```
PLOT, wavelength, spect6614, XRANGE=[6600.,6620.]
```

```
OPlot, wavelength[w6614], fitted[w6614], THICK=2, COLOR=1
```

```
;=====
```

```
;compute equivalent width
```

```
measures[*, k] = result
```

```
;the profile is a gaussian so ew1 is given by:
```

```
ew1[k] = -1.* result[0] * result[2] *SQRT(2*!PI)
```

```
;=====
```

```
;compute error in ew
```

```
ew1err[k] = SQRT((SQRT(2*!PI))^2*((pcerror[0, k] * result[2])^2 + (result[0] * pcerror[2, k])^2))
```

```
ew1select[k] = ew1[k]/ew1err[k]
```

```
PRINTF, 2, measures[*, k], pcerror[*, k], chisq[k], ew1[k], ew1err[k], ew1select[k],  
FORMAT='(1X,F7.4,1X,F7.2,1X,F4.2,1X,F4.2,1X,F12.5,1X,F13.3,1X,F13.3,1X,F5.3,1X,F6.3,1X,F6.3,1X,F10.4,1X,F5.1)'
```

```
PRINTF, 3, ew1[k], ew1err[k], ew1select[k], chisq[k], FORMAT='(1X,F6.3,1X,F10.4,1X,F5.1,1X,F6.3)'
```

```
ENDFOR
```

```
spect5780ave=spect5780ave/238
```

```
PLOT, wave5780ave, spect5780ave, XRange=[5765.,5810.]
```

```
spect5797ave=spect5797ave/238
```

```
OPLOT, wave5797ave, spect5797ave, COLOR=3
```

```
spect5850ave=spect5850ave/238
```

```
PLOT, wave5850ave, spect5850ave, XRange=[5835.,5865.]
```

```
spectHeave=spectHeave/238
```

```
PLOT, waveHeave, spectHeave, XRange=[5868.,5882.]
```

```
spectNa1ave=spectNa1ave/238
```

```
PLOT, waveNa1ave, spectNa1ave, XRange=[5880.,5905.]
```

```
spect6196_6203ave=spect6196_6203ave/238
```

```
PLOT, wave6196_6203ave, spect6196_6203ave, XRange=[6180.,6220.]
```

```
spect6270ave=spect6270ave/238
```

```
PLOT, wave6270ave, spect6270ave, XRange=[6255.,6280.], YRange=[0.977,1.004]
```

```
spect6283ave=spect6283ave/238
```

```
PLOT, wave6283ave, spect6283ave, XRange=[6265.,6290.]
```

```
spect6614ave=spect6614ave/238
```

```
PLOT, wave6614ave, spect6614ave, XRange=[6600.,6620.]
```

```
DEVICE, /CLOSE
```

```
cmd = 'mv ' + 'idl.ps' + ' ' + 'lb_dibs_2012.ps'
```

```
SPAWN, cmd
```

```
SET_PLOT, 'X'
```

CLOSE, 1

CLOSE, 2

CLOSE, 3

CLOSE, 4

CLOSE, 5

;=====

END

Lmcb.pro

pro fit

combined_speclmcb = DBLARR(10000,400)

wavelength = DBLARR(10000)

star = STRARR(400)

chi2 = DBLARR(400)

chisq = DBLARR(400)

perror = DBLARR(4)

ra = DBLARR(400)

dec = DBLARR(400)

target = STRARR(400)

namei = STRARR(400)

;===== set constraints =====

```
constCaIIK = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]}, 13)
```

```
baseCaIIK = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]}, 2)
```

```
baseCaIIH = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]}, 2)
```

```
nspectra = 400
```

```
type = ''
```

```
name = ''
```

```
wc      = DBLARR(6, 2)
```

```
wavelength = 3780.+FINDGEN(10000)*0.027
```

```
waveCaIIKave=3910. + FINDGEN(200)*0.25
```

```
spectCaIIKave=0.*waveCaIIKave
```

```
waveCaIIHave=3950. + FINDGEN(200)*0.25
```

```
spectCaIIHave=0.*waveCaIIHave
```

```
TVLCT, 255, 0, 0, 1 ;red
```

```
TVLCT, 0, 255, 0, 2 ;green
```

```
TVLCT, 0, 0, 255, 3 ;blue
```

```
;===== read input catalogue =====
```

```
OPENR, 1, 'lmc_info.cat'
```

```
FOR i = 0, nspectra -1 DO BEGIN
```

```
  READF, 1, fibre, name, r1, r2, r3, d1, d2, d3, type, flag, a, b, c,  
  FORMAT='(I3,1X,I6,1X,I2,1X,I2,1X,F6.3,1X,I3,1X,I2,1X,F5.2,1X,A1,1X,I1,1X,F6.2,1X,I1,1X,F6.3)'
```

```
  ra[i] = r1 + r2/60. + r3/3600.
```

```
  dec[i] = d1 + d1/ABS(d1)*(d2/60. + d3/3600.)
```

```
  target[i] = type
```

```
  namei[i] = name
```

```
ENDFOR
```

```
CLOSE, 1
```

```
CLOSE, 2
```

```
OPENW, 3, 'measures_lmcb.dat'
```

```
gl      =FLTARR(400)
```

```
gb      =FLTARR(400)
```

```
glc     =FLTARR(400)
```

```
gbc     =FLTARR(400)
```

```
npoints = 400
```

```
OPENR, 4, 'ra_dec.dat'
```

```
OPENW, 5, 'galcoord.dat'
```

```
FOR n = 0, npoints - 1 DO BEGIN
```

```
  READF, 4, rac, decc, FORMAT='(F7.5,1X,F9.5)'
```



```
GLACTC,(rac),(decc),2000,gl,gb,1
```

```
PRINTF, 5, gl, gb
```

```
glc[n] = gl
```

```
gbc[n] = gb
```

```
ENDFOR
```

```
;===== set a ps file to plot data =====
```

```
SET_PLOT,'PS'
```

```
DEVICE, /COLOR, /landscape
```

```
!X.MARGIN=[10,3]
```

```
!Y.MARGIN=[4,2]
```

```
!X.MARGIN=!X.MARGIN/3
```

```
!Y.MARGIN=!Y.MARGIN/3
```

```
!P.MULTI=[0, 8, 8]
```

```
!x.charsize=0.5
```

```
!y.charsize=0.5
```

```
;===== start loop over spectra =====
```

```
FOR k = 0, nspectra -1 DO BEGIN
```

```
  IF (target[k] eq 'P') THEN BEGIN
```

```
    combined_specmcb(*,*) = MRDFITS('combined_specmcb.fits', 0, header)
```

```
;===== FOR THE Ca II K line =====
```

```
measuresCaIIK = DBLARR(13,400)
```

```
pcerror       = DBLARR(13,400)
```

```
ewCaIIKgal     = DBLARR(400)
```

```
ewCaIIKlmc     = DBLARR(400)
```

```
ewCaIIK2gal    = DBLARR(400)
```

```
ewCaIIK2lmc    = DBLARR(400)
```

ewCaIIKgalerr = DBLARR(400)

ewCaIIKlmcerr = DBLARR(400)

ewCaIIK2galerr = DBLARR(400)

ewCaIIK2lmcerr = DBLARR(400)

ewCaIIKgalselect = DBLARR(400)

ewCaIIKlmcselect = DBLARR(400)

ewCaIIK2galselect = DBLARR(400)

ewCaIIK2lmcselect = DBLARR(400)

w1 = 3905

w2 = 3983

wc[0, 0] = 3905

wc[0, 1] = 3914

wc[1, 0] = 3916

wc[1, 1] = 3921

wc[2, 0] = 3940

wc[2, 1] = 3945

wc[3, 0] = 3949

wc[3, 1] = 3956

wc[4, 0] = 3960

wc[4, 1] = 3965

wc[5, 0] = 3980

wc[5, 1] = 3983

;===== baseline fitting =====

a0 = 1

a1 = 0

pol = 'p[0] +p[1]*x'

baseCaIIK[0].VALUE = a0

baseCaIIK[1].VALUE = a1

;=====fitting a baseline to normalise the spectrum=====

wdib = WHERE(wavelength GE w1 AND wavelength LE w2)

baseline1 = MEDIAN(combined_spec1mcb[wdib,k])

spect1 = combined_spec1mcb[:,k]/baseline1

waveselect = WHERE((wavelength GE wc[0,0] AND wavelength LE wc[0,1]) OR (wavelength GE wc[1,0] AND wavelength LE wc[1,1])
OR (wavelength GE wc[2,0] AND wavelength LE wc[2,1]) OR (wavelength GE wc[3,0] AND wavelength LE wc[3,1]) OR (wavelength GE
wc[4,0] AND wavelength LE wc[4,1]) OR (wavelength GE wc[5,0] AND wavelength LE wc[5,1]))

base = MPFITEXPR(pol, wavelength[waveselect], spect1[waveselect], PARINFO=baseCaIIK, /quiet)

baselineCaIIK = MPEVALEXPR(pol, wavelength, base)

spectCaHK = spect1/baselineCaHK

;===== Line fitting =====

;#####

;##### first try two Galactic and two LMC kinematic components #####

;#####

a0 = -0.1

a1 = 3933.6

a2 = 0.2

a3 = -0.2

a4 = 3937

a5 = 0.2

a6 = -0.1

$$a7 = 3935$$

$$a8 = 0.2$$

$$a9 = -0.1$$

$$a10 = 3937.5$$

$$a11 = 0.2$$

$$a12 = 1$$

$$\text{gauss} = '(p[0]*\exp(-(X-p[1])^2/(2.*p[2]^2)))+(p[3]*\exp(-(X-p[4])^2/(2.*p[5]^2)))+(p[6]*\exp(-(X-p[7])^2/(2.*p[8]^2)))+(p[9]*\exp(-(X-p[10])^2/(2.*p[11]^2)))+p[12]'$$

$$\text{constCaIIK}[0].\text{LIMITED}[1] = 1$$

$$\text{constCaIIK}[0].\text{LIMITS}[1] = 0$$

$$\text{constCaIIK}[1].\text{LIMITED}[0] = 1$$

$$\text{constCaIIK}[1].\text{LIMITED}[1] = 1$$

$$\text{constCaIIK}[1].\text{LIMITS}[0] = a1-1$$

$$\text{constCaIIK}[1].\text{LIMITS}[1] = a1+1$$

`constCaIIK[2].LIMITED[0] = 1`

`constCaIIK[2].LIMITED[1] = 1`

`constCaIIK[2].LIMITS[0] = a2*0.6`

`constCaIIK[2].LIMITS[1] = 1.5*a2`

`constCaIIK[3].LIMITED[1] = 1`

`constCaIIK[3].LIMITS[1] = 0`

`constCaIIK[4].LIMITED[0] = 1`

`constCaIIK[4].LIMITED[1] = 1`

`constCaIIK[4].LIMITS[0] = a4-1`

`constCaIIK[4].LIMITS[1] = a4+1`

`constCaIIK[5].LIMITED[0] = 1`

`constCaIIK[5].LIMITED[1] = 1`

`constCaIIK[5].LIMITS[0] = a5*0.6`

`constCaIIK[5].LIMITS[1] = 1.5*a5`

`constCaIIK[6].FIXED = 0`

`constCaIIK[6].LIMITED[1] = 1`

`constCaIIK[6].LIMITS[1] = 0`

`constCaIIK[7].LIMITED[0] = 1`

`constCaIIK[7].LIMITED[1] = 1`

`constCaIIK[7].LIMITS[0] = a7-0.5`

`constCaIIK[7].LIMITS[1] = a7+0.5`

`constCaIIK[8].LIMITED[0] = 1`

`constCaIIK[8].LIMITED[1] = 1`

`constCaIIK[8].LIMITS[0] = a8*0.6`

`constCaIIK[8].LIMITS[1] = 1.5*a8`

`constCaIIK[9].FIXED = 0`

`constCaIIK[9].LIMITED[1] = 1`

`constCaIIK[9].LIMITS[1] = 0`

`constCaIIK[10].LIMITED[0] = 1`

`constCaIIK[10].LIMITED[1] = 1`

`constCaIIK[10].LIMITS[0] = a10-0.5`

`constCaIIK[10].LIMITS[1] = a10+0.5`

constCaIIK[11].LIMITED[0] = 1

constCaIIK[11].LIMITED[1] = 1

constCaIIK[11].LIMITS[0] = a11*0.6

constCaIIK[11].LIMITS[1] = 1.5*a11

constCaIIK[0].VALUE = a0

constCaIIK[1].VALUE = a1

constCaIIK[2].VALUE = a2

constCaIIK[3].VALUE = a3

constCaIIK[4].VALUE = a4

constCaIIK[5].VALUE = a5

constCaIIK[6].VALUE = a6

constCaIIK[7].VALUE = a7

constCaIIK[8].VALUE = a8

constCaIIK[9].VALUE = a9

constCaIIK[10].VALUE = a10

constCaIIK[11].VALUE = a11

```
constCaIIK[12].VALUE      = a12
```

```
valid      = WHERE((wavelength GE 3905 AND wavelength LE 3932) OR (wavelength GE 3940 AND wavelength LE 3965)OR  
(wavelength GE 3980 AND wavelength LE 3983))
```

```
deviation = STDEV(spectCaIIK[valid]-1)
```

```
weights = 0.*spectCaIIK + deviation
```

```
wCaIIK      = WHERE(wavelength GE 3932 AND wavelength LE 3941)
```

```
result=MPFITEXPR(gauss, wavelength[wCaIIK], spectCaIIK[wCaIIK], weights[wCaIIK], PARINFO=constCaIIK, BESTNORM=chi2,  
perror=perror, /quiet)
```

```
;#####
```

```
;##### now we check whether we believe there are two kinematic components #####
```

```
;#####
```

```
tryagain = 0
```

```
dwGal = result[7] -result[1]
```

```
dwLMC = result[10]-result[4]
```

```
thresholdGal = 0.5
```

```
thresholdLMC = 0.5
```

```
IF (dwGal LT thresholdGal) THEN BEGIN
```

```
tryagain = 1
```

```
constCaIIK[6].FIXED = 1
```

```
constCaIIK[6].VALUE = 0
```

```
ENDIF
```

```
IF (dwLMC LT thresholdLMC) THEN BEGIN
```

```
tryagain = 1
```

```
constCaIIK[9].FIXED = 1
```

```
constCaIIK[9].VALUE = 0
```

```
ENDIF
```

```
;#####
```

```
;#### now possibly refit again, having constrained some components to zero ####
```

```
;#####
```

```
IF (tryagain GT 0.1) THEN result=MPFITEXPR(gauss, wavelength[wCaIIK], spectCaIIK[wCaIIK], weights[wCaIIK],  
PARINFO=constCaIIK, BESTNORM=chi2, perror=perror, /quiet)
```

```
;#####
```

```
;##### now we are happy, so we continue as before #####
```

```
;#####
```

```
fitted=MPEVALEXPR(gauss, wavelength, result)
```

```
;===== scale errors =====
```

```
x          = spectCaIIK[wCaIIK]
```

```
chisq[k]    = chi2/N_ELEMENTS(x)
```

```
dof         = N_ELEMENTS(x) - N_ELEMENTS(result)
```

```
pcerror[*,k] = perror * SQRT (chi2/dof)
```

```
;===== plot =====
```

```
spectCaIIKres=RESAMPLE(wavelength, spectCaIIK, waveCaIIKave)
```

```
spectCaIIKave=spectCaIIKave + spectCaIIKres
```

```
PLOT, wavelength, spectCaIIK, XRange=[3930.,3943.], YRange=[0.15,1.2], XStyle=1, YStyle=1
```

```
OPLOT, wavelength[wCaIIK], fitted[wCaIIK], THICK=2, COLOR =1
```

```
xyouts,3928.5,1.1,namei[k],/data,alignment=0.0,charsize=0.3
```

```
xyouts,3931,0.25,"Ca II K",charsize=0.3
```

```
xyouts,3933,0.6,"Galactic",charsize=0.3
```

```
xyouts,3937.5,0.5,"LMC",charsize=0.3
```

```
;===== compute equivalent width=====
```

```
measuresCaIIK[* , k]      = result
```

```
CaIIKg                    = measuresCaIIK[1, k]
```

```
CaIIKlmc                  = measuresCaIIK[4, k]
```

```
CaIIK2g                   = measuresCaIIK[7, k]
```

```
CaIIK2lmc                 = measuresCaIIK[10, k]
```

```
ewCaIIKgal[k]             = -1.* result[0] * result[2] *SQRT(2*!PI)
```

```
ewCaIIKlmc[k]              = -1.* result[3] * result[5] *SQRT(2*!PI)
```

```
ewCaIIK2gal[k]             = -1.* result[6] * result[8] *SQRT(2*!PI)
```

```
ewCaIIK2lmc[k]             = -1.* result[9] * result[11] *SQRT(2*!PI)
```

;===== compute error in ew =====

ewCaIIKgalerr[k] = SQRT((SQRT(2*!PI))^2*((pcerror[0, k] * result[2])^2 + (result[0] * pcerror[2, k])^2))

ewCaIIKlmcerr[k] = SQRT((SQRT(2*!PI))^2*((pcerror[3, k] * result[5])^2 + (result[3] * pcerror[5, k])^2))

ewCaIIK2galerr[k] = SQRT((SQRT(2*!PI))^2*((pcerror[6, k] * result[8])^2 + (result[6] * pcerror[8, k])^2))

ewCaIIK2lmcerr[k] = SQRT((SQRT(2*!PI))^2*((pcerror[9, k] * result[11])^2 + (result[9] * pcerror[11, k])^2))

ewCaIIKgalselect[k] = ewCaIIKgal[k]/ewCaIIKgalerr[k]

ewCaIIKlmcselect[k] = ewCaIIKlmc[k]/ewCaIIKlmcerr[k]

ewCaIIK2galselect[k] = ewCaIIK2gal[k]/ewCaIIK2galerr[k]

IF (ewCaIIK2galerr[k] LT 0.0001) THEN ewCaIIK2galselect[k] = 0.

ewCaIIK2lmcselect[k] = ewCaIIK2lmc[k]/ewCaIIK2lmcerr[k]

IF (ewCaIIK2lmcerr[k] LT 0.0001) THEN ewCaIIK2lmcselect[k] = 0.

PRINTF, 3, namei[k], ra[k], dec[k], glc[k], gbc[k], measuresCaIIK[*], pcerror[*], chisq[k], ewCaIIKgal[k], ewCaIIKlmc[k],
ewCaIIK2gal[k], ewCaIIK2lmc[k], ewCaIIKgalerr[k], ewCaIIKlmcerr[k], ewCaIIK2galerr[k], ewCaIIK2lmcerr[k],
ewCaIIKgalselect[k], ewCaIIKlmcselect[k], ewCaIIK2galselect[k], ewCaIIK2lmcselect[k],


```
FORMAT=('/I4,1X,F7.5,1X,F9.5,1X,F9.5,1X,F9.5,1X,F6.3,1X,F7.2,1X,F5.3,1X,F6.3,1X,F7.2,1X,F5.3,1X,F6.3,1X,F7.2,1X,F5.3,1X,F6.3,1X,F7.2,1X,F5.3,1X,F4.2,1X,F5.3,1X,F4.2,1X,F5.3,1X,F5.3,1X,F4.2,1X,F6.3,1X,F6.3,1X,F4.2,1X,F6.3,1X,F6.3,1X,F4.2,1X,F6.3,1X,F4.2,1X,F6.3,1X,F7.3,1X,F5.3,1X,F5.3,1X,F6.3,1X,F6.3,1X,F5.3,1X,F5.3,1X,F5.3,1X,F5.3,1X,F4.1,1X,F4.1,1X,F4.1,1X,F5.1,$')
```

```
;===== FOR THE Ca II H line =====
```

```
w1 = 3905
```

```
w2 = 3983
```

```
wc[0, 0] = 3905
```

```
wc[0, 1] = 3914
```

```
wc[1, 0] = 3916
```

```
wc[1, 1] = 3921
```

```
wc[2, 0] = 3940
```

```
wc[2, 1] = 3945
```

```
wc[3, 0] = 3949
```

```
wc[3, 1] = 3956
```

```
wc[4, 0] = 3960
```

```
wc[4, 1] = 3965
```

```
wc[5, 0] = 3980
```

```
wc[5, 1] = 3983
```

```
;===== baseline fitting =====
```

```
a0 = 1
```

```
a1 = 0
```

```
pol = 'p[0] +p[1]*x'
```

```
baseCaIIH[0].VALUE      = a0
```

```
baseCaIIH[1].VALUE      = a1
```

```
;=====fitting a baseline to normalise the spectrum=====
```

```
wdib = WHERE(wavelength GE w1 AND wavelength LE w2)
```

```
baseline2 = MEDIAN(combined_speclmcb[wdib,k])
```

```
spect2 = combined_speclmcb[:,k]/baseline2
```

```
waveselect = WHERE((wavelength GE wc[0,0] AND wavelength LE wc[0,1]) OR (wavelength GE wc[1,0] AND wavelength LE wc[1,1])  
OR (wavelength GE wc[2,0] AND wavelength LE wc[2,1]) OR (wavelength GE wc[3,0] AND wavelength LE wc[3,1]) OR (wavelength GE  
wc[4,0] AND wavelength LE wc[4,1]) OR (wavelength GE wc[5,0] AND wavelength LE wc[5,1]))
```

```
base = MPFITEXPR(pol, wavelength[waveselect], spect2[waveselect], PARINFO=baseCalIH, /quiet)
```

```
baselineCalIH = MPEVALEXPR(pol, wavelength, base)
```

```
spectCalIH = spect2/baselineCalIH
```

```
;===== plot =====
```

```
CalIHg=CalIKg+34.8
```

CaIIHlmc=CaIIKlmc+34.8

CaIIH2g=CaIIK2g+34.8

CaIIH2lmc=CaIIK2lmc+34.8

spectCaIIHres=RESAMPLE(wavelength, spectCaIIH, waveCaIIHave)

spectCaIIHave=spectCaIIHave + spectCaIIHres

PLOT, wavelength, spectCaIIH, X RANGE=[3960.,3985.], Y RANGE=[0.15,1.2], X STYLE=1, Y STYLE=1

xyouts,3962,0.25,"Ca II H",charsize=0.3

xyouts,CaIIHg,1,"|",charsize=0.3

xyouts,CaIIHlmc,1,"|",charsize=0.3

xyouts,CaIIH2g,1,"|",charsize=0.3

xyouts,CaIIH2lmc,1,"|",charsize=0.3

xyouts,3966,1.06,"Galactic",charsize=0.3

xyouts,3971.5,1.06,"LMC",charsize=0.3

```
;=====
```

```
ENDIF
```

```
ENDFOR
```

```
spectCaIIKave=spectCaIIKave/328
```

```
PLOT, waveCaIIKave, spectCaIIKave, XRANGE=[3930.,3943.], YRANGE=[0.6,1.1], XSTYLE=1, YSTYLE=1
```

```
xyouts,3931,1.06,"average spectrum",charsize=0.3
```

```
xyouts,3931,0.62,"Ca II K",charsize=0.3
```

```
xyouts,3933,0.82,"Galactic",charsize=0.3
```

```
xyouts,3936.5,0.78,"LMC",charsize=0.3
```

```
spectCaIIHave=spectCaIIHave/328
```

```
Hgal = MEAN(CaIIKg)
```

```
Hlmc = MEAN(CaIIKlmc)
```

```
H2gal = MEAN(CaIIK2g)
```

H2lmc = MEAN(CaIIK2lmc)

aveHgal = Hgal+34.8

aveHlmc = Hlmc+34.8

aveH2gal = H2gal+34.8

aveH2lmc = H2lmc+34.8

PLOT, waveCaIIHave, spectCaIIHave, X RANGE=[3960.,3985.], Y RANGE=[0.60,1.1], X STYLE=1, Y STYLE=1

xyouts,3961,1.06,"average spectrum",charsize=0.3

xyouts,3961,0.62,"Ca II H",charsize=0.3

xyouts,aveHgal,1,"|",charsize=0.3

xyouts,aveHlmc,1,"|",charsize=0.3

xyouts,aveH2gal,1,"|",charsize=0.3

xyouts,aveH2lmc,1,"|",charsize=0.3

xyouts,3967,0.965,"Galactic",charsize=0.3

xyouts,3972,0.965,"LMC",charsize=0.3

DEVICE, /CLOSE

cmd = 'mv ' + 'idl.ps' + ' ' + 'lmc.b.ps'

SPAWN, cmd

SET_PLOT, 'X'

CLOSE, 1

CLOSE, 2

CLOSE, 3

CLOSE, 4

CLOSE, 5

END

Lmcr.pro

pro fit

combined_speclmcr = DBLARR(19630,400)

wavelength = DBLARR(19630)

star = STRARR(400)

chi2 = DBLARR(400)

chisq = DBLARR(400)

perror = DBLARR(4)

ra = DBLARR(400)

dec = DBLARR(400)

target = STRARR(400)

namei = STRARR(400)

name = STRARR(400)

;===== set constraints =====

const5780 = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]}, 7)

const5797 = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]}, 7)

constNa = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]}, 13)

base5780 = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]}, 2)

base5797 = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]}, 2)

baseNa = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]}, 2)

nspectra = 400

type = ''

name = ''

wc = DBLARR(5, 2)

wavelength = 5570.+FINDGEN(19630)*0.027

wave5780ave=5770. + FINDGEN(200)*0.25

spect5780ave=0.*wave5780ave

```
wave5797ave=5770. + FINDGEN(200)*0.25
```

```
spect5797ave=0.*wave5797ave
```

```
waveNaave=5870. + FINDGEN(200)*0.25
```

```
spectNaave=0.*waveNaave
```

```
TVLCT, 255, 0, 0, 1 ;red
```

```
TVLCT, 0, 255, 0, 2 ;green
```

```
TVLCT, 0, 0, 255, 3 ;blue
```

```
;===== read input catalogue =====
```

```
OPENR, 1, 'lmc_info.cat'
```

```
FOR i = 0, nspectra -1 DO BEGIN
```

```
  READF, 1, fibre, name, r1, r2, r3, d1, d2, d3, type, flag, a, b, c,  
  FORMAT='(I3,1X,I6,1X,I2,1X,I2,1X,F6.3,1X,I3,1X,I2,1X,F5.2,1X,A1,1X,I1,1X,F6.2,1X,I1,1X,F6.3)'
```

```
  ra[i] = r1 + r2/60. + r3/3600.
```

```
dec[i] = d1 + d1/ABS(d1)*(d2/60. + d3/3600.)
```

```
target[i] = type
```

```
namei[i] = name
```

```
ENDFOR
```

```
CLOSE, 1
```

```
CLOSE, 2
```

```
;stop
```

```
OPENW, 3, 'measures_lmcr.dat'
```

```
openw, 4, 'name.dat'
```

```
gl      =FLTARR(400)
```

```
gb      =FLTARR(400)
```

```
glc     =FLTARR(400)
```

```
bc      =FLTARR(400)
```

```
npoints = 400
```

```
OPENR, 5, 'ra_dec.dat'
```

```
OPENW, 6, 'galcoord.dat'
```

```
FOR n = 0, npoints - 1 DO BEGIN
```

```
  READF, 5, rac, decc, FORMAT='(F7.5,1X,F9.5)'
```

```
  GLACTC,(rac),(decc),2000,gl,gb,1
```

```
  PRINTF, 6, gl, gb
```

```
  glc[n] = gl
```

```
  gbc[n] = gb
```

```
ENDFOR
```

```
;===== set a ps file to plot data =====
```

```
SET_PLOT,'PS'
```

```
DEVICE, /COLOR, /landscape
```

```
!X.MARGIN=[10,3]
```

```
!Y.MARGIN=[4,2]
```

```
!X.MARGIN=!X.MARGIN/3
```

```
!Y.MARGIN=!Y.MARGIN/3
```

```
!P.MULTI=[0, 6, 8]
```

```
!x.charsize=0.5
```

```
!y.charsize=0.5
```

```
;===== start loop over spectra =====
```

```
FOR k = 0, nspectra -1 DO BEGIN
```

```
  IF (target[k] eq 'P') THEN BEGIN
```

```
    combined_speclmcr(*,*) = MRDFITS('combined_speclmcr.fits', 0, header)
```

```
;===== FOR THE 5780 DIB =====
```

measures5780 = DBLARR(7,400)

pcerror = DBLARR(7,400)

ew5780gal = DBLARR(400)

ew5780lmc = DBLARR(400)

ew5780galerr = DBLARR(400)

ew5780lmcerr = DBLARR(400)

ew5780galselect = DBLARR(400)

ew5780lmcselect = DBLARR(400)

w1 = 5750

w2 = 5815

wc[0, 0] = 5752

wc[0, 1] = 5765

wc[1, 0] = 5765

wc[1, 1] = 5778

wc[2, 0] = 5789

wc[2, 1] = 5794

wc[3, 0] = 5799

wc[3, 1] = 5802

wc[4, 0] = 5809

wc[4, 1] = 5813

;===== baseline fitting =====

a0 = 1

a1 = 0

pol = 'p[0] +p[1]*x'

base5780[0].VALUE = a0

base5780[1].VALUE = a1

```
;=====fitting a baseline to normalise the spectrum=====
```

```
wdib = WHERE(wavelength GE w1 AND wavelength LE w2)
```

```
baseline1 = MEDIAN(combined_spec1mcr[wdib,k])
```

```
spect1 = combined_spec1mcr[:,k]/baseline1
```

```
waveselect = WHERE((wavelength GE wc[0,0] AND wavelength LE wc[0,1]) OR (wavelength GE wc[1,0] AND wavelength LE wc[1,1])  
OR (wavelength GE wc[2,0] AND wavelength LE wc[2,1]) OR (wavelength GE wc[3,0] AND wavelength LE wc[3,1]) OR (wavelength GE  
wc[4,0] AND wavelength LE wc[4,1]))
```

```
base = MPFITEXPR(pol, wavelength[waveselect], spect1[waveselect], PARINFO=base5780, /quiet)
```

```
baseline5780 = MPEVALEXPR(pol, wavelength, base)
```

```
spect5780 = spect1/baseline5780
```



```
;===== DIB fitting =====
```

```
a0 = -0.1
```

```
a1 = 5780.8
```

```
a2 = 0.6
```

```
a3 = -0.1
```

```
a4 = 5786
```

```
a5 = 0.6
```

```
a6 = 1
```

```
gauss = '(p[0]*exp(-(X-p[1])^2/(2.*p[2]^2)))+(p[3]*exp(-(X-p[4])^2/(2.*p[5]^2)))+p[6]'
```

```
const5780[0].LIMITED[1] = 1
```

```
const5780[0].LIMITS[1] = 0
```

```
const5780[1].LIMITED[0] = 1
```

```
const5780[1].LIMITED[1] = 1
```

const5780[1].LIMITS[0] = a1-1

const5780[1].LIMITS[1] = a1+1

const5780[2].LIMITED[0] = 1

const5780[2].LIMITED[1] = 1

const5780[2].LIMITS[0] = a2*0.6

const5780[2].LIMITS[1] = 1.5*a2

const5780[3].LIMITED[1] = 1

const5780[3].LIMITS[1] = 0

const5780[4].LIMITED[0] = 1

const5780[4].LIMITED[1] = 1

const5780[4].LIMITS[0] = a4-1

const5780[4].LIMITS[1] = a4+1

const5780[5].LIMITED[0] = 1

const5780[5].LIMITED[1] = 1

const5780[5].LIMITS[0] = a5*0.6

const5780[5].LIMITS[1] = 1.5*a5

const5780[0].VALUE = a0

const5780[1].VALUE = a1

const5780[2].VALUE = a2

const5780[3].VALUE = a3

const5780[4].VALUE = a4

const5780[5].VALUE = a5

const5780[6].VALUE = a6

valid = WHERE((wavelength GE 5750 AND wavelength LE 5778) OR (wavelength GE 5805 AND wavelength LE 5815))

deviation = STDEV(spect5780[valid]-1)

weights = 0.*spect5780 + deviation

w5780 = WHERE(wavelength GE 5778 AND wavelength LE 5790)

result=MPFITEXPR(gauss, wavelength[w5780], spect5780[w5780], weights[w5780], PARINFO=const5780, BESTNORM=chi2,
perror=perror, /quiet)

```
fitted=MPEVALEXP(gauss, wavelength, result)
```

```
;===== scale errors =====
```

```
x          = spect5780[w5780]
```

```
chisq[k]    = chi2/N_ELEMENTS(x)
```

```
dof         = N_ELEMENTS(x) - N_ELEMENTS(result)
```

```
pcerror[*,k] = perror * SQRT (chi2/dof)
```

```
;===== plot =====
```

```
spect5780res=RESAMPLE(wavelength, spect5780, wave5780ave)
```

```
spect5780ave=spect5780ave + spect5780res
```

```
PLOT, wavelength, spect5780, XRange=[5777.,5793.], YRange=[0.9,1.05], XStyle=1, YStyle=1
```

```
OPLOT, wavelength[w5780], fitted[w5780], THICK=2, COLOR =1
```

```
xyouts,5776,1.035,namei[k],/data,alignment=0.0,charsize=0.3
```

```
xyouts,5778,0.91,"DIB 5780",charsize=0.3
```

```
xyouts,5778,0.96,"Galactic",charsize=0.3
```

```
xyouts,5787.6,0.96,"LMC",charsize=0.3
```

```
;===== compute equivalent width=====
```

```
measures5780[*, k] = result
```

```
DIB5780g = measures5780[1, k]
```

```
DIB5780lmc = measures5780[4, k]
```

```
ew5780gal[k] = -1.* result[0] * result[2] *SQRT(2*PI)
```

```
ew5780lmc[k] = -1.* result[3] * result[5] *SQRT(2*PI)
```

```
;===== compute error in ew =====
```

```
ew5780galerr[k] = SQRT((SQRT(2*PI))^2*((pcerror[0, k] * result[2])^2 + (result[0] * pcerror[2, k])^2))
```

```
ew5780lmcerr[k] = SQRT((SQRT(2*PI))^2*((pcerror[3, k] * result[5])^2 + (result[3] * pcerror[5, k])^2))
```

```
ew5780galselect[k] = ew5780gal[k]/ew5780galerr[k]
```

```
IF (ew5780galerr[k] LT 0.0001) THEN ew5780galselect[k] = 0.
```

```
ew5780lmcselect[k] = ew5780lmc[k]/ew5780lmcerr[k]
```

```
IF (ew5780lmcerr[k] LT 0.0001) THEN ew5780lmcselect[k] = 0.
```

```
PRINTF, 3, namei[k], ra[k], dec[k], glc[k], gbc[k], measures5780[*,k], pccerror[*,k], chisq[k], ew5780gal[k], ew5780lmc[k],  
ew5780galerr[k], ew5780lmcerr[k], ew5780galselect[k], ew5780lmcselect[k],  
FORMAT='(/I4,1X,F7.5,1X,F9.5,1X,F9.5,1X,F9.5,1X,F6.3,1X,F7.2,1X,F5.3,1X,F6.3,1X,F7.2,1X,F5.3,1X,F4.2,1X,F5.3,1X,F4.2,1X,F  
5.3,1X,F5.3,1X,F4.2,1X,F5.3,1X,F4.2,1X,F5.3,1X,F6.3,1X,F6.3,1X,F6.3,1X,F6.3,1X,F4.1,1X,F5.1,$)'
```

```
PRINTF, 4, namei[k]
```

```
;===== FOR THE 5797 DIB =====
```

```
measures5797 = DBLARR(7,400)
```

```
pccerror = DBLARR(7,400)
```

```
ew5797gal = DBLARR(400)
```

```
ew5797lmc = DBLARR(400)
```

```
ew5797galerr = DBLARR(400)
```

```
ew5797lmcerr = DBLARR(400)
```

ew5797galselect = DBLARR(400)

ew5797lmcselect = DBLARR(400)

w1 = 5750

w2 = 5815

wc[0, 0] = 5752

wc[0, 1] = 5765

wc[1, 0] = 5765

wc[1, 1] = 5778

wc[2, 0] = 5789

wc[2, 1] = 5794

wc[3, 0] = 5809

wc[3, 1] = 5811

wc[4, 0] = 5811

wc[4, 1] = 5815

```
;===== baseline fitting =====
```

```
a0 = 1
```

```
a1 = 0
```

```
pol = 'p[0] +p[1]*x'
```

```
base5797[0].VALUE = a0
```

```
base5797[1].VALUE = a1
```

```
;=====fitting a baseline to normalise the spectrum=====
```

```
wdib = WHERE(wavelength GE w1 AND wavelength LE w2)
```

```
baseline2 = MEDIAN(combined_specmcr[wdib,k])
```

```
spect2 = combined_specmcr[:,k]/baseline2
```



```
waveselect = WHERE((wavelength GE wc[0,0] AND wavelength LE wc[0,1]) OR (wavelength GE wc[1,0] AND wavelength LE wc[1,1])  
OR (wavelength GE wc[2,0] AND wavelength LE wc[2,1]) OR (wavelength GE wc[3,0] AND wavelength LE wc[3,1]) OR (wavelength GE  
wc[4,0] AND wavelength LE wc[4,1]))
```

```
base = MPFITEXPR(pol, wavelength[waveselect], spect2[waveselect], PARINFO=base5797, /quiet)
```

```
baseline5797 = MPEVALEXPR(pol, wavelength, base)
```

```
spect5797 = spect2/baseline5797
```

```
;===== DIB fitting =====
```

```
a0 = -0.1
```

```
a1 = DIB5780g+16.5
```

```
a2 = 0.5
```

```
a3 = -0.1
```

a4 = DIB5780lmc+16.5

a5 = 0.5

a6 = 1

gauss = '(p[0]*exp(-(X-p[1])^2/(2.*p[2]^2)))+(p[3]*exp(-(X-p[4])^2/(2.*p[5]^2)))+p[6]'

const5797[0].LIMITED[1] = 1

const5797[0].LIMITS[1] = 0

const5797[1].LIMITED[0] = 1

const5797[1].LIMITED[1] = 1

const5797[1].LIMITS[0] = a1-0.75

const5797[1].LIMITS[1] = a1+0.75

const5797[2].LIMITED[0] = 1

const5797[2].LIMITED[1] = 1

const5797[2].LIMITS[0] = a2/4

const5797[2].LIMITS[1] = 2*a2

const5797[3].LIMITED[1] = 1

const5797[3].LIMITS[1] = 0

const5797[4].LIMITED[0] = 1

const5797[4].LIMITED[1] = 1

const5797[4].LIMITS[0] = $a_4 - 0.75$

const5797[4].LIMITS[1] = $a_4 + 0.75$

const5797[5].LIMITED[0] = 1

const5797[5].LIMITED[1] = 1

const5797[5].LIMITS[0] = $a_5/2$

const5797[5].LIMITS[1] = $2*a_5$

const5797[0].VALUE = a_0

const5797[1].VALUE = a_1

const5797[2].VALUE = a_2

const5797[3].VALUE = a_3

const5797[4].VALUE = a_4

const5797[5].VALUE = a_5

const5797[6].VALUE = a6

valid = WHERE((wavelength GE 5750 AND wavelength LE 5778) OR (wavelength GE 5805 AND wavelength LE 5815))

deviation = STDEV(spect5797[valid]-1)

weights = 0.*spect5797 + deviation

w5797 = WHERE(wavelength GE 5794 AND wavelength LE 5806)

result=MPFITEXPR(gauss, wavelength[w5797], spect5797[w5797], weights[w5797], PARINFO=const5797, BESTNORM=chi2,
perror=perror, /quiet)

fitted=MPEVALEXPR(gauss, wavelength, result)

;===== scale errors =====

x = spect5797[w5797]

chisq[k] = chi2/N_ELEMENTS(x)

```
dof      = N_ELEMENTS(x) - N_ELEMENTS(result)
```

```
pcerror[*,k] = perror * SQRT (chi2/dof)
```

```
;===== plot =====
```

```
spect5797res=RESAMPLE(wavelength, spect5797, wave5797ave)
```

```
spect5797ave=spect5797ave + spect5797res
```

```
PLOT, wavelength, spect5797, XRange=[5792.,5808.], YRange=[0.9,1.05], XStyle=1, YStyle=1
```

```
OPLOT, wavelength[w5797], fitted[w5797], THICK=2, COLOR =1
```

```
xyouts,5793,0.91,"DIB 5797",charsize=0.3
```

```
xyouts,5794.5,0.97,"Galactic",charsize=0.3
```

```
xyouts,5804.5,0.97,"LMC",charsize=0.3
```

```
;===== compute equivalent width=====
```

```
measures5797[* , k]      = result
```

```
ew5797gal[k]              = -1.* result[0] * result[2] *SQRT(2*!PI)
```

```
ew5797lmc[k]              = -1.* result[3] * result[5] *SQRT(2*!PI)
```

```
;===== compute error in ew5797gal =====
```

```
ew5797galerr[k]           = SQRT((SQRT(2*!PI))^2*((pcerror[0, k] * result[2])^2 + (result[0] * pcerror[2, k])^2))
```

```
ew5797lmcerr[k]           = SQRT((SQRT(2*!PI))^2*((pcerror[3, k] * result[5])^2 + (result[3] * pcerror[5, k])^2))
```

```
ew5797galselect[k] = ew5797gal[k]/ew5797galerr[k]
```

```
IF (ew5797galerr[k] LT 0.0001) THEN ew5797galselect[k] =0.
```

```
ew5797lmcselect[k] = ew5797lmc[k]/ew5797lmcerr[k]
```

```
IF (ew5797lmcerr[k] LT 0.0001) THEN ew5797lmcselect[k] =0.
```

```
PRINTF, 3, measures5797[* ,k], pcerror[* ,k], chisq[k], ew5797gal[k], ew5797lmc[k], ew5797galerr[k], ew5797lmcerr[k],  
ew5797galselect[k], ew5797lmcselect[k],
```

```
FORMAT='(1X,F6.3,1X,F7.2,1X,F5.3,1X,F6.3,1X,F7.2,1X,F5.3,1X,F4.2,1X,F6.3,1X,F4.2,1X,F5.3,1X,F5.3,1X,F4.2,1X,F5.3,1X,F4.2,1X,F5.3,1X,F6.3,1X,F6.3,1X,F5.3,1X,F5.3,1X,F4.1,1X,F4.1,$)'
```

```
;===== FOR THE Na lines =====
```

```
measuresNa  = DBLARR(13,400)
```

```
pcerror     = DBLARR(13,400)
```

```
ewNaD2gal   = DBLARR(400)
```

```
ewNaD1lmc   = DBLARR(400)
```

```
ewNaD1gal   = DBLARR(400)
```

```
ewNaD2lmc   = DBLARR(400)
```

```
ewNaD2galerr = DBLARR(400)
```

```
ewNaD1lmcerr = DBLARR(400)
```

```
ewNaD1galerr = DBLARR(400)
```

```
ewNaD2lmcerr = DBLARR(400)
```

```
ewNaD2galselect = DBLARR(400)
```

ewNaD1lmcselect = DBLARR(400)

ewNaD1galselect = DBLARR(400)

ewNaD2lmcselect = DBLARR(400)

w1 = 5850

w2 = 5915

wc[0, 0] = 5851

wc[0, 1] = 5862

wc[1, 0] = 5863

wc[1, 1] = 5873

wc[2, 0] = 5886

wc[2, 1] = 5888

wc[3, 0] = 5897

wc[3, 1] = 5899

wc[4, 0] = 5903


```
wc[4, 1] = 5914
```

```
;===== baseline fitting =====
```

```
a0 = 1
```

```
a1 = 0
```

```
pol = 'p[0] +p[1]*x'
```

```
baseNa[0].VALUE = a0
```

```
baseNa[1].VALUE = a1
```

```
;=====fitting a baseline to normalise the spectrum=====
```

```
wdib = WHERE(wavelength GE w1 AND wavelength LE w2)
```

```
baseline3 = MEDIAN(combined_spec1mcr[wdib,k])
```

```
spect3 = combined_spec1mcr[:,k]/baseline3
```

```
waveselect = WHERE((wavelength GE wc[0,0] AND wavelength LE wc[0,1]) OR (wavelength GE wc[1,0] AND wavelength LE wc[1,1])  
OR (wavelength GE wc[2,0] AND wavelength LE wc[2,1]) OR (wavelength GE wc[3,0] AND wavelength LE wc[3,1]) OR (wavelength GE  
wc[4,0] AND wavelength LE wc[4,1]))
```

```
base = MPFITEXPR(pol, wavelength[waveselect], spect3[waveselect], PARINFO=baseNa, /quiet)
```

```
baselineNa = MPEVALEXPR(pol, wavelength, base)
```

```
spectNa = spect3/baselineNa
```

```
;===== Line fitting =====
```

```
;#####
```

```
;##### first try one Galactic and two LMC kinematic components for the D1 line #####
```

```
;#####
```

$$a_0 = -0.1$$

$$a_1 = 5890.$$

$$a_2 = 0.5$$

$$a_3 = -0.2$$

$$a_4 = 5901.$$

$$a_5 = 0.5$$

$$a_6 = 0.1$$

$$a_7 = 5889.7$$

$$a_8 = 0.2$$

$$a_9 = -0.1$$

$$a_{10} = -0.2$$

$$a_{11} = 0.1$$

$$a_{12} = 1$$

```
gauss = '(p[0]*exp(-(X-p[1])^2/(2.*p[2]^2)))+(p[3]*exp(-(X-p[4])^2/(2.*p[5]^2)))+(p[6]*exp(-(X-p[7])^2/(2.*p[8]^2)))+(p[9]*exp(-(X-p[1]-5.97)^2/(2.*p[2]^2)))+(p[10]*exp(-(X-p[4]+5.97)^2/(2.*p[5]^2)))+(p[11]*exp(-(X-p[7]-5.97)^2/(2.*p[8]^2)))+p[12]'
```

```
constNa[0].LIMITED[1] = 1
```

```
constNa[0].LIMITS[1] = 0
```

```
constNa[1].LIMITED[0] = 1
```

```
constNa[1].LIMITED[1] = 1
```

```
constNa[1].LIMITS[0] = a1-2
```

```
constNa[1].LIMITS[1] = a1+2
```

```
constNa[2].LIMITED[0] = 1
```

```
constNa[2].LIMITED[1] = 1
```

```
constNa[2].LIMITS[0] = a2/2
```

```
constNa[2].LIMITS[1] = 2*a2
```

```
constNa[3].LIMITED[1] = 1
```

```
constNa[3].LIMITS[1] = 0
```

```
constNa[4].LIMITED[0] = 1
```

`constNa[4].LIMITED[1] = 1`

`constNa[4].LIMITS[0] = a4-2`

`constNa[4].LIMITS[1] = a4+2`

`constNa[5].LIMITED[0] = 1`

`constNa[5].LIMITED[1] = 1`

`constNa[5].LIMITS[0] = a5/2`

`constNa[5].LIMITS[1] = 2*a5`

`constNa[6].LIMITED[0] = 1`

`constNa[6].LIMITS[0] = 0`

`constNa[7].LIMITED[0] = 1`

`constNa[7].LIMITED[1] = 1`

`constNa[7].LIMITS[0] = a7-0.3`

`constNa[7].LIMITS[1] = a7+0.3`

`constNa[8].LIMITED[0] = 1`

`constNa[8].LIMITED[1] = 1`

`constNa[8].LIMITS[0] = a8/2`

constNa[8].LIMITS[1] = 2*a8

constNa[9].LIMITED[1] = 1

constNa[9].LIMITS[1] = 0

constNa[10].LIMITED[1] = 1

constNa[10].LIMITS[1] = 0

constNa[11].LIMITED[0] = 1

constNa[11].LIMITS[0] = 0

constNa[0].VALUE = a0

constNa[1].VALUE = a1

constNa[2].VALUE = a2

constNa[3].VALUE = a3

constNa[4].VALUE = a4

constNa[5].VALUE = a5

constNa[6].VALUE = a6

constNa[7].VALUE = a7

constNa[8].VALUE = a8

constNa[9].VALUE = a9

constNa[10].VALUE = a10

constNa[11].VALUE = a11

constNa[12].VALUE = a12

valid = WHERE((wavelength GE 5850 AND wavelength LE 5873) OR (wavelength GE 5905 AND wavelength LE 5914))

deviation = STDEV(spectNa[valid]-1)

weights = 0.*spectNa + deviation

wNa = WHERE(wavelength GE 5887 AND wavelength LE 5906)

result=MPFITEXPR(gauss, wavelength[wNa], spectNa[wNa], weights[wNa], PARINFO=constNa, BESTNORM=chi2, perror=perror,
/quiet)

fitted=MPEVALEXPR(gauss, wavelength, result)

;===== scale errors =====

```
x          = spectNa[wNa]
```

```
chisq[k]    = chi2/N_ELEMENTS(x)
```

```
dof         = N_ELEMENTS(x) - N_ELEMENTS(result)
```

```
pcerror[*,k] = perror * SQRT (chi2/dof)
```

```
;===== plot =====
```

```
spectNares=RESAMPLE(wavelength, spectNa, waveNaave)
```

```
spectNaave=spectNaave + spectNares
```

```
PLOT, wavelength, spectNa, XRange=[5885.,5910.], YRange=[0.5,1.05], XStyle=1, YStyle=1
```

```
OPLOT, wavelength[wNa], fitted[wNa], THICK=2, COLOR =1
```

```
xyouts,5886,0.55,"Na",charsize=0.3
```



```
xyouts,5887,0.85,"Gal D!D2",charsize=0.3
```

```
xyouts,5903,0.7,"LMC D!D1",charsize=0.3
```

```
xyouts,5893,0.55,"LMC D!D2",charsize=0.3
```

```
xyouts,5896.5,0.55,"Gal D!D1",charsize=0.3
```

```
;===== compute equivalent width=====
```

```
measuresNa[* , k] = result
```

```
ewNaD2gal[k] = -1.* result[0] * result[2] *SQRT(2*!PI)
```

```
ewNaD1lmc[k] = -1.* result[3] * result[5] *SQRT(2*!PI)
```

```
ewNaD1gal[k] = -1.* result[9] * result[2] *SQRT(2*!PI)
```

```
ewNaD2lmc[k] = -1.* result[10] * result[5] *SQRT(2*!PI)
```

```
;===== compute error in ewNaD2gal =====
```

```
ewNaD2galerr[k] = SQRT((SQRT(2*!PI))^2*((pcerror[0, k] * result[2])^2 + (result[0] * pcerror[2, k])^2))
```

```
ewNaD1lmcerr[k] = SQRT((SQRT(2*!PI))^2*((pcerror[3, k] * result[5])^2 + (result[3] * pcerror[5, k])^2))
```

ewNaD1galerr[k] = SQRT((SQRT(2*PI))^2*((pcerror[9, k] * result[2])^2 + (result[9] * pcerror[2, k])^2))

ewNaD2lmcerr[k] = SQRT((SQRT(2*PI))^2*((pcerror[10, k] * result[5])^2 + (result[10] * pcerror[5, k])^2))

ewNaD2galselect[k] = ewNaD2gal[k]/ewNaD2galerr[k]

wNaD1lmcselect[k] = ewNaD1lmc[k]/ewNaD1lmcerr[k]

IF (ewNaD1lmcerr[k] LT 0.0001) THEN ewNaD1lmcselect[k] = 0.

ewNaD1galselect[k] = ewNaD1gal[k]/ewNaD1galerr[k]

ewNaD2lmcselect[k] = ewNaD2lmc[k]/ewNaD2lmcerr[k]

IF (ewNaD2lmcerr[k] LT 0.0001) THEN ewNaD2lmcselect[k] = 0.

PRINTF, 3, measuresNa[*,k], pcerror[*,k], chisq[k], ewNaD2gal[k], ewNaD1lmc[k], ewNaD1gal[k],ewNaD2lmc[k], ewNaD2galerr[k],
ewNaD1lmcerr[k], ewNaD1galerr[k], ewNaD2lmcerr[k], ewNaD2galselect[k], ewNaD1lmcselect[k], ewNaD1galselect[k],
ewNaD2lmcselect[k],
FORMAT='(1X,F6.3,1X,F7.2,1X,F5.3,1X,F6.3,1X,F7.2,1X,F5.3,1X,F6.3,1X,F7.2,1X,F5.3,1X,F6.3,1X,F9.3,1X,F8.3,1X,F4.2,1X,F6.3,
1X,F4.2,1X,F5.3,1X,F5.3,1X,F4.2,1X,F6.3,1X,F6.3,1X,F5.2,1X,F6.3,1X,F6.3,1X,F10.3,1X,F10.3,1X,F4.2,1X,F5.3,1X,F5.3,1X,F5.3,1
X,F5.3,1X,F7.3,1X,F7.3,1X,F5.3,1X,F6.3,1X,F10.3,1X,F4.1,1X,F5.1,1X,F4.1,1X,F4.1,\$)'

;=====

ENDIF

ENDFOR

spect5780ave=spect5780ave/328

PLOT, wave5780ave, spect5780ave, X RANGE=[5777.,5793.], Y RANGE=[0.98,1.007], X STYLE=1, Y STYLE=1

xyouts,5778,1.005,"average spectrum",charsize=0.3

xyouts,5778,0.982,"DIB 5780",charsize=0.3

xyouts,5777.8,0.992,"Galactic",charsize=0.3

xyouts,5787.6,0.987,"LMC",charsize=0.3

spect5797ave=spect5797ave/328

PLOT, wave5797ave, spect5797ave, X RANGE=[5792.,5808.], Y RANGE=[0.98,1.007], X STYLE=1, Y STYLE=1

xyouts,5793,1.005,"average spectrum",charsize=0.3

xyouts,5793,0.982,"DIB 5797",charsize=0.3

xyouts,5796.5,0.993,"Galactic",charsize=0.3

xyouts,5802.5,0.990,"LMC",charsize=0.3

spectNaave=spectNaave/328

```
PLOT, waveNaave, spectNaave, XRange=[5885.,5910.], YRange=[0.78,1.1], XStyle=1, YStyle=1
```

```
xyouts,5886,1.08,"average spectrum",charsize=0.3
```

```
xyouts,5886,0.81,"Na",charsize=0.3
```

```
xyouts,5887,0.9,"Gal D!D2",charsize=0.3
```

```
xyouts,5902.5,0.9,"LMC D!D1",charsize=0.3
```

```
xyouts,5893,0.81,"LMC D!D2",charsize=0.3
```

```
xyouts,5896.5,0.81,"Gal D!D1",charsize=0.3
```

```
DEVICE, /CLOSE
```

```
cmd = 'mv ' + 'idl.ps' + ' ' + 'lmcr.ps'
```

```
SPAWN, cmd
```

```
SET_PLOT, 'X'
```

```
CLOSE, 1
```

```
CLOSE, 2
```

```
close, 3
```

CLOSE, 4

CLOSE, 5

CLOSE, 6

END

```
Smcb.pro
```

```
pro fit
```

```
combined_specsmcb = DBLARR(10000,400)
```

```
wavelength      = DBLARR(10000)
```

```
star            = STRARR(400)
```

```
chi2            = DBLARR(400)
```

```
chisq           = DBLARR(400)
```

```
perror         = DBLARR(4)
```

```
ra              = DBLARR(400)
```

```
dec            = DBLARR(400)
```

```
target         = STRARR(400)
```

```
namei          = STRARR(400)
```

```
;===== set constraints =====
```

```
constCaIIK = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]}, 10)
```

```
baseCaIIK = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]}, 2)
```

```
baseCaIIH = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]}, 2)
```

```
nspectra = 400
```

```
type = ''
```

```
name = ''
```

```
wc      = DBLARR(5, 2)
```

```
wavelength = 3780.+FINDGEN(10000)*0.027
```

```
waveCaIIKave=3910. + FINDGEN(200)*0.25
```

```
spectCaIIKave=0.*waveCaIIKave
```

```
waveCaIIHave=3950. + FINDGEN(200)*0.25
```

```
spectCaIIHave=0.*waveCaIIHave
```

```
TVLCT, 255, 0, 0, 1 ;red
```

```
TVLCT, 0, 255, 0, 2 ;green
```

```
TVLCT, 0, 0, 255, 3 ;blue
```

```
;===== read input catalogue =====
```

```
OPENR, 1, 'SMC_info.cat'
```

```
FOR i = 0, nspectra -1 DO BEGIN
```

```
  READF, 1, fibre, name, r1, r2, r3, d1, d2, d3, type, flag, a, b, c,  
  FORMAT='(I3,1X,I6,1X,I2,1X,I2,1X,F6.3,1X,I3,1X,I2,1X,F5.2,1X,A1,1X,I1,1X,F6.2,1X,I1,1X,F6.3)'
```

```
  ra[i] = r1 + r2/60. + r3/3600.
```

```
  dec[i] = d1 + d1/ABS(d1)*(d2/60. + d3/3600.)
```

```
  target[i] = type
```

```
  namei[i] = name
```

```
;
```

```
ENDFOR
```



```
CLOSE, 1
```

```
CLOSE, 2
```

```
OPENW, 3, 'measures_smcb.dat'
```

```
openw, 4, 'name_smc.dat'
```

```
gl      =FLTARR(400)
```

```
gb      =FLTARR(400)
```

```
glc     =FLTARR(400)
```

```
gbc     =FLTARR(400)
```

```
npoints = 400
```

```
OPENR, 5, 'ra_dec.dat'
```

```
OPENW, 6, 'galcoord.dat'
```

```
FOR n = 0, npoints - 1 DO BEGIN
```

```
READF, 5, rac, decc, FORMAT='(F7.5,1X,F9.5)'
```

```
GLACTC,(rac),(decc),2000,gl,gb,1
```

```
PRINTF, 6, gl, gb
```

```
glc[n] = gl
```

```
gbc[n] = gb
```

```
ENDFOR
```

```
;===== set a ps file to plot data =====
```

```
SET_PLOT,'PS'
```

```
DEVICE, /COLOR, /landscape
```

```
!X.MARGIN=[10,3]
```

```
!Y.MARGIN=[4,2]
```

```
!X.MARGIN=!X.MARGIN/3
```

```
!Y.MARGIN=!Y.MARGIN/3
```

```
!P.MULTI=[0, 8, 8]
```

```
!x.charsize=0.5
```

```
!y.charsize=0.5
```

```
;===== start loop over spectra =====
```

```
FOR k = 0, nspectra -1 DO BEGIN
```

```
  IF (target[k] eq 'P') THEN BEGIN
```

```
    combined_specsmcb(*,*) = MRDFITS('combined_specsmcb.fits', 0, header)
```

```
;===== FOR THE Ca II K line =====
```

```
measuresCaIIK = DBLARR(10,400)
```

```
pcerror = DBLARR(10,400)
```

```
ewCaIIKgal = DBLARR(400)
```

```
ewCaIIKsmc = DBLARR(400)
```

```
ewCaIIK2smc = DBLARR(400)
```

ewCaIIKgalerr = DBLARR(400)

ewCaIIKsmcerr = DBLARR(400)

ewCaIIK2smcerr = DBLARR(400)

ewCaIIKgalselect = DBLARR(400)

ewCaIIKsmcselect = DBLARR(400)

ewCaIIK2smcselect = DBLARR(400)

w1 = 3910

w2 = 3990

wc[0, 0] = 3910

wc[0, 1] = 3919

wc[1, 0] = 3920

wc[1, 1] = 3925

wc[2, 0] = 3940

wc[2, 1] = 3950

```
wc[3, 0] = 3950
```

```
wc[3, 1] = 3960
```

```
wc[4, 0] = 3980
```

```
wc[4, 1] = 3987
```

```
;===== baseline fitting =====
```

```
a0 = 1
```

```
a1 = 0
```

```
pol = 'p[0] +p[1]*x'
```

```
baseCaIIK[0].VALUE      = a0
```

```
baseCaIIK[1].VALUE      = a1
```

```
;=====fitting a baseline to normalise the spectrum=====
```

```
wdib = WHERE(wavelength GE w1 AND wavelength LE w2)
```

```
baseline1 = MEDIAN(combined_specsmcb[wdib,k])
```

```
spect1 = combined_specsmcb[*,k]/baseline1
```

```
waveselect = WHERE((wavelength GE wc[0,0] AND wavelength LE wc[0,1]) OR (wavelength GE wc[1,0] AND wavelength LE wc[1,1])  
OR (wavelength GE wc[2,0] AND wavelength LE wc[2,1]) OR (wavelength GE wc[3,0] AND wavelength LE wc[3,1]) OR (wavelength GE  
wc[4,0] AND wavelength LE wc[4,1]))
```

```
base = MPFITEXPR(pol, wavelength[waveselect], spect1[waveselect], PARINFO=baseCalIK, /quiet)
```

```
baselineCalIK = MPEVALEXPR(pol, wavelength, base)
```

```
spectCalIK = spect1/baselineCalIK
```

```
;===== Line fitting =====
```

```
;#####
```

```
;##### first try one Galactic and two SMC kinematic components #####
```

```
;#####
```

a0 = -0.1

a1 = 3933.6

a2 = 0.3

a3 = -0.2

a4 = 3935.6

a5 = 0.2

a6 = -0.2

a7 = 3936.6

a8 = 0.2

a9 = 1

gauss = '(p[0]*exp(-(X-p[1])^2/(2.*p[2]^2)))+(p[3]*exp(-(X-p[4])^2/(2.*p[5]^2)))+(p[6]*exp(-(X-p[7])^2/(2.*p[8]^2)))+p[9]'

`constCaIIK[0].LIMITED[1] = 1`

`constCaIIK[0].LIMITS[1] = 0`

`constCaIIK[1].LIMITED[0] = 1`

`constCaIIK[1].LIMITED[1] = 1`

`constCaIIK[1].LIMITS[0] = a1-2`

`constCaIIK[1].LIMITS[1] = a1+2`

`constCaIIK[2].LIMITED[0] = 1`

`constCaIIK[2].LIMITED[1] = 1`

`constCaIIK[2].LIMITS[0] = a2/2`

`constCaIIK[2].LIMITS[1] = 2*a2`

`constCaIIK[3].LIMITED[1] = 1`

`constCaIIK[3].LIMITS[1] = 0`

`constCaIIK[4].LIMITED[0] = 1`

`constCaIIK[4].LIMITED[1] = 1`

`constCaIIK[4].LIMITS[0] = a4-2`

constCaIIK[4].LIMITS[1] = a4+2

constCaIIK[5].LIMITED[0] = 1

constCaIIK[5].LIMITED[1] = 1

constCaIIK[5].LIMITS[0] = a5/2

constCaIIK[5].LIMITS[1] = 2*a5

constCaIIK[6].FIXED = 0

constCaIIK[6].LIMITED[1] = 1

constCaIIK[6].LIMITS[1] = 0

constCaIIK[7].LIMITED[0] = 1

constCaIIK[7].LIMITED[1] = 1

constCaIIK[7].LIMITS[0] = a7-1

constCaIIK[7].LIMITS[1] = a7+1

constCaIIK[8].LIMITED[0] = 1

constCaIIK[8].LIMITED[1] = 1

constCaIIK[8].LIMITS[0] = a8/2

constCaIIK[8].LIMITS[1] = 2*a8

constCaIIK[0].VALUE = a0

constCaIIK[1].VALUE = a1

constCaIIK[2].VALUE = a2

constCaIIK[3].VALUE = a3

constCaIIK[4].VALUE = a4

constCaIIK[5].VALUE = a5

constCaIIK[6].VALUE = a6

constCaIIK[7].VALUE = a7

constCaIIK[8].VALUE = a8

constCaIIK[9].VALUE = a9

valid = WHERE((wavelength GE 3910 AND wavelength LE 3932) OR (wavelength GE 3938 AND wavelength LE 3960)OR
(wavelength GE 3980 AND wavelength LE 3990))

deviation = STDEV(spectCaIIK[valid]-1)

weights = 0.*spectCaIIK + deviation

```
wCaIIK      = WHERE(wavelength GE 3932 AND wavelength LE 3940)
```

```
result=MPFITEXPR(gauss, wavelength[wCaIIK], spectCaIIK[wCaIIK], weights[wCaIIK], PARINFO=constCaIIK, BESTNORM=chi2,  
perror=perror, /quiet)
```

```
;#####
```

```
;##### now we check whether we believe there are two kinematic components #####
```

```
;#####
```

```
tryagain = 0
```

```
dwSMC = result[7]-result[4]
```

```
thresholdSMC = 0.5
```

```
IF (dwSMC LT thresholdSMC) THEN BEGIN
```

```
tryagain = 1
```

```
constCaIIK[6].FIXED = 1
```

```
constCaIIK[6].VALUE = 0
```

```
ENDIF
```

```
;#####
```

```
;#### now possibly refit again, having constrained some components to zero ####
```

```
;#####
```

```
IF (tryagain GT 0.1) THEN result=MPFITEXPR(gauss, wavelength[wCaIIK], spectCaIIK[wCaIIK], weights[wCaIIK],  
PARINFO=constCaIIK, BESTNORM=chi2, perror=perror, /quiet)
```

```
;#####
```

```
;##### now we are happy, so we continue as before #####
```

```
;#####
```

```
fitted=MPEVALEXP(gauss, wavelength, result)
```

```
;===== scale errors =====
```

```
x      = spectCalIK[wCalIK]
```

```
chisq[k]  = chi2/N_ELEMENTS(x)
```

```
dof      = N_ELEMENTS(x) - N_ELEMENTS(result)
```

```
pcerror[*,k] = perror * SQRT (chi2/dof)
```

```
;===== plot =====
```

```
spectCalIKres=RESAMPLE(wavelength, spectCalIK, waveCalIKave)
```

```
spectCalIKave=spectCalIKave + spectCalIKres
```

```
PLOT, wavelength, spectCaIIK, XRange=[3930.,3943.], YRange=[0.15,1.2], XStyle=1, YStyle=1
```

```
OPLOT, wavelength[wCaIIK], fitted[wCaIIK], THICK=2, COLOR =1
```

```
xyouts,3928.5,1.1,namei[k],/data,alignment=0.0,charsize=0.3
```

```
xyouts,3932,0.25,"Ca II K",charsize=0.3
```

```
xyouts,3932.5,0.65,"Galactic",charsize=0.3
```

```
xyouts,3936.,0.4,"SMC",charsize=0.3
```

```
;===== compute equivalent width=====
```

```
measuresCaIIK[* , k]      = result
```

```
CaIIKg                    = measuresCaIIK[1, k]
```

```
CaIIKsmc                  = measuresCaIIK[4, k]
```

```
CaIIK2smc                 = measuresCaIIK[7, k]
```

```
ewCaIIKgal[k]             = -1.* result[0] * result[2] *SQRT(2*!PI)
```

```
ewCaIIKsmc[k]             = -1.* result[3] * result[5] *SQRT(2*!PI)
```

```
ewCaIIK2smc[k] = -1.* result[6] * result[8] *SQRT(2*!PI)
```

```
;===== compute error in ew =====
```

```
ewCaIIKgalerr[k] = SQRT((SQRT(2*!PI))^2*((pcerror[0, k] * result[2])^2 + (result[0] * pcerror[2, k])^2))
```

```
ewCaIIKsmcerr[k] = SQRT((SQRT(2*!PI))^2*((pcerror[3, k] * result[5])^2 + (result[3] * pcerror[5, k])^2))
```

```
ewCaIIK2smcerr[k] = SQRT((SQRT(2*!PI))^2*((pcerror[6, k] * result[8])^2 + (result[6] * pcerror[8, k])^2))
```

```
ewCaIIKgalselect[k] = ewCaIIKgal[k]/ewCaIIKgalerr[k]
```

```
ewCaIIKsmcselect[k] = ewCaIIKsmc[k]/ewCaIIKsmcerr[k]
```

```
IF (ewCaIIKsmcerr[k] LT 0.0001) THEN ewCaIIKsmcselect[k] = 0.
```

```
ewCaIIK2smcselect[k] = ewCaIIK2smc[k]/ewCaIIK2smcerr[k]
```

```
IF (ewCaIIK2smcerr[k]LT 0.0001) THEN ewCaIIK2smcselect[k] = 0.
```

```
PRINTF, 3, namei[k], ra[k], dec[k], glc[k], gbc[k], measuresCaIIK[*], pcerror[*], chisq[k], ewCaIIKgal[k], ewCaIIKsmc[k],  
ewCaIIK2smc[k], ewCaIIKgalerr[k], ewCaIIKsmcerr[k], ewCaIIK2smcerr[k], ewCaIIKgalselect[k],ewCaIIKsmcselect[k],  
ewCaIIK2smcselect[k],
```

```
FORMAT='(/I4,1X,F7.5,1X,F9.5,1X,F9.5,1X,F9.5,1X,F6.3,1X,F7.2,1X,F5.3,1X,F6.3,1X,F7.2,1X,F5.3,1X,F6.3,1X,F7.2,1X,F5.3,1X,F
```

4.2,1X,F5.3,1X,F4.2,1X,F5.3,1X,F5.3,1X,F4.2,1X,F5.3,1X,F6.3,1X,F4.2,1X,F5.3,1X,F4.2,1X,F7.3,1X,F5.3,1X,F6.3,1X,F6.3,1X,F5.3,1X,F5.3,1X,F5.3,1X,F4.1,1X,F5.1,1X,F5.1,\$)'

PRINTF, 4, namei[k]

;===== FOR THE Ca II H line =====

w1 = 3910

w2 = 3990

wc[0, 0] = 3910

wc[0, 1] = 3919

wc[1, 0] = 3920

wc[1, 1] = 3925

wc[2, 0] = 3940

wc[2, 1] = 3950

wc[3, 0] = 3950

wc[3, 1] = 3960


```
wc[4, 0] = 3980
```

```
wc[4, 1] = 3987
```

```
;===== baseline fitting =====
```

```
a0 = 1
```

```
a1 = 0
```

```
pol = 'p[0] +p[1]*x'
```

```
baseCaIIH[0].VALUE      = a0
```

```
baseCaIIH[1].VALUE      = a1
```

```
;=====fitting a baseline to normalise the spectrum=====
```

```
wdib = WHERE(wavelength GE w1 AND wavelength LE w2)
```

```
baseline2 = MEDIAN(combined_specsmcb[wdeb,k])
```

```
spect2 = combined_specsmcb[:,k]/baseline2
```

```
waveselect = WHERE((wavelength GE wc[0,0] AND wavelength LE wc[0,1]) OR (wavelength GE wc[1,0] AND wavelength LE wc[1,1])  
OR (wavelength GE wc[2,0] AND wavelength LE wc[2,1]) OR (wavelength GE wc[3,0] AND wavelength LE wc[3,1]) OR (wavelength GE  
wc[4,0] AND wavelength LE wc[4,1]))
```

```
base = MPFITEXPR(pol, wavelength[waveselect], spect2[waveselect], PARINFO=baseCalIH, /quiet)
```

```
baselineCalIH = MPEVALEXPR(pol, wavelength, base)
```

```
spectCalIH = spect2/baselineCalIH
```

```
;===== plot =====
```

```
CalIHg=CalIKg+34.8
```

```
CalIHsmc=CalIKsmc+34.8
```

```
CalIH2smc=CalIK2smc+34.8
```

```
spectCaIIHres=RESAMPLE(wavelength, spectCaIIH, waveCaIIHave)
```

```
spectCaIIHave=spectCaIIHave + spectCaIIHres
```

```
PLOT, wavelength, spectCaIIH, XRANGE=[3960.,3985.], YRANGE=[0.15,1.2], XSTYLE=1, YSTYLE=1
```

```
xyouts,3962,0.25,"Ca II H",charsize=0.3
```

```
xyouts,CaIIHg,1,"|",charsize=0.3
```

```
xyouts,CaIIHsmc,1,"|",charsize=0.3
```

```
xyouts,CaIIH2smc,1,"|",charsize=0.3
```

```
xyouts,3964.5,1.06,"Galactic",charsize=0.3
```

```
xyouts,3971.5,1.06,"SMC",charsize=0.3
```

```
;=====
```

```
ENDIF
```

```
ENDFOR
```

```
spectCaIIKave=spectCaIIKave/328
```

```
PLOT, waveCaIIKave, spectCaIIKave, XRange=[3930.,3943.], YRange=[0.6,1.1], XStyle=1, YStyle=1
```

```
xyouts,3931,1.06,"average spectrum",charsize=0.3
```

```
xyouts,3931,0.62,"Ca II K",charsize=0.3
```

```
xyouts,3933,0.78,"Galactic",charsize=0.3
```

```
xyouts,3936.5,0.67,"SMC",charsize=0.3
```

```
spectCaIIHave=spectCaIIHave/328
```

```
Hgal = MEAN(CaIIKg)
```

```
Hsmc = MEAN(CaIIKsmc)
```

```
H2smc = MEAN(CaIIK2smc)
```

```
aveHgal = Hgal+34.8
```

```
aveHsmc = Hsmc+34.8
```

```
aveH2smc = H2smc+34.8
```

```
PLOT, waveCallHave, spectCallHave, XRANGE=[3960.,3985.], YRANGE=[0.60,1.1], XSTYLE=1, YSTYLE=1
```

```
xyouts,3961,1.06,"average spectrum",charsize=0.3
```

```
xyouts,3961,0.62,"Ca II H",charsize=0.3
```

```
xyouts,aveHgal,1,"|",charsize=0.3
```

```
xyouts,aveHsmc,1,"|",charsize=0.3
```

```
xyouts,aveH2smc,1,"|",charsize=0.3
```

```
xyouts,3967,0.965,"Galactic",charsize=0.3
```

```
xyouts,3972,0.965,"SMC",charsize=0.3
```

```
DEVICE, /CLOSE
```

```
cmd = 'mv ' + 'idl.ps' + ' ' + 'smcb1.ps'
```

```
SPAWN, cmd
```

```
SET_PLOT, 'X'
```

```
CLOSE, 1
```

CLOSE, 2

CLOSE, 3

CLOSE, 4

CLOSE, 5

CLOSE, 6

END

smcr.pro

pro fit

combined_specs = DBLARR(19630,400)

wavelength = DBLARR(19630)

star = STRARR(400)

chi2 = DBLARR(400)

chisq = DBLARR(400)

perror = DBLARR(4)

ra = DBLARR(400)

dec = DBLARR(400)

target = STRARR(400)

namei = STRARR(400)

name = STRARR(400)

;===== set constraints =====

const5780 = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]}, 7)

const5797 = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]}, 7)

constNa = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]}, 13)

base5780 = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]}, 2)

base5797 = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]}, 2)

baseNa = REPLICATE({FIXED:0, VALUE:0.D, LIMITED:[0,0], LIMITS:[0.D,0.D]}, 2)

nspectra = 400

type = ''

name = ''

wc = DBLARR(5, 2)

wavelength = 5570.+FINDGEN(19630)*0.027

wave5780ave=5770. + FINDGEN(200)*0.25

spect5780ave=0.*wave5780ave


```
wave5797ave=5770. + FINDGEN(200)*0.25
```

```
spect5797ave=0.*wave5797ave
```

```
waveNaave=5870. + FINDGEN(200)*0.25
```

```
spectNaave=0.*waveNaave
```

```
TVLCT, 255, 0, 0, 1 ;red
```

```
TVLCT, 0, 255, 0, 2 ;green
```

```
TVLCT, 0, 0, 255, 3 ;blue
```

```
;===== red input catalogue =====
```

```
OPENR, 1, 'SMC_info.cat'
```

```
FOR i = 0, nspectra -1 DO BEGIN
```

```
  READF, 1, fibre, name, r1, r2, r3, d1, d2, d3, type, flag, a, b, c,
```

```
  FORMAT='(I3,1X,I6,1X,I2,1X,I2,1X,F6.3,1X,I3,1X,I2,1X,F5.2,1X,A1,1X,I1,1X,F6.2,1X,I1,1X,F6.3)'
```

```
ra[i] = r1 + r2/60. + r3/3600.
```

```
dec[i] = d1 + d1/ABS(d1)*(d2/60. + d3/3600.)
```

```
target[i] = type
```

```
namei[i] = name
```

```
ENDFOR
```

```
CLOSE, 1
```

```
CLOSE, 2
```

```
OPENW, 3, 'measures_smcr.dat'
```

```
gl =FLTARR(400)
```

```
gb =FLTARR(400)
```

```
glc =FLTARR(400)
```

```
gbc =FLTARR(400)
```

```
npoints = 400
```

```
OPENR, 4, 'ra_dec.dat'
```

```
OPENW, 5, 'galcoord.dat'
```

```
FOR n = 0, npoints - 1 DO BEGIN
```

```
  READF, 4, rac, decc, FORMAT='(F7.5,1X,F9.5)'
```

```
  GLACTC,(rac),(decc),2000,gl,gb,1
```

```
  PRINTF, 5, gl, gb
```

```
  glc[n] = gl
```

```
  gbc[n] = gb
```

```
ENDFOR
```

```
;===== set a ps file to plot data =====
```

```
SET_PLOT,'PS'
```

```
DEVICE, /COLOR, /landscape
```

```
!X.MARGIN=[10,3]
```

```
!Y.MARGIN=[4,2]
```

```
!X.MARGIN=!X.MARGIN/3
```

```
!Y.MARGIN=!Y.MARGIN/3
```

```
!P.MULTI=[0, 6, 8]
```

```
!x.charsize=0.5
```

```
!y.charsize=0.5
```

```
;===== start loop over spectra =====
```

```
FOR k = 0, nspectra -1 DO BEGIN
```

```
  IF (target[k] eq 'P') THEN BEGIN
```

```
    combined_specsmcr(*,*) = MRDFITS('combined_specsmcr.fits', 0, header)
```

```
;===== FOR THE 5780 DIB =====
```

measures5780 = DBLARR(7,400)

pcerror = DBLARR(7,400)

ew5780gal = DBLARR(400)

ew5780smc = DBLARR(400)

ew5780galerr = DBLARR(400)

ew5780smcerr = DBLARR(400)

ew5780galselect = DBLARR(400)

ew5780smcselect = DBLARR(400)

w1 = 5750

w2 = 5815

wc[0, 0] = 5752

wc[0, 1] = 5765

wc[1, 0] = 5765

wc[1, 1] = 5778

wc[2, 0] = 5789

wc[2, 1] = 5794

wc[3, 0] = 5804

wc[3, 1] = 5809

wc[4, 0] = 5810

wc[4, 1] = 5815

;===== baseline fitting =====

a0 = 1

a1 = 0

pol = 'p[0] +p[1]*x'

base5780[0].VALUE = a0

```
base5780[1].VALUE = a1
```

```
;=====fitting a baseline to normalise the spectrum=====
```

```
wdib = WHERE(wavelength GE w1 AND wavelength LE w2)
```

```
baseline1 = MEDIAN(combined_specsmcr[wdib,k])
```

```
spect1 = combined_specsmcr[:,k]/baseline1
```

```
waveselect = WHERE((wavelength GE wc[0,0] AND wavelength LE wc[0,1]) OR (wavelength GE wc[1,0] AND wavelength LE wc[1,1])  
OR (wavelength GE wc[2,0] AND wavelength LE wc[2,1]) OR (wavelength GE wc[3,0] AND wavelength LE wc[3,1]) OR (wavelength GE  
wc[4,0] AND wavelength LE wc[4,1]))
```

```
base = MPFITEXPR(pol, wavelength[waveselect], spect1[waveselect], PARINFO=base5780, /quiet)
```

```
baseline5780 = MPEVALEXPR(pol, wavelength, base)
```

```
spect5780 = spect1/baseline5780
```

```
;===== DIB fitting =====
```

```
a0 = -0.1
```

```
;a1 = 5780.6
```

```
a1 = 5780.1
```

```
;a2 = 1.25
```

```
a2 = 0.6
```

```
a3 = -0.1
```

```
a4 = 5783.6
```

```
a5 = 0.6
```

```
a6 = 1
```

```
gauss = '(p[0]*exp(-(X-p[1])^2/(2.*p[2]^2)))+(p[3]*exp(-(X-p[4])^2/(2.*p[5]^2)))+p[6]'
```

```
const5780[0].LIMITED[1] = 1
```


const5780[0].LIMITS[1] = 0

const5780[1].LIMITED[0] = 1

const5780[1].LIMITED[1] = 1

const5780[1].LIMITS[0] = a1-1

const5780[1].LIMITS[1] = a1+1

const5780[2].LIMITED[0] = 1

const5780[2].LIMITED[1] = 1

const5780[2].LIMITS[0] = a2*0.6

const5780[2].LIMITS[1] = 1.5*a2

const5780[3].LIMITED[1] = 1

const5780[3].LIMITS[1] = 0

const5780[4].LIMITED[0] = 1

const5780[4].LIMITED[1] = 1

const5780[4].LIMITS[0] = a4-1

const5780[4].LIMITS[1] = a4+1

const5780[5].LIMITED[0] = 1

const5780[5].LIMITED[1] = 1

const5780[5].LIMITS[0] = a5*0.6

const5780[5].LIMITS[1] = 1.5*a5

const5780[0].VALUE = a0

const5780[1].VALUE = a1

const5780[2].VALUE = a2

const5780[3].VALUE = a3

const5780[4].VALUE = a4

const5780[5].VALUE = a5

const5780[6].VALUE = a6

valid = WHERE((wavelength GE 5750 AND wavelength LE 5778) OR (wavelength GE 5805 AND wavelength LE 5815))

deviation = STDEV(spect5780[valid]-1)

weights = 0.*spect5780 + deviation

w5780 = WHERE(wavelength GE 5778 AND wavelength LE 5788)

```
result=MPFITEXPR(gauss, wavelength[w5780], spect5780[w5780], weights[w5780], PARINFO=const5780, BESTNORM=chi2,  
perror=perror, /quiet)
```

```
fitted=MPEVALEXPR(gauss, wavelength, result)
```

```
;===== scale errors =====
```

```
x          = spect5780[w5780]
```

```
chisq[k]    = chi2/N_ELEMENTS(x)
```

```
dof         = N_ELEMENTS(x) - N_ELEMENTS(result)
```

```
pcerror[*,k] = perror * SQRT (chi2/dof)
```

```
;===== plot =====
```

```
spect5780res=RESAMPLE(wavelength, spect5780, wave5780ave)
```

```
spect5780ave=spect5780ave + spect5780res
```

```
PLOT, wavelength, spect5780, XRange=[5777.,5791.], YRange=[0.9,1.05], XStyle=1, YStyle=1
```

```
OPLOT, wavelength[w5780], fitted[w5780], THICK=2, COLOR =1
```

```
xyouts,5776,1.035,namei[k],/data,alignment=0.0,charsize=0.3
```

```
xyouts,5778,0.91,"DIB 5780",charsize=0.3
```

```
xyouts,5779.5,0.937,"Galactic",charsize=0.3
```

```
xyouts,5783.5,0.925,"SMC",charsize=0.3
```

```
;===== compute equivalent width=====
```

```
measures5780[* , k]      = result
```

```
DIB5780g                  = measures5780[1, k]
```

```
DIB5780smc                = measures5780[4, k]
```

```
ew5780gal[k]              = -1.* result[0] * result[2] *SQRT(2*!PI)
```

```
ew5780smc[k]              = -1.* result[3] * result[5] *SQRT(2*!PI)
```

```
;===== compute error in ew =====
```

```
ew5780galerr[k]      = SQRT((SQRT(2*!PI))^2*((pcerror[0, k] * result[2])^2 + (result[0] * pcerror[2, k])^2))
```

```
ew5780smcerr[k]      = SQRT((SQRT(2*!PI))^2*((pcerror[3, k] * result[5])^2 + (result[3] * pcerror[5, k])^2))
```

```
ew5780galselect[k] = ew5780gal[k]/ew5780galerr[k]
```

```
IF (ew5780galerr[k] LT 0.0001) THEN ew5780galselect[k] = 0.
```

```
ew5780smcselect[k] = ew5780smc[k]/ew5780smcerr[k]
```

```
IF (ew5780smcerr[k] LT 0.0001) THEN ew5780smcselect[k] = 0.
```

```
PRINTF, 3, namei[k], ra[k], dec[k], glc[k], gbc[k], measures5780[*,k], pcerror[*,k], chisq[k], ew5780gal[k], ew5780smc[k],  
ew5780galerr[k], ew5780smcerr[k], ew5780galselect[k], ew5780smcselect[k],  
FORMAT='(/I4,1X,F7.5,1X,F9.5,1X,F9.5,1X,F9.5,1X,F6.3,1X,F7.2,1X,F5.3,1X,F6.3,1X,F7.2,1X,F5.3,1X,F4.2,1X,F5.3,1X,F4.2,1X,F  
5.3,1X,F5.3,1X,F4.2,1X,F5.3,1X,F4.2,1X,F5.3,1X,F6.3,1X,F6.3,1X,F5.3,1X,F5.3,1X,F4.1,1X,F4.1,$)'
```

```
;===== FOR THE 5797 DIB =====
```

```
measures5797  = DBLARR(7,400)
```

```
pcerror       = DBLARR(7,400)
```

ew5797gal = DBLARR(400)

ew5797smc = DBLARR(400)

ew5797galerr = DBLARR(400)

ew5797smcerr = DBLARR(400)

ew5797galselect = DBLARR(400)

ew5797smcselect = DBLARR(400)

w1 = 5750

w2 = 5815

wc[0, 0] = 5752

wc[0, 1] = 5765

wc[1, 0] = 5765

wc[1, 1] = 5778

wc[2, 0] = 5789

wc[2, 1] = 5794

```
wc[3, 0] = 5799
```

```
wc[3, 1] = 5802
```

```
wc[4, 0] = 5809
```

```
wc[4, 1] = 5813
```

```
;===== baseline fitting =====
```

```
a0 = 1
```

```
a1 = 0
```

```
pol = 'p[0] +p[1]*x'
```

```
base5797[0].VALUE = a0
```

```
base5797[1].VALUE = a1
```

```
;=====fitting a baseline to normalise the spectrum=====
```

```
wdib = WHERE(wavelength GE w1 AND wavelength LE w2)
```

```
baseline2 = MEDIAN(combined_specsmcr[wdib,k])
```

```
spect2 = combined_specsmcr[*,k]/baseline2
```

```
waveselect = WHERE((wavelength GE wc[0,0] AND wavelength LE wc[0,1]) OR (wavelength GE wc[1,0] AND wavelength LE wc[1,1])  
OR (wavelength GE wc[2,0] AND wavelength LE wc[2,1]) OR (wavelength GE wc[3,0] AND wavelength LE wc[3,1]) OR (wavelength GE  
wc[4,0] AND wavelength LE wc[4,1]))
```

```
base = MPFITEXPR(pol, wavelength[waveselect], spect2[waveselect], PARINFO=base5797, /quiet)
```

```
baseline5797 = MPEVALEXPR(pol, wavelength, base)
```

```
spect5797 = spect2/baseline5797
```

```
;===== DIB fitting =====
```


$$a0 = -0.1$$

$$a1 = \text{DIB5780g} + 16.5$$

$$a2 = 0.50$$

$$a3 = -0.1$$

$$a4 = \text{DIB5780smc} + 16.5$$

$$a5 = 0.50$$

$$a6 = 1$$

$$\text{gauss} = '(p[0]*\exp(-(X-p[1])^2/(2.*p[2]^2)))+(p[3]*\exp(-(X-p[4])^2/(2.*p[5]^2)))+p[6]'$$

$$\text{const5797}[0].\text{LIMITED}[1] = 1$$

$$\text{const5797}[0].\text{LIMITS}[1] = 0$$

$$\text{const5797}[1].\text{LIMITED}[0] = 1$$

$$\text{const5797}[1].\text{LIMITED}[1] = 1$$

$$\text{const5797}[1].\text{LIMITS}[0] = a1 - 0.75$$

$$\text{const5797}[1].\text{LIMITS}[1] = a1 + 0.75$$

const5797[2].LIMITED[0] = 1

const5797[2].LIMITED[1] = 1

const5797[2].LIMITS[0] = $a^2/2$

const5797[2].LIMITS[1] = $2*a^2$

const5797[3].LIMITED[1] = 1

const5797[3].LIMITS[1] = 0

const5797[4].LIMITED[0] = 1

const5797[4].LIMITED[1] = 1

const5797[4].LIMITS[0] = $a^4-0.75$

const5797[4].LIMITS[1] = $a^4+0.75$

const5797[5].LIMITED[0] = 1

const5797[5].LIMITED[1] = 1

const5797[5].LIMITS[0] = $a^5/2$

const5797[5].LIMITS[1] = $2*a^5$

const5797[0].VALUE = a^0

const5797[1].VALUE = a^1

const5797[2].VALUE = a2

const5797[3].VALUE = a3

const5797[4].VALUE = a4

const5797[5].VALUE = a5

const5797[6].VALUE = a6

valid = WHERE((wavelength GE 5750 AND wavelength LE 5778) OR (wavelength GE 5805 AND wavelength LE 5815))

deviation = STDEV(spect5797[valid]-1)

weights = 0.*spect5797 + deviation

w5797 = WHERE(wavelength GE 5794 AND wavelength LE 5805)

result=MPFITEXPR(gauss, wavelength[w5797], spect5797[w5797], weights[w5797], PARINFO=const5797, BESTNORM=chi2,
perror=perror, /quiet)

fitted=MPEVALEXPR(gauss, wavelength, result)

```
;===== scale errors =====
```

```
x          = spect5797[w5797]
```

```
chisq[k]    = chi2/N_ELEMENTS(x)
```

```
dof         = N_ELEMENTS(x) - N_ELEMENTS(result)
```

```
pcerror[*,k] = perror * SQRT (chi2/dof)
```

```
;===== plot =====
```

```
spect5797res=RESAMPLE(wavelength, spect5797, wave5797ave)
```

```
spect5797ave=spect5797ave + spect5797res
```

```
PLOT, wavelength, spect5797, XRange=[5792.,5808.], YRange=[0.9,1.05], XStyle=1, YStyle=1
```

```
OPLOT, wavelength[w5797], fitted[w5797], THICK=2, COLOR =1
```

```
xyouts,5793,0.91,"DIB 5797",charsize=0.3
```

```
xyouts,5796,0.96,"Galactic",charsize=0.3
```

```
xyouts,5799.5,0.94,"SMC",charsize=0.3
```

```
;===== compute equivalent width=====
```

```
measures5797[*, k] = result
```

```
ew5797gal[k] = -1.* result[0] * result[2] *SQRT(2*PI)
```

```
ew5797smc[k] = -1.* result[3] * result[5] *SQRT(2*PI)
```

```
;===== compute error in ew =====
```

```
ew5797galerr[k] = SQRT((SQRT(2*PI))^2*((pcerror[0, k] * result[2])^2 + (result[0] * pcerror[2, k])^2))
```

```
ew5797smcerr[k] = SQRT((SQRT(2*PI))^2*((pcerror[3, k] * result[5])^2 + (result[3] * pcerror[5, k])^2))
```

```
ew5797galselect[k] = ew5797gal[k]/ew5797galerr[k]
```

```
IF (ew5797galerr[k] LT 0.0001) THEN ew5797galselect[k] = 0.
```

```
ew5797smcselect[k] = ew5797smc[k]/ew5797smcerr[k]
```

```
IF (ew5797smcerr[k] LT 0.0001) THEN ew5797smcselect[k] = 0.
```

```
PRINTF, 3, measures5797[*], pccerror[*], chisq[k], ew5797gal[k], ew5797smc[k], ew5797galerr[k], ew5797smcerr[k],  
ew5797galselect[k], ew5797smcselect[k],  
FORMAT='(1X,F6.3,1X,F7.2,1X,F5.3,1X,F6.3,1X,F7.2,1X,F5.3,1X,F4.2,1X,F5.3,1X,F4.2,1X,F5.3,1X,F5.3,1X,F4.2,1X,F5.3,1X,F4.2,  
1X,F6.3,1X,F6.3,1X,F6.3,1X,F5.3,1X,F5.3,1X,F4.1,1X,F4.1,$)'
```

```
;===== FOR THE Na lines =====
```

```
measuresNa = DBLARR(13,400)
```

```
pcerror = DBLARR(13,400)
```

```
ewNaD2gal = DBLARR(400)
```

```
ewNaD2smc = DBLARR(400)
```

```
ewNaD1gal = DBLARR(400)
```

```
ewNaD1smc = DBLARR(400)
```

```
ewNaD2galerr = DBLARR(400)
```

```
ewNaD2smcerr = DBLARR(400)
```

ewNaD1galerr = DBLARR(400)

ewNaD1smcerr = DBLARR(400)

ewNaD2galselect = DBLARR(400)

ewNaD2smcselect = DBLARR(400)

ewNaD1galselect = DBLARR(400)

ewNaD1smcselect = DBLARR(400)

w1 = 5850

w2 = 5915

wc[0, 0] = 5851

wc[0, 1] = 5862

wc[1, 0] = 5863

wc[1, 1] = 5873

wc[2, 0] = 5903

wc[2, 1] = 5910

```
wc[3, 0] = 5910
```

```
wc[3, 1] = 5916
```

```
;===== baseline fitting =====
```

```
a0 = 1
```

```
a1 = 0
```

```
pol = 'p[0] +p[1]*x'
```

```
baseNa[0].VALUE = a0
```

```
baseNa[1].VALUE = a1
```

```
;=====fitting a baseline to normalise the spectrum=====
```

```
wdib = WHERE(wavelength GE w1 AND wavelength LE w2)
```



```
baseline3 = MEDIAN(combined_specsmcr[wdeb,k])
```

```
spect3 = combined_specsmcr[:,k]/baseline3
```

```
waveselect = WHERE((wavelength GE wc[0,0] AND wavelength LE wc[0,1]) OR (wavelength GE wc[1,0] AND wavelength LE wc[1,1])  
OR (wavelength GE wc[2,0] AND wavelength LE wc[2,1]) OR (wavelength GE wc[3,0] AND wavelength LE wc[3,1]))
```

```
base = MPFITEXPR(pol, wavelength[waveselect], spect3[waveselect], PARINFO=baseNa, /quiet)
```

```
baselineNa = MPEVALEXPR(pol, wavelength, base)
```

```
spectNa = spect3/baselineNa
```

```
;===== line fitting =====
```

```
a0 = -0.1
```

```
a1 = 5890.
```

$$a2 = 0.50$$

$$a3 = -0.2$$

$$a4 = 5893.$$

$$a5 = 0.50$$

$$a6 = -0.1$$

$$a7 = -0.2$$

$$a8 = 0.1$$

$$a9 = 5889.7$$

$$a10 = 0.2$$

$$a11 = 0.1$$

$$a12 = 1$$

$$\text{gauss} = '(p[0]*\exp(-(X-p[1])^2/(2.*p[2]^2)))+(p[3]*\exp(-(X-p[4])^2/(2.*p[5]^2)))+(p[6]*\exp(-(X-p[1]-5.97)^2/(2.*p[2]^2)))+(p[7]*\exp(-(X-p[4]-5.97)^2/(2.*p[5]^2)))+(p[8]*\exp(-(X-p[9])^2/(2.*p[10]^2)))+(p[11]*\exp(-(X-p[9]-5.97)^2/(2.*p[10]^2)))+p[12]'$$

$$\text{constNa}[0].\text{LIMITED}[1] = 1$$

$$\text{constNa}[0].\text{LIMITS}[1] = 0$$

`constNa[1].LIMITED[0] = 1`

`constNa[1].LIMITED[1] = 1`

`constNa[1].LIMITS[0] = a1-2`

`constNa[1].LIMITS[1] = a1+2`

`constNa[2].LIMITED[0] = 1`

`constNa[2].LIMITED[1] = 1`

`constNa[2].LIMITS[0] = a2/2`

`constNa[2].LIMITS[1] = 2*a2`

`constNa[3].LIMITED[1] = 1`

`constNa[3].LIMITS[1] = 0`

`constNa[4].LIMITED[0] = 1`

`constNa[4].LIMITED[1] = 1`

`constNa[4].LIMITS[0] = a4-2`

`constNa[4].LIMITS[1] = a4+2`

`constNa[5].LIMITED[0] = 1`

`constNa[5].LIMITED[1] = 1`

`constNa[5].LIMITS[0] = a5/2`

`constNa[5].LIMITS[1] = 2*a5`

`constNa[6].LIMITED[1] = 1`

`constNa[6].LIMITS[1] = 0`

`constNa[7].LIMITED[1] = 1`

`constNa[7].LIMITS[1] = 0`

`constNa[8].LIMITED[0] = 1`

`constNa[8].LIMITS[0] = 0`

`constNa[9].LIMITED[0] = 1`

`constNa[9].LIMITED[1] = 1`

`constNa[9].LIMITS[0] = a9-0.3`

`constNa[9].LIMITS[1] = a9+0.3`

`constNa[10].LIMITED[0] = 1`

`constNa[10].LIMITED[1] = 1`

`constNa[10].LIMITS[0] = a10/2`

`constNa[10].LIMITS[1] = 2*a10`

constNa[11].LIMITED[0] = 1

constNa[11].LIMITS[0] = 0

constNa[0].VALUE = a0

constNa[1].VALUE = a1

constNa[2].VALUE = a2

constNa[3].VALUE = a3

constNa[4].VALUE = a4

constNa[5].VALUE = a5

constNa[6].VALUE = a6

constNa[7].VALUE = a7

constNa[8].VALUE = a8

constNa[9].VALUE = a9

constNa[10].VALUE = a10

constNa[11].VALUE = a11

constNa[12].VALUE = a12

```
valid      = WHERE((wavelength GE 5850 AND wavelength LE 5873) OR (wavelength GE 5905 AND wavelength LE 5914))
```

```
deviation = STDEV(spectNa[valid]-1)
```

```
weights = 0.*spectNa + deviation
```

```
wNa       = WHERE(wavelength GE 5887 AND wavelength LE 5903)
```

```
result=MPFITEXPR(gauss, wavelength[wNa], spectNa[wNa], weights[wNa], PARINFO=constNa, BESTNORM=chi2, perror=perror,  
/quiet)
```

```
fitted=MPEVALEXPR(gauss, wavelength, result)
```

```
;===== scale errors =====
```

```
x          = spectNa[wNa]
```

```
chisq[k]    = chi2/N_ELEMENTS(x)
```

```
dof         = N_ELEMENTS(x) - N_ELEMENTS(result)
```

```
pcerror[*,k] = perror * SQRT (chi2/dof)
```

```
;===== plot =====
```

```
spectNares=RESAMPLE(wavelength, spectNa, waveNaave)
```

```
spectNaave=spectNaave + spectNares
```

```
PLOT, wavelength, spectNa, XRange=[5885.,5910.], YRange=[0.5,1.05]
```

```
OPLOT, wavelength[wNa], fitted[wNa], THICK=2, COLOR =1
```

```
xyouts,5886,0.55,"Na",charsize=0.3
```

```
xyouts,5887.5,0.75,"Gal D!D2",charsize=0.3
```

```
xyouts,5891.5,0.6,"SMC D!D2",charsize=0.3
```

```
xyouts,5894.5,0.7,"Gal D!D1",charsize=0.3
```

```
xyouts,5897.5,0.6,"SMC D!D1",charsize=0.3
```

```
;===== compute equivalent width=====
```

```
measuresNa[*, k] = result
```

```
ewNaD2gal[k] = -1.* result[0] * result[2] *SQRT(2*!PI)
```

```
ewNaD2smc[k] = -1.* result[3] * result[5] *SQRT(2*!PI)
```

```
ewNaD1gal[k] = -1.* result[6] * result[2] *SQRT(2*!PI)
```

```
ewNaD1smc[k] = -1.* result[7] * result[5] *SQRT(2*!PI)
```

```
;===== compute error in ew1 =====
```

```
ewNaD2galerr[k] = SQRT((SQRT(2*!PI))^2*((pcerror[0, k] * result[2])^2 + (result[0] * pcerror[2, k])^2))
```

```
ewNaD2smcerr[k] = SQRT((SQRT(2*!PI))^2*((pcerror[3, k] * result[5])^2 + (result[3] * pcerror[5, k])^2))
```

```
ewNaD1galerr[k] = SQRT((SQRT(2*!PI))^2*((pcerror[6, k] * result[2])^2 + (result[6] * pcerror[2, k])^2))
```

```
ewNaD1smcerr[k] = SQRT((SQRT(2*!PI))^2*((pcerror[7, k] * result[5])^2 + (result[7] * pcerror[5, k])^2))
```

```
ewNaD2galselect[k] = ewNaD2gal[k]/ewNaD2galerr[k]
```



```
ewNaD2smcselect[k] = ewNaD2smc[k]/ewNaD2smcerr[k]
```

```
IF (ewNaD2smcerr[k] LT 0.0001) THEN ewNaD2smcselect[k] = 0.
```

```
ewNaD1galselect[k] = ewNaD1gal[k]/ewNaD1galerr[k]
```

```
ewNaD1smcselect[k] = ewNaD1smc[k]/ewNaD1smcerr[k]
```

```
IF (ewNaD1smcerr[k] LT 0.0001) THEN ewNaD1smcselect[k] = 0.
```

```
PRINTF, 3, measuresNa[*,k], pccerror[*,k], chisq[k], ewNaD2gal[k], ewNaD2smc[k], ewNaD1gal[k], ewNaD1smc[k], ewNaD2galerr[k],  
ewNaD2smcerr[k], ewNaD1galerr[k], ewNaD1smcerr[k], ewNaD2galselect[k], ewNaD2smcselect[k], ewNaD1galselect[k],  
ewNaD1smcselect[k],  
FORMAT='(1X,F6.3,1X,F7.2,1X,F5.3,1X,F6.3,1X,F7.2,1X,F5.3,1X,F6.3,1X,F6.3,1X,F5.3,1X,F7.2,1X,F5.3,1X,F5.3,1X,F4.2,1X,F7.3,  
1X,F4.2,1X,F5.3,1X,F5.3,1X,F4.2,1X,F5.3,1X,F6.3,1X,F5.3,1X,F7.3,1X,F4.2,1X,F5.3,1X,F6.3,1X,F4.2,1X,F6.3,1X,F5.3,1X,F6.3,1X,  
F5.3,1X,F6.3,1X,F7.3,1X,F5.3,1X,F6.3,1X,F5.3,1X,F4.1,1X,F5.1,1X,F4.1,1X,F5.1,$)'
```

```
;=====
```

```
ENDIF
```

```
ENDFOR
```

```
spect5780ave=spect5780ave/328
```

```
PLOT, wave5780ave, spect5780ave, X RANGE=[5777.,5793.], Y RANGE=[0.987,1.015], X STYLE=1, Y STYLE=1
```

```
xyouts,5777.5,1.013,"average spectrum",charsize=0.3
```

```
xyouts,5777.5,0.989,"DIB 5780",charsize=0.3
```

```
xyouts,5777.5,0.995,"Galactic",charsize=0.3
```

```
xyouts,5788.6,0.997,"SMC",charsize=0.3
```

```
spect5797ave=spect5797ave/328
```

```
PLOT, wave5797ave, spect5797ave, X RANGE=[5792.,5808.], Y RANGE=[0.987,1.015], X STYLE=1, Y STYLE=1
```

```
xyouts,5792.5,1.013,"average spectrum",charsize=0.3
```

```
xyouts,5792.5,0.989,"DIB 5797",charsize=0.3
```

```
xyouts,5796,0.997,"Galactic",charsize=0.3
```

```
xyouts,5800.5,0.997,"SMC",charsize=0.3
```

```
spectNaave=spectNaave/328
```

```
PLOT, waveNaave, spectNaave, X RANGE=[5885.,5910.], Y RANGE=[0.78,1.05], X STYLE=1, Y STYLE=1
```

```
xyouts,5886,1.03,"average spectrum",charsize=0.3
```

```
xyouts,5886,0.80,"Na",charsize=0.3
```

```
xyouts,5887,0.9,"Gal D!D2",charsize=0.3
```

```
xyouts,5899,0.91,"SMC D!D1",charsize=0.3
```

```
xyouts,5892,0.87,"SMC D!D2",charsize=0.3
```

```
xyouts,5896.5,0.84,"Gal D!D1",charsize=0.3
```

```
DEVICE, /CLOSE
```

```
cmd = 'mv ' + 'idl.ps' + ' ' + 'smcr.ps'
```

```
SPAWN, cmd
```

```
SET_PLOT, 'X'
```

```
CLOSE, 1
```

```
CLOSE, 2
```

```
CLOSE, 3
```

```
CLOSE, 4
```

```
CLOSE, 5
```

```
END
```

measures_LB.dat

HD----955 0.23 -17.55 78.78 -77.07 3.16 0.008 0.0020 4.1 0.426 -0.000 0.00000 -NaN 0.478 0.006 0.0094 0.7 2.380 0.621 0.0180 34.5 0.194 0.067 0.0078 0.010 0.0046 8.6 2.1 0.126 0.003 0.0021 -0.000 0.0000 1.5 -NaN 0.542 0.015
0.0085 1.7 7.772 -0.000 0.0000 -NaN 0.404 0.007 0.0066 1.1 0.418 1 0 0 1 1 0 0 0 0 0 0

HD---2913 0.54 6.96 114.55 -55.60 12.35 0.016 0.0030 5.4 0.048 -0.000 0.00000 -NaN 0.153 0.011 0.0038 2.9 0.465 0.058 0.0061 9.6 0.360 0.097 0.0148 0.043 0.0109 6.5 3.9 0.400 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 2.235 0.002
0.0035 0.5 0.109 -0.000 0.0000 -NaN 0.162 -0.000 0.0000 -NaN 0.710 0 0 0 1 1 2 1 0 0 0 0 0

HD---3580 0.64 -20.30 98.65 -82.55 3.97 0.020 0.0039 5.2 0.091 0.008 0.01702 0.5 0.581 -0.000 0.0000 -NaN 9.161 0.015 0.0104 1.4 0.100 0.022 0.0106 -0.000 0.0000 2.1 -NaN 0.212 0.008 0.0026 -0.000 0.0000 3.1 -NaN 0.190 -0.000
0.0000 -NaN 0.111 -0.000 0.0000 -NaN 0.290 0.008 0.0044 1.9 0.084 1 0 0 0 0 0 0 0 0 0 0

HD---4065 0.71 -38.46 311.66 -78.52 6.89 0.011 0.0022 5.2 0.067 -0.000 0.00000 -NaN 0.100 -0.000 0.0000 -NaN 2.139 0.022 0.0023 9.6 0.370 0.119 0.0109 0.066 0.0091 10.9 7.3 0.475 0.000 0.0022 0.003 0.0027 0.0 1.1 0.853 0.004
0.0039 0.9 0.059 -0.000 0.0000 -NaN 0.324 0.011 0.0072 1.6 0.375 1 0 0 1 1 2 1 0 0 0 0 0

HD---4622 0.80 -21.72 114.52 -84.54 9.51 0.013 0.0014 9.4 0.085 0.001 0.00139 0.4 0.148 -0.000 0.0000 -NaN 1.095 0.051 0.0032 16.0 0.769 0.081 0.0068 0.044 0.0050 12.0 8.9 0.315 0.001 0.0007 0.002 0.0018 0.7 0.9 0.577 0.006
0.0060 1.0 0.050 -0.000 0.0000 -NaN 0.286 -0.000 0.0000 -NaN 0.564 1 0 0 1 1 1 1 0 0 0 0 0

HD---4751 0.82 -42.56 304.48 -74.56 3.42 0.017 0.0025 7.0 0.691 0.003 90886.36719 0.0 0.470 -0.000 0.0000 -NaN 3.530 0.212 0.0022 94.9 0.077 0.045 0.0053 0.016 0.0034 8.5 4.6 0.280 -0.000 0.0000 0.001 34725.1211 -NaN 0.0 0.431 -0.000
0.0000 -NaN 0.234 -0.000 0.0000 -NaN 0.290 -0.000 0.0000 -NaN 0.460 1 0 0 1 1 1 0 0 0 0 0 0

HD---4772 0.83 -23.36 117.23 -86.21 4.27 0.009 0.0037 2.5 0.065 -0.000 0.00000 -NaN 0.165 0.002 0.0096 0.2 0.884 0.002 0.0020 1.0 0.143 0.311 0.0126 0.248 0.0117 24.7 21.3 0.677 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 1.766 0.018
0.0024 7.6 0.009 -0.000 0.0000 -NaN 0.172 -0.000 0.0000 -NaN 0.253 0 0 0 0 1 1 1 0 0 0 0 0

[illegible][illegible]

HD--12561 2.04 -21.97 199.06 -73.08 4.91 0.022 0.0018 12.1 0.271 -0.000 0.00000 -NaN 0.267 -0.000 0.0000 -NaN 7.905 0.258 0.0036 71.6 0.202 0.074 0.0036 0.029 0.0024 20.4 12.3 0.122 0.003 0.0017 0.001 0.0013 1.5 1.1 0.384 -0.000
0.0000 -NaN 0.532 -0.000 0.0000 -NaN 0.307 0.013 0.0063 2.1 0.192 1 0 0 1 1 1 0 0 0 0 0

[illegible]

HD--16891 2.66 -64.28 285.43 -49.01 6.31 0.014 0.0022 6.2 0.089 0.001 0.00093 1.4 0.097 0.002 0.0013 1.3 0.690 0.107 0.0057 18.7 0.081 0.044 0.0094 0.010 0.0098 4.6 1.0 0.516 -0.000 0.0000 0.008 0.0024 -NaN 3.2 0.935 -0.000
0.0000 -NaN 0.619 -0.000 0.0000 -NaN 0.278 -0.000 0.0000 -NaN 0.191 0 0 2 2 0 0 0 0 0 0 0

HD--18543 2.98 -2.78 179.81 -51.01 9.04 0.013 0.0029 4.4 0.110 -0.000 0.00000 -NaN 0.134 -0.000 0.0000 -NaN 6.485 0.018 0.0045 3.9 0.259 0.188 0.0069 0.135 0.0058 27.1 23.4 0.221 0.001 0.0034 -0.000 0.0000 0.4 -NaN 0.840 0.012
0.0051 2.4 0.023 -0.000 0.0000 -NaN 0.305 0.015 0.0034 4.4 0.414 1 0 0 1 1 1 2 0 0 0 1

HD--20319 3.27 -5.92 187.90 -49.59 4.96 0.043 0.0020 21.8 0.073 0.006 0.00158 3.8 0.094 0.003 0.0052 0.6 1.431 0.145 0.0064 22.8 0.537 0.158 0.0126 0.106 0.0102 12.5 10.4 0.987 0.001 0.0005 0.006 0.0015 1.9 4.3 0.462 0.016
0.0030 5.5 0.078 -0.000 0.0000 -NaN 0.082 0.011 0.0046 2.3 0.475 1 1 0 1 1 1 1 0 1 0 1

HD--21790 3.51 -5.08 189.96 -46.18 8.07 0.010 0.0034 3.0 0.123 -0.000 0.00000 -NaN 0.111 0.001 0.0010 0.7 1.497 0.128 0.0034 37.8 3.088 0.033 0.0036 0.010 0.0022 9.4 4.5 0.371 0.001 0.0009 -0.000 0.0000 1.3 -NaN 0.351 0.005
0.0060 0.9 0.288 -0.000 0.0000 -NaN 0.291 0.016 0.0037 4.2 0.127 0 0 0 1 1 1 1 0 0 0 0

HD--22252 3.51 -66.49 282.25 -43.70 3.76 0.063 0.0031 20.4 0.142 0.022 0.00122 18.4 0.037 0.008 0.0023 3.6 1.887 0.222 0.0094 23.5 0.028 0.304 0.0057 0.237 0.0050 52.9 47.4 0.290 0.002 0.0012 0.023 0.0022 1.7 10.7 0.285 0.013
0.0034 3.8 0.151 -0.000 0.0000 -NaN 0.175 0.008 0.0023 3.6 0.095 1 1 1 1 1 1 0 0 1 0 0

HD--22920 3.68 -5.21 192.13 -44.15 6.57 0.037 0.0051 7.2 0.175 -0.000 0.00000 -NaN 1.370 -0.000 0.0000 -NaN 2.500 0.093 0.0134 7.0 0.082 0.153 0.0084 0.100 0.0067 18.2 14.9 0.457 0.009 0.0020 0.009 0.0026 4.5 3.6 0.245 0.012
0.0057 2.1 0.073 0.004 0.0092 0.4 0.348 -0.000 0.0000 -NaN 0.472 1 0 0 1 1 1 0 0 0 0 0

HD--23363 3.74 -1.16 188.30 -41.10 4.98 0.038 0.0028 13.4 0.114 0.005 0.00245 2.1 0.123 0.007 0.0020 3.2 0.603 0.226 0.0058 38.9 0.162 0.270 0.0071 0.181 0.0057 38.2 31.7 0.394 0.002 0.0025 0.017 0.0024 0.7 7.1 0.916 0.009
0.0079 1.2 0.671 -0.000 0.0000 -NaN 0.134 0.013 0.0176 0.7 0.589 1 0 0 1 1 1 0 0 1 0 0

HD--23466 3.76 6.05 181.27 -36.40 6.11 0.062 0.0023 26.6 0.037 0.017 0.00197 8.8 0.033 0.021 0.0081 2.6 3.650 0.600 0.0044 135.6 0.020 0.210 0.0094 0.158 0.0081 22.2 19.6 0.298 0.009 0.0030 0.038 0.0028 3.0 13.8 0.482 0.022
0.0091 2.4 11.945 0.034 0.0068 5.0 0.025 0.017 0.0033 5.3 0.360 1 1 0 1 1 1 0 1 1 0 1 1

HD--24263 3.87 6.53 182.11 -34.84 4.19 0.154 0.0032 47.8 0.047 0.056 0.00288 19.5 0.049 0.017 0.0035 4.8 0.925 0.403 0.0105 38.6 0.393 0.225 0.0100 0.178 0.0087 22.6 20.3 0.505 0.015 0.0033 0.059 0.0053 4.6 11.2 0.931 0.041
0.0086 4.7 2.317 0.106 0.0045 23.8 0.005 0.057 0.0031 18.4 0.061 1 1 1 1 1 1 2 1 1 1 1 1

HD--24388 3.88 -5.36 194.50 -41.71 5.57 0.025 0.0021 11.9 0.086 -0.000 0.00000 -NaN 0.081 -0.000 0.0000 -NaN 7.507 0.277 0.0075 36.8 1.683 0.066 0.0051 0.025 0.0034 12.8 7.6 1.138 -0.000 0.0000 0.008 0.0014 -NaN 5.6 0.690 0.006
0.0048 1.3 0.563 -0.000 0.0000 -NaN 0.403 0.007 0.0036 2.1 0.064 1 0 0 1 1 1 1 0 0 0 0 0

HD--24587 3.90 -24.61 220.02 -49.08 8.65 0.006 0.0017 3.3 0.124 -0.000 0.00000 -NaN 0.169 -0.000 0.0000 -NaN 5.520 0.298 0.0066 45.5 1.149 0.035 0.0079 0.006 0.0047 4.5 1.2 0.663 0.008 0.0013 0.006 0.0017 5.8 3.6 0.614 -0.000
0.0000 -NaN 3.122 -0.000 0.0000 -NaN 0.419 -0.000 0.0000 -NaN 0.777 0 0 0 1 1 0 0 0 0 0 0 0

HD--25137 3.99 1.79 188.07 -36.34 4.08 0.129 0.0045 28.9 0.076 0.038 0.00314 12.3 0.057 0.016 0.0066 2.4 2.130 0.010 0.0043 2.3 0.691 0.291 0.0186 0.249 0.0170 15.6 14.6 1.812 0.012 0.0022 0.031 0.0030 5.4 10.3 0.273 0.032
0.0046 6.9 0.059 0.036 0.0105 3.5 0.075 0.042 0.0019 21.9 0.035 1 1 2 0 1 1 1 1 1 1 1 1

HD--26677 4.23 8.89 183.91 -29.19 12.64 0.031 0.0083 3.7 0.049 -0.000 0.00000 -NaN 0.116 0.110 0.0522 2.1 2.640 0.003 0.0027 1.2 0.045 0.329 0.0048 0.280 0.0044 69.2 64.3 0.117 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 2.038 0.037
0.0036 10.4 0.006 -0.000 0.0000 -NaN 0.066 -0.000 0.0000 -NaN 0.811 0 0 0 0 1 1 0 0 0 1 0 0

HD--26912 4.26 8.89 184.22 -28.84 7.16 0.114 0.0029 39.7 0.068 0.020 0.00257 7.7 0.066 0.020 0.0079 2.5 10.237 0.503 0.0053 94.2 0.579 0.163 0.0105 0.111 0.0085 15.6 13.1 0.771 0.009 0.0020 0.031 0.0033 4.4 9.4 0.467 0.036
0.0121 3.0 11.089 0.027 0.0041 6.6 0.008 0.047 0.0040 11.6 0.096 1 1 0 1 1 1 0 1 1 0 1 1

HD--27820 4.40 9.46 185.13 -26.85 8.24 0.025 0.0027 9.1 0.038 -0.000 0.00000 -NaN 0.029 -0.000 0.0000 -NaN 0.537 0.009 0.0034 2.7 0.157 0.232 0.0089 0.173 0.0076 26.2 22.8 0.442 -0.000 0.0000 0.001 0.0028 -NaN 0.4 1.860 0.020
0.0017 11.8 0.006 -0.000 0.0000 -NaN 0.148 0.008 0.0039 2.1 0.163 1 0 0 0 1 1 1 0 0 0 0 0

HD--29248	4.61	-3.35	199.35	-31.31	4.83	0.016	0.0030	5.4	0.081	0.018	0.00230	7.7	0.036	0.013	0.0072	1.9	0.071	0.742	0.0099	75.0	1.172	0.218	0.0160	0.093	0.0108	13.6	8.6	1.744	0.009	0.0036	0.022	0.0045	2.5	4.9	0.393	-0.000
0.0000	-NaN	3.878	0.014	0.0064	2.1	0.056	-0.000	0.0000	-NaN	4.751	1	0	0	1	1	1	0	0	0	0	2	0														
HD--29769	4.58	-72.73	285.32	-35.72	6.78	0.029	0.0074	3.9	0.049	-0.000	0.00000	-NaN	0.116	0.027	0.0228	1.2	0.756	0.002	0.0017	1.0	0.038	0.409	0.0206	0.317	0.0181	19.9	17.5	5.740	-0.000	0.0000	-0.000	0.0000	-NaN	-NaN	1.988	0.034
0.0052	6.6	0.045	-0.000	0.0000	-NaN	0.043	0.013	0.0050	2.6	0.038	0	0	0	0	1	1	0	0	0	0	0															
HD--29851	4.70	-12.48	209.74	-34.31	5.81	0.023	0.0027	8.8	0.062	-0.000	0.00000	-NaN	0.238	-0.000	0.0000	-NaN	0.144	0.006	0.0020	3.0	0.207	0.313	0.0097	0.240	0.0084	32.2	28.5	0.423	0.001	0.0010	0.004	0.0027	0.5	1.6	0.965	0.014
0.0022	6.2	0.046	-0.000	0.0000	-NaN	0.058	0.015	0.0056	2.7	0.594	1	0	0	0	1	1	1	0	0	0	0															
HD--29994	4.64	-68.81	280.70	-36.98	3.76	0.040	0.0033	12.4	0.085	0.008	0.00225	3.6	0.070	0.005	0.0036	1.4	0.973	0.058	0.0038	15.5	0.120	0.275	0.0083	0.192	0.0069	33.1	28.1	0.807	0.001	0.0009	0.017	0.0039	1.1	4.5	1.124	0.003
0.0022	1.3	0.300	-0.000	0.0000	-NaN	0.077	-0.000	0.0000	-NaN	0.527	1	1	0	1	1	1	0	0	0	0	0															
HD--31512	4.94	-5.17	203.93	-27.88	4.40	0.015	0.0022	6.9	0.078	0.002	0.00175	1.3	0.153	0.017	0.0085	2.0	4.664	0.442	0.0089	49.5	0.696	0.087	0.0115	0.027	0.0072	7.5	3.8	0.601	0.001	0.0016	0.005	0.0039	0.9	1.2	1.237	-0.000
0.0000	-NaN	4.672	-0.000	0.0000	-NaN	0.121	-0.000	0.0000	-NaN	1.201	1	0	0	1	1	1	2	0	0	0	0															
HD--32249	5.02	-7.17	206.56	-27.74	4.41	0.010	0.0017	6.1	0.083	0.003	0.00106	3.1	0.055	0.015	0.0069	2.1	2.234	0.661	0.0177	37.4	0.559	0.174	0.0120	0.090	0.0086	14.5	10.4	0.520	0.002	0.0021	0.003	0.0018	0.9	1.4	0.316	-0.000
0.0000	-NaN	6.286	-0.000	0.0000	-NaN	0.247	0.019	0.0073	2.6	0.749	1	1	0	1	1	1	0	0	0	0	0															
HD--33949	5.22	-12.94	213.87	-27.56	4.48	0.024	0.0019	12.7	0.036	0.000	0.00000	-NaN	0.129	-0.000	0.0000	-NaN	2.475	0.236	0.0073	32.3	0.209	0.097	0.0060	0.049	0.0043	16.3	11.6	0.226	0.002	0.0016	0.004	0.0019	1.1	2.1	0.629	0.007
0.0057	1.2	0.396	-0.000	0.0000	-NaN	0.155	-0.000	0.0000	-NaN	0.770	1	0	0	1	1	1	0	0	0	0	0															
HD--34968	5.34	-21.24	223.35	-29.09	7.84	0.019	0.0040	4.7	0.215	-0.000	0.00000	-NaN	0.161	0.001	0.0009	1.2	0.682	0.064	0.0027	23.6	0.700	0.097	0.0056	0.062	0.0044	17.5	13.9	0.370	0.006	0.0017	-0.000	0.0000	3.5	-NaN	0.626	0.002

0.0048 0.4 0.046 -0.000 0.0000 -NaN 0.435 -0.000 0.0000 -NaN 0.829 0 0 0 1 1 1 2 0 0 0 0 0

HD--36267 5.51 5.95 198.00 -14.98 10.77 0.005 0.0020 2.7 0.116 0.001 0.00192 0.6 0.180 -0.000 0.0000 -NaN 2.710 0.410 0.0098 41.7 0.051 0.037 0.0104 -0.000 0.0000 3.6 -NaN 0.103 0.001 0.0019 -0.000 0.0000 0.7 -NaN 0.595 0.017
0.0075 2.2 1.969 -0.000 0.0000 -NaN 0.234 -0.000 0.0000 -NaN 0.595 0 0 0 1 0 0 0 0 0 0 0 0

HD--37468 5.65 -2.60 206.85 -17.28 3.04 0.033 0.0025 13.4 0.060 -0.000 0.00000 -NaN 1.691 0.002 0.0009 1.9 0.346 0.761 0.0660 11.5 0.918 0.216 0.0055 0.159 0.0047 39.1 34.0 0.104 0.003 0.0017 0.034 0.0021 1.6 16.5 1.822 0.008
0.0034 2.3 1.069 0.000 0.0000 -NaN 0.163 0.003 0.0018 1.7 0.084 1 0 0 1 1 1 1 1 1 0 0 0

HD--37507 5.65 -7.21 211.18 -19.37 22.42 0.004 0.0017 2.2 0.016 -0.000 0.00000 -NaN 0.049 -0.000 0.0000 -NaN 1.204 0.002 0.0014 1.7 0.097 0.256 0.0171 0.197 0.0174 14.9 11.3 2.807 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 1.997 0.007
0.0026 2.8 0.027 -0.000 0.0000 -NaN 0.169 0.008 0.0020 3.9 0.020 0 0 0 0 1 0 1 0 0 0 0 0

HD--38170 5.70 -34.67 239.61 -28.54 7.61 0.023 0.0104 2.2 0.033 -0.000 0.00000 -NaN 0.129 -0.000 0.0000 -NaN 1.147 -0.000 0.0000 -NaN 1.091 0.103 0.0101 0.074 0.0085 10.2 8.8 0.524 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 0.487
0.000 0.0000 -NaN 0.093 -0.000 0.0000 -NaN 0.134 -0.000 0.0000 -NaN 0.986 0 0 0 0 1 1 1 0 0 0 0 0

HD--43107 6.15 -68.84 279.01 -28.97 10.88 0.011 0.0017 6.1 0.038 -0.000 0.00000 -NaN 0.044 -0.000 0.0000 -NaN 6.392 0.069 0.0027 25.6 1.857 0.065 0.0048 0.034 0.0035 13.6 9.8 0.408 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 0.140 0.005
0.0034 1.4 0.031 -0.000 0.0000 -NaN 0.204 0.015 0.0027 5.4 0.049 1 0 0 1 1 1 2 0 0 0 0 0

HD--43445 6.26 -13.72 221.36 -14.05 8.00 0.009 0.0030 2.9 0.046 -0.000 0.00000 -NaN 0.076 0.000 0.0011 0.4 1.316 0.118 0.0049 24.1 0.024 0.025 0.0050 0.010 0.0034 5.1 3.0 0.239 -0.000 0.0000 0.002 0.0012 -NaN 1.4 0.678 0.005
0.0036 1.5 0.180 -0.000 0.0000 -NaN 0.179 0.009 0.0033 2.7 0.054 0 0 0 1 0 0 0 0 0 0 0 0

HD--46328 6.53 -23.42 232.11 -14.54 2.36 0.002 0.0023 1.0 0.095 0.005 0.00294 1.8 0.090 -0.000 0.0000 -NaN 0.118 0.657 0.0083 78.8 0.828 0.094 0.0169 0.016 0.0106 5.6 1.5 6.423 0.012 0.0024 0.012 0.0022 5.0 5.6 0.117 -0.000
0.0000 -NaN 2.275 -0.000 0.0000 -NaN 0.398 -0.000 0.0000 -NaN 0.544 0 0 0 1 1 0 0 1 1 0 0 0

HD--50241 6.80 -61.94 271.91 -24.12 33.78 0.020 0.0029 7.0 0.016 -0.000 0.00000 -NaN 0.098 0.039 0.0170 2.3 0.630 -0.000 0.0000 -NaN 0.030 0.265 0.0223 0.208 0.0227 11.9 9.2 2.149 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 2.356 0.032
0.0058 5.5 0.076 0.019 0.0194 1.0 0.036 0.024 0.0032 7.5 0.021 1 0 0 0 1 2 1 0 0 0 0 0

HD--50707 6.89 -20.22 231.28 -8.65 2.68 0.012 0.0036 3.5 0.125 0.008 0.00274 3.0 0.064 -0.000 0.0000 -NaN 0.095 0.744 0.0074 100.7 0.103 0.145 0.0233 0.038 0.0154 6.3 2.4 0.622 0.009 0.0026 0.022 0.0033 3.5 6.6 0.279 -0.000
0.0000 -NaN 2.756 -0.000 0.0000 -NaN 0.198 -0.000 0.0000 -NaN 15.105 0 0 0 1 1 0 0 1 1 0 0 0

HD--52918 7.05 -4.24 218.02 0.63 2.68 0.021 0.0027 8.0 0.087 0.004 0.00141 2.6 0.051 0.016 0.0049 3.4 0.191 0.651 0.0363 17.9 0.102 0.166 0.0184 0.099 0.0140 9.0 7.0 0.122 0.010 0.0020 0.024 0.0026 4.7 9.1 0.525 -0.000 0.0000
-NaN 3.026 -0.000 0.0000 -NaN 0.084 0.019 0.0034 5.5 0.139 1 1 0 1 1 1 0 0 0 0 0 0

HD--56410 7.25 -41.43 252.85 -13.49 5.96 0.024 0.0022 11.0 0.323 0.000 0.00000 -NaN 0.480 -0.000 0.0000 -NaN 5.166 0.202 0.0047 42.6 0.274 0.046 0.0098 0.012 0.0061 4.6 1.9 0.360 0.008 0.0024 0.001 0.0027 3.3 0.5 0.277 -0.000
0.0000 -NaN 0.823 -0.000 0.0000 -NaN 0.163 -0.000 0.0000 -NaN 0.177 1 0 0 1 0 0 0 0 0 0 0 0

HD--61429 7.64 -25.36 240.66 -1.81 5.27 0.012 0.0027 4.3 0.167 0.002 0.00297 0.7 0.312 0.000 0.0000 -NaN 1.682 0.211 0.0066 32.2 0.116 0.039 0.0056 0.011 0.0035 7.1 3.2 0.125 -0.000 0.0000 0.003 0.0029 -NaN 1.2 0.423 0.003
0.0041 0.7 0.249 -0.000 0.0000 -NaN 0.604 0.008 0.0048 1.6 0.305 1 0 0 1 1 2 0 0 0 0 0 0

HD--61831 7.66 -38.31 252.15 -7.87 5.87 0.002 0.0012 1.8 0.338 -0.000 0.00000 -NaN 0.295 0.018 0.0078 2.3 2.944 0.638 0.0093 68.3 0.021 0.077 0.0098 0.014 0.0062 7.8 2.3 0.029 -0.000 0.0000 0.005 0.0027 -NaN 1.7 0.300 -0.000
0.0000 -NaN 7.456 -0.000 0.0000 -NaN 0.548 -0.000 0.0000 -NaN 0.533 0 0 0 1 1 0 0 0 0 0 0 0

HD--65900 8.02 4.88 216.57 17.73 10.59 0.017 0.0021 8.2 0.101 0.000 0.00000 -NaN 0.180 -0.000 0.0000 -NaN 1.573 0.009 0.0013 6.4 0.148 0.186 0.0084 0.147 0.0074 22.2 20.0 1.151 0.002 0.0014 0.007 0.0041 1.2 1.8 0.264 0.004
0.0036 1.1 0.013 0.012 0.0274 0.4 0.285 0.043 0.0041 10.4 0.116 1 0 0 2 1 1 0 0 0 0 0 0

HD--69144 8.23 -46.99 262.90 -6.89 2.40 0.015 0.0028 5.5 0.209 0.003 0.00214 1.4 0.158 -0.000 0.0000 -NaN 3.391 0.559 0.0112 49.9 0.013 0.168 0.0113 0.080 0.0079 14.8 10.1 0.024 0.003 0.0012 0.006 0.0015 2.9 4.3 0.258 -0.000
0.0000 -NaN 4.713 -0.000 0.0000 -NaN 0.165 -0.000 0.0000 -NaN 0.714 1 1 0 1 1 1 0 1 1 0 0 0

[illegible][illegible][illegible][illegible][illegible][illegible][illegible]

HD--72359 8.54 10.07 215.24 26.96 6.05 0.016 0.0026 6.2 0.056 -0.000 0.00000 -NaN 0.101 -0.000 0.0000 -NaN 1.410 0.025 0.0029 8.6 0.708 0.142 0.0058 0.099 0.0048 24.3 20.6 0.297 0.004 0.0029 0.010 0.0036 1.5 2.8 0.382 0.013
0.0032 4.0 0.011 -0.000 0.0000 -NaN 0.228 0.031 0.0078 4.0 0.591 1 0 0 1 1 1 0 0 0 0 0

HD--74071 8.66 -53.44 270.60 -7.20 7.33 0.008 0.0021 4.0 0.106 -0.000 0.00000 -NaN 0.060 0.005 0.0051 0.9 2.142 0.425 0.0117 36.5 0.053 0.047 0.0062 0.015 0.0040 7.6 3.6 0.024 0.007 0.0032 -0.000 0.0000 2.2 -NaN 0.613 -0.000
0.0000 -NaN 2.260 -0.000 0.0000 -NaN 0.714 -0.000 0.0000 -NaN 1.836 1 0 0 1 1 0 0 0 0 0 0

HD--74146 8.67 -53.05 270.35 -6.89 7.37 0.008 0.0020 4.0 0.273 0.001 0.00295 0.5 2.427 0.015 0.0074 2.0 3.379 0.395 0.0063 63.3 0.081 0.061 0.0073 0.021 0.0047 8.4 4.6 0.113 0.004 0.0017 0.010 0.0022 2.2 4.4 0.241 -0.000
0.0000 -NaN 2.584 0.011 0.0207 0.5 0.402 0.037 0.0050 7.4 0.118 0 0 0 1 1 1 0 0 0 0 0

HD--74521 8.75 10.08 216.74 29.77 7.71 0.068 0.0146 4.7 0.286 0.034 0.03241 1.0 0.355 -0.000 0.0000 -NaN 2.613 -0.000 0.0000 -NaN 0.571 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 0.566 0.066 0.0263 -0.000 0.0000 2.5 -NaN 1.016 0.040
0.0284 1.4 0.131 0.049 0.0579 0.9 0.187 0.061 0.0181 3.4 0.203 1 0 0 0 0 0 0 0 0 0 0

HD--74535 8.71 -53.10 270.61 -6.63 6.53 0.006 0.0037 1.7 0.413 -0.000 0.00000 -NaN 0.254 0.009 0.0117 0.7 5.836 0.541 0.0114 47.5 0.209 0.068 0.0095 0.016 0.0058 7.1 2.7 0.111 0.005 0.0023 0.012 0.0030 2.3 3.9 0.428 -0.000
0.0000 -NaN 7.886 -0.000 0.0000 -NaN 0.745 0.054 0.0103 5.2 0.236 0 0 0 1 1 2 0 0 0 0 0

HD--74560 8.71 -53.11 270.61 -6.64 6.73 0.022 0.0030 7.2 0.127 0.006 0.01430 0.4 0.633 -0.000 0.0000 -NaN 2.582 0.047 0.0053 8.9 0.059 0.035 0.0137 0.000 0.0080 2.5 0.0 0.483 0.023 0.0044 0.023 0.0056 5.2 4.1 0.364 0.004
0.0043 1.0 0.080 -0.000 0.0000 -NaN 0.162 0.042 0.0094 4.4 0.222 1 0 0 1 0 0 0 0 0 0 0

HD--75009 8.76 -44.25 263.93 -0.78 2.76 0.027 0.0027 10.0 0.137 0.001 0.00083 1.2 0.105 0.008 0.0048 1.7 1.039 0.227 0.0086 26.4 0.080 0.135 0.0064 0.062 0.0044 20.9 14.0 0.134 0.009 0.0025 0.007 0.0020 3.4 3.7 0.339 -0.000
0.0000 -NaN 0.453 -0.000 0.0000 -NaN 0.126 -0.000 0.0000 -NaN 2.411 1 1 0 1 1 1 2 0 0 0 0

HD--75311 8.78 -56.77 273.90 -8.40 5.39 0.006 0.0012 4.6 0.047 0.002 0.00155 1.5 0.118 0.012 0.0024 4.8 0.486 0.698 0.0141 49.5 0.024 0.072 0.0109 0.030 0.0079 6.6 3.8 0.029 0.009 0.0015 0.005 0.0019 6.2 2.5 0.451 -0.000
0.0000 -NaN 1.467 -0.000 0.0000 -NaN 0.217 -0.000 0.0000 -NaN 1.934 0 0 0 1 0 0 0 0 0 0 0

HD--76805	8.94	-52.72	271.62	-4.77	9.23	0.007	0.0039	1.8	0.134	-0.000	0.00000	-NaN	0.134	-0.000	0.0000	-NaN	3.563	0.366	0.0083	44.0	0.059	0.046	0.0068	0.013	0.0047	6.7	2.8	0.025	0.002	0.0013	0.003	0.0035	1.9	0.9	0.963	-0.000
0.0000	-NaN	1.731	-0.000	0.0000	-NaN	0.817	0.026	0.0076	3.4	0.613	0 0 0 1	1 0 0 0 0 0 0																								
HD--77475	9.02	-41.86	263.93	2.94	7.60	0.009	0.0018	4.8	0.255	-0.000	0.00000	-NaN	0.328	-0.000	0.0000	-NaN	8.980	0.426	0.0064	66.9	0.155	0.048	0.0056	0.020	0.0037	8.6	5.4	0.147	0.005	0.0013	0.004	0.0016	3.6	2.3	0.232	-0.000
0.0000	-NaN	2.044	-0.000	0.0000	-NaN	0.356	-0.000	0.0000	-NaN	0.465	1 0 0 1	1 1 0 0 0 0 0																								
HD--78955	9.17	-23.18	250.85	16.63	7.76	0.036	0.0025	14.3	0.073	0.009	0.00239	3.8	0.070	-0.000	0.0000	-NaN	0.386	0.031	0.0024	13.0	0.394	0.176	0.0063	0.114	0.0050	28.0	22.9	0.686	0.003	0.0015	0.022	0.0019	2.3	11.6	0.258	0.006
0.0035	1.7	0.045	0.000	0.0000	-NaN	0.072	0.053	0.0079	6.8	0.490	1 0 0 1	1 1 0 1 1 0 0																								
HD--79351	9.18	-58.97	277.68	-7.39	7.30	0.002	0.0019	1.3	0.112	-0.000	0.00000	-NaN	0.119	0.021	0.0102	2.1	4.399	0.616	0.0135	45.5	0.392	0.099	0.0153	0.016	0.0094	6.5	1.7	0.318	0.005	0.0018	0.004	0.0023	2.5	1.6	0.268	-0.000
0.0000	-NaN	3.150	-0.000	0.0000	-NaN	0.928	0.028	0.0065	4.4	0.432	0 0 0 1	1 0 0 0 0 0 0																								
HD--79416	9.21	-43.61	266.63	3.31	4.71	0.031	0.0026	11.9	0.054	-0.000	0.00000	-NaN	0.802	-0.000	0.0000	-NaN	3.423	0.166	0.0057	29.2	0.028	0.099	0.0070	0.061	0.0054	14.2	11.3	0.541	0.011	0.0024	0.013	0.0031	4.7	4.3	0.781	-0.000
0.0000	-NaN	0.584	-0.000	0.0000	-NaN	0.110	-0.000	0.0000	-NaN	0.620	1 0 0 1	1 1 0 0 0 0 0																								
HD--79447	9.19	-62.32	280.23	-9.60	6.01	0.009	0.0033	2.7	0.238	0.007	0.00363	1.8	0.380	0.030	0.0223	1.4	4.211	0.507	0.0138	36.7	1.807	0.099	0.0164	0.013	0.0101	6.1	1.3	1.066	0.013	0.0022	0.008	0.0028	5.9	2.7	0.234	-0.000
0.0000	-NaN	7.566	-0.000	0.0000	-NaN	0.995	0.041	0.0124	3.3	0.620	0 0 0 1	1 0 0 0 0 0 0																								
HD--79752	9.26	-15.02	245.02	22.80	8.96	0.008	0.0023	3.6	0.036	0.004	345145.87500	0.0	0.068	-0.000	0.0000	-NaN	0.711	0.011	0.0021	5.2	0.215	0.122	0.0127	0.065	0.0131	9.7	4.9	0.532	0.007	0.0018	0.009	0.0023	4.0	4.2	0.399	0.007
0.0038	1.9	0.181	-0.000	0.0000	-NaN	0.284	0.041	0.0081	5.0	0.163	0 0 0 1	0 0 0 0 0 0 0																								
HD--81157	9.36	-55.51	276.18	-3.94	11.84	0.023	0.0069	3.3	0.069	0.000	0.00000	-NaN	0.190	0.018	0.0554	0.3	2.717	0.001	0.0015	1.0	0.023	0.366	0.0047	0.310	0.0043	78.2	72.7	0.532	-0.000	0.0000	-0.000	0.0000	-NaN	-NaN	3.693	0.018

0.0056 3.3 0.012 -0.000 0.0000 -NaN 0.104 0.035 0.0097 3.7 0.090 0 0 0 0 1 1 0 0 0 1 0 0

HD--82406 9.48 -66.70 284.76 -11.28 12.88 0.044 0.0063 7.0 0.139 0.001 0.01286 0.1 0.104 0.010 0.0050 2.0 0.576 0.023 0.0017 13.2 0.393 0.152 0.0109 0.113 0.0093 14.0 12.2 1.734 0.001 0.0017 -0.000 0.0000 0.5 -NaN 1.078 -0.000
0.0000 -NaN 0.041 0.025 0.0191 1.3 0.160 0.062 0.0055 11.3 0.104 0 0 0 1 1 1 2 0 0 0 0 0

HD--82446 9.53 -1.18 235.12 34.31 6.30 0.009 0.0026 3.6 0.106 -0.000 0.00000 -NaN 0.212 -0.000 0.0000 -NaN 0.998 0.015 0.0035 4.3 0.117 0.258 0.0060 0.206 0.0053 43.0 38.8 0.432 -0.000 0.0000 0.000 0.0000 -NaN -NaN 1.916 0.029
0.0056 5.3 0.018 -0.000 0.0000 -NaN 0.183 0.034 0.0069 5.0 0.945 0 0 0 1 1 1 0 0 0 1 0 0

HD--82747 9.56 -22.86 254.40 20.85 12.46 -0.000 0.0000 -NaN 0.023 0.001 0.00264 0.5 0.039 0.002 0.0024 0.9 0.839 0.009 0.0022 4.0 0.627 0.097 0.0091 0.055 0.0076 10.7 7.3 0.537 -0.000 0.0000 0.007 0.0019 -NaN 3.5 0.247 0.004
0.0043 1.0 0.572 -0.000 0.0000 -NaN 0.352 -0.000 0.0000 -NaN 0.968 0 0 0 1 1 1 1 0 0 1 0 0

HD--83944 9.66 -61.33 281.91 -6.55 14.45 0.040 0.0030 13.3 0.056 0.000 0.00000 -NaN 0.082 0.007 0.0039 1.9 1.480 0.078 0.0017 46.9 0.619 0.058 0.0033 0.030 0.0023 17.7 12.6 0.255 -0.000 0.0000 0.009 0.0020 -NaN 4.9 0.413 -0.000
0.0000 -NaN 0.193 -0.000 0.0000 -NaN 0.228 0.035 0.0047 7.4 0.120 1 0 0 1 1 1 0 0 0 0 0 0

HD--83953 9.69 -23.59 256.30 21.62 6.44 -0.000 0.0000 -NaN 0.219 -0.000 0.00000 -NaN 0.170 0.003 0.0021 1.3 0.260 0.278 0.0090 30.9 0.038 0.058 0.0241 0.052 0.0229 2.4 2.3 1.223 -0.000 0.0000 0.023 0.0032 -NaN 7.1 1.224 0.001
0.0151 0.1 0.353 -0.000 0.0000 -NaN 0.397 0.024 0.0135 1.8 3.028 0 0 0 1 0 0 0 0 0 0 0 0

HD--85905 9.91 -22.49 257.85 24.52 6.55 0.017 0.0036 4.6 0.070 0.001 0.00182 0.5 0.061 -0.000 0.0000 -NaN 0.303 0.005 0.0019 2.5 0.160 0.164 0.0125 0.103 0.0128 13.2 8.1 0.452 0.007 0.0014 -0.000 0.0000 5.3 -NaN 0.496 0.002
338.8413 0.0 0.053 -0.000 0.0000 -NaN 0.208 -0.000 0.0000 -NaN 3.115 0 0 0 0 0 0 0 0 0 0 0 0

HD--86087 9.91 -50.24 276.40 3.30 10.77 0.005 0.0017 3.0 0.041 -0.000 0.00000 -NaN 0.055 0.001 0.0017 0.7 0.530 0.021 0.0023 9.1 0.456 0.152 0.0038 0.109 0.0032 40.0 34.4 0.241 0.004 0.0011 0.002 103.1159 3.7 0.0 0.223 -0.000
0.0000 -NaN 0.104 -0.000 0.0000 -NaN 0.186 -0.000 0.0000 -NaN 0.416 1 0 0 1 1 1 0 0 0 0 0 0

HD--87344	10.07	-18.10	256.35	29.27	6.41	0.025	0.0018	14.0	0.036	0.001	0.00055	1.8	0.054	0.001	0.0025	0.6	0.543	0.108	0.0020	55.1	0.618	0.095	0.0035	0.053	0.0026	26.9	20.3	0.271	0.002	0.0021	0.003	0.0028	0.9	0.9	1.064	0.002	0.0049	0.5	0.095	-0.000	0.0000	-NaN	0.230	-0.000	0.0000	-NaN	1.781	1	1	0	1	1	1	0	0	0	0	0
HD--87504	10.09	-13.06	252.51	33.11	10.40	0.005	0.0014	3.6	0.049	0.000	0.00000	-NaN	0.107	-0.000	0.0000	-NaN	1.296	0.129	0.0021	61.4	0.070	0.072	0.0049	0.043	0.0038	14.5	11.3	0.308	0.002	0.0005	-0.000	0.0000	3.8	-NaN	0.449	-0.000	0.0000	-NaN	0.527	-0.000	0.0000	-NaN	0.259	0.033	0.0095	3.5	0.442	0	0	0	1	1	1	0	0	0	0	0
HD--88976	10.25	-41.73	274.14	12.23	13.19	-0.000	0.0000	-NaN	0.096	-0.000	0.00000	-NaN	0.545	-0.000	0.0000	-NaN	0.122	0.003	0.0026	1.3	0.247	0.231	0.0076	0.184	0.0068	30.5	27.0	0.710	0.001	0.0020	0.003	0.0040	0.7	0.7	0.297	0.013	0.0024	5.3	0.041	-0.000	0.0000	-NaN	0.196	0.032	0.0143	2.3	1.389	0	0	0	0	1	1	0	0	0	0	0
HD--89263	10.27	-59.90	284.59	-2.68	12.24	-0.000	0.0000	-NaN	0.109	-0.000	0.00000	-NaN	0.220	-0.000	0.0000	-NaN	0.921	0.001	0.0010	1.2	0.015	0.269	0.0032	0.222	0.0029	83.2	75.7	0.183	-0.000	0.0000	-0.000	0.0000	-NaN	-NaN	2.429	0.034	0.0065	5.2	0.031	-0.000	0.0000	-NaN	0.062	0.027	0.0128	2.1	1.662	0	0	0	0	1	1	0	0	0	0	0
HD--89746	10.35	-13.79	256.46	35.17	8.07	0.010	0.0022	4.5	0.029	-0.000	0.00000	-NaN	0.080	0.011	0.0055	2.0	0.525	0.005	0.0022	2.2	0.060	0.148	0.0175	0.055	0.0169	8.5	3.3	0.783	0.008	0.0022	-0.000	0.0000	3.4	-NaN	1.036	0.006	0.0023	2.6	0.038	0.016	0.0180	0.9	0.227	-0.000	0.0000	-NaN	2.324	0	0	0	0	0	0	0	0	0	0	0
HD--91465	10.53	-61.69	287.16	-3.17	6.75	0.008	0.0019	4.5	0.449	0.003	0.00166	1.7	0.420	0.006	0.0020	3.1	0.560	0.447	0.0086	51.7	0.017	0.115	0.0109	0.080	0.0090	10.6	8.9	0.187	0.004	0.0014	0.003	0.0016	2.7	1.6	0.405	-0.000	0.0000	-NaN	0.238	-0.000	0.0000	-NaN	0.060	0.032	0.0101	3.1	0.658	1	1	1	1	1	1	0	0	0	0	0
HD--91636	10.58	8.65	236.24	52.81	7.61	0.007	0.0020	3.6	0.027	-0.000	0.00000	-NaN	0.081	-0.000	0.0000	-NaN	0.588	0.017	0.0027	6.3	0.194	0.214	0.0053	0.153	0.0044	40.2	34.5	0.644	0.004	0.0025	-0.000	0.0000	1.8	-NaN	1.308	0.003	0.0045	0.6	0.029	-0.000	0.0000	-NaN	0.275	-0.000	0.0000	-NaN	0.741	1	0	0	1	1	1	0	0	0	0	0
HD--91790	10.59	-18.57	263.37	33.65	12.59	0.014	0.0062	2.2	0.072	0.001	0.00385	0.2	0.167	0.053	0.0154	3.4	0.512	0.001	0.0017	0.6	0.087	0.299	0.0078	0.255	0.0072	38.5	35.3	1.052	-0.000	0.0000	0.000	0.0000	-NaN	-NaN	2.436	0.013	0.0037	3.6	0.028	0.009	0.0212	0.4	0.099	0.024	0.0040	6.0	0.055	0	0	0	0	1	1	0	0	0	0	0

HD--93607	10.78	-64.38	289.96	-4.69	6.79	0.019	0.0024	8.0	0.072	0.001	0.00131	0.9	0.047	0.007	0.0038	1.9	0.712	0.763	0.0334	22.8	0.050	0.111	0.0080	0.045	0.0053	13.8	8.5	0.042	0.010	0.0017	0.020	0.0021	5.8	9.6	0.697	0.017
0.0093	1.9	16.076	-0.000	0.0000	-NaN	0.114	0.032	0.0110	2.9	0.841	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
HD--95370	11.00	-42.23	281.83	16.03	16.62	0.012	0.0050	2.4	0.062	-0.000	0.00000	-NaN	0.170	0.024	0.0079	3.1	0.273	0.006	0.0011	5.0	0.037	0.258	0.0072	0.214	0.0066	35.6	32.4	0.799	-0.000	0.0000	-0.000	0.0000	-NaN	-NaN	1.875	0.006
0.0022	3.0	0.009	0.028	0.0222	1.3	0.183	-0.000	0.0000	-NaN	2.310	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
HD--96819	11.15	-28.08	276.93	29.57	17.97	-0.000	0.0000	-NaN	0.049	0.001	0.00180	0.3	0.061	-0.000	0.0000	-NaN	0.699	0.005	0.0016	3.1	0.057	0.134	0.0167	0.057	0.0163	8.0	3.5	1.479	0.007	0.0015	0.004	0.0019	4.7	1.9	0.193	0.016
0.0030	5.5	0.050	-0.000	0.0000	-NaN	0.418	-0.000	0.0000	-NaN	1.422	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	
HD--97277	11.19	-22.83	274.71	34.50	9.59	0.010	0.0020	5.0	0.041	-0.000	0.00000	-NaN	0.123	-0.000	0.0000	-NaN	0.492	0.012	0.0014	8.8	0.179	0.186	0.0025	0.156	0.0023	73.2	67.6	0.164	0.002	0.0030	-0.000	0.0000	0.6	-NaN	0.791	0.005
0.0018	2.9	0.003	-0.000	0.0000	-NaN	0.291	-0.000	0.0000	-NaN	1.227	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
HD--97495	11.21	-49.10	286.76	10.64	19.84	0.012	0.0060	2.0	0.094	-0.000	0.00000	-NaN	0.167	0.028	0.0170	1.7	0.716	0.005	0.0017	2.6	0.057	0.338	0.0102	0.288	0.0095	33.3	30.4	1.681	0.000	0.0079	-0.000	0.0000	0.0	-NaN	1.021	0.005
0.0048	1.0	0.046	0.024	0.0187	1.3	0.136	0.049	0.0045	10.8	0.233	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
HD--97583	11.21	-64.17	292.42	-3.33	10.43	0.023	0.0040	5.8	0.044	-0.000	0.00000	-NaN	0.051	0.006	0.0041	1.5	0.924	0.122	0.0038	32.1	0.464	0.059	0.0078	0.019	0.0055	7.5	3.4	0.528	0.008	0.0016	0.011	0.0021	5.1	5.3	0.455	0.004
0.0043	0.8	0.214	-0.000	0.0000	-NaN	0.379	0.012	0.0087	1.4	0.323	1	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
HD-100740	11.60	10.91	251.74	65.96	9.35	-0.000	0.0000	-NaN	0.084	0.001	0.00342	0.2	0.085	0.005	0.0131	0.4	0.950	0.002	0.0031	0.8	0.096	0.179	0.0192	0.067	0.0187	9.3	3.6	0.713	0.016	0.0030	-0.000	0.0000	5.4			

HD-101189 11.64 -61.83 294.43 -0.17 11.44 0.039 0.0027 14.6 0.037 -0.000 0.00000 -NaN 0.108 -0.000 0.0000 -NaN 1.462 0.037 0.0042 8.8 0.870 0.099 0.0033 0.062 0.0026 29.7 23.7 0.122 -0.000 0.0000 0.013 0.0781 -NaN 0.2 0.386 0.009
0.0038 2.3 0.040 -0.000 0.0000 -NaN 0.401 0.027 0.0060 4.5 0.952 1 0 0 1 1 1 0 0 0 0 1

HD-101615 11.69 -43.10 289.58 17.95 15.27 0.006 0.0007 7.9 0.030 -0.000 0.00000 -NaN 0.135 -0.000 0.0000 -NaN 0.286 0.018 0.0017 10.7 0.562 0.157 0.0045 0.118 0.0039 34.7 30.4 0.543 0.004 0.0021 -0.000 0.0000 1.8 -NaN 0.465 -0.000
0.0000 -NaN 0.050 -0.000 0.0000 -NaN 0.361 -0.000 0.0000 -NaN 0.377 1 0 0 1 1 1 0 0 0 0 0

HD-103266 11.89 -35.07 289.71 26.31 13.49 0.010 0.0039 2.5 0.052 -0.000 0.00000 -NaN 0.084 -0.000 0.0000 -NaN 0.550 0.013 0.0065 2.1 0.243 0.244 0.0104 0.187 0.0096 23.4 19.5 0.679 0.004 0.0035 -0.000 0.0000 1.1 -NaN 0.564 0.002
0.0027 0.8 0.093 -0.000 0.0000 -NaN 0.326 -0.000 0.0000 -NaN 0.606 0 0 0 0 1 1 1 0 0 0 0

HD-103632 11.93 -17.15 284.40 43.71 12.97 0.007 0.0009 7.8 0.064 0.000 0.00007 0.3 0.050 -0.000 0.0000 -NaN 0.445 0.040 0.0022 17.9 1.345 0.108 0.0037 0.072 0.0030 29.0 24.1 0.327 0.004 0.0022 -0.000 0.0000 1.9 -NaN 0.844 -0.000
0.0000 -NaN 0.108 -0.000 0.0000 -NaN 0.281 -0.000 0.0000 -NaN 0.854 1 0 0 1 1 1 0 0 0 0 0

HD-104321 12.01 6.61 270.15 66.19 8.49 0.005 0.0014 3.7 0.043 -0.000 0.00000 -NaN 0.203 -0.000 0.0000 -NaN 0.339 0.003 0.0015 2.1 0.073 0.216 0.0051 0.176 0.0046 42.1 38.5 0.651 0.000 0.0029 -0.000 0.0000 0.0 -NaN 2.272 0.010
0.0031 3.3 0.008 -0.000 0.0000 -NaN 0.201 -0.000 0.0000 -NaN 0.114 0 0 0 0 1 1 0 0 0 0 0

HD-105850 12.18 -23.60 291.04 38.33 17.00 0.007 0.0026 2.6 0.070 -0.000 0.00000 -NaN 0.177 0.000 0.0000 -NaN 0.257 0.008 0.0020 4.3 0.111 0.190 0.0079 0.141 0.0070 24.0 20.2 0.701 0.004 0.0038 -0.000 0.0000 1.0 -NaN 0.748 -0.000
0.0000 -NaN 0.055 -0.000 0.0000 -NaN 0.269 -0.000 0.0000 -NaN 0.549 0 0 0 2 1 1 0 0 0 0 0

HD-108355 12.46 -63.79 300.30 -1.04 4.92 0.182 0.0052 35.1 0.066 0.040 0.00256 15.6 0.015 0.007 0.0028 2.4 0.444 0.259 0.0054 48.1 0.016 0.235 0.0055 0.209 0.0051 42.9 40.7 0.188 0.015 0.0039 0.070 0.0079 3.8 8.8 1.418 0.041
0.0050 8.1 1.038 0.134 0.0040 33.3 0.003 0.068 0.0045 15.0 0.092 1 1 0 1 1 1 0 1 1 1 1

HD-109573 12.60 -39.87 299.72 22.91 13.74 0.003 0.0019 1.5 0.125 -0.000 0.00000 -NaN 0.160 0.004 0.0027 1.4 0.738 0.030 0.0015 20.0 0.281 0.153 0.0074 0.110 0.0066 20.5 16.6 0.888 0.005 0.0018 0.007 0.0023 3.0 3.2 0.705 -0.000
0.0000 -NaN 0.791 -0.000 0.0000 -NaN 0.325 -0.000 0.0000 -NaN 1.151 0 0 0 1 1 1 1 0 0 0 0

0.0023 4.3 0.010 -0.000 0.0000 -NaN 0.200 0.017 0.0143 1.2 0.350 0 0 0 0 1 1 1 0 0 0 0 0

HD-116061 13.36 -19.49 312.64 42.81 11.26 0.012 0.0023 5.3 0.023 -0.000 0.00000 -NaN 0.094 0.009 0.0073 1.3 0.565 0.007 0.0019 3.6 0.095 0.229 0.0108 0.169 0.0110 21.2 15.3 1.142 0.001 0.0011 -0.000 0.0000 0.9 -NaN 0.705 -0.000
0.0000 -NaN 0.065 0.017 0.0182 0.9 0.091 0.047 0.0047 9.9 0.079 0 0 0 2 1 1 1 0 0 0 0 0

HD-117558 13.53 -28.11 313.66 33.92 10.05 0.016 0.0031 5.0 0.039 -0.000 0.00000 -NaN 0.139 -0.000 0.0000 -NaN 0.582 0.008 0.0030 2.7 0.190 0.249 0.0113 0.185 0.0103 22.0 18.0 0.596 0.005 0.0025 -0.000 0.0000 2.0 -NaN 0.481 0.003
0.0034 0.9 0.064 -0.000 0.0000 -NaN 0.269 -0.000 0.0000 -NaN 0.697 0 0 0 0 1 1 1 0 0 0 0 0

HD-117716 13.54 -28.69 313.69 33.32 13.97 0.008 0.0022 3.5 0.035 0.001 0.00281 0.2 0.090 0.000 0.0000 -NaN 0.971 0.011 0.0041 2.7 0.387 0.151 0.0129 0.093 0.0133 11.8 7.0 1.349 0.003 0.0019 -0.000 0.0000 1.6 -NaN 0.506 -0.000
0.0000 -NaN 0.181 -0.000 0.0000 -NaN 0.321 -0.000 0.0000 -NaN 2.027 0 0 0 0 1 1 1 0 0 0 0 0

HD-118991 13.70 -54.56 310.29 7.59 12.02 0.012 0.0029 4.0 0.042 0.000 0.00000 -NaN 0.062 -0.000 0.0000 -NaN 1.644 0.095 0.0051 18.7 0.136 0.018 0.0089 0.004 0.0056 2.1 0.7 0.506 0.007 0.0019 0.011 0.0025 3.9 4.6 0.254 0.007
0.0079 0.9 0.590 -0.000 0.0000 -NaN 0.374 0.041 0.0070 5.9 0.536 0 0 0 2 0 0 0 0 0 0 0 0

HD-119537 13.73 -5.50 326.08 55.00 7.79 0.019 0.0024 7.8 0.049 0.002 0.00327 0.6 0.138 -0.000 0.0000 -NaN 2.007 0.009 0.0016 5.9 0.325 0.174 0.0179 0.135 0.0156 9.7 8.6 8.181 0.001 0.0033 -0.000 0.0000 0.4 -NaN 0.838 -0.000
0.0000 -NaN 0.013 -0.000 0.0000 -NaN 0.177 0.022 0.0159 1.4 0.667 1 0 0 2 1 1 0 0 0 0 0 0

HD-119752 13.76 -26.12 317.84 35.18 11.49 0.009 0.0032 2.8 0.061 0.000 0.00000 -NaN 0.066 -0.000 0.0000 -NaN 0.645 0.019 0.0033 5.8 0.388 0.171 0.0070 0.119 0.0072 24.3 16.6 0.472 0.001 0.0008 -0.000 0.0000 1.9 -NaN 0.706 -0.000
0.0000 -NaN 0.122 -0.000 0.0000 -NaN 0.563 -0.000 0.0000 -NaN 1.115 0 0 0 2 1 1 1 0 0 0 0 0

HD-120709 13.86 -32.99 317.23 28.21 9.49 0.016 0.0022 7.4 0.216 -0.000 0.00000 -NaN 0.323 -0.000 0.0000 -NaN 2.644 0.380 0.0089 42.5 1.147 0.059 0.0100 0.014 0.0060 6.0 2.3 0.941 0.002 0.0021 -0.000 0.0000 1.0 -NaN 0.253 -0.000
0.0000 -NaN 4.333 -0.000 0.0000 -NaN 0.584 -0.000 0.0000 -NaN 2.548 1 0 0 1 1 2 0 0 0 0 0 0

HD-121190 13.92 -52.16 312.77 9.49 9.24 0.006 0.0011 5.1 0.050 0.001 0.00180 0.3 0.145 0.002 120.3772 0.0 0.294 0.110 0.0068 16.2 1.421 0.034 0.0077 0.015 0.0058 4.4 2.7 0.642 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 0.441 -0.000
0.0000 -NaN 1.004 -0.000 0.0000 -NaN 0.287 -0.000 0.0000 -NaN 1.995 0 0 0 1 1 2 1 0 0 0 0 0

HD-122408 14.03 1.54 339.28 59.35 14.50 -0.000 0.0000 -NaN 0.049 -0.000 0.00000 -NaN 0.143 -0.000 0.0000 -NaN 0.652 0.004 0.0017 2.3 0.207 0.245 0.0137 0.175 0.0140 17.9 12.5 1.211 0.005 0.0030 -0.000 0.0000 1.7 -NaN 1.272 -0.000
0.0000 -NaN 0.021 -0.000 0.0000 -NaN 0.127 -0.000 0.0000 -NaN 2.367 0 0 0 0 1 1 1 0 0 0 0 0

HD-122958 14.09 -16.34 327.51 42.97 9.68 0.058 0.0022 26.4 0.020 0.017 0.00471 3.5 0.064 -0.000 0.0000 -NaN 0.611 0.008 0.0024 3.1 0.217 0.252 0.0218 0.194 0.0190 11.6 10.2 8.417 0.010 0.0019 0.016 0.0032 5.2 4.9 0.486 0.015
0.0029 5.4 0.029 0.013 0.0076 1.7 0.170 -0.000 0.0000 -NaN 0.371 1 1 0 0 1 1 2 1 1 0 2 0

HD-123515 14.16 -51.50 315.12 9.51 3.98 0.023 0.0017 14.1 0.051 0.000 0.00000 -NaN 0.188 -0.000 0.0000 -NaN 2.630 0.138 0.0024 58.5 0.413 0.087 0.0048 0.046 0.0035 18.1 13.0 0.279 0.006 0.0022 0.013 0.0028 2.6 4.5 0.722 -0.000
0.0000 -NaN 0.102 -0.000 0.0000 -NaN 0.247 0.025 0.0088 2.8 1.140 1 0 0 1 1 1 2 0 0 0 0 0

HD-124367 14.25 -57.09 314.13 3.95 6.77 0.018 0.0021 8.7 0.339 0.005 0.00287 1.8 0.617 0.006 0.0032 1.9 0.421 0.365 0.0188 19.5 0.079 0.081 0.0087 0.052 0.0069 9.3 7.5 0.113 0.005 0.0014 0.009 0.0018 3.7 4.9 0.414 -0.000
0.0000 -NaN 0.268 -0.000 0.0000 -NaN 0.050 -0.000 0.0000 -NaN 1.042 1 0 0 2 1 1 0 0 0 0 0 0

HD-124931 14.28 -3.20 340.42 53.34 7.13 0.033 0.0030 10.9 0.049 0.006 0.00218 2.8 0.024 -0.000 0.0000 -NaN 1.292 0.028 0.0025 10.9 0.391 0.187 0.0033 0.134 0.0028 55.9 48.1 0.156 0.003 0.0018 0.003 0.0021 1.5 1.5 0.244 0.007
0.0054 1.2 0.038 -0.000 0.0000 -NaN 0.160 -0.000 0.0000 -NaN 0.465 1 0 0 1 1 1 2 0 0 0 0 0

HD-125337 14.32 -13.37 333.43 44.24 17.49 0.023 0.0065 3.5 0.087 0.007 0.00344 2.0 0.058 0.019 0.0505 0.4 6.536 -0.000 0.0000 -NaN 0.051 0.300 0.0051 0.258 0.0047 58.6 54.9 0.517 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 4.006 0.014
0.0035 4.0 0.009 -0.000 0.0000 -NaN 0.043 0.021 0.0122 1.7 0.200 0 0 0 0 1 1 0 0 0 1 0 0

HD-126200 14.40 8.24 356.47 61.08 7.38 0.021 0.0028 7.5 0.018 -0.000 0.00000 -NaN 0.046 -0.000 0.0000 -NaN 0.647 0.010 0.0025 3.9 0.222 0.242 0.0084 0.186 0.0076 28.8 24.5 0.538 0.001 0.0028 -0.000 0.0000 0.4 -NaN 0.688 0.006
0.0028 2.3 0.015 -0.000 0.0000 -NaN 0.177 0.012 0.0120 1.0 0.409 1 0 0 2 1 1 1 0 0 0 0 0

HD-126248 14.40 5.82 353.03 59.36 20.51 0.010 0.0022 4.3 0.014 -0.000 0.00000 -NaN 0.085 0.028 0.0113 2.4 0.586 0.002 0.0012 1.7 0.086 0.236 0.0173 0.177 0.0177 13.6 10.0 2.287 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 1.036 0.004
0.0022 1.8 0.029 0.029 0.0214 1.3 0.125 0.031 0.0050 6.2 0.095 0 0 0 0 1 1 1 0 0 0 0 0

HD-127381 14.54 -50.46 318.90 9.26 5.67 0.020 0.0025 8.0 0.064 0.008 0.00267 3.0 0.060 0.006 0.0047 1.2 0.103 0.705 0.0069 102.2 0.229 0.125 0.0153 0.019 0.0096 8.2 2.0 1.125 0.008 0.0021 0.012 0.0027 3.6 4.6 0.211 -0.000
0.0000 -NaN 1.353 0.006 0.0067 0.9 0.080 -0.000 0.0000 -NaN 14.945 1 0 0 1 1 2 0 1 1 0 0 0

HD-127971 14.59 -41.52 323.03 17.26 8.89 0.017 0.0032 5.5 0.069 0.000 0.00000 -NaN 0.125 0.003 0.0032 1.0 0.658 0.254 0.0088 28.7 0.195 0.070 0.0045 0.035 0.0032 15.4 10.8 0.163 0.001 0.0010 -0.000 0.0000 0.8 -NaN 0.814 -0.000
0.0000 -NaN 0.904 -0.000 0.0000 -NaN 0.199 0.033 0.0123 2.7 0.695 1 0 0 1 1 1 1 0 0 0 0 0

HD-128345 14.63 -49.43 320.12 9.86 10.32 0.006 0.0026 2.4 0.102 -0.000 0.00000 -NaN 0.271 0.004 0.0040 1.1 2.840 0.519 0.0231 22.5 0.069 0.039 0.0100 -0.000 0.0000 3.9 -NaN 0.049 0.001 0.0006 0.010 0.0018 1.3 5.8 0.271 0.019
0.0066 2.8 3.972 -0.000 0.0000 -NaN 0.227 -0.000 0.0000 -NaN 0.975 0 0 0 1 0 0 0 0 0 0 0 0

HD-129116 14.70 -37.79 325.91 20.10 9.62 0.008 0.0023 3.6 0.104 0.007 1376.76721 0.0 0.129 0.005 0.0055 0.8 1.433 0.766 0.0205 37.4 0.072 0.105 0.0096 0.039 0.0062 10.9 6.3 0.117 0.007 0.0020 0.020 0.0026 3.2 7.8 0.713 0.021
0.0082 2.5 6.374 -0.000 0.0000 -NaN 0.169 -0.000 0.0000 -NaN 1.336 0 0 0 1 1 1 1 0 0 0 0 0 0

HD-129956 14.76 0.72 353.75 51.95 6.61 0.019 0.0027 7.1 0.043 0.008 0.00216 3.5 0.024 0.003 0.0054 0.5 0.634 0.046 0.0036 13.0 0.843 0.095 0.0043 0.052 0.0032 22.1 16.4 0.316 0.005 0.0017 0.015 0.0019 2.7 7.9 0.443 0.005
0.0050 0.9 0.404 -0.000 0.0000 -NaN 0.159 -0.000 0.0000 -NaN 0.817 1 0 0 1 1 1 1 0 0 0 0 0 0

HD-130557 14.82 -0.85 353.08 50.19 7.23 0.066 0.0030 21.8 0.035 0.016 14385.33691 0.0 0.085 -0.000 0.0000 -NaN 6.168 0.033 0.0041 8.0 0.857 0.118 0.0028 0.072 0.0021 42.8 33.9 0.038 -0.000 0.0000 0.003 0.0018 -NaN 1.6 0.252 0.003
0.0042 0.7 0.040 -0.000 0.0000 -NaN 0.157 0.059 0.0066 8.9 0.177 1 0 0 1 1 1 2 0 0 0 0 1

HD-131625 14.93 -33.86 330.54 22.26 12.85 0.016 0.0022 7.3 0.049 -0.000 0.00000 -NaN 0.111 -0.000 0.0000 -NaN 1.320 0.020 0.0032 6.4 0.223 0.186 0.0085 0.132 0.0071 22.0 18.6 1.657 -0.000 0.0000 0.005 0.0034 -NaN 1.5 0.407 0.020
0.0029 6.9 0.049 -0.000 0.0000 -NaN 0.302 -0.000 0.0000 -NaN 1.846 1 0 0 2 1 1 0 0 0 0 0 0

HD-132851 15.04 -28.06 335.16 26.49 9.83 0.020 0.0049 4.0 0.043 -0.000 0.00000 -NaN 0.193 -0.000 0.0000 -NaN 0.204 0.003 0.0014 2.0 0.047 0.382 0.0200 0.305 0.0179 19.1 17.0 6.576 0.001 0.0075 -0.000 0.0000 0.1 -NaN 1.424 0.025
0.0042 6.0 0.020 -0.000 0.0000 -NaN 0.032 0.022 0.0115 2.0 0.205 0 0 0 0 1 1 0 0 0 0 0 0

HD-133937 15.14 -42.87 328.00 13.24 8.42 0.022 0.0030 7.5 0.162 0.002 102424.96875 0.0 0.123 0.003 0.0020 1.7 0.296 0.218 0.0120 18.2 0.104 0.051 0.0054 0.024 0.0037 9.5 6.4 0.135 0.006 0.0020 0.006 0.0025 2.9 2.2 0.944 0.004
0.0068 0.6 1.643 -0.000 0.0000 -NaN 0.213 0.027 0.0063 4.2 1.071 0 0 0 2 1 1 0 0 0 0 0 0

HD-135382 15.32 -68.68 315.73 -9.56 17.74 0.007 0.0021 3.4 0.029 -0.000 0.00000 -NaN 0.058 0.012 0.0048 2.6 0.588 0.019 0.0049 3.8 0.582 0.136 0.0144 0.072 0.0149 9.5 4.8 1.569 -0.000 0.0000 0.000 0.0020 -NaN 0.1 0.616 0.004
0.0028 1.3 0.049 0.006 0.0262 0.2 0.321 0.002 5.9820 0.0 0.310 0 0 0 2 1 2 1 0 0 0 0 0

HD-136504 15.38 -44.69 329.25 10.31 6.37 0.006 0.0023 2.7 0.065 -0.000 0.00000 -NaN 0.053 -0.000 0.0000 -NaN 0.662 0.565 0.0101 55.8 0.169 0.086 0.0093 0.009 0.0059 9.2 1.6 0.263 -0.000 0.0000 0.007 0.0031 -NaN 2.4 0.411 -0.000
0.0000 -NaN 1.796 -0.000 0.0000 -NaN 0.229 0.025 0.0079 3.1 0.942 0 0 0 1 1 0 0 0 0 0 0 0

HD-136664 15.39 -36.86 333.88 16.72 6.28 0.012 0.0021 5.6 0.056 0.002 0.00217 0.7 0.109 0.009 0.0039 2.4 1.426 0.627 0.0127 49.4 0.017 0.062 0.0094 0.010 0.0059 6.6 1.7 0.034 0.005 0.0028 0.015 0.0025 1.9 6.0 0.821 0.012
0.0086 1.4 9.185 -0.000 0.0000 -NaN 0.108 0.019 0.0080 2.3 0.557 1 0 0 1 1 0 0 0 0 0 0 0

HD-136807 15.41 -48.58 327.32 6.90 5.19 0.054 0.0124 4.4 0.056 0.010 0.01818 0.5 0.116 -0.000 0.0000 -NaN 0.704 0.011 0.0029 3.7 0.385 0.300 0.0057 0.222 0.0049 52.3 45.6 0.164 0.013 0.0073 0.011 0.0093 1.8 1.2 0.290 0.030
0.0071 4.2 0.069 0.048 0.0216 2.2 0.286 0.032 0.0095 3.3 0.785 1 0 0 2 1 1 0 0 0 1 0 1

HD-136961 15.41 -35.92 334.65 17.35 6.93 0.023 0.0035 6.5 0.054 0.000 0.00000 -NaN 0.113 -0.000 0.0000 -NaN 4.632 0.005 0.0021 2.6 0.121 0.246 0.0036 0.194 0.0032 68.4 61.6 0.177 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 0.441 0.027
0.0037 7.4 0.008 -0.000 0.0000 -NaN 0.183 0.015 0.0102 1.5 1.742 1 0 0 0 1 1 0 0 0 0 0 0

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0.0053 1.3 0.098 -0.000 0.0000 -NaN 0.313 -0.000 0.0000 -NaN 2.793 0 0 0 1 1 1 0 0 0 0 0 0

HD-141795 15.85 4.48 13.19 41.62 46.30 0.024 0.0080 3.0 0.099 0.006 0.00479 1.2 0.089 0.057 0.0553 1.0 6.538 -0.000 0.0000 -NaN 0.040 0.316 0.0051 0.273 0.0047 61.3 57.5 0.494 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 4.549 0.010
0.0050 2.1 0.019 -0.000 0.0000 -NaN 0.034 0.033 0.0105 3.1 0.157 0 0 0 0 1 1 0 0 0 0 0 0

HD-142378 15.92 -19.38 351.68 25.63 4.23 0.087 0.0029 30.3 0.033 0.023 0.00323 7.0 0.024 0.012 0.0026 4.6 0.366 0.756 0.0341 22.2 0.130 0.231 0.0102 0.176 0.0088 22.6 20.0 0.236 0.009 0.0042 0.044 0.0044 2.2 10.2 0.659 0.015
0.0115 1.3 2.710 0.100 0.0038 26.3 0.011 0.038 0.0088 4.3 0.894 1 1 2 1 1 1 0 0 1 0 1 1

HD-142629 15.95 -33.97 341.31 14.73 23.60 0.022 0.0053 4.1 0.059 0.006 0.00567 1.0 0.148 0.017 0.0271 0.6 2.916 0.004 0.0017 2.2 0.041 0.241 0.0073 0.196 0.0065 32.8 29.9 0.673 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 2.222 0.010
0.0040 2.4 0.028 -0.000 0.0000 -NaN 0.086 0.015 0.0103 1.4 2.353 1 0 0 0 1 1 0 0 0 2 0 0

HD-142630 15.95 -33.96 341.32 14.74 21.71 0.031 0.0099 3.2 1.015 -0.000 0.00000 -NaN 0.347 -0.000 0.0000 -NaN 0.582 0.002 0.0019 1.3 0.481 0.200 0.0158 0.149 0.0162 12.6 9.2 2.186 0.002 0.0014 0.000 0.0000 1.2 -NaN 0.872 0.007
0.0051 1.3 0.567 -0.000 0.0000 -NaN 0.339 0.021 0.0093 2.2 0.448 0 0 0 0 1 1 1 0 0 0 0 0

HD-143118 16.00 -38.40 338.75 11.02 7.38 -0.000 0.0000 -NaN 0.120 0.000 0.00000 -NaN 0.382 0.004 863107.3125 0.0 0.627 0.805 0.0229 35.2 0.041 0.098 0.0123 0.043 0.0096 8.0 4.4 0.012 0.005 0.0019 0.000 0.0011 2.5 0.3 0.530 0.009
0.0079 1.2 2.051 -0.000 0.0000 -NaN 0.390 0.028 0.0250 1.1 1.402 0 0 0 2 0 0 0 0 0 0 0 0

HD-145102 16.17 -26.91 348.53 17.88 5.96 0.080 0.0043 18.6 0.097 0.008 0.00298 2.5 0.064 -0.000 0.0000 -NaN 1.118 0.013 0.0020 6.8 0.189 0.278 0.0047 0.206 0.0040 59.5 51.9 0.212 0.006 0.0019 0.023 0.0022 3.0 10.3 0.226 0.019
0.0042 4.6 0.062 0.046 0.0080 5.8 0.083 0.051 0.0083 6.1 0.218 1 0 0 1 1 1 0 1 1 1 1 1

HD-145607 16.20 -8.55 3.90 29.75 12.92 0.019 0.0032 6.0 0.064 0.003 0.00298 1.0 0.161 0.001 0.0056 0.2 0.567 0.006 0.0017 3.6 0.028 0.276 0.0151 0.213 0.0154 18.3 13.9 0.769 0.007 0.0034 0.002 0.0035 2.2 0.5 1.036 0.023 0.0043
5.5 0.048 -0.000 0.0000 -NaN 0.075 0.003 0.0036 0.8 0.857 0 0 0 1 1 1 1 0 0 0 0 0

HD-150378 16.68 4.22 20.84 30.83 11.11 0.025 0.0039 6.3 0.034 0.003 0.00236 1.1 0.078 0.000 0.0271 0.0 0.425 0.033 0.0055 6.0 0.833 0.145 0.0099 0.081 0.0081 14.7 10.0 0.371 0.003 0.0013 0.004 0.0017 1.9 2.6 0.160 0.003 0.0074
0.4 0.271 -0.000 0.0000 -NaN 0.163 0.007 0.0048 1.5 0.534 1 1 0 2 1 1 1 0 0 0 0 0

HD-151431 16.79 2.06 19.61 28.33 6.02 0.028 0.0050 5.7 0.040 -0.000 0.00000 -NaN 0.117 -0.000 0.0000 -NaN 1.028 0.007 0.0053 1.4 0.236 0.244 0.0142 0.173 0.0124 17.2 13.9 0.952 -0.000 0.0000 0.000 0.0000 -NaN -NaN 0.781 0.013
0.0024 5.5 0.013 0.014 0.0095 1.5 0.081 0.024 0.0078 3.0 0.963 0 0 0 0 1 1 1 0 0 0 0 0

HD-151956 16.84 7.25 25.25 30.16 18.38 0.011 0.0038 3.0 0.078 -0.000 0.00000 -NaN 0.136 -0.000 0.0000 -NaN 2.072 0.003 0.0016 2.1 0.046 0.296 0.0045 0.253 0.0041 66.0 61.6 0.633 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 3.163 0.024
0.0056 4.3 0.005 -0.000 0.0000 -NaN 0.278 0.000 0.0000 -NaN 0.152 1 0 0 0 1 1 0 0 0 1 0 0

HD-152585 16.91 -11.79 7.86 19.39 10.60 0.034 0.0057 5.9 0.064 0.006 0.00495 1.2 0.104 -0.000 0.0000 -NaN 1.862 0.004 0.0026 1.5 0.040 0.389 0.0081 0.312 0.0072 47.9 43.4 0.909 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 2.278 0.012
0.0043 2.8 0.026 -0.000 0.0000 -NaN 0.047 0.021 0.0057 3.7 0.692 1 0 0 0 1 1 0 0 0 1 0 1

HD-152849 16.95 -23.15 358.63 12.27 10.74 0.032 0.0049 6.6 0.042 -0.000 0.00000 -NaN 0.198 -0.000 0.0000 -NaN 1.339 -0.000 0.0000 -NaN 1.331 0.035 0.0058 -0.000 0.0000 6.0 -NaN 0.126 0.013 0.0033 -0.000 0.0000 4.0 -NaN 0.269
0.012 0.0077 1.5 0.209 -0.000 0.0000 -NaN 0.216 0.030 0.0085 3.5 0.599 0 0 0 0 0 0 0 0 0 0 0 0

HD-153716 17.07 -57.71 331.87 -9.85 5.73 0.066 0.0015 44.9 0.026 0.015 0.00183 8.0 0.038 0.014 0.0037 3.7 1.690 0.552 0.0171 32.3 0.041 0.150 0.0064 0.109 0.0054 23.2 20.1 0.037 0.007 0.0024 0.035 0.0026 2.9 13.3 0.611 0.018
0.0113 1.6 5.656 0.015 0.0036 4.2 0.011 0.015 0.0062 2.4 0.809 1 1 1 1 1 1 0 1 1 0 1 1

HD-154445 17.09 -0.89 19.28 22.96 2.92 0.161 0.0027 59.4 0.025 0.052 0.00282 18.3 0.035 0.016 0.0029 5.3 0.239 0.586 0.0118 49.6 0.021 0.231 0.0084 0.168 0.0071 27.4 23.8 0.041 0.021 0.0034 0.050 0.0047 6.0 10.7 1.392 0.049
0.0050 9.9 3.927 0.080 0.0042 19.1 0.005 0.092 0.0062 14.8 0.098 1 1 1 1 1 1 0 1 1 1 1 1

HD-154895 17.14 -1.08 19.51 22.22 11.17 0.021 0.0027 7.9 0.050 0.000 0.00000 -NaN 0.138 -0.000 0.0000 -NaN 0.407 0.015 0.0022 6.6 0.104 0.249 0.0097 0.184 0.0082 25.7 22.4 1.911 0.001 0.0034 -0.000 0.0000 0.4 -NaN 1.526 0.012
0.0032 3.9 0.056 -0.000 0.0000 -NaN 0.176 0.003 0.0022 1.4 0.307 1 0 0 1 1 1 0 0 0 0 0

HD-155259 17.20 -39.51 347.36 -0.08 15.89 0.005 0.0021 2.2 0.115 -0.000 0.00000 -NaN 0.214 0.001 0.0032 0.4 0.713 0.009 0.0030 3.0 0.178 0.146 0.0151 0.090 0.0155 9.7 5.8 0.856 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 0.981 0.003
0.0030 1.1 0.067 0.021 0.0159 1.4 0.249 0.023 0.0032 7.1 0.022 0 0 0 0 1 2 1 0 0 0 0

HD-155401 17.21 -27.76 356.97 6.71 6.50 0.007 0.0016 4.4 0.060 -0.000 0.00000 -NaN 0.087 0.006 0.0023 2.6 2.276 0.065 0.0075 8.7 0.127 0.032 0.0062 0.014 0.0042 5.3 3.4 0.529 0.005 0.0016 0.003 0.0020 3.0 1.5 0.481 0.005
0.0030 1.6 0.451 -0.000 0.0000 -NaN 0.173 -0.000 0.0000 -NaN 1.146 0 0 0 2 1 1 2 0 0 0 0

HD-156247 17.28 1.21 22.77 21.51 4.99 0.103 0.0026 39.1 0.066 0.025 0.00211 11.9 0.057 0.013 0.0027 4.7 0.858 -0.000 0.0000 -NaN 2.263 0.210 0.0089 0.181 0.0082 23.4 22.0 0.145 0.007 0.0022 0.046 0.0042 3.2 10.9 0.890 0.028
0.0057 4.9 2.470 0.089 0.0031 28.6 0.007 0.045 0.0020 23.2 0.023 1 1 1 0 1 1 0 1 1 1 1

HD-156717 17.33 -17.76 6.27 11.00 8.68 0.011 0.0019 5.8 0.059 -0.000 0.00000 -NaN 0.076 0.000 0.0000 -NaN 1.015 0.022 0.0023 9.8 0.152 0.088 0.0147 0.045 0.0120 6.0 3.8 0.515 0.003 0.0008 0.000 0.0001 3.5 1.0 0.303 0.006
0.0023 2.7 0.116 -0.000 0.0000 -NaN 0.494 0.016 0.0030 5.2 0.026 0 0 0 1 0 2 1 0 0 0 0

HD-156928 17.35 -12.85 10.65 13.43 16.08 0.013 0.0040 3.1 0.051 -0.000 0.00000 -NaN 0.093 0.001 0.0038 0.4 0.569 0.018 0.0033 5.4 0.399 0.202 0.0081 0.157 0.0074 24.8 21.2 0.733 0.001 0.0012 -0.000 0.0000 1.1 -NaN 0.978 -0.000
0.0000 -NaN 0.038 -0.000 0.0000 -NaN 0.250 -0.000 0.0000 -NaN 1.985 0 0 0 1 1 1 1 0 0 0 0

HD-157042 17.39 -47.47 342.02 -6.35 3.49 0.041 0.0018 23.5 0.226 0.015 0.00206 7.4 0.232 0.005 0.0028 1.7 1.567 0.555 0.0203 27.4 0.057 0.197 0.0106 0.129 0.0084 18.6 15.3 0.072 0.002 0.0013 0.027 0.0025 1.9 10.5 0.240 0.000
0.0000 -NaN 0.455 0.044 0.0022 20.3 0.005 0.009 0.0073 1.2 0.999 1 1 2 1 1 1 0 1 1 0 1

HD-157243 17.40 -44.16 344.84 -4.59 4.42 0.061 0.0024 25.5 0.205 0.007 0.00139 5.2 0.121 0.009 0.0035 2.5 1.873 0.299 0.0094 31.8 0.037 0.187 0.0052 0.132 0.0043 35.9 30.6 0.038 0.002 0.0013 0.020 0.0021 1.7 9.3 0.357 0.011
0.0069 1.7 0.405 0.008 0.0041 2.0 0.047 0.008 0.0034 2.3 0.417 1 1 0 1 1 1 0 1 1 0 1

HD-157246	17.42	-56.38	334.63	-11.46	2.93	0.066	0.0020	32.7	0.042	0.015	0.00117	13.1	0.018	0.005	0.0025	1.8	0.114	1.057	0.0616	17.2	0.123	0.250	0.0139	0.190	0.0120	18.0	15.9	0.029	0.009	0.0020	0.028	0.0029	4.3	9.7	0.762	0.008
	0.0048	1.6	2.358	0.015	0.0035	4.3	0.047	0.069	0.0631	1.1	0.994	1	1	0	1	1	1	0	1	1	0	1	0	1	0											

HD-157955	17.46	-29.72	357.23	2.89	4.42	0.049	0.0026	19.1	0.055	0.012	0.00278	4.1	0.087	0.006	0.0027	2.3	0.720	0.061	0.0042	14.6	0.620	0.253	0.0118	0.208	0.0105	21.5	19.7	1.018	0.003	0.0010	0.019	0.0028	2.6	6.6	0.671	0.010
	0.0041	2.3	0.024	0.013	0.0039	3.3	0.024	0.008	0.0047	1.7	0.510	1	1	2	1	1	1	0	0	0	0	1	1													

HD-159170	17.56	-5.74	18.57	14.44	20.79	0.007	0.0024	3.1	0.041	-0.000	0.00000	-NaN	0.288	0.020	0.0104	1.9	0.558	0.002	0.0012	1.3	0.030	0.208	0.0226	0.130	0.0232	9.2	5.6	1.082	0.008	0.0055	-0.000	0.0000	1.4	-NaN	3.551	0.027
	0.0053	5.1	0.107	0.010	0.0154	0.6	0.060	-0.000	0.0000	-NaN	0.968	0	0	0	0	0	0	1	0	0	0	0														

HD-159217	17.59	-46.51	343.96	-7.54	8.62	0.013	0.0036	3.7	0.084	-0.000	0.00000	-NaN	0.099	0.007	0.0035	2.1	0.719	0.034	0.0020	17.3	0.105	0.098	0.0125	0.039	0.0130	7.8	3.0	0.872	-0.000	0.0000	-0.000	0.0000	-NaN	-NaN	0.764	0.003
	0.0027	1.1	0.089	0.017	0.0247	0.7	0.493	0.018	0.0041	4.5	0.041	0	0	0	1	0	0	1	0	0	0	0														

HD-159358	17.58	-11.24	13.86	11.40	8.11	0.051	0.0016	31.9	0.034	0.020	0.00110	18.5	0.029	0.011	0.0013	8.3	0.983	0.110	0.0063	17.3	0.071	0.215	0.0066	0.193	0.0063	32.4	30.9	0.647	0.004	0.0011	0.014	0.0018	3.5	7.7	0.371	0.011
	0.0036	3.0	0.180	0.004	0.0034	1.2	0.058	0.012	0.0034	3.6	0.343	1	1	1	1	1	1	0	1	1	0	0	1													

HD-159415	17.59	-13.64	11.85	10.03	8.60	0.051	0.0017	30.9	0.028	0.010	0.00180	5.7	0.055	0.003	0.0019	1.6	1.426	0.021	0.0020	10.6	0.266	0.201	0.0133	0.159	0.0116	15.1	13.6	5.123	0.002	0.0013	0.014	0.0024	1.8	5.8	0.295	0.009
	0.0033	2.9	0.046	0.014	0.0036	4.0	0.030	0.005	0.0028	1.8	0.240	1	1	2	1	1	1	0	1	1	0	1	1													

HD-162888	17.91	-34.54	356.16	-4.51	3.69	0.068	0.0019	35.7	0.044	0.015	0.00315	4.9	0.103	0.002	0.0021	1.2	1.752	0.038	0.0023	16.7	0.199	0.147	0.0111	0.112	0.0096	13.2	11.7	1.461	0.008	0.0023	0.028	0.0030	3.5	9.4	0.362	0.019
	0.0025	7.6	0.024	0.037	0.0022	16.9	0.006	0.017	0.0072	2.3	0.024	1	1	0	1	1	1	1	1	1	2	1	0													

HD-164577	18.03	1.31	28.39	11.63	11.15	0.037	0.0030	12.2	0.069	0.002	0.00167	1.3	0.065	-0.000	0.0000	-NaN	0.463	0.024	0.0023	10.3	0.083	0.121	0.0118	0.081	0.0095	10.3	8.5	1.242	0.003	0.0034	0.008	0.0038	1.0	2.0	0.832	0.022
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0.0017 12.8 0.016 0.006 0.0042 1.4 0.048 0.013 0.0071 1.8 0.513 1 0 0 1 1 1 1 0 0 2 0 0

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HD-184552 19.60 -24.72 14.78 -20.30 11.08 0.069 0.0165 4.2 0.115 0.020 0.01191 1.7 0.198 0.104 0.0886 1.2 5.918 -0.000 0.0000 -NaN 0.026 0.326 0.0119 0.294 0.0113 27.4 26.2 1.354 -0.000 0.0000 0.000 0.0000 -NaN -NaN 2.307 0.038
0.0112 3.3 0.015 -0.000 0.0000 -NaN 0.075 0.030 0.0123 2.4 1.212 0 0 0 0 1 1 0 0 0 0 0 0

HD-184597 19.61 -32.69 6.76 -23.14 3.28 0.109 0.0030 35.6 0.101 0.024 0.00202 12.1 0.056 0.009 0.0026 3.3 0.729 0.504 0.0160 31.5 0.052 0.359 0.0078 0.283 0.0068 46.1 41.5 0.059 0.008 0.0023 0.052 0.0040 3.2 13.0 0.562 0.017
0.0072 2.4 3.609 0.071 0.0029 24.1 0.004 0.019 0.0031 5.9 0.166 1 1 1 1 1 1 0 1 1 0 1 1

HD-185404 19.66 -23.43 16.39 -20.59 10.13 0.059 0.0032 18.4 0.100 0.008 0.00240 3.2 0.074 0.000 0.0000 -NaN 0.610 0.029 0.0024 12.1 0.306 0.186 0.0084 0.128 0.0069 22.1 18.5 1.647 0.002 0.0015 0.016 0.0027 1.5 6.0 0.692 0.010
0.0033 3.1 0.048 0.019 0.0058 3.2 0.065 0.007 0.0027 2.5 0.347 1 1 0 1 1 1 1 1 1 0 1 1

HD-186500 19.77 -31.91 8.26 -24.82 4.59 0.174 0.0066 26.2 0.172 0.036 0.00411 8.9 0.082 0.004 0.0054 0.8 1.182 0.206 0.0066 31.2 0.059 0.212 0.0080 0.166 0.0070 26.5 23.7 0.300 0.014 0.0032 0.069 0.0061 4.4 11.2 0.469 0.029
0.0054 5.4 0.114 0.154 0.0084 18.3 0.010 0.050 0.0043 11.8 0.059 1 1 0 1 1 1 0 1 1 1 1 1

HD-188350 19.91 0.27 40.53 -13.89 8.78 0.138 0.0040 34.6 0.038 0.043 0.00239 18.1 0.019 0.012 0.0023 5.0 0.634 0.044 0.0063 7.0 0.540 0.315 0.0143 0.269 0.0131 22.0 20.5 0.926 0.011 0.0024 0.043 0.0041 4.7 10.4 1.003 0.039
0.0045 8.6 0.088 0.066 0.0059 11.2 0.014 0.055 0.0024 22.6 0.078 1 1 1 1 1 1 2 1 1 1 1 1

HD-192653 20.29 -36.63 4.94 -32.26 5.20 0.022 0.0030 7.5 0.080 -0.000 0.00000 -NaN 0.126 -0.000 0.0000 -NaN 3.431 0.037 0.0016 22.4 0.035 0.376 0.0207 0.314 0.0187 18.1 16.7 24.337 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 0.946 0.014
0.0035 3.9 0.004 -0.000 0.0000 -NaN 0.301 -0.000 0.0000 -NaN 0.274 1 0 0 1 1 1 0 0 0 0 0 0

HD-193571 20.37 -42.05 358.74 -34.08 15.20 0.008 0.0018 4.4 0.131 -0.000 0.00000 -NaN 0.128 -0.000 0.0000 -NaN 0.607 0.023 0.0017 13.5 0.318 0.143 0.0038 0.104 0.0032 37.2 32.2 0.371 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 0.680
0.001 0.0019 0.3 0.025 -0.000 0.0000 -NaN 0.215 -0.000 0.0000 -NaN 0.411 1 0 0 1 1 1 2 0 0 0 0 0

HD-193924 20.43 -56.74 340.90 -35.21 18.24 -0.000 0.0000 -NaN 0.205 -0.000 0.00000 -NaN 0.104 0.017 0.0104 1.7 7.980 0.628 0.0120 52.5 2.061 0.078 0.0165 0.001 0.0101 4.7 0.1 1.805 0.004 0.0011 0.001 0.0010 3.3 0.5 0.129 -0.000
0.0000 -NaN 10.956 -0.000 0.0000 -NaN 1.550 -0.000 0.0000 -NaN 0.079 0 0 0 1 1 0 0 0 0 0 0

HD-195094 20.50 -18.58 26.09 -29.80 15.07 0.007 0.0019 3.5 0.075 -0.000 0.00000 -NaN 0.157 0.010 0.0042 2.5 0.735 0.004 0.0010 4.2 0.082 0.037 0.0191 0.132 0.0193 1.9 6.8 0.804 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 1.539 0.012
0.0028 4.2 0.057 0.014 0.0147 1.0 0.089 -0.000 0.0000 -NaN 0.607 0 0 0 2 0 1 1 0 0 0 0 0

HD-195599 20.56 -40.56 0.87 -36.02 6.52 0.012 0.0020 6.2 0.049 -0.000 0.00000 -NaN 0.088 -0.000 0.0000 -NaN 0.780 0.012 0.0029 3.9 0.268 0.164 0.0121 0.113 0.0107 13.6 10.6 0.743 0.001 0.0017 -0.000 0.0000 0.5 -NaN 0.402 -0.000
0.0000 -NaN 0.030 -0.000 0.0000 -NaN 0.603 0.019 0.0051 3.6 0.077 0 0 0 2 1 1 1 0 0 0 0 0

HD-195781 20.58 -41.99 359.14 -36.40 3.58 0.016 0.0035 4.7 0.040 -0.000 0.00000 -NaN 0.144 0.012 0.0158 0.8 0.875 0.003 0.0017 1.7 0.110 0.298 0.0132 0.228 0.0120 22.5 19.0 1.564 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 1.871 0.013
0.0022 5.8 0.009 -0.000 0.0000 -NaN 0.214 0.014 0.0042 3.4 0.035 0 0 0 0 1 1 1 0 0 0 0 0

HD-198069 20.80 6.01 52.81 -22.54 7.61 0.038 0.0026 14.4 0.043 0.000 0.00000 -NaN 0.100 -0.000 0.0000 -NaN 2.403 0.040 0.0027 15.0 0.104 0.138 0.0135 0.083 0.0107 10.2 7.8 1.912 0.001 0.0018 0.007 0.0041 0.5 1.8 1.129 0.006
0.0028 2.2 0.048 0.007 0.0056 1.3 0.056 0.007 0.0027 2.5 0.461 1 0 0 1 1 1 1 0 0 0 0 1

HD-198174 20.82 -25.78 19.64 -36.31 3.38 0.034 0.0024 14.5 0.049 0.014 0.00348 4.1 0.057 0.005 0.0045 1.1 1.279 0.134 0.0028 48.4 0.516 0.095 0.0080 0.054 0.0060 11.9 9.1 0.137 0.000 0.0018 0.008 0.0064 0.2 1.3 0.901 -0.000
0.0000 -NaN 2.641 0.004 0.0029 1.5 0.073 0.033 0.0100 3.3 0.771 1 1 0 1 1 1 0 0 0 0 0 0

HD-198529 20.87 -33.18 10.74 -38.62 6.76 0.011 0.0023 5.0 0.037 -0.000 0.00000 -NaN 0.040 0.013 0.0061 2.2 1.178 0.016 0.0027 5.9 0.099 0.157 0.0112 0.076 0.0116 14.0 6.5 0.619 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 0.741 0.003
0.0022 1.3 0.026 -0.000 0.0000 -NaN 0.143 0.019 0.0026 7.5 0.028 1 0 0 2 1 0 1 0 0 0 0 0

HD-205765 21.63 -0.04 54.92 -36.23 8.86 0.012 0.0020 5.8 0.062 -0.000 0.00000 -NaN 0.097 0.000 0.0000 -NaN 0.590 0.007 0.0018 3.8 0.125 0.188 0.0078 0.131 0.0080 24.1 16.3 0.717 -0.000 0.0000 0.000 0.0014 -NaN 0.1 0.491 0.005
0.0033 1.4 0.025 -0.000 0.0000 -NaN 0.293 -0.000 0.0000 -NaN 0.371 1 0 0 2 1 1 1 0 0 0 0 0

HD-207052	21.78	-11.37	43.68	-43.97	11.58	0.008	0.0018	4.3	0.044	-0.000	0.00000	-NaN	0.121	0.004	0.0028	1.5	1.238	0.020	0.0024	8.6	0.273	0.123	0.0076	0.075	0.0079	16.1	9.5	0.812	0.003	0.0018	0.002	0.0023	1.4	0.9	0.783	-0.000	0.0000	-NaN	0.101	-0.000	0.0000	-NaN	0.320	-0.000	0.0000	-NaN	0.828	0 0 0 2 1 1 1 0 0 0 0
HD-207155	21.80	-30.90	16.25	-50.00	10.16	0.008	0.0019	3.9	0.038	0.001	0.00210	0.5	0.205	0.006	0.0055	1.2	0.610	0.013	0.0030	4.4	0.111	0.194	0.0132	0.135	0.0116	14.8	11.7	0.315	-0.000	0.0000	-0.000	0.0000	-NaN	-NaN	1.207	0.006	0.0034	1.8	0.036	-0.000	0.0000	-NaN	0.180	-0.000	0.0000	-NaN	0.570	0 0 0 2 1 1 1 0 0 0 0
HD-208433	21.95	-35.36	9.33	-52.13	5.03	0.012	0.0034	3.6	0.083	0.000	0.00000	-NaN	0.200	0.018	0.0140	1.3	3.151	0.049	0.0038	13.0	0.106	0.093	0.0061	0.063	0.0050	15.1	12.6	1.337	-0.000	0.0000	0.001	30414.3984	-NaN	0.0	5.958	0.005	0.0037	1.3	0.088	-0.000	0.0000	-NaN	0.313	-0.000	0.0000	-NaN	0.337	0 0 0 2 1 1 1 0 0 0 0
HD-208614	21.98	-45.74	352.60	-51.23	5.50	0.020	0.0054	3.7	0.134	-0.000	0.00000	-NaN	0.770	0.000	0.0000	-NaN	0.456	-0.000	0.0000	-NaN	0.256	0.243	0.0139	0.181	0.0119	17.6	15.1	2.083	0.017	0.0050	-0.000	0.0000	3.4	-NaN	1.788	0.017	0.0041	4.2	0.026	-0.000	0.0000	-NaN	0.189	0.026	0.0062	4.2	0.094	0 0 0 0 1 1 1 0 0 0 0
HD-208886	22.00	-31.53	15.64	-52.61	3.60	0.007	0.0019	3.8	0.029	-0.000	0.00000	-NaN	0.334	0.007	0.0046	1.4	0.218	0.173	0.0085	20.3	0.081	0.333	0.0120	0.276	0.0108	27.7	25.5	0.422	-0.000	0.0000	-0.000	0.0000	-NaN	-NaN	0.231	0.003	0.0091	0.3	0.020	-0.000	0.0000	-NaN	0.622	0.002	14879.7812	0.0	0.004	0 0 0 1 1 1 0 0 0 0 0
HD-209014	22.01	-28.45	20.69	-52.39	3.99	0.005	0.0012	4.0	0.120	0.000	0.00000	-NaN	0.280	0.003	0.0017	1.8	1.093	0.145	0.0057	25.5	0.044	0.115	0.0111	0.078	0.0091	10.3	8.5	0.485	-0.000	0.0000	0.004	0.0018	-NaN	2.2	0.199	-0.000	0.0000	-NaN	0.298	-0.000	0.0000	-NaN	0.357	-0.000	0.0000	-NaN	0.558	0 0 0 1 1 1 0 0 0 0 0
HD-209409	22.06	-2.16	57.49	-42.73	7.49	0.028	0.0015	18.6	0.065	0.015	0.00270	5.4	0.242	0.008	0.0020	4.1	0.492	0.247	0.0102	24.1	0.071	0.179	0.0096	0.142	0.0084	18.7	16.8	0.271	-0.000	0.0000	0.011	0.0020	-NaN	5.5	0.348	0.005	0.0086	0.6	0.223	-0.000	0.0000	-NaN	0.160	0.010	0.0090	1.1	0.564	1 1 1 1 1 1 0 0 1 0 0
HD-209522	22.08	-26.82	23.60	-53.05	2.65	0.004	0.0014	3.1	0.238	0.000	0.00000	-NaN	0.526	0.011	0.0021	5.4	0.588	0.399	0.0331	12.0	0.166	0.034	0.0077	0.007	0.0045	4.4	1.5	0.045	-0.000	0.0000	0.002	0.0024	-NaN	1.0	0.579	0.003	0.0081	0.3	3.382	-0.000	0.0000	-NaN	0.457	-0.000	0.0000	-NaN	0.647	0 0 1 1 1 0 0 0 0 0 0

HD-210049 22.14 -32.99 13.34 -54.46 24.01 0.002 0.0007 2.6 0.067 -0.000 0.00000 -NaN 0.043 0.011 0.0038 2.8 0.597 0.003 0.0008 3.6 0.061 0.121 0.0125 0.035 0.0121 9.7 2.9 0.418 -0.000 0.0000 0.000 0.0000 -NaN -NaN 1.316 0.010
0.0024 4.3 0.049 -0.000 0.0000 -NaN 0.332 -0.000 0.0000 -NaN 0.312 0 0 0 0 1 0 1 0 0 0 0 0

HD-210934 22.24 -27.77 22.58 -55.30 6.51 0.009 0.0010 8.8 0.137 0.000 0.00000 -NaN 0.387 -0.000 0.0000 -NaN 3.763 0.218 0.0028 79.1 0.439 0.042 0.0047 0.013 0.0029 9.1 4.5 0.393 -0.000 0.0000 0.002 0.0021 -NaN 1.0 0.808 -0.000
0.0000 -NaN 0.448 -0.000 0.0000 -NaN 0.616 -0.000 0.0000 -NaN 0.651 1 0 0 1 1 1 0 0 0 0 0 0

HD-212571 22.42 1.38 65.99 -44.72 4.17 0.058 0.0026 22.0 0.045 0.014 0.00192 7.4 0.037 0.006 0.0030 1.9 0.234 0.664 0.0446 14.9 0.069 0.317 0.0207 0.207 0.0165 15.3 12.5 0.387 0.005 0.0017 0.027 0.0030 2.7 8.8 0.323 0.019
0.0060 3.2 0.171 0.034 0.0092 3.7 0.085 0.073 0.0124 5.8 0.433 1 1 0 1 1 1 2 1 1 0 1 0

HD-213728 22.57 -32.14 14.99 -59.89 3.17 0.011 0.0029 3.8 0.287 -0.000 0.00000 -NaN 0.424 -0.000 0.0000 -NaN 2.037 0.246 0.0034 72.5 0.335 0.081 0.0039 0.046 0.0029 20.8 15.8 0.308 0.004 0.0028 0.009 0.0036 1.3 2.4 0.653 -0.000
0.0000 -NaN 0.310 -0.000 0.0000 -NaN 0.478 0.029 0.0120 2.4 0.741 1 0 0 1 1 1 2 0 0 0 0 0

HD-216494 22.89 -11.62 56.40 -58.27 3.95 0.070 0.0092 7.6 2.129 0.000 0.00000 -NaN 0.391 0.007 0.0067 1.1 1.551 0.103 0.0173 5.9 2.168 0.156 0.0089 0.105 0.0072 17.6 14.7 0.650 0.010 0.0022 0.009 0.0023 4.3 4.1 0.612 0.014
0.0057 2.5 0.352 -0.000 0.0000 -NaN 0.224 0.020 0.0103 1.9 0.608 0 0 0 2 1 1 0 2 0 0 0 0

HD-216735 22.92 8.82 80.79 -44.33 10.45 0.023 0.0028 8.3 0.053 0.000 0.00000 -NaN 0.048 -0.000 0.0000 -NaN 1.035 0.035 0.0038 9.2 0.360 0.225 0.0083 0.147 0.0067 27.0 21.9 0.389 -0.000 0.0000 0.003 0.0026 -NaN 1.1 0.778 0.009
0.0039 2.2 0.017 -0.000 0.0000 -NaN 0.136 -0.000 0.0000 -NaN 0.242 1 0 0 1 1 1 2 0 0 0 0 0

HD-217670 23.05 -47.85 341.22 -60.42 6.10 0.020 0.0022 8.9 0.054 -0.000 0.00000 -NaN 0.087 -0.000 0.0000 -NaN 1.565 0.076 0.0030 25.1 1.464 0.112 0.0036 0.072 0.0029 30.8 24.5 0.123 0.002 0.0015 -0.000 0.0000 1.1 -NaN 0.737 0.006
0.0042 1.5 0.080 -0.000 0.0000 -NaN 0.355 0.016 0.0126 1.3 0.530 1 0 0 1 1 1 2 0 0 0 0 0

HD-219104 23.23 -29.64 20.49 -68.42 3.59 0.034 0.0058 5.9 0.399 -0.000 0.00000 -NaN 0.277 0.015 0.0056 2.7 0.949 0.236 0.0076 31.3 0.698 0.085 0.0150 0.022 0.0104 5.7 2.2 0.504 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 0.954 -0.000

0.0000 -NaN 1.431 -0.000 0.0000 -NaN 0.152 -0.000 0.0000 -NaN 0.290 0 0 0 1 0 0 0 0 0 0 0

HD-219833 23.32 -12.17 63.09 -63.71 2.07 0.034 0.0020 17.1 0.062 0.002 0.00155 1.3 0.080 -0.000 0.0000 -NaN 0.671 0.020 0.0025 8.3 0.370 0.199 0.0123 0.133 0.0107 16.1 12.4 0.900 0.001 0.0013 0.005 0.0015 1.0 3.0 0.295 0.007
0.0049 1.4 0.046 -0.000 0.0000 -NaN 0.221 -0.000 0.0000 -NaN 0.271 1 0 0 1 1 1 1 0 0 0 0 0

HD-220802 23.45 -50.16 332.25 -61.89 7.13 0.012 0.0019 6.2 0.078 -0.000 0.00000 -NaN 0.198 0.004 0.0029 1.3 1.505 0.096 0.0029 33.2 0.174 0.049 0.0062 0.020 0.0043 8.0 4.8 0.315 -0.000 0.0000 0.001 0.0010 -NaN 0.9 0.451 -0.000
0.0000 -NaN 0.187 -0.000 0.0000 -NaN 0.266 -0.000 0.0000 -NaN 0.494 1 0 0 1 1 2 2 0 0 0 0 0

HD-222602 23.70 7.25 94.38 -51.73 10.06 0.041 0.0017 23.2 0.023 0.013 0.00271 4.8 0.090 0.003 0.0038 0.9 0.731 0.008 0.0020 3.9 0.090 0.185 0.0238 0.133 0.0199 7.8 6.7 3.973 0.004 0.0024 0.009 0.0034 1.7 2.6 1.036 0.021 0.0032
6.4 0.017 0.014 0.0076 1.8 0.098 0.010 0.0028 3.4 0.190 1 1 0 1 1 1 1 0 0 0 0 1

HD-222847 23.74 -18.28 59.25 -72.21 8.61 0.012 0.0015 8.1 0.087 -0.000 0.00000 -NaN 0.278 0.002 0.0015 1.2 0.759 0.093 0.0047 19.9 0.141 0.042 0.0099 0.016 0.0076 4.2 2.2 0.406 -0.000 0.0000 0.002 0.0019 -NaN 1.0 0.270 -0.000
0.0000 -NaN 0.499 -0.000 0.0000 -NaN 0.429 -0.000 0.0000 -NaN 0.428 1 0 0 2 0 0 1 0 0 0 0 0

HD-223352 23.82 -28.13 25.18 -76.19 23.73 0.002 0.0024 0.9 0.120 -0.000 0.00000 -NaN 0.138 0.003 0.0032 0.8 0.840 0.012 0.0025 5.0 0.305 0.046 0.0161 0.012 0.0111 2.9 1.1 0.570 0.003 0.0020 0.004 0.0017 1.3 2.2 0.581 -0.000
0.0000 -NaN 1.706 0.025 0.0190 1.3 0.234 -0.000 0.0000 -NaN 0.667 0 0 0 2 0 0 0 0 0 0 0 0

HD-223438 23.82 1.08 92.47 -58.06 10.74 0.022 0.0046 4.7 0.049 -0.000 0.00000 -NaN 0.188 -0.000 0.0000 -NaN 0.714 0.004 0.0018 2.3 0.071 0.310 0.0059 0.255 0.0053 52.9 48.4 0.832 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 2.637 0.018
0.0043 4.2 0.033 -0.000 0.0000 -NaN 0.054 0.008 0.0030 2.7 0.022 0 0 0 0 1 1 0 0 0 0 0 0

HD-223884 23.89 -24.23 42.20 -76.61 11.35 0.012 0.0037 3.3 0.035 -0.000 0.00000 -NaN 0.231 0.041 0.0139 2.9 0.628 0.000 0.0058 0.0 0.093 0.352 0.0220 0.277 0.0202 16.0 13.7 0.506 -0.000 0.0000 -0.000 0.0000 -NaN -NaN 2.350 0.025
0.0053 4.6 0.058 0.017 0.0307 0.6 0.189 -0.000 0.0000 -NaN 0.697 0 0 0 0 1 1 1 0 0 0 0 0

HD-224113 23.92 -31.92 8.17 -76.87 3.69 0.009 0.0018 4.8 0.389 -0.000 0.00000 -NaN 0.289 -0.000 0.0000 -NaN 3.203 0.277 0.0035 78.6 0.076 0.067 0.0065 0.025 0.0045 10.2 5.5 0.190 0.005 0.0016 0.006 0.0020 3.1 3.2 0.481 -0.000
0.0000 -NaN 0.554 -0.000 0.0000 -NaN 0.296 0.019 0.0074 2.6 0.760 1 0 0 1 1 1 1 0 0 0 0

HD-225200 0.07 -29.27 18.55 -79.38 8.01 0.002 0.0013 1.3 0.060 -0.000 0.00000 -NaN 0.074 -0.000 0.0000 -NaN 1.067 0.013 0.0025 5.1 0.319 0.229 0.0096 0.157 0.0083 23.9 18.9 0.360 0.000 0.0007 -0.000 0.0000 0.2 -NaN 0.503 0.007
0.0019 3.4 0.010 -0.000 0.0000 -NaN 0.337 -0.000 0.0000 -NaN 0.547 0 0 0 2 1 1 1 0 0 0 0

HD-225206 0.07 -29.38 17.96 -79.36 3.45 0.010 0.0025 4.1 0.195 0.000 0.00000 -NaN 0.183 0.002 0.0025 0.6 0.738 0.070 0.0036 19.3 0.498 0.072 0.0083 0.029 0.0057 8.7 5.1 0.712 0.003 0.0015 0.002 34.9156 2.2 0.0 0.711 0.005
0.0038 1.3 0.371 -0.000 0.0000 -NaN 0.345 -0.000 0.0000 -NaN 0.713 1 0 0 1 1 1 1 0 0 0 0

measures_lmcb.dat

1856	5.68793	-69.23395	279.59109	-31.43029	-0.171	3933.82	0.300	-0.323	3937.00	0.300	-0.045	3935.50	0.300	-0.225	3937.71	0.300	1.00	0.006	0.01	0.000	0.007	0.01	0.000	0.006	0.00	0.000	0.007	0.01	0.000	0.00	0.529	0.128	0.243	0.034	0.169	0.005	0.005	0.005	0.005	28.5	45.1	7.5	31.4	1	1
1913	5.69982	-69.24903	279.60104	-31.36586	-0.157	3933.91	0.300	-0.339	3937.04	0.300	-0.048	3935.50	0.216	-0.281	3937.70	0.271	1.00	0.005	0.01	0.000	0.009	0.01	0.000	0.007	0.00	0.036	0.007	0.01	0.011	0.00	0.383	0.118	0.255	0.026	0.190	0.004	0.007	0.006	0.009	30.6	37.3	4.6	21.2	1	1
1281	5.60261	-69.23278	279.65109	-31.88117	-0.215	3933.85	0.235	-0.047	3936.04	0.300	-0.161	3934.58	0.300	-0.249	3937.40	0.269	1.00	0.005	0.01	0.009	0.004	0.03	0.000	0.005	0.01	0.000	0.005	0.01	0.006	0.00	0.712	0.127	0.035	0.121	0.168	0.006	0.003	0.004	0.005	22.6	11.3	33.7	32.2	1	1
1881	5.69256	-69.27314	279.63376	-31.40174	-0.149	3933.86	0.233	-0.246	3937.03	0.300	-0.058	3935.12	0.300	-0.168	3937.68	0.300	1.01	0.008	0.01	0.014	0.008	0.01	0.000	0.006	0.04	0.000	0.008	0.02	0.000	0.00	0.334	0.087	0.185	0.043	0.126	0.007	0.006	0.004	0.006	12.7	31.0	9.7	21.2	1	1
1322	5.60603	-69.24653	279.66446	-31.86141	-0.168	3933.81	0.255	-0.188	3937.31	0.287	-0.147	3934.65	0.300	0.000	3937.50	0.200	1.00	0.006	0.01	0.012	0.006	0.01	0.010	0.005	0.02	0.000	-0.000	0.00	0.000	0.00	0.736	0.108	0.135	0.111	-0.000	0.006	0.006	0.004	0.000	16.8	22.0	29.3	0.0	1	1
1869	5.68972	-69.29559	279.66177	-31.41439	-0.125	3933.95	0.300	-0.152	3936.98	0.300	-0.071	3935.50	0.300	-0.175	3937.74	0.300	1.00	0.004	0.01	0.000	0.005	0.01	0.000	0.004	0.00	0.000	0.005	0.01	0.000	0.00	0.256	0.094	0.114	0.054	0.132	0.003	0.004	0.003	0.004	29.6	32.4	16.8	37.3	1	1
1500	5.62758	-69.26836	279.67346	-31.74511	-0.172	3933.92	0.300	-0.085	3936.74	0.300	-0.107	3935.08	0.300	-0.296	3937.48	0.260	1.00	0.004	0.01	0.000	0.005	0.03	0.000	0.004	0.01	0.000	0.005	0.01	0.007	0.00	0.402	0.129	0.064	0.080	0.193	0.003	0.004	0.003	0.006	42.7	17.3	26.4	32.4	1	1
1507	5.62819	-69.28008	279.68671	-31.74049	-0.152	3933.99	0.300	-0.075	3936.68	0.300	-0.097	3935.08	0.300	-0.280	3937.49	0.300	1.00	0.004	0.01	0.000	0.005	0.03	0.000	0.004	0.02	0.000	0.005	0.01	0.000	0.00	0.416	0.114	0.057	0.073	0.211	0.003	0.004	0.003	0.004	33.7	15.8	21.6	58.5	1	1
1861	5.68834	-69.32633	279.69849	-31.41844	-0.143	3933.83	0.300	-0.234	3937.08	0.286	-0.068	3935.39	0.266	-0.121	3937.87	0.199	1.00	0.007	0.02	0.000	0.008	0.01	0.015	0.008	0.04	0.038	0.009	0.02	0.022	0.00	0.474	0.108	0.168	0.046	0.060	0.005	0.011	0.008	0.008	21.0	15.8	5.4	7.3	1	1
1795	5.67467	-69.33089	279.71289	-31.48992	-0.161	3933.87	0.300	-0.135	3937.12	0.300	-0.063	3935.32	0.150	-0.210	3937.78	0.234	1.00	0.004	0.01	0.000	0.005	0.02	0.000	0.006	0.02	0.016	0.005	0.01	0.008	0.00	0.398	0.121	0.102	0.024	0.123	0.003	0.004	0.003	0.005	45.4	28.3	7.3	24.1	1	1
1632	5.64786	-69.31475	279.71274	-31.63283	-0.140	3933.96	0.300	-0.267	3937.46	0.300	-0.045	3935.10	0.300	0.000	3937.50	0.200	1.00	0.006	0.02	0.000	0.006	0.01	0.000	0.006	0.05	0.000	-0.000	0.00	0.000	0.00	1.157	0.105	0.201	0.034	-0.000	0.004	0.004	0.004	0.000	24.3	46.3	7.8	0.0	1	1
1831	5.68292	-69.35883	279.73993	-31.44350	-0.151	3933.85	0.251	-0.314	3937.04	0.300	-0.036	3935.32	0.300	-0.214	3937.79	0.298	1.00	0.006	0.01	0.011	0.007	0.01	0.000	0.005	0.05	0.000	0.005	0.01	0.013	0.00	0.564	0.095	0.236	0.027	0.160	0.005	0.005	0.003	0.008	17.5	47.1	8.0	20.4	1	1
1011	5.56125	-69.23145	279.68350	-32.09943	-0.155	3933.86	0.205	-0.041	3936.00	0.300	-0.186	3934.60	0.296	-0.235	3937.37	0.295	0.98	0.011	0.02	0.021	0.007	0.00	0.000	0.008	0.02	0.024	0.008	0.01	0.012	0.00	0.441	0.079	0.031	0.138	0.174	0.010	0.005	0.013	0.009	8.1	5.7	10.6	18.4	1	1
1470	5.62298	-69.32264	279.74030	-31.76277	-0.224	3933.83	0.239	-0.232	3937.31	0.300	-0.125	3934.58	0.240	0.000	3937.50	0.200	0.99	0.007	0.01	0.012	0.005	0.01	0.000	0.007	0.02	0.021	-0.000	0.00	0.000	0.00	0.369	0.134	0.174	0.075	-0.000	0.008	0.004	0.008	0.000	17.4	44.9	9.8	0.0	1	1
1713	5.66347	-69.38766	279.78674	-31.54251	-0.153	3933.90	0.211	-0.227	3936.60	0.300	-0.086	3934.62	0.137	-0.187	3937.19	0.300	0.98	0.008	0.01	0.014	0.010	0.02	0.000	0.010	0.02	0.019	0.010	0.02	0.000	0.00	0.044	0.081	0.171	0.030	0.141	0.007	0.007	0.005	0.007	11.9	22.8	5.5	18.9	1	1

1251	5.60066	-69.30167	279.73309	-31.88274	-0.185	3933.97	0.300	-0.043	3936.11	0.300	-0.081	3934.87	0.300	-0.342	3937.25	0.300	1.01	0.006	0.01	0.000	0.006	0.05	0.000	0.006	0.03	0.000	0.006	0.01	0.000	0.00	0.013	0.139	0.033	0.061	0.257	0.004	0.004	0.004	0.004	31.6	7.6	13.8	59.7	1	1
1681	5.65797	-69.43278	279.84320	-31.56623	-0.154	3933.94	0.283	-0.056	3936.35	0.300	-0.064	3934.60	0.120	-0.235	3937.14	0.300	1.00	0.003	0.01	0.008	0.003	0.02	0.000	0.005	0.01	0.000	0.003	0.01	0.000	0.00	0.120	0.109	0.042	0.019	0.176	0.004	0.002	0.001	0.002	26.7	18.1	13.2	75.5	1	1
1490	5.62619	-69.37708	279.80142	-31.73930	-0.150	3933.82	0.217	-0.045	3936.30	0.300	-0.138	3934.50	0.300	-0.090	3937.27	0.251	1.00	0.008	0.01	0.014	0.006	0.06	0.000	0.007	0.00	0.000	0.007	0.02	0.026	0.00	0.303	0.081	0.034	0.104	0.057	0.007	0.005	0.005	0.008	11.8	7.5	21.1	7.5	1	0
1840	5.68531	-69.50628	279.91016	-31.41513	-0.140	3933.89	0.299	-0.095	3936.53	0.300	-0.093	3934.63	0.199	-0.319	3937.34	0.281	0.99	0.004	0.01	0.015	0.004	0.02	0.000	0.005	0.02	0.016	0.004	0.01	0.005	0.00	0.064	0.105	0.071	0.046	0.225	0.006	0.003	0.004	0.005	17.6	23.9	10.6	44.0	1	1
1520	5.62936	-69.39800	279.82346	-31.72015	-0.153	3933.81	0.246	-0.056	3936.38	0.214	-0.114	3934.50	0.293	-0.156	3937.12	0.300	0.99	0.008	0.03	0.019	0.006	0.03	0.031	0.006	0.04	0.032	0.005	0.01	0.000	0.00	0.155	0.094	0.030	0.084	0.117	0.009	0.005	0.010	0.003	10.6	5.6	8.2	33.6	1	1
1372	5.61057	-69.36403	279.79816	-31.82283	-0.136	3933.77	0.210	-0.084	3936.61	0.300	-0.157	3934.50	0.279	-0.208	3937.40	0.300	0.98	0.007	0.02	0.016	0.005	0.03	0.000	0.006	0.02	0.018	0.005	0.01	0.000	0.00	0.128	0.072	0.063	0.110	0.156	0.006	0.004	0.008	0.004	11.1	16.3	13.6	40.5	1	1
1678	5.65687	-69.47980	279.89880	-31.56660	-0.136	3933.91	0.251	-0.270	3936.70	0.300	-0.026	3934.68	0.147	-0.143	3937.53	0.300	0.99	0.007	0.02	0.017	0.006	0.01	0.000	0.009	0.06	0.063	0.006	0.02	0.000	0.00	0.417	0.086	0.203	0.010	0.108	0.007	0.004	0.005	0.004	11.9	46.2	1.8	24.5	1	1
1563	5.63631	-69.44006	279.86737	-31.67871	-0.210	3933.91	0.199	-0.105	3936.64	0.300	-0.058	3934.51	0.300	-0.185	3937.24	0.300	0.98	0.008	0.01	0.011	0.009	0.03	0.000	0.007	0.06	0.000	0.009	0.02	0.000	0.00	0.154	0.105	0.079	0.043	0.139	0.007	0.006	0.005	0.006	14.9	12.1	8.2	21.5	1	1
1380	5.61127	-69.38247	279.81915	-31.81685	-0.162	3933.86	0.248	-0.227	3937.02	0.300	-0.247	3934.77	0.280	-0.043	3937.63	0.159	1.00	0.005	0.01	0.012	0.005	0.01	0.000	0.005	0.01	0.008	0.007	0.03	0.033	0.00	0.387	0.101	0.171	0.173	0.017	0.006	0.003	0.006	0.004	17.4	49.9	27.6	3.9	1	1
1865	5.68897	-69.60020	280.01712	-31.38592	-0.157	3933.92	0.297	-0.182	3936.48	0.300	-0.091	3934.67	0.155	-0.281	3937.08	0.300	0.99	0.006	0.01	0.017	0.008	0.02	0.000	0.008	0.02	0.019	0.008	0.01	0.000	0.00	0.215	0.117	0.137	0.035	0.212	0.008	0.006	0.005	0.006	14.6	21.6	6.6	33.4	1	1
1460	5.62136	-69.42661	279.86288	-31.75854	-0.180	3933.91	0.236	-0.063	3936.25	0.300	-0.154	3934.55	0.195	-0.244	3937.27	0.264	0.99	0.005	0.01	0.013	0.004	0.03	0.000	0.006	0.01	0.012	0.005	0.01	0.007	0.00	0.231	0.107	0.047	0.075	0.161	0.006	0.003	0.006	0.005	16.4	15.4	13.5	30.6	1	1
1788	5.67390	-69.58675	280.01160	-31.46574	-0.148	3933.86	0.207	-0.118	3936.56	0.300	-0.117	3934.52	0.270	-0.261	3937.07	0.300	0.99	0.006	0.02	0.014	0.009	0.03	0.000	0.005	0.02	0.023	0.009	0.01	0.000	0.00	0.103	0.077	0.089	0.079	0.196	0.006	0.007	0.007	0.007	12.9	13.0	10.6	28.8	1	1
1875	5.69101	-69.65139	280.07538	-31.36980	-0.139	3934.14	0.264	-0.197	3936.45	0.300	0.000	3935.00	0.200	-0.180	3937.15	0.300	1.00	0.007	0.02	0.016	0.007	0.02	0.000	-0.000	0.00	0.000	0.007	0.02	0.000	0.00	0.170	0.092	0.148	-0.000	0.135	0.007	0.005	0.000	0.005	12.3	27.0	0.0	24.6	1	1
1670	5.65498	-69.55675	279.98987	-31.56757	-0.215	3933.98	0.288	-0.082	3936.20	0.300	-0.033	3935.18	0.260	-0.355	3937.09	0.280	1.00	0.004	0.01	0.006	0.004	0.02	0.000	0.004	0.04	0.042	0.004	0.00	0.004	0.00	0.088	0.155	0.062	0.022	0.248	0.005	0.003	0.004	0.005	34.3	22.7	4.8	50.9	1	1
1390	5.61237	-69.42978	279.87354	-31.80517	-0.201	3933.90	0.300	-0.089	3936.38	0.300	-0.173	3934.59	0.232	-0.200	3937.16	0.287	1.01	0.012	0.03	0.000	0.013	0.07	0.000	0.013	0.03	0.026	0.012	0.03	0.027	0.00	0.661	0.151	0.067	0.100	0.144	0.009	0.010	0.014	0.016	16.6	7.0	7.3	9.0	1	1
1810	5.68011	-69.66309	280.09628	-31.42501	-0.180	3934.02	0.300	-0.153	3936.27	0.300	-0.068	3935.50	0.300	-0.332	3937.00	0.300	0.99	0.007	0.01	0.000	0.008	0.02	0.000	0.007	0.00	0.000	0.008	0.00	0.010	0.00	0.158	0.136	0.115	0.051	0.249	0.005	0.006	0.005	0.010	26.8	20.1	9.5	24.4	1	1

1763	5.67011	-69.64303	280.07977	-31.47909	-0.164	3934.03	0.300	-0.089	3936.48	0.287	-0.044	3935.45	0.300	-0.390	3937.08	0.300	0.99	0.005	0.01	0.000	0.008	0.06	0.046	0.005	0.05	0.000	0.015	0.01	0.000	0.00	0.123	0.123	0.064	0.033	0.293	0.004	0.012	0.004	0.011	33.9	5.4	9.1	26.5	1	1
1758	5.66965	-69.65561	280.09476	-31.48005	-0.157	3933.89	0.273	-0.041	3936.27	0.300	-0.095	3934.50	0.245	-0.325	3937.00	0.290	1.01	0.005	0.01	0.010	0.004	0.04	0.000	0.005	0.00	0.016	0.004	0.00	0.005	0.00	0.047	0.107	0.031	0.058	0.236	0.005	0.003	0.005	0.005	20.8	10.5	11.5	45.4	1	1
1114	5.58213	-69.34172	279.79489	-31.97487	-0.167	3933.99	0.290	-0.134	3936.36	0.300	-0.126	3934.73	0.300	-0.219	3937.26	0.300	1.00	0.005	0.01	0.014	0.004	0.01	0.000	0.006	0.02	0.000	0.004	0.01	0.000	0.00	0.045	0.121	0.101	0.095	0.165	0.007	0.003	0.004	0.003	17.5	32.1	21.2	52.4	1	1
1698	5.66034	-69.64928	280.09390	-31.52901	-0.179	3933.87	0.199	-0.405	3937.00	0.300	-0.086	3934.50	0.236	0.000	3937.50	0.200	1.02	0.007	0.01	0.010	0.005	0.00	0.000	0.007	0.00	0.026	-0.000	0.00	0.000	0.00	0.021	0.089	0.304	0.051	-0.000	0.006	0.004	0.007	0.000	15.6	81.3	7.4	0.0	1	1
1408	5.61477	-69.47828	279.92828	-31.78655	-0.157	3933.88	0.207	-0.188	3936.92	0.285	-0.209	3934.54	0.247	-0.044	3937.49	0.172	1.04	0.005	0.01	0.011	0.004	0.02	0.014	0.004	0.01	0.009	0.008	0.04	0.035	0.00	0.007	0.082	0.134	0.129	0.019	0.005	0.007	0.006	0.005	16.8	18.6	23.1	3.6	1	1
1324	5.60614	-69.45050	279.90259	-31.83510	-0.109	3933.84	0.300	-0.052	3936.71	0.120	-0.180	3934.50	0.300	-0.115	3937.41	0.300	1.00	0.013	0.05	0.000	0.014	0.05	0.000	0.013	0.03	0.000	0.009	0.03	0.000	0.00	0.038	0.082	0.016	0.135	0.086	0.009	0.004	0.009	0.007	8.6	3.6	14.3	12.2	1	1
1135	5.58735	-69.38753	279.84412	-31.94149	-0.143	3933.79	0.214	-0.118	3936.66	0.300	-0.153	3934.63	0.300	-0.203	3937.33	0.300	0.98	0.006	0.01	0.011	0.006	0.02	0.000	0.005	0.01	0.000	0.006	0.01	0.000	0.00	0.043	0.077	0.089	0.115	0.153	0.005	0.004	0.003	0.004	14.8	20.5	33.9	35.3	1	1
1333	5.60716	-69.48661	279.94394	-31.82519	-0.156	3933.91	0.255	-0.126	3936.34	0.300	-0.181	3934.58	0.210	-0.207	3937.12	0.300	1.01	0.004	0.01	0.012	0.003	0.01	0.000	0.004	0.01	0.008	0.003	0.01	0.000	0.00	0.050	0.100	0.095	0.095	0.155	0.005	0.002	0.004	0.002	19.0	39.1	21.4	63.8	1	1
1358	5.60953	-69.51133	279.97095	-31.80969	-0.059	3933.46	0.300	-0.263	3937.13	0.251	-0.270	3934.52	0.263	-0.124	3937.70	0.120	0.99	0.011	0.08	0.000	0.014	0.02	0.020	0.014	0.02	0.016	0.021	0.03	0.000	0.00	0.210	0.045	0.165	0.179	0.037	0.008	0.016	0.014	0.006	5.3	10.5	12.4	6.0	1	1
1192	5.59524	-69.45061	279.91141	-31.89201	-0.165	3933.85	0.208	-0.118	3936.68	0.293	-0.208	3934.63	0.300	-0.078	3937.42	0.152	1.01	0.008	0.01	0.013	0.007	0.02	0.025	0.006	0.01	0.000	0.009	0.02	0.024	0.00	0.041	0.086	0.086	0.156	0.030	0.007	0.009	0.005	0.006	12.5	9.6	34.6	5.0	1	0
1267	5.60190	-69.50244	279.96658	-31.85057	-0.164	3933.75	0.257	-0.143	3936.78	0.300	-0.215	3934.54	0.255	-0.115	3937.38	0.163	1.02	0.010	0.03	0.025	0.009	0.03	0.000	0.010	0.02	0.019	0.012	0.02	0.023	0.00	0.508	0.106	0.108	0.138	0.047	0.012	0.006	0.012	0.008	8.7	16.8	11.5	5.7	1	1
1292	5.60337	-69.53220	280.00015	-31.83909	-0.173	3933.87	0.283	-0.103	3936.65	0.300	-0.233	3934.59	0.242	-0.186	3937.35	0.248	1.02	0.013	0.05	0.042	0.013	0.06	0.000	0.015	0.03	0.026	0.013	0.03	0.027	0.00	2.049	0.123	0.077	0.141	0.116	0.020	0.010	0.018	0.015	6.1	7.7	8.0	7.7	1	1
1411	5.61508	-69.61403	280.08643	-31.76784	-0.143	3933.96	0.300	-0.159	3936.73	0.300	-0.170	3934.52	0.187	-0.359	3937.39	0.300	1.01	0.005	0.02	0.000	0.005	0.01	0.000	0.006	0.01	0.009	0.005	0.01	0.000	0.00	0.060	0.108	0.120	0.080	0.270	0.004	0.004	0.005	0.004	28.8	32.5	17.1	73.4	1	1
1105	5.58059	-69.42861	279.89767	-31.97141	-0.122	3933.84	0.212	-0.179	3936.39	0.300	-0.172	3934.58	0.259	-0.135	3937.23	0.296	1.01	0.007	0.02	0.018	0.006	0.02	0.000	0.006	0.01	0.015	0.006	0.02	0.019	0.00	0.136	0.065	0.135	0.112	0.100	0.007	0.004	0.008	0.008	9.9	31.1	14.7	13.1	1	1
1018	5.56259	-69.29980	279.76227	-32.08307	-0.120	3933.85	0.234	-0.047	3936.00	0.300	-0.162	3934.57	0.300	-0.172	3937.44	0.300	1.01	0.007	0.02	0.019	0.005	0.00	0.000	0.006	0.02	0.000	0.005	0.01	0.000	0.00	0.785	0.070	0.035	0.122	0.129	0.007	0.004	0.004	0.004	10.1	9.1	27.2	33.3	1	1
1341	5.60830	-69.60567	280.08200	-31.80404	-0.182	3933.84	0.204	-0.069	3936.39	0.300	-0.284	3934.52	0.205	-0.190	3937.32	0.208	1.00	0.011	0.02	0.019	0.008	0.05	0.000	0.011	0.01	0.012	0.011	0.01	0.014	0.00	0.289	0.093	0.052	0.146	0.099	0.010	0.006	0.010	0.009	9.2	8.9	14.4	11.4	1	1

1402	5.61359	-69.65334	280.13348	-31.77055	-0.169	3933.85	0.300	-0.403	3937.09	0.300	-0.200	3934.50	0.248	-0.062	3937.79	0.120	1.04	0.025	0.06	0.000	0.022	0.02	0.000	0.029	0.00	0.048	0.034	0.09	0.000	0.01	0.098	0.127	0.303	0.124	0.019	0.018	0.016	0.030	0.010	6.9	18.4	4.2	1.8	0	1
1115	5.58222	-69.45511	279.92728	-31.95936	-0.133	3933.91	0.300	-0.190	3936.60	0.127	-0.191	3934.71	0.300	-0.132	3937.16	0.300	0.99	0.007	0.02	0.000	0.012	0.01	0.010	0.007	0.02	0.000	0.007	0.03	0.000	0.00	0.416	0.100	0.061	0.144	0.099	0.005	0.006	0.005	0.005	18.4	9.8	26.4	18.4	1	1
1506	5.62819	-69.80847	280.30310	-31.67567	-0.133	3933.86	0.172	-0.135	3936.35	0.300	-0.146	3934.50	0.300	-0.214	3937.15	0.227	1.00	0.012	0.02	0.019	0.009	0.03	0.000	0.008	0.00	0.000	0.011	0.01	0.015	0.00	1.116	0.057	0.102	0.110	0.122	0.008	0.006	0.006	0.010	7.0	15.9	17.2	11.9	1	1
1090	5.57861	-69.44297	279.91611	-31.97982	-0.155	3933.90	0.300	-0.102	3936.42	0.300	-0.258	3934.68	0.283	-0.095	3937.08	0.253	1.00	0.010	0.03	0.000	0.012	0.06	0.000	0.010	0.02	0.017	0.011	0.05	0.046	0.00	0.353	0.116	0.076	0.183	0.060	0.008	0.009	0.013	0.013	15.2	8.2	14.3	4.7	1	1
1452	5.62036	-69.78469	280.28140	-31.71892	-0.124	3933.82	0.238	-0.127	3936.49	0.300	-0.142	3934.52	0.185	-0.232	3937.16	0.236	1.00	0.007	0.02	0.019	0.007	0.03	0.000	0.007	0.01	0.014	0.007	0.01	0.010	0.00	0.001	0.074	0.096	0.066	0.137	0.007	0.005	0.006	0.007	10.5	19.2	11.1	19.2	1	1
1272	5.60209	-69.64839	280.13678	-31.83068	-0.140	3933.93	0.203	-0.125	3936.55	0.300	-0.138	3934.54	0.300	-0.281	3937.18	0.300	1.00	0.007	0.02	0.015	0.007	0.02	0.000	0.007	0.02	0.000	0.007	0.01	0.000	0.00	0.612	0.071	0.094	0.104	0.212	0.007	0.005	0.005	0.005	10.9	17.7	21.1	40.0	1	1
1207	5.59698	-69.63233	280.12216	-31.85921	-0.189	3933.84	0.169	-0.283	3936.69	0.158	-0.173	3934.62	0.139	-0.424	3937.20	0.214	1.01	0.033	0.03	0.034	0.041	0.04	0.034	0.036	0.03	0.034	0.030	0.03	0.032	0.01	0.870	0.080	0.112	0.060	0.227	0.021	0.029	0.019	0.037	3.7	3.8	3.1	6.1	0	1
1055	5.57340	-69.43047	279.90585	-32.00871	-0.102	3933.73	0.277	-0.155	3936.54	0.300	-0.213	3934.66	0.300	-0.216	3937.32	0.166	1.00	0.009	0.03	0.034	0.008	0.02	0.000	0.008	0.02	0.000	0.012	0.01	0.011	0.00	0.645	0.071	0.117	0.161	0.090	0.011	0.006	0.006	0.008	6.4	19.5	26.1	11.4	1	1
1254	5.60099	-69.70177	280.19995	-31.82938	-0.104	3933.94	0.300	-0.249	3936.44	0.172	-0.069	3935.02	0.300	-0.321	3937.17	0.282	1.01	0.008	0.03	0.000	0.013	0.01	0.012	0.008	0.05	0.000	0.010	0.01	0.013	0.00	0.176	0.078	0.107	0.052	0.227	0.006	0.009	0.006	0.013	12.5	11.6	8.3	17.5	1	1
1175	5.59401	-69.65733	280.15375	-31.87128	-0.230	3933.92	0.239	-0.301	3937.10	0.300	-0.124	3934.66	0.300	0.000	3937.50	0.200	1.01	0.010	0.02	0.016	0.008	0.01	0.000	0.009	0.04	0.000	-0.000	0.00	0.000	0.00	0.249	0.138	0.226	0.093	-0.000	0.011	0.006	0.007	0.000	12.6	38.1	13.4	0.0	1	1
1004	5.55921	-69.31261	279.78015	-32.09906	-0.173	3933.93	0.300	-0.120	3936.68	0.300	-0.106	3934.87	0.300	-0.194	3937.36	0.170	1.00	0.006	0.01	0.000	0.006	0.02	0.000	0.006	0.02	0.000	0.008	0.01	0.009	0.00	0.379	0.130	0.091	0.080	0.082	0.004	0.004	0.004	0.006	31.1	21.1	19.1	14.2	1	1
1087	5.57815	-69.52734	280.01505	-31.97087	-0.149	3933.85	0.199	-0.148	3936.60	0.300	-0.113	3934.60	0.300	-0.283	3937.28	0.227	1.00	0.007	0.01	0.012	0.006	0.02	0.000	0.005	0.02	0.000	0.006	0.01	0.008	0.00	0.594	0.075	0.111	0.085	0.162	0.005	0.004	0.004	0.006	13.7	25.5	23.0	25.2	1	1
1161	5.59125	-69.68964	280.19370	-31.88124	-0.149	3933.90	0.270	-0.140	3936.51	0.300	-0.097	3934.73	0.207	-0.329	3937.12	0.271	1.01	0.006	0.01	0.015	0.011	0.03	0.000	0.006	0.02	0.019	0.007	0.01	0.009	0.00	0.344	0.101	0.106	0.050	0.224	0.007	0.008	0.006	0.009	15.0	13.3	8.9	24.6	1	1
1035	5.56885	-69.45586	279.93936	-32.02900	-0.142	3933.87	0.215	-0.086	3936.39	0.164	-0.160	3934.62	0.300	-0.224	3937.18	0.300	1.01	0.012	0.02	0.025	0.014	0.03	0.032	0.009	0.03	0.000	0.009	0.02	0.000	0.00	0.654	0.077	0.035	0.120	0.169	0.011	0.009	0.007	0.007	7.0	4.0	16.8	25.1	1	1
1307	5.60452	-69.89025	280.41699	-31.78643	-0.107	3933.89	0.300	-0.174	3936.36	0.300	-0.060	3934.57	0.300	-0.222	3937.20	0.251	1.00	0.006	0.02	0.000	0.005	0.01	0.000	0.006	0.04	0.000	0.005	0.01	0.008	0.00	0.324	0.080	0.131	0.045	0.140	0.004	0.003	0.004	0.006	19.2	38.1	10.8	24.1	1	1
1139	5.58804	-69.70478	280.21402	-31.89577	-0.150	3933.87	0.239	-0.143	3936.49	0.300	-0.079	3934.74	0.300	-0.231	3937.14	0.249	1.02	0.006	0.01	0.014	0.008	0.03	0.000	0.005	0.03	0.000	0.007	0.01	0.012	0.00	0.587	0.090	0.107	0.059	0.145	0.006	0.006	0.004	0.008	14.1	18.4	15.3	18.1	1	1

1096	5.57925	-69.63111	280.13531	-31.95111	-0.176	3933.76	0.254	-0.257	3936.58	0.300	-0.167	3934.58	0.241	-0.211	3937.28	0.212	1.00	0.016	0.03	0.034	0.014	0.03	0.000	0.016	0.03	0.035	0.017	0.02	0.024	0.00	0.911	0.112	0.194	0.101	0.112	0.018	0.011	0.018	0.016	6.1	18.2	5.7	7.1	1	1
1121	5.58317	-69.70611	280.21960	-31.92069	-0.160	3933.83	0.228	-0.121	3936.47	0.300	-0.118	3934.66	0.231	-0.253	3937.09	0.244	1.01	0.003	0.01	0.006	0.004	0.02	0.000	0.003	0.01	0.009	0.004	0.01	0.005	0.00	0.166	0.092	0.091	0.069	0.155	0.003	0.003	0.003	0.004	28.7	28.6	21.3	38.4	1	1
1028	5.56702	-69.47970	279.96875	-32.03527	-0.102	3933.84	0.255	-0.132	3936.76	0.300	-0.210	3934.68	0.274	-0.187	3937.36	0.187	0.96	0.008	0.03	0.030	0.007	0.03	0.000	0.007	0.01	0.016	0.009	0.01	0.013	0.00	0.009	0.065	0.099	0.144	0.088	0.009	0.006	0.010	0.007	7.1	17.7	14.9	11.8	1	1
1116	5.58282	-69.75230	280.27380	-31.91621	-0.122	3933.82	0.254	-0.168	3936.66	0.192	-0.135	3934.66	0.219	-0.236	3937.18	0.221	1.00	0.007	0.02	0.021	0.013	0.03	0.022	0.008	0.02	0.017	0.010	0.02	0.019	0.00	0.450	0.078	0.081	0.074	0.131	0.008	0.011	0.007	0.012	9.7	7.3	10.2	10.7	1	1
1094	5.57911	-69.72578	280.24594	-31.93892	-0.139	3933.92	0.300	-0.151	3936.50	0.300	-0.181	3934.69	0.189	-0.270	3937.09	0.277	1.01	0.006	0.02	0.000	0.015	0.04	0.000	0.008	0.01	0.011	0.009	0.02	0.015	0.00	0.807	0.104	0.114	0.086	0.188	0.004	0.011	0.006	0.012	24.7	10.0	14.2	15.6	1	1
1003	5.55877	-69.37906	279.85822	-32.09221	-0.162	3933.88	0.166	-0.218	3936.80	0.300	-0.119	3934.65	0.300	-0.115	3937.45	0.139	1.01	0.011	0.01	0.014	0.007	0.02	0.000	0.007	0.03	0.000	0.012	0.02	0.018	0.00	0.085	0.067	0.164	0.090	0.040	0.007	0.005	0.005	0.007	9.4	30.3	16.9	6.1	1	1
1075	5.57693	-69.74914	280.27505	-31.94694	-0.134	3933.76	0.300	-0.200	3936.67	0.300	-0.140	3934.63	0.300	-0.209	3937.21	0.228	1.02	0.011	0.03	0.000	0.021	0.04	0.000	0.011	0.03	0.000	0.018	0.03	0.027	0.00	1.441	0.101	0.150	0.106	0.120	0.008	0.016	0.008	0.017	12.7	9.5	13.3	6.8	1	1
1170	5.59302	-70.11119	280.68393	-31.81508	-0.083	3933.88	0.271	-0.064	3936.39	0.300	-0.058	3934.61	0.121	-0.247	3937.06	0.300	0.98	0.005	0.02	0.023	0.006	0.04	0.000	0.008	0.02	0.020	0.006	0.01	0.000	0.00	0.036	0.056	0.048	0.018	0.186	0.006	0.004	0.004	0.004	9.5	11.6	4.7	44.7	0	1
1054	5.57328	-69.73725	280.26425	-31.96735	-0.133	3933.83	0.176	-0.275	3936.96	0.300	-0.109	3934.65	0.300	0.000	3937.53	0.120	0.99	0.015	0.02	0.024	0.010	0.01	0.000	0.010	0.04	0.000	0.000	0.00	0.000	0.00	1.090	0.058	0.207	0.082	-0.000	0.010	0.007	0.007	0.000	5.8	28.2	11.1	0.0	1	1
1002	5.55836	-69.41067	279.89554	-32.08997	-0.221	3934.28	0.300	-0.169	3936.52	0.300	-0.165	3935.44	0.210	-0.109	3937.47	0.227	0.99	0.008	0.01	0.000	0.008	0.02	0.000	0.010	0.02	0.016	0.010	0.02	0.026	0.00	0.387	0.166	0.127	0.087	0.062	0.006	0.006	0.009	0.009	28.7	22.1	10.2	6.8	1	1
1037	5.56922	-69.72583	280.25436	-31.98983	-0.157	3933.87	0.276	-0.113	3936.58	0.300	-0.120	3934.69	0.243	-0.198	3937.18	0.239	1.00	0.007	0.02	0.020	0.010	0.04	0.000	0.007	0.02	0.024	0.008	0.02	0.016	0.00	0.378	0.109	0.085	0.073	0.119	0.009	0.008	0.008	0.009	11.8	11.3	8.8	12.9	1	1
990	5.55667	-69.43867	279.92972	-32.09490	-0.131	3933.86	0.273	-0.281	3936.70	0.300	-0.159	3934.62	0.300	-0.091	3937.71	0.120	1.02	0.016	0.05	0.054	0.013	0.02	0.000	0.017	0.05	0.000	0.020	0.04	0.000	0.00	1.626	0.090	0.211	0.119	0.027	0.021	0.010	0.013	0.006	4.3	21.1	9.3	4.5	1	1
1013	5.56176	-69.69044	280.21945	-32.03321	-0.129	3933.89	0.300	-0.173	3936.88	0.300	-0.128	3934.61	0.191	0.000	3937.51	0.257	1.01	0.008	0.03	0.000	0.008	0.02	0.000	0.012	0.02	0.023	0.000	0.00	0.000	0.00	0.837	0.097	0.130	0.061	-0.000	0.006	0.006	0.009	0.000	15.3	21.5	6.7	0.0	1	1
967	5.55158	-69.38586	279.87241	-32.12887	-0.120	3933.84	0.149	-0.104	3936.57	0.300	-0.210	3934.59	0.299	-0.166	3937.27	0.230	0.99	0.007	0.01	0.012	0.005	0.02	0.000	0.005	0.01	0.011	0.006	0.01	0.012	0.00	1.086	0.045	0.078	0.157	0.096	0.005	0.004	0.007	0.006	10.0	19.7	22.5	15.8	1	1
939	5.54332	-70.08772	280.69952	-32.06958	-0.088	3933.94	0.300	-0.136	3937.25	0.300	-0.132	3934.73	0.229	0.000	3937.50	0.200	0.99	0.007	0.04	0.000	0.006	0.02	0.000	0.008	0.02	0.019	-0.000	0.00	0.000	0.00	0.719	0.066	0.102	0.076	-0.000	0.005	0.005	0.008	0.000	13.4	22.1	9.7	0.0	1	1
963	5.54949	-69.47041	279.97308	-32.12786	-0.142	3933.85	0.185	-0.076	3936.00	0.300	-0.148	3934.51	0.249	-0.121	3937.13	0.300	1.01	0.006	0.01	0.012	0.004	0.00	0.000	0.005	0.01	0.015	0.004	0.01	0.000	0.00	0.034	0.066	0.057	0.092	0.091	0.005	0.003	0.007	0.003	12.7	18.8	14.1	29.8	1	1

914	5.53471	-70.21178	280.85208	-32.09413	-0.091	3933.85	0.206	-0.284	3937.29	0.300	-0.129	3934.78	0.300	0.000	3937.50	0.200	0.99	0.007	0.02	0.020	0.005	0.01	0.000	0.005	0.02	0.000	-0.000	0.00	0.000	0.00	0.322	0.047	0.214	0.097	-0.000	0.006	0.004	0.004	0.000	8.0	54.2	24.7	0.0	1	1
964	5.54997	-69.26100	279.72781	-32.15475	-0.138	3933.85	0.208	-0.065	3936.28	0.300	-0.163	3934.57	0.300	-0.111	3937.31	0.268	1.01	0.007	0.02	0.016	0.005	0.04	0.000	0.006	0.02	0.000	0.007	0.02	0.020	0.00	0.870	0.072	0.049	0.123	0.075	0.007	0.004	0.004	0.007	10.8	11.9	27.5	10.5	1	1
968	5.55158	-69.31108	279.78497	-32.13932	-0.130	3934.00	0.300	-0.170	3936.63	0.300	-0.126	3935.04	0.300	-0.086	3937.19	0.300	1.00	0.004	0.01	0.000	0.008	0.02	0.000	0.004	0.01	0.000	0.008	0.03	0.000	0.00	0.445	0.098	0.128	0.095	0.065	0.003	0.006	0.003	0.006	31.5	22.2	30.7	11.3	1	1
993	5.55733	-69.32433	279.79547	-32.10731	-0.130	3933.95	0.300	-0.119	3936.60	0.300	-0.135	3934.79	0.300	-0.437	3937.23	0.288	1.00	0.005	0.02	0.000	0.011	0.03	0.000	0.005	0.01	0.000	0.006	0.01	0.007	0.00	0.426	0.098	0.089	0.101	0.315	0.003	0.008	0.003	0.009	28.3	11.0	29.3	34.3	1	1
839	5.52101	-70.15942	280.80371	-32.17105	-0.093	3933.86	0.300	-0.052	3936.27	0.300	-0.076	3934.77	0.300	-0.135	3937.27	0.300	0.99	0.004	0.02	0.000	0.004	0.03	0.000	0.004	0.02	0.000	0.004	0.01	0.000	0.00	0.309	0.070	0.039	0.057	0.102	0.003	0.003	0.003	0.003	20.9	11.9	17.1	31.0	1	1
987	5.55608	-69.24147	279.69965	-32.12530	-0.129	3933.87	0.196	-0.056	3936.46	0.300	-0.144	3934.57	0.300	-0.246	3937.42	0.276	0.99	0.010	0.02	0.020	0.007	0.06	0.000	0.007	0.02	0.000	0.008	0.01	0.012	0.00	0.639	0.063	0.042	0.109	0.170	0.008	0.005	0.006	0.009	7.9	8.1	19.7	18.2	1	1
944	5.54382	-69.23583	279.70377	-32.19064	-0.163	3934.30	0.300	-0.066	3936.24	0.300	-0.134	3935.44	0.220	-0.110	3937.26	0.300	1.00	0.006	0.01	0.000	0.006	0.05	0.000	0.008	0.02	0.018	0.006	0.02	0.000	0.00	0.849	0.122	0.050	0.074	0.083	0.005	0.005	0.008	0.005	26.4	10.3	9.8	17.8	1	1
781	5.51089	-70.12622	280.77457	-32.22719	-0.046	3933.82	0.150	-0.777	3936.71	0.300	-0.094	3934.74	0.198	0.000	3937.50	0.200	0.98	0.017	0.06	0.064	0.010	0.01	0.000	0.015	0.04	0.036	-0.000	0.00	0.000	0.00	2.338	0.017	0.584	0.047	-0.000	0.010	0.008	0.011	0.000	1.8	74.8	4.2	0.0	0	1
903	5.53300	-69.48617	280.00623	-32.21141	-0.110	3933.90	0.300	-0.103	3936.54	0.251	-0.114	3934.60	0.300	-0.095	3937.23	0.285	1.01	0.006	0.02	0.000	0.008	0.04	0.033	0.006	0.02	0.000	0.007	0.05	0.043	0.00	0.362	0.082	0.065	0.086	0.068	0.005	0.010	0.005	0.011	18.1	6.4	19.0	6.1	1	1
949	5.54421	-69.49873	280.01086	-32.15130	-0.109	3933.77	0.300	-0.110	3936.00	0.300	-0.123	3934.62	0.300	-0.209	3937.01	0.300	1.01	0.018	0.07	0.000	0.017	0.00	0.000	0.018	0.06	0.000	0.017	0.03	0.000	0.01	1.163	0.082	0.083	0.093	0.158	0.014	0.013	0.014	0.013	6.0	6.3	6.8	12.2	0	0
935	5.54152	-69.41344	279.91354	-32.17752	-0.100	3933.85	0.200	-0.107	3936.49	0.300	-0.139	3934.55	0.300	-0.113	3937.19	0.230	1.00	0.005	0.01	0.013	0.004	0.02	0.000	0.004	0.01	0.000	0.004	0.01	0.013	0.00	0.349	0.050	0.080	0.105	0.065	0.004	0.003	0.003	0.005	12.7	26.6	38.3	14.3	1	1
943	5.54374	-69.34544	279.83206	-32.17559	-0.112	3934.21	0.300	-0.176	3936.81	0.300	-0.095	3935.34	0.300	0.000	3937.50	0.200	0.99	0.005	0.02	0.000	0.005	0.01	0.000	0.005	0.02	0.000	-0.000	0.00	0.000	0.00	0.697	0.085	0.132	0.071	-0.000	0.004	0.004	0.004	0.000	23.8	37.2	20.0	0.0	1	1
639	5.49138	-70.10772	280.77188	-32.32840	-0.127	3933.90	0.300	-0.098	3936.42	0.120	-0.083	3935.22	0.210	-0.276	3937.15	0.237	1.01	0.007	0.02	0.000	0.011	0.02	0.000	0.010	0.03	0.029	0.009	0.01	0.010	0.00	0.418	0.095	0.029	0.043	0.164	0.005	0.003	0.008	0.009	17.8	9.1	5.5	19.2	1	1
889	5.53053	-69.51175	280.03839	-32.22050	-0.126	3934.10	0.300	-0.141	3936.49	0.300	-0.100	3935.21	0.300	-0.183	3937.27	0.289	1.01	0.006	0.02	0.000	0.007	0.02	0.000	0.006	0.02	0.000	0.007	0.02	0.017	0.00	0.543	0.095	0.106	0.075	0.133	0.004	0.005	0.004	0.009	22.6	19.4	18.0	14.7	1	1
728	5.50410	-69.85484	280.46414	-32.30441	-0.139	3933.93	0.221	-0.170	3936.75	0.300	-0.098	3934.68	0.215	-0.265	3937.42	0.278	1.00	0.006	0.01	0.013	0.008	0.02	0.000	0.006	0.02	0.018	0.005	0.01	0.010	0.00	0.176	0.077	0.128	0.053	0.184	0.006	0.006	0.005	0.008	14.0	21.6	9.8	24.1	1	1
917	5.53520	-69.24297	279.71979	-32.23499	-0.137	3933.96	0.300	-0.061	3936.26	0.215	-0.106	3935.34	0.300	-0.111	3937.29	0.300	1.00	0.005	0.01	0.000	0.006	0.03	0.028	0.005	0.02	0.000	0.005	0.02	0.000	0.00	0.581	0.103	0.033	0.080	0.083	0.004	0.006	0.004	0.004	28.6	5.9	22.1	23.2	1	1

928	5.53903	-69.27603	279.75504	-32.21015	-0.163	3934.01	0.300	-0.133	3937.17	0.256	-0.080	3935.28	0.300	0.000	3937.50	0.200	0.99	0.006	0.01	0.000	0.007	0.02	0.017	0.006	0.03	0.000	-0.000	0.00	0.000	0.00	1.184	0.122	0.086	0.060	-0.000	0.004	0.007	0.004	0.000	27.3	11.7	13.5	0.0	1	1
418	5.46488	-70.07253	280.75745	-32.46773	-0.191	3934.05	0.300	-0.274	3937.18	0.276	-0.056	3935.23	0.300	0.000	3937.50	0.200	1.01	0.006	0.01	0.000	0.008	0.01	0.009	0.006	0.04	0.000	-0.000	0.00	0.000	0.00	0.435	0.144	0.190	0.042	-0.000	0.005	0.008	0.005	0.000	30.0	23.3	8.8	0.0	1	1
965	5.55007	-69.22911	279.69043	-32.15866	-0.164	3933.87	0.244	-0.100	3936.43	0.190	-0.172	3934.53	0.189	-0.183	3937.25	0.209	0.99	0.009	0.02	0.022	0.010	0.02	0.023	0.010	0.02	0.017	0.009	0.01	0.013	0.00	0.673	0.101	0.047	0.081	0.096	0.010	0.007	0.009	0.008	9.6	6.5	9.5	12.5	1	1
602	5.48715	-69.81578	280.43500	-32.39715	-0.208	3934.07	0.199	-0.144	3937.14	0.120	-0.064	3934.62	0.120	-0.019	3937.71	0.120	0.97	0.022	0.03	0.028	0.023	0.03	0.000	0.025	0.07	0.000	0.023	0.21	0.000	0.00	1.014	0.104	0.043	0.019	0.006	0.018	0.007	0.008	0.007	5.7	6.1	2.5	0.8	1	0
624	5.48931	-69.77611	280.38651	-32.39248	-0.128	3933.93	0.194	-0.186	3936.22	0.300	-0.096	3934.50	0.256	-0.144	3937.00	0.300	1.00	0.010	0.02	0.017	0.006	0.01	0.000	0.008	0.00	0.031	0.007	0.00	0.000	0.00	0.912	0.062	0.140	0.061	0.108	0.007	0.005	0.009	0.005	8.5	29.8	6.7	21.5	1	1
925	5.53826	-69.23994	279.71350	-32.21933	-0.128	3933.90	0.159	-0.119	3936.24	0.300	-0.136	3934.54	0.300	-0.098	3937.00	0.292	0.99	0.012	0.02	0.020	0.008	0.03	0.000	0.008	0.03	0.000	0.009	0.00	0.038	0.00	0.841	0.051	0.089	0.102	0.072	0.008	0.006	0.006	0.011	6.5	14.1	16.9	6.3	1	1
650	5.49254	-69.71792	280.31531	-32.38519	-0.113	3933.98	0.293	-0.138	3936.14	0.120	-0.093	3934.52	0.136	-0.152	3937.20	0.300	0.99	0.007	0.04	0.039	0.009	0.01	0.000	0.015	0.02	0.024	0.006	0.02	0.000	0.00	0.837	0.083	0.041	0.032	0.114	0.012	0.003	0.008	0.004	6.8	15.6	4.1	26.0	1	1
921	5.53673	-69.27233	279.75278	-32.22276	-0.149	3934.10	0.300	-0.064	3936.64	0.300	-0.087	3935.38	0.226	-0.129	3937.34	0.300	1.00	0.005	0.01	0.000	0.006	0.04	0.000	0.007	0.02	0.020	0.006	0.02	0.000	0.00	0.345	0.112	0.048	0.049	0.097	0.004	0.005	0.006	0.005	29.2	10.4	8.5	21.0	1	1
826	5.51918	-69.40839	279.92792	-32.29484	-0.114	3933.82	0.300	-0.260	3936.87	0.269	-0.105	3934.53	0.300	0.000	3937.61	0.130	1.00	0.007	0.03	0.000	0.007	0.01	0.009	0.007	0.03	0.000	0.000	0.00	0.000	0.00	0.494	0.086	0.175	0.079	-0.000	0.005	0.007	0.005	0.000	15.9	23.6	14.6	0.0	1	1
358	5.45969	-69.89642	280.55698	-32.52377	-0.211	3934.20	0.300	-0.136	3937.04	0.248	-0.082	3935.43	0.300	0.000	3937.50	0.200	1.00	0.007	0.01	0.000	0.009	0.02	0.018	0.007	0.03	0.000	-0.000	0.00	0.000	0.00	0.472	0.158	0.084	0.062	-0.000	0.005	0.008	0.005	0.000	31.0	10.3	12.1	0.0	1	1
850	5.52254	-69.42136	279.94000	-32.27539	-0.121	3933.86	0.238	-0.124	3936.36	0.207	-0.102	3934.51	0.300	-0.197	3937.00	0.265	1.00	0.008	0.03	0.025	0.009	0.02	0.018	0.009	0.04	0.000	0.008	0.00	0.015	0.00	0.640	0.072	0.064	0.077	0.131	0.009	0.007	0.007	0.009	7.9	8.9	11.8	14.5	1	1
673	5.49582	-69.58472	280.15634	-32.38926	-0.148	3934.01	0.283	-0.107	3936.12	0.300	-0.207	3934.52	0.182	-0.067	3937.00	0.300	0.99	0.008	0.05	0.036	0.005	0.02	0.000	0.023	0.02	0.014	0.005	0.00	0.000	0.00	0.259	0.105	0.081	0.094	0.051	0.015	0.004	0.013	0.004	7.2	22.3	7.5	13.6	1	0
499	5.47391	-69.73344	280.35193	-32.47826	-0.128	3933.86	0.300	-0.198	3936.75	0.290	-0.258	3934.50	0.220	0.000	3937.51	0.120	0.99	0.006	0.02	0.000	0.007	0.01	0.012	0.008	0.00	0.009	0.000	0.00	0.000	0.00	0.511	0.097	0.144	0.142	-0.000	0.005	0.007	0.007	0.000	20.8	19.2	19.7	0.0	1	1
321	5.45393	-69.82558	280.48010	-32.56507	-0.140	3933.89	0.253	-0.034	3936.00	0.300	-0.193	3934.50	0.218	-0.094	3937.00	0.300	0.98	0.007	0.02	0.016	0.005	0.00	0.000	0.008	0.00	0.011	0.005	0.00	0.000	0.00	0.356	0.089	0.025	0.106	0.071	0.007	0.004	0.007	0.004	12.8	6.6	15.8	18.6	1	0
795	5.51398	-69.42744	279.95508	-32.31911	-0.127	3933.92	0.241	-0.168	3936.81	0.300	-0.081	3934.50	0.236	0.000	3937.50	0.200	0.99	0.007	0.02	0.015	0.005	0.01	0.000	0.007	0.00	0.025	-0.000	0.00	0.000	0.00	0.297	0.077	0.126	0.048	-0.000	0.006	0.004	0.007	0.000	12.1	36.0	7.3	0.0	1	1
160	5.42851	-69.93281	280.63248	-32.67567	-0.279	3934.34	0.300	-0.212	3937.10	0.300	0.000	3935.00	0.200	-0.032	3937.67	0.120	0.98	0.009	0.01	0.000	0.010	0.02	0.000	-0.000	0.00	0.000	0.016	0.08	0.000	0.00	0.631	0.210	0.159	-0.000	0.010	0.007	0.007	0.000	0.005	29.7	22.0	0.0	2.0	1	1

220	5.44139	-69.83867	280.50861	-32.62672	-0.134	3933.83	0.300	-0.199	3936.24	0.300	-0.144	3934.69	0.300	-0.216	3937.07	0.300	0.78	0.013	0.04	0.000	0.013	0.03	0.000	0.013	0.04	0.000	0.013	0.03	0.000	0.00	0.295	0.101	0.150	0.108	0.163	0.010	0.010	0.010	0.010	10.1	14.8	10.8	16.1	0	0
782	5.51127	-69.42533	279.95514	-32.33355	-0.151	3933.99	0.300	-0.226	3936.83	0.300	-0.059	3935.33	0.300	0.000	3937.55	0.120	1.00	0.006	0.02	0.000	0.006	0.01	0.000	0.006	0.04	0.000	0.000	0.00	0.000	0.00	0.516	0.114	0.170	0.045	-0.000	0.004	0.004	0.004	0.000	25.8	38.5	10.1	0.0	1	1
397	5.46301	-69.67223	280.29138	-32.54427	-0.140	3933.93	0.160	-0.070	3936.83	0.224	-0.181	3934.50	0.226	-0.058	3937.37	0.151	0.99	0.010	0.01	0.014	0.008	0.05	0.050	0.008	0.00	0.015	0.011	0.05	0.042	0.00	0.353	0.056	0.039	0.103	0.022	0.006	0.010	0.008	0.007	9.0	4.0	12.4	3.0	1	0
147	5.42537	-69.81509	280.49820	-32.71244	-0.165	3934.00	0.300	-0.078	3936.53	0.120	-0.101	3935.37	0.127	-0.083	3937.15	0.235	0.98	0.006	0.01	0.000	0.009	0.02	0.000	0.010	0.01	0.014	0.007	0.02	0.027	0.00	0.169	0.124	0.024	0.032	0.049	0.004	0.003	0.005	0.007	29.6	8.7	6.8	6.9	1	0
735	5.50470	-69.43591	279.97372	-32.36617	-0.127	3933.90	0.286	-0.204	3936.80	0.235	-0.081	3934.50	0.300	-0.039	3937.69	0.173	1.00	0.007	0.02	0.024	0.008	0.01	0.011	0.009	0.00	0.000	0.009	0.05	0.050	0.00	0.620	0.091	0.120	0.061	0.017	0.009	0.007	0.007	0.006	9.9	16.3	8.5	2.7	1	1
851	5.52261	-69.34292	279.84818	-32.28659	-0.162	3934.18	0.300	-0.506	3937.23	0.282	-0.092	3935.50	0.300	0.000	3937.50	0.200	1.00	0.005	0.01	0.000	0.006	0.00	0.004	0.005	0.02	0.000	-0.000	0.00	0.000	0.00	0.615	0.122	0.358	0.069	-0.000	0.004	0.006	0.004	0.000	32.8	56.3	18.6	0.0	1	1
627	5.48968	-69.48164	280.04172	-32.43720	-0.157	3934.12	0.300	-0.132	3936.87	0.300	-0.087	3935.50	0.300	0.000	3937.56	0.120	1.01	0.005	0.01	0.000	0.005	0.02	0.000	0.005	0.00	0.000	0.000	0.00	0.000	0.00	0.290	0.118	0.099	0.066	-0.000	0.004	0.004	0.004	0.000	30.9	26.0	17.3	0.0	1	1
854	5.52329	-69.32222	279.82333	-32.28606	-0.192	3933.97	0.300	-0.063	3936.26	0.300	-0.097	3935.21	0.300	-0.046	3937.20	0.297	1.02	0.007	0.01	0.000	0.007	0.05	0.000	0.007	0.03	0.000	0.008	0.07	0.071	0.00	0.885	0.144	0.047	0.073	0.034	0.005	0.005	0.005	0.010	27.9	8.7	14.1	3.4	1	0
169	5.43250	-69.68650	280.34006	-32.69849	-0.283	3934.12	0.300	-0.401	3936.74	0.300	-0.197	3935.50	0.300	-0.307	3937.46	0.177	1.01	0.021	0.03	0.000	0.022	0.03	0.000	0.021	0.00	0.000	0.032	0.02	0.024	0.01	0.921	0.213	0.301	0.148	0.136	0.016	0.017	0.016	0.023	13.2	18.2	9.2	5.9	0	0
654	5.49280	-69.44048	279.99051	-32.42741	-0.157	3934.10	0.300	-0.041	3937.22	0.152	-0.085	3935.50	0.300	0.000	3937.50	0.200	1.01	0.008	0.02	0.000	0.013	0.05	0.055	0.008	0.00	0.000	-0.000	0.00	0.000	0.00	0.619	0.118	0.016	0.064	-0.000	0.006	0.007	0.006	0.000	19.8	2.1	10.7	0.0	1	0
328	5.45508	-69.57298	280.18341	-32.60159	-0.159	3933.96	0.250	-0.209	3936.55	0.291	-0.160	3934.51	0.256	-0.100	3937.42	0.150	0.99	0.017	0.05	0.029	0.005	0.01	0.009	0.016	0.05	0.030	0.007	0.01	0.013	0.00	0.129	0.100	0.152	0.102	0.038	0.016	0.006	0.016	0.004	6.3	25.0	6.4	9.0	1	1
679	5.49750	-69.40881	279.94891	-32.40783	-0.141	3933.93	0.228	-0.036	3936.00	0.300	-0.146	3934.50	0.182	-0.318	3937.14	0.288	0.99	0.005	0.01	0.010	0.004	0.00	0.000	0.006	0.00	0.009	0.004	0.00	0.004	0.00	0.116	0.080	0.027	0.067	0.230	0.005	0.003	0.004	0.005	17.7	10.0	15.9	49.4	1	1
123	5.41916	-69.67311	280.33884	-32.76925	-0.156	3933.90	0.244	-0.103	3936.29	0.300	-0.059	3935.23	0.120	-0.126	3937.29	0.300	1.01	0.008	0.01	0.015	0.006	0.02	0.000	0.009	0.03	0.000	0.006	0.02	0.000	0.00	0.274	0.096	0.078	0.018	0.095	0.007	0.005	0.003	0.005	12.8	16.4	6.3	20.0	1	1
866	5.52599	-69.30167	279.79681	-32.27491	-0.158	3934.04	0.300	-0.068	3936.29	0.300	-0.096	3935.43	0.300	-0.095	3937.32	0.300	1.00	0.006	0.02	0.000	0.006	0.04	0.000	0.006	0.03	0.000	0.006	0.03	0.000	0.00	0.306	0.119	0.051	0.072	0.071	0.005	0.005	0.005	0.005	25.4	10.5	14.8	15.2	1	0
270	5.44786	-69.55464	280.16943	-32.64194	-0.117	3933.50	0.219	-0.117	3936.90	0.300	-0.144	3934.50	0.215	0.000	3937.60	0.120	1.01	0.018	0.04	0.039	0.013	0.04	0.000	0.018	0.00	0.032	0.000	0.00	0.000	0.00	0.610	0.064	0.088	0.078	-0.000	0.015	0.010	0.015	0.000	4.3	8.9	5.2	0.0	0	0
563	5.48209	-69.43514	279.99475	-32.48397	-0.154	3933.99	0.252	-0.084	3936.80	0.300	-0.125	3934.50	0.248	0.000	3937.59	0.164	0.99	0.009	0.02	0.019	0.006	0.03	0.000	0.011	0.00	0.022	0.000	0.00	0.000	0.00	0.008	0.097	0.063	0.078	-0.000	0.009	0.004	0.010	0.000	10.3	14.4	8.0	0.0	1	0

344	5.45832	-69.50069	280.09543	-32.59680	-0.166	3934.08	0.300	-0.096	3936.57	0.220	-0.055	3935.31	0.229	-0.093	3937.20	0.300	1.00	0.005	0.01	0.000	0.007	0.03	0.025	0.007	0.03	0.033	0.007	0.04	0.000	0.00	0.274	0.125	0.053	0.032	0.070	0.004	0.007	0.006	0.005	32.0	7.4	5.3	13.4	1	1
848	5.52223	-69.30231	279.80099	-32.29454	-0.203	3934.07	0.300	-0.067	3936.32	0.150	-0.107	3935.42	0.300	-0.049	3937.16	0.300	1.02	0.006	0.01	0.000	0.010	0.03	0.028	0.006	0.02	0.000	0.006	0.05	0.000	0.00	0.017	0.153	0.025	0.080	0.037	0.005	0.006	0.005	0.005	31.6	4.2	16.6	7.6	1	0
49	5.39322	-69.64603	280.33603	-32.90716	-0.103	3933.99	0.300	-0.148	3936.95	0.300	-0.077	3935.50	0.300	-0.177	3937.72	0.300	0.99	0.005	0.02	0.000	0.006	0.02	0.000	0.005	0.00	0.000	0.006	0.01	0.000	0.00	0.214	0.077	0.111	0.058	0.133	0.004	0.004	0.004	0.004	20.3	26.5	15.1	31.6	1	1
106	5.41198	-69.58222	280.24030	-32.82223	-0.102	3933.80	0.298	-0.275	3936.81	0.292	-0.057	3934.97	0.120	-0.081	3937.53	0.120	0.96	0.010	0.03	0.034	0.010	0.01	0.014	0.013	0.04	0.000	0.014	0.03	0.000	0.00	0.067	0.076	0.201	0.017	0.024	0.011	0.012	0.004	0.004	6.7	16.7	4.4	5.9	1	1
830	5.52005	-69.29578	279.79535	-32.30693	-0.177	3934.11	0.300	-0.107	3936.39	0.208	-0.143	3935.36	0.281	-0.143	3937.23	0.257	1.00	0.005	0.01	0.000	0.007	0.02	0.020	0.006	0.01	0.015	0.007	0.01	0.016	0.00	0.036	0.133	0.056	0.101	0.092	0.004	0.006	0.007	0.007	33.9	8.7	14.5	12.9	1	1
58	5.39681	-69.58369	280.25897	-32.90006	-0.134	3933.87	0.281	-0.074	3936.00	0.300	-0.070	3934.81	0.300	-0.162	3937.14	0.300	1.01	0.005	0.01	0.014	0.004	0.00	0.000	0.004	0.03	0.000	0.004	0.01	0.000	0.00	0.271	0.095	0.055	0.053	0.122	0.006	0.003	0.003	0.003	16.4	17.7	16.5	38.8	1	1
44	5.39209	-69.57997	280.25995	-32.92503	-0.100	3933.82	0.246	-0.127	3936.71	0.300	-0.068	3934.59	0.300	-0.219	3937.29	0.300	1.00	0.012	0.04	0.042	0.016	0.05	0.000	0.010	0.07	0.000	0.016	0.03	0.000	0.00	1.008	0.062	0.096	0.051	0.164	0.013	0.012	0.008	0.012	4.9	8.1	6.6	13.9	0	1
247	5.44542	-69.45400	280.05417	-32.67146	-0.116	3933.94	0.300	-0.144	3936.56	0.262	-0.025	3935.32	0.300	-0.063	3937.21	0.194	1.00	0.005	0.02	0.000	0.006	0.02	0.022	0.005	0.08	0.000	0.008	0.04	0.037	0.00	0.271	0.088	0.094	0.019	0.031	0.004	0.009	0.004	0.007	23.6	10.6	5.1	4.4	1	1
47	5.39311	-69.54858	280.22202	-32.92549	-0.115	3933.86	0.209	-0.205	3937.02	0.300	-0.062	3934.63	0.300	0.000	3937.50	0.200	0.98	0.008	0.02	0.019	0.006	0.01	0.000	0.006	0.05	0.000	-0.000	0.00	0.000	0.00	0.630	0.060	0.154	0.046	-0.000	0.007	0.004	0.005	0.000	8.6	34.9	10.1	0.0	1	1
806	5.51601	-69.29125	279.79382	-32.32880	-0.175	3934.22	0.300	-0.116	3937.00	0.300	-0.153	3935.44	0.238	-0.055	3937.73	0.169	0.99	0.006	0.01	0.000	0.006	0.02	0.000	0.007	0.01	0.013	0.008	0.03	0.032	0.00	1.286	0.131	0.087	0.091	0.023	0.004	0.004	0.007	0.006	31.5	20.7	14.0	4.1	1	1
540	5.47921	-69.35486	279.90359	-32.51168	-0.183	3934.00	0.290	-0.182	3936.49	0.300	-0.096	3935.30	0.220	0.000	3937.64	0.120	1.00	0.005	0.01	0.009	0.004	0.01	0.000	0.005	0.01	0.015	0.000	0.00	0.000	0.00	0.447	0.133	0.137	0.053	-0.000	0.005	0.003	0.005	0.000	24.9	44.7	11.5	0.0	1	1
57	5.39641	-69.49895	280.16016	-32.91744	-0.138	3933.93	0.300	-0.078	3936.60	0.206	-0.048	3935.18	0.300	-0.074	3937.15	0.236	1.00	0.005	0.01	0.000	0.011	0.06	0.040	0.005	0.04	0.000	0.008	0.07	0.051	0.00	0.628	0.104	0.040	0.036	0.044	0.004	0.010	0.004	0.011	29.5	4.2	10.3	4.1	1	1
138	5.42358	-69.43997	280.06100	-32.78717	-0.135	3933.89	0.300	-0.087	3936.00	0.300	-0.100	3935.50	0.196	-0.086	3937.17	0.300	1.00	0.007	0.02	0.000	0.007	0.00	0.000	0.009	0.00	0.023	0.007	0.03	0.000	0.00	0.310	0.102	0.065	0.049	0.065	0.005	0.006	0.007	0.005	20.7	11.8	6.7	13.2	1	1
113	5.41517	-69.44283	280.07352	-32.83030	-0.151	3933.88	0.300	-0.156	3936.58	0.300	-0.066	3935.28	0.300	-0.053	3937.22	0.120	0.99	0.006	0.02	0.000	0.006	0.02	0.000	0.006	0.04	0.000	0.010	0.03	0.000	0.00	0.392	0.114	0.117	0.049	0.016	0.005	0.005	0.005	0.003	23.9	24.4	10.4	5.3	1	1
741	5.50584	-69.29078	279.80280	-32.38221	-0.236	3934.26	0.300	-0.068	3936.71	0.300	-0.140	3935.50	0.300	0.000	3937.50	0.200	1.00	0.006	0.01	0.000	0.006	0.03	0.000	0.006	0.00	0.000	-0.000	0.00	0.000	0.00	0.814	0.177	0.052	0.105	-0.000	0.004	0.004	0.004	0.000	41.9	12.2	24.9	0.0	1	0
459	5.46796	-69.34392	279.90204	-32.57217	-0.190	3933.95	0.239	-0.108	3936.67	0.300	-0.116	3935.50	0.300	0.000	3937.59	0.120	1.01	0.005	0.01	0.008	0.004	0.01	0.000	0.004	0.00	0.000	0.000	0.00	0.000	0.00	0.379	0.114	0.081	0.088	-0.000	0.005	0.003	0.003	0.000	23.6	26.7	28.7	0.0	1	1

845	5.52184	-69.25961	279.75140	-32.30284	-0.228	3934.10	0.300	-0.046	3936.87	0.280	-0.144	3935.42	0.246	-0.064	3937.38	0.162	1.00	0.007	0.01	0.000	0.009	0.15	0.127	0.008	0.02	0.017	0.022	0.06	0.049	0.00	0.765	0.172	0.033	0.089	0.026	0.005	0.016	0.008	0.012	34.9	2.0	11.3	2.2	1	0
601	5.48712	-69.29900	279.83041	-32.47906	-0.214	3934.09	0.300	-0.191	3936.75	0.300	-0.077	3935.45	0.300	-0.028	3937.46	0.120	1.01	0.006	0.01	0.000	0.006	0.01	0.000	0.006	0.03	0.000	0.009	0.05	0.000	0.00	0.049	0.161	0.144	0.058	0.008	0.004	0.004	0.004	0.003	37.5	33.4	13.4	3.2	1	1
5	5.36688	-69.41483	280.09558	-33.08568	-0.140	3933.83	0.242	-0.193	3936.65	0.300	-0.087	3935.29	0.292	-0.078	3937.22	0.139	1.01	0.007	0.01	0.015	0.006	0.02	0.000	0.007	0.03	0.027	0.010	0.02	0.023	0.00	0.330	0.085	0.145	0.064	0.027	0.007	0.005	0.008	0.006	12.1	30.3	8.3	4.7	1	1
262	5.44669	-69.32514	279.90189	-32.68632	-0.142	3933.71	0.141	-0.102	3936.50	0.297	-1.810	3934.64	0.289	-0.031	3937.05	0.120	1.01	0.224	0.26	0.266	0.161	0.67	0.750	0.160	0.03	0.031	0.317	1.22	-0.000	0.04	381.563	0.050	0.076	1.310	0.009	0.123	0.226	0.182	0.095	0.4	0.3	7.2	0.1	0	0
784	5.51156	-69.25450	279.75494	-32.35761	-0.253	3934.17	0.300	-0.066	3936.68	0.300	-0.160	3935.42	0.219	0.000	3937.52	0.126	0.99	0.006	0.01	0.000	0.006	0.04	0.000	0.008	0.01	0.013	0.000	0.00	0.000	0.00	0.721	0.190	0.049	0.088	-0.000	0.005	0.005	0.007	0.000	40.8	10.6	12.5	0.0	1	0
218	5.44122	-69.31328	279.89371	-32.71687	-0.150	3933.95	0.300	-0.105	3936.45	0.297	-0.118	3935.39	0.300	-0.011	3937.86	0.170	1.01	0.004	0.01	0.000	0.005	0.02	0.018	0.004	0.02	0.000	0.007	0.11	0.116	0.00	0.088	0.113	0.078	0.088	0.005	0.003	0.006	0.003	0.004	34.2	12.9	26.8	1.1	1	0
551	5.48081	-69.26472	279.79645	-32.51748	-0.155	3934.06	0.300	-0.218	3936.70	0.300	-0.082	3935.36	0.300	0.000	3937.50	0.200	1.00	0.005	0.01	0.000	0.005	0.01	0.000	0.005	0.02	0.000	-0.000	0.00	0.000	0.00	0.267	0.117	0.164	0.062	-0.000	0.004	0.004	0.004	0.000	32.2	45.4	17.1	0.0	1	1
714	5.50227	-69.24442	279.75192	-32.40794	-0.192	3934.34	0.300	-0.032	3936.54	0.300	-0.223	3935.38	0.180	-0.123	3937.04	0.253	1.00	0.007	0.01	0.000	0.026	0.26	0.000	0.011	0.01	0.010	0.019	0.06	0.042	0.00	0.582	0.145	0.024	0.101	0.078	0.005	0.019	0.007	0.018	26.7	1.3	13.7	4.4	1	1
133	5.42219	-69.27544	279.86966	-32.82274	-0.121	3933.98	0.293	-0.073	3936.85	0.300	-0.030	3935.50	0.248	0.000	3937.50	0.200	1.01	0.005	0.01	0.014	0.004	0.02	0.000	0.005	0.00	0.052	-0.000	0.00	0.000	0.00	0.063	0.089	0.055	0.019	-0.000	0.006	0.003	0.005	0.000	15.7	16.9	3.6	0.0	1	0
179	5.43465	-69.26053	279.83884	-32.76007	-0.168	3933.86	0.232	-0.129	3936.52	0.243	-0.075	3934.73	0.300	-0.025	3937.48	0.144	1.00	0.008	0.01	0.014	0.007	0.02	0.017	0.006	0.04	0.000	0.010	0.06	0.065	0.00	0.478	0.098	0.078	0.056	0.009	0.007	0.007	0.004	0.005	13.5	11.2	12.5	1.7	1	1
785	5.51162	-69.23122	279.72763	-32.36076	-0.269	3934.22	0.300	-0.209	3936.93	0.228	-0.176	3935.39	0.235	0.000	3937.52	0.145	1.00	0.007	0.01	0.000	0.009	0.01	0.012	0.009	0.01	0.014	0.000	0.00	0.000	0.00	0.840	0.202	0.119	0.103	-0.000	0.005	0.008	0.008	0.000	39.0	15.0	12.7	0.0	1	1
453	5.46758	-69.23650	279.77661	-32.59137	-0.156	3934.03	0.300	-0.165	3936.60	0.300	-0.079	3935.40	0.300	-0.026	3937.49	0.300	1.00	0.007	0.02	0.000	0.007	0.02	0.000	0.007	0.03	0.000	0.007	0.11	0.000	0.00	0.685	0.118	0.124	0.059	0.019	0.005	0.005	0.005	0.005	23.5	24.3	11.8	3.8	1	1
15	5.37648	-69.23278	279.87085	-33.06933	-0.137	3933.85	0.252	-0.164	3937.03	0.300	-0.060	3935.50	0.300	0.000	3937.50	0.200	1.00	0.007	0.01	0.015	0.006	0.01	0.000	0.006	0.00	0.000	-0.000	0.00	0.000	0.00	0.681	0.087	0.123	0.045	-0.000	0.007	0.004	0.004	0.000	12.4	28.5	10.5	0.0	1	1
811	5.51639	-69.18478	279.66882	-32.34249	-0.246	3934.14	0.300	-0.274	3937.00	0.300	-0.132	3935.31	0.300	0.000	3937.50	0.200	1.00	0.006	0.01	0.000	0.006	0.01	0.000	0.006	0.02	0.000	-0.000	0.00	0.000	0.00	0.948	0.185	0.206	0.099	-0.000	0.005	0.005	0.005	0.000	40.3	44.8	21.6	0.0	1	1
428	5.46581	-69.21478	279.75293	-32.60413	-0.173	3933.89	0.227	-0.117	3936.36	0.291	-0.104	3935.31	0.300	-0.107	3937.00	0.300	1.00	0.006	0.01	0.010	0.006	0.02	0.022	0.005	0.02	0.000	0.007	0.00	0.000	0.00	0.399	0.098	0.085	0.079	0.081	0.006	0.008	0.004	0.005	17.8	11.2	21.4	15.3	1	1
841	5.52136	-69.21523	279.69989	-32.31185	-0.199	3934.29	0.300	-0.070	3936.46	0.120	-0.114	3935.33	0.160	-0.324	3937.19	0.282	0.99	0.006	0.01	0.000	0.010	0.02	0.000	0.010	0.02	0.016	0.007	0.01	0.008	0.00	0.417	0.150	0.021	0.046	0.230	0.005	0.003	0.006	0.008	32.2	7.1	7.7	27.1	1	1

338	5.45742	-69.19133	279.73398	-32.65200	-0.160	3933.91	0.300	-0.221	3936.80	0.300	-0.108	3935.44	0.300	-0.026	3937.71	0.120	1.00	0.006	0.01	0.000	0.006	0.01	0.000	0.006	0.02	0.000	0.009	0.06	0.000	0.00	0.589	0.121	0.167	0.081	0.008	0.004	0.004	0.004	0.003	28.1	38.8	18.8	3.0	1	1
535	5.47836	-69.18733	279.70822	-32.54247	-0.158	3933.93	0.300	-0.082	3936.57	0.300	-0.121	3935.40	0.237	-0.025	3938.00	0.120	1.00	0.005	0.01	0.000	0.005	0.02	0.000	0.006	0.01	0.015	0.008	0.00	0.000	0.00	0.261	0.118	0.061	0.072	0.008	0.004	0.004	0.006	0.002	31.1	16.2	12.1	3.3	1	0
868	5.52607	-69.20397	279.68240	-32.28867	-0.161	3933.88	0.241	-0.051	3936.00	0.300	-0.221	3934.50	0.236	-0.310	3937.14	0.300	1.00	0.008	0.01	0.014	0.006	0.00	0.000	0.008	0.00	0.011	0.006	0.01	0.000	0.00	0.362	0.097	0.038	0.130	0.233	0.007	0.004	0.008	0.004	13.5	9.2	17.2	56.1	1	1
626	5.48966	-69.17050	279.67746	-32.48555	-0.191	3934.02	0.300	-0.258	3936.88	0.274	-0.117	3935.33	0.300	0.000	3937.50	0.200	1.01	0.006	0.01	0.000	0.007	0.01	0.009	0.006	0.02	0.000	-0.000	0.00	0.000	0.00	1.169	0.144	0.177	0.088	-0.000	0.005	0.008	0.005	0.000	30.4	22.3	18.6	0.0	1	1
368	5.46072	-69.13908	279.66937	-32.64304	-0.148	3933.91	0.300	-0.331	3936.69	0.283	-0.071	3935.24	0.300	0.000	3937.97	0.120	1.01	0.005	0.01	0.000	0.006	0.01	0.006	0.005	0.03	0.000	0.000	0.00	0.000	0.00	0.454	0.112	0.235	0.053	-0.000	0.004	0.007	0.004	0.000	28.9	35.4	13.8	0.0	1	1
757	5.50788	-69.17778	279.66858	-32.38840	-0.166	3933.98	0.300	-0.280	3937.01	0.300	-0.117	3935.24	0.300	0.000	3937.57	0.120	1.00	0.006	0.01	0.000	0.006	0.01	0.000	0.006	0.02	0.000	0.000	0.00	0.000	0.00	0.514	0.125	0.210	0.088	-0.000	0.004	0.004	0.004	0.000	29.7	49.9	20.9	0.0	1	1
12	5.37613	-69.02472	279.62704	-33.10891	-0.178	3933.83	0.202	-0.079	3936.51	0.300	-0.031	3935.20	0.300	-0.130	3937.24	0.281	1.00	0.005	0.01	0.007	0.006	0.03	0.000	0.004	0.05	0.000	0.005	0.02	0.017	0.00	0.188	0.090	0.060	0.023	0.091	0.004	0.004	0.003	0.007	21.0	13.9	7.7	13.9	1	1
486	5.47196	-69.13069	279.64822	-32.58508	-0.140	3933.91	0.174	-0.188	3936.85	0.300	-0.039	3934.50	0.300	-0.040	3937.53	0.120	1.00	0.008	0.01	0.012	0.005	0.01	0.000	0.006	0.00	0.000	0.008	0.03	0.000	0.00	0.354	0.061	0.142	0.030	0.012	0.005	0.004	0.004	0.002	11.5	36.4	7.0	4.9	1	1
661	5.49404	-69.15036	279.64963	-32.46553	-0.221	3934.03	0.300	-0.194	3936.94	0.272	-0.108	3935.18	0.300	-0.063	3937.61	0.168	1.00	0.007	0.01	0.000	0.009	0.02	0.021	0.007	0.03	0.000	0.012	0.05	0.044	0.00	0.401	0.166	0.132	0.081	0.027	0.006	0.012	0.006	0.009	30.1	11.0	14.8	3.1	1	1
378	5.46126	-69.09972	279.62268	-32.64649	-0.132	3933.92	0.300	-0.315	3936.82	0.261	-0.083	3935.36	0.300	-0.017	3937.60	0.120	1.00	0.006	0.02	0.000	0.007	0.01	0.007	0.006	0.03	0.000	0.009	0.09	0.000	0.00	0.389	0.099	0.206	0.062	0.005	0.004	0.007	0.004	0.003	23.3	28.9	14.6	2.0	1	1
823	5.51908	-69.17167	279.65100	-32.33022	-0.148	3933.90	0.242	-0.263	3937.11	0.291	-0.138	3934.50	0.300	0.000	3937.50	0.200	0.99	0.007	0.01	0.014	0.006	0.01	0.008	0.007	0.00	0.000	-0.000	0.00	0.000	0.00	0.700	0.090	0.192	0.104	-0.000	0.007	0.007	0.005	0.000	13.4	27.9	20.6	0.0	1	1
280	5.44863	-69.06472	279.59457	-32.71888	-0.151	3933.92	0.246	-0.254	3936.76	0.300	-0.106	3935.50	0.216	-0.079	3937.69	0.300	1.00	0.005	0.01	0.009	0.004	0.01	0.000	0.005	0.00	0.012	0.004	0.02	0.000	0.00	0.160	0.093	0.191	0.057	0.059	0.005	0.003	0.004	0.003	20.3	64.6	13.4	20.1	1	1
159	5.42813	-69.02064	279.56442	-32.83463	-0.173	3933.89	0.184	-0.085	3936.77	0.300	-0.058	3934.61	0.300	0.000	3937.59	0.120	0.99	0.007	0.01	0.010	0.005	0.02	0.000	0.005	0.04	0.000	0.000	0.00	0.000	0.00	0.055	0.080	0.064	0.043	-0.000	0.005	0.004	0.004	0.000	15.0	17.6	11.6	0.0	1	1
751	5.50692	-69.14655	279.63290	-32.39811	-0.157	3933.92	0.300	-0.172	3937.04	0.272	-0.070	3935.23	0.300	0.000	3937.57	0.120	1.00	0.006	0.01	0.000	0.007	0.01	0.013	0.006	0.03	0.000	0.000	0.00	0.000	0.00	0.977	0.118	0.117	0.053	-0.000	0.004	0.007	0.004	0.000	28.0	16.5	12.5	0.0	1	1
276	5.44824	-69.03472	279.55978	-32.72581	-0.139	3933.93	0.300	-0.176	3936.70	0.300	-0.123	3935.43	0.300	-0.047	3937.69	0.120	1.00	0.005	0.01	0.000	0.005	0.01	0.000	0.005	0.01	0.000	0.007	0.02	0.000	0.00	0.305	0.104	0.132	0.093	0.014	0.004	0.004	0.004	0.002	29.8	37.7	26.4	6.7	1	1
571	5.48334	-69.09453	279.59457	-32.53060	-0.146	3934.09	0.300	-0.218	3936.99	0.300	-0.097	3935.35	0.300	0.000	3937.50	0.200	0.99	0.007	0.02	0.000	0.007	0.01	0.000	0.007	0.03	0.000	-0.000	0.00	0.000	0.00	1.338	0.110	0.164	0.073	-0.000	0.006	0.006	0.006	0.000	19.9	29.7	13.2	0.0	1	1

822	5.51900	-69.15647	279.63327	-32.33287	-0.214	3934.24	0.300	-0.313	3937.11	0.262	-0.104	3935.37	0.235	0.000	3937.50	0.200	1.00	0.005	0.01	0.000	0.007	0.01	0.007	0.007	0.02	0.019	-0.000	0.00	0.000	0.00	1.830	0.161	0.206	0.061	-0.000	0.004	0.007	0.006	0.000	39.6	30.6	9.6	0.0	1	1
706	5.50117	-69.11297	279.59900	-32.43351	-0.129	3933.98	0.300	-0.096	3936.40	0.300	-0.057	3935.00	0.300	-0.140	3937.12	0.300	1.00	0.004	0.01	0.000	0.005	0.02	0.000	0.004	0.03	0.000	0.005	0.01	0.000	0.00	0.214	0.097	0.073	0.043	0.105	0.003	0.003	0.003	0.003	32.4	20.7	14.4	30.2	1	1
390	5.46225	-69.01903	279.52707	-32.65409	-0.135	3934.02	0.300	-0.281	3936.85	0.276	-0.104	3935.31	0.300	-0.026	3937.67	0.120	1.01	0.005	0.01	0.000	0.006	0.01	0.007	0.005	0.02	0.000	0.008	0.05	0.000	0.00	0.593	0.102	0.194	0.078	0.008	0.004	0.007	0.004	0.002	26.1	28.9	20.1	3.4	1	1
677	5.49668	-69.09353	279.58051	-32.46018	-0.158	3933.99	0.300	-0.113	3936.97	0.300	-0.098	3935.42	0.300	-0.006	3938.00	0.232	1.00	0.004	0.01	0.000	0.004	0.01	0.000	0.004	0.01	0.000	0.005	0.00	0.241	0.00	0.376	0.119	0.085	0.074	0.003	0.003	0.003	0.003	0.004	42.4	30.6	26.3	0.7	1	1
404	5.46369	-68.99675	279.49948	-32.64997	-0.176	3934.07	0.300	-0.246	3936.86	0.298	-0.110	3935.41	0.300	0.000	3937.62	0.120	1.01	0.005	0.01	0.000	0.006	0.01	0.008	0.005	0.02	0.000	0.000	0.00	0.000	0.00	0.658	0.132	0.184	0.083	-0.000	0.004	0.007	0.004	0.000	35.5	28.0	22.2	0.0	1	1
252	5.44602	-68.94078	279.45190	-32.75282	-0.161	3933.95	0.300	-0.243	3936.81	0.300	-0.075	3935.40	0.300	0.000	3937.63	0.120	1.01	0.004	0.01	0.000	0.004	0.01	0.000	0.004	0.02	0.000	0.000	0.00	0.000	0.00	0.496	0.121	0.183	0.056	-0.000	0.003	0.003	0.003	0.000	42.6	64.2	19.8	0.0	1	1
653	5.49278	-69.06228	279.54764	-32.48555	-0.157	3933.95	0.300	-0.166	3936.45	0.262	-0.092	3935.32	0.300	-0.137	3937.03	0.300	1.02	0.006	0.01	0.000	0.010	0.03	0.025	0.006	0.03	0.000	0.015	0.04	0.000	0.00	0.020	0.118	0.109	0.069	0.103	0.005	0.012	0.004	0.011	26.1	8.8	15.3	9.0	1	1
901	5.53284	-69.16769	279.63379	-32.25817	-0.093	3933.83	0.207	-0.054	3936.61	0.300	-0.176	3934.50	0.294	-0.126	3937.34	0.221	1.00	0.006	0.02	0.015	0.004	0.04	0.000	0.005	0.00	0.012	0.005	0.01	0.013	0.00	0.281	0.049	0.041	0.129	0.070	0.005	0.003	0.006	0.005	10.4	12.4	20.9	13.8	1	1
379	5.46126	-68.95397	279.45175	-32.66965	-0.156	3933.97	0.300	-0.360	3936.74	0.253	-0.159	3935.50	0.300	-0.071	3937.28	0.161	1.00	0.006	0.01	0.000	0.007	0.01	0.011	0.006	0.01	0.000	0.013	0.04	0.036	0.00	0.422	0.117	0.228	0.120	0.029	0.004	0.011	0.004	0.008	27.1	20.1	27.8	3.5	1	1
558	5.48168	-69.00406	279.49017	-32.55331	-0.185	3934.07	0.300	-0.330	3936.93	0.300	-0.109	3935.33	0.300	0.000	3937.51	0.126	1.01	0.005	0.01	0.000	0.006	0.01	0.006	0.005	0.02	0.000	0.000	0.00	0.000	0.00	0.819	0.139	0.248	0.082	-0.000	0.004	0.007	0.004	0.000	36.3	36.6	21.4	0.0	1	1
441	5.46660	-68.94772	279.43906	-32.64222	-0.136	3934.19	0.300	-0.180	3936.73	0.245	-0.141	3935.49	0.300	-0.023	3938.00	0.300	0.99	0.005	0.01	0.000	0.007	0.01	0.011	0.005	0.01	0.000	0.005	0.00	0.000	0.00	0.542	0.102	0.110	0.106	0.017	0.004	0.006	0.004	0.004	25.9	17.7	26.9	4.4	1	1
187	5.43749	-68.84019	279.34274	-32.81462	-0.152	3933.89	0.200	-0.218	3936.74	0.300	-0.100	3934.63	0.223	0.000	3937.50	0.200	1.00	0.006	0.01	0.012	0.005	0.01	0.000	0.006	0.02	0.019	-0.000	0.00	0.000	0.00	0.009	0.076	0.164	0.056	-0.000	0.006	0.003	0.006	0.000	13.7	48.0	9.4	0.0	1	1
759	5.50807	-69.07608	279.54929	-32.40248	-0.129	3933.85	0.200	-0.278	3937.10	0.300	-0.099	3934.65	0.300	0.000	3937.50	0.200	1.00	0.007	0.01	0.013	0.005	0.01	0.000	0.005	0.02	0.000	-0.000	0.00	0.000	0.00	0.391	0.065	0.209	0.075	-0.000	0.005	0.003	0.004	0.000	12.2	59.8	21.0	0.0	1	1
237	5.44439	-68.83853	279.33359	-32.77802	-0.140	3933.99	0.300	-0.158	3936.93	0.298	-0.089	3934.97	0.300	0.000	3937.61	0.120	0.99	0.006	0.02	0.000	0.006	0.01	0.014	0.006	0.03	0.000	0.000	0.00	0.000	0.00	0.329	0.105	0.118	0.067	-0.000	0.004	0.007	0.004	0.000	25.0	16.1	16.0	0.0	1	1
705	5.50091	-69.04208	279.51620	-32.44548	-0.163	3933.96	0.300	-0.166	3936.97	0.300	-0.070	3935.12	0.300	0.000	3937.50	0.200	1.00	0.005	0.01	0.000	0.005	0.01	0.000	0.005	0.03	0.000	-0.000	0.00	0.000	0.00	0.677	0.122	0.125	0.053	-0.000	0.004	0.004	0.004	0.000	34.2	35.0	14.8	0.0	1	1
770	5.50974	-69.05908	279.52780	-32.39613	-0.159	3933.99	0.300	-0.209	3937.06	0.300	-0.073	3935.18	0.300	0.000	3937.50	0.200	1.00	0.005	0.01	0.000	0.005	0.01	0.000	0.005	0.03	0.000	-0.000	0.00	0.000	0.00	0.542	0.120	0.158	0.055	-0.000	0.004	0.004	0.004	0.000	30.1	39.5	13.8	0.0	1	1

234	5.44361	-68.78103	279.26688	-32.79144	-0.183	3933.89	0.214	-0.052	3936.07	0.300	-0.166	3934.77	0.300	-0.112	3937.11	0.300	1.01	0.005	0.01	0.008	0.004	0.03	0.000	0.004	0.01	0.000	0.004	0.01	0.000	0.00	0.297	0.098	0.039	0.125	0.084	0.005	0.003	0.003	0.003	21.7	13.2	42.2	28.4	1	1
275	5.44819	-68.77375	279.25360	-32.76806	-0.167	3933.91	0.300	-0.039	3936.00	0.300	-0.113	3934.98	0.300	-0.092	3937.09	0.300	1.00	0.007	0.02	0.000	0.007	0.00	0.000	0.007	0.02	0.000	0.007	0.03	0.000	0.00	0.390	0.126	0.029	0.085	0.069	0.005	0.005	0.005	0.005	24.0	5.5	16.3	13.2	1	0
905	5.53332	-69.14706	279.60922	-32.25857	-0.115	3933.94	0.243	-0.087	3936.65	0.142	-0.187	3934.50	0.220	-0.212	3937.32	0.210	0.97	0.008	0.02	0.022	0.010	0.02	0.020	0.009	0.00	0.013	0.008	0.01	0.010	0.00	0.108	0.070	0.031	0.103	0.112	0.008	0.006	0.008	0.007	8.6	5.6	12.8	16.0	1	1
364	5.46024	-68.79894	279.27087	-32.69950	-0.145	3933.89	0.273	-0.117	3936.80	0.300	-0.167	3934.89	0.300	0.000	3937.50	0.200	1.00	0.008	0.02	0.019	0.007	0.02	0.000	0.007	0.02	0.000	-0.000	0.00	0.000	0.00	1.160	0.100	0.088	0.126	-0.000	0.009	0.005	0.005	0.000	11.2	17.5	24.9	0.0	1	1
668	5.49503	-68.95753	279.42270	-32.48937	-0.155	3934.05	0.300	-0.134	3936.61	0.245	-0.063	3935.23	0.300	-0.094	3937.37	0.300	1.00	0.004	0.01	0.000	0.005	0.01	0.013	0.004	0.02	0.000	0.004	0.02	0.000	0.00	0.187	0.116	0.082	0.048	0.071	0.003	0.005	0.003	0.003	41.4	16.1	17.0	22.3	1	1
191	5.43805	-68.65997	279.13049	-32.84077	-0.175	3934.01	0.300	-0.051	3936.61	0.172	-0.092	3935.37	0.300	-0.178	3937.18	0.272	1.01	0.007	0.02	0.000	0.016	0.08	0.064	0.007	0.03	0.000	0.009	0.03	0.030	0.00	1.283	0.132	0.022	0.069	0.121	0.005	0.011	0.005	0.015	25.2	2.0	13.2	8.3	1	1
737	5.50486	-68.99064	279.45218	-32.43214	-0.218	3934.06	0.300	-0.177	3937.18	0.300	-0.083	3935.36	0.300	0.000	3937.50	0.200	1.01	0.005	0.01	0.000	0.005	0.01	0.000	0.005	0.02	0.000	-0.000	0.00	0.000	0.00	0.821	0.164	0.133	0.062	-0.000	0.004	0.004	0.004	0.000	42.9	34.8	16.3	0.0	1	1
892	5.53079	-69.11131	279.56967	-32.27704	-0.150	3933.99	0.300	-0.069	3936.00	0.300	-0.267	3934.50	0.202	-0.190	3937.30	0.300	1.01	0.010	0.03	0.000	0.008	0.00	0.000	0.013	0.00	0.012	0.008	0.02	0.000	0.00	1.048	0.113	0.052	0.135	0.143	0.007	0.006	0.010	0.006	15.1	8.4	12.9	23.0	1	1
242	5.44509	-68.64086	279.10074	-32.80587	-0.209	3933.90	0.300	-0.099	3936.00	0.300	-0.144	3935.10	0.300	-0.058	3937.00	0.300	1.02	0.008	0.02	0.000	0.008	0.00	0.000	0.008	0.02	0.000	0.008	0.00	0.000	0.00	1.122	0.157	0.074	0.108	0.043	0.006	0.006	0.006	0.006	25.0	11.7	17.4	7.0	1	0
803	5.51570	-69.02433	279.48157	-32.36958	-0.174	3934.00	0.300	-0.201	3937.05	0.300	-0.087	3935.41	0.300	-0.109	3937.62	0.189	1.00	0.006	0.01	0.000	0.007	0.02	0.000	0.006	0.03	0.000	0.009	0.02	0.021	0.00	0.825	0.131	0.151	0.065	0.052	0.004	0.006	0.004	0.007	30.2	26.8	15.1	7.2	1	1
570	5.48332	-68.82397	279.27737	-32.57200	-0.180	3933.94	0.300	-0.107	3936.47	0.300	-0.134	3935.11	0.300	-0.089	3937.00	0.296	1.05	0.008	0.02	0.000	0.011	0.04	0.000	0.008	0.02	0.000	0.012	0.00	0.044	0.00	0.002	0.135	0.081	0.101	0.066	0.006	0.008	0.006	0.013	21.7	10.0	16.2	4.9	1	1
569	5.48278	-68.80239	279.25259	-32.57816	-0.118	3933.94	0.204	-0.166	3936.73	0.300	-0.080	3935.14	0.300	-0.025	3937.45	0.120	1.00	0.005	0.01	0.011	0.004	0.01	0.000	0.004	0.02	0.000	0.006	0.04	0.000	0.00	0.237	0.060	0.125	0.060	0.007	0.004	0.003	0.003	0.002	14.6	43.9	21.2	4.3	1	1
526	5.47704	-68.75464	279.20218	-32.61620	-0.156	3933.90	0.300	-0.063	3936.12	0.300	-0.087	3935.28	0.300	-0.068	3937.00	0.300	1.01	0.010	0.02	0.000	0.010	0.07	0.000	0.010	0.05	0.000	0.010	0.00	0.000	0.00	1.308	0.117	0.047	0.065	0.051	0.007	0.008	0.008	0.008	15.9	6.1	8.5	6.7	1	0
756	5.50784	-68.94589	279.39694	-32.42284	-0.162	3934.06	0.300	-0.183	3936.88	0.300	-0.096	3935.26	0.300	0.000	3937.50	0.200	1.00	0.006	0.01	0.000	0.006	0.01	0.000	0.006	0.02	0.000	-0.000	0.00	0.000	0.00	0.916	0.122	0.137	0.072	-0.000	0.004	0.004	0.004	0.000	28.6	32.1	16.9	0.0	1	1
666	5.49452	-68.84547	279.29181	-32.50881	-0.146	3933.90	0.269	-0.102	3936.56	0.172	-0.140	3935.18	0.300	-0.099	3937.15	0.300	1.00	0.007	0.02	0.016	0.009	0.02	0.021	0.006	0.02	0.000	0.007	0.03	0.000	0.00	0.379	0.098	0.044	0.105	0.075	0.008	0.007	0.005	0.005	12.9	6.4	23.0	14.2	1	1
550	5.48073	-68.73206	279.17209	-32.59978	-0.144	3933.86	0.240	-0.050	3936.66	0.300	-0.092	3935.38	0.267	-0.100	3937.28	0.240	1.01	0.009	0.02	0.018	0.012	0.11	0.000	0.009	0.03	0.030	0.010	0.04	0.038	0.00	0.085	0.087	0.037	0.061	0.060	0.008	0.009	0.009	0.011	10.3	4.2	6.8	5.3	1	1

657	5.49334	-68.81375	279.25574	-32.51984	-0.186	3933.99	0.300	-0.193	3936.62	0.255	-0.081	3935.28	0.300	-0.048	3937.20	0.120	1.00	0.006	0.01	0.000	0.007	0.01	0.014	0.006	0.03	0.000	0.010	0.03	0.000	0.00	0.476	0.140	0.123	0.061	0.014	0.004	0.008	0.004	0.003	32.6	15.3	14.2	4.5	1	1
597	5.48670	-68.74433	279.18066	-32.56584	-0.177	3933.98	0.300	-0.120	3936.20	0.202	-0.138	3935.48	0.288	-0.072	3937.55	0.120	1.00	0.017	0.04	0.000	0.025	0.07	0.064	0.020	0.07	0.076	0.025	0.06	0.000	0.00	0.431	0.133	0.061	0.100	0.022	0.013	0.023	0.030	0.008	10.6	2.6	3.3	2.9	0	0
547	5.48036	-68.67908	279.11026	-32.60976	-0.161	3934.06	0.300	-0.123	3936.84	0.243	-0.101	3935.49	0.300	-0.017	3937.61	0.120	1.00	0.005	0.01	0.000	0.006	0.01	0.014	0.005	0.02	0.000	0.007	0.07	0.000	0.00	0.457	0.121	0.075	0.076	0.005	0.004	0.006	0.004	0.002	33.9	13.2	21.4	2.4	1	1
655	5.49323	-68.76328	279.19666	-32.52792	-0.134	3933.92	0.272	-0.080	3936.66	0.300	-0.065	3935.30	0.300	0.000	3937.61	0.120	1.01	0.005	0.01	0.012	0.004	0.02	0.000	0.004	0.02	0.000	0.000	0.00	0.000	0.00	0.491	0.091	0.060	0.049	-0.000	0.005	0.003	0.003	0.000	17.8	19.7	16.1	0.0	1	1
606	5.48730	-68.70033	279.12848	-32.56917	-0.128	3933.95	0.300	-0.117	3936.94	0.300	-0.095	3935.19	0.300	0.000	3937.50	0.120	1.00	0.004	0.01	0.000	0.004	0.01	0.000	0.004	0.02	0.000	0.000	0.00	0.000	0.00	0.624	0.096	0.088	0.072	-0.000	0.003	0.003	0.003	0.000	28.7	26.2	21.3	0.0	1	1
765	5.50853	-68.86877	279.30591	-32.43041	-0.134	3933.96	0.300	-0.153	3936.73	0.300	-0.141	3935.14	0.300	0.000	3937.57	0.120	1.01	0.007	0.02	0.000	0.007	0.02	0.000	0.007	0.02	0.000	0.000	0.00	0.000	0.00	0.782	0.101	0.115	0.106	-0.000	0.005	0.005	0.005	0.000	18.3	20.9	19.3	0.0	1	1
641	5.49177	-68.70470	279.12930	-32.54444	-0.150	3933.83	0.239	-0.063	3936.41	0.300	-0.092	3934.77	0.300	-0.076	3937.00	0.300	1.01	0.006	0.01	0.013	0.005	0.04	0.000	0.005	0.02	0.000	0.006	0.00	0.000	0.00	0.450	0.090	0.047	0.069	0.057	0.006	0.004	0.004	0.005	14.5	11.8	18.1	11.7	1	1
796	5.51441	-68.89822	279.33499	-32.39470	-0.123	3933.98	0.300	-0.044	3936.01	0.300	-0.095	3934.99	0.300	-0.132	3937.04	0.300	1.00	0.005	0.02	0.000	0.005	0.05	0.000	0.005	0.02	0.000	0.005	0.02	0.000	0.00	0.010	0.092	0.033	0.072	0.099	0.004	0.004	0.004	0.004	24.2	8.7	18.7	26.1	0	1
855	5.52331	-68.94111	279.37711	-32.34103	-0.166	3934.12	0.300	-0.311	3937.02	0.300	-0.083	3935.12	0.300	0.000	3937.50	0.200	0.99	0.005	0.01	0.000	0.005	0.01	0.000	0.005	0.02	0.000	-0.000	0.00	0.000	0.00	1.117	0.125	0.234	0.062	-0.000	0.004	0.004	0.004	0.000	34.2	64.5	17.1	0.0	1	1
689	5.49842	-68.72667	279.14877	-32.50539	-0.152	3933.88	0.233	-0.155	3936.79	0.300	-0.083	3934.67	0.300	0.000	3937.57	0.120	1.01	0.006	0.01	0.014	0.005	0.01	0.000	0.005	0.03	0.000	0.000	0.00	0.000	0.00	0.451	0.089	0.117	0.062	-0.000	0.006	0.004	0.004	0.000	13.9	31.5	15.7	0.0	1	1
574	5.48395	-68.54378	278.94794	-32.61052	-0.123	3933.90	0.212	-0.155	3937.05	0.300	-0.099	3935.09	0.300	-0.043	3937.63	0.300	0.99	0.006	0.01	0.011	0.007	0.02	0.000	0.004	0.02	0.000	0.007	0.07	0.000	0.00	0.029	0.065	0.116	0.074	0.033	0.005	0.005	0.003	0.005	14.3	21.7	24.0	6.1	1	1
703	5.50047	-68.69672	279.11172	-32.49872	-0.130	3933.86	0.273	-0.114	3936.12	0.300	-0.064	3934.92	0.300	-0.129	3937.13	0.300	1.02	0.007	0.02	0.017	0.006	0.02	0.000	0.006	0.04	0.000	0.006	0.02	0.000	0.00	0.744	0.089	0.085	0.048	0.097	0.007	0.004	0.004	0.004	12.3	20.3	11.6	23.1	1	1
731	5.50459	-68.72197	279.13748	-32.47285	-0.155	3933.90	0.300	-0.077	3936.18	0.300	-0.105	3934.64	0.161	-0.132	3937.14	0.300	1.01	0.005	0.01	0.000	0.005	0.03	0.000	0.008	0.01	0.014	0.005	0.02	0.000	0.00	0.392	0.116	0.058	0.042	0.099	0.004	0.004	0.005	0.004	31.5	15.6	8.7	26.9	1	1
625	5.48966	-68.51102	278.90402	-32.58433	-0.171	3933.93	0.220	-0.357	3937.07	0.300	-0.114	3935.16	0.294	-0.047	3937.77	0.241	1.02	0.006	0.01	0.009	0.005	0.01	0.000	0.005	0.01	0.015	0.006	0.04	0.043	0.00	0.592	0.094	0.268	0.084	0.029	0.005	0.004	0.006	0.006	19.5	66.7	14.9	4.7	1	1
804	5.51572	-68.79383	279.21143	-32.40266	-0.101	3933.80	0.258	-0.156	3937.06	0.300	-0.073	3934.50	0.300	0.000	3937.50	0.200	1.00	0.011	0.03	0.035	0.009	0.02	0.000	0.010	0.00	0.000	-0.000	0.00	0.000	0.00	1.344	0.065	0.117	0.055	-0.000	0.011	0.006	0.008	0.000	5.8	18.0	7.2	0.0	1	1
669	5.49522	-68.49419	278.87900	-32.55653	-0.167	3933.96	0.300	-0.163	3936.75	0.300	-0.140	3935.28	0.300	-0.275	3937.32	0.295	1.02	0.005	0.01	0.000	0.020	0.04	0.000	0.005	0.01	0.000	0.011	0.02	0.016	0.00	0.749	0.125	0.122	0.106	0.203	0.004	0.015	0.004	0.014	32.8	8.2	27.7	14.6	1	1

953 5.54501 -69.17853 279.63568 -32.19239 -0.124 3933.83 0.175 -0.076 3936.29 0.300 -0.200 3934.53 0.300 -0.145 3937.30 0.298 1.01 0.009 0.02 0.017 0.006 0.04 0.000 0.007 0.02 0.000 0.007 0.02 0.020 0.00 0.885 0.054 0.057 0.150 0.108 0.007 0.005 0.005 0.009 8.0 11.8 30.4 12.1 1 1

904 5.53309 -68.98300 279.41736 -32.28297 -0.194 3934.05 0.300 -0.376 3937.04 0.300 -0.076 3935.28 0.300 0.000 3937.50 0.200 0.99 0.007 0.01 0.000 0.007 0.01 0.000 0.007 0.04 0.000 -0.000 0.00 0.000 0.00 0.807 0.146 0.283 0.057 -0.000 0.005 0.005 0.005 0.000 27.6 53.6 10.9 0.0 1 1

792 5.51323 -68.67367 279.07281 -32.43319 -0.133 3933.90 0.295 -0.106 3936.59 0.300 -1.443 3935.11 0.120 -0.225 3937.36 0.300 1.03 0.034 0.09 0.090 0.033 0.14 -0.000 0.045 0.01 -0.000 0.033 0.07 -0.000 0.01 22.169 0.099 0.080 0.434 0.170 0.039 0.025 0.013 0.025 2.5 3.2 32.2 6.8 0 0

884 5.52937 -68.89600 279.31879 -32.31505 -0.120 3934.02 0.300 -0.114 3936.81 0.208 -0.071 3935.25 0.251 -0.171 3937.31 0.199 0.99 0.007 0.02 0.000 0.014 0.06 0.045 0.009 0.03 0.036 0.015 0.04 0.028 0.00 1.911 0.090 0.059 0.044 0.085 0.005 0.015 0.008 0.014 17.5 4.0 5.3 5.9 1 1

942 5.54343 -69.09475 279.53900 -32.21242 -0.149 3933.87 0.252 -0.081 3936.00 0.300 -0.194 3934.50 0.300 -0.194 3937.27 0.300 1.00 0.009 0.02 0.020 0.007 0.00 0.000 0.009 0.00 0.000 0.007 0.01 0.000 0.00 1.574 0.094 0.061 0.146 0.146 0.009 0.005 0.007 0.005 10.2 11.4 21.7 27.5 1 1

824 5.51912 -68.67561 279.06973 -32.40110 -0.135 3933.97 0.300 -0.094 3936.38 0.300 -0.073 3934.95 0.300 -0.283 3937.22 0.269 1.02 0.005 0.02 0.000 0.006 0.03 0.000 0.005 0.03 0.000 0.006 0.01 0.009 0.00 0.638 0.102 0.071 0.055 0.191 0.004 0.004 0.004 0.008 25.1 16.3 13.5 25.3 1 1

840 5.52134 -68.66800 279.05878 -32.39018 -0.105 3933.85 0.300 -0.101 3937.08 0.300 -0.044 3934.56 0.300 -0.087 3937.64 0.300 1.00 0.006 0.03 0.000 0.010 0.04 0.000 0.006 0.06 0.000 0.010 0.04 0.000 0.00 0.644 0.079 0.076 0.033 0.066 0.005 0.007 0.005 0.007 16.6 10.4 7.1 9.0 1 1

723 5.50339 -68.30889 278.65378 -32.53831 -0.113 3933.85 0.291 -0.055 3936.64 0.221 -0.073 3934.64 0.300 -0.189 3937.37 0.262 1.01 0.005 0.02 0.021 0.006 0.04 0.038 0.006 0.04 0.000 0.005 0.01 0.013 0.00 0.818 0.083 0.031 0.055 0.124 0.007 0.006 0.004 0.007 11.7 4.9 13.0 17.4 1 1

831 5.52006 -68.58425 278.96173 -32.40881 -0.119 3933.91 0.300 -0.385 3937.35 0.300 -0.032 3935.44 0.300 0.000 3937.50 0.200 1.02 0.005 0.02 0.000 0.005 0.01 0.000 0.005 0.07 0.000 -0.000 0.00 0.000 0.00 0.625 0.090 0.290 0.024 -0.000 0.004 0.004 0.004 0.000 22.1 71.4 6.0 0.0 1 1

890 5.53074 -68.75491 279.15222 -32.32738 -0.117 3933.87 0.277 -0.163 3937.20 0.300 -0.068 3934.93 0.300 -0.052 3937.83 0.120 0.99 0.005 0.01 0.015 0.004 0.01 0.000 0.004 0.03 0.000 0.007 0.02 0.000 0.00 0.078 0.081 0.123 0.051 0.016 0.006 0.003 0.003 0.002 14.3 37.6 15.9 7.6 1 1

941 5.54341 -69.03958 279.47446 -32.22018 -0.240 3934.19 0.300 -0.240 3937.20 0.300 0.000 3935.00 0.200 0.000 3937.50 0.200 0.99 0.006 0.01 0.000 0.006 0.01 0.000 -0.000 0.00 0.000 -0.000 0.00 0.000 0.00 0.650 0.180 0.180 -0.000 -0.000 0.004 0.004 0.000 0.000 43.6 43.6 0.0 0.0 1 1

899 5.53214 -68.67114 279.05280 -32.33139 -0.141 3933.99 0.300 -0.161 3937.07 0.300 -0.078 3935.30 0.300 -0.122 3937.63 0.300 1.02 0.006 0.02 0.000 0.012 0.03 0.000 0.006 0.03 0.000 0.012 0.04 0.000 0.00 0.545 0.106 0.121 0.059 0.092 0.005 0.009 0.005 0.009 21.9 13.9 12.1 10.5 1 1

936 5.54253 -68.96261 279.38510 -32.23550 -0.153 3933.90 0.287 -0.047 3936.00 0.300 -0.118 3934.56 0.249 -0.366 3937.19 0.300 1.01 0.007 0.03 0.025 0.004 0.00 0.000 0.009 0.04 0.027 0.004 0.00 0.000 0.00 0.632 0.110 0.035 0.074 0.275 0.011 0.003 0.010 0.003 10.1 10.9 7.4 85.2 1 1

896 5.53151 -68.54181 278.90170 -32.35248 -0.095 3933.92 0.239 -0.347 3937.49 0.300 -0.081 3934.70 0.300 0.000 3937.50 0.200 1.00 0.008 0.03 0.029 0.006 0.01 0.000 0.007 0.04 0.000 -0.000 0.00 0.000 0.00 0.413 0.057 0.261 0.061 -0.000 0.009 0.005 0.005 0.000 6.6 53.7 11.5 0.0 1 1

933 5.54029 -68.79158 279.18677 -32.27097 -0.175 3933.98 0.121 -0.130 3936.80 0.300 -0.087 3934.55 0.300 -0.123 3937.49 0.185 1.00 0.017 0.01 0.015 0.010 0.04 0.000 0.010 0.05 0.000 0.013 0.03 0.027 0.00 3.922 0.053 0.098 0.066 0.057 0.008 0.007 0.007 0.010 6.5 13.3 9.1 5.5 0 0

956 5.54655 -69.08183 279.52115 -32.19767 -0.165 3933.93 0.237 -0.075 3936.50 0.300 -0.261 3934.50 0.231 -0.356 3937.19 0.300 0.99 0.010 0.02 0.017 0.008 0.05 0.000 0.010 0.00 0.011 0.008 0.01 0.000 0.00 0.505 0.098 0.056 0.151 0.268 0.009 0.006 0.010 0.006 10.6 8.8 15.8 42.0 1 1

962	5.54930	-69.03764	279.46704	-32.18914	-0.159	3933.92	0.222	-0.145	3936.90	0.300	-0.161	3934.50	0.300	-0.234	3937.43	0.217	1.00	0.009	0.02	0.015	0.013	0.04	0.000	0.008	0.00	0.000	0.012	0.02	0.014	0.00	0.102	0.089	0.109	0.121	0.127	0.008	0.010	0.006	0.011	11.4	11.5	20.1	12.1	1	1
957	5.54774	-68.75725	279.14005	-32.23553	-0.108	3934.09	0.300	-0.084	3936.30	0.250	-0.114	3935.34	0.253	-0.332	3937.23	0.282	1.01	0.005	0.02	0.000	0.007	0.03	0.033	0.007	0.02	0.020	0.006	0.01	0.008	0.00	0.241	0.081	0.053	0.072	0.235	0.004	0.008	0.007	0.008	20.0	6.5	10.1	29.2	1	1
960	5.54847	-68.56233	278.91101	-32.25755	-0.136	3934.05	0.300	-0.382	3937.04	0.226	-0.094	3935.00	0.300	-0.123	3937.59	0.295	1.01	0.005	0.01	0.000	0.027	0.02	0.010	0.005	0.02	0.000	0.014	0.08	0.052	0.00	0.427	0.102	0.216	0.071	0.091	0.004	0.018	0.004	0.019	27.7	11.9	19.2	4.8	1	1
969	5.55213	-68.58889	278.93903	-32.23417	-0.127	3933.85	0.203	-0.284	3937.18	0.271	-0.076	3934.65	0.300	-0.182	3937.87	0.198	1.01	0.007	0.01	0.015	0.007	0.01	0.012	0.006	0.03	0.000	0.008	0.01	0.014	0.00	0.609	0.064	0.193	0.057	0.090	0.006	0.009	0.004	0.007	10.4	20.6	13.9	12.3	1	1
977	5.55335	-68.85419	279.24878	-32.19238	-0.180	3934.06	0.300	-0.092	3936.74	0.178	-0.054	3935.45	0.300	-0.301	3937.25	0.300	1.00	0.005	0.01	0.000	0.010	0.03	0.024	0.005	0.04	0.000	0.008	0.01	0.000	0.00	0.522	0.135	0.041	0.041	0.226	0.004	0.007	0.004	0.006	33.4	5.8	10.1	36.9	1	1
986	5.55603	-68.77486	279.15356	-32.18855	-0.110	3934.01	0.300	-0.177	3936.94	0.266	-0.092	3935.39	0.213	-0.076	3937.63	0.300	1.01	0.005	0.02	0.000	0.006	0.02	0.015	0.006	0.02	0.017	0.007	0.04	0.000	0.00	0.599	0.082	0.118	0.049	0.057	0.004	0.008	0.005	0.005	23.0	15.2	9.3	10.6	1	1
1001	5.55836	-68.73111	279.10037	-32.18176	-0.139	3933.92	0.274	-0.058	3936.37	0.177	-0.078	3935.32	0.300	-0.211	3937.19	0.300	1.01	0.003	0.01	0.008	0.004	0.02	0.016	0.003	0.01	0.000	0.003	0.01	0.000	0.00	0.310	0.095	0.026	0.059	0.158	0.004	0.003	0.002	0.002	26.1	8.5	27.1	72.6	1	1
1016	5.56222	-68.67072	279.02640	-32.16880	-0.124	3933.99	0.132	-0.122	3937.03	0.152	0.000	3935.03	0.120	0.000	3937.63	0.120	0.93	0.083	0.10	0.103	0.077	0.11	0.113	0.000	0.00	0.000	0.000	0.00	0.000	0.01	8.085	0.041	0.046	-0.000	-0.000	0.042	0.045	0.000	0.000	1.0	1.0	0.0	0.0	0	0
1014	5.56185	-68.80133	279.17966	-32.15374	-0.166	3934.05	0.300	-0.139	3936.68	0.300	-0.066	3935.19	0.300	-0.277	3937.28	0.300	1.01	0.006	0.02	0.000	0.010	0.03	0.000	0.006	0.04	0.000	0.010	0.02	0.000	0.00	0.472	0.125	0.104	0.050	0.208	0.005	0.008	0.005	0.008	25.9	13.6	10.3	27.1	1	1
1022	5.56466	-68.74111	279.10678	-32.14648	-0.128	3933.94	0.189	-0.039	3936.70	0.145	-0.030	3934.50	0.161	-0.296	3937.24	0.287	0.99	0.019	0.04	0.037	0.033	0.14	0.134	0.021	0.00	0.153	0.016	0.03	0.033	0.00	4.372	0.060	0.014	0.012	0.213	0.015	0.018	0.014	0.027	4.0	0.8	0.9	7.8	1	1
1008	5.56110	-68.76273	279.13510	-32.16285	-0.155	3933.96	0.300	-0.095	3936.52	0.300	-0.498	3935.37	0.150	-0.153	3937.28	0.267	1.03	0.006	0.02	0.000	0.008	0.04	0.000	0.010	0.00	0.004	0.008	0.02	0.021	0.00	0.766	0.117	0.072	0.187	0.102	0.005	0.006	0.006	0.010	24.5	12.2	32.2	10.7	0	0
1043	5.57170	-68.50261	278.82159	-32.13878	-0.099	3934.05	0.300	-0.053	3936.52	0.175	-0.340	3935.13	0.149	-0.129	3937.44	0.300	1.00	0.005	0.02	0.000	0.008	0.03	0.030	0.008	0.00	0.004	0.005	0.02	0.000	0.00	0.410	0.075	0.023	0.127	0.097	0.004	0.005	0.005	0.004	19.2	4.4	26.7	25.0	0	1
1042	5.57169	-68.54097	278.86655	-32.13401	-0.129	3933.99	0.300	-0.195	3937.28	0.300	-0.061	3934.95	0.300	0.000	3937.50	0.200	1.00	0.004	0.01	0.000	0.004	0.01	0.000	0.004	0.03	0.000	-0.000	0.00	0.000	0.00	0.578	0.097	0.147	0.046	-0.000	0.003	0.003	0.003	0.000	30.0	45.8	14.0	0.0	1	1
1051	5.57301	-68.62503	278.96393	-32.11621	-0.125	3933.96	0.300	-0.155	3937.02	0.251	-0.067	3935.33	0.125	0.000	3937.50	0.200	1.01	0.008	0.03	0.000	0.010	0.02	0.020	0.014	0.03	0.032	-0.000	0.00	0.000	0.00	0.539	0.094	0.098	0.021	-0.000	0.006	0.010	0.007	0.000	15.2	9.7	3.0	0.0	0	0
1036	5.56894	-68.79156	279.16229	-32.11688	-0.307	3933.97	0.120	-0.114	3936.41	0.300	0.000	3935.01	0.281	-0.239	3937.43	0.120	0.99	0.027	0.01	0.000	0.018	0.06	0.000	0.000	0.00	0.000	0.027	0.02	0.000	0.00	0.413	0.092	0.085	-0.000	0.072	0.008	0.014	0.000	0.008	11.2	6.3	0.0	8.8	0	0
1132	5.58667	-68.41950	278.71225	-32.06721	-0.164	3933.94	0.300	-0.291	3937.35	0.266	-0.087	3934.78	0.300	-0.067	3937.95	0.138	1.01	0.005	0.01	0.000	0.006	0.01	0.010	0.005	0.03	0.000	0.009	0.03	0.025	0.00	0.780	0.123	0.194	0.066	0.023	0.004	0.008	0.004	0.005	31.2	23.8	16.6	4.4	1	1

1088	5.57837	-68.64391	278.98169	-32.08478	-0.118	3933.79	0.188	-0.186	3937.00	0.300	-0.062	3935.34	0.139	0.000	3937.50	0.200	1.01	0.013	0.02	0.024	0.009	0.02	0.000	0.015	0.04	0.039	-0.000	0.00	0.000	0.00	1.420	0.055	0.140	0.021	-0.000	0.009	0.007	0.008	0.000	6.0	21.0	2.7	0.0	0	1
1109	5.58133	-68.61336	278.94354	-32.07254	-0.155	3933.70	0.234	-0.257	3936.89	0.229	-0.126	3935.29	0.300	-0.275	3937.50	0.221	1.02	0.015	0.03	0.026	0.016	0.03	0.028	0.011	0.03	0.000	0.017	0.03	0.025	0.00	0.490	0.091	0.148	0.095	0.153	0.013	0.020	0.009	0.020	6.9	7.2	11.1	7.7	0	1
1165	5.59246	-68.44747	278.74048	-32.03215	-0.114	3933.86	0.300	-0.257	3937.25	0.239	-0.197	3934.68	0.300	-0.099	3937.79	0.242	1.00	0.007	0.03	0.000	0.022	0.04	0.025	0.007	0.02	0.000	0.021	0.11	0.066	0.00	0.663	0.085	0.154	0.148	0.060	0.005	0.021	0.005	0.021	16.1	7.5	27.9	2.9	1	1
1148	5.58981	-68.53367	278.84348	-32.03622	-0.123	3933.90	0.300	-0.113	3936.91	0.300	-0.163	3935.25	0.300	-0.257	3937.65	0.235	1.02	0.010	0.03	0.000	0.011	0.05	0.000	0.010	0.02	0.000	0.012	0.02	0.016	0.00	0.624	0.093	0.085	0.122	0.151	0.007	0.008	0.007	0.013	12.8	10.4	16.9	11.8	0	0
1169	5.59295	-68.51617	278.82053	-32.02122	-0.163	3933.91	0.135	-0.292	3937.35	0.300	-0.181	3934.93	0.300	-0.126	3937.89	0.167	1.01	0.012	0.01	0.012	0.009	0.02	0.000	0.007	0.02	0.000	0.012	0.02	0.022	0.00	0.783	0.055	0.220	0.136	0.053	0.006	0.007	0.006	0.009	8.5	31.7	24.6	6.2	1	1
1072	5.57619	-68.81167	279.17987	-32.07530	-0.188	3934.00	0.259	-0.106	3936.97	0.300	-0.199	3934.79	0.213	-0.135	3937.49	0.270	1.01	0.007	0.01	0.014	0.022	0.06	0.000	0.007	0.01	0.012	0.015	0.05	0.033	0.00	0.500	0.122	0.080	0.107	0.092	0.008	0.016	0.007	0.015	15.2	4.9	15.2	6.1	1	1
1255	5.60102	-68.49861	278.79373	-31.97929	-0.203	3933.82	0.300	-0.139	3936.71	0.300	-0.254	3934.90	0.294	-0.181	3937.51	0.273	0.98	0.010	0.02	0.000	0.012	0.04	0.000	0.012	0.02	0.017	0.012	0.03	0.029	0.00	0.048	0.153	0.104	0.187	0.123	0.008	0.009	0.014	0.015	19.6	11.4	13.3	8.0	0	0
988	5.55629	-69.16194	279.60645	-32.13509	-0.155	3933.80	0.204	-0.263	3937.22	0.300	-0.215	3934.54	0.300	0.000	3937.50	0.200	0.99	0.008	0.01	0.014	0.006	0.01	0.000	0.006	0.01	0.000	-0.000	0.00	0.000	0.00	0.938	0.079	0.198	0.162	-0.000	0.007	0.004	0.005	0.000	11.3	44.7	34.6	0.0	1	1
1406	5.61463	-68.36911	278.63190	-31.91976	-0.150	3933.91	0.300	-0.137	3936.91	0.258	-0.142	3934.52	0.182	-0.221	3937.65	0.201	1.02	0.008	0.03	0.000	0.009	0.03	0.028	0.011	0.02	0.019	0.010	0.01	0.014	0.00	0.253	0.113	0.088	0.065	0.112	0.006	0.011	0.008	0.009	17.8	7.9	7.6	12.0	1	1
1033	5.56858	-68.97083	279.37244	-32.09542	-0.175	3933.97	0.300	-0.077	3936.30	0.300	-0.050	3935.43	0.300	-0.192	3937.21	0.300	1.01	0.007	0.02	0.000	0.008	0.05	0.000	0.007	0.06	0.000	0.007	0.02	0.000	0.00	0.676	0.132	0.058	0.038	0.145	0.005	0.006	0.006	0.006	24.4	10.2	6.8	26.2	1	1
1046	5.57222	-68.97508	279.37436	-32.07545	-0.185	3933.94	0.279	-0.123	3936.41	0.290	-0.070	3934.96	0.300	-0.281	3937.27	0.300	1.00	0.006	0.01	0.011	0.006	0.02	0.020	0.005	0.03	0.000	0.006	0.01	0.000	0.00	0.314	0.129	0.089	0.053	0.211	0.007	0.007	0.004	0.004	19.6	12.0	14.2	50.9	1	1
1081	5.57754	-68.93289	279.32062	-32.05251	-0.141	3933.86	0.223	-0.144	3936.46	0.300	-0.138	3934.71	0.300	-0.303	3937.15	0.279	1.01	0.009	0.02	0.018	0.011	0.03	0.000	0.007	0.02	0.000	0.008	0.01	0.013	0.00	0.412	0.079	0.108	0.104	0.212	0.008	0.008	0.005	0.011	10.0	13.2	20.6	18.4	1	1
1134	5.58681	-68.85372	279.22046	-32.01291	-0.234	3933.94	0.204	-0.289	3937.06	0.278	-0.073	3934.58	0.300	0.000	3937.50	0.200	1.00	0.004	0.01	0.005	0.004	0.00	0.004	0.004	0.02	0.000	-0.000	0.00	0.000	0.00	0.414	0.120	0.202	0.055	-0.000	0.004	0.004	0.003	0.000	31.4	53.0	19.9	0.0	1	1
1326	5.60650	-68.68620	279.00906	-31.92725	-0.156	3933.97	0.175	-0.146	3936.89	0.300	-0.069	3934.78	0.169	-0.059	3937.59	0.300	1.01	0.014	0.02	0.019	0.012	0.04	0.000	0.014	0.04	0.041	0.012	0.09	0.000	0.00	0.586	0.068	0.110	0.029	0.044	0.010	0.009	0.009	0.009	7.2	12.5	3.1	5.0	0	0
1397	5.61305	-68.64508	278.95599	-31.89660	-0.113	3933.95	0.286	-0.112	3937.02	0.300	-0.094	3934.74	0.248	-0.059	3937.81	0.215	1.00	0.006	0.03	0.029	0.005	0.02	0.000	0.007	0.03	0.030	0.007	0.03	0.034	0.00	0.144	0.081	0.084	0.059	0.032	0.009	0.004	0.008	0.006	8.6	20.6	7.0	5.0	1	1
1173	5.59324	-68.84995	279.21094	-31.97886	-0.151	3933.91	0.218	-0.186	3937.20	0.277	-0.060	3934.63	0.300	0.000	3937.50	0.200	1.01	0.010	0.02	0.021	0.009	0.02	0.016	0.008	0.07	0.000	-0.000	0.00	0.000	0.00	0.905	0.083	0.129	0.045	-0.000	0.010	0.010	0.006	0.000	8.5	13.3	7.0	0.0	1	1

1180	5.59447	-68.86092	279.22281	-31.97089	-0.150	3933.89	0.204	-0.052	3936.62	0.159	-0.061	3934.68	0.300	-0.199	3937.21	0.257	1.00	0.006	0.01	0.011	0.008	0.04	0.034	0.005	0.03	0.000	0.006	0.01	0.014	0.00	0.444	0.077	0.021	0.046	0.128	0.005	0.005	0.003	0.008	14.9	3.8	13.4	16.5	1	1
1575	5.63962	-68.48141	278.74527	-31.77031	-0.095	3933.85	0.141	-0.032	3936.59	0.149	-0.094	3934.84	0.274	-0.080	3937.46	0.274	0.95	0.049	0.08	0.086	0.048	0.27	0.272	0.036	0.12	0.124	0.036	0.14	0.152	0.01	12.864	0.034	0.012	0.065	0.055	0.027	0.028	0.038	0.039	1.3	0.4	1.7	1.4	0	0
1547	5.63298	-68.56081	278.84280	-31.79785	-0.138	3933.93	0.300	-0.318	3937.53	0.300	-0.232	3934.96	0.300	0.000	3937.50	0.200	1.01	0.006	0.02	0.000	0.006	0.01	0.000	0.006	0.01	0.000	-0.000	0.00	0.000	0.00	0.602	0.104	0.239	0.175	-0.000	0.005	0.005	0.005	0.000	22.3	51.5	37.5	0.0	1	1
1117	5.58286	-68.97017	279.35989	-32.01929	-0.143	3933.92	0.203	-0.140	3936.51	0.222	-0.132	3934.71	0.300	-0.364	3937.29	0.262	1.00	0.004	0.01	0.008	0.004	0.01	0.010	0.003	0.01	0.000	0.004	0.00	0.004	0.00	0.213	0.073	0.078	0.100	0.238	0.004	0.004	0.002	0.005	20.4	18.5	41.7	50.0	1	1
1626	5.64669	-68.49206	278.75278	-31.73050	-0.111	3933.92	0.300	-0.101	3936.83	0.300	-0.170	3934.84	0.300	-0.155	3937.60	0.300	1.00	0.004	0.01	0.000	0.004	0.02	0.000	0.004	0.01	0.000	0.004	0.01	0.000	0.00	0.364	0.083	0.076	0.128	0.117	0.003	0.003	0.003	0.003	28.7	24.0	43.9	36.9	1	1
1221	5.59814	-68.87414	279.23538	-31.94957	-0.150	3933.96	0.300	-0.350	3937.20	0.300	-0.074	3934.81	0.300	0.000	3937.50	0.200	1.01	0.008	0.02	0.000	0.008	0.01	0.000	0.008	0.05	0.000	-0.000	0.00	0.000	0.00	1.049	0.113	0.263	0.056	-0.000	0.006	0.006	0.006	0.000	18.1	44.0	8.9	0.0	1	1
1535	5.63093	-68.65861	278.95865	-31.79806	-0.084	3933.87	0.254	-0.248	3937.19	0.273	-0.065	3934.50	0.120	-0.045	3938.00	0.209	0.99	0.005	0.02	0.019	0.005	0.01	0.007	0.007	0.00	0.000	0.005	0.00	0.035	0.00	0.141	0.054	0.169	0.020	0.024	0.005	0.005	0.002	0.005	10.5	31.3	10.0	4.9	1	1
1262	5.60166	-68.87247	279.23068	-31.93088	-0.122	3933.89	0.201	-0.071	3936.45	0.152	-0.085	3934.74	0.300	-0.338	3937.18	0.268	1.00	0.006	0.01	0.012	0.007	0.02	0.019	0.004	0.02	0.000	0.005	0.01	0.006	0.00	0.395	0.061	0.027	0.064	0.227	0.005	0.004	0.003	0.006	12.8	6.3	19.8	37.2	1	1
1172	5.59319	-68.94353	279.32043	-31.96747	-0.186	3933.90	0.200	-0.339	3937.17	0.297	-0.077	3934.73	0.300	0.000	3937.50	0.200	0.99	0.011	0.01	0.015	0.009	0.01	0.009	0.008	0.05	0.000	-0.000	0.00	0.000	0.00	0.502	0.093	0.252	0.058	-0.000	0.009	0.011	0.006	0.000	10.4	24.0	9.7	0.0	1	1
999	5.55827	-69.16497	279.60831	-32.12421	-0.149	3933.87	0.216	-0.339	3937.29	0.269	-0.162	3934.50	0.226	0.000	3937.50	0.200	0.99	0.008	0.01	0.014	0.007	0.01	0.006	0.007	0.00	0.015	-0.000	0.00	0.000	0.00	0.507	0.081	0.229	0.092	-0.000	0.007	0.007	0.007	0.000	12.3	33.2	12.6	0.0	1	1
1186	5.59473	-68.95953	279.33792	-31.95724	-0.140	3933.90	0.241	-0.065	3936.23	0.300	-0.102	3934.65	0.300	-0.255	3937.21	0.296	1.00	0.004	0.01	0.011	0.004	0.02	0.000	0.004	0.02	0.000	0.004	0.01	0.006	0.00	0.457	0.085	0.049	0.077	0.189	0.005	0.003	0.003	0.005	17.7	18.1	25.8	37.6	1	1
1706	5.66263	-68.55681	278.81763	-31.63663	-0.102	3933.93	0.221	-0.267	3937.43	0.300	-0.192	3934.85	0.300	0.000	3937.50	0.200	0.99	0.008	0.02	0.020	0.006	0.01	0.000	0.006	0.01	0.000	-0.000	0.00	0.000	0.00	0.831	0.057	0.201	0.144	-0.000	0.007	0.004	0.004	0.000	8.5	47.0	33.7	0.0	1	1
1300	5.60389	-68.92269	279.28766	-31.91280	-0.140	3933.97	0.300	-0.053	3936.40	0.234	-0.101	3935.34	0.300	-0.223	3937.25	0.249	1.00	0.006	0.02	0.000	0.008	0.05	0.049	0.006	0.02	0.000	0.008	0.01	0.012	0.00	1.349	0.105	0.031	0.076	0.139	0.004	0.008	0.004	0.008	23.5	3.9	17.0	17.0	0	1
1780	5.67205	-68.56969	278.82648	-31.58395	-0.164	3933.90	0.237	-0.117	3936.27	0.300	-0.116	3934.74	0.300	-0.458	3937.29	0.300	1.01	0.006	0.01	0.011	0.005	0.02	0.000	0.005	0.02	0.000	0.005	0.00	0.000	0.00	0.256	0.098	0.088	0.087	0.344	0.006	0.003	0.004	0.003	17.0	25.7	24.9	100.6	1	1
1309	5.60458	-68.94278	279.31061	-31.90665	-0.116	3933.85	0.138	-0.253	3937.41	0.236	-0.127	3934.67	0.300	0.000	3937.50	0.200	0.99	0.012	0.02	0.017	0.009	0.01	0.010	0.007	0.02	0.000	-0.000	0.00	0.000	0.00	0.781	0.040	0.150	0.096	-0.000	0.007	0.009	0.006	0.000	6.1	17.3	17.4	0.0	1	1
1185	5.59472	-69.00575	279.39200	-31.95152	-0.137	3933.93	0.228	-0.102	3936.78	0.300	-0.063	3934.68	0.300	-0.513	3937.33	0.231	1.00	0.005	0.01	0.013	0.009	0.04	0.000	0.005	0.04	0.000	0.007	0.01	0.005	0.00	0.203	0.078	0.077	0.047	0.297	0.005	0.006	0.003	0.007	14.4	11.9	13.7	41.4	1	1

1353	5.60918	-68.95161	279.31738	-31.88097	-0.120	3933.95	0.300	-0.054	3936.82	0.300	-0.063	3935.04	0.300	-0.357	3937.34	0.200	1.00	0.005	0.02	0.000	0.009	0.07	0.000	0.005	0.03	0.000	0.009	0.01	0.006	0.00	0.290	0.090	0.041	0.047	0.179	0.004	0.006	0.004	0.007	25.1	6.3	13.2	24.9	1	1
1594	5.64284	-68.80669	279.12317	-31.71710	-0.087	3933.85	0.241	-0.340	3937.37	0.300	-0.016	3934.76	0.120	-0.115	3938.00	0.192	0.99	0.007	0.02	0.023	0.007	0.01	0.009	0.008	0.08	0.000	0.010	0.00	0.018	0.00	0.457	0.053	0.256	0.005	0.055	0.007	0.009	0.002	0.007	8.0	28.9	2.0	7.9	1	1
1218	5.59770	-69.01458	279.39996	-31.93453	-0.147	3933.88	0.229	-0.133	3936.80	0.300	-0.074	3934.76	0.300	-0.445	3937.32	0.243	0.99	0.005	0.01	0.009	0.011	0.03	0.000	0.004	0.02	0.000	0.008	0.01	0.005	0.00	0.571	0.084	0.100	0.055	0.271	0.004	0.008	0.003	0.008	19.1	12.6	20.0	35.0	1	1
1031	5.56815	-69.17436	279.61087	-32.07072	-0.163	3933.84	0.233	-0.078	3936.58	0.241	-0.177	3934.54	0.279	-0.197	3937.26	0.246	1.00	0.007	0.02	0.016	0.006	0.04	0.035	0.005	0.02	0.018	0.006	0.02	0.014	0.00	0.421	0.095	0.047	0.123	0.122	0.008	0.008	0.009	0.008	12.6	6.1	14.0	15.3	1	1
1053	5.57316	-69.09939	279.51901	-32.05415	-0.159	3933.93	0.237	-0.185	3936.75	0.300	-0.116	3934.69	0.300	-0.330	3937.41	0.300	0.99	0.007	0.01	0.015	0.007	0.02	0.000	0.006	0.03	0.000	0.007	0.01	0.000	0.00	0.580	0.094	0.139	0.087	0.248	0.007	0.006	0.005	0.006	12.6	25.1	18.7	44.8	1	1
995	5.55738	-69.18047	279.62720	-32.12680	-0.148	3933.90	0.174	-0.097	3936.61	0.214	-0.188	3934.55	0.300	-0.227	3937.30	0.235	1.00	0.010	0.02	0.015	0.009	0.03	0.033	0.007	0.02	0.000	0.009	0.02	0.015	0.00	0.325	0.064	0.052	0.142	0.134	0.007	0.009	0.005	0.010	9.0	5.5	26.9	13.3	1	1
1765	5.67024	-68.76297	279.05334	-31.57394	-0.134	3933.91	0.252	-0.051	3936.54	0.300	-0.110	3934.70	0.212	-0.378	3937.45	0.292	1.00	0.005	0.01	0.013	0.004	0.04	0.000	0.005	0.01	0.014	0.004	0.00	0.005	0.00	0.372	0.085	0.039	0.059	0.277	0.005	0.003	0.005	0.006	15.9	12.8	12.4	50.1	1	1
1479	5.62435	-68.94967	279.30365	-31.80006	-0.115	3933.92	0.292	-0.094	3936.58	0.300	-0.053	3934.72	0.180	-0.318	3937.25	0.300	1.00	0.004	0.01	0.015	0.004	0.02	0.000	0.005	0.02	0.023	0.004	0.01	0.000	0.00	0.522	0.084	0.070	0.024	0.239	0.005	0.003	0.004	0.003	16.2	21.4	6.4	72.7	1	1
1834	5.68407	-68.73578	279.01260	-31.50191	-0.191	3933.89	0.245	-0.083	3936.48	0.300	-0.090	3934.65	0.277	-0.278	3937.62	0.300	0.99	0.006	0.02	0.015	0.005	0.02	0.000	0.006	0.04	0.035	0.005	0.01	0.000	0.00	0.535	0.118	0.063	0.062	0.209	0.008	0.004	0.009	0.004	14.6	16.7	7.0	56.0	1	1
1579	5.64050	-68.90997	279.24548	-31.71811	-0.145	3933.98	0.210	-0.209	3936.89	0.300	-0.048	3934.68	0.300	-0.342	3937.41	0.247	1.00	0.005	0.01	0.011	0.012	0.02	0.000	0.004	0.05	0.000	0.009	0.01	0.008	0.00	0.169	0.076	0.157	0.036	0.212	0.005	0.009	0.003	0.009	15.3	17.7	10.7	24.4	1	1
1542	5.63207	-68.95189	279.30057	-31.75849	-0.171	3933.94	0.203	-0.073	3936.19	0.300	-0.067	3934.60	0.228	-0.361	3937.27	0.300	1.01	0.005	0.01	0.010	0.004	0.02	0.000	0.005	0.03	0.030	0.004	0.00	0.000	0.00	0.486	0.087	0.055	0.038	0.272	0.005	0.003	0.006	0.003	16.7	19.3	6.7	95.8	1	1
1422	5.61714	-69.01742	279.38824	-31.83054	-0.128	3933.96	0.256	-0.146	3936.83	0.300	-0.065	3934.76	0.300	-0.323	3937.33	0.239	1.00	0.004	0.01	0.011	0.009	0.02	0.000	0.003	0.03	0.000	0.008	0.01	0.006	0.00	0.036	0.083	0.110	0.049	0.193	0.004	0.007	0.003	0.007	19.0	15.6	18.9	28.6	1	1
1892	5.69447	-68.78411	279.06241	-31.44089	-0.121	3933.95	0.300	-0.456	3937.48	0.300	0.000	3934.88	0.224	0.000	3937.50	0.200	0.99	0.007	0.02	0.000	0.007	0.01	0.000	0.000	0.00	0.000	-0.000	0.00	0.000	0.00	1.515	0.091	0.343	-0.000	-0.000	0.005	0.005	0.000	0.000	16.8	63.4	0.0	0.0	1	1
1128	5.58510	-69.12358	279.53748	-31.98768	-0.110	3933.90	0.300	-0.075	3936.52	0.300	-0.195	3934.60	0.300	-0.394	3937.40	0.282	0.99	0.009	0.04	0.000	0.008	0.05	0.000	0.009	0.02	0.000	0.009	0.01	0.009	0.00	2.682	0.083	0.057	0.147	0.279	0.007	0.006	0.007	0.011	12.0	9.4	21.3	25.8	1	1
1743	5.66773	-68.89478	279.20886	-31.57363	-0.159	3933.91	0.271	-0.257	3937.43	0.266	-0.032	3935.50	0.300	-0.176	3937.97	0.202	0.99	0.007	0.01	0.014	0.010	0.03	0.022	0.006	0.00	0.000	0.020	0.03	0.021	0.00	0.674	0.108	0.172	0.024	0.089	0.007	0.016	0.004	0.014	14.8	10.8	5.5	6.4	1	1
1491	5.62624	-69.01945	279.38379	-31.78177	-0.143	3933.94	0.239	-0.052	3936.20	0.300	-0.112	3934.67	0.300	-0.454	3937.34	0.279	1.01	0.004	0.01	0.010	0.003	0.02	0.000	0.004	0.02	0.000	0.004	0.00	0.003	0.00	0.460	0.086	0.039	0.084	0.317	0.004	0.002	0.003	0.004	19.7	16.5	30.3	76.8	1	1

1728	5.66584	-68.92586	279.24640	-31.58047	-0.148	3933.90	0.300	-0.315	3937.31	0.279	-0.083	3935.06	0.155	0.000	3937.50	0.200	1.00	0.006	0.02	0.000	0.007	0.01	0.007	0.009	0.02	0.020	-0.000	0.00	0.000	0.00	0.594	0.111	0.220	0.032	-0.000	0.004	0.007	0.005	0.000	25.9	30.0	5.9	0.0	1	1
1385	5.61170	-69.06739	279.45078	-31.85348	-0.131	3933.90	0.191	-0.438	3937.36	0.270	-0.050	3934.60	0.300	0.000	3937.50	0.200	0.99	0.006	0.01	0.012	0.005	0.00	0.004	0.005	0.05	0.000	-0.000	0.00	0.000	0.00	0.611	0.063	0.296	0.037	-0.000	0.005	0.006	0.004	0.000	12.3	52.6	10.4	0.0	1	1
1093	5.57890	-69.15203	279.57581	-32.01682	-0.126	3933.87	0.191	-0.072	3936.34	0.300	-0.208	3934.55	0.300	-0.272	3937.37	0.300	0.99	0.011	0.02	0.022	0.008	0.04	0.000	0.008	0.02	0.000	0.008	0.01	0.000	0.00	1.990	0.060	0.054	0.157	0.204	0.009	0.006	0.006	0.006	6.9	9.5	25.6	36.0	1	1
1781	5.67222	-68.94700	279.26682	-31.54403	-0.133	3933.86	0.287	-0.108	3936.22	0.300	-0.050	3934.65	0.123	-0.209	3937.31	0.300	1.00	0.006	0.02	0.018	0.005	0.02	0.000	0.010	0.03	0.028	0.005	0.01	0.000	0.00	0.454	0.095	0.081	0.016	0.157	0.007	0.004	0.005	0.004	12.8	19.9	3.3	38.4	1	1
1605	5.64449	-69.02000	279.37112	-31.68434	-0.126	3934.02	0.300	-0.245	3936.79	0.300	-0.029	3935.32	0.300	-0.307	3937.40	0.276	1.01	0.004	0.01	0.000	0.010	0.02	0.000	0.004	0.06	0.000	0.007	0.01	0.010	0.00	0.713	0.095	0.184	0.022	0.213	0.003	0.008	0.003	0.009	29.3	23.7	6.7	24.4	1	1
1690	5.65969	-68.99680	279.33340	-31.60575	-0.149	3933.91	0.247	-0.109	3936.78	0.300	-0.060	3934.79	0.300	-0.319	3937.32	0.300	1.01	0.004	0.01	0.008	0.006	0.02	0.000	0.003	0.02	0.000	0.006	0.01	0.000	0.00	0.120	0.092	0.082	0.045	0.240	0.004	0.005	0.002	0.005	23.4	17.4	19.4	51.1	1	1
1445	5.61973	-69.08689	279.46744	-31.80842	-0.166	3933.97	0.300	-0.343	3936.80	0.300	-0.070	3935.21	0.300	-0.499	3937.35	0.288	1.00	0.004	0.01	0.000	0.018	0.02	0.000	0.004	0.02	0.000	0.010	0.01	0.008	0.00	0.979	0.125	0.258	0.053	0.360	0.003	0.013	0.003	0.012	38.6	19.2	16.3	29.6	1	1
1608	5.64478	-69.04950	279.40536	-31.67946	-0.156	3933.92	0.300	-0.082	3936.25	0.300	-0.084	3934.70	0.167	-0.383	3937.18	0.300	1.01	0.004	0.01	0.000	0.004	0.02	0.000	0.005	0.01	0.013	0.004	0.00	0.000	0.00	0.350	0.118	0.062	0.035	0.288	0.003	0.003	0.004	0.003	44.5	23.1	9.9	107.9	1	1
1790	5.67403	-68.99836	279.32553	-31.52893	-0.168	3933.90	0.225	-0.454	3937.15	0.300	-0.031	3934.92	0.300	-0.055	3937.71	0.300	0.98	0.005	0.01	0.008	0.007	0.01	0.000	0.004	0.05	0.000	0.007	0.05	0.000	0.00	0.478	0.094	0.342	0.023	0.041	0.005	0.005	0.003	0.005	20.7	63.5	7.9	7.6	1	1
1599	5.64402	-69.07164	279.43176	-31.68099	-0.191	3933.92	0.210	-0.159	3936.53	0.300	-0.101	3934.53	0.300	-0.513	3937.38	0.278	1.00	0.012	0.02	0.020	0.009	0.03	0.000	0.011	0.05	0.000	0.010	0.01	0.008	0.00	0.593	0.101	0.119	0.076	0.357	0.011	0.007	0.009	0.012	8.8	17.1	8.8	29.1	1	1
1297	5.60357	-69.13844	279.54010	-31.88790	-0.139	3933.81	0.159	-0.232	3937.44	0.299	-0.194	3934.51	0.300	0.000	3937.50	0.200	0.99	0.012	0.02	0.017	0.009	0.01	0.013	0.008	0.02	0.000	-0.000	0.00	0.000	0.00	1.181	0.055	0.174	0.146	-0.000	0.008	0.010	0.006	0.000	7.3	17.4	25.3	0.0	1	1
1371	5.61053	-69.13558	279.53137	-31.85136	-0.204	3934.22	0.300	-0.094	3936.00	0.238	-0.149	3935.31	0.136	-0.346	3937.36	0.300	1.02	0.008	0.02	0.000	0.011	0.00	0.035	0.014	0.02	0.015	0.008	0.01	0.000	0.00	0.001	0.154	0.056	0.051	0.260	0.006	0.010	0.007	0.006	25.0	5.4	6.9	42.3	1	1
1625	5.64631	-69.09367	279.45584	-31.66631	-0.139	3933.87	0.300	-0.090	3936.28	0.300	-0.085	3934.56	0.300	-0.412	3937.39	0.300	0.98	0.006	0.02	0.000	0.005	0.02	0.000	0.006	0.03	0.000	0.005	0.00	0.000	0.00	0.409	0.104	0.068	0.064	0.310	0.004	0.004	0.004	0.004	23.3	18.8	14.3	86.0	1	1
1917	5.70092	-69.03139	279.34671	-31.38186	-0.194	3933.89	0.261	-0.061	3936.54	0.251	-0.112	3934.91	0.203	-0.318	3937.59	0.294	1.02	0.012	0.02	0.019	0.012	0.06	0.064	0.013	0.03	0.029	0.011	0.01	0.013	0.00	0.326	0.127	0.038	0.057	0.234	0.012	0.012	0.011	0.014	10.4	3.1	5.3	17.2	1	1
1611	5.64518	-69.10989	279.47559	-31.67047	-0.196	3933.97	0.198	-0.452	3937.30	0.300	-0.047	3934.78	0.300	0.000	3937.50	0.200	1.00	0.011	0.01	0.014	0.008	0.01	0.000	0.008	0.08	0.000	-0.000	0.00	0.000	0.00	0.139	0.097	0.340	0.035	-0.000	0.009	0.006	0.006	0.000	10.8	56.4	5.8	0.0	1	1
1352	5.60909	-69.15661	279.55704	-31.85640	-0.096	3933.83	0.274	-0.246	3937.38	0.300	-0.128	3934.52	0.300	0.000	3937.50	0.200	0.99	0.008	0.04	0.038	0.006	0.01	0.000	0.010	0.03	0.000	-0.000	0.00	0.000	0.00	0.124	0.066	0.185	0.096	-0.000	0.011	0.005	0.008	0.000	6.3	39.7	12.8	0.0	1	1

1619	5.64598	-69.12617	279.49402	-31.66437	-0.205	3933.74	0.300	-0.429	3937.41	0.283	-0.124	3934.54	0.300	0.000	3937.50	0.200	1.00	0.014	0.03	0.000	0.015	0.01	0.012	0.014	0.05	0.000	-0.000	0.00	0.000	0.00	0.199	0.154	0.304	0.093	-0.000	0.010	0.017	0.010	0.000	14.9	18.4	9.0	0.0	1	1
1550	5.63350	-69.14486	279.52490	-31.72844	-0.139	3933.94	0.201	-0.347	3937.25	0.300	-0.172	3934.50	0.238	0.000	3937.50	0.200	0.99	0.012	0.02	0.020	0.008	0.01	0.000	0.011	0.00	0.020	-0.000	0.00	0.000	0.00	0.627	0.070	0.261	0.103	-0.000	0.009	0.006	0.011	0.000	7.6	44.9	9.5	0.0	1	1
1345	5.60854	-69.17303	279.57663	-31.85728	-0.168	3934.03	0.300	-0.065	3936.98	0.300	-0.092	3935.22	0.300	-0.236	3937.52	0.220	0.99	0.005	0.01	0.000	0.010	0.06	0.000	0.005	0.02	0.000	0.009	0.01	0.011	0.00	0.096	0.126	0.049	0.069	0.130	0.004	0.007	0.004	0.008	34.5	6.8	18.8	16.3	1	1
1740	5.66704	-69.13314	279.48746	-31.55175	-0.176	3933.92	0.283	-0.130	3936.84	0.300	-0.078	3935.22	0.120	-0.369	3937.50	0.300	1.00	0.009	0.02	0.017	0.010	0.03	0.000	0.012	0.02	0.000	0.010	0.01	0.000	0.00	0.086	0.125	0.098	0.023	0.277	0.010	0.008	0.003	0.008	12.6	12.7	6.8	36.0	1	1
1176	5.59404	-69.18842	279.60608	-31.93204	-0.137	3933.83	0.224	-0.393	3937.36	0.300	-0.200	3934.60	0.300	0.000	3937.50	0.200	1.02	0.008	0.02	0.017	0.006	0.01	0.000	0.006	0.01	0.000	-0.000	0.00	0.000	0.00	0.040	0.077	0.296	0.150	-0.000	0.007	0.004	0.005	0.000	10.5	68.0	32.1	0.0	1	1
1530	5.63054	-69.17436	279.56152	-31.74066	-0.215	3934.13	0.300	-0.499	3937.28	0.300	-0.043	3935.50	0.300	0.000	3937.50	0.200	1.02	0.008	0.01	0.000	0.008	0.01	0.000	0.008	0.00	0.000	-0.000	0.00	0.000	0.00	0.120	0.162	0.375	0.032	-0.000	0.006	0.006	0.006	0.000	26.1	60.3	5.2	0.0	1	1
1485	5.62526	-69.18522	279.57812	-31.76732	-0.127	3933.86	0.258	-0.053	3936.00	0.300	-0.138	3934.50	0.300	-0.405	3937.39	0.300	1.03	0.006	0.02	0.016	0.005	0.00	0.000	0.006	0.00	0.000	0.005	0.00	0.000	0.00	0.046	0.082	0.040	0.104	0.305	0.007	0.004	0.005	0.004	12.6	10.7	22.3	82.0	1	1
1240	5.59995	-69.20236	279.61765	-31.89905	-0.184	3933.75	0.253	-0.057	3936.63	0.120	-0.210	3934.67	0.300	-0.395	3937.44	0.228	1.02	0.009	0.02	0.016	0.011	0.03	0.000	0.007	0.02	0.000	0.010	0.01	0.007	0.00	0.071	0.117	0.017	0.158	0.226	0.010	0.003	0.006	0.009	12.2	5.2	28.1	26.6	1	1
1544	5.63228	-69.19742	279.58716	-31.72873	-0.184	3934.05	0.300	-0.487	3937.41	0.271	-0.069	3934.99	0.300	0.000	3937.50	0.200	1.02	0.008	0.02	0.000	0.009	0.01	0.006	0.008	0.05	0.000	-0.000	0.00	0.000	0.00	0.713	0.138	0.331	0.052	-0.000	0.006	0.010	0.006	0.000	23.6	34.2	8.9	0.0	1	1

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1856 5.68793 -69.23395 279.59109 -31.43029 -0.019 5781.08 0.360 -0.062 5785.79 0.900 0.99 0.002 0.04 0.000 0.001 0.02 0.000 0.00 0.039 0.017 0.141 0.001 0.003 11.6 55.5 -0.022 5797.40 0.160 -0.019 5802.34 0.611 1.02 0.002 0.02 0.017 0.001 0.04 0.040 0.00 0.021 0.009
0.030 0.001 0.003 7.2 11.8 -0.151 5890.38 0.518 -0.293 5901.35 0.576 0.085 5889.87 0.355 -0.196 -0.376 0.195 1.01 0.028 0.14 0.050 0.003 0.01 0.006 0.051 0.03 0.036 0.043 0.008 0.068 0.00 0.427 0.195 0.424 0.254 0.544 0.041 0.006 0.061 0.013 4.7 66.5
4.2 41.6 1 1 0 1 1 1

1913 5.69982 -69.24903 279.60104 -31.36586 -0.017 5780.78 0.643 -0.007 5786.98 0.900 1.00 0.002 0.07 0.075 0.001 0.21 0.000 0.00 0.032 0.027 0.015 0.004 0.003 6.6 4.8 -0.017 5797.76 0.364 -0.027 5803.24 0.250 1.02 0.003 0.06 0.064 0.003 0.03 0.000 0.00 0.051 0.016
0.017 0.004 0.002 4.3 10.2 -0.134 5890.45 0.509 -0.167 5901.70 0.517 0.152 5889.80 0.400 -0.077 -0.405 0.292 1.01 0.010 0.08 0.042 0.003 0.01 0.010 0.024 0.02 0.000 0.010 0.037 0.036 0.00 0.795 0.171 0.216 0.099 0.524 0.019 0.005 0.015 0.049 9.0 39.7
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1281 5.60261 -69.23278 279.65109 -31.88117 -0.011 5781.00 0.360 -0.030 5786.04 0.679 0.99 0.001 0.05 0.000 0.001 0.02 0.026 0.00 0.043 0.010 0.051 0.001 0.003 9.5 20.2 -0.015 5797.70 0.146 -0.010 5802.97 0.490 1.00 0.003 0.04 0.039 0.002 0.10 0.108 0.00 0.131 0.005
0.012 0.002 0.004 2.9 3.5 -0.242 5890.24 0.515 -0.215 5901.49 0.430 0.210 5889.76 0.385 -0.199 -0.285 0.179 1.00 0.138 0.31 0.088 0.003 0.01 0.006 0.200 0.06 0.067 0.114 0.016 0.166 0.00 1.464 0.312 0.232 0.257 0.308 0.186 0.005 0.154 0.017 1.7 46.1
1.7 17.6 1 1 0 0 1 1

1881 5.69256 -69.27314 279.63376 -31.40174 -0.008 5780.72 0.360 -0.018 5785.35 0.900 0.99 0.003 0.15 0.000 0.002 0.11 0.000 0.00 0.835 0.007 0.041 0.002 0.004 3.1 9.9 -0.017 5797.87 0.524 -0.004 5802.03 0.250 1.00 0.003 0.10 0.100 0.003 0.25 0.000 0.00 0.983 0.022
0.003 0.006 0.002 4.0 1.3 -0.118 5890.37 0.555 -0.240 5901.37 0.485 0.032 5889.74 0.253 -0.076 -0.328 0.146 1.00 0.003 0.04 0.024 0.003 0.01 0.006 0.010 0.01 0.014 0.004 0.008 0.010 0.00 0.872 0.164 0.292 0.106 0.399 0.009 0.005 0.007 0.011 19.3 59.9
14.2 36.6 0 0 0 0 1 1

1322 5.60603 -69.24653 279.66446 -31.86141 -0.017 5781.08 0.360 -0.016 5785.78 0.483 1.00 0.001 0.04 0.000 0.001 0.05 0.052 0.00 0.451 0.015 0.019 0.001 0.003 11.8 7.1 -0.013 5797.45 0.205 -0.013 5803.03 1.000 1.01 0.003 0.05 0.050 0.001 0.00 0.000 0.00 0.779 0.007
0.032 0.002 0.003 3.1 10.4 -0.191 5890.33 0.475 -0.126 5901.43 0.440 0.195 5889.92 0.363 -0.131 -0.140 0.137 1.00 0.217 0.51 0.126 0.004 0.02 0.013 0.295 0.08 0.095 0.150 0.007 0.203 0.00 1.264 0.228 0.139 0.156 0.154 0.265 0.006 0.183 0.009 0.9 23.1
0.9 16.3 1 0 0 0 1 1

1869 5.68972 -69.29559 279.66177 -31.41439 -0.023 5780.95 0.900 -0.017 5786.64 0.619 1.00 0.002 0.11 0.000 0.003 0.12 0.129 0.00 2.681 0.051 0.026 0.005 0.007 9.5 3.7 -0.020 5797.71 0.327 -0.007 5803.01 1.000 1.00 0.002 0.04 0.038 0.001 0.18 0.000 0.00 0.710 0.017
0.018 0.003 0.003 6.6 6.4 -0.139 5890.32 0.596 -0.055 5901.28 0.439 0.124 5889.64 0.333 -0.118 -0.083 0.141 1.00 0.009 0.08 0.038 0.003 0.02 0.018 0.021 0.01 0.022 0.009 0.008 0.020 0.00 1.019 0.208 0.061 0.177 0.091 0.019 0.004 0.017 0.010 11.0 16.5
10.2 9.6 1 0 1 0 1 1

1500 5.62758 -69.26836 279.67346 -31.74511 -0.012 5781.59 0.360 -0.067 5786.16 0.900 0.99 0.001 0.06 0.000 0.001 0.02 0.000 0.00 0.394 0.011 0.152 0.001 0.002 8.4 69.5 -0.020 5797.86 0.141 -0.049 5802.75 0.404 1.00 0.003 0.02 0.021 0.001 0.01 0.015 0.00 0.389 0.007
0.050 0.001 0.002 5.1 21.1 -0.168 5890.52 0.315 -0.318 5901.73 0.398 0.084 5889.73 0.400 -0.154 -0.400 0.131 1.00 0.005 0.01 0.011 0.004 0.01 0.005 0.005 0.04 0.000 0.007 0.078 0.079 0.00 0.966 0.133 0.317 0.122 0.399 0.006 0.006 0.007 0.078 21.3 56.2
17.5 5.1 1 1 1 1 1 1

1507 5.62819 -69.28008 279.68671 -31.74049 -0.022 5780.41 0.360 -0.067 5786.09 0.900 1.00 0.003 0.06 0.000 0.002 0.03 0.000 0.00 0.904 0.020 0.151 0.003 0.004 7.9 33.9 0.000 5796.96 0.471 -0.027 5802.84 0.527 0.99 0.000 0.00 0.000 0.002 0.05 0.053 0.00 0.677 -0.000
0.036 0.000 0.005 0.0 7.6 -0.061 5890.74 0.959 -0.166 5901.63 0.477 0.089 5889.42 0.344 -0.062 -0.205 0.094 1.00 0.002 0.08 0.068 0.003 0.01 0.009 0.006 0.02 0.020 0.003 0.011 0.011 0.00 1.074 0.146 0.199 0.150 0.245 0.012 0.005 0.013 0.013 12.3 38.3

11.6 18.2 1 1 0 1 1 1

1861 5.68834 -69.32633 279.69849 -31.41844 -0.018 5779.80 0.900 -0.025 5786.23 0.611 1.00 0.002 0.00 0.000 0.003 0.07 0.082 0.00 0.838 0.041 0.039 0.005 0.007 8.0 5.8 0.000 5796.31 0.527 -0.024 5803.42 0.250 0.99 0.000 0.00 0.000 0.003 0.05 0.000 0.00 0.661 -0.000
0.015 0.000 0.002 0.0 7.4 -0.136 5890.27 0.752 -0.093 5901.20 1.000 0.104 5889.40 0.314 -0.107 -0.054 0.000 1.01 0.005 0.05 0.035 0.003 0.04 0.000 0.011 0.00 0.031 0.006 0.008 0.000 0.00 2.427 0.257 0.233 0.202 0.134 0.015 0.009 0.015 0.019 16.9 26.9
13.5 7.0 0 0 0 0 1 1

1795 5.67467 -69.33089 279.71289 -31.48992 -0.019 5780.22 0.451 -0.023 5787.00 0.548 1.00 0.002 0.05 0.053 0.002 0.00 0.049 0.00 0.897 0.022 0.032 0.003 0.004 6.6 8.6 -0.013 5797.24 0.374 -0.012 5804.25 1.000 1.00 0.002 0.05 0.057 0.001 0.00 0.000 0.00 0.621 0.013
0.030 0.003 0.003 5.0 11.5 -0.196 5890.34 0.466 -0.201 5901.81 0.492 0.149 5889.93 0.400 -0.187 -0.336 0.307 1.00 0.090 0.24 0.078 0.004 0.01 0.012 0.139 0.04 0.000 0.097 0.064 0.119 0.00 1.523 0.229 0.248 0.218 0.415 0.112 0.008 0.119 0.080 2.1 30.6
1.8 5.2 1 0 1 0 1 1

1632 5.64786 -69.31475 279.71274 -31.63283 -0.010 5781.09 0.360 -0.023 5785.76 0.900 1.00 0.003 0.12 0.000 0.002 0.08 0.000 0.00 0.627 0.009 0.052 0.002 0.004 4.0 13.1 -0.008 5797.32 0.297 -0.016 5802.56 1.000 1.00 0.002 0.09 0.088 0.001 0.08 0.000 0.00 0.280 0.006
0.040 0.002 0.003 2.6 13.7 -0.062 5890.93 0.864 -0.236 5901.74 0.581 0.147 5889.87 0.286 -0.042 -0.274 0.102 1.01 0.003 0.09 0.070 0.003 0.01 0.008 0.007 0.01 0.013 0.003 0.009 0.010 0.00 0.643 0.133 0.343 0.091 0.399 0.012 0.006 0.010 0.014 10.8 53.0
8.9 28.2 0 0 0 0 1 1

1831 5.68292 -69.35883 279.73993 -31.44350 -0.022 5781.00 0.360 -0.070 5785.96 0.859 0.99 0.002 0.03 0.000 0.001 0.02 0.018 0.00 0.815 0.020 0.150 0.001 0.004 13.8 36.5 -0.003 5797.83 0.505 -0.023 5802.61 0.411 1.00 0.001 0.24 0.258 0.002 0.03 0.033 0.00 0.712 0.004
0.024 0.003 0.003 1.5 9.4 -0.256 5890.25 0.428 -0.355 5901.39 0.463 0.125 5890.00 0.400 -0.277 -0.467 0.197 1.00 0.272 0.30 0.062 0.002 0.00 0.003 0.329 0.05 0.000 0.295 0.007 0.354 0.00 0.716 0.275 0.413 0.297 0.542 0.295 0.004 0.320 0.009 0.9 110.0
0.9 62.9 1 1 0 1 1 1

1011 5.56125 -69.23145 279.68350 -32.09943 -0.021 5780.77 0.360 -0.049 5785.87 0.612 1.00 0.003 0.08 0.000 0.003 0.04 0.046 0.00 0.612 0.019 0.075 0.003 0.007 6.2 10.2 0.000 5797.31 0.492 -0.020 5802.05 0.250 1.00 0.000 0.00 0.000 0.003 0.05 0.000 0.00 0.371 -0.000
0.013 0.000 0.002 0.0 6.6 -0.125 5890.46 0.494 -0.214 5901.41 0.374 0.076 5889.58 0.183 -0.137 -0.246 0.050 1.01 0.005 0.03 0.028 0.006 0.01 0.010 0.010 0.02 0.027 0.005 0.015 0.018 0.00 1.934 0.154 0.201 0.169 0.230 0.011 0.008 0.012 0.015 14.3 26.0
14.3 14.9 1 1 0 0 1 1

1470 5.62298 -69.32264 279.74030 -31.76277 -0.013 5780.58 0.759 -0.025 5786.38 0.900 1.00 0.001 0.09 0.096 0.001 0.05 0.000 0.00 0.815 0.025 0.057 0.004 0.003 6.1 20.1 -0.012 5797.72 0.361 -0.019 5803.33 1.000 1.00 0.001 0.05 0.050 0.001 0.05 0.000 0.00 0.470 0.011
0.047 0.002 0.002 5.5 21.7 -0.137 5890.27 0.526 -0.149 5901.54 0.433 0.113 5889.72 0.371 -0.109 -0.234 0.182 1.00 0.024 0.14 0.052 0.003 0.01 0.008 0.044 0.02 0.024 0.023 0.023 0.043 0.00 0.661 0.181 0.162 0.144 0.255 0.036 0.004 0.033 0.025 5.0 39.6
4.3 10.2 1 1 1 1 1 1

1713 5.66347 -69.38766 279.78674 -31.54251 -0.009 5779.80 0.900 -0.020 5786.52 0.900 1.00 0.002 0.00 0.000 0.002 0.10 0.000 0.00 0.961 0.021 0.046 0.004 0.004 4.8 10.7 -0.016 5796.60 0.324 -0.011 5802.27 1.000 1.00 0.003 0.06 0.065 0.002 0.00 0.000 0.00 0.738 0.013
0.029 0.004 0.004 3.8 7.2 -0.124 5890.40 0.503 -0.242 5901.29 0.400 0.116 5889.77 0.305 -0.119 -0.321 0.148 1.00 0.014 0.12 0.062 0.004 0.01 0.006 0.034 0.02 0.029 0.015 0.007 0.033 0.00 1.028 0.157 0.243 0.150 0.321 0.026 0.005 0.027 0.009 6.0 49.0
5.6 36.7 0 0 0 0 1 1

1251 5.60066 -69.30167 279.73309 -31.88274 -0.014 5781.15 0.846 -0.065 5785.89 0.900 0.99 0.002 0.13 0.155 0.002 0.03 0.000 0.00 0.854 0.029 0.146 0.007 0.004 4.3 33.5 0.000 5797.66 0.496 -0.024 5802.93 0.714 1.00 0.000 0.00 0.000 0.002 0.06 0.064 0.00 0.649 -0.000
0.044 0.000 0.005 0.0 8.6 -0.137 5890.41 0.608 -0.296 5901.48 0.495 0.137 5889.73 0.319 -0.103 -0.378 0.130 1.00 0.010 0.09 0.046 0.003 0.01 0.005 0.023 0.01 0.026 0.009 0.012 0.022 0.00 1.526 0.209 0.367 0.157 0.468 0.022 0.006 0.018 0.015 9.6 64.3

8.8 30.6 0 1 0 1 1 1

1681 5.65797 -69.43278 279.84320 -31.56623 -0.017 5779.80 0.900 -0.022 5786.02 0.900 1.01 0.002 0.00 0.000 0.002 0.08 0.000 0.00 1.167 0.038 0.050 0.004 0.004 9.4 12.1 -0.014 5795.83 0.976 -0.014 5802.91 1.000 1.00 0.002 0.12 0.141 0.002 0.12 0.000 0.00 0.824 0.034
0.035 0.006 0.004 5.4 8.7 -0.203 5890.30 0.478 -0.179 5901.17 0.482 0.126 5889.85 0.400 -0.180 -0.228 0.151 1.00 0.052 0.15 0.056 0.003 0.01 0.009 0.087 0.04 0.000 0.047 0.007 0.077 0.00 1.392 0.243 0.216 0.215 0.275 0.069 0.006 0.062 0.010 3.5 37.0
3.5 28.4 0 0 0 0 1 1

1490 5.62619 -69.37708 279.80142 -31.73930 -0.018 5779.82 0.482 -0.013 5786.12 0.778 1.00 0.002 0.07 0.078 0.002 0.13 0.147 0.00 0.992 0.022 0.025 0.005 0.006 4.7 4.1 -0.007 5797.07 0.933 -0.007 5803.37 0.608 1.00 0.002 0.00 0.297 0.002 0.00 0.217 0.00 0.775 0.015
0.011 0.006 0.005 2.5 2.2 -0.117 5890.47 0.665 -0.061 5901.49 0.302 0.142 5889.69 0.359 -0.088 -0.194 0.242 1.01 0.011 0.14 0.071 0.005 0.03 0.018 0.027 0.02 0.029 0.011 0.053 0.051 0.00 1.258 0.195 0.047 0.146 0.147 0.028 0.005 0.024 0.041 7.0 10.2
6.1 3.6 0 0 0 0 1 1

1840 5.68531 -69.50628 279.91016 -31.41513 -0.024 5780.95 0.548 -0.022 5785.91 0.768 1.00 0.002 0.04 0.045 0.001 0.05 0.061 0.00 0.598 0.034 0.043 0.004 0.004 9.4 9.9 -0.009 5798.20 1.000 -0.009 5802.11 0.250 1.00 0.001 0.00 0.000 0.002 0.07 0.000 0.00 0.498 0.023
0.006 0.003 0.001 8.6 5.0 -0.237 5890.32 0.491 -0.210 5901.36 0.452 0.198 5889.88 0.400 -0.167 -0.303 0.164 1.00 0.035 0.09 0.037 0.003 0.01 0.006 0.060 0.02 0.000 0.024 0.007 0.042 0.00 0.809 0.292 0.238 0.206 0.344 0.048 0.005 0.034 0.009 6.0 52.7
6.1 38.6 1 1 0 0 1 1

1520 5.62936 -69.39800 279.82346 -31.72015 -0.015 5780.39 0.360 -0.009 5785.33 0.900 1.00 0.003 0.08 0.000 0.002 0.22 0.000 0.00 0.839 0.014 0.020 0.002 0.004 5.8 4.8 -0.003 5797.64 1.000 0.000 5801.82 0.485 1.00 0.001 0.00 0.000 0.000 0.00 0.000 0.00 0.605 0.007 -
0.000 0.004 0.000 1.9 0.0 -0.077 5890.62 0.717 -0.081 5901.63 0.347 0.166 5889.76 0.298 -0.070 -0.179 0.279 1.00 0.004 0.08 0.052 0.004 0.02 0.014 0.010 0.01 0.011 0.004 0.052 0.055 0.00 0.881 0.137 0.070 0.127 0.156 0.012 0.004 0.012 0.046 11.6 16.3
11.0 3.4 0 0 0 0 1 1

1372 5.61057 -69.36403 279.79816 -31.82283 -0.020 5780.84 0.360 -0.023 5785.61 0.360 1.00 0.002 0.04 0.000 0.002 0.03 0.000 0.00 0.523 0.018 0.020 0.001 0.001 12.7 14.6 0.000 5797.44 0.518 -0.017 5802.62 0.349 1.00 0.000 0.00 0.000 0.002 0.05 0.051 0.00 0.702 -0.000
0.015 0.000 0.003 0.0 5.2 -0.109 5890.38 0.698 -0.160 5901.52 0.455 0.132 5889.67 0.336 -0.095 -0.204 0.141 1.00 0.006 0.07 0.036 0.003 0.01 0.010 0.013 0.01 0.020 0.006 0.020 0.024 0.00 0.714 0.191 0.183 0.166 0.233 0.015 0.005 0.014 0.024 12.8 34.7
11.8 9.9 1 1 0 1 1 1

1678 5.65687 -69.47980 279.89880 -31.56660 -0.018 5781.00 0.581 -0.017 5785.31 0.588 0.99 0.001 0.04 0.048 0.001 0.05 0.052 0.00 0.411 0.026 0.025 0.003 0.003 9.3 8.8 -0.014 5797.64 0.356 -0.019 5802.46 0.250 1.00 0.001 0.04 0.045 0.002 0.03 0.000 0.00 0.370 0.013
0.012 0.002 0.001 6.1 12.7 -0.223 5890.21 0.498 -0.140 5900.81 0.493 0.164 5889.75 0.369 -0.242 -0.157 0.171 1.00 0.103 0.25 0.073 0.002 0.01 0.009 0.152 0.06 0.064 0.111 0.003 0.164 0.00 0.974 0.278 0.173 0.302 0.194 0.135 0.004 0.145 0.005 2.1 39.0
2.1 35.5 1 1 1 1 1 1

1563 5.63631 -69.44006 279.86737 -31.67871 0.000 5780.80 0.658 -0.007 5785.71 0.360 0.99 0.000 0.00 0.000 0.002 0.17 0.000 0.00 0.658 -0.000 0.006 0.000 0.002 0.0 2.9 -0.007 5796.55 1.000 0.000 5802.18 0.463 1.00 0.001 0.00 0.000 0.000 0.00 0.000 0.00 0.395 0.018 -
0.000 0.003 0.000 5.9 0.0 -0.276 5890.25 0.523 -0.097 5901.39 0.436 0.258 5889.84 0.365 -0.238 -0.136 0.284 1.00 0.048 0.09 0.022 0.003 0.02 0.013 0.065 0.01 0.023 0.045 0.008 0.060 0.00 0.879 0.361 0.106 0.312 0.149 0.065 0.005 0.061 0.010 5.6 22.6
5.2 14.6 0 0 0 0 1 1

1380 5.61127 -69.38247 279.81915 -31.81685 -0.018 5780.16 0.360 -0.015 5786.37 0.360 1.00 0.002 0.04 0.000 0.002 0.05 0.000 0.00 0.158 0.016 0.013 0.001 0.001 11.4 9.6 0.000 5796.64 0.420 0.000 5802.66 0.250 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 1.155 -0.000 -
0.000 0.000 0.000 0.0 0.0 -0.213 5890.20 0.554 -0.118 5901.44 0.370 0.197 5889.68 0.364 -0.129 -0.241 0.287 1.00 0.027 0.09 0.036 0.004 0.02 0.011 0.046 0.02 0.020 0.021 0.032 0.047 0.00 1.551 0.296 0.109 0.178 0.224 0.041 0.005 0.032 0.030 7.1 22.2

5.6 7.4 0 0 0 0 1 1

1865 5.68897 -69.60020 280.01712 -31.38592 -0.018 5781.00 0.631 -0.005 5785.00 0.900 1.00 0.001 0.06 0.063 0.001 0.00 0.000 0.00 0.529 0.029 0.012 0.004 0.003 7.8 4.2 -0.016 5797.94 0.136 -0.004 5802.25 0.515 1.00 0.003 0.03 0.026 0.001 0.00 0.207 0.00 0.390 0.005
0.005 0.001 0.003 4.0 1.9 -0.253 5890.21 0.437 -0.130 5900.68 0.847 0.244 5889.85 0.351 -0.147 -0.165 0.221 1.00 0.175 0.28 0.069 0.003 0.02 0.018 0.237 0.05 0.040 0.114 0.003 0.144 0.00 1.824 0.277 0.277 0.161 0.351 0.197 0.008 0.127 0.010 1.4 33.7
1.3 35.6 1 0 0 0 1 1

1460 5.62136 -69.42661 279.86288 -31.75854 0.000 5780.90 0.654 -0.023 5786.33 0.520 0.99 0.000 0.00 0.000 0.002 0.04 0.046 0.00 0.405 -0.000 0.029 0.000 0.003 0.0 8.7 -0.010 5797.60 0.125 -0.009 5802.65 1.000 0.99 0.002 0.04 0.000 0.001 0.13 0.000 0.00 0.324 0.003
0.023 0.001 0.003 4.0 8.9 -0.169 5890.26 0.500 -0.164 5901.45 0.422 0.183 5889.76 0.365 -0.135 -0.249 0.192 1.00 0.071 0.26 0.083 0.003 0.01 0.007 0.113 0.04 0.041 0.061 0.013 0.093 0.00 1.138 0.212 0.173 0.169 0.264 0.096 0.004 0.082 0.014 2.2 39.5
2.1 18.7 0 1 0 0 1 1

1788 5.67390 -69.58675 280.01160 -31.46574 -0.019 5780.60 0.891 -0.026 5785.00 0.900 0.99 0.001 0.05 0.058 0.001 0.00 0.000 0.00 0.332 0.043 0.059 0.004 0.002 11.9 26.2 -0.015 5797.85 0.559 -0.017 5802.25 0.469 1.00 0.001 0.00 0.065 0.002 0.00 0.052 0.00 0.475 0.021
0.020 0.003 0.003 6.6 6.9 -0.229 5890.26 0.545 -0.276 5900.89 0.473 0.183 5889.72 0.371 -0.196 -0.314 0.188 1.00 0.044 0.14 0.046 0.003 0.01 0.005 0.073 0.02 0.036 0.040 0.004 0.063 0.00 0.555 0.313 0.327 0.268 0.372 0.066 0.005 0.059 0.006 4.8 67.6
4.6 63.5 1 1 0 1 1 1

1875 5.69101 -69.65139 280.07538 -31.36980 -0.016 5780.63 0.900 0.000 5785.93 0.651 1.00 0.003 0.17 0.000 0.000 0.00 0.000 0.00 3.149 0.037 -0.000 0.006 0.000 6.4 0.0 -0.013 5797.22 0.720 -0.016 5803.18 1.000 1.01 0.001 0.09 0.100 0.001 0.00 0.000 0.00 0.709 0.024
0.040 0.004 0.003 5.6 12.0 -0.127 5890.33 0.543 -0.058 5901.17 0.458 0.122 5889.71 0.334 -0.092 -0.063 0.105 1.00 0.019 0.14 0.062 0.003 0.02 0.020 0.039 0.02 0.035 0.015 0.004 0.028 0.00 0.629 0.173 0.066 0.126 0.072 0.032 0.004 0.024 0.006 5.4 15.9
5.1 12.4 0 0 0 0 1 1

1670 5.65498 -69.55675 279.98987 -31.56757 -0.017 5780.90 0.900 -0.017 5786.30 0.900 1.00 0.002 0.14 0.000 0.002 0.13 0.000 0.00 0.325 0.038 0.039 0.005 0.005 7.4 7.7 -0.013 5797.15 0.125 -0.011 5802.05 0.291 1.00 0.005 0.06 0.000 0.004 0.00 0.113 0.00 0.267 0.004
0.008 0.001 0.004 2.9 2.0 -0.336 5890.24 0.457 -0.314 5901.16 0.428 0.252 5889.89 0.389 -0.253 -0.383 0.235 1.00 0.390 0.40 0.085 0.003 0.00 0.004 0.488 0.11 0.065 0.310 0.004 0.378 0.00 0.818 0.385 0.337 0.289 0.411 0.452 0.004 0.358 0.006 0.9 75.1
0.8 66.8 0 0 0 0 1 1

1390 5.61237 -69.42978 279.87354 -31.80517 -0.017 5779.80 0.900 -0.014 5786.10 0.380 0.99 0.002 0.00 0.000 0.003 0.08 0.087 0.00 0.782 0.039 0.013 0.004 0.004 10.1 3.4 -0.024 5796.61 0.125 -0.024 5802.66 0.266 1.00 0.004 0.03 0.000 0.003 0.04 0.045 0.00 0.874 0.007
0.016 0.001 0.003 5.8 4.5 -0.143 5890.36 0.672 -0.153 5901.50 0.350 0.135 5889.64 0.341 -0.112 -0.409 0.352 1.00 0.006 0.06 0.032 0.004 0.01 0.008 0.015 0.01 0.014 0.007 0.082 0.084 0.00 1.101 0.240 0.134 0.188 0.358 0.016 0.005 0.015 0.072 15.4 29.0
12.8 5.0 0 0 0 0 1 1

1810 5.68011 -69.66309 280.09628 -31.42501 -0.021 5781.80 0.402 -0.019 5785.91 0.784 1.00 0.003 0.00 0.069 0.002 0.10 0.112 0.00 0.868 0.021 0.037 0.005 0.007 4.5 5.4 -0.008 5798.09 1.000 -0.025 5802.34 0.250 1.00 0.001 0.22 0.000 0.003 0.03 0.000 0.00 0.538 0.019
0.015 0.004 0.002 5.3 9.7 -0.165 5890.34 0.533 -0.301 5900.93 0.524 0.166 5889.77 0.279 -0.112 -0.364 0.196 1.00 0.011 0.07 0.035 0.003 0.01 0.006 0.025 0.01 0.017 0.009 0.004 0.018 0.00 0.848 0.220 0.396 0.149 0.478 0.020 0.007 0.016 0.008 10.9 60.7
9.4 62.4 0 0 0 0 1 1

1763 5.67011 -69.64303 280.07977 -31.47909 -0.025 5780.49 0.900 -0.040 5785.65 0.900 1.00 0.002 0.07 0.000 0.002 0.04 0.000 0.00 0.222 0.056 0.090 0.004 0.004 15.7 25.3 0.000 5797.00 0.312 -0.016 5801.71 0.250 0.99 0.000 0.00 0.000 0.005 0.10 0.000 0.00 0.854 -0.000
0.010 0.000 0.003 0.0 3.4 -0.164 5890.58 0.259 -0.309 5901.05 0.515 0.145 5889.60 0.356 -0.123 -0.384 0.083 1.00 0.005 0.01 0.010 0.004 0.01 0.006 0.005 0.02 0.017 0.005 0.006 0.008 0.00 0.857 0.106 0.399 0.080 0.496 0.005 0.006 0.005 0.010 19.6 63.5

17.7 51.9 1 1 0 0 1 1

1758 5.66965 -69.65561 280.09476 -31.48005 -0.015 5780.65 0.360 -0.022 5786.01 0.900 1.01 0.002 0.08 0.000 0.002 0.08 0.000 0.00 0.502 0.014 0.049 0.002 0.004 6.1 12.7 -0.018 5797.70 0.214 -0.010 5802.03 0.250 1.00 0.004 0.06 0.060 0.003 0.11 0.000 0.00 0.697 0.010
0.007 0.004 0.002 2.7 3.1 -0.159 5890.40 0.591 -0.258 5901.03 0.449 0.179 5889.71 0.364 -0.107 -0.305 0.174 1.00 0.028 0.21 0.094 0.005 0.01 0.009 0.063 0.03 0.039 0.023 0.007 0.043 0.00 2.104 0.235 0.291 0.158 0.343 0.056 0.008 0.042 0.011 4.2 35.9
3.8 31.9 0 0 0 0 1 1

1114 5.58213 -69.34172 279.79489 -31.97487 -0.014 5780.64 0.900 -0.003 5785.50 0.360 1.00 0.001 0.05 0.000 0.001 0.16 0.000 0.00 0.314 0.032 0.003 0.002 0.001 20.2 3.0 -0.011 5797.60 0.167 0.000 5802.01 0.501 1.00 0.002 0.03 0.035 0.000 0.00 0.000 0.00 0.430 0.005 -
0.000 0.001 0.000 3.6 0.0 -0.166 5890.34 0.627 -0.052 5901.35 0.345 0.129 5889.58 0.400 -0.153 -0.212 0.308 1.00 0.006 0.05 0.031 0.004 0.02 0.014 0.017 0.02 0.000 0.007 0.042 0.047 0.00 0.973 0.260 0.045 0.241 0.184 0.016 0.004 0.016 0.037 16.1 12.7
15.0 5.0 1 0 0 0 1 1

1698 5.66034 -69.64928 280.09390 -31.52901 -0.015 5780.77 0.465 -0.027 5785.06 0.900 0.99 0.003 0.11 0.114 0.002 0.08 0.000 0.00 0.229 0.017 0.061 0.006 0.005 3.1 12.6 -0.014 5797.29 0.373 -0.007 5802.31 0.812 1.00 0.003 0.08 0.081 0.002 0.00 0.256 0.00 0.130 0.013
0.014 0.004 0.006 3.5 2.5 -0.315 5890.41 0.296 -0.395 5901.06 0.532 0.246 5889.60 0.265 -0.220 -0.475 0.166 1.00 0.005 0.01 0.008 0.004 0.01 0.005 0.006 0.01 0.010 0.005 0.005 0.008 0.00 1.001 0.234 0.526 0.163 0.633 0.007 0.007 0.006 0.009 31.8 78.1
28.4 70.0 0 1 0 0 1 1

1408 5.61477 -69.47828 279.92828 -31.78655 -0.029 5781.80 0.396 0.000 5785.99 0.530 1.00 0.003 0.00 0.055 0.000 0.00 0.000 0.00 1.394 0.029 -0.000 0.005 0.000 5.5 0.0 -0.025 5799.05 0.341 0.000 5802.48 0.546 1.00 0.002 0.00 0.032 0.000 0.00 0.000 0.00 0.403 0.022 -
0.000 0.003 0.000 8.2 0.0 -0.153 5890.28 0.541 -0.110 5901.30 0.320 0.258 5889.75 0.377 -0.117 -0.145 0.271 1.00 0.079 0.36 0.117 0.006 0.02 0.015 0.128 0.03 0.041 0.066 0.013 0.100 0.00 1.720 0.208 0.089 0.158 0.116 0.116 0.006 0.096 0.012 1.8 14.6
1.6 10.1 0 0 1 0 1 1

1324 5.60614 -69.45050 279.90259 -31.83510 -0.017 5780.01 0.880 -0.021 5785.59 0.611 1.01 0.002 0.13 0.147 0.003 0.09 0.099 0.00 0.250 0.038 0.032 0.008 0.007 4.7 4.8 -0.027 5796.64 0.125 0.000 5802.21 0.478 0.99 0.019 0.12 0.000 0.000 0.00 0.000 0.00 4.158 0.009 -
0.000 0.006 0.000 1.4 0.0 -0.112 5890.65 0.903 -0.079 5900.87 1.000 0.234 5889.71 0.307 -0.098 -0.009 0.189 1.01 0.005 0.07 0.048 0.003 0.05 0.000 0.010 0.01 0.012 0.005 0.004 0.008 0.00 1.257 0.254 0.198 0.221 0.023 0.017 0.008 0.016 0.011 14.8 23.4
14.2 2.2 0 0 0 0 1 1

1135 5.58735 -69.38753 279.84412 -31.94149 -0.020 5780.78 0.900 -0.013 5786.11 0.370 1.00 0.001 0.07 0.000 0.002 0.07 0.075 0.00 0.447 0.046 0.012 0.003 0.003 14.9 3.8 -0.014 5797.23 0.125 0.000 5802.66 0.404 0.99 0.014 0.17 0.000 0.000 0.00 0.000 0.00 8.820 0.004 -
0.000 0.004 0.000 1.0 0.0 -0.233 5890.10 0.567 -0.030 5901.57 0.372 0.287 5889.69 0.386 -0.203 -0.847 1.122 1.00 0.047 0.09 0.026 0.004 0.06 0.019 0.057 0.02 0.023 0.051 1.044 1.030 0.00 1.464 0.331 0.028 0.288 0.790 0.068 0.004 0.074 0.975 4.9 6.6
3.9 0.8 1 0 1 0 1 1

1333 5.60716 -69.48661 279.94394 -31.82519 -0.010 5780.89 0.900 -0.029 5785.97 0.900 1.00 0.002 0.16 0.000 0.002 0.06 0.000 0.00 0.701 0.023 0.066 0.004 0.004 6.3 17.7 -0.012 5797.11 0.129 -0.027 5802.72 0.261 1.00 0.005 0.06 0.056 0.003 0.04 0.038 0.00 0.855 0.004
0.018 0.002 0.003 1.7 5.3 -0.182 5890.30 0.594 -0.144 5901.34 0.449 0.246 5889.72 0.355 -0.107 -0.167 0.171 1.00 0.020 0.09 0.035 0.003 0.01 0.009 0.035 0.01 0.019 0.013 0.007 0.022 0.00 0.877 0.270 0.162 0.159 0.188 0.034 0.004 0.021 0.009 8.1 36.3
7.5 21.6 0 1 0 1 1 1

1358 5.60953 -69.51133 279.97095 -31.80969 -0.028 5779.80 0.900 -0.050 5785.82 0.900 1.00 0.004 0.00 0.000 0.004 0.08 0.000 0.00 0.250 0.064 0.113 0.008 0.008 7.6 13.4 -0.053 5796.67 0.194 -0.040 5802.65 0.250 1.01 0.011 0.05 0.048 0.008 0.07 0.000 0.00 0.493 0.026
0.025 0.008 0.005 3.1 4.8 -0.074 5890.89 0.832 -0.155 5901.33 0.389 0.212 5889.66 0.281 -0.092 -0.205 0.171 1.01 0.005 0.10 0.094 0.008 0.02 0.017 0.012 0.01 0.017 0.006 0.020 0.025 0.00 0.941 0.154 0.151 0.192 0.200 0.021 0.010 0.025 0.021 7.4 15.3

7.8 9.5 0 0 0 0 1 1

1192 5.59524 -69.45061 279.91141 -31.89201 -0.030 5781.06 0.853 -0.016 5786.48 0.360 1.00 0.002 0.05 0.053 0.002 0.06 0.000 0.00 0.455 0.064 0.015 0.005 0.002 12.5 8.2 -0.028 5797.13 0.435 -0.014 5803.71 1.000 1.00 0.002 0.03 0.036 0.001 0.11 0.000 0.00 0.412 0.030
0.034 0.003 0.003 9.2 10.8 -0.124 5890.64 0.810 -0.063 5901.29 1.000 0.153 5889.66 0.316 -0.098 0.000 0.049 1.01 0.004 0.05 0.037 0.002 0.04 0.000 0.008 0.01 0.017 0.003 0.000 0.008 0.00 0.892 0.252 0.159 0.199 -0.000 0.014 0.006 0.011 0.000 18.4 25.6
18.3 0.0 1 0 1 0 1 1

1267 5.60190 -69.50244 279.96658 -31.85057 -0.017 5779.80 0.887 -0.035 5785.58 0.360 1.00 0.002 0.00 0.141 0.003 0.04 0.000 0.00 0.521 0.037 0.031 0.008 0.003 4.9 12.1 -0.019 5795.77 0.170 -0.006 5802.31 0.403 0.99 0.006 0.06 0.062 0.004 0.32 0.328 0.00 0.859 0.008
0.006 0.004 0.006 2.1 0.9 -0.088 5890.84 0.946 -0.203 5901.39 0.350 0.215 5889.70 0.338 -0.050 -0.306 0.282 1.01 0.004 0.08 0.067 0.005 0.01 0.007 0.009 0.01 0.010 0.004 0.017 0.019 0.00 0.903 0.208 0.178 0.119 0.269 0.017 0.005 0.012 0.016 12.3 33.5
10.1 16.9 0 1 0 0 1 1

1292 5.60337 -69.53220 280.00015 -31.83909 -0.017 5781.27 0.644 -0.007 5786.23 0.360 1.00 0.002 0.08 0.089 0.002 0.15 0.000 0.00 0.295 0.028 0.006 0.005 0.002 5.6 3.0 -0.015 5798.44 0.178 -0.009 5802.81 0.250 0.99 0.005 0.07 0.076 0.004 0.14 0.000 0.00 0.644 0.007
0.006 0.004 0.002 1.8 2.5 -0.107 5890.77 0.824 -0.201 5901.47 0.396 0.197 5889.78 0.327 -0.067 -0.269 0.185 1.00 0.003 0.06 0.046 0.003 0.01 0.006 0.010 0.01 0.012 0.003 0.012 0.014 0.00 0.787 0.222 0.200 0.139 0.267 0.014 0.005 0.010 0.012 15.5 43.7
13.6 21.8 0 0 0 0 1 1

1411 5.61508 -69.61403 280.08643 -31.76784 -0.025 5781.80 0.360 -0.021 5786.40 0.360 1.00 0.002 0.00 0.000 0.002 0.05 0.000 0.00 0.641 0.023 0.019 0.002 0.002 10.8 9.1 -0.017 5797.55 0.448 -0.006 5802.15 1.000 1.00 0.003 0.00 0.095 0.002 0.00 0.000 0.00 0.930 0.019
0.016 0.005 0.005 3.6 3.2 -0.215 5890.27 0.527 -0.177 5901.31 0.403 0.288 5889.80 0.399 -0.176 -0.275 0.265 1.00 0.168 0.43 0.115 0.004 0.01 0.008 0.240 0.05 0.057 0.143 0.010 0.200 0.00 1.302 0.284 0.179 0.233 0.277 0.231 0.005 0.196 0.011 1.2 33.4
1.2 24.5 0 0 0 0 1 1

1105 5.58059 -69.42861 279.89767 -31.97141 -0.019 5781.35 0.360 0.000 5785.99 0.639 1.00 0.002 0.05 0.000 0.000 0.00 0.000 0.00 0.493 0.017 -0.000 0.002 0.000 9.5 0.0 0.000 5797.88 0.376 -0.013 5802.21 0.769 1.01 0.000 0.00 0.000 0.002 0.14 0.154 0.00 0.846 -0.000
0.025 0.000 0.007 0.0 3.9 -0.138 5890.34 0.704 -0.053 5900.69 1.000 0.254 5889.77 0.315 -0.108 -0.020 0.194 1.01 0.007 0.05 0.022 0.002 0.05 0.000 0.011 0.01 0.010 0.006 0.003 0.008 0.00 0.997 0.243 0.133 0.191 0.050 0.015 0.006 0.012 0.007 16.3 22.6
15.4 7.4 0 0 0 0 1 0

1018 5.56259 -69.29980 279.76227 -32.08307 0.000 5780.81 0.579 -0.010 5785.96 0.407 1.00 0.000 0.00 0.000 0.002 0.07 0.070 0.00 0.472 -0.000 0.011 0.000 0.002 0.0 4.4 0.000 5797.79 0.644 -0.007 5802.42 0.250 1.00 0.000 0.00 0.000 0.002 0.08 0.000 0.00 0.537 -0.000
0.004 0.000 0.001 0.0 4.0 -0.214 5890.27 0.471 -0.065 5901.49 0.391 0.144 5889.84 0.400 -0.190 -0.113 0.175 1.00 0.045 0.11 0.039 0.003 0.02 0.013 0.071 0.03 0.000 0.040 0.012 0.063 0.00 0.679 0.252 0.063 0.225 0.111 0.057 0.003 0.051 0.013 4.5 19.2
4.4 8.7 0 0 0 0 1 1

1341 5.60830 -69.60567 280.08200 -31.80404 -0.030 5781.22 0.360 0.000 5786.11 0.617 1.00 0.003 0.05 0.000 0.000 0.00 0.000 0.00 1.074 0.027 -0.000 0.003 0.000 9.2 0.0 -0.032 5797.37 0.190 -0.008 5803.36 1.000 1.00 0.004 0.02 0.025 0.002 0.00 0.000 0.00 0.500 0.015
0.021 0.003 0.004 5.9 5.3 -0.125 5890.34 0.540 -0.150 5901.37 0.336 0.238 5889.78 0.373 -0.088 -0.152 0.197 1.00 0.075 0.45 0.157 0.005 0.01 0.011 0.128 0.04 0.047 0.056 0.011 0.092 0.00 1.055 0.169 0.126 0.120 0.128 0.113 0.006 0.084 0.010 1.5 22.3
1.4 13.1 1 0 1 0 1 1

1402 5.61359 -69.65334 280.13348 -31.77055 -0.032 5780.72 0.448 -0.020 5785.78 0.900 1.00 0.004 0.06 0.062 0.003 0.13 0.000 0.00 0.983 0.036 0.045 0.006 0.006 5.6 7.9 0.000 5797.21 0.587 -0.008 5803.03 1.000 0.99 0.000 0.00 0.000 0.002 0.00 0.000 0.00 0.674 -0.000
0.021 0.000 0.005 0.0 4.3 -0.145 5890.29 0.633 -0.239 5901.32 0.452 0.209 5889.81 0.352 -0.103 -0.282 0.168 1.00 0.018 0.08 0.029 0.004 0.01 0.007 0.025 0.01 0.021 0.014 0.007 0.019 0.00 1.234 0.230 0.271 0.163 0.319 0.031 0.006 0.024 0.010 7.4 44.0

6.9 32.7 0 0 0 0 1 1

1115 5.58222 -69.45511 279.92728 -31.95936 -0.007 5781.80 0.696 -0.012 5786.46 0.900 1.00 0.002 0.00 0.214 0.002 0.14 0.000 0.00 0.726 0.013 0.026 0.005 0.004 2.5 7.2 -0.034 5797.98 0.215 -0.018 5803.18 1.000 1.00 0.002 0.02 0.018 0.001 0.07 0.000 0.00 0.416 0.018
0.044 0.002 0.003 9.1 15.9 -0.184 5890.30 0.499 -0.053 5900.76 0.863 0.277 5889.83 0.368 -0.157 0.000 0.216 1.00 0.153 0.46 0.138 0.003 0.06 0.067 0.227 0.06 0.061 0.127 0.000 0.192 0.00 1.282 0.231 0.114 0.197 -0.000 0.202 0.011 0.168 0.000 1.1 10.0
1.2 0.0 0 0 0 0 1 0

1506 5.62819 -69.80847 280.30310 -31.67567 -0.016 5780.54 0.360 -0.019 5786.03 0.722 1.00 0.002 0.05 0.000 0.001 0.06 0.067 0.00 0.171 0.014 0.034 0.002 0.004 9.1 8.3 0.000 5797.09 0.466 -0.008 5803.21 0.250 1.00 0.000 0.00 0.000 0.002 0.09 0.000 0.00 0.214 -0.000
0.005 0.000 0.001 0.0 3.8 -0.266 5890.18 0.479 -0.184 5901.09 0.450 0.274 5889.77 0.362 -0.149 -0.231 0.228 1.00 0.076 0.14 0.037 0.002 0.01 0.006 0.108 0.02 0.024 0.048 0.004 0.064 0.00 0.687 0.319 0.207 0.180 0.261 0.095 0.004 0.060 0.005 3.4 55.5
3.0 49.2 0 0 0 0 1 1

1090 5.57861 -69.44297 279.91611 -31.97982 0.000 5780.81 0.653 -0.009 5785.00 0.900 1.00 0.000 0.00 0.000 0.002 0.00 0.000 0.00 0.783 -0.000 0.021 0.000 0.005 0.0 4.2 -0.013 5796.76 0.222 0.000 5801.60 0.554 1.00 0.005 0.10 0.105 0.000 0.00 0.000 0.00 0.933 0.007 -
0.000 0.004 0.000 1.6 0.0 -0.232 5890.42 0.341 -0.052 5901.45 0.433 0.184 5889.77 0.400 -0.163 -0.124 0.276 1.00 0.012 0.03 0.016 0.004 0.04 0.024 0.016 0.04 0.000 0.012 0.030 0.027 0.00 1.341 0.198 0.056 0.139 0.135 0.014 0.005 0.012 0.034 14.1 10.5
11.5 4.0 0 0 0 0 1 0

1452 5.62036 -69.78469 280.28140 -31.71892 -0.025 5780.69 0.492 -0.033 5786.04 0.900 1.01 0.003 0.07 0.073 0.002 0.07 0.000 0.00 0.943 0.031 0.074 0.006 0.005 5.2 14.7 0.000 5797.20 0.525 -0.019 5801.86 1.000 1.00 0.000 0.00 0.000 0.001 0.07 0.000 0.00 0.257 -0.000
0.048 0.000 0.003 0.0 17.9 -1.299 5890.08 0.386 -0.217 5901.05 0.408 1.312 5890.00 0.382 -0.857 -0.250 0.922 1.00 33.673 2.14 0.151 0.003 0.01 0.005 34.429 0.00 0.005 22.209 0.004 22.707 0.00 0.767 1.256 0.222 0.828 0.255 32.543 0.004 21.464 0.005 0.0
52.9 0.0 51.2 0 1 0 1 1 1

1272 5.60209 -69.64839 280.13678 -31.83068 -0.018 5781.09 0.732 -0.054 5785.97 0.799 1.00 0.002 0.07 0.083 0.002 0.03 0.030 0.00 0.103 0.033 0.108 0.005 0.005 6.9 21.3 0.000 5797.64 0.188 0.000 5802.45 0.482 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.600 -0.000 -
0.000 0.000 0.000 0.0 0.0 -0.289 5890.20 0.470 -0.249 5900.99 0.449 0.292 5889.82 0.354 -0.163 -0.285 0.210 0.99 0.118 0.17 0.041 0.003 0.01 0.006 0.158 0.03 0.035 0.072 0.004 0.092 0.00 1.018 0.340 0.281 0.192 0.321 0.142 0.005 0.086 0.006 2.4 54.6
2.2 54.0 1 1 0 0 1 1

1207 5.59698 -69.63233 280.12216 -31.85921 -0.046 5780.91 0.476 -0.039 5786.33 0.695 1.00 0.003 0.04 0.039 0.003 0.05 0.057 0.00 0.436 0.055 0.069 0.006 0.007 9.3 9.5 -0.018 5798.16 1.000 -0.016 5802.72 0.665 1.00 0.003 0.00 0.000 0.003 0.15 0.163 0.00 0.636 0.044
0.027 0.007 0.009 6.5 3.2 -2.175 5890.06 0.380 -0.186 5901.20 0.447 2.246 5890.00 0.380 -1.522 -0.266 1.705 1.00 48.054 2.14 0.154 0.005 0.01 0.012 48.957 1.33 0.119 33.184 0.013 33.743 0.00 1.146 2.070 0.208 1.449 0.298 45.755 0.008 31.596 0.016 0.0
26.5 0.0 18.4 1 1 0 0 1 1

1055 5.57340 -69.43047 279.90585 -32.00871 -0.015 5779.93 0.829 -0.015 5786.01 0.772 1.00 0.001 0.08 0.098 0.001 0.08 0.097 0.00 0.454 0.032 0.029 0.005 0.005 6.6 6.3 -0.008 5795.68 1.000 -0.015 5802.93 0.250 1.00 0.001 0.00 0.000 0.002 0.05 0.000 0.00 0.448 0.019
0.010 0.003 0.001 6.4 7.4 -0.086 5890.47 0.738 -0.131 5901.37 0.357 0.176 5889.70 0.342 -0.080 -0.195 0.246 1.00 0.006 0.09 0.052 0.004 0.01 0.009 0.013 0.01 0.013 0.006 0.014 0.018 0.00 1.044 0.159 0.117 0.147 0.175 0.015 0.005 0.015 0.013 10.5 25.9
9.6 13.2 0 0 0 0 1 1

1254 5.60099 -69.70177 280.19995 -31.82938 -0.013 5780.33 0.360 -0.008 5785.92 0.360 0.99 0.002 0.08 0.000 0.002 0.14 0.000 0.00 0.824 0.012 0.007 0.002 0.002 5.8 3.3 -0.030 5797.53 0.727 -0.015 5803.17 1.000 1.01 0.003 0.07 0.085 0.002 0.00 0.000 0.00 1.774 0.055
0.037 0.008 0.006 6.7 6.0 -0.188 5890.27 0.468 -0.059 5901.37 0.393 0.257 5889.87 0.394 -0.167 -0.113 0.284 1.00 0.364 0.78 0.184 0.004 0.03 0.023 0.477 0.13 0.065 0.341 0.013 0.431 0.00 1.414 0.221 0.058 0.196 0.111 0.436 0.005 0.408 0.014 0.5 11.0

0.5 8.0 0 0 0 0 1 0

1175 5.59401 -69.65733 280.15375 -31.87128 -0.013 5781.12 0.815 0.000 5786.01 0.608 1.00 0.002 0.15 0.159 0.000 0.00 0.000 0.00 0.351 0.027 -0.000 0.007 0.000 4.0 0.0 0.000 5797.69 0.565 -0.003 5802.06 0.250 1.00 0.000 0.00 0.000 0.005 0.60 0.000 0.00 0.799 -0.000
0.002 0.000 0.003 0.0 0.6 -0.158 5890.58 0.280 -0.123 5901.34 0.383 0.286 5889.70 0.332 -0.111 -0.197 0.306 1.00 0.006 0.02 0.017 0.005 0.02 0.013 0.006 0.01 0.010 0.006 0.016 0.018 0.00 0.400 0.111 0.118 0.078 0.189 0.008 0.006 0.006 0.017 14.0 18.8
12.4 11.5 0 0 0 0 1 1

1004 5.55921 -69.31261 279.78015 -32.09906 -0.011 5780.05 0.900 -0.009 5786.83 0.360 1.00 0.001 0.13 0.000 0.002 0.10 0.000 0.00 0.637 0.026 0.008 0.003 0.002 8.5 4.5 -0.013 5797.16 0.956 -0.017 5802.61 1.000 1.01 0.001 0.09 0.108 0.001 0.07 0.000 0.00 0.409 0.032
0.043 0.005 0.003 7.0 14.2 -0.322 5890.03 0.322 -0.066 5901.47 0.366 0.387 5889.80 0.228 -0.760 -0.063 0.651 0.99 0.132 0.11 0.027 0.008 0.05 0.047 0.169 0.01 0.027 0.282 0.036 0.360 0.00 4.683 0.260 0.061 0.614 0.057 0.109 0.011 0.234 0.033 2.4 5.7
2.6 1.7 0 0 0 0 1 0

1087 5.57815 -69.52734 280.01505 -31.97087 -0.009 5781.12 0.900 -0.025 5785.93 0.702 0.99 0.001 0.14 0.000 0.001 0.05 0.052 0.00 0.094 0.021 0.043 0.003 0.004 7.2 10.6 -0.016 5796.87 1.000 -0.008 5803.18 0.772 1.01 0.001 0.00 0.000 0.001 0.00 0.107 0.00 0.040 0.039
0.016 0.002 0.003 18.6 5.7 -0.093 5890.37 0.613 -0.281 5901.34 0.436 0.149 5889.83 0.325 -0.084 -0.311 0.157 1.00 0.013 0.12 0.047 0.004 0.01 0.006 0.021 0.01 0.024 0.013 0.007 0.020 0.00 1.491 0.142 0.307 0.129 0.339 0.023 0.006 0.022 0.009 6.2 51.5
5.9 36.8 0 1 0 0 1 1

1161 5.59125 -69.68964 280.19370 -31.88124 -0.023 5781.08 0.405 -0.031 5785.80 0.360 1.00 0.002 0.04 0.047 0.002 0.03 0.000 0.00 0.526 0.023 0.028 0.003 0.002 6.6 15.3 -0.021 5797.70 0.279 -0.017 5802.64 0.250 1.00 0.003 0.05 0.050 0.003 0.06 0.000 0.00 0.778 0.015
0.010 0.003 0.002 4.2 5.9 -0.089 5890.80 0.949 -0.152 5901.17 0.443 0.231 5889.75 0.283 -0.089 -0.128 0.249 1.02 0.005 0.10 0.079 0.007 0.02 0.021 0.012 0.01 0.013 0.005 0.010 0.013 0.00 3.436 0.211 0.169 0.211 0.142 0.022 0.011 0.022 0.013 9.8 15.4
9.7 11.1 1 1 0 0 1 1

1035 5.56885 -69.45586 279.93936 -32.02900 -0.028 5781.80 0.900 -0.006 5786.23 0.721 1.00 0.002 0.00 0.000 0.002 0.29 0.321 0.00 0.653 0.064 0.011 0.004 0.006 14.4 1.8 -0.038 5798.42 0.165 -0.008 5802.47 0.250 1.00 0.003 0.01 0.014 0.002 0.08 0.000 0.00 0.250 0.016
0.005 0.002 0.001 8.9 4.3 -0.211 5890.28 0.449 -0.110 5901.34 0.414 0.207 5889.94 0.355 -0.202 -0.151 0.246 1.00 0.133 0.23 0.048 0.003 0.01 0.010 0.169 0.04 0.042 0.135 0.005 0.167 0.00 0.675 0.238 0.115 0.227 0.157 0.152 0.004 0.153 0.007 1.6 29.2
1.5 23.6 1 0 0 0 1 1

1307 5.60452 -69.89025 280.41699 -31.78643 -0.021 5781.16 0.524 0.000 5785.93 0.561 1.00 0.002 0.07 0.071 0.000 0.00 0.000 0.00 0.659 0.028 -0.000 0.005 0.000 5.7 0.0 -0.023 5797.90 0.125 -0.023 5802.61 0.392 1.00 0.005 0.03 0.000 0.003 0.06 0.063 0.00 0.806 0.007
0.022 0.001 0.005 5.1 4.7 -0.164 5890.19 0.583 -0.077 5901.38 0.370 0.257 5889.80 0.350 -0.115 -0.098 0.245 1.00 0.025 0.07 0.024 0.004 0.02 0.019 0.030 0.01 0.017 0.020 0.010 0.025 0.00 1.396 0.239 0.071 0.168 0.090 0.037 0.005 0.030 0.010 6.4 13.6
5.6 9.0 0 0 0 0 1 1

1139 5.58804 -69.70478 280.21402 -31.89577 -0.016 5780.77 0.536 0.000 5786.01 0.639 1.00 0.002 0.08 0.085 0.000 0.00 0.000 0.00 0.523 0.022 -0.000 0.005 0.000 4.8 0.0 0.000 5797.24 0.499 -0.010 5803.26 0.761 1.00 0.000 0.00 0.000 0.002 0.00 0.149 0.00 0.369 -0.000
0.018 0.000 0.005 0.0 4.0 -0.116 5890.27 0.474 -0.037 5900.91 0.837 0.158 5889.82 0.320 -0.112 -0.018 0.183 1.00 0.051 0.26 0.086 0.003 0.07 0.080 0.083 0.02 0.041 0.052 0.003 0.080 0.00 1.025 0.138 0.077 0.134 0.038 0.066 0.009 0.066 0.008 2.1 8.2
2.0 4.9 0 0 0 0 1 0

1096 5.57925 -69.63111 280.13531 -31.95111 -0.019 5780.57 0.360 0.000 5785.89 0.641 0.99 0.004 0.11 0.000 0.000 0.00 0.000 0.00 0.318 0.017 -0.000 0.004 0.000 4.2 0.0 -0.011 5796.93 0.125 0.000 5802.36 0.561 1.00 0.011 0.17 0.000 0.000 0.00 0.000 0.00 0.700 0.003 -
0.000 0.003 0.000 1.0 0.0 -0.198 5890.40 0.768 -0.093 5900.82 0.792 0.338 5889.78 0.366 -0.125 -0.045 0.267 1.01 0.017 0.08 0.038 0.005 0.05 0.057 0.025 0.01 0.017 0.013 0.006 0.017 0.00 1.328 0.381 0.185 0.241 0.089 0.037 0.017 0.027 0.014 10.2 10.8

8.9 6.6 0 0 0 0 1 0

1121 5.58317 -69.70611 280.21960 -31.92069 -0.023 5781.71 0.900 -0.018 5785.00 0.900 1.01 0.001 0.06 0.000 0.001 0.00 0.000 0.00 0.162 0.052 0.040 0.003 0.003 17.9 13.5 0.000 5798.13 0.374 0.000 5801.87 0.250 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 1.711 -0.000 -0.000 0.000 0.000 0.0 0.0 -0.065 5890.56 0.739 -0.111 5901.25 0.475 0.197 5889.81 0.325 -0.051 -0.105 0.214 1.00 0.005 0.11 0.058 0.003 0.02 0.014 0.011 0.01 0.011 0.005 0.005 0.009 0.00 1.102 0.120 0.132 0.094 0.125 0.013 0.005 0.011 0.007 9.1 24.8 8.2 18.1 0 0 0 0 1 1

1028 5.56702 -69.47970 279.96875 -32.03527 -0.013 5781.16 0.900 0.000 5785.97 0.606 1.00 0.001 0.09 0.000 0.000 0.00 0.000 0.00 0.428 0.028 -0.000 0.002 0.000 11.7 0.0 -0.009 5797.52 0.328 -0.010 5802.49 0.250 1.00 0.002 0.08 0.085 0.002 0.06 0.000 0.00 0.500 0.008 0.006 0.003 0.001 3.0 5.2 -0.111 5890.45 0.653 -0.089 5901.42 0.379 0.168 5889.69 0.400 -0.094 -0.202 0.255 1.00 0.006 0.08 0.049 0.004 0.02 0.011 0.017 0.01 0.000 0.006 0.027 0.031 0.00 1.525 0.182 0.084 0.154 0.192 0.017 0.004 0.015 0.026 10.9 19.2 10.3 7.4 0 0 0 0 1 1

1116 5.58282 -69.75230 280.27380 -31.91621 -0.026 5781.48 0.360 -0.021 5786.03 0.408 1.00 0.003 0.06 0.000 0.003 0.07 0.077 0.00 0.693 0.024 0.022 0.003 0.005 8.4 4.0 0.000 5798.22 0.618 0.000 5802.55 0.570 0.99 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.579 -0.000 -0.000 0.000 0.000 0.0 0.0 -0.059 5890.66 0.250 -0.053 5900.89 0.530 0.167 5889.78 0.225 -0.057 -0.042 0.119 1.00 0.006 0.02 0.000 0.004 0.05 0.048 0.007 0.01 0.010 0.006 0.004 0.007 0.00 1.648 0.037 0.070 0.036 0.055 0.003 0.009 0.003 0.008 10.6 8.2 10.3 7.4 0 0 0 0 0 0

1094 5.57911 -69.72578 280.24594 -31.93892 -0.012 5780.76 0.705 0.000 5786.04 0.611 1.00 0.002 0.11 0.117 0.000 0.00 0.000 0.00 0.408 0.021 -0.000 0.005 0.000 4.6 0.0 -0.021 5798.00 0.229 0.000 5802.57 0.492 1.00 0.003 0.04 0.039 0.000 0.00 0.000 0.00 0.481 0.012 -0.000 0.003 0.000 4.5 0.0 -0.092 5890.74 0.875 -0.055 5900.69 1.000 0.132 5889.78 0.274 -0.045 -0.026 0.131 1.01 0.003 0.05 0.040 0.002 0.04 0.000 0.007 0.01 0.011 0.003 0.002 0.005 0.00 1.084 0.202 0.139 0.098 0.065 0.011 0.006 0.007 0.006 18.2 24.4 13.3 11.1 0 0 0 0 1 0

1003 5.55877 -69.37906 279.85822 -32.09221 -0.019 5781.16 0.900 -0.008 5785.36 0.360 1.00 0.001 0.08 0.000 0.002 0.13 0.000 0.00 0.851 0.044 0.007 0.003 0.002 13.0 3.6 0.000 5797.63 0.529 -0.001 5801.85 0.250 1.00 0.000 0.00 0.000 0.002 0.45 0.000 0.00 0.424 -0.000 0.001 0.000 0.001 0.0 0.8 -0.180 5890.33 0.472 -0.037 5900.53 1.000 0.144 5889.92 0.311 -0.158 -0.015 0.126 1.00 0.033 0.10 0.029 0.002 0.05 0.000 0.048 0.02 0.033 0.029 0.002 0.042 0.00 0.644 0.213 0.093 0.187 0.037 0.041 0.004 0.036 0.005 5.2 20.9 5.2 8.0 0 0 0 0 1 0

1075 5.57693 -69.74914 280.27505 -31.94694 -0.038 5780.40 0.360 -0.023 5786.32 0.383 1.01 0.005 0.07 0.000 0.006 0.11 0.114 0.00 1.963 0.034 0.022 0.005 0.009 7.3 2.6 -0.004 5796.97 0.847 0.000 5802.86 0.534 1.01 0.002 0.45 0.494 0.000 0.00 0.000 0.00 0.559 0.009 -0.000 0.000 0.007 0.000 1.3 0.0 -0.095 5890.61 0.474 -0.057 5901.62 0.408 0.117 5889.77 0.316 -0.062 -0.391 0.548 1.00 0.005 0.05 0.045 0.004 0.03 0.023 0.011 0.02 0.014 0.006 0.134 0.134 0.00 1.094 0.113 0.058 0.074 0.400 0.012 0.005 0.010 0.139 9.5 10.7 7.2 2.9 0 0 0 0 1 0

1170 5.59302 -70.11119 280.68393 -31.81508 -0.012 5780.40 0.360 -0.022 5787.00 0.900 0.99 0.003 0.12 0.000 0.002 0.00 0.000 0.00 0.664 0.011 0.050 0.003 0.005 4.0 10.6 0.000 5796.95 0.576 -0.028 5803.26 0.250 0.99 0.000 0.00 0.000 0.004 0.05 0.000 0.00 0.763 -0.000 0.018 0.000 0.002 0.0 7.5 -0.232 5890.08 0.577 -0.235 5900.85 0.562 0.286 5889.88 0.343 -0.198 -0.238 0.274 1.00 0.035 0.03 0.021 0.003 0.01 0.008 0.035 0.01 0.016 0.031 0.004 0.031 0.00 0.983 0.336 0.332 0.286 0.336 0.052 0.007 0.046 0.007 6.5 49.8 6.2 46.0 0 0 0 0 1 1

1054 5.57328 -69.73725 280.26425 -31.96735 -0.010 5781.80 0.900 -0.009 5786.28 0.360 1.00 0.002 0.00 0.000 0.003 0.17 0.000 0.00 0.754 0.024 0.008 0.005 0.003 4.6 2.8 0.000 5798.53 0.212 0.000 5802.80 0.528 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.558 -0.000 -0.000 0.000 0.000 0.0 0.0 -0.230 5890.05 0.486 -0.057 5901.00 0.799 0.292 5889.87 0.364 -0.214 -0.072 0.325 1.00 0.120 0.08 0.030 0.003 0.04 0.040 0.122 0.03 0.030 0.120 0.004 0.121 0.00 0.927 0.280 0.114 0.261 0.144 0.147 0.008 0.148 0.010 1.9 14.5

1.8 13.7 0 0 0 0 1 1

1002 5.55836 -69.41067 279.89554 -32.08997 -0.009 5780.91 0.360 0.000 5786.04 0.647 1.00 0.003 0.15 0.000 0.000 0.00 0.000 0.00 0.733 0.008 -0.000 0.002 0.000 3.2 0.0 -0.018 5797.55 0.125 -0.016 5802.03 0.410 1.00 0.004 0.04 0.000 0.003 0.08 0.083 0.00 0.578 0.006 0.016 0.001 0.004 4.5 3.8 -0.089 5890.68 0.324 -0.054 5901.34 0.397 0.116 5889.40 0.400 -0.115 -6.372 6.370 1.00 0.006 0.02 0.021 0.006 0.04 0.021 0.005 -0.00 -0.000 0.007 47.905 47.909 0.00 2.836 0.072 0.053 0.094 6.348 0.007 0.006 0.008 47.726 10.4 8.7 11.5 0.1 0 0 0 0 1 1

1037 5.56922 -69.72583 280.25436 -31.98983 -0.025 5780.10 0.900 -0.014 5785.94 0.360 1.00 0.002 0.10 0.000 0.003 0.11 0.000 0.00 0.624 0.056 0.013 0.005 0.003 10.9 4.4 -0.012 5797.35 0.918 -0.013 5801.75 1.000 1.00 0.003 0.00 0.262 0.003 0.21 0.000 0.00 0.712 0.027 0.033 0.010 0.007 2.8 4.9 -0.312 5890.21 0.402 -0.052 5901.48 0.417 0.273 5890.00 0.400 -0.338 -0.095 0.379 1.00 0.137 0.10 0.025 0.004 0.04 0.027 0.157 0.00 0.000 0.157 0.013 0.183 0.00 0.693 0.314 0.054 0.341 0.100 0.139 0.005 0.159 0.015 2.3 10.1 2.1 6.5 0 0 0 0 1 0

990 5.55667 -69.43867 279.92972 -32.09490 -0.027 5779.98 0.554 -0.015 5785.00 0.900 1.01 0.003 0.07 0.079 0.002 0.00 0.000 0.00 1.669 0.037 0.034 0.007 0.006 5.4 6.1 0.000 5796.51 0.471 -0.012 5801.46 1.000 1.00 0.000 0.00 0.000 0.001 0.14 0.000 0.00 0.661 -0.000 0.031 0.000 0.004 0.0 8.7 -0.116 5890.59 0.772 -0.090 5901.39 0.363 0.149 5889.76 0.288 -0.123 -0.101 0.156 1.00 0.004 0.05 0.030 0.004 0.02 0.015 0.008 0.01 0.013 0.004 0.008 0.011 0.00 0.768 0.225 0.082 0.239 0.092 0.011 0.005 0.012 0.009 20.0 17.1 20.2 10.7 0 0 0 0 1 1

1013 5.56176 -69.69044 280.21945 -32.03321 -0.016 5780.62 0.360 -0.022 5785.92 0.900 1.00 0.003 0.09 0.000 0.002 0.11 0.000 0.00 1.000 0.015 0.049 0.003 0.005 5.3 10.2 -0.013 5797.65 0.533 -0.009 5801.67 0.511 1.00 0.003 0.13 0.137 0.003 0.00 0.190 0.00 0.950 0.018 0.012 0.006 0.006 3.0 2.1 -0.253 5890.19 0.509 -0.062 5901.18 0.460 0.322 5889.88 0.369 -0.196 -0.082 0.317 1.00 0.088 0.11 0.023 0.004 0.03 0.030 0.100 0.02 0.028 0.074 0.006 0.082 0.00 2.028 0.323 0.072 0.250 0.094 0.113 0.007 0.095 0.010 2.9 10.7 2.6 9.8 0 0 0 0 1 1

967 5.55158 -69.38586 279.87241 -32.12887 -0.010 5781.57 0.900 -0.005 5785.09 0.360 1.00 0.001 0.09 0.000 0.001 0.10 0.000 0.00 0.290 0.022 0.005 0.002 0.001 12.3 4.6 -0.019 5798.16 0.171 0.000 5801.62 0.475 1.00 0.002 0.02 0.024 0.000 0.00 0.000 0.00 0.419 0.008 -0.000 0.002 0.000 5.5 0.0 -0.178 5890.32 0.480 -0.047 5901.42 0.355 0.143 5889.87 0.302 -0.153 -0.063 0.161 1.00 0.024 0.09 0.029 0.003 0.03 0.023 0.039 0.01 0.026 0.022 0.007 0.035 0.00 1.070 0.215 0.042 0.185 0.056 0.031 0.004 0.029 0.007 6.9 10.9 6.3 8.2 0 0 0 0 1 1

939 5.54332 -70.08772 280.69952 -32.06958 -0.015 5779.86 0.900 -0.034 5786.99 0.583 1.00 0.002 0.15 0.000 0.003 0.06 0.060 0.00 0.688 0.035 0.049 0.005 0.007 6.8 7.5 0.000 5796.41 0.490 -0.013 5803.82 0.556 1.00 0.000 0.00 0.000 0.002 0.11 0.115 0.00 0.386 -0.000 0.018 0.000 0.005 0.0 3.7 -0.150 5890.52 0.292 -0.049 5901.17 0.647 0.176 5889.53 0.214 -0.120 -0.035 0.139 1.00 0.004 0.01 0.009 0.003 0.04 0.046 0.005 0.01 0.007 0.005 0.004 0.007 0.00 1.091 0.110 0.080 0.088 0.056 0.005 0.008 0.004 0.008 23.0 10.6 20.3 6.8 0 0 0 0 1 1

963 5.54949 -69.47041 279.97308 -32.12786 -0.029 5780.79 0.900 -0.022 5786.89 0.360 1.01 0.002 0.09 0.000 0.004 0.07 0.000 0.00 1.503 0.064 0.020 0.006 0.003 11.7 6.3 -0.017 5797.83 0.502 -0.009 5803.10 1.000 1.01 0.002 0.08 0.085 0.002 0.20 0.000 0.00 0.698 0.021 0.023 0.005 0.004 4.6 5.5 -0.296 5890.13 0.547 -0.382 5899.76 0.250 0.455 5889.90 0.254 -0.229 0.000 0.370 1.00 0.035 0.03 0.025 0.010 0.01 0.000 0.036 0.01 0.014 0.029 0.000 0.030 0.00 6.828 0.406 0.239 0.314 -0.000 0.052 0.006 0.042 0.000 7.8 37.4 7.5 0.0 0 0 0 0 1 0

914 5.53471 -70.21178 280.85208 -32.09413 -0.011 5781.80 0.755 -0.016 5787.00 0.900 1.00 0.002 0.00 0.164 0.002 0.00 0.000 0.00 0.450 0.020 0.036 0.006 0.004 3.6 9.4 0.000 5798.26 0.516 -0.007 5804.25 1.000 1.00 0.000 0.00 0.000 0.002 0.00 0.000 0.00 0.484 -0.000 0.017 0.000 0.004 0.0 4.5 -0.136 5890.34 0.616 -0.057 5901.34 0.358 0.293 5889.86 0.344 -0.153 -0.094 0.311 1.00 0.016 0.08 0.028 0.004 0.03 0.023 0.023 0.01 0.014 0.018 0.008 0.026 0.00 0.999 0.210 0.051 0.236 0.084 0.027 0.005 0.030 0.009 7.9 10.4

8.0 9.5 0 0 0 0 1 0

964 5.54997 -69.26100 279.72781 -32.15475 -0.017 5779.85 0.878 0.000 5786.04 0.650 1.01 0.003 0.19 0.214 0.000 0.00 0.000 0.00 2.827 0.037 -0.000 0.012 0.000 3.2 0.0 -0.021 5796.50 0.125 -0.012 5803.29 1.000 1.00 0.003 0.03 0.000 0.001 0.00 0.000 0.00 0.582 0.006
0.030 0.001 0.003 6.4 9.0 -0.136 5890.43 0.680 -0.052 5900.57 1.000 0.245 5889.77 0.318 -0.105 0.000 0.220 1.00 0.009 0.07 0.037 0.003 0.06 0.000 0.016 0.01 0.014 0.008 0.000 0.013 0.00 0.982 0.231 0.131 0.179 -0.000 0.019 0.007 0.016 0.000 12.0 18.5
11.2 0.0 0 0 0 0 1 0

968 5.55158 -69.31108 279.78497 -32.13932 -0.013 5780.71 0.360 0.000 5785.99 0.639 1.00 0.001 0.04 0.000 0.000 0.00 0.000 0.00 0.590 0.012 -0.000 0.001 0.000 13.3 0.0 -0.005 5797.96 1.000 -0.006 5803.24 1.000 1.00 0.001 0.00 0.000 0.001 0.00 0.000 0.00 1.158 0.012
0.016 0.003 0.003 4.8 6.2 -0.291 5890.19 0.443 -0.042 5901.37 0.379 0.240 5889.94 0.396 -0.263 -0.052 0.276 1.00 0.672 0.55 0.080 0.003 0.03 0.026 0.759 0.12 0.079 0.642 0.008 0.715 0.00 0.899 0.323 0.040 0.291 0.049 0.748 0.004 0.714 0.009 0.4 10.2
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993 5.55733 -69.32433 279.79547 -32.10731 -0.022 5781.80 0.900 -0.017 5785.95 0.900 1.00 0.002 0.00 0.000 0.002 0.12 0.000 0.00 1.828 0.049 0.038 0.005 0.005 10.6 8.2 0.000 5797.74 0.272 -0.005 5802.66 0.250 1.00 0.000 0.00 0.000 0.001 0.08 0.000 0.00 0.245 -0.000
0.003 0.000 0.001 0.0 4.1 -0.245 5890.25 0.462 -0.112 5901.36 0.349 0.193 5889.91 0.400 -0.232 -0.169 0.217 1.00 0.075 0.14 0.046 0.004 0.01 0.010 0.109 0.03 0.000 0.070 0.009 0.103 0.00 1.136 0.283 0.098 0.269 0.148 0.091 0.004 0.085 0.009 3.1 23.7
3.2 17.4 0 0 0 0 1 0

839 5.52101 -70.15942 280.80371 -32.17105 0.000 5780.78 0.634 -0.007 5785.69 0.881 1.00 0.000 0.00 0.000 0.002 0.27 0.299 0.00 1.013 -0.000 0.015 0.000 0.006 0.0 2.3 -0.019 5796.97 1.000 -0.012 5801.97 0.494 1.01 0.002 0.09 0.000 0.002 0.10 0.110 0.00 0.894 0.048
0.015 0.004 0.004 11.9 3.5 -0.122 5890.21 0.669 -0.045 5900.80 0.972 0.231 5889.85 0.319 -0.122 -0.007 0.225 1.00 0.010 0.04 0.021 0.002 0.05 0.063 0.011 0.01 0.010 0.010 0.003 0.011 0.00 1.022 0.205 0.111 0.205 0.018 0.018 0.009 0.018 0.007 11.6 12.2
11.5 2.7 0 0 0 0 1 1

987 5.55608 -69.24147 279.69965 -32.12530 -0.010 5779.82 0.900 -0.002 5785.92 0.360 1.00 0.001 0.08 0.000 0.001 0.27 0.000 0.00 0.159 0.023 0.002 0.002 0.001 13.9 1.7 -0.013 5796.33 0.210 -0.014 5802.72 0.326 1.00 0.002 0.05 0.046 0.002 0.05 0.053 0.00 0.358 0.007
0.011 0.002 0.002 3.5 4.7 -0.204 5890.24 0.530 -0.066 5901.41 0.344 0.152 5889.76 0.331 -0.167 -0.099 0.176 1.00 0.023 0.08 0.028 0.004 0.02 0.016 0.038 0.02 0.026 0.022 0.012 0.036 0.00 1.695 0.271 0.057 0.222 0.085 0.034 0.004 0.031 0.011 8.0 13.9
7.1 7.8 0 0 0 0 1 1

944 5.54382 -69.23583 279.70377 -32.19064 -0.018 5780.70 0.812 0.000 5785.58 0.360 1.00 0.001 0.06 0.064 0.000 0.00 0.000 0.00 0.437 0.036 -0.000 0.004 0.000 9.8 0.0 -0.005 5797.85 0.944 -0.006 5801.33 0.325 1.00 0.001 0.29 0.326 0.002 0.00 0.133 0.00 0.660 0.011
0.005 0.005 0.003 2.3 1.9 -0.174 5890.27 0.478 -0.040 5901.46 0.317 0.143 5889.85 0.304 -0.163 -0.051 0.175 1.00 0.025 0.08 0.027 0.003 0.03 0.026 0.039 0.02 0.026 0.026 0.008 0.038 0.00 1.034 0.208 0.032 0.195 0.041 0.032 0.004 0.033 0.007 6.5 8.5
6.0 5.5 1 0 0 0 1 1

781 5.51089 -70.12622 280.77457 -32.22719 -0.013 5781.65 0.360 -0.037 5785.82 0.900 0.99 0.002 0.08 0.000 0.001 0.04 0.000 0.00 0.501 0.011 0.084 0.002 0.003 6.2 26.0 0.000 5798.12 0.471 -0.022 5802.58 0.425 1.00 0.000 0.00 0.000 0.002 0.05 0.053 0.00 0.555 -0.000
0.023 0.000 0.004 0.0 6.1 -0.252 5890.12 0.483 -0.255 5900.99 0.417 0.406 5889.89 0.348 -0.179 -0.288 0.328 1.00 0.078 0.07 0.018 0.003 0.01 0.005 0.082 0.02 0.018 0.059 0.004 0.061 0.00 1.199 0.305 0.267 0.217 0.302 0.095 0.005 0.071 0.005 3.2 55.6
3.0 55.4 0 1 0 1 1 1

903 5.53300 -69.48617 280.00623 -32.21141 -0.017 5781.05 0.360 -0.017 5785.39 0.360 1.00 0.002 0.06 0.000 0.002 0.06 0.000 0.00 1.433 0.015 0.015 0.002 0.002 7.4 7.4 -0.029 5797.71 0.212 0.000 5801.89 0.538 1.00 0.002 0.02 0.021 0.000 0.00 0.000 0.00 0.732 0.015 -
0.000 0.002 0.000 7.7 0.0 -1.821 5890.05 0.416 -0.068 5901.26 0.402 1.793 5890.00 0.395 -1.689 -0.098 1.733 1.00 11.308 0.19 0.057 0.003 0.02 0.018 11.318 0.14 0.076 10.690 0.005 10.697 0.00 1.367 1.899 0.069 1.762 0.099 11.797 0.005 11.152 0.007 0.2

15.2 0.2 14.0 1 0 1 0 1 1

949 5.54421 -69.49873 280.01086 -32.15130 -0.020 5781.80 0.496 -0.005 5785.86 0.360 1.00 0.003 0.00 0.091 0.003 0.28 0.000 0.00 0.562 0.025 0.005 0.006 0.003 4.2 1.7 0.000 5798.29 0.466 -0.027 5802.51 0.268 0.99 0.000 0.00 0.000 0.004 0.04 0.041 0.00 0.433 -0.000
0.018 0.000 0.004 0.0 4.9 -0.158 5890.36 0.428 -0.068 5901.37 0.389 0.133 5890.00 0.325 -0.192 -0.092 0.177 1.00 0.061 0.19 0.065 0.004 0.03 0.022 0.096 0.00 0.033 0.075 0.007 0.118 0.00 0.881 0.169 0.066 0.207 0.089 0.070 0.006 0.086 0.009 2.4 12.1
2.4 10.4 0 0 0 0 1 1

935 5.54152 -69.41344 279.91354 -32.17752 -0.008 5779.80 0.900 0.000 5786.04 0.615 1.00 0.001 0.00 0.000 0.000 0.00 0.000 0.00 0.560 0.018 -0.000 0.003 0.000 6.3 0.0 0.000 5796.27 0.461 -0.007 5801.79 1.000 1.00 0.000 0.00 0.000 0.001 0.00 0.000 0.00 0.373 -0.000
0.017 0.000 0.003 0.0 6.9 -0.136 5890.36 0.620 -0.071 5901.37 0.327 0.169 5889.80 0.336 -0.120 -0.079 0.216 1.00 0.012 0.08 0.032 0.004 0.02 0.019 0.021 0.01 0.019 0.012 0.010 0.021 0.00 1.155 0.211 0.058 0.186 0.065 0.022 0.005 0.022 0.009 9.7 11.9
8.6 7.4 0 0 0 0 1 1

943 5.54374 -69.34544 279.83206 -32.17559 -0.015 5780.64 0.673 -0.051 5787.00 0.616 1.00 0.003 0.14 0.152 0.003 0.00 0.041 0.00 2.694 0.024 0.079 0.007 0.007 3.4 11.7 0.000 5797.09 0.530 -0.006 5803.86 0.250 1.00 0.000 0.00 0.000 0.002 0.08 0.000 0.00 0.503 -0.000
0.004 0.000 0.001 0.0 4.0 -0.213 5890.23 0.458 -0.038 5900.55 1.000 0.191 5889.88 0.369 -0.204 0.000 0.209 1.00 0.218 0.38 0.083 0.002 0.06 0.000 0.279 0.07 0.070 0.216 0.000 0.272 0.00 0.896 0.245 0.096 0.235 -0.000 0.254 0.005 0.251 0.000 1.0 19.6
0.9 0.0 0 0 0 0 1 0

639 5.49138 -70.10772 280.77188 -32.32840 -0.017 5781.01 0.900 0.000 5785.91 0.599 1.00 0.002 0.14 0.000 0.000 0.00 0.000 0.00 0.737 0.039 -0.000 0.005 0.000 7.7 0.0 -0.030 5798.26 0.935 -0.036 5801.66 1.000 1.02 0.005 0.00 0.186 0.005 0.00 0.000 0.00 2.875 0.069
0.091 0.018 0.011 3.9 7.9 -0.315 5890.17 0.480 -0.059 5901.26 0.293 0.329 5889.75 0.344 -0.225 -0.120 0.356 1.00 0.104 0.18 0.051 0.006 0.03 0.024 0.155 0.02 0.033 0.084 0.014 0.115 0.00 1.412 0.379 0.044 0.271 0.088 0.131 0.006 0.105 0.012 2.9 7.8
2.6 7.1 0 0 0 0 1 1

889 5.53053 -69.51175 280.03839 -32.22050 -0.008 5781.80 0.900 -0.007 5785.31 0.360 1.00 0.001 0.00 0.000 0.002 0.12 0.000 0.00 0.785 0.018 0.006 0.003 0.001 7.0 4.1 -0.009 5798.17 0.523 0.000 5801.78 0.520 1.00 0.002 0.12 0.123 0.000 0.00 0.000 0.00 1.061 0.012 -
0.000 0.004 0.000 3.2 0.0 -0.550 5889.97 0.503 -0.037 5900.52 1.000 0.638 5889.82 0.400 -0.438 0.000 0.491 1.00 0.046 0.01 0.011 0.002 0.06 0.000 0.045 0.01 0.000 0.036 0.000 0.036 0.00 0.912 0.693 0.093 0.552 -0.000 0.059 0.005 0.047 0.000 11.6 18.9
11.7 0.0 0 0 0 0 1 0

728 5.50410 -69.85484 280.46414 -32.30441 0.000 5780.78 0.703 -0.008 5785.00 0.591 1.01 0.000 0.00 0.000 0.003 0.00 0.257 0.00 0.962 -0.000 0.012 0.000 0.007 0.0 1.8 0.000 5797.19 0.436 -0.017 5800.75 1.000 1.01 0.000 0.00 0.000 0.003 0.00 0.000 0.00 1.343 -0.000
0.042 0.000 0.006 0.0 6.5 -0.188 5890.33 0.544 -0.054 5901.38 0.340 0.239 5889.82 0.370 -0.174 -0.096 0.250 1.00 0.048 0.17 0.054 0.004 0.02 0.019 0.076 0.02 0.030 0.046 0.009 0.070 0.00 0.620 0.257 0.046 0.237 0.082 0.070 0.004 0.067 0.009 3.7 11.7
3.5 9.3 0 0 0 0 1 1

917 5.53520 -69.24297 279.71979 -32.23499 -0.013 5781.73 0.900 0.000 5786.01 0.666 1.01 0.001 0.11 0.000 0.000 0.00 0.000 0.00 1.243 0.028 -0.000 0.003 0.000 10.2 0.0 -0.007 5797.48 0.256 -0.011 5802.43 0.250 1.00 0.002 0.00 0.095 0.002 0.06 0.000 0.00 0.964 0.004
0.007 0.002 0.001 2.0 5.7 -0.157 5890.28 0.481 -0.029 5900.58 1.000 0.138 5889.85 0.340 -0.121 0.000 0.141 1.00 0.056 0.19 0.055 0.002 0.08 0.000 0.083 0.03 0.044 0.047 0.000 0.065 0.00 0.959 0.189 0.073 0.145 -0.000 0.071 0.005 0.059 0.000 2.7 14.6
2.5 0.0 0 0 0 0 1 0

928 5.53903 -69.27603 279.75504 -32.21015 -0.016 5780.16 0.900 -0.007 5786.42 0.394 1.00 0.001 0.06 0.000 0.001 0.09 0.092 0.00 0.464 0.037 0.007 0.002 0.002 17.9 3.3 0.000 5796.68 0.510 -0.011 5803.67 1.000 1.00 0.000 0.00 0.000 0.001 0.00 0.000 0.00 0.684 -0.000
0.028 0.000 0.003 0.0 11.0 -0.336 5890.13 0.426 -0.050 5901.39 0.377 0.309 5889.95 0.340 -0.322 -0.023 0.341 1.00 0.154 0.07 0.014 0.003 0.03 0.027 0.160 0.03 0.029 0.156 0.005 0.160 0.00 1.140 0.359 0.047 0.344 0.022 0.165 0.005 0.167 0.005 2.2 10.4

2.1 4.5 1 0 0 0 1 1

418 5.46488 -70.07253 280.75745 -32.46773 -0.023 5780.63 0.635 -0.035 5785.89 0.900 1.00 0.004 0.13 0.142 0.004 0.10 0.000 0.00 2.469 0.037 0.080 0.011 0.008 3.5 10.1 -0.024 5796.75 0.158 -0.024 5802.16 0.595 1.00 0.004 0.03 0.029 0.002 0.06 0.060 0.00 0.532 0.010
0.035 0.002 0.005 4.2 7.6 -0.253 5890.21 0.508 -0.154 5901.35 0.429 0.369 5889.88 0.342 -0.221 -0.181 0.403 1.00 0.049 0.07 0.018 0.004 0.01 0.012 0.059 0.01 0.017 0.047 0.008 0.054 0.00 0.638 0.323 0.165 0.282 0.194 0.063 0.006 0.060 0.010 5.1 26.2
4.7 19.4 0 0 0 0 1 1

965 5.55007 -69.22911 279.69043 -32.15866 -0.035 5779.99 0.900 -0.031 5787.00 0.900 1.02 0.004 0.11 0.000 0.004 0.00 0.000 0.00 4.902 0.078 0.069 0.008 0.008 9.5 8.3 -0.009 5796.87 0.304 -0.008 5804.05 1.000 1.00 0.002 0.08 0.084 0.001 0.17 0.000 0.00 0.514 0.007
0.019 0.002 0.003 2.8 7.0 -0.380 5890.21 0.415 -0.115 5901.51 0.370 0.298 5890.00 0.384 -0.372 -0.112 0.334 1.00 0.669 0.40 0.071 0.004 0.01 0.012 0.766 0.00 0.031 0.661 0.010 0.757 0.00 0.879 0.395 0.107 0.386 0.104 0.698 0.005 0.690 0.010 0.6 22.1
0.6 10.3 0 0 0 0 1 1

602 5.48715 -69.81578 280.43500 -32.39715 -0.050 5780.84 0.360 -0.036 5785.74 0.360 1.00 0.006 0.06 0.000 0.006 0.08 0.000 0.00 0.388 0.045 0.032 0.005 0.005 8.6 6.2 -0.041 5796.59 0.369 -0.028 5802.31 0.250 0.98 0.005 0.00 0.058 0.005 0.07 0.000 0.00 0.251 0.038
0.018 0.008 0.003 4.9 5.1 -1.927 5889.90 0.445 -0.074 5901.28 0.250 1.864 5889.84 0.400 -1.901 -0.043 1.945 0.99 0.527 0.01 0.014 0.007 0.03 -0.000 0.525 0.02 -0.000 0.528 0.013 0.524 0.00 0.586 2.149 0.047 2.120 0.027 0.591 0.005 0.593 0.008 3.6 10.1
3.6 3.2 0 0 0 0 1 0

624 5.48931 -69.77611 280.38651 -32.39248 -0.013 5780.88 0.827 -0.009 5786.19 0.360 1.00 0.002 0.11 0.123 0.002 0.10 0.000 0.00 0.312 0.027 0.008 0.005 0.002 5.2 4.4 -0.032 5797.53 0.142 -0.009 5803.14 1.000 1.00 0.005 0.02 0.025 0.002 0.22 0.000 0.00 0.544 0.011
0.023 0.003 0.004 4.3 5.2 -0.238 5890.39 0.343 -0.042 5900.60 1.000 0.183 5889.66 0.214 -0.145 0.000 0.151 1.01 0.004 0.01 0.011 0.002 0.06 0.000 0.006 0.01 0.008 0.004 0.000 0.005 0.00 0.714 0.205 0.105 0.125 -0.000 0.007 0.006 0.005 0.000 28.0 19.0
24.7 0.0 0 0 0 0 1 0

925 5.53826 -69.23994 279.71350 -32.21933 -0.026 5779.80 0.360 0.000 5786.10 0.667 1.00 0.002 0.00 0.000 0.000 0.00 0.000 0.00 1.055 0.023 -0.000 0.002 0.000 10.7 0.0 -0.012 5797.05 1.000 -0.013 5803.35 1.000 1.01 0.001 0.00 0.000 0.001 0.00 0.000 0.00 0.710 0.031
0.032 0.004 0.004 8.4 8.8 -0.647 5889.96 0.481 -0.027 5900.64 1.000 0.608 5889.81 0.400 -0.505 -0.013 0.495 1.00 0.050 0.01 0.009 0.002 0.07 0.000 0.048 0.01 0.000 0.040 0.002 0.039 0.00 0.474 0.780 0.067 0.609 0.032 0.062 0.004 0.050 0.005 12.6 15.6
12.3 6.5 1 0 0 0 1 0

650 5.49254 -69.71792 280.31531 -32.38519 -0.024 5780.07 0.513 -0.020 5786.94 0.360 1.00 0.003 0.06 0.065 0.003 0.06 0.000 0.00 0.546 0.031 0.018 0.005 0.002 6.0 7.3 0.000 5796.54 0.356 -0.022 5804.19 1.000 1.00 0.000 0.00 0.000 0.002 0.00 0.000 0.00 0.518 -0.000
0.055 0.000 0.004 0.0 12.9 -0.476 5890.01 0.470 -0.122 5901.42 0.369 0.507 5889.81 0.387 -0.363 -0.226 0.508 0.99 0.243 0.09 0.016 0.004 0.01 0.009 0.254 0.03 0.027 0.207 0.016 0.215 0.00 0.829 0.560 0.113 0.427 0.209 0.287 0.004 0.244 0.015 2.0 26.3
1.7 13.5 0 0 0 0 1 1

921 5.53673 -69.27233 279.75278 -32.22276 -0.017 5781.80 0.900 -0.018 5786.35 0.451 1.01 0.003 0.00 0.000 0.004 0.10 0.108 0.00 1.882 0.038 0.021 0.006 0.006 6.7 3.2 -0.010 5799.05 1.000 -0.014 5803.51 0.250 1.00 0.001 0.00 0.000 0.003 0.06 0.000 0.00 0.726 0.025
0.009 0.004 0.002 6.7 5.5 -0.230 5890.39 0.359 -0.043 5901.47 0.410 0.099 5889.69 0.248 -0.162 -0.079 0.170 1.00 0.003 0.01 0.010 0.003 0.03 0.026 0.007 0.01 0.011 0.004 0.014 0.015 0.00 1.043 0.207 0.044 0.146 0.082 0.006 0.004 0.005 0.015 32.3 11.0
26.8 5.5 0 0 0 0 1 1

826 5.51918 -69.40839 279.92792 -32.29484 -0.018 5781.22 0.360 -0.009 5785.62 0.360 1.00 0.002 0.05 0.000 0.002 0.10 0.000 0.00 0.898 0.016 0.008 0.002 0.002 9.6 4.7 -0.016 5797.96 0.127 -0.010 5801.77 1.000 1.00 0.006 0.05 0.052 0.002 0.23 0.000 0.00 2.325 0.005
0.026 0.003 0.005 1.8 5.2 -0.361 5890.11 0.454 -0.000 5902.14 1.000 0.340 5889.87 0.351 -0.222 -0.038 0.301 1.00 0.096 0.06 0.011 0.002 0.08 0.000 0.105 0.02 0.020 0.068 0.004 0.070 0.00 0.952 0.411 0.000 0.252 0.095 0.110 0.005 0.077 0.010 3.7 0.0

3.3 9.7 1 0 0 0 1 0

358 5.45969 -69.89642 280.55698 -32.52377 -0.029 5781.28 0.420 -0.064 5785.39 0.398 1.01 0.005 0.09 0.090 0.005 0.04 0.040 0.00 1.250 0.031 0.064 0.009 0.008 3.6 7.7 -0.009 5798.16 0.542 -0.017 5802.64 1.000 1.01 0.003 0.19 0.205 0.002 0.00 0.000 0.00 0.431 0.012
0.042 0.006 0.005 2.0 8.2 -0.314 5890.35 0.384 -0.108 5900.86 0.547 0.360 5889.66 0.250 -0.202 -0.091 0.240 1.00 0.007 0.03 0.019 0.004 0.02 0.024 0.018 0.01 0.009 0.006 0.004 0.014 0.00 0.949 0.302 0.149 0.194 0.125 0.016 0.009 0.011 0.008 18.6 17.1
17.6 15.4 0 1 0 0 1 1

850 5.52254 -69.42136 279.94000 -32.27539 -0.016 5780.64 0.593 -0.013 5786.15 0.525 1.00 0.002 0.07 0.080 0.002 0.08 0.089 0.00 0.465 0.024 0.018 0.004 0.004 5.7 4.6 -0.006 5796.70 0.678 -0.015 5802.87 0.752 1.01 0.002 0.24 0.268 0.002 0.10 0.109 0.00 0.574 0.010
0.029 0.005 0.005 2.0 5.4 -0.163 5890.26 0.562 -0.027 5900.81 0.970 0.184 5889.77 0.275 -0.090 0.000 0.170 1.01 0.008 0.04 0.018 0.002 0.09 0.095 0.014 0.01 0.011 0.006 0.000 0.008 0.00 0.803 0.230 0.067 0.127 -0.000 0.014 0.008 0.010 0.000 16.6 7.9
13.2 0.0 0 0 0 0 1 0

673 5.49582 -69.58472 280.15634 -32.38926 -0.026 5779.95 0.900 0.000 5785.94 0.630 1.00 0.003 0.11 0.000 0.000 0.00 0.000 0.00 0.891 0.058 -0.000 0.006 0.000 10.3 0.0 -0.009 5797.20 1.000 -0.009 5802.63 0.250 1.00 0.002 0.00 0.000 0.003 0.12 0.000 0.00 0.492 0.023
0.005 0.005 0.002 5.0 2.7 -0.164 5890.41 0.739 -0.055 5899.80 1.000 0.197 5889.84 0.309 -0.114 -0.027 0.207 1.02 0.009 0.05 0.024 0.003 0.07 0.000 0.012 0.01 0.014 0.008 0.003 0.009 0.00 1.012 0.303 0.137 0.210 0.067 0.019 0.008 0.016 0.008 16.1 16.4
13.5 8.3 0 0 0 0 1 0

499 5.47391 -69.73344 280.35193 -32.47826 -0.034 5781.72 0.900 -0.035 5785.63 0.360 1.01 0.002 0.06 0.000 0.003 0.04 0.000 0.00 0.566 0.076 0.032 0.004 0.002 17.7 13.0 -0.015 5798.35 1.000 -0.021 5802.78 0.621 1.01 0.002 0.11 0.000 0.002 0.06 0.070 0.00 0.359 0.038
0.033 0.004 0.005 9.6 6.9 -0.122 5890.39 0.599 -0.047 5900.71 1.000 0.195 5889.84 0.311 -0.099 -0.023 0.225 1.00 0.009 0.07 0.029 0.002 0.05 0.000 0.016 0.01 0.012 0.009 0.002 0.013 0.00 0.782 0.183 0.118 0.149 0.058 0.017 0.005 0.015 0.006 11.0 21.6
9.8 9.7 1 1 0 1 1 0

321 5.45393 -69.82558 280.48010 -32.56507 0.000 5780.81 0.678 -0.015 5787.00 0.604 1.00 0.000 0.00 0.000 0.002 0.00 0.089 0.00 0.420 -0.000 0.023 0.000 0.004 0.0 5.2 -0.007 5797.11 0.652 -0.012 5804.03 1.000 1.00 0.002 0.19 0.211 0.002 0.14 0.000 0.00 0.423 0.011
0.030 0.005 0.004 2.4 8.0 -0.270 5890.15 0.525 -0.037 5900.91 0.657 0.367 5889.88 0.336 -0.195 -0.001 0.299 1.01 0.038 0.04 0.014 0.003 0.06 0.063 0.041 0.01 0.014 0.029 0.003 0.030 0.00 0.973 0.355 0.060 0.257 0.001 0.051 0.008 0.039 0.005 6.9 8.0
6.5 0.2 0 0 0 0 1 0

795 5.51398 -69.42744 279.95508 -32.31911 -0.020 5779.85 0.900 0.000 5786.01 0.487 1.01 0.002 0.09 0.000 0.000 0.00 0.000 0.00 0.631 0.046 -0.000 0.004 0.000 11.8 0.0 -0.012 5797.10 1.000 -0.016 5802.38 1.000 1.01 0.002 0.00 0.000 0.002 0.10 0.000 0.00 0.420 0.030
0.039 0.004 0.004 7.9 10.3 -0.294 5890.23 0.478 -0.043 5901.46 0.270 0.360 5890.00 0.335 -0.290 0.000 0.277 1.00 0.037 0.03 0.005 0.004 0.03 0.028 0.040 0.00 0.012 0.034 0.000 0.039 0.00 0.703 0.353 0.029 0.348 -0.000 0.045 0.004 0.041 0.000 7.9 7.3
8.4 0.0 1 0 0 0 1 0

160 5.42851 -69.93281 280.63248 -32.67567 0.000 5780.80 0.732 -0.022 5786.74 0.360 0.99 0.000 0.00 0.000 0.005 0.12 0.000 0.00 1.066 -0.000 0.020 0.000 0.005 0.0 4.0 -0.042 5798.05 0.424 -0.034 5802.87 0.401 1.00 0.004 0.00 0.051 0.004 0.06 0.061 0.00 0.551 0.044
0.034 0.007 0.007 6.3 5.0 -0.212 5890.59 0.250 -0.087 5901.34 0.477 0.207 5889.75 0.263 -0.129 -0.077 0.274 0.99 0.008 0.01 0.000 0.006 0.04 0.037 0.008 0.01 0.011 0.008 0.012 0.014 0.00 1.581 0.133 0.104 0.081 0.092 0.005 0.011 0.005 0.016 26.9 9.4
15.8 5.6 0 0 0 0 1 0

220 5.44139 -69.83867 280.50861 -32.62672 -0.011 5780.91 0.360 -0.016 5786.15 0.520 1.00 0.002 0.10 0.000 0.002 0.08 0.085 0.00 0.336 0.010 0.021 0.002 0.004 4.7 4.7 -0.038 5797.74 0.397 -0.048 5802.15 0.391 1.01 0.004 0.04 0.045 0.004 0.03 0.036 0.00 0.715 0.038
0.047 0.006 0.006 6.8 8.4 -0.269 5890.14 0.548 -0.232 5900.67 0.513 0.284 5889.79 0.391 -0.216 -0.239 0.266 1.00 0.057 0.08 0.017 0.003 0.01 0.007 0.067 0.02 0.024 0.048 0.003 0.055 0.00 0.245 0.370 0.298 0.297 0.307 0.079 0.005 0.067 0.006 4.7 55.3

4.4 53.4 0 0 1 1 1 1

782 5.51127 -69.42533 279.95514 -32.33355 -0.029 5781.02 0.489 -0.003 5786.52 0.360 1.00 0.002 0.04 0.042 0.002 0.30 0.000 0.00 0.627 0.035 0.003 0.004 0.002 8.9 1.6 -0.017 5797.33 0.387 -0.012 5803.77 1.000 1.00 0.002 0.04 0.045 0.001 0.00 0.000 0.00 0.305 0.016
0.030 0.002 0.003 6.6 12.0 -0.231 5890.28 0.438 -0.022 5900.37 1.000 0.180 5890.00 0.342 -0.218 0.000 0.197 1.00 0.135 0.17 0.028 0.002 0.12 0.000 0.158 0.04 0.052 0.133 0.000 0.152 0.00 1.250 0.254 0.055 0.240 -0.000 0.149 0.006 0.146 0.000 1.7 9.9
1.6 0.0 1 0 1 0 1 0

397 5.46301 -69.67223 280.29138 -32.54427 -0.004 5780.45 0.900 0.000 5786.02 0.360 1.00 0.002 0.56 0.000 0.000 0.00 0.000 0.00 0.467 0.009 -0.000 0.004 0.000 1.9 0.0 -0.027 5797.70 1.000 -0.017 5801.77 1.000 1.01 0.002 0.00 0.000 0.002 0.00 0.000 0.00 0.489 0.067
0.042 0.005 0.005 12.6 7.8 -0.933 5890.01 0.452 -0.035 5899.00 1.000 1.013 5889.91 0.391 -0.653 -0.005 0.756 1.00 0.934 0.07 0.026 0.002 0.00 0.000 0.938 0.04 0.033 0.672 0.002 0.674 0.00 0.928 1.057 0.087 0.739 0.011 1.060 0.006 0.763 0.006 1.0 14.2
1.0 1.9 0 0 0 0 1 0

147 5.42537 -69.81509 280.49820 -32.71244 -0.023 5780.87 0.360 -0.025 5785.00 0.360 1.00 0.002 0.05 0.000 0.002 0.00 0.000 0.00 0.342 0.020 0.023 0.002 0.002 10.6 11.9 -0.042 5797.75 0.225 -0.014 5801.01 0.250 1.00 0.004 0.02 0.023 0.003 0.07 0.000 0.00 0.473 0.024
0.009 0.003 0.002 7.4 4.6 -0.205 5890.48 0.325 -0.067 5901.36 0.339 0.152 5889.68 0.292 -0.152 -0.139 0.197 0.99 0.005 0.02 0.014 0.004 0.03 0.017 0.006 0.02 0.013 0.005 0.017 0.019 0.00 0.753 0.167 0.057 0.124 0.118 0.008 0.005 0.007 0.016 20.6 12.5
18.6 7.6 1 1 1 0 1 1

735 5.50470 -69.43591 279.97372 -32.36617 -0.006 5780.66 0.900 0.000 5786.03 0.572 1.00 0.001 0.23 0.000 0.000 0.00 0.000 0.00 0.458 0.013 -0.000 0.003 0.000 4.7 0.0 -0.006 5797.51 0.301 -0.010 5802.70 0.250 1.00 0.002 0.11 0.117 0.002 0.06 0.000 0.00 0.364 0.005
0.006 0.002 0.001 2.0 5.3 -0.174 5890.27 0.538 -0.028 5900.43 1.000 0.133 5889.88 0.323 -0.145 0.000 0.141 1.00 0.017 0.05 0.015 0.002 0.08 0.000 0.022 0.01 0.022 0.015 0.000 0.019 0.00 0.868 0.235 0.069 0.195 -0.000 0.024 0.005 0.021 0.000 9.9 15.3
9.1 0.0 0 0 0 0 1 0

851 5.52261 -69.34292 279.84818 -32.28659 -0.010 5780.78 0.360 -0.017 5785.57 0.382 1.00 0.002 0.08 0.000 0.002 0.04 0.046 0.00 0.574 0.009 0.016 0.001 0.003 6.3 6.3 -0.010 5797.42 0.345 -0.014 5801.82 0.250 1.00 0.001 0.05 0.052 0.001 0.03 0.000 0.00 0.275 0.008
0.009 0.002 0.001 5.1 11.1 -0.220 5890.23 0.426 -0.133 5901.15 0.420 0.181 5890.00 0.400 -0.299 -0.160 0.359 0.99 0.425 0.51 0.096 0.004 0.01 0.011 0.503 0.00 0.000 0.575 0.006 0.680 0.00 1.045 0.234 0.140 0.319 0.169 0.457 0.005 0.618 0.007 0.5 26.7
0.5 22.6 0 1 0 1 1 1

627 5.48968 -69.48164 280.04172 -32.43720 -0.018 5780.13 0.900 -0.036 5785.19 0.360 1.00 0.002 0.12 0.000 0.003 0.04 0.000 0.00 0.557 0.040 0.033 0.004 0.003 9.1 12.8 0.000 5796.61 0.506 -0.018 5801.24 0.713 1.00 0.000 0.00 0.000 0.002 0.10 0.106 0.00 0.476 -0.000
0.032 0.000 0.006 0.0 5.2 -0.393 5890.13 0.475 -0.041 5900.53 1.000 0.406 5889.96 0.366 -0.390 -0.007 0.470 1.00 0.180 0.06 0.022 0.003 0.08 0.000 0.183 0.03 0.029 0.191 0.003 0.192 0.00 1.519 0.467 0.103 0.464 0.017 0.216 0.007 0.229 0.007 2.2 14.6
2.0 2.3 1 1 0 0 1 0

854 5.52329 -69.32222 279.82333 -32.28606 -0.031 5780.48 0.900 0.000 5786.05 0.481 1.01 0.002 0.06 0.000 0.000 0.00 0.000 0.00 0.666 0.070 -0.000 0.004 0.000 17.5 0.0 -0.007 5797.73 0.907 -0.013 5802.39 1.000 1.00 0.002 0.00 0.294 0.002 0.15 0.000 0.00 0.601 0.017
0.032 0.007 0.005 2.4 6.7 -0.201 5890.27 0.555 -0.050 5901.46 0.300 0.209 5889.85 0.318 -0.151 -0.020 0.161 1.01 0.019 0.05 0.017 0.004 0.03 0.030 0.025 0.01 0.019 0.015 0.007 0.020 0.00 1.150 0.279 0.038 0.211 0.015 0.028 0.005 0.022 0.006 10.0 7.6
9.8 2.7 0 0 0 0 1 0

169 5.43250 -69.68650 280.34006 -32.69849 -0.030 5780.30 0.451 -0.064 5786.98 0.694 1.01 0.005 0.09 0.093 0.004 0.05 0.055 0.00 0.720 0.034 0.112 0.009 0.012 3.7 9.7 -0.083 5796.46 0.140 -0.063 5803.01 0.341 1.01 0.007 0.01 0.014 0.005 0.03 0.029 0.00 0.431 0.029
0.054 0.004 0.006 7.6 9.0 -0.295 5890.55 0.250 -0.206 5901.29 0.595 0.198 5889.54 0.284 -0.220 -0.216 0.018 0.99 0.006 0.01 0.000 0.004 0.01 0.013 0.007 0.01 0.012 0.007 0.009 0.013 0.00 0.972 0.185 0.308 0.138 0.323 0.004 0.010 0.004 0.016 48.4 32.2

31.9 20.4 0 1 0 0 1 1

654 5.49280 -69.44048 279.99051 -32.42741 -0.038 5781.31 0.900 0.000 5785.95 0.609 1.01 0.003 0.08 0.000 0.000 0.00 0.000 0.00 1.187 0.086 -0.000 0.006 0.000 13.7 0.0 -0.011 5797.06 1.000 -0.021 5802.45 0.250 1.00 0.002 0.00 0.000 0.004 0.06 0.000 0.00 0.646 0.026
0.013 0.005 0.002 5.2 6.1 -0.205 5890.23 0.538 -0.030 5899.98 1.000 0.187 5889.85 0.347 -0.185 0.000 0.223 1.01 0.035 0.08 0.021 0.003 0.11 0.000 0.043 0.02 0.026 0.034 0.000 0.040 0.00 1.100 0.277 0.075 0.250 -0.000 0.048 0.007 0.047 0.000 5.8 10.9
5.3 0.0 1 0 0 0 1 0

328 5.45508 -69.57298 280.18341 -32.60159 -0.006 5781.06 0.360 0.000 5785.93 0.703 1.00 0.002 0.19 0.000 0.000 0.00 0.000 0.00 0.801 0.005 -0.000 0.002 0.000 2.6 0.0 -0.018 5797.81 1.000 -0.013 5801.68 1.000 1.01 0.002 0.10 0.000 0.002 0.00 0.000 0.00 0.783 0.045
0.033 0.004 0.004 11.1 8.1 -0.362 5890.17 0.527 -0.126 5900.35 0.425 0.430 5889.85 0.334 -0.277 -0.124 0.367 1.00 0.034 0.03 0.010 0.003 0.01 0.011 0.038 0.01 0.011 0.027 0.003 0.030 0.00 1.104 0.477 0.134 0.365 0.132 0.045 0.005 0.036 0.005 10.5 26.7
10.1 26.4 0 0 0 0 1 1

679 5.49750 -69.40881 279.94891 -32.40783 0.000 5780.82 0.705 -0.008 5787.00 0.900 1.01 0.000 0.00 0.000 0.004 0.00 0.000 0.00 3.544 -0.000 0.019 0.000 0.008 0.0 2.4 -0.017 5798.07 1.000 -0.019 5804.19 0.317 1.00 0.001 0.00 0.000 0.002 0.05 0.049 0.00 0.539 0.042
0.015 0.003 0.003 12.2 5.0 -0.158 5890.26 0.582 -0.037 5901.51 0.271 0.115 5889.70 0.316 -0.143 -0.148 0.261 1.00 0.011 0.06 0.027 0.004 0.04 0.021 0.020 0.02 0.023 0.013 0.059 0.060 0.00 1.200 0.230 0.025 0.208 0.100 0.019 0.004 0.021 0.041 11.9 7.1
10.0 2.5 0 0 0 0 1 0

123 5.41916 -69.67311 280.33884 -32.76925 -0.025 5780.90 0.900 -0.045 5785.24 0.360 1.00 0.002 0.10 0.000 0.003 0.04 0.000 0.00 0.322 0.056 0.041 0.005 0.003 10.4 13.3 -0.023 5797.39 0.261 -0.013 5802.49 1.000 1.00 0.004 0.05 0.050 0.002 0.00 0.000 0.00 0.205 0.015
0.032 0.004 0.005 4.0 6.9 -0.205 5890.55 0.298 -0.099 5901.37 0.373 0.178 5889.89 0.400 -0.175 -0.124 0.159 0.99 0.011 0.02 0.015 0.005 0.02 0.019 0.011 0.03 0.000 0.010 0.010 0.014 0.00 1.071 0.153 0.092 0.131 0.115 0.011 0.007 0.010 0.011 13.7 13.3
13.5 10.1 1 1 0 0 1 1

866 5.52599 -69.30167 279.79681 -32.27491 -0.025 5780.37 0.900 -0.017 5785.41 0.360 1.00 0.002 0.08 0.000 0.003 0.08 0.000 0.00 0.616 0.058 0.016 0.005 0.003 12.6 5.9 -0.021 5797.62 0.589 -0.009 5801.16 1.000 1.00 0.003 0.00 0.098 0.002 0.00 0.000 0.00 0.772 0.032
0.023 0.007 0.006 4.6 4.0 -0.498 5890.13 0.422 -0.055 5901.45 0.269 0.470 5889.93 0.297 -0.407 -0.048 0.400 1.00 0.083 0.03 0.009 0.005 0.03 0.025 0.087 0.01 0.015 0.069 0.007 0.072 0.00 0.810 0.527 0.037 0.430 0.032 0.089 0.005 0.074 0.006 5.9 7.9
5.8 5.8 1 0 0 0 1 1

270 5.44786 -69.55464 280.16943 -32.64194 -0.057 5781.16 0.525 -0.028 5785.00 0.900 1.02 0.005 0.06 0.060 0.004 0.00 0.000 0.00 1.833 0.076 0.063 0.011 0.009 6.8 6.9 -0.025 5796.95 0.306 -0.013 5801.92 0.250 1.00 0.004 0.06 0.061 0.004 0.10 0.000 0.00 0.684 0.019
0.008 0.005 0.003 3.8 3.3 -0.238 5890.55 0.275 -0.043 5900.86 1.000 0.288 5889.84 0.274 -0.167 0.000 0.180 1.01 0.007 0.02 0.014 0.003 0.09 0.000 0.007 0.02 0.012 0.006 0.000 0.006 0.00 0.978 0.164 0.107 0.115 -0.000 0.010 0.008 0.007 0.000 16.8 14.0
15.9 0.0 1 0 1 0 1 0

563 5.48209 -69.43514 279.99475 -32.48397 -0.019 5781.12 0.360 0.000 5786.49 0.360 1.00 0.002 0.05 0.000 0.000 0.00 0.000 0.00 0.454 0.017 -0.000 0.002 0.000 9.0 0.0 -0.017 5796.87 1.000 -0.021 5803.74 1.000 1.01 0.002 0.00 0.000 0.002 0.00 0.000 0.00 0.800 0.042
0.052 0.005 0.005 8.0 10.1 -0.435 5890.26 0.400 -0.033 5899.77 1.000 0.326 5890.00 0.339 -0.379 0.000 0.333 1.00 0.220 0.15 0.035 0.003 0.10 0.000 0.278 0.00 0.025 0.194 0.000 0.243 0.00 1.003 0.436 0.082 0.381 -0.000 0.224 0.007 0.198 0.000 1.9 12.6
1.9 0.0 0 0 0 0 1 0

344 5.45832 -69.50069 280.09543 -32.59680 -0.014 5780.82 0.900 -0.016 5786.80 0.370 1.00 0.002 0.12 0.000 0.003 0.06 0.068 0.00 0.460 0.031 0.015 0.004 0.004 8.8 4.2 -0.009 5797.51 1.000 -0.008 5803.30 1.000 0.99 0.001 0.17 0.000 0.001 0.18 0.000 0.00 0.325 0.022
0.021 0.003 0.003 6.4 6.1 -0.397 5890.25 0.399 -0.029 5901.42 0.520 0.353 5890.00 0.400 -0.354 -0.060 0.400 1.00 0.065 0.04 0.014 0.003 0.06 0.046 0.079 0.00 0.000 0.063 0.008 0.078 0.00 0.951 0.397 0.038 0.354 0.078 0.066 0.005 0.064 0.013 6.0 7.3

5.5 6.1 0 0 0 0 1 0

848 5.52223 -69.30231 279.80099 -32.29454 -0.024 5781.58 0.900 -0.011 5785.50 0.900 1.01 0.002 0.07 0.000 0.002 0.15 0.000 0.00 0.451 0.054 0.025 0.004 0.004 14.6 6.8 0.000 5798.05 0.502 -0.005 5801.83 0.250 0.99 0.000 0.00 0.000 0.003 0.18 0.000 0.00 0.417 -0.000
0.003 0.000 0.002 0.0 1.9 -0.476 5890.11 0.454 -0.047 5901.41 0.334 0.457 5889.88 0.368 -0.366 -0.056 0.400 1.00 0.265 0.12 0.016 0.004 0.04 0.031 0.286 0.03 0.036 0.214 0.010 0.229 0.00 1.468 0.541 0.039 0.416 0.047 0.302 0.005 0.244 0.009 1.8 7.5
1.7 4.9 1 0 0 0 1 0

49 5.39322 -69.64603 280.33603 -32.90716 -0.032 5781.17 0.360 -0.024 5785.92 0.900 1.00 0.003 0.04 0.000 0.002 0.08 0.000 0.00 0.352 0.029 0.054 0.002 0.004 11.7 12.7 0.000 5797.70 0.456 -0.021 5801.67 0.250 1.00 0.000 0.00 0.000 0.004 0.00 0.000 0.00 0.512 -0.000
0.013 0.000 0.002 0.0 5.5 -1.039 5889.97 0.441 -0.137 5901.16 0.771 1.164 5889.91 0.400 -0.949 -0.139 1.019 1.00 0.452 0.02 0.020 0.003 0.02 0.021 0.450 0.03 0.000 0.404 0.006 0.404 0.00 1.004 1.149 0.264 1.050 0.268 0.503 0.010 0.450 0.013 2.3 27.2
2.3 20.3 1 1 0 0 1 1

106 5.41198 -69.58222 280.24030 -32.82223 -0.046 5780.61 0.360 -0.019 5786.67 0.360 1.00 0.004 0.04 0.000 0.004 0.10 0.000 0.00 0.690 0.042 0.017 0.004 0.004 11.7 4.8 -0.015 5796.72 0.498 -0.021 5803.92 0.607 1.01 0.004 0.15 0.166 0.004 0.00 0.135 0.00 0.782 0.019
0.032 0.008 0.009 2.3 3.5 -0.755 5890.11 0.413 -0.106 5901.23 0.632 0.833 5890.00 0.350 -0.583 -0.029 0.668 1.00 0.311 0.05 0.006 0.004 0.03 0.028 0.321 0.00 0.018 0.242 0.005 0.248 0.00 0.809 0.782 0.168 0.603 0.046 0.322 0.010 0.250 0.007 2.4 17.6
2.4 6.1 1 0 0 0 1 1

830 5.52005 -69.29578 279.79535 -32.30693 -0.035 5781.50 0.900 -0.016 5785.00 0.900 1.01 0.003 0.07 0.000 0.003 0.00 0.000 0.00 0.980 0.078 0.037 0.006 0.006 13.8 6.5 -0.018 5797.43 1.000 -0.017 5802.25 0.540 1.00 0.002 0.11 0.000 0.002 0.00 0.093 0.00 0.554 0.046
0.024 0.005 0.005 9.9 4.5 -0.543 5890.02 0.463 -0.119 5901.39 0.362 0.528 5889.85 0.359 -0.436 -0.155 0.500 1.00 0.171 0.04 0.014 0.004 0.01 0.011 0.174 0.02 0.021 0.148 0.009 0.150 0.00 1.048 0.630 0.108 0.505 0.141 0.199 0.005 0.172 0.009 3.2 22.2
2.9 15.7 0 0 0 0 1 1

58 5.39681 -69.58369 280.25897 -32.90006 -0.009 5780.85 0.675 -0.010 5785.32 0.617 1.00 0.002 0.15 0.169 0.002 0.13 0.148 0.00 0.858 0.016 0.016 0.005 0.005 3.1 3.2 -0.014 5796.92 0.144 -0.006 5802.12 0.894 1.00 0.003 0.03 0.032 0.001 0.18 0.196 0.00 0.369 0.005
0.014 0.001 0.004 3.4 3.5 -0.210 5890.13 0.549 -0.043 5900.76 1.000 0.314 5889.85 0.331 -0.154 -0.003 0.263 1.01 0.030 0.04 0.017 0.002 0.06 0.000 0.031 0.01 0.014 0.023 0.003 0.024 0.00 1.207 0.289 0.107 0.213 0.008 0.042 0.006 0.033 0.007 6.9 18.1
6.5 1.2 0 0 0 0 1 0

44 5.39209 -69.57997 280.25995 -32.92503 -0.022 5780.17 0.628 -0.029 5786.20 0.360 1.00 0.003 0.09 0.094 0.003 0.05 0.000 0.00 0.899 0.034 0.026 0.007 0.003 5.2 9.3 -0.016 5797.34 0.540 -0.005 5803.12 0.250 1.01 0.003 0.10 0.108 0.003 0.22 0.000 0.00 0.772 0.022
0.003 0.006 0.002 3.8 1.5 -0.115 5890.37 0.684 -0.083 5900.88 0.866 0.180 5889.81 0.256 -0.066 -0.071 0.145 1.01 0.005 0.04 0.023 0.002 0.03 0.028 0.008 0.01 0.009 0.004 0.003 0.006 0.00 0.537 0.197 0.180 0.114 0.154 0.011 0.008 0.008 0.007 18.7 23.5
14.4 20.7 0 0 0 0 1 1

247 5.44542 -69.45400 280.05417 -32.67146 -0.010 5780.92 0.360 0.000 5786.02 0.562 1.00 0.002 0.12 0.000 0.000 0.00 0.000 0.00 0.745 0.009 -0.000 0.002 0.000 4.0 0.0 -0.021 5797.51 0.148 0.000 5802.51 0.506 1.00 0.004 0.03 0.031 0.000 0.00 0.000 0.00 0.524 0.008 -
0.000 0.002 0.000 3.6 0.0 -0.149 5890.33 0.649 -0.111 5900.21 0.456 0.268 5889.84 0.286 -0.144 -0.056 0.269 1.00 0.008 0.04 0.019 0.004 0.02 0.018 0.011 0.01 0.009 0.008 0.004 0.011 0.00 1.031 0.242 0.126 0.234 0.064 0.015 0.007 0.015 0.005 16.4 18.8
16.1 13.2 0 0 0 0 1 1

47 5.39311 -69.54858 280.22202 -32.92549 -0.013 5781.31 0.680 -0.016 5785.86 0.360 1.00 0.002 0.10 0.109 0.002 0.06 0.000 0.00 0.666 0.022 0.015 0.005 0.002 4.8 8.1 -0.026 5797.66 0.174 0.000 5802.39 0.494 1.00 0.003 0.02 0.023 0.000 0.00 0.000 0.00 0.527 0.011 -
0.000 0.002 0.000 5.8 0.0 -0.391 5890.10 0.466 -0.106 5901.40 0.372 0.442 5889.87 0.380 -0.296 -0.189 0.434 1.00 0.261 0.14 0.021 0.004 0.02 0.013 0.281 0.04 0.036 0.217 0.014 0.232 0.00 1.755 0.457 0.099 0.346 0.177 0.305 0.005 0.255 0.015 1.5 18.3

1.4 12.1 0 0 0 0 1 1

806 5.51601 -69.29125 279.79382 -32.32880 -0.012 5780.30 0.446 -0.008 5785.00 0.683 1.00 0.002 0.07 0.069 0.001 0.00 0.141 0.00 0.647 0.014 0.013 0.003 0.004 5.0 3.7 -0.009 5796.77 0.447 0.000 5801.51 0.551 1.00 0.002 0.09 0.094 0.000 0.00 0.000 0.00 0.630 0.010 -0.000 0.003 0.000 3.6 0.0 -0.823 5890.14 0.415 -0.091 5901.14 0.426 0.687 5890.00 0.396 -0.594 -0.117 0.606 0.99 1.821 0.32 0.037 0.004 0.02 0.019 1.932 0.00 0.030 1.329 0.007 1.408 0.00 1.493 0.857 0.098 0.618 0.126 1.897 0.006 1.385 0.010 0.5 15.5 0.4 13.1 0 0 0 0 1 1

540 5.47921 -69.35486 279.90359 -32.51168 -0.021 5781.07 0.475 0.000 5786.01 0.608 1.01 0.002 0.04 0.046 0.000 0.00 0.000 0.00 0.610 0.025 -0.000 0.003 0.000 7.9 0.0 -0.008 5796.82 0.899 0.000 5802.50 0.504 1.00 0.001 0.00 0.130 0.000 0.00 0.000 0.00 0.351 0.018 -0.000 0.003 0.000 5.3 0.0 -0.770 5890.10 0.436 -0.029 5900.66 1.000 0.724 5889.97 0.400 -0.567 0.000 0.582 1.00 0.147 0.03 0.014 0.002 0.08 0.000 0.140 0.04 0.000 0.118 0.000 0.112 0.00 0.757 0.842 0.072 0.620 -0.000 0.163 0.005 0.131 0.000 5.2 15.9 4.7 0.0 1 0 0 0 1 0

57 5.39641 -69.49895 280.16016 -32.91744 -0.012 5781.34 0.603 0.000 5785.98 0.624 1.00 0.001 0.07 0.070 0.000 0.00 0.000 0.00 0.651 0.019 -0.000 0.003 0.000 6.6 0.0 -0.012 5797.77 0.277 -0.008 5803.23 1.000 1.00 0.002 0.04 0.045 0.001 0.00 0.000 0.00 0.596 0.008 0.020 0.002 0.002 4.7 9.2 -0.152 5890.29 0.483 -0.038 5900.61 1.000 0.144 5889.88 0.337 -0.128 -0.008 0.143 1.01 0.053 0.18 0.048 0.002 0.06 0.000 0.076 0.03 0.043 0.047 0.002 0.064 0.00 0.974 0.183 0.094 0.155 0.021 0.067 0.005 0.059 0.005 2.8 18.6 2.6 3.9 0 0 0 0 1 0

138 5.42358 -69.43997 280.06100 -32.78717 -0.017 5781.34 0.688 -0.020 5785.48 0.900 1.00 0.003 0.13 0.150 0.003 0.13 0.000 0.00 0.824 0.030 0.045 0.008 0.006 3.6 7.5 -0.030 5797.53 0.219 -0.021 5802.52 0.250 1.00 0.004 0.04 0.036 0.003 0.05 0.000 0.00 0.554 0.017 0.013 0.004 0.002 4.6 6.3 -0.196 5890.41 0.407 -0.030 5901.42 0.357 0.160 5889.84 0.288 -0.173 -0.080 0.229 1.00 0.017 0.08 0.038 0.004 0.06 0.038 0.040 0.03 0.017 0.019 0.014 0.037 0.00 0.809 0.201 0.027 0.176 0.071 0.026 0.005 0.025 0.014 7.9 5.6 6.9 5.0 0 0 0 0 1 0

113 5.41517 -69.44283 280.07352 -32.83030 0.000 5780.73 0.663 -0.022 5786.15 0.900 0.99 0.000 0.00 0.000 0.003 0.14 0.000 0.00 0.777 -0.000 0.050 0.000 0.006 0.0 7.8 -0.042 5796.48 0.647 -0.055 5802.84 0.454 1.02 0.003 0.00 0.053 0.003 0.03 0.033 0.00 0.463 0.068 0.062 0.007 0.006 9.5 10.5 -0.343 5890.15 0.515 -0.152 5900.88 0.625 0.340 5889.83 0.347 -0.301 -0.160 0.340 1.00 0.059 0.06 0.016 0.004 0.02 0.017 0.069 0.02 0.022 0.054 0.005 0.062 0.00 0.957 0.443 0.238 0.388 0.251 0.078 0.009 0.071 0.010 5.7 26.3 5.5 24.5 0 0 1 1 1 1

741 5.50584 -69.29078 279.80280 -32.38221 -0.024 5780.37 0.745 -0.019 5786.06 0.900 1.01 0.002 0.06 0.068 0.002 0.09 0.000 0.00 0.487 0.046 0.042 0.005 0.004 8.5 11.4 0.000 5796.86 0.565 -0.020 5802.75 0.250 1.00 0.000 0.00 0.000 0.002 0.04 0.000 0.00 0.397 -0.000 0.013 0.000 0.001 0.0 9.0 -0.207 5890.30 0.534 -0.033 5901.55 0.250 0.176 5889.61 0.250 -0.162 -1109.347 1109.512 1.00 0.003 0.02 0.014 0.003 0.01 -0.000 0.009 0.01 0.004 0.003 472991.145 472991.135 0.00 0.619 0.277 0.021 0.217 695.180 0.008 0.002 0.007 296403.248 33.4 10.2 29.8 0.0 0 0 0 0 1 0

459 5.46796 -69.34392 279.90204 -32.57217 -0.010 5781.06 0.856 -0.007 5786.30 0.630 1.00 0.001 0.12 0.143 0.002 0.16 0.176 0.00 1.081 0.022 0.011 0.005 0.004 4.7 2.8 0.000 5797.59 0.506 -0.014 5802.63 0.250 1.00 0.000 0.00 0.000 0.002 0.05 0.000 0.00 1.026 -0.000 0.009 0.000 0.001 0.0 7.1 -0.223 5890.41 0.341 -0.010 5901.34 0.250 0.093 5889.63 0.400 -0.137 -0.067 0.166 1.00 0.011 0.03 0.023 0.009 0.07 0.000 0.014 0.07 0.000 0.013 0.031 0.022 0.00 3.291 0.190 0.006 0.118 0.042 0.016 0.006 0.014 0.019 12.0 1.2 8.7 2.2 0 0 0 0 1 0

845 5.52184 -69.25961 279.75140 -32.30284 -0.019 5781.16 0.483 -0.010 5785.40 0.360 1.01 0.002 0.07 0.076 0.002 0.11 0.000 0.00 0.688 0.023 0.009 0.005 0.002 4.8 4.1 -0.030 5796.91 0.216 -0.019 5801.75 1.000 1.01 0.004 0.00 0.038 0.002 0.13 0.000 0.00 1.035 0.016 0.047 0.004 0.005 4.4 9.2 -0.215 5890.43 0.378 -0.029 5900.01 1.000 0.058 5889.77 0.181 -0.165 0.000 0.080 1.00 0.003 0.01 0.012 0.002 0.09 0.000 0.008 0.02 0.016 0.003 0.000 0.006 0.00 1.089 0.204 0.072 0.157 -0.000 0.007 0.005 0.006 0.000 28.6 14.4

26.8 0.0 0 0 0 0 1 0

601 5.48712 -69.29900 279.83041 -32.47906 -0.019 5781.17 0.651 -0.002 5786.42 0.360 1.00 0.002 0.08 0.081 0.002 0.48 0.000 0.00 0.945 0.031 0.002 0.005 0.002 6.2 1.0 -0.014 5797.62 0.889 -0.019 5803.67 1.000 1.01 0.002 0.15 0.182 0.002 0.00 0.000 0.00 1.480 0.030
0.049 0.008 0.005 3.9 8.9 -0.201 5890.44 0.382 -0.029 5900.21 1.000 0.099 5889.67 0.218 -0.173 -0.007 0.095 1.00 0.003 0.01 0.010 0.002 0.07 0.000 0.005 0.01 0.011 0.003 0.002 0.005 0.00 0.805 0.193 0.073 0.166 0.017 0.006 0.005 0.005 0.005 33.1 16.0
32.1 3.8 0 0 0 0 1 0

5 5.36688 -69.41483 280.09558 -33.08568 0.000 5780.69 0.583 -0.011 5786.17 0.360 1.00 0.000 0.00 0.000 0.003 0.14 0.000 0.00 0.923 -0.000 0.010 0.000 0.003 0.0 3.5 -0.009 5797.17 0.490 0.000 5802.64 0.558 1.00 0.002 0.13 0.137 0.000 0.00 0.000 0.00 0.419 0.011 -
0.000 0.004 0.000 2.7 0.0 -0.737 5890.05 0.423 -0.057 5901.21 0.419 0.774 5889.92 0.363 -0.529 -0.052 0.579 1.00 0.679 0.08 0.021 0.003 0.03 0.026 0.685 0.04 0.033 0.496 0.004 0.499 0.00 0.433 0.781 0.060 0.560 0.055 0.720 0.005 0.526 0.006 1.1 11.6
1.1 9.6 0 0 0 0 1 1

262 5.44669 -69.32514 279.90189 -32.68632 -0.012 5780.70 0.623 0.000 5785.96 0.616 1.00 0.002 0.10 0.108 0.000 0.00 0.000 0.00 0.123 0.018 -0.000 0.004 0.000 4.4 0.0 0.000 5797.35 0.848 0.000 5802.49 0.508 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.062 -0.000 -
0.000 0.000 0.000 0.0 0.0 -0.427 5890.22 0.423 -0.031 5900.16 1.000 0.309 5889.97 0.379 -0.391 0.000 0.304 1.00 1.492 0.78 0.111 0.002 0.08 0.000 1.679 0.23 0.132 1.388 0.000 1.555 0.00 1.153 0.453 0.077 0.415 -0.000 1.587 0.005 1.476 0.000 0.3 15.4
0.3 0.0 0 0 0 0 1 0

784 5.51156 -69.25450 279.75494 -32.35761 0.000 5780.72 0.599 0.000 5786.24 0.360 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.457 -0.000 -0.000 0.000 0.000 0.0 0.0 -0.025 5797.97 0.377 -0.013 5802.50 0.587 1.01 0.002 0.00 0.032 0.001 0.07 0.078 0.00 0.442 0.023
0.019 0.003 0.003 9.1 5.8 -0.235 5890.31 0.441 -0.024 5901.53 0.318 0.084 5889.84 0.261 -0.217 -0.061 0.194 1.00 0.009 0.03 0.015 0.003 0.05 0.028 0.020 0.01 0.015 0.011 0.015 0.026 0.00 0.745 0.260 0.020 0.239 0.048 0.013 0.003 0.014 0.013 20.1 6.9
16.5 3.9 0 0 0 0 1 0

218 5.44122 -69.31328 279.89371 -32.71687 -0.015 5780.42 0.900 -0.008 5785.49 0.381 1.01 0.002 0.16 0.000 0.004 0.19 0.203 0.00 1.867 0.035 0.008 0.005 0.006 6.4 1.4 0.000 5796.85 0.549 -0.005 5801.93 0.250 1.00 0.000 0.00 0.000 0.002 0.17 0.000 0.00 0.784 -0.000
0.003 0.000 0.002 0.0 2.0 -0.170 5890.49 0.324 -0.035 5901.53 0.339 0.100 5889.93 0.177 -0.155 0.000 0.188 1.00 0.003 0.01 0.012 0.003 0.04 0.037 0.008 0.01 0.007 0.004 0.000 0.007 0.00 0.779 0.138 0.030 0.126 -0.000 0.006 0.004 0.006 0.000 23.4 6.9
22.4 0.0 0 0 0 0 1 0

551 5.48081 -69.26472 279.79645 -32.51748 -0.030 5780.50 0.360 0.000 5786.03 0.455 1.00 0.003 0.05 0.000 0.000 0.00 0.000 0.00 0.347 0.027 -0.000 0.003 0.000 10.5 0.0 0.000 5797.04 0.414 -0.008 5801.78 0.745 1.00 0.000 0.00 0.000 0.003 0.00 0.355 0.00 0.610 -0.000
0.015 0.000 0.009 0.0 1.6 -0.212 5889.97 0.523 -0.035 5900.68 0.454 0.190 5889.44 0.268 -0.113 -0.047 0.111 1.00 0.016 0.07 0.031 0.004 0.05 0.054 0.031 0.01 0.024 0.010 0.005 0.018 0.00 1.326 0.278 0.039 0.148 0.054 0.026 0.007 0.015 0.008 10.5 5.8
9.7 6.4 1 0 0 0 1 1

714 5.50227 -69.24442 279.75192 -32.40794 0.000 5780.84 0.683 -0.016 5786.18 0.691 1.00 0.000 0.00 0.000 0.002 0.09 0.099 0.00 0.994 -0.000 0.027 0.000 0.005 0.0 5.4 -0.027 5797.32 0.586 -0.022 5803.43 0.314 1.00 0.002 0.05 0.053 0.003 0.00 0.045 0.00 0.959 0.039
0.017 0.005 0.003 8.6 5.4 -0.326 5890.12 0.494 -0.047 5901.44 0.341 0.285 5889.82 0.384 -0.344 -0.139 0.461 1.00 0.106 0.10 0.022 0.004 0.04 0.021 0.124 0.03 0.028 0.128 0.026 0.146 0.00 1.155 0.404 0.040 0.426 0.119 0.132 0.004 0.160 0.024 3.1 9.4
2.7 5.1 0 0 0 0 1 0

133 5.42219 -69.27544 279.86966 -32.82274 -0.028 5780.42 0.360 -0.019 5787.00 0.900 1.01 0.003 0.05 0.000 0.002 0.00 0.000 0.00 0.660 0.025 0.042 0.003 0.005 9.0 8.7 0.000 5796.96 0.548 -0.007 5802.79 0.362 0.99 0.000 0.00 0.000 0.002 0.15 0.158 0.00 0.298 -0.000
0.006 0.000 0.003 0.0 1.7 -0.208 5890.27 0.444 -0.029 5899.00 1.000 0.225 5889.92 0.371 -0.176 -0.000 0.214 1.00 0.468 0.78 0.164 0.002 0.00 0.000 0.589 0.14 0.098 0.407 0.002 0.505 0.00 0.775 0.232 0.072 0.195 0.001 0.527 0.005 0.458 0.005 0.4 13.6

0.4 0.2 0 0 0 0 1 0

179 5.43465 -69.26053 279.83884 -32.76007 -0.017 5780.04 0.360 0.000 5786.07 0.656 1.00 0.002 0.06 0.000 0.000 0.00 0.000 0.00 1.013 0.016 -0.000 0.002 0.000 8.0 0.0 0.000 5796.56 0.489 -0.007 5801.82 0.608 1.00 0.000 0.00 0.000 0.001 0.00 0.132 0.00 0.440 -0.000
0.011 0.000 0.003 0.0 3.5 -0.287 5890.15 0.514 -0.032 5900.72 0.885 0.287 5889.82 0.320 -0.235 0.000 0.260 1.00 0.025 0.03 0.010 0.002 0.07 0.077 0.028 0.01 0.013 0.021 0.000 0.024 0.00 1.023 0.370 0.070 0.303 -0.000 0.033 0.008 0.028 0.000 11.3 8.9
10.9 0.0 1 0 0 0 1 0

785 5.51162 -69.23122 279.72763 -32.36076 -0.011 5781.14 0.900 -0.025 5785.45 0.360 1.00 0.001 0.12 0.000 0.002 0.03 0.000 0.00 0.799 0.025 0.022 0.003 0.002 8.8 13.6 -0.021 5797.72 0.212 0.000 5801.96 0.498 1.00 0.003 0.03 0.031 0.000 0.00 0.000 0.00 0.805 0.011 -
0.000 0.002 0.000 5.2 0.0 -0.269 5890.25 0.499 -0.110 5901.13 0.441 0.150 5889.76 0.293 -0.213 -0.112 0.168 1.00 0.015 0.04 0.018 0.003 0.01 0.012 0.029 0.01 0.020 0.014 0.004 0.023 0.00 1.067 0.337 0.121 0.267 0.124 0.023 0.005 0.020 0.005 14.8 26.9
13.5 22.6 0 0 0 0 1 1

453 5.46758 -69.23650 279.77661 -32.59137 0.000 5780.92 0.610 -0.003 5786.20 0.360 1.00 0.000 0.00 0.000 0.003 0.47 0.000 0.00 0.905 -0.000 0.002 0.000 0.002 0.0 1.0 -0.021 5797.60 0.356 -0.015 5802.17 0.250 1.00 0.002 0.04 0.037 0.002 0.04 0.000 0.00 0.311 0.018
0.009 0.002 0.001 7.4 8.2 -1.058 5890.04 0.405 -0.022 5899.00 1.000 1.031 5889.96 0.372 -0.941 0.000 0.952 1.00 2.344 0.11 0.029 0.002 0.00 0.000 2.352 0.07 0.045 2.119 0.000 2.125 0.00 0.638 1.075 0.055 0.957 -0.000 2.383 0.004 2.154 0.000 0.5 12.5
0.4 0.0 0 0 0 0 1 0

15 5.37648 -69.23278 279.87085 -33.06933 -0.013 5780.63 0.900 -0.014 5785.16 0.360 1.00 0.001 0.10 0.000 0.002 0.06 0.000 0.00 0.637 0.030 0.013 0.003 0.002 10.9 8.1 -0.014 5797.88 0.682 0.000 5801.69 0.507 1.00 0.002 0.00 0.089 0.000 0.00 0.000 0.00 0.711 0.024 -
0.000 0.004 0.000 5.9 0.0 -0.334 5890.23 0.436 -0.048 5901.30 0.369 0.240 5889.89 0.361 -0.274 -0.033 0.243 1.00 0.270 0.29 0.063 0.003 0.03 0.026 0.347 0.07 0.055 0.235 0.005 0.293 0.00 1.048 0.365 0.044 0.300 0.030 0.300 0.004 0.260 0.005 1.2 10.5
1.2 5.9 0 0 0 0 1 1

811 5.51639 -69.18478 279.66882 -32.34249 0.000 5781.25 0.677 0.000 5785.90 0.610 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 1.198 -0.000 -0.000 0.000 0.000 0.0 0.0 -0.009 5797.51 0.300 -0.011 5801.65 0.895 1.00 0.002 0.06 0.067 0.001 0.00 0.099 0.00 0.337 0.007
0.026 0.002 0.004 3.4 7.1 -1.310 5890.05 0.425 -0.085 5901.11 0.428 1.194 5889.96 0.400 -1.188 -0.129 1.178 1.00 0.418 0.02 0.013 0.003 0.02 0.015 0.408 0.04 0.000 0.405 0.005 0.394 0.00 0.879 1.395 0.091 1.265 0.138 0.447 0.005 0.433 0.007 3.1 19.9
2.9 20.2 0 0 0 0 1 1

428 5.46581 -69.21478 279.75293 -32.60413 -0.020 5780.94 0.900 0.000 5785.98 0.436 1.00 0.002 0.12 0.000 0.000 0.00 0.000 0.00 1.439 0.046 -0.000 0.005 0.000 9.5 0.0 -0.028 5797.72 0.260 -0.011 5803.23 1.000 1.00 0.003 0.03 0.029 0.001 0.00 0.000 0.00 0.554 0.018
0.027 0.003 0.003 6.9 8.3 -0.512 5890.18 0.405 -0.025 5899.95 1.000 0.377 5890.00 0.384 -0.458 0.000 0.358 1.00 0.899 0.35 0.056 0.002 0.08 0.000 1.004 0.00 0.016 0.804 0.000 0.898 0.00 0.223 0.519 0.063 0.464 -0.000 0.914 0.004 0.818 0.000 0.6 15.5
0.6 0.0 0 0 0 0 1 0

841 5.52136 -69.21523 279.69989 -32.31185 -0.022 5781.64 0.763 -0.011 5785.64 0.360 1.00 0.002 0.07 0.081 0.002 0.10 0.000 0.00 0.461 0.042 0.010 0.006 0.002 7.3 4.7 -0.008 5797.39 1.000 0.000 5802.13 0.517 1.00 0.001 0.00 0.000 0.000 0.00 0.000 0.00 0.306 0.019 -
0.000 0.003 0.000 6.0 0.0 -0.320 5890.19 0.496 -0.053 5901.23 0.380 0.253 5889.85 0.351 -0.287 -0.087 0.280 1.00 0.062 0.07 0.016 0.004 0.03 0.024 0.076 0.02 0.027 0.060 0.007 0.070 0.00 1.007 0.398 0.051 0.357 0.083 0.078 0.005 0.075 0.008 5.1 10.6
4.7 10.2 1 0 0 0 1 1

338 5.45742 -69.19133 279.73398 -32.65200 -0.024 5781.23 0.804 -0.039 5785.32 0.360 1.00 0.002 0.08 0.084 0.003 0.03 0.000 0.00 0.828 0.048 0.035 0.006 0.002 7.4 14.8 -0.007 5797.77 0.125 -0.025 5802.40 0.250 1.00 0.004 0.10 0.000 0.003 0.04 0.000 0.00 0.828 0.002
0.016 0.001 0.002 1.8 8.3 -0.252 5890.15 0.504 -0.113 5901.00 0.464 0.228 5889.82 0.341 -0.299 -0.140 0.331 1.00 0.033 0.05 0.012 0.003 0.01 0.012 0.040 0.01 0.017 0.041 0.004 0.048 0.00 0.936 0.319 0.132 0.377 0.163 0.042 0.005 0.053 0.006 7.6 27.5

7.2 25.5 0 1 0 0 1 1

535 5.47836 -69.18733 279.70822 -32.54247 -0.017 5781.80 0.380 -0.012 5785.76 0.569 1.00 0.002 0.00 0.058 0.002 0.10 0.108 0.00 0.502 0.016 0.017 0.003 0.004 5.0 4.0 0.000 5798.43 0.125 0.000 5802.31 0.563 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.976 -0.000 -0.000 0.000 0.000 0.0 0.0 -0.272 5890.22 0.468 -0.032 5901.79 0.293 0.217 5889.80 0.319 -0.217 0.000 0.208 1.01 0.075 0.15 0.045 0.006 0.06 0.066 0.113 0.03 0.042 0.063 0.000 0.091 0.00 1.866 0.318 0.023 0.255 -0.000 0.093 0.007 0.078 0.000 3.4 3.4 3.3 0.0 0 0 0 0 1 0

868 5.52607 -69.20397 279.68240 -32.28867 -0.017 5780.24 0.361 -0.015 5786.61 0.360 1.00 0.002 0.05 0.053 0.002 0.06 0.000 0.00 0.798 0.015 0.014 0.003 0.002 5.2 8.2 -0.006 5796.83 0.125 -0.013 5803.46 0.250 1.00 0.002 0.05 0.000 0.001 0.03 0.000 0.00 0.294 0.002 0.008 0.001 0.001 3.4 10.0 -0.181 5890.29 0.635 -0.166 5901.16 0.404 0.120 5889.70 0.396 -0.191 -0.268 0.249 1.00 0.015 0.08 0.029 0.003 0.01 0.007 0.027 0.02 0.023 0.019 0.011 0.031 0.00 0.646 0.288 0.169 0.304 0.272 0.027 0.004 0.034 0.012 10.7 37.6 9.0 22.7 0 0 0 0 1 1

626 5.48966 -69.17050 279.67746 -32.48555 -0.020 5780.75 0.826 -0.010 5785.00 0.590 1.00 0.001 0.05 0.061 0.001 0.00 0.105 0.00 0.887 0.042 0.014 0.004 0.003 10.5 4.4 -0.019 5797.62 0.295 0.000 5801.49 0.521 1.00 0.002 0.04 0.044 0.000 0.00 0.000 0.00 1.402 0.014 -0.000 0.003 0.000 5.1 0.0 -0.212 5890.27 0.504 -0.055 5901.01 0.591 0.152 5889.77 0.323 -0.148 -0.031 0.161 1.02 0.023 0.08 0.029 0.002 0.03 0.030 0.040 0.01 0.023 0.018 0.003 0.029 0.00 0.036 0.267 0.081 0.187 0.047 0.033 0.005 0.026 0.005 8.2 15.1 7.3 9.7 1 0 1 0 1 0

368 5.46072 -69.13908 279.66937 -32.64304 -0.033 5780.66 0.360 0.000 5786.00 0.543 1.00 0.003 0.04 0.000 0.000 0.00 0.000 0.00 1.354 0.029 -0.000 0.003 0.000 11.3 0.0 0.000 5797.15 0.493 -0.002 5803.25 1.000 1.00 0.000 0.00 0.000 0.001 0.00 0.000 0.00 0.580 -0.000 0.005 0.000 0.003 0.0 1.6 -0.267 5890.39 0.393 -0.065 5900.69 0.685 0.082 5889.75 0.290 -0.214 -0.068 0.132 1.01 0.005 0.02 0.013 0.002 0.03 0.027 0.013 0.02 0.016 0.007 0.003 0.011 0.00 0.318 0.262 0.111 0.211 0.117 0.010 0.006 0.010 0.006 26.3 18.3 21.8 18.2 1 0 0 0 1 1

757 5.50788 -69.17778 279.66858 -32.38840 -0.005 5781.23 0.360 -0.031 5785.33 0.580 0.99 0.002 0.19 0.000 0.002 0.04 0.045 0.00 0.991 0.005 0.045 0.002 0.005 2.5 10.0 -0.010 5798.03 0.285 -0.012 5801.63 0.250 1.00 0.002 0.08 0.079 0.002 0.06 0.000 0.00 0.664 0.007 0.008 0.003 0.001 2.8 5.9 -0.380 5890.18 0.479 -0.178 5901.01 0.418 0.294 5889.71 0.331 -0.298 -0.223 0.264 1.01 0.070 0.11 0.037 0.004 0.01 0.008 0.114 0.02 0.030 0.057 0.005 0.090 0.00 0.560 0.456 0.186 0.358 0.234 0.091 0.005 0.074 0.007 5.0 34.7 4.8 33.7 0 1 0 0 1 1

12 5.37613 -69.02472 279.62704 -33.10891 -0.015 5780.98 0.389 0.000 5785.92 0.602 1.00 0.003 0.09 0.090 0.000 0.00 0.000 0.00 0.927 0.014 -0.000 0.004 0.000 3.3 0.0 -0.020 5797.69 0.601 -0.026 5802.07 0.352 1.00 0.002 0.07 0.080 0.003 0.04 0.045 0.00 0.751 0.030 0.023 0.005 0.004 5.8 6.1 -0.430 5890.10 0.471 -0.115 5901.31 0.397 0.387 5889.86 0.396 -0.364 -0.141 0.410 1.00 0.376 0.20 0.024 0.004 0.02 0.015 0.412 0.05 0.051 0.343 0.011 0.371 0.00 0.577 0.508 0.115 0.430 0.140 0.445 0.006 0.405 0.013 1.1 18.7 1.1 11.2 0 0 0 0 1 1

486 5.47196 -69.13069 279.64822 -32.58508 -0.012 5781.80 0.360 0.000 5786.05 0.584 0.99 0.001 0.00 0.000 0.000 0.00 0.000 0.00 0.260 0.011 -0.000 0.001 0.000 8.0 0.0 -0.014 5798.18 0.554 -0.013 5802.96 0.277 0.99 0.002 0.07 0.075 0.002 0.05 0.054 0.00 0.319 0.019 0.009 0.003 0.002 5.7 3.9 -0.226 5890.18 0.541 -0.052 5900.32 1.000 0.173 5889.78 0.330 -0.197 -0.033 0.194 1.00 0.018 0.04 0.012 0.002 0.04 0.000 0.023 0.01 0.017 0.017 0.002 0.020 0.00 0.326 0.307 0.131 0.267 0.084 0.025 0.005 0.024 0.005 12.4 28.5 11.3 17.7 0 0 0 0 1 0

661 5.49404 -69.15036 279.64963 -32.46553 -0.008 5780.57 0.900 -0.009 5786.19 0.900 1.00 0.001 0.15 0.000 0.001 0.13 0.000 0.00 0.398 0.018 0.020 0.003 0.003 7.0 7.8 0.000 5796.99 0.546 -0.012 5803.00 0.250 1.00 0.000 0.00 0.000 0.002 0.06 0.000 0.00 0.539 -0.000 0.008 0.000 0.001 0.0 5.9 -0.417 5890.15 0.504 -0.157 5900.97 0.394 0.294 5889.81 0.400 -0.385 -0.246 0.357 1.00 0.025 0.03 0.014 0.003 0.01 0.008 0.036 0.02 0.000 0.022 0.005 0.032 0.00 0.932 0.527 0.155 0.486 0.242 0.035 0.005 0.031 0.007 15.3 34.4

15.5 36.4 0 0 0 0 1 1

378 5.46126 -69.09972 279.62268 -32.64649 -0.019 5780.22 0.360 -0.015 5785.51 0.360 1.00 0.002 0.05 0.000 0.002 0.06 0.000 0.00 0.461 0.017 0.014 0.002 0.002 9.3 7.6 -0.018 5797.47 1.000 0.000 5802.01 0.567 1.00 0.002 0.00 0.000 0.000 0.00 0.000 0.00 0.677 0.045 -0.000 0.004 0.000 11.0 0.0 -0.438 5890.23 0.447 -0.060 5900.88 0.551 0.357 5889.87 0.400 -0.350 -0.118 0.350 1.00 0.155 0.15 0.041 0.003 0.03 0.025 0.215 0.02 0.000 0.126 0.004 0.173 0.00 1.127 0.491 0.082 0.392 0.163 0.180 0.006 0.145 0.010 2.7 14.0 2.7 16.9 0 0 0 0 1 1

823 5.51908 -69.17167 279.65100 -32.33022 -0.008 5781.41 0.360 -0.022 5785.47 0.822 0.99 0.001 0.06 0.000 0.001 0.03 0.037 0.00 0.334 0.007 0.045 0.001 0.003 7.5 17.1 -0.010 5797.87 0.744 -0.022 5802.43 0.467 0.99 0.001 0.09 0.096 0.001 0.03 0.033 0.00 0.496 0.018 0.026 0.003 0.002 6.0 11.0 -0.345 5890.18 0.487 -0.269 5901.04 0.438 0.238 5889.76 0.364 -0.307 -0.358 0.271 1.00 0.092 0.13 0.034 0.003 0.01 0.005 0.130 0.03 0.035 0.088 0.005 0.119 0.00 0.905 0.421 0.295 0.375 0.393 0.116 0.005 0.110 0.007 3.6 63.0 3.4 57.8 0 1 0 1 1 1

280 5.44863 -69.06472 279.59457 -32.71888 -0.017 5781.23 0.900 -0.011 5785.00 0.685 1.00 0.001 0.07 0.000 0.001 0.00 0.099 0.00 0.523 0.037 0.018 0.002 0.003 15.5 5.4 -0.010 5797.88 0.256 -0.009 5802.10 0.250 1.00 0.001 0.04 0.043 0.001 0.04 0.000 0.00 0.270 0.006 0.006 0.001 0.001 4.6 7.6 -0.297 5890.24 0.466 -0.071 5900.95 0.480 0.197 5889.84 0.358 -0.238 -0.073 0.198 1.00 0.145 0.22 0.057 0.003 0.02 0.024 0.202 0.05 0.057 0.124 0.004 0.166 0.00 1.141 0.347 0.086 0.278 0.088 0.175 0.006 0.149 0.006 2.0 14.8 1.9 13.7 0 0 0 0 1 1

159 5.42813 -69.02064 279.56442 -32.83463 -0.009 5780.48 0.900 0.000 5785.94 0.558 1.00 0.001 0.14 0.000 0.000 0.00 0.000 0.00 1.374 0.020 -0.000 0.003 0.000 7.5 0.0 0.000 5797.08 0.506 -0.007 5802.28 0.250 1.00 0.000 0.00 0.000 0.003 0.15 0.000 0.00 3.314 -0.000 0.004 0.000 0.002 0.0 2.3 -0.267 5890.26 0.595 -0.054 5900.58 1.000 0.185 5889.74 0.285 -0.207 -0.009 0.162 1.01 0.009 0.03 0.013 0.003 0.05 0.000 0.015 0.01 0.015 0.008 0.003 0.012 0.00 1.252 0.399 0.135 0.309 0.022 0.017 0.006 0.014 0.007 24.1 21.5 22.4 3.2 0 0 0 0 1 0

751 5.50692 -69.14655 279.63290 -32.39811 -0.049 5779.98 0.360 -0.053 5785.75 0.900 1.00 0.003 0.03 0.000 0.002 0.04 0.000 0.00 1.375 0.044 0.120 0.002 0.004 17.9 28.1 0.000 5796.45 0.444 -0.029 5801.96 0.275 1.00 0.000 0.00 0.000 0.002 0.02 0.025 0.00 0.585 -0.000 0.020 0.000 0.002 0.0 8.2 -0.794 5890.13 0.391 -0.126 5901.05 0.401 0.621 5890.00 0.383 -0.789 -0.131 0.723 1.00 5.386 0.89 0.099 0.004 0.01 0.012 5.687 0.00 0.011 5.355 0.005 5.653 0.00 1.210 0.778 0.126 0.773 0.132 5.284 0.005 5.254 0.006 0.1 24.0 0.1 21.2 1 1 0 1 1 1

276 5.44824 -69.03472 279.55978 -32.72581 -0.030 5780.80 0.900 -0.011 5786.16 0.360 1.01 0.002 0.08 0.000 0.003 0.15 0.000 0.00 1.324 0.068 0.010 0.005 0.003 12.8 3.2 -0.014 5797.93 0.210 -0.015 5803.03 0.340 0.99 0.002 0.04 0.042 0.002 0.05 0.053 0.00 0.309 0.008 0.012 0.002 0.003 3.8 4.9 -0.318 5890.39 0.375 -0.047 5901.03 0.586 0.084 5889.94 0.382 -0.269 -0.048 0.114 1.00 0.032 0.03 0.010 0.002 0.03 0.027 0.035 0.09 0.033 0.037 0.003 0.034 0.00 0.566 0.299 0.069 0.254 0.070 0.032 0.004 0.036 0.005 9.5 16.1 7.1 13.0 1 0 0 0 1 1

571 5.48334 -69.09453 279.59457 -32.53060 -0.023 5780.97 0.900 -0.013 5787.00 0.528 1.01 0.002 0.07 0.000 0.002 0.00 0.101 0.00 1.560 0.051 0.017 0.003 0.004 14.8 4.0 -0.012 5797.55 0.267 -0.007 5803.40 0.250 1.00 0.002 0.05 0.047 0.002 0.08 0.000 0.00 0.622 0.008 0.004 0.002 0.001 4.3 4.4 -0.186 5890.32 0.470 -0.076 5901.16 0.619 0.076 5889.87 0.317 -0.165 -0.085 0.117 1.00 0.022 0.08 0.027 0.002 0.02 0.018 0.038 0.02 0.033 0.023 0.003 0.035 0.00 0.668 0.219 0.118 0.194 0.132 0.029 0.005 0.029 0.006 7.5 25.4 6.6 21.8 1 0 1 0 1 1

822 5.51900 -69.15647 279.63327 -32.33287 -0.015 5780.82 0.421 -0.127 5785.60 0.900 0.99 0.002 0.08 0.084 0.002 0.01 0.000 0.00 1.624 0.016 0.288 0.004 0.004 3.9 76.5 -0.015 5797.60 0.125 -0.048 5802.18 0.482 1.00 0.002 0.03 0.000 0.001 0.02 0.016 0.00 0.585 0.005 0.058 0.001 0.003 6.6 22.6 -0.586 5890.09 0.445 -0.440 5901.04 0.407 0.400 5889.77 0.400 -0.506 -0.517 0.393 1.00 0.186 0.12 0.033 0.004 0.00 0.004 0.250 0.02 0.000 0.160 0.007 0.215 0.00 0.946 0.654 0.449 0.564 0.527 0.213 0.006 0.183 0.008 3.1 77.2

3.1 63.6 0 1 0 1 1 1

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0.005 0.003 0.001 4.4 5.6 -0.389 5890.13 0.492 -0.037 5901.35 0.381 0.297 5889.75 0.357 -0.328 -0.062 0.328 1.00 0.069 0.08 0.019 0.003 0.04 0.032 0.091 0.02 0.024 0.064 0.011 0.083 0.00 0.700 0.480 0.036 0.405 0.059 0.087 0.004 0.080 0.012 5.5 8.0
5.1 5.0 0 0 0 0 1 0

390 5.46225 -69.01903 279.52707 -32.65409 -0.010 5780.61 0.827 -0.003 5787.00 0.900 1.00 0.001 0.08 0.094 0.001 0.00 0.000 0.00 0.269 0.021 0.006 0.003 0.002 6.9 2.8 -0.007 5797.06 0.125 0.000 5803.50 0.491 1.00 0.002 0.04 0.000 0.000 0.00 0.000 0.00 0.212 0.002 -
0.000 0.001 0.000 3.9 0.0 -0.700 5890.09 0.431 -0.069 5900.90 0.466 0.573 5889.86 0.362 -0.426 -0.056 0.420 1.00 0.332 0.10 0.013 0.003 0.02 0.023 0.366 0.03 0.028 0.214 0.003 0.231 0.00 1.306 0.756 0.080 0.460 0.066 0.360 0.005 0.231 0.005 2.1 15.0
2.0 13.1 0 0 0 0 1 1

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0.000 0.002 0.000 6.8 0.0 -0.421 5890.13 0.440 -0.062 5901.18 0.422 0.291 5889.84 0.400 -0.339 -0.094 0.320 1.00 0.168 0.14 0.036 0.003 0.02 0.018 0.218 0.02 0.000 0.134 0.006 0.174 0.00 1.001 0.464 0.065 0.374 0.099 0.189 0.004 0.151 0.008 2.5 15.7
2.5 12.6 0 0 0 0 1 1

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0.000 0.002 0.000 3.3 0.0 -0.709 5890.19 0.398 -0.107 5900.93 0.485 0.480 5890.00 0.396 -0.536 -0.121 0.434 1.01 0.621 0.18 0.031 0.002 0.01 0.011 0.703 0.00 0.020 0.465 0.003 0.528 0.00 0.438 0.709 0.130 0.535 0.148 0.623 0.004 0.466 0.005 1.1 30.6
1.1 27.6 0 0 0 0 1 1

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0.006 0.000 0.002 0.0 3.6 -0.380 5890.20 0.480 -0.129 5901.01 0.459 0.239 5889.81 0.359 -0.322 -0.120 0.263 1.00 0.074 0.09 0.023 0.003 0.01 0.010 0.102 0.02 0.027 0.067 0.003 0.089 0.00 0.877 0.457 0.149 0.387 0.138 0.091 0.004 0.083 0.005 5.0 34.8
4.7 28.9 0 0 0 0 1 1

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0.000 0.001 0.000 3.0 0.0 -0.367 5890.16 0.463 -0.061 5900.34 1.000 0.277 5889.81 0.344 -0.271 -0.057 0.275 1.00 0.094 0.10 0.023 0.003 0.04 0.000 0.121 0.02 0.029 0.075 0.003 0.092 0.00 1.559 0.427 0.153 0.315 0.143 0.111 0.006 0.089 0.007 3.9 23.7
3.6 21.6 0 0 0 0 1 1

901 5.53284 -69.16769 279.63379 -32.25817 -0.014 5780.33 0.611 -0.018 5785.59 0.360 1.00 0.002 0.09 0.098 0.002 0.05 0.000 0.00 1.308 0.021 0.016 0.004 0.002 4.8 8.8 -0.003 5797.58 0.903 -0.006 5801.44 1.000 1.00 0.001 0.00 0.361 0.001 0.15 0.000 0.00 0.434 0.006
0.015 0.003 0.002 2.0 7.2 -0.549 5890.04 0.478 -0.046 5901.39 0.395 0.503 5889.79 0.390 -0.472 -0.130 0.574 1.00 0.168 0.08 0.012 0.003 0.03 0.018 0.185 0.02 0.020 0.159 0.016 0.175 0.00 0.866 0.658 0.046 0.566 0.128 0.201 0.004 0.191 0.017 3.3 12.6
3.0 7.4 0 0 0 0 1 0

379 5.46126 -68.95397 279.45175 -32.66965 -0.023 5780.72 0.672 0.000 5785.95 0.591 1.00 0.002 0.05 0.057 0.000 0.00 0.000 0.00 0.872 0.039 -0.000 0.004 0.000 9.0 0.0 -0.022 5797.68 0.179 0.000 5802.43 0.523 1.00 0.002 0.02 0.024 0.000 0.00 0.000 0.00 0.522 0.010 -
0.000 0.002 0.000 5.8 0.0 -0.321 5890.20 0.543 -0.042 5900.85 0.625 0.283 5889.71 0.333 -0.225 -0.051 0.274 1.00 0.027 0.06 0.021 0.003 0.05 0.050 0.043 0.01 0.017 0.021 0.004 0.031 0.00 0.345 0.436 0.066 0.306 0.079 0.040 0.007 0.031 0.009 10.9 9.0

9.9 9.0 1 0 0 0 1 1

558 5.48168 -69.00406 279.49017 -32.55331 -0.014 5781.01 0.900 0.000 5785.93 0.625 1.00 0.001 0.08 0.000 0.000 0.00 0.000 0.00 0.301 0.031 -0.000 0.002 0.000 14.3 0.0 0.000 5797.51 0.492 -0.017 5803.18 1.000 1.00 0.000 0.00 0.000 0.001 0.00 0.000 0.00 0.486 -0.000
0.042 0.000 0.003 0.0 14.8 -0.350 5890.13 0.456 -0.048 5900.74 0.763 0.251 5889.82 0.346 -0.266 -0.030 0.229 1.00 0.091 0.09 0.017 0.002 0.04 0.041 0.110 0.02 0.029 0.073 0.002 0.086 0.00 0.850 0.401 0.092 0.305 0.058 0.105 0.006 0.084 0.005 3.8 14.2
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441 5.46660 -68.94772 279.43906 -32.64222 -0.023 5781.58 0.900 -0.016 5785.02 0.889 1.01 0.002 0.07 0.000 0.002 0.10 0.116 0.00 1.136 0.052 0.035 0.003 0.006 15.1 6.0 -0.010 5797.76 0.569 0.000 5801.53 0.546 1.00 0.002 0.11 0.115 0.000 0.00 0.000 0.00 0.917 0.015 -
0.000 0.004 0.000 3.8 0.0 -0.301 5890.22 0.515 -0.032 5899.00 1.000 0.233 5889.77 0.335 -0.239 -0.018 0.202 1.00 0.036 0.07 0.021 0.002 0.00 0.000 0.053 0.01 0.024 0.029 0.002 0.042 0.00 0.668 0.389 0.081 0.308 0.046 0.049 0.005 0.040 0.005 8.0 15.0
7.8 8.6 0 0 0 0 1 0

187 5.43749 -68.84019 279.34274 -32.81462 -0.016 5781.80 0.360 -0.007 5785.94 0.900 1.00 0.001 0.00 0.000 0.001 0.12 0.000 0.00 0.040 0.015 0.017 0.001 0.002 14.1 9.1 -0.008 5797.56 0.269 -0.007 5803.19 1.000 1.00 0.004 0.17 0.176 0.002 0.00 0.000 0.00 0.355 0.005
0.019 0.005 0.006 1.2 3.3 -0.424 5890.17 0.456 -0.198 5901.33 0.428 0.244 5889.81 0.358 -0.344 -0.254 0.251 1.00 0.113 0.11 0.025 0.002 0.01 0.005 0.150 0.03 0.032 0.098 0.005 0.126 0.00 0.711 0.485 0.212 0.394 0.272 0.132 0.003 0.114 0.007 3.7 63.0
3.4 41.8 1 0 0 0 1 1

759 5.50807 -69.07608 279.54929 -32.40248 -0.015 5781.25 0.360 -0.004 5785.61 0.360 1.00 0.002 0.05 0.000 0.002 0.19 0.000 0.00 0.091 0.013 0.004 0.001 0.001 8.8 2.6 -0.008 5798.50 0.413 0.000 5802.12 0.523 1.00 0.004 0.00 0.280 0.000 0.00 0.000 0.00 0.547 0.008 -
0.000 0.007 0.000 1.1 0.0 -0.278 5890.20 0.495 -0.119 5901.06 0.453 0.169 5889.75 0.326 -0.238 -0.174 0.209 1.00 0.027 0.06 0.020 0.003 0.01 0.010 0.044 0.01 0.022 0.026 0.004 0.039 0.00 0.897 0.345 0.135 0.296 0.198 0.037 0.004 0.035 0.006 9.4 31.9
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237 5.44439 -68.83853 279.33359 -32.77802 -0.011 5781.03 0.767 0.000 5785.99 0.471 1.00 0.001 0.10 0.104 0.000 0.00 0.000 0.00 0.645 0.022 -0.000 0.004 0.000 5.7 0.0 -0.015 5797.90 0.466 -0.009 5803.24 1.000 1.01 0.002 0.07 0.074 0.001 0.00 0.000 0.00 0.919 0.017
0.023 0.004 0.003 4.9 6.8 -0.711 5890.05 0.491 -0.042 5901.44 0.348 0.565 5889.80 0.400 -0.678 -0.120 0.687 1.00 0.033 0.02 0.010 0.004 0.03 0.021 0.038 0.02 0.000 0.034 0.023 0.048 0.00 0.843 0.876 0.036 0.835 0.105 0.044 0.004 0.045 0.021 19.7 9.4
18.7 5.0 0 0 0 0 1 0

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0.042 0.005 0.007 2.3 6.0 -0.407 5890.13 0.512 -0.049 5901.29 0.465 0.335 5889.79 0.327 -0.274 -0.051 0.297 1.01 0.046 0.04 0.012 0.005 0.05 0.045 0.055 0.01 0.019 0.035 0.008 0.040 0.00 2.267 0.522 0.058 0.351 0.059 0.060 0.008 0.045 0.011 8.7 7.4
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770 5.50974 -69.05908 279.52780 -32.39613 -0.025 5780.41 0.360 -0.016 5786.42 0.900 1.01 0.002 0.05 0.000 0.002 0.11 0.000 0.00 0.335 0.023 0.036 0.002 0.004 10.4 9.4 -0.033 5796.53 0.154 -0.014 5802.54 0.250 1.00 0.004 0.02 0.019 0.003 0.06 0.059 0.00 0.242 0.013
0.009 0.002 0.003 6.0 3.2 -0.352 5890.16 0.485 -0.117 5900.98 0.507 0.318 5889.80 0.361 -0.269 -0.121 0.322 1.00 0.089 0.10 0.023 0.003 0.02 0.015 0.115 0.02 0.026 0.074 0.004 0.091 0.00 0.564 0.427 0.149 0.327 0.154 0.110 0.006 0.091 0.007 3.9 24.6
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234 5.44361 -68.78103 279.26688 -32.79144 -0.024 5780.01 0.360 -0.009 5787.00 0.900 1.00 0.002 0.05 0.000 0.002 0.00 0.000 0.00 0.575 0.022 0.020 0.002 0.004 10.4 5.4 0.000 5796.51 0.539 -0.017 5803.47 0.250 1.00 0.000 0.00 0.000 0.003 0.06 0.000 0.00 0.633 -0.000
0.011 0.000 0.002 0.0 6.0 -0.649 5890.18 0.431 -0.042 5901.41 0.250 0.443 5889.88 0.367 -0.481 0.000 0.373 0.99 1.176 0.53 0.096 0.008 0.06 0.000 1.412 0.15 0.111 0.898 0.000 1.064 0.00 1.598 0.702 0.026 0.520 -0.000 1.281 0.005 0.978 0.000 0.5 5.4

0.5 0.0 0 0 0 0 1 0

275 5.44819 -68.77375 279.25360 -32.76806 -0.025 5780.55 0.900 -0.028 5785.49 0.360 1.00 0.003 0.11 0.000 0.004 0.06 0.000 0.00 1.508 0.056 0.025 0.006 0.003 10.0 7.8 0.000 5797.15 0.581 -0.012 5802.74 1.000 1.00 0.000 0.00 0.000 0.002 0.00 0.000 0.00 1.316 -0.000
0.030 0.000 0.006 0.0 5.4 -0.476 5890.24 0.435 -0.063 5900.54 0.503 0.241 5889.96 0.369 -0.406 -0.047 0.233 1.00 0.386 0.22 0.035 0.003 0.02 0.023 0.451 0.08 0.070 0.340 0.002 0.392 0.00 0.316 0.518 0.079 0.443 0.059 0.422 0.005 0.372 0.004 1.2 16.4
1.2 14.4 0 0 0 0 1 1

905 5.53332 -69.14706 279.60922 -32.25857 -0.007 5780.03 0.900 0.000 5786.02 0.643 1.00 0.001 0.21 0.000 0.000 0.00 0.000 0.00 0.532 0.016 -0.000 0.003 0.000 5.3 0.0 -0.004 5797.28 0.886 -0.020 5802.18 0.250 1.00 0.001 0.00 0.398 0.002 0.04 0.000 0.00 0.524 0.009
0.012 0.005 0.001 1.7 8.7 -0.205 5890.49 0.326 -0.074 5901.40 0.422 0.044 5889.59 0.159 -0.157 -0.098 0.068 1.00 0.004 0.01 0.007 0.003 0.02 0.018 0.005 0.01 0.017 0.004 0.008 0.009 0.00 0.725 0.167 0.079 0.128 0.104 0.005 0.005 0.004 0.009 36.8 16.6
31.5 11.3 0 0 0 0 1 1

364 5.46024 -68.79894 279.27087 -32.69950 -0.023 5781.12 0.615 0.000 5786.01 0.591 1.00 0.001 0.04 0.039 0.000 0.00 0.000 0.00 1.151 0.035 -0.000 0.003 0.000 12.2 0.0 -0.010 5797.40 0.567 0.000 5802.52 0.489 1.00 0.001 0.04 0.046 0.000 0.00 0.000 0.00 0.400 0.015 -
0.000 0.002 0.000 9.4 0.0 -0.341 5890.27 0.476 -0.031 5900.48 1.000 0.131 5889.84 0.348 -0.279 0.000 0.143 1.01 0.063 0.10 0.028 0.002 0.07 0.000 0.094 0.04 0.045 0.056 0.000 0.078 0.00 0.546 0.407 0.079 0.333 -0.000 0.079 0.004 0.069 0.000 5.2 18.1
4.8 0.0 1 0 1 0 1 0

668 5.49503 -68.95753 279.42270 -32.48937 -0.012 5781.18 0.568 0.000 5786.00 0.632 1.00 0.001 0.07 0.076 0.000 0.00 0.000 0.00 0.527 0.017 -0.000 0.003 0.000 5.7 0.0 -0.019 5797.73 0.214 0.000 5802.54 0.548 1.00 0.003 0.04 0.045 0.000 0.00 0.000 0.00 1.197 0.010 -
0.000 0.003 0.000 3.6 0.0 -0.433 5890.23 0.433 -0.109 5900.23 0.385 0.264 5889.99 0.400 -0.355 -0.089 0.247 1.00 0.236 0.18 0.044 0.004 0.01 0.013 0.298 0.07 0.000 0.188 0.004 0.238 0.00 1.094 0.471 0.105 0.386 0.086 0.261 0.005 0.208 0.005 1.8 20.8
1.9 19.1 0 0 0 0 1 1

191 5.43805 -68.65997 279.13049 -32.84077 -0.029 5781.14 0.418 -0.034 5786.14 0.796 0.99 0.002 0.03 0.031 0.001 0.03 0.038 0.00 0.429 0.030 0.068 0.003 0.004 10.3 16.1 -0.016 5797.99 1.000 -0.022 5802.34 1.000 1.00 0.002 0.10 0.000 0.002 0.08 0.000 0.00 0.722 0.041
0.056 0.004 0.004 10.4 14.2 -0.276 5890.41 0.387 -0.138 5901.47 0.407 0.012 5889.79 0.155 -0.221 -0.134 0.023 1.00 0.003 0.01 0.007 0.003 0.01 0.008 0.007 0.04 0.047 0.003 0.004 0.007 0.00 0.607 0.267 0.141 0.214 0.137 0.005 0.004 0.005 0.005 49.1 36.7
44.6 25.8 1 1 0 0 1 1

737 5.50486 -68.99064 279.45218 -32.43214 -0.024 5780.73 0.413 -0.014 5785.54 0.900 1.00 0.002 0.04 0.045 0.001 0.10 0.000 0.00 0.712 0.025 0.032 0.004 0.003 7.0 10.0 -0.017 5797.57 1.000 -0.012 5801.80 0.250 1.01 0.001 0.09 0.000 0.002 0.06 0.000 0.00 0.614 0.042
0.008 0.003 0.001 13.4 5.6 -0.355 5890.25 0.439 -0.099 5901.34 0.399 0.145 5889.92 0.400 -0.306 -0.128 0.196 1.00 0.204 0.21 0.053 0.003 0.02 0.014 0.268 0.07 0.000 0.183 0.011 0.234 0.00 0.752 0.391 0.099 0.337 0.128 0.229 0.005 0.205 0.012 1.7 20.5
1.6 11.0 1 0 0 0 1 1

892 5.53079 -69.11131 279.56967 -32.27704 -0.021 5779.89 0.900 0.000 5786.01 0.611 1.00 0.001 0.08 0.000 0.000 0.00 0.000 0.00 0.531 0.047 -0.000 0.003 0.000 14.5 0.0 -0.009 5796.28 0.125 0.000 5802.62 0.480 1.00 0.003 0.06 0.000 0.000 0.00 0.000 0.00 0.455 0.003 -
0.000 0.001 0.000 2.7 0.0 -0.269 5890.22 0.488 -0.117 5901.43 0.371 0.142 5889.64 0.400 -0.209 -0.250 0.234 1.00 0.022 0.06 0.027 0.003 0.01 0.007 0.042 0.03 0.000 0.019 0.038 0.036 0.00 0.690 0.330 0.109 0.256 0.233 0.032 0.004 0.027 0.036 10.2 30.4
9.6 6.5 0 0 0 0 1 1

242 5.44509 -68.64086 279.10074 -32.80587 -0.022 5780.79 0.900 -0.005 5786.45 0.360 1.00 0.001 0.06 0.000 0.002 0.17 0.000 0.00 0.576 0.049 0.005 0.003 0.002 16.4 2.8 -0.007 5796.54 1.000 -0.007 5803.08 0.250 1.01 0.001 0.00 0.000 0.002 0.10 0.000 0.00 0.494 0.017
0.005 0.003 0.001 5.8 3.5 -0.376 5890.25 0.461 -0.031 5900.37 1.000 0.143 5889.87 0.339 -0.322 0.000 0.152 1.01 0.070 0.08 0.022 0.002 0.07 0.000 0.097 0.03 0.044 0.063 0.000 0.085 0.00 0.559 0.434 0.077 0.372 -0.000 0.083 0.004 0.075 0.000 5.2 17.5

4.9 0.0 1 0 0 0 1 0

803 5.51570 -69.02433 279.48157 -32.36958 -0.008 5780.36 0.614 -0.009 5785.00 0.900 1.00 0.002 0.13 0.141 0.001 0.00 0.000 0.00 0.443 0.013 0.021 0.004 0.003 3.4 7.1 -0.009 5797.61 0.580 -0.013 5801.65 0.250 1.00 0.002 0.00 0.143 0.002 0.06 0.000 0.00 0.547 0.013 0.008 0.004 0.001 3.1 5.8 -0.255 5890.28 0.476 -0.066 5901.07 0.533 0.126 5889.88 0.295 -0.189 -0.068 0.140 1.00 0.017 0.04 0.012 0.002 0.02 0.018 0.025 0.01 0.019 0.014 0.003 0.019 0.00 0.221 0.304 0.089 0.225 0.091 0.021 0.004 0.018 0.005 14.2 21.2 12.5 19.9 0 0 0 0 1 1

570 5.48332 -68.82397 279.27737 -32.57200 -0.015 5781.00 0.900 -0.008 5786.19 0.360 1.00 0.001 0.09 0.000 0.002 0.10 0.000 0.00 0.497 0.034 0.007 0.003 0.002 12.4 4.5 -0.016 5797.50 0.948 -0.007 5803.40 1.000 1.00 0.001 0.06 0.067 0.001 0.13 0.000 0.00 0.210 0.037 0.017 0.003 0.002 11.1 7.7 -0.293 5890.35 0.405 -0.038 5900.39 0.549 0.048 5889.87 0.400 -0.248 -0.031 0.100 1.00 0.013 0.02 0.009 0.002 0.03 0.034 0.019 0.05 0.000 0.016 0.002 0.019 0.00 1.074 0.297 0.052 0.252 0.043 0.014 0.004 0.017 0.004 20.6 12.0 14.8 11.1 0 0 0 0 1 1

569 5.48278 -68.80239 279.25259 -32.57816 -0.012 5780.83 0.884 0.000 5786.04 0.619 1.00 0.001 0.09 0.101 0.000 0.00 0.000 0.00 0.574 0.026 -0.000 0.004 0.000 6.8 0.0 -0.013 5797.54 1.000 -0.007 5803.29 1.000 1.01 0.001 0.09 0.000 0.001 0.00 0.000 0.00 0.618 0.032 0.017 0.003 0.003 11.6 6.2 -0.391 5890.25 0.418 -0.032 5900.50 1.000 0.182 5890.00 0.369 -0.347 -0.017 0.216 1.00 0.169 0.12 0.026 0.002 0.05 0.000 0.206 0.00 0.022 0.152 0.002 0.183 0.00 0.811 0.409 0.081 0.364 0.043 0.178 0.004 0.161 0.004 2.3 20.4 2.3 10.3 0 0 0 0 1 0

526 5.47704 -68.75464 279.20218 -32.61620 -0.029 5780.36 0.900 -0.024 5785.33 0.360 1.01 0.003 0.10 0.000 0.004 0.08 0.000 0.00 1.174 0.066 0.021 0.006 0.003 11.0 6.2 -0.023 5797.61 1.000 -0.031 5801.34 0.250 1.01 0.002 0.00 0.000 0.003 0.04 0.000 0.00 0.637 0.057 0.020 0.005 0.002 12.0 9.5 -0.202 5890.54 0.365 -0.057 5900.29 0.960 0.010 5889.78 0.334 -0.175 0.000 0.154 1.01 0.005 0.01 0.013 0.003 0.06 0.068 0.007 0.02 0.019 0.007 0.000 0.007 0.00 0.904 0.185 0.138 0.160 -0.000 0.008 0.013 0.009 0.000 23.4 10.8 18.3 0.0 0 0 0 0 1 1

756 5.50784 -68.94589 279.39694 -32.42284 0.000 5780.83 0.656 -0.005 5786.52 0.360 1.00 0.000 0.00 0.000 0.002 0.21 0.000 0.00 0.846 -0.000 0.005 0.000 0.002 0.0 2.3 -0.005 5798.08 1.000 0.000 5803.05 0.471 1.00 0.001 0.00 0.000 0.000 0.00 0.000 0.00 0.510 0.012 -0.000 0.003 0.000 3.8 0.0 -0.258 5890.23 0.546 -0.052 5900.90 0.692 0.185 5889.81 0.343 -0.221 -0.002 0.209 1.01 0.032 0.07 0.021 0.004 0.06 0.059 0.044 0.02 0.027 0.030 0.004 0.037 0.00 0.968 0.353 0.090 0.302 0.004 0.045 0.010 0.042 0.007 7.8 9.0 7.2 0.6 0 0 0 0 1 0

666 5.49452 -68.84547 279.29181 -32.50881 -0.024 5780.90 0.900 -0.013 5785.94 0.360 1.00 0.002 0.08 0.000 0.003 0.09 0.000 0.00 0.872 0.055 0.012 0.004 0.002 13.7 5.3 -0.016 5797.92 0.156 -0.023 5803.19 0.477 1.00 0.004 0.04 0.044 0.002 0.00 0.055 0.00 0.692 0.006 0.028 0.002 0.004 2.7 6.6 -0.497 5890.17 0.436 -0.048 5901.37 0.322 0.303 5889.91 0.347 -0.406 -0.071 0.308 1.00 0.147 0.08 0.012 0.003 0.02 0.020 0.168 0.03 0.031 0.129 0.007 0.144 0.00 0.329 0.544 0.039 0.444 0.057 0.161 0.003 0.141 0.006 3.4 11.3 3.1 9.0 1 0 0 0 1 1

550 5.48073 -68.73206 279.17209 -32.59978 -0.059 5779.98 0.900 -0.016 5785.22 0.360 1.02 0.005 0.09 0.000 0.007 0.22 0.000 0.00 1.198 0.133 0.014 0.012 0.007 11.4 2.1 -0.057 5796.13 0.125 0.000 5801.63 0.600 0.99 0.009 0.03 0.000 0.000 0.00 0.000 0.00 0.625 0.018 -0.000 0.003 0.000 6.7 0.0 -0.363 5890.12 0.586 -0.030 5899.00 1.000 0.213 5889.86 0.344 -0.257 -0.011 0.246 1.01 0.031 0.02 0.014 0.003 0.00 0.000 0.033 0.01 0.020 0.028 0.003 0.027 0.00 0.498 0.534 0.076 0.378 0.027 0.048 0.008 0.042 0.007 11.2 10.1 9.1 3.6 0 0 0 0 1 0

657 5.49334 -68.81375 279.25574 -32.51984 0.000 5780.80 0.721 -0.036 5787.00 0.539 1.00 0.000 0.00 0.000 0.003 0.00 0.060 0.00 0.786 -0.000 0.048 0.000 0.007 0.0 6.9 -0.045 5797.33 0.396 -0.008 5804.25 1.000 1.00 0.003 0.03 0.032 0.002 0.00 0.000 0.00 0.481 0.045 0.020 0.005 0.005 9.6 4.3 -0.285 5890.31 0.488 -0.068 5900.97 0.689 0.149 5889.86 0.260 -0.224 -0.044 0.237 1.00 0.012 0.03 0.014 0.003 0.04 0.039 0.022 0.01 0.014 0.012 0.004 0.017 0.00 0.375 0.348 0.118 0.274 0.075 0.017 0.009 0.016 0.007 20.1 13.4

16.6 10.1 0 0 1 0 1 1

597 5.48670 -68.74433 279.18066 -32.56584 -0.029 5781.28 0.900 -0.014 5785.49 0.360 1.00 0.002 0.09 0.000 0.004 0.12 0.000 0.00 0.447 0.066 0.013 0.006 0.003 11.9 4.0 -0.053 5797.50 0.214 -0.013 5802.74 1.000 1.00 0.004 0.02 0.019 0.002 0.00 0.000 0.00 0.266 0.028
0.032 0.003 0.005 8.5 6.8 -0.312 5890.20 0.567 -0.048 5901.54 0.298 0.147 5889.71 0.337 -0.280 -0.252 0.401 1.00 0.017 0.04 0.015 0.004 0.03 0.018 0.026 0.02 0.021 0.020 0.104 0.104 0.00 0.314 0.443 0.035 0.398 0.188 0.027 0.004 0.031 0.078 16.4 9.1
13.0 2.4 1 0 1 0 1 0

547 5.48036 -68.67908 279.11026 -32.60976 -0.028 5780.19 0.900 -0.014 5786.41 0.360 1.01 0.001 0.06 0.000 0.002 0.07 0.000 0.00 0.058 0.062 0.013 0.003 0.002 18.6 6.7 0.000 5796.67 0.431 0.000 5803.08 0.250 0.99 0.000 0.00 0.000 0.000 0.00 0.000 0.00 1.131 -0.000 -
0.000 0.000 0.000 0.0 0.0 -0.299 5890.31 0.465 -0.040 5900.79 0.671 0.083 5889.86 0.274 -0.257 -0.018 0.129 1.00 0.013 0.03 0.013 0.002 0.04 0.048 0.024 0.01 0.023 0.013 0.002 0.021 0.00 0.696 0.349 0.067 0.300 0.031 0.018 0.006 0.017 0.004 19.9 10.8
17.2 6.9 1 0 0 0 1 0

655 5.49323 -68.76328 279.19666 -32.52792 -0.020 5780.95 0.900 -0.012 5785.17 0.360 1.00 0.001 0.04 0.000 0.001 0.04 0.000 0.00 0.132 0.045 0.010 0.002 0.001 27.9 11.4 0.000 5797.47 0.370 -0.017 5802.42 1.000 1.00 0.000 0.00 0.000 0.002 0.00 0.000 0.00 1.719 -0.000
0.044 0.000 0.006 0.0 7.6 -0.452 5890.18 0.439 -0.023 5899.89 1.000 0.292 5889.86 0.351 -0.331 0.000 0.256 1.00 0.139 0.10 0.020 0.001 0.08 0.000 0.172 0.03 0.029 0.106 0.000 0.129 0.00 0.357 0.498 0.057 0.364 -0.000 0.155 0.004 0.118 0.000 3.2 16.0
3.1 0.0 1 0 0 0 1 0

606 5.48730 -68.70033 279.12848 -32.56917 -0.017 5781.10 0.841 -0.000 5786.38 0.360 1.00 0.001 0.04 0.043 0.001 0.91 0.000 0.00 0.459 0.036 0.000 0.002 0.001 15.2 0.5 -0.017 5797.73 0.204 -0.004 5803.63 1.000 1.00 0.001 0.02 0.019 0.001 0.00 0.000 0.00 0.453 0.009
0.011 0.001 0.002 8.0 6.9 -0.365 5890.21 0.464 -0.029 5900.39 1.000 0.178 5889.83 0.373 -0.309 0.000 0.199 1.00 0.149 0.17 0.040 0.002 0.07 0.000 0.199 0.06 0.049 0.135 0.000 0.173 0.00 0.684 0.425 0.072 0.359 -0.000 0.177 0.004 0.160 0.000 2.4 16.8
2.2 0.0 1 0 1 0 1 0

765 5.50853 -68.86877 279.30591 -32.43041 -0.021 5780.65 0.900 0.000 5786.08 0.559 1.00 0.001 0.06 0.000 0.000 0.00 0.000 0.00 0.770 0.048 -0.000 0.003 0.000 17.3 0.0 -0.020 5797.67 0.430 -0.014 5803.33 1.000 1.01 0.001 0.04 0.039 0.001 0.00 0.000 0.00 0.452 0.021
0.035 0.002 0.002 8.5 14.5 -0.294 5890.25 0.457 -0.023 5899.00 1.000 0.186 5889.89 0.353 -0.248 -0.001 0.206 1.00 0.117 0.16 0.036 0.002 0.00 0.000 0.154 0.04 0.045 0.105 0.002 0.133 0.00 1.276 0.337 0.059 0.284 0.003 0.136 0.005 0.123 0.005 2.5 11.0
2.3 0.5 1 0 1 0 1 0

641 5.49177 -68.70470 279.12930 -32.54444 -0.024 5781.21 0.569 -0.007 5786.45 0.360 1.00 0.001 0.04 0.040 0.002 0.10 0.000 0.00 0.550 0.034 0.006 0.003 0.001 10.9 4.7 -0.025 5798.07 0.303 0.000 5803.01 0.471 1.00 0.002 0.03 0.029 0.000 0.00 0.000 0.00 0.665 0.019 -
0.000 0.002 0.000 7.8 0.0 -0.524 5890.16 0.445 -0.023 5900.47 0.953 0.280 5889.89 0.379 -0.458 -0.006 0.297 1.00 0.318 0.16 0.023 0.002 0.10 0.110 0.365 0.06 0.050 0.292 0.002 0.328 0.00 0.752 0.584 0.055 0.511 0.014 0.356 0.008 0.326 0.005 1.6 6.8
1.6 2.7 1 0 1 0 1 0

796 5.51441 -68.89822 279.33499 -32.39470 -0.018 5781.25 0.683 0.000 5785.90 0.499 1.00 0.002 0.09 0.097 0.000 0.00 0.000 0.00 1.976 0.031 -0.000 0.006 0.000 5.4 0.0 -0.020 5797.46 0.182 0.000 5802.43 0.575 1.00 0.003 0.03 0.030 0.000 0.00 0.000 0.00 0.993 0.009 -
0.000 0.002 0.000 4.6 0.0 -0.258 5890.25 0.456 -0.033 5900.75 0.838 0.127 5889.85 0.341 -0.167 -0.001 0.104 1.00 0.085 0.15 0.042 0.002 0.05 0.057 0.122 0.05 0.058 0.059 0.002 0.080 0.00 0.650 0.295 0.070 0.191 0.002 0.101 0.006 0.070 0.004 2.9 11.4
2.7 0.5 0 0 0 0 1 0

855 5.52331 -68.94111 279.37711 -32.34103 -0.017 5780.87 0.857 -0.019 5785.24 0.390 1.00 0.001 0.07 0.077 0.002 0.04 0.043 0.00 0.664 0.036 0.018 0.004 0.003 8.7 7.0 -0.008 5798.12 0.864 -0.011 5801.55 1.000 1.00 0.001 0.00 0.158 0.001 0.11 0.000 0.00 0.545 0.017
0.028 0.004 0.003 4.3 11.2 -0.252 5890.26 0.430 -0.121 5901.15 0.441 0.140 5889.99 0.400 -0.284 -0.149 0.231 1.00 0.248 0.29 0.062 0.002 0.01 0.009 0.304 0.04 0.000 0.281 0.004 0.343 0.00 0.635 0.271 0.133 0.306 0.164 0.270 0.004 0.306 0.006 1.0 36.1

1.0 28.4 0 0 0 0 1 1

689 5.49842 -68.72667 279.14877 -32.50539 -0.016 5779.85 0.900 -0.005 5786.64 0.360 1.00 0.001 0.07 0.000 0.001 0.13 0.000 0.00 0.946 0.035 0.004 0.002 0.001 16.1 3.5 -0.020 5796.99 0.194 -0.011 5803.89 0.250 1.00 0.002 0.02 0.022 0.001 0.00 0.000 0.00 0.774 0.010
0.007 0.001 0.001 6.7 7.8 -0.339 5890.24 0.447 -0.043 5900.90 0.760 0.166 5889.90 0.366 -0.283 -0.029 0.196 1.00 0.149 0.16 0.037 0.002 0.04 0.041 0.193 0.05 0.044 0.135 0.002 0.168 0.00 0.871 0.379 0.082 0.316 0.055 0.170 0.006 0.153 0.005 2.2 14.3
2.1 10.6 0 0 0 0 1 0

574 5.48395 -68.54378 278.94794 -32.61052 -0.013 5780.95 0.360 -0.040 5785.58 0.772 1.00 0.002 0.06 0.000 0.001 0.03 0.031 0.00 1.011 0.012 0.077 0.001 0.004 8.1 19.6 -0.027 5797.92 0.159 -0.009 5801.33 1.000 1.00 0.002 0.02 0.017 0.001 0.00 0.000 0.00 0.790 0.011
0.023 0.001 0.002 7.3 9.7 -0.264 5890.25 0.482 -0.194 5901.19 0.401 0.163 5889.85 0.339 -0.242 -0.230 0.217 1.00 0.046 0.09 0.023 0.003 0.01 0.007 0.065 0.02 0.030 0.047 0.005 0.062 0.00 0.865 0.319 0.195 0.293 0.231 0.057 0.005 0.058 0.007 5.6 42.2
5.0 35.1 0 1 0 0 1 0

703 5.50047 -68.69672 279.11172 -32.49872 -0.010 5781.15 0.874 0.000 5786.00 0.555 1.00 0.001 0.13 0.138 0.000 0.00 0.000 0.00 0.700 0.022 -0.000 0.005 0.000 4.9 0.0 -0.015 5796.90 0.528 0.000 5802.48 0.523 1.00 0.002 0.00 0.104 0.000 0.00 0.000 0.00 1.515 0.019 -
0.000 0.005 0.000 3.9 0.0 -0.241 5890.28 0.478 -0.033 5900.64 1.000 0.118 5889.83 0.321 -0.180 0.000 0.106 1.00 0.038 0.09 0.031 0.002 0.06 0.000 0.061 0.03 0.043 0.030 0.000 0.045 0.00 0.735 0.289 0.083 0.215 -0.000 0.049 0.004 0.038 0.000 5.9 19.4
5.6 0.0 0 0 0 0 1 1

731 5.50459 -68.72197 279.13748 -32.47285 -0.021 5781.27 0.360 -0.011 5785.67 0.360 1.00 0.003 0.06 0.000 0.003 0.12 0.000 0.00 0.678 0.019 0.010 0.002 0.002 8.2 4.1 0.000 5797.72 0.512 0.000 5802.45 0.743 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.614 -0.000 -
0.000 0.000 0.000 0.0 0.0 -0.258 5890.40 0.337 -0.047 5901.10 0.362 0.051 5889.59 0.126 -0.184 -0.035 0.009 1.00 0.003 0.00 0.004 0.003 0.02 0.022 0.005 0.01 0.014 0.003 0.003 0.005 0.00 0.565 0.218 0.043 0.155 0.032 0.004 0.004 0.003 0.003 59.9 12.0
52.3 10.2 0 0 0 0 1 1

625 5.48966 -68.51102 278.90402 -32.58433 -0.006 5780.61 0.900 -0.012 5786.08 0.798 1.00 0.001 0.21 0.000 0.001 0.09 0.108 0.00 0.366 0.013 0.023 0.003 0.004 4.7 5.8 -0.006 5797.38 0.330 -0.005 5803.33 1.000 1.00 0.002 0.15 0.158 0.001 0.00 0.000 0.00 0.598 0.005
0.011 0.003 0.003 1.6 3.3 -1.174 5890.03 0.440 -0.118 5901.25 0.451 1.048 5889.93 0.400 -1.024 -0.171 0.967 1.00 0.166 0.01 0.008 0.002 0.01 0.008 0.162 0.02 0.000 0.150 0.004 0.146 0.00 0.481 1.295 0.134 1.128 0.193 0.185 0.003 0.167 0.005 7.0 40.3
6.8 35.4 0 0 0 0 1 1

804 5.51572 -68.79383 279.21143 -32.40266 -0.023 5781.20 0.360 0.000 5785.98 0.634 1.00 0.003 0.07 0.000 0.000 0.00 0.000 0.00 1.029 0.020 -0.000 0.003 0.000 7.2 0.0 0.000 5797.63 0.514 -0.022 5802.97 0.303 1.00 0.000 0.00 0.000 0.003 0.05 0.049 0.00 0.611 -0.000
0.016 0.000 0.004 0.0 4.7 -0.288 5890.24 0.488 -0.035 5900.83 1.000 0.129 5889.87 0.341 -0.272 0.000 0.173 1.00 0.050 0.08 0.019 0.003 0.09 0.000 0.066 0.03 0.041 0.052 0.000 0.063 0.00 0.726 0.352 0.089 0.332 -0.000 0.062 0.006 0.065 0.000 5.7 14.0
5.1 0.0 0 0 0 0 1 0

669 5.49522 -68.49419 278.87900 -32.55653 -0.016 5780.75 0.360 -0.094 5785.90 0.900 0.99 0.002 0.05 0.000 0.001 0.01 0.000 0.00 0.487 0.014 0.213 0.002 0.003 8.9 76.6 -0.010 5798.00 0.293 -0.023 5802.90 0.719 1.00 0.003 0.00 0.085 0.002 0.06 0.062 0.00 0.620 0.008
0.042 0.003 0.005 2.6 9.0 -0.454 5890.13 0.478 -0.184 5901.40 0.383 0.357 5889.87 0.362 -0.396 -0.251 0.359 1.00 0.102 0.06 0.010 0.003 0.01 0.007 0.112 0.02 0.024 0.095 0.008 0.102 0.00 0.700 0.545 0.177 0.475 0.241 0.123 0.005 0.114 0.009 4.4 38.1
4.2 26.9 0 1 0 1 1 1

953 5.54501 -69.17853 279.63568 -32.19239 -0.018 5780.63 0.582 -0.012 5785.44 0.595 1.00 0.002 0.07 0.071 0.002 0.10 0.109 0.00 0.259 0.026 0.017 0.004 0.004 6.3 4.2 -0.010 5797.79 0.295 -0.005 5801.95 0.519 1.00 0.002 0.06 0.057 0.001 0.15 0.157 0.00 0.112 0.007
0.006 0.002 0.002 3.9 2.5 -0.144 5890.34 0.591 -0.119 5901.47 0.382 0.111 5889.69 0.353 -0.132 -0.229 0.201 1.00 0.010 0.08 0.036 0.003 0.01 0.008 0.023 0.02 0.020 0.012 0.023 0.033 0.00 0.857 0.214 0.114 0.195 0.220 0.020 0.004 0.021 0.023 10.7 30.8

9.3 9.7 0 0 0 0 1 1

904 5.53309 -68.98300 279.41736 -32.28297 -0.026 5781.80 0.900 -0.013 5785.80 0.404 0.99 0.002 0.00 0.000 0.003 0.11 0.120 0.00 0.442 0.058 0.013 0.005 0.005 12.1 2.6 -0.029 5797.55 0.682 -0.031 5803.05 1.000 1.00 0.002 0.00 0.071 0.002 0.00 0.000 0.00 0.396 0.049
0.079 0.007 0.005 7.5 15.3 -0.227 5890.26 0.660 -0.098 5901.18 0.408 0.251 5889.67 0.311 -0.134 -0.152 0.247 1.00 0.010 0.04 0.020 0.004 0.02 0.017 0.017 0.01 0.013 0.008 0.009 0.016 0.00 0.793 0.376 0.100 0.221 0.156 0.020 0.006 0.015 0.011 18.8 16.4
14.9 14.1 0 0 0 0 1 1

792 5.51323 -68.67367 279.07281 -32.43319 -0.021 5780.47 0.360 -0.010 5785.90 0.360 1.01 0.001 0.03 0.000 0.001 0.07 0.000 0.00 0.008 0.019 0.009 0.001 0.001 14.0 6.9 -0.015 5797.72 0.657 -0.011 5803.10 0.802 1.03 0.001 0.00 0.075 0.001 0.10 0.118 0.00 0.009 0.025
0.022 0.004 0.004 6.8 5.3 -0.272 5890.22 0.434 -0.096 5901.22 0.398 0.177 5889.84 0.352 -0.210 -0.149 0.191 1.00 0.134 0.20 0.053 0.003 0.01 0.010 0.184 0.06 0.040 0.113 0.005 0.148 0.00 0.884 0.296 0.096 0.229 0.149 0.150 0.003 0.126 0.006 2.0 27.7
1.8 25.5 1 0 0 0 1 1

884 5.52937 -68.89600 279.31879 -32.31505 -0.014 5780.80 0.501 -0.009 5785.40 0.360 0.99 0.001 0.06 0.060 0.001 0.07 0.000 0.00 0.410 0.018 0.008 0.003 0.001 6.4 6.6 -0.012 5797.25 0.555 -0.008 5802.65 1.000 1.00 0.001 0.06 0.069 0.001 0.00 0.000 0.00 0.316 0.016
0.021 0.003 0.002 6.2 9.4 -0.393 5890.20 0.420 -0.059 5901.26 0.432 0.252 5890.00 0.400 -0.328 -0.069 0.268 1.00 0.616 0.37 0.066 0.003 0.02 0.020 0.708 0.05 0.000 0.508 0.005 0.585 0.00 1.064 0.414 0.064 0.345 0.075 0.652 0.004 0.538 0.007 0.6 15.0
0.6 11.4 1 0 1 0 1 1

942 5.54343 -69.09475 279.53900 -32.21242 -0.012 5781.26 0.626 -0.026 5785.68 0.787 0.99 0.003 0.20 0.219 0.003 0.10 0.114 0.00 0.993 0.019 0.052 0.008 0.010 2.2 5.4 -0.013 5797.91 0.438 -0.008 5802.20 1.000 1.00 0.001 0.03 0.035 0.001 0.08 0.000 0.00 0.045 0.014
0.020 0.001 0.001 9.6 14.1 -0.275 5890.18 0.488 -0.135 5901.40 0.396 0.147 5889.69 0.371 -0.250 -0.236 0.238 1.00 0.049 0.11 0.036 0.003 0.01 0.009 0.080 0.04 0.026 0.052 0.019 0.074 0.00 1.052 0.337 0.134 0.306 0.234 0.065 0.004 0.068 0.020 5.2 31.8
4.5 12.0 1 1 1 0 1 1

824 5.51912 -68.67561 279.06973 -32.40110 -0.017 5780.30 0.360 -0.031 5786.08 0.440 1.00 0.002 0.06 0.000 0.002 0.04 0.042 0.00 1.412 0.016 0.034 0.002 0.004 7.3 8.0 0.000 5796.84 0.520 -0.010 5802.50 0.250 1.00 0.000 0.00 0.000 0.002 0.07 0.000 0.00 0.870 -0.000
0.006 0.000 0.001 0.0 4.6 -0.437 5889.95 0.532 -0.148 5901.37 0.373 0.449 5889.75 0.400 -0.365 -0.244 0.490 1.00 0.030 0.02 0.013 0.004 0.01 0.008 0.030 0.02 0.000 0.027 0.013 0.029 0.00 1.036 0.583 0.138 0.487 0.228 0.043 0.004 0.037 0.014 13.7 30.9
13.1 16.9 0 1 0 0 1 1

840 5.52134 -68.66800 279.05878 -32.39018 -0.026 5781.01 0.900 -0.018 5786.20 0.900 1.01 0.002 0.07 0.000 0.002 0.11 0.000 0.00 1.182 0.058 0.040 0.004 0.004 14.0 9.6 -0.013 5798.26 0.221 0.000 5802.70 0.475 1.00 0.002 0.00 0.039 0.000 0.00 0.000 0.00 0.360 0.007 -
0.000 0.002 0.000 4.3 0.0 -0.137 5890.41 0.404 -0.060 5901.40 0.358 0.030 5889.67 0.383 -0.121 -0.205 0.184 1.00 0.007 0.04 0.025 0.004 0.03 0.015 0.013 0.15 0.028 0.012 0.118 0.095 0.00 0.554 0.138 0.054 0.122 0.184 0.011 0.004 0.015 0.106 12.4 13.4
8.4 1.7 0 0 0 0 1 1

723 5.50339 -68.30889 278.65378 -32.53831 -0.024 5781.47 0.712 0.000 5786.02 0.513 1.01 0.001 0.04 0.044 0.000 0.00 0.000 0.00 0.866 0.042 -0.000 0.003 0.000 12.4 0.0 -0.006 5797.75 0.657 -0.012 5802.74 0.287 1.00 0.001 0.16 0.170 0.002 0.06 0.058 0.00 1.050 0.010
0.008 0.004 0.002 3.0 3.8 -0.289 5890.24 0.463 -0.032 5900.56 1.000 0.170 5889.85 0.343 -0.227 0.000 0.164 1.00 0.077 0.12 0.031 0.002 0.06 0.000 0.107 0.03 0.040 0.064 0.000 0.086 0.00 0.263 0.335 0.079 0.263 -0.000 0.092 0.004 0.076 0.000 3.6 18.7
3.5 0.0 1 0 0 0 1 0

831 5.52006 -68.58425 278.96173 -32.40881 -0.021 5780.81 0.360 -0.009 5785.75 0.525 1.00 0.002 0.03 0.000 0.001 0.10 0.107 0.00 0.469 0.019 0.011 0.001 0.003 13.6 3.8 -0.008 5797.54 0.125 -0.012 5803.00 1.000 1.00 0.003 0.05 0.000 0.001 0.00 0.000 0.00 0.506 0.003
0.031 0.001 0.003 3.2 11.5 -0.214 5890.35 0.372 -0.198 5901.38 0.389 0.096 5889.74 0.335 -0.158 -0.297 0.144 1.00 0.017 0.05 0.025 0.004 0.01 0.009 0.028 0.07 0.025 0.018 0.020 0.020 0.00 0.056 0.199 0.193 0.147 0.290 0.021 0.006 0.020 0.020 9.6 31.9

7.4 14.2 1 0 0 0 1 1

890 5.53074 -68.75491 279.15222 -32.32738 -0.018 5781.39 0.818 -0.012 5785.67 0.697 1.01 0.002 0.09 0.102 0.002 0.12 0.137 0.00 0.036 0.036 0.021 0.006 0.005 6.3 4.0 -0.019 5797.53 0.184 -0.004 5801.93 1.000 1.02 0.002 0.03 0.028 0.001 0.35 0.000 0.00 0.018 0.009
0.009 0.002 0.003 5.1 3.3 -0.185 5890.41 0.362 -0.053 5901.41 0.400 0.023 5889.47 0.400 -0.150 -128.177 128.160 1.00 0.004 0.01 0.010 0.004 0.03 0.031 0.004 0.07 -0.000 0.005 78509.336 78509.331 0.00 0.155 0.167 0.053 0.136 128.502 0.006 0.006 0.006 78707.903
27.9 9.3 22.1 0.0 0 0 0 0 1 0

941 5.54341 -69.03958 279.47446 -32.22018 -0.017 5781.30 0.532 -0.016 5786.57 0.360 1.00 0.002 0.07 0.075 0.002 0.06 0.000 0.00 0.621 0.023 0.014 0.004 0.002 5.5 7.5 -0.018 5797.31 1.000 -0.021 5803.09 0.421 1.01 0.002 0.12 0.000 0.003 0.07 0.071 0.00 1.039 0.046
0.022 0.005 0.005 9.6 4.6 -0.302 5890.37 0.360 -0.077 5901.26 0.382 0.066 5889.56 0.400 -0.223 -0.115 0.081 0.99 0.004 0.01 0.007 0.003 0.02 0.013 0.006 0.05 0.000 0.004 0.016 0.015 0.00 0.085 0.273 0.074 0.201 0.110 0.007 0.004 0.006 0.015 40.0 18.8
36.2 7.1 0 0 0 0 1 1

899 5.53214 -68.67114 279.05280 -32.33139 -0.025 5780.52 0.550 -0.013 5786.48 0.360 1.00 0.002 0.06 0.064 0.003 0.09 0.000 0.00 0.611 0.034 0.012 0.005 0.002 6.6 5.3 -0.020 5797.77 0.600 -0.010 5803.73 0.763 1.00 0.002 0.00 0.087 0.002 0.00 0.209 0.00 0.679 0.031
0.019 0.006 0.007 5.3 2.8 -0.531 5890.19 0.387 -0.086 5901.32 0.350 0.362 5890.00 0.351 -0.497 -0.146 0.425 1.00 0.671 0.26 0.043 0.005 0.02 0.018 0.762 0.00 0.039 0.643 0.011 0.726 0.00 2.131 0.516 0.075 0.482 0.128 0.654 0.006 0.626 0.011 0.8 12.8
0.8 11.3 0 0 0 0 1 1

936 5.54253 -68.96261 279.38510 -32.23550 -0.012 5781.34 0.900 -0.032 5785.81 0.792 1.00 0.002 0.14 0.000 0.002 0.05 0.055 0.00 0.470 0.026 0.064 0.004 0.006 6.9 11.3 -0.015 5797.71 0.347 0.000 5802.30 0.520 1.00 0.003 0.08 0.086 0.000 0.00 0.000 0.00 0.727 0.013 -
0.000 0.004 0.000 3.1 0.0 -0.965 5890.13 0.409 -0.268 5901.24 0.377 0.870 5890.00 0.398 -0.780 -0.332 0.796 0.99 8.913 1.26 0.139 0.007 0.01 0.009 9.404 0.00 0.036 7.223 0.013 7.618 0.00 2.549 0.988 0.253 0.799 0.314 9.133 0.009 7.401 0.014 0.1 27.9
0.1 22.2 0 1 0 0 1 1

896 5.53151 -68.54181 278.90170 -32.35248 -0.037 5780.05 0.360 -0.035 5785.53 0.360 1.00 0.004 0.05 0.000 0.004 0.05 0.000 0.00 1.166 0.033 0.032 0.004 0.004 9.1 8.8 -0.031 5797.14 0.125 -0.018 5801.67 0.369 1.00 0.005 0.03 0.000 0.004 0.09 0.093 0.00 0.812 0.010
0.017 0.002 0.006 5.6 3.0 -0.376 5890.09 0.525 -0.168 5901.56 0.375 0.225 5889.70 0.375 -0.371 -0.654 0.733 0.99 0.036 0.05 0.015 0.004 0.01 0.010 0.048 0.03 0.015 0.046 0.213 0.226 0.00 0.868 0.495 0.157 0.489 0.614 0.049 0.006 0.063 0.201 10.1 26.7
7.8 3.1 0 0 0 0 1 1

933 5.54029 -68.79158 279.18677 -32.27097 -0.016 5780.72 0.900 -0.003 5786.39 0.360 1.00 0.001 0.07 0.000 0.002 0.26 0.000 0.00 0.884 0.035 0.003 0.002 0.001 14.3 1.8 -0.005 5796.68 1.000 -0.011 5802.64 0.250 1.00 0.001 0.20 0.000 0.001 0.04 0.000 0.00 0.492 0.011
0.007 0.002 0.001 5.8 7.9 -0.315 5890.17 0.472 -0.036 5900.79 1.000 0.229 5889.71 0.341 -0.232 -0.019 0.175 1.01 0.130 0.23 0.072 0.003 0.09 0.000 0.201 0.05 0.062 0.097 0.003 0.148 0.00 2.043 0.372 0.091 0.274 0.048 0.164 0.007 0.122 0.008 2.3 13.4
2.2 5.9 1 0 0 0 1 0

956 5.54655 -69.08183 279.52115 -32.19767 -0.024 5781.00 0.360 -0.038 5785.68 0.482 1.00 0.002 0.04 0.000 0.002 0.03 0.033 0.00 0.575 0.022 0.046 0.002 0.004 10.9 11.2 -0.017 5796.96 0.296 -0.013 5802.21 0.532 1.00 0.002 0.05 0.049 0.002 0.08 0.089 0.00 0.435 0.013
0.017 0.003 0.004 4.6 4.6 -0.260 5890.21 0.550 -0.292 5901.35 0.527 0.140 5889.60 0.342 -0.237 -0.341 0.139 1.00 0.028 0.10 0.041 0.003 0.01 0.007 0.055 0.03 0.043 0.027 0.012 0.051 0.00 0.247 0.358 0.386 0.327 0.450 0.047 0.007 0.044 0.017 7.6 58.4
7.4 26.4 1 1 0 0 1 1

962 5.54930 -69.03764 279.46704 -32.18914 -0.019 5781.77 0.521 -0.059 5785.85 0.836 1.00 0.002 0.08 0.083 0.002 0.03 0.035 0.00 1.424 0.024 0.124 0.005 0.007 4.8 18.7 -0.026 5797.83 0.148 -0.025 5802.57 0.422 1.00 0.003 0.02 0.017 0.002 0.03 0.032 0.00 0.475 0.010
0.026 0.001 0.003 6.6 10.2 -0.381 5890.18 0.447 -0.276 5901.52 0.471 0.261 5889.85 0.400 -0.277 -0.464 0.406 0.99 0.194 0.20 0.054 0.004 0.01 0.007 0.263 0.03 0.000 0.143 0.028 0.189 0.00 2.239 0.427 0.326 0.311 0.549 0.224 0.007 0.165 0.034 1.9 45.4

1.9 15.9 0 1 0 1 1 1

957 5.54774 -68.75725 279.14005 -32.23553 -0.016 5780.75 0.900 -0.008 5785.99 0.900 1.00 0.001 0.07 0.000 0.001 0.14 0.000 0.00 0.261 0.037 0.018 0.002 0.002 15.1 7.2 0.000 5797.19 0.543 -0.011 5801.74 0.399 1.00 0.000 0.00 0.000 0.002 0.00 0.087 0.00 0.402 -0.000
0.011 0.000 0.003 0.0 3.5 -0.533 5889.93 0.518 -0.109 5901.52 0.350 0.502 5889.72 0.400 -0.583 -0.340 0.876 1.00 0.032 0.02 0.011 0.004 0.01 0.009 0.033 0.02 0.000 0.041 0.062 0.079 0.00 1.244 0.692 0.096 0.757 0.298 0.044 0.004 0.055 0.055 15.6 23.7
13.7 5.4 0 0 0 0 1 1

960 5.54847 -68.56233 278.91101 -32.25755 -0.028 5780.42 0.372 0.000 5786.14 0.881 1.00 0.002 0.03 0.032 0.000 0.00 0.000 0.00 0.342 0.026 -0.000 0.003 0.000 8.9 0.0 0.000 5796.89 0.567 -0.004 5802.87 0.832 1.00 0.000 0.00 0.000 0.002 0.34 0.373 0.00 0.437 -0.000
0.009 0.000 0.005 0.0 1.7 -0.379 5890.08 0.502 -0.132 5901.34 0.354 0.308 5889.75 0.360 -0.294 -0.158 0.300 1.01 0.060 0.06 0.013 0.003 0.01 0.009 0.072 0.02 0.021 0.051 0.009 0.060 0.00 1.004 0.476 0.117 0.370 0.140 0.076 0.004 0.064 0.009 6.2 27.2
5.7 15.9 1 0 0 0 1 1

969 5.55213 -68.58889 278.93903 -32.23417 -0.007 5779.87 0.900 -0.015 5785.83 0.360 1.00 0.001 0.20 0.000 0.002 0.06 0.000 0.00 0.767 0.016 0.013 0.003 0.002 5.3 7.8 -0.024 5796.89 0.125 -0.013 5802.63 0.250 1.00 0.003 0.02 0.000 0.002 0.06 0.000 0.00 0.712 0.008
0.008 0.001 0.001 8.4 6.0 -0.225 5890.44 0.336 -0.224 5901.17 0.388 0.040 5889.50 0.203 -0.214 -0.163 0.000 1.01 0.004 0.01 0.007 0.004 0.01 0.008 0.006 0.04 0.039 0.004 0.004 0.000 0.00 1.914 0.189 0.218 0.181 0.159 0.005 0.006 0.005 0.005 35.1 36.5
34.4 31.9 0 0 0 0 1 1

977 5.55335 -68.85419 279.24878 -32.19238 -0.019 5780.46 0.900 -0.014 5786.81 0.900 1.00 0.002 0.09 0.000 0.002 0.12 0.000 0.00 0.395 0.044 0.031 0.004 0.004 11.8 8.4 -0.019 5797.41 0.379 0.000 5803.30 0.483 1.00 0.002 0.05 0.050 0.000 0.00 0.000 0.00 0.280 0.018 -
0.000 0.003 0.000 5.8 0.0 -0.285 5890.46 0.370 -0.145 5900.99 0.602 0.068 5889.53 0.224 -0.210 -0.105 0.000 1.00 0.007 0.01 0.011 0.005 0.02 0.024 0.009 0.04 0.039 0.007 0.005 0.000 0.00 2.667 0.264 0.218 0.195 0.158 0.010 0.012 0.008 0.010 26.8 18.4
23.5 16.0 1 0 0 0 1 1

986 5.55603 -68.77486 279.15356 -32.18855 -0.021 5781.32 0.900 -0.017 5785.34 0.443 1.01 0.002 0.13 0.000 0.004 0.11 0.114 0.00 0.990 0.046 0.019 0.006 0.006 8.3 3.0 -0.015 5797.07 0.429 0.000 5801.89 0.487 1.00 0.002 0.00 0.076 0.000 0.00 0.000 0.00 0.401 0.016 -
0.000 0.004 0.000 4.3 0.0 -0.332 5890.17 0.482 -0.115 5901.02 0.472 0.244 5889.78 0.358 -0.249 -0.124 0.234 1.00 0.121 0.16 0.039 0.004 0.02 0.018 0.163 0.03 0.046 0.097 0.006 0.125 0.00 1.687 0.402 0.136 0.300 0.147 0.149 0.007 0.120 0.009 2.7 19.2
2.5 17.1 0 0 0 0 1 1

1001 5.55836 -68.73111 279.10037 -32.18176 -0.008 5781.46 0.900 -0.005 5787.00 0.900 0.99 0.001 0.09 0.000 0.001 0.00 0.000 0.00 0.122 0.017 0.012 0.001 0.001 11.3 7.8 0.000 5797.95 0.508 -0.011 5804.25 1.000 1.00 0.000 0.00 0.000 0.001 0.00 0.000 0.00 0.148 -0.000
0.029 0.000 0.002 0.0 17.8 -0.272 5890.20 0.443 -0.109 5901.17 0.417 0.160 5889.87 0.400 -0.255 -0.142 0.228 1.00 0.197 0.27 0.071 0.004 0.02 0.014 0.262 0.05 0.000 0.189 0.008 0.248 0.00 1.598 0.302 0.114 0.283 0.148 0.224 0.005 0.214 0.010 1.3 20.8
1.3 14.6 0 0 0 0 1 1

1016 5.56222 -68.67072 279.02640 -32.16880 -0.010 5781.13 0.900 -0.013 5785.08 0.360 1.00 0.001 0.13 0.000 0.002 0.06 0.000 0.00 0.909 0.022 0.011 0.003 0.002 8.2 7.5 -0.025 5797.58 0.241 -0.007 5801.88 0.490 1.00 0.002 0.02 0.023 0.001 0.11 0.111 0.00 0.655 0.015
0.009 0.002 0.003 8.0 3.4 -0.381 5890.27 0.417 -0.070 5901.34 0.553 0.108 5890.00 0.398 -0.357 -0.088 0.182 1.01 0.261 0.22 0.051 0.003 0.03 0.026 0.330 0.00 0.037 0.236 0.009 0.301 0.00 1.024 0.398 0.098 0.373 0.121 0.277 0.006 0.251 0.014 1.4 15.9
1.5 8.8 0 0 1 0 1 1

1014 5.56185 -68.80133 279.17966 -32.15374 -0.011 5781.16 0.421 -0.009 5786.32 0.900 1.00 0.001 0.06 0.065 0.001 0.11 0.000 0.00 0.599 0.012 0.021 0.002 0.002 5.0 9.6 -0.004 5798.41 1.000 -0.017 5803.57 0.318 1.00 0.001 0.00 0.000 0.002 0.00 0.040 0.00 0.739 0.011
0.014 0.003 0.002 4.3 6.1 -0.328 5890.19 0.484 -0.108 5901.18 0.413 0.228 5889.85 0.400 -0.264 -0.164 0.248 1.00 0.036 0.06 0.022 0.003 0.01 0.011 0.055 0.03 0.000 0.028 0.006 0.043 0.00 1.327 0.398 0.112 0.320 0.169 0.047 0.004 0.037 0.008 8.4 25.6

8.7 22.5 1 0 0 0 1 1

1022 5.56466 -68.74111 279.10678 -32.14648 -0.015 5781.26 0.869 -0.050 5785.76 0.900 1.00 0.001 0.06 0.069 0.001 0.02 0.000 0.00 0.286 0.032 0.112 0.003 0.002 9.8 53.7 -0.016 5798.51 0.212 -0.007 5802.79 0.907 1.00 0.002 0.00 0.034 0.001 0.16 0.174 0.00 0.400 0.008
0.016 0.002 0.004 4.7 4.0 -0.373 5890.24 0.438 -0.150 5901.20 0.387 0.181 5889.92 0.400 -0.330 -0.211 0.224 1.00 0.185 0.18 0.044 0.003 0.01 0.007 0.241 0.04 0.000 0.168 0.006 0.215 0.00 1.164 0.410 0.145 0.362 0.205 0.207 0.004 0.188 0.007 2.0 37.6
1.9 29.3 0 1 0 0 1 1

1008 5.56110 -68.76273 279.13510 -32.16285 -0.009 5780.15 0.900 -0.024 5785.43 0.360 1.00 0.001 0.10 0.000 0.001 0.03 0.000 0.00 0.424 0.021 0.022 0.002 0.001 10.6 18.8 0.000 5796.67 0.518 -0.002 5802.68 1.000 1.00 0.000 0.00 0.000 0.001 0.00 0.000 0.00 0.396 -0.000
0.006 0.000 0.002 0.0 2.8 -0.333 5890.32 0.389 -0.085 5901.10 0.432 0.109 5889.79 0.400 -0.235 -0.117 0.132 1.00 0.024 0.03 0.013 0.003 0.02 0.014 0.033 0.07 0.000 0.022 0.007 0.024 0.00 1.249 0.325 0.092 0.229 0.126 0.026 0.004 0.023 0.009 12.5 20.8
10.0 14.7 0 1 0 0 1 1

1043 5.57170 -68.50261 278.82159 -32.13878 -0.014 5781.66 0.360 0.000 5786.09 0.601 1.00 0.002 0.05 0.000 0.000 0.00 0.000 0.00 0.803 0.013 -0.000 0.001 0.000 8.8 0.0 -0.013 5797.69 0.944 -0.023 5802.70 0.309 1.00 0.001 0.06 0.072 0.001 0.02 0.022 0.00 0.376 0.032
0.018 0.003 0.002 10.3 10.9 -0.351 5890.13 0.478 -0.038 5901.50 0.330 0.283 5889.88 0.400 -0.288 -0.013 0.261 1.00 0.022 0.03 0.013 0.002 0.02 0.024 0.025 0.03 0.000 0.017 0.007 0.021 0.00 0.530 0.421 0.032 0.345 0.011 0.028 0.003 0.023 0.006 14.9 10.6
15.1 1.9 0 0 0 1 1 0

1042 5.57169 -68.54097 278.86655 -32.13401 -0.016 5780.72 0.373 0.000 5786.02 0.601 1.00 0.001 0.04 0.041 0.000 0.00 0.000 0.00 0.643 0.015 -0.000 0.002 0.000 6.8 0.0 -0.009 5797.60 0.349 0.000 5802.53 0.502 1.00 0.001 0.06 0.063 0.000 0.00 0.000 0.00 0.554 0.008 -
0.000 0.002 0.000 4.2 0.0 -0.394 5890.29 0.401 -0.035 5901.42 0.350 0.207 5890.00 0.400 -0.348 -0.030 0.228 1.00 0.037 0.03 0.011 0.003 0.04 0.034 0.048 0.00 0.000 0.036 0.006 0.047 0.00 1.141 0.396 0.031 0.349 0.026 0.038 0.004 0.037 0.006 10.3 7.3
9.4 4.3 0 0 0 0 1 0

1051 5.57301 -68.62503 278.96393 -32.11621 -0.026 5780.70 0.722 -0.014 5787.00 0.360 1.00 0.002 0.07 0.080 0.003 0.00 0.000 0.00 0.547 0.047 0.013 0.007 0.003 7.0 4.9 -0.012 5797.31 0.127 -0.013 5803.89 0.252 1.00 0.004 0.05 0.049 0.003 0.06 0.064 0.00 0.292 0.004
0.008 0.002 0.003 2.0 3.0 -2.470 5890.01 0.426 -0.123 5901.11 0.381 2.427 5889.95 0.400 -1.846 -0.140 1.844 1.00 1.293 0.02 0.017 0.006 0.02 0.020 1.275 0.04 -0.000 0.977 0.008 0.964 0.00 3.904 2.636 0.117 1.971 0.133 1.384 0.009 1.046 0.010 1.9 13.5
1.9 12.8 0 0 0 0 1 1

1036 5.56894 -68.79156 279.16229 -32.11688 -0.025 5780.74 0.900 -0.017 5785.50 0.730 1.01 0.003 0.11 0.000 0.003 0.15 0.171 0.00 1.459 0.057 0.031 0.006 0.009 8.8 3.3 -0.007 5797.99 0.396 0.000 5802.08 0.538 1.00 0.004 0.00 0.242 0.000 0.00 0.000 0.00 1.095 0.007 -
0.000 0.006 0.000 1.2 0.0 -0.287 5890.20 0.488 -0.073 5901.42 0.363 0.190 5889.77 0.400 -0.227 -0.113 0.236 1.00 0.042 0.09 0.034 0.004 0.02 0.016 0.071 0.02 0.000 0.034 0.017 0.059 0.00 1.214 0.351 0.066 0.277 0.103 0.057 0.004 0.045 0.016 6.2 14.8
6.1 6.5 0 0 0 0 1 1

1132 5.58667 -68.41950 278.71225 -32.06721 -0.018 5780.60 0.653 -0.011 5787.00 0.900 1.00 0.001 0.06 0.061 0.001 0.00 0.000 0.00 0.045 0.030 0.025 0.004 0.003 8.3 9.3 -0.014 5797.24 0.127 -0.011 5803.73 0.283 1.00 0.003 0.03 0.031 0.002 0.06 0.060 0.00 0.042 0.004
0.008 0.001 0.002 3.1 3.6 -0.335 5890.25 0.381 -0.224 5901.31 0.363 0.264 5889.99 0.270 -0.280 -0.272 0.267 0.99 0.070 0.06 0.012 0.004 0.01 0.006 0.084 0.02 0.022 0.062 0.005 0.072 0.00 1.248 0.320 0.204 0.268 0.247 0.067 0.005 0.060 0.006 4.8 42.1
4.5 41.6 0 0 0 0 1 1

1088 5.57837 -68.64391 278.98169 -32.08478 -0.013 5781.32 0.900 0.000 5785.91 0.468 1.00 0.001 0.12 0.000 0.000 0.00 0.000 0.00 0.644 0.029 -0.000 0.003 0.000 9.3 0.0 -0.014 5798.00 0.215 -0.004 5802.36 0.250 1.00 0.002 0.04 0.040 0.002 0.15 0.000 0.00 0.366 0.008
0.003 0.002 0.001 4.1 2.3 -0.315 5890.26 0.484 -0.068 5901.27 0.389 0.171 5889.89 0.400 -0.280 -0.095 0.252 1.00 0.042 0.07 0.026 0.004 0.02 0.020 0.065 0.03 0.000 0.036 0.008 0.056 0.00 1.399 0.382 0.066 0.340 0.093 0.055 0.005 0.048 0.010 6.9 13.5

7.1 9.7 0 0 0 0 1 1

1109 5.58133 -68.61336 278.94354 -32.07254 -0.018 5780.67 0.900 0.000 5785.98 0.586 1.00 0.002 0.12 0.000 0.000 0.00 0.000 0.00 0.689 0.042 -0.000 0.005 0.000 9.1 0.0 0.000 5797.14 0.440 -0.013 5802.43 0.250 1.01 0.000 0.00 0.000 0.003 0.09 0.000 0.00 0.704 -0.000
0.008 0.000 0.002 0.0 3.8 -0.441 5890.25 0.433 -0.076 5901.50 0.434 0.259 5890.00 0.400 -0.494 -0.207 0.475 1.00 0.257 0.17 0.032 0.004 0.03 0.015 0.311 0.00 0.000 0.284 0.014 0.343 0.00 1.530 0.478 0.082 0.535 0.226 0.281 0.005 0.311 0.017 1.7 16.7
1.7 13.0 0 0 0 0 1 1

1165 5.59246 -68.44747 278.74048 -32.03215 -0.006 5779.80 0.900 0.000 5785.97 0.736 1.00 0.003 0.00 0.000 0.000 0.00 0.000 0.00 1.154 0.014 -0.000 0.006 0.000 2.3 0.0 0.000 5796.23 0.450 -0.019 5803.03 1.000 1.01 0.000 0.00 0.000 0.002 0.14 0.000 0.00 0.763 -0.000
0.048 0.000 0.006 0.0 8.5 -0.456 5890.45 0.286 -0.085 5901.35 0.334 0.257 5890.00 0.304 -0.389 -0.132 0.247 0.99 0.008 0.01 0.008 0.006 0.02 0.020 0.016 0.00 0.013 0.010 0.008 0.018 0.00 1.379 0.327 0.071 0.278 0.110 0.011 0.006 0.010 0.009 30.8 11.4
27.4 11.8 0 0 0 0 1 1

1148 5.58981 -68.53367 278.84348 -32.03622 -0.007 5781.80 0.900 -0.004 5785.34 0.360 1.00 0.001 0.00 0.000 0.002 0.21 0.000 0.00 0.522 0.016 0.004 0.003 0.002 5.5 2.2 -0.032 5798.20 0.169 -0.017 5801.40 0.441 1.00 0.003 0.02 0.018 0.002 0.06 0.058 0.00 0.467 0.013
0.018 0.002 0.003 7.0 5.8 -0.398 5890.14 0.451 -0.046 5901.72 0.295 0.333 5889.84 0.368 -0.391 0.000 0.298 1.00 0.310 0.23 0.041 0.005 0.04 0.037 0.367 0.06 0.058 0.298 0.000 0.356 0.00 1.543 0.449 0.034 0.441 -0.000 0.353 0.006 0.339 0.000 1.3 6.0
1.3 0.0 0 0 0 1 1 0

1169 5.59295 -68.51617 278.82053 -32.02122 -0.017 5780.15 0.702 -0.025 5785.48 0.577 1.00 0.002 0.09 0.100 0.002 0.06 0.061 0.00 0.580 0.030 0.036 0.005 0.005 5.4 7.3 -0.017 5797.40 0.872 -0.021 5802.65 0.756 1.00 0.002 0.00 0.154 0.003 0.10 0.115 0.00 0.985 0.038
0.040 0.008 0.008 4.5 5.2 -0.262 5890.38 0.394 -0.210 5901.51 0.359 0.151 5889.65 0.239 -0.200 -0.367 0.185 0.99 0.004 0.01 0.012 0.004 0.01 0.006 0.009 0.01 0.011 0.004 0.022 0.024 0.00 0.630 0.259 0.189 0.197 0.331 0.009 0.005 0.007 0.020 29.7 41.0
26.7 16.2 0 1 0 0 1 1

1072 5.57619 -68.81167 279.17987 -32.07530 -0.019 5780.86 0.900 -0.011 5785.50 0.360 1.00 0.001 0.06 0.000 0.001 0.06 0.000 0.00 0.395 0.043 0.010 0.002 0.001 18.3 7.3 -0.024 5797.88 0.125 0.000 5802.01 0.522 1.00 0.003 0.02 0.017 0.000 0.00 0.000 0.00 0.378 0.007 -
0.000 0.001 0.000 5.6 0.0 -0.207 5890.19 0.526 -0.079 5901.01 0.504 0.142 5889.69 0.350 -0.164 -0.070 0.082 1.00 0.051 0.16 0.056 0.003 0.02 0.023 0.082 0.03 0.060 0.037 0.005 0.063 0.00 1.018 0.272 0.100 0.216 0.088 0.073 0.006 0.054 0.008 3.7 16.0
4.0 11.6 1 0 0 0 1 1

1255 5.60102 -68.49861 278.79373 -31.97929 -0.039 5781.36 0.900 -0.021 5786.00 0.360 1.02 0.004 0.11 0.000 0.006 0.13 0.000 0.00 2.749 0.089 0.019 0.009 0.005 9.6 3.6 -0.019 5797.59 0.202 0.000 5802.45 0.567 1.00 0.004 0.05 0.056 0.000 0.00 0.000 0.00 0.686 0.010 -
0.000 0.003 0.000 2.8 0.0 -0.153 5890.44 0.778 -0.066 5901.64 0.250 0.148 5889.70 0.250 -0.158 -366.267 366.264 1.00 0.004 0.03 0.020 0.005 0.02 -0.000 0.008 0.01 0.013 0.005 107125.486 107125.479 0.00 0.906 0.298 0.042 0.307 229.524 0.012 0.003 0.012 67130.944
25.7 13.3 25.0 0.0 0 0 0 0 1 0

988 5.55629 -69.16194 279.60645 -32.13509 -0.013 5781.47 0.900 -0.043 5785.70 0.480 0.99 0.001 0.09 0.000 0.002 0.02 0.022 0.00 0.423 0.028 0.051 0.003 0.003 11.0 17.0 -0.009 5797.32 0.350 -0.009 5802.78 1.000 1.00 0.002 0.08 0.085 0.001 0.15 0.000 0.00 0.446 0.008
0.022 0.003 0.003 3.1 7.6 -0.239 5890.30 0.527 -0.210 5901.38 0.420 0.189 5889.74 0.332 -0.194 -0.406 0.291 1.00 0.023 0.09 0.037 0.004 0.01 0.007 0.047 0.01 0.020 0.023 0.017 0.045 0.00 1.655 0.316 0.222 0.257 0.428 0.037 0.006 0.035 0.019 8.5 39.4
7.2 22.2 1 0 0 0 1 0

1406 5.61463 -68.36911 278.63190 -31.91976 -0.019 5781.02 0.900 0.000 5785.99 0.596 1.00 0.001 0.06 0.000 0.000 0.00 0.000 0.00 0.361 0.043 -0.000 0.003 0.000 16.9 0.0 -0.019 5797.40 0.236 -0.015 5803.24 0.557 1.00 0.003 0.04 0.045 0.002 0.00 0.090 0.00 0.624 0.011
0.021 0.003 0.004 4.0 4.8 -0.163 5890.22 0.557 -0.025 5900.99 1.000 0.043 5889.69 0.190 -0.124 0.000 0.069 1.00 0.004 0.02 0.014 0.002 0.11 0.000 0.008 0.02 0.023 0.004 0.000 0.007 0.00 1.090 0.228 0.063 0.173 -0.000 0.008 0.006 0.008 0.000 27.5 10.9

22.9 0.0 0 1 0 0 1 1

1033 5.56858 -68.97083 279.37244 -32.09542 -0.027 5780.83 0.360 -0.008 5785.18 0.900 1.01 0.003 0.05 0.000 0.002 0.25 0.000 0.00 0.828 0.024 0.019 0.003 0.004 9.6 4.3 -0.028 5797.30 0.180 -0.009 5800.93 0.915 1.00 0.005 0.03 0.035 0.002 0.00 0.257 0.00 0.852 0.012
0.021 0.003 0.008 3.9 2.8 -0.306 5890.23 0.495 -0.108 5901.32 0.523 0.224 5889.88 0.400 -0.198 -0.121 0.167 0.99 0.043 0.08 0.035 0.004 0.02 0.021 0.067 0.05 0.000 0.027 0.008 0.042 0.00 1.369 0.379 0.142 0.246 0.159 0.059 0.008 0.038 0.013 6.4 17.6
6.5 12.6 0 0 0 0 1 1

1046 5.57222 -68.97508 279.37436 -32.07545 -0.035 5780.33 0.527 -0.032 5787.00 0.787 1.00 0.005 0.09 0.094 0.004 0.00 0.131 0.00 2.010 0.046 0.062 0.011 0.013 4.3 4.7 0.000 5796.88 0.551 -0.012 5803.42 0.250 1.00 0.000 0.00 0.000 0.004 0.11 0.000 0.00 0.807 -0.000
0.007 0.000 0.002 0.0 3.0 -0.245 5890.29 0.984 -0.071 5899.00 1.000 0.211 5889.68 0.315 -0.219 -0.099 0.145 0.99 0.009 0.03 0.024 0.005 0.00 0.000 0.011 0.01 0.018 0.008 0.005 0.011 0.00 1.785 0.605 0.178 0.541 0.249 0.026 0.012 0.023 0.012 22.9 14.5
23.4 20.0 0 0 0 0 1 0

1081 5.57754 -68.93289 279.32062 -32.05251 -0.011 5780.94 0.900 -0.037 5785.80 0.900 1.00 0.001 0.14 0.000 0.001 0.04 0.000 0.00 0.096 0.024 0.083 0.003 0.003 7.3 24.8 -0.018 5797.33 0.389 -0.021 5802.58 1.000 1.00 0.002 0.06 0.060 0.001 0.08 0.000 0.00 0.102 0.017
0.052 0.003 0.004 5.0 14.5 -0.155 5890.49 0.377 -0.219 5901.16 0.414 0.066 5889.73 0.269 -0.121 -0.251 0.083 0.99 0.005 0.03 0.022 0.004 0.01 0.007 0.009 0.04 0.027 0.005 0.006 0.010 0.00 1.495 0.146 0.227 0.114 0.260 0.010 0.006 0.008 0.008 15.3 39.4
14.0 33.7 0 1 0 1 1 1

1134 5.58681 -68.85372 279.22046 -32.01291 -0.015 5779.80 0.396 0.000 5785.99 0.619 1.00 0.002 0.00 0.074 0.000 0.00 0.000 0.00 0.831 0.015 -0.000 0.004 0.000 4.1 0.0 0.000 5796.37 0.522 0.000 5802.78 0.501 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.693 -0.000 -
0.000 0.000 0.000 0.0 0.0 -0.157 5890.31 0.533 -0.125 5901.36 0.371 0.156 5889.79 0.380 -0.140 -0.185 0.207 0.99 0.072 0.31 0.104 0.005 0.02 0.013 0.118 0.04 0.053 0.072 0.015 0.109 0.00 1.695 0.210 0.116 0.188 0.171 0.104 0.006 0.103 0.016 2.0 18.6
1.8 11.0 0 0 0 0 1 1

1326 5.60650 -68.68620 279.00906 -31.92725 -0.013 5780.83 0.900 0.000 5785.98 0.528 1.00 0.002 0.14 0.000 0.000 0.00 0.000 0.00 0.833 0.028 -0.000 0.004 0.000 7.6 0.0 0.000 5797.37 0.571 -0.013 5802.57 0.255 1.01 0.000 0.00 0.000 0.004 0.08 0.082 0.00 1.000 -0.000
0.008 0.000 0.004 0.0 2.4 -0.398 5890.05 0.493 -0.024 5901.27 0.365 0.365 5889.85 0.388 -0.294 -0.023 0.286 0.99 0.226 0.09 0.022 0.004 0.08 0.070 0.232 0.04 0.044 0.171 0.007 0.175 0.00 1.694 0.492 0.022 0.364 0.021 0.280 0.006 0.212 0.007 1.8 3.7
1.7 2.8 0 0 0 0 1 0

1397 5.61305 -68.64508 278.95599 -31.89660 -0.012 5781.80 0.900 0.000 5785.96 0.634 1.00 0.001 0.00 0.000 0.000 0.00 0.000 0.00 0.732 0.026 -0.000 0.003 0.000 9.4 0.0 0.000 5798.29 0.482 -0.005 5802.72 0.375 1.00 0.000 0.00 0.000 0.002 0.18 0.184 0.00 0.913 -0.000
0.005 0.000 0.003 0.0 1.6 -0.278 5890.41 0.371 -0.054 5901.25 0.400 0.052 5890.00 0.311 -0.239 -0.078 0.090 1.00 0.013 0.04 0.019 0.003 0.02 0.022 0.032 0.00 0.025 0.011 0.005 0.028 0.00 0.948 0.258 0.055 0.222 0.079 0.018 0.004 0.015 0.006 14.5 12.5
14.4 12.2 0 0 0 0 1 1

1173 5.59324 -68.84995 279.21094 -31.97886 -0.013 5781.35 0.360 -0.021 5786.58 0.457 1.00 0.002 0.06 0.000 0.002 0.04 0.046 0.00 0.403 0.012 0.024 0.002 0.003 7.8 7.6 -0.007 5797.91 0.303 -0.013 5802.86 1.000 1.00 0.002 0.10 0.104 0.001 0.10 0.000 0.00 0.341 0.005
0.033 0.002 0.003 2.2 11.9 -0.170 5890.37 0.555 -0.176 5901.35 0.363 0.128 5889.77 0.340 -0.134 -0.260 0.155 1.00 0.027 0.15 0.066 0.005 0.01 0.009 0.055 0.03 0.043 0.025 0.014 0.047 0.00 1.946 0.237 0.160 0.187 0.237 0.047 0.006 0.041 0.014 5.1 26.3
4.5 17.3 0 1 0 0 1 1

1180 5.59447 -68.86092 279.22281 -31.97089 -0.009 5780.59 0.360 -0.018 5785.81 0.576 1.00 0.001 0.08 0.000 0.001 0.05 0.051 0.00 0.401 0.008 0.026 0.001 0.003 5.9 8.7 -0.009 5797.28 0.397 -0.007 5802.11 0.250 1.00 0.002 0.10 0.104 0.002 0.09 0.000 0.00 0.562 0.009
0.005 0.003 0.001 2.9 3.7 -0.244 5890.27 0.507 -0.210 5901.31 0.383 0.182 5889.86 0.400 -0.192 -0.262 0.187 1.00 0.024 0.07 0.027 0.003 0.01 0.006 0.041 0.03 0.000 0.018 0.007 0.032 0.00 1.235 0.310 0.201 0.244 0.252 0.035 0.004 0.027 0.008 8.9 46.7

9.1 33.4 0 1 0 0 1 1

1575 5.63962 -68.48141 278.74527 -31.77031 -0.023 5780.58 0.900 -0.010 5785.76 0.800 1.00 0.002 0.08 0.000 0.002 0.18 0.208 0.00 1.068 0.051 0.019 0.004 0.006 12.0 3.0 -0.012 5797.12 0.908 -0.009 5802.51 1.000 1.00 0.001 0.11 0.137 0.001 0.15 0.000 0.00 0.556 0.027
0.024 0.005 0.003 5.2 6.8 -0.311 5890.09 0.515 -0.032 5901.72 0.330 0.290 5889.79 0.334 -0.321 -4.822 5.110 1.00 0.051 0.05 0.015 0.004 0.04 0.025 0.055 0.02 0.024 0.067 35.070 35.054 0.00 2.086 0.401 0.026 0.414 3.994 0.067 0.004 0.087 29.051 6.0 6.2
4.8 0.1 0 0 0 0 1 0

1547 5.63298 -68.56081 278.84280 -31.79785 -0.007 5780.67 0.767 -0.007 5787.00 0.900 1.00 0.001 0.15 0.165 0.001 0.00 0.000 0.00 0.394 0.013 0.015 0.004 0.002 3.6 6.2 -0.011 5796.88 0.125 -0.019 5803.04 0.421 1.00 0.002 0.04 0.000 0.002 0.04 0.042 0.00 0.441 0.003
0.020 0.001 0.003 4.5 7.6 -0.243 5890.29 0.598 -0.155 5901.80 0.477 0.238 5889.69 0.320 -0.159 -0.263 0.284 1.00 0.011 0.05 0.021 0.003 0.01 0.010 0.022 0.01 0.014 0.012 0.025 0.029 0.00 1.359 0.364 0.185 0.238 0.314 0.022 0.006 0.019 0.031 16.9 33.4
12.3 10.2 0 0 0 0 1 1

1117 5.58286 -68.97017 279.35989 -32.01929 -0.008 5780.45 0.360 -0.023 5785.84 0.711 1.00 0.001 0.06 0.000 0.001 0.03 0.034 0.00 0.471 0.008 0.041 0.001 0.003 7.8 16.1 -0.006 5797.70 1.000 -0.011 5802.40 0.754 1.00 0.001 0.00 0.000 0.001 0.06 0.072 0.00 0.404 0.015
0.020 0.002 0.002 8.2 8.2 -0.158 5890.34 0.600 -0.230 5901.38 0.403 0.136 5889.69 0.360 -0.106 -0.365 0.182 1.00 0.011 0.08 0.037 0.003 0.01 0.004 0.025 0.01 0.019 0.010 0.012 0.023 0.00 1.080 0.237 0.232 0.160 0.368 0.023 0.004 0.018 0.013 10.5 62.1
8.8 27.9 0 1 0 0 1 1

1626 5.64669 -68.49206 278.75278 -31.73050 -0.020 5781.69 0.707 -0.009 5787.00 0.900 1.00 0.001 0.06 0.066 0.001 0.00 0.000 0.00 0.344 0.035 0.020 0.004 0.003 8.3 6.9 -0.015 5797.44 0.215 -0.011 5804.25 0.548 1.00 0.002 0.00 0.029 0.001 0.00 0.063 0.00 0.145 0.008
0.015 0.001 0.002 5.7 6.6 -0.236 5890.50 0.329 -0.061 5901.54 0.402 0.071 5889.53 0.276 -0.169 -0.037 0.005 1.00 0.003 0.01 0.006 0.003 0.02 0.020 0.003 0.02 0.018 0.003 0.011 0.013 0.00 0.860 0.195 0.061 0.140 0.037 0.004 0.004 0.003 0.012 47.7 14.9
40.8 3.2 1 0 1 0 1 1

1221 5.59814 -68.87414 279.23538 -31.94957 -0.015 5780.69 0.360 -0.074 5785.78 0.899 0.99 0.002 0.07 0.000 0.002 0.02 0.024 0.00 0.299 0.013 0.168 0.002 0.006 6.8 29.3 -0.043 5796.83 0.125 -0.029 5802.80 0.250 1.00 0.005 0.02 0.000 0.004 0.04 0.000 0.00 0.616 0.014
0.018 0.002 0.002 8.9 8.3 -0.266 5890.07 0.467 -0.271 5901.31 0.399 0.285 5889.68 0.270 -0.085 -0.338 0.207 0.99 0.027 0.06 0.021 0.005 0.01 0.007 0.041 0.01 0.017 0.014 0.011 0.021 0.00 2.285 0.311 0.271 0.100 0.338 0.035 0.007 0.017 0.013 8.9 40.4
5.9 27.0 0 1 0 0 1 1

1535 5.63093 -68.65861 278.95865 -31.79806 -0.007 5781.21 0.360 -0.053 5785.48 0.360 0.99 0.003 0.19 0.000 0.003 0.03 0.000 0.00 1.233 0.007 0.048 0.003 0.003 2.5 18.0 -0.015 5797.49 0.125 -0.016 5801.93 0.462 1.00 0.003 0.04 0.000 0.002 0.07 0.076 0.00 0.627 0.005
0.018 0.001 0.004 4.4 4.7 -0.182 5890.24 0.514 -0.145 5901.38 0.372 0.108 5889.79 0.360 -0.158 -0.148 0.198 1.00 0.026 0.09 0.030 0.003 0.01 0.008 0.043 0.02 0.026 0.029 0.011 0.043 0.00 0.815 0.235 0.135 0.204 0.138 0.037 0.004 0.039 0.011 6.4 33.4
5.2 12.6 0 0 0 0 1 1

1262 5.60166 -68.87247 279.23068 -31.93088 -0.020 5780.07 0.360 -0.053 5785.87 0.805 1.00 0.002 0.04 0.000 0.001 0.02 0.023 0.00 0.512 0.018 0.107 0.001 0.004 12.8 27.1 -0.014 5796.81 0.328 -0.031 5802.28 0.458 1.00 0.002 0.06 0.058 0.002 0.03 0.031 0.00 0.593 0.011
0.035 0.003 0.003 4.3 11.4 -0.040 5891.42 1.000 -0.318 5901.26 0.428 0.005 5889.83 0.256 -0.047 -0.343 0.142 1.01 0.002 0.05 0.000 0.003 0.00 0.004 0.004 0.01 0.012 0.002 0.005 0.006 0.00 0.850 0.099 0.342 0.119 0.368 0.005 0.005 0.005 0.007 19.0 70.5
22.7 52.7 1 1 1 1 1 1

1172 5.59319 -68.94353 279.32043 -31.96747 -0.033 5780.73 0.360 -0.134 5785.73 0.900 1.00 0.005 0.07 0.000 0.003 0.03 0.000 0.00 1.439 0.030 0.302 0.004 0.007 6.9 40.6 -0.018 5796.48 0.544 -0.072 5802.26 0.595 1.00 0.004 0.00 0.137 0.004 0.03 0.037 0.00 1.022 0.025
0.107 0.008 0.008 3.1 12.6 -0.179 5890.23 0.720 -0.278 5901.27 0.430 0.294 5889.83 0.221 -0.124 -0.252 0.192 1.00 0.008 0.03 0.022 0.005 0.01 0.009 0.011 0.01 0.008 0.007 0.007 0.011 0.00 1.860 0.323 0.300 0.224 0.272 0.017 0.008 0.014 0.009 18.7 36.2

16.1 29.4 0 1 0 1 1 1

999 5.55827 -69.16497 279.60831 -32.12421 -0.013 5781.10 0.855 -0.031 5786.32 0.900 1.00 0.001 0.10 0.120 0.001 0.05 0.000 0.00 0.534 0.028 0.069 0.005 0.003 5.6 21.0 -0.027 5797.58 0.142 -0.010 5803.11 0.296 0.99 0.003 0.02 0.021 0.002 0.08 0.078 0.00 0.509 0.010
0.008 0.002 0.003 5.3 2.9 -0.223 5890.18 0.707 -0.282 5901.42 0.387 0.258 5889.70 0.321 -0.183 -0.308 0.172 1.00 0.010 0.03 0.015 0.004 0.01 0.006 0.013 0.01 0.013 0.009 0.014 0.017 0.00 1.717 0.395 0.274 0.324 0.299 0.020 0.006 0.017 0.014 19.4 44.8
19.2 21.5 1 1 0 0 1 1

1186 5.59473 -68.95953 279.33792 -31.95724 -0.015 5780.72 0.360 -0.038 5786.13 0.900 1.00 0.001 0.04 0.000 0.001 0.02 0.000 0.00 0.248 0.014 0.086 0.001 0.002 12.2 43.6 -0.020 5797.89 0.261 -0.015 5803.27 1.000 1.00 0.002 0.03 0.030 0.001 0.08 0.000 0.00 0.345 0.013
0.038 0.002 0.003 6.6 14.9 -0.174 5890.32 0.466 -0.202 5901.42 0.406 0.183 5889.86 0.359 -0.164 -0.292 0.188 0.99 0.143 0.43 0.127 0.003 0.01 0.006 0.213 0.09 0.064 0.138 0.008 0.202 0.00 0.780 0.204 0.206 0.191 0.297 0.176 0.004 0.170 0.009 1.2 48.0
1.1 31.7 1 1 1 1 1 1

1706 5.66263 -68.55681 278.81763 -31.63663 -0.038 5780.82 0.460 -0.031 5785.93 0.900 1.01 0.004 0.06 0.059 0.003 0.10 0.000 0.00 2.225 0.044 0.070 0.007 0.007 5.9 10.7 -0.037 5797.94 0.206 -0.017 5802.25 1.000 1.00 0.003 0.02 0.018 0.001 0.08 0.000 0.00 0.450 0.019
0.043 0.002 0.003 8.8 14.0 -0.232 5890.50 0.327 -0.179 5901.37 0.378 0.153 5889.68 0.254 -0.176 -0.204 0.140 1.00 0.004 0.01 0.010 0.004 0.01 0.007 0.005 0.01 0.012 0.004 0.009 0.010 0.00 1.042 0.190 0.170 0.144 0.193 0.007 0.005 0.005 0.009 28.5 35.1
26.4 20.9 1 0 1 0 1 1

1300 5.60389 -68.92269 279.28766 -31.91280 -0.029 5780.96 0.360 -0.072 5785.72 0.889 0.99 0.002 0.04 0.000 0.002 0.02 0.026 0.00 0.772 0.026 0.160 0.002 0.006 12.6 26.8 0.000 5797.48 0.527 -0.016 5802.52 0.319 1.00 0.000 0.00 0.000 0.002 0.05 0.053 0.00 0.524 -0.000
0.013 0.000 0.003 0.0 4.6 -0.162 5890.34 0.476 -0.212 5901.29 0.390 0.227 5889.87 0.306 -0.127 -0.239 0.204 1.01 0.040 0.16 0.058 0.004 0.01 0.007 0.068 0.02 0.028 0.033 0.005 0.054 0.00 1.052 0.193 0.207 0.152 0.233 0.053 0.005 0.043 0.007 3.6 40.3
3.5 34.9 0 1 0 0 1 1

1780 5.67205 -68.56969 278.82648 -31.58395 -0.012 5781.19 0.900 0.000 5786.07 0.634 1.00 0.002 0.14 0.000 0.000 0.00 0.000 0.00 1.923 0.028 -0.000 0.004 0.000 7.8 0.0 0.000 5797.58 0.450 -0.005 5803.32 1.000 1.00 0.000 0.00 0.000 0.001 0.00 0.000 0.00 1.066 -0.000
0.013 0.000 0.003 0.0 4.7 -0.284 5890.24 0.455 -0.130 5901.34 0.401 0.191 5889.89 0.400 -0.246 -0.170 0.206 1.00 0.106 0.16 0.049 0.004 0.01 0.010 0.151 0.03 0.000 0.091 0.009 0.130 0.00 1.314 0.324 0.130 0.280 0.171 0.126 0.005 0.108 0.010 2.6 26.4
2.6 17.7 0 0 0 0 1 1

1309 5.60458 -68.94278 279.31061 -31.90665 -0.009 5781.35 0.512 -0.035 5785.63 0.843 0.99 0.002 0.15 0.162 0.002 0.05 0.058 0.00 0.135 0.012 0.074 0.005 0.007 2.4 11.4 -0.015 5797.53 0.351 -0.030 5802.21 0.252 1.00 0.002 0.06 0.066 0.003 0.03 0.027 0.00 0.090 0.013
0.019 0.003 0.003 4.0 7.0 -0.103 5890.42 0.706 -0.329 5901.47 0.440 0.121 5889.78 0.287 -0.081 -0.401 0.101 1.01 0.006 0.06 0.033 0.004 0.01 0.005 0.010 0.01 0.020 0.006 0.010 0.013 0.00 1.212 0.182 0.363 0.143 0.442 0.014 0.006 0.012 0.012 13.5 64.0
12.0 37.5 0 1 0 1 1 1

1185 5.59472 -69.00575 279.39200 -31.95152 -0.010 5780.73 0.900 -0.063 5785.95 0.895 0.99 0.001 0.11 0.000 0.001 0.02 0.021 0.00 0.529 0.022 0.142 0.003 0.004 8.3 33.3 -0.010 5797.62 0.248 -0.047 5802.75 0.685 1.00 0.002 0.07 0.073 0.002 0.02 0.027 0.00 0.719 0.006
0.081 0.002 0.004 2.6 19.9 -0.161 5890.23 0.543 -0.512 5901.43 0.412 0.223 5889.81 0.357 -0.105 -0.557 0.158 1.00 0.042 0.14 0.038 0.004 0.00 0.003 0.057 0.02 0.030 0.029 0.009 0.039 0.00 1.070 0.219 0.529 0.143 0.575 0.060 0.005 0.041 0.010 3.7 98.5
3.5 55.8 0 1 0 1 1 1

1353 5.60918 -68.95161 279.31738 -31.88097 -0.010 5781.77 0.863 -0.082 5785.79 0.900 0.99 0.002 0.18 0.211 0.002 0.02 0.000 0.00 0.763 0.021 0.185 0.007 0.004 3.2 43.7 -0.006 5799.02 1.000 -0.032 5802.30 0.863 1.00 0.001 0.00 0.000 0.001 0.03 0.035 0.00 0.258 0.014
0.070 0.003 0.004 5.7 18.7 -0.132 5890.39 0.606 -0.464 5901.36 0.401 0.173 5889.73 0.346 -0.099 -0.559 0.182 1.00 0.015 0.13 0.058 0.004 0.00 0.003 0.032 0.01 0.024 0.013 0.010 0.027 0.00 0.918 0.200 0.466 0.151 0.562 0.029 0.005 0.024 0.011 6.8 91.9

6.2 51.1 0 1 0 1 1 1

1594 5.64284 -68.80669 279.12317 -31.71710 -0.014 5781.38 0.360 -0.023 5786.63 0.900 0.99 0.002 0.06 0.000 0.001 0.06 0.000 0.00 0.531 0.013 0.053 0.002 0.003 8.0 19.0 -0.016 5797.92 0.221 -0.049 5802.88 0.410 1.01 0.004 0.06 0.063 0.003 0.03 0.028 0.00 1.155 0.009
0.050 0.003 0.005 2.7 11.0 -0.135 5890.32 0.476 -0.329 5901.47 0.485 0.181 5889.91 0.357 -0.176 -0.440 0.239 1.00 0.142 0.51 0.134 0.004 0.01 0.005 0.201 0.06 0.071 0.186 0.010 0.261 0.00 1.479 0.161 0.400 0.210 0.536 0.175 0.006 0.229 0.014 0.9 64.0
0.9 38.0 0 1 0 1 1 1

1218 5.59770 -69.01458 279.39996 -31.93453 -0.008 5781.06 0.856 -0.076 5785.96 0.900 0.99 0.001 0.11 0.130 0.001 0.01 0.000 0.00 0.290 0.017 0.172 0.003 0.002 5.2 78.8 0.000 5797.55 0.503 -0.046 5802.55 0.629 1.00 0.000 0.00 0.000 0.002 0.03 0.028 0.00 0.677 -0.000
0.072 0.000 0.004 0.0 17.3 -0.104 5890.39 0.640 -0.361 5901.47 0.398 0.130 5889.74 0.354 -0.067 -0.466 0.158 1.00 0.010 0.11 0.051 0.003 0.00 0.003 0.021 0.02 0.022 0.009 0.015 0.023 0.00 1.008 0.167 0.360 0.107 0.465 0.021 0.005 0.017 0.016 7.8 79.0
6.4 29.4 0 1 0 1 1 1

1031 5.56815 -69.17436 279.61087 -32.07072 -0.011 5781.22 0.900 -0.014 5786.64 0.360 1.00 0.001 0.12 0.000 0.002 0.06 0.000 0.00 0.462 0.025 0.012 0.003 0.002 9.2 8.1 -0.009 5797.71 1.000 -0.010 5803.03 0.562 1.00 0.001 0.11 0.000 0.001 0.07 0.079 0.00 0.236 0.022
0.014 0.002 0.003 9.9 5.5 -0.159 5890.45 0.363 -0.105 5901.28 0.382 0.103 5889.50 0.400 -0.139 -0.207 0.122 1.00 0.004 0.01 0.011 0.003 0.01 0.009 0.004 0.02 0.000 0.004 0.026 0.027 0.00 1.826 0.145 0.101 0.127 0.198 0.006 0.004 0.005 0.026 25.7 26.3
24.4 7.7 0 0 0 0 1 1

1053 5.57316 -69.09939 279.51901 -32.05415 -0.018 5781.26 0.900 -0.041 5785.90 0.884 1.00 0.001 0.06 0.000 0.001 0.03 0.033 0.00 0.699 0.042 0.091 0.003 0.004 15.4 21.3 -0.012 5798.35 0.710 -0.028 5802.88 1.000 1.00 0.001 0.09 0.104 0.001 0.05 0.000 0.00 0.754 0.020
0.069 0.004 0.003 5.3 23.5 -0.155 5890.28 0.585 -0.329 5901.48 0.417 0.145 5889.67 0.381 -0.165 -0.472 0.219 1.00 0.026 0.15 0.057 0.003 0.01 0.004 0.048 0.02 0.032 0.031 0.030 0.061 0.00 1.192 0.227 0.343 0.242 0.493 0.044 0.005 0.051 0.031 5.1 66.5
4.8 15.7 0 1 0 1 1 1

995 5.55738 -69.18047 279.62720 -32.12680 -0.021 5779.80 0.360 -0.033 5786.78 0.364 1.00 0.003 0.00 0.000 0.003 0.04 0.043 0.00 1.000 0.019 0.030 0.003 0.005 7.4 6.4 0.000 5796.36 0.539 -0.006 5802.53 0.724 1.00 0.000 0.00 0.000 0.003 0.00 0.364 0.00 1.158 -0.000
0.011 0.000 0.007 0.0 1.5 -0.223 5890.38 0.572 -0.215 5901.49 0.391 0.239 5889.76 0.337 -0.168 -0.267 0.179 1.00 0.029 0.13 0.053 0.005 0.01 0.008 0.057 0.02 0.031 0.022 0.018 0.047 0.00 1.812 0.320 0.211 0.240 0.261 0.051 0.007 0.039 0.019 6.3 31.8
6.2 13.9 0 0 0 0 1 1

1765 5.67024 -68.76297 279.05334 -31.57394 0.000 5780.82 0.528 -0.072 5785.94 0.704 0.98 0.000 0.00 0.000 0.009 0.09 0.101 0.00 2.375 -0.000 0.126 0.000 0.024 0.0 5.4 -0.006 5797.78 0.125 -0.031 5802.49 0.483 1.00 0.004 0.11 0.000 0.002 0.04 0.040 0.00 0.109 0.002
0.038 0.001 0.004 1.6 9.2 -0.340 5890.19 0.478 -0.328 5901.57 0.381 0.372 5889.82 0.368 -0.240 -0.415 0.352 1.00 0.114 0.14 0.031 0.003 0.00 0.004 0.148 0.02 0.025 0.088 0.018 0.114 0.00 0.755 0.407 0.314 0.288 0.397 0.139 0.004 0.107 0.017 2.9 71.1
2.7 22.9 0 1 0 1 1 1

1479 5.62435 -68.94967 279.30365 -31.80006 -0.011 5781.29 0.700 -0.038 5785.97 0.894 1.00 0.001 0.08 0.094 0.001 0.03 0.031 0.00 0.160 0.019 0.086 0.003 0.004 5.8 22.7 -0.002 5798.10 0.223 -0.013 5802.13 0.380 1.00 0.004 0.39 0.396 0.003 0.10 0.100 0.00 0.560 0.001
0.012 0.003 0.004 0.4 2.9 -0.174 5890.23 0.461 -0.298 5901.35 0.407 0.162 5889.87 0.400 -0.130 -0.365 0.146 1.00 0.060 0.16 0.052 0.002 0.00 0.003 0.089 0.02 0.000 0.045 0.006 0.066 0.00 0.888 0.201 0.304 0.150 0.372 0.073 0.003 0.054 0.006 2.8 89.8
2.8 58.2 0 1 0 1 1 1

1834 5.68407 -68.73578 279.01260 -31.50191 -0.011 5781.12 0.900 -0.031 5786.32 0.900 0.99 0.001 0.10 0.000 0.001 0.04 0.000 0.00 0.707 0.025 0.071 0.003 0.003 9.8 28.1 -0.008 5797.58 0.604 -0.013 5802.75 0.482 1.00 0.001 0.12 0.127 0.002 0.07 0.069 0.00 0.700 0.012
0.015 0.003 0.003 3.7 5.3 -0.344 5890.20 0.481 -0.208 5901.57 0.414 0.308 5889.83 0.365 -0.293 -0.275 0.269 1.00 0.112 0.13 0.029 0.003 0.01 0.006 0.145 0.02 0.033 0.097 0.015 0.126 0.00 0.933 0.416 0.216 0.354 0.285 0.137 0.004 0.118 0.016 3.0 48.7

3.0 18.2 0 1 0 1 1 1

1579 5.64050 -68.90997 279.24548 -31.71811 -0.009 5779.98 0.900 -0.023 5786.36 0.900 1.00 0.001 0.12 0.000 0.001 0.04 0.000 0.00 0.500 0.020 0.052 0.002 0.002 8.8 23.4 -0.009 5797.23 0.610 -0.019 5802.83 0.639 1.00 0.001 0.00 0.109 0.001 0.05 0.054 0.00 0.591 0.014
0.030 0.003 0.003 4.3 9.1 -0.146 5890.26 0.647 -0.460 5901.51 0.419 0.158 5889.70 0.389 -0.144 -0.676 0.282 1.00 0.014 0.08 0.029 0.003 0.00 0.003 0.022 0.02 0.018 0.016 0.035 0.046 0.00 1.182 0.238 0.483 0.233 0.710 0.025 0.005 0.028 0.037 9.6 95.0
8.2 19.0 0 1 0 1 1 1

1542 5.63207 -68.95189 279.30057 -31.75849 -0.018 5780.99 0.595 -0.022 5785.92 0.900 1.00 0.002 0.06 0.061 0.001 0.06 0.000 0.00 0.702 0.027 0.049 0.004 0.003 7.6 17.9 -0.006 5796.86 0.125 -0.022 5802.54 0.353 1.00 0.003 0.09 0.000 0.002 0.04 0.045 0.00 1.078 0.002
0.019 0.001 0.003 1.9 5.9 -0.222 5890.23 0.511 -0.348 5901.48 0.400 0.280 5889.80 0.360 -0.153 -0.432 0.257 1.00 0.067 0.16 0.046 0.004 0.01 0.004 0.097 0.02 0.029 0.051 0.014 0.073 0.00 1.528 0.284 0.349 0.196 0.433 0.089 0.005 0.067 0.014 3.2 66.0
2.9 30.0 0 1 0 1 1 1

1422 5.61714 -69.01742 279.38824 -31.83054 -0.012 5780.58 0.360 -0.031 5785.74 0.849 1.00 0.001 0.04 0.000 0.001 0.03 0.029 0.00 0.052 0.011 0.066 0.001 0.003 10.4 22.7 0.000 5797.04 0.409 -0.007 5802.43 0.649 1.00 0.000 0.00 0.000 0.004 0.37 0.397 0.00 0.710 -0.000
0.011 0.000 0.009 0.0 1.3 -0.124 5890.27 0.548 -0.268 5901.39 0.402 0.203 5889.77 0.372 -0.091 -0.391 0.221 1.00 0.036 0.20 0.065 0.003 0.01 0.004 0.058 0.02 0.025 0.030 0.010 0.047 0.00 1.076 0.170 0.270 0.124 0.394 0.054 0.004 0.044 0.011 3.2 64.5
2.8 34.9 0 1 0 0 1 1

1892 5.69447 -68.78411 279.06241 -31.44089 -0.029 5781.06 0.736 -0.052 5786.07 0.900 1.00 0.002 0.05 0.056 0.002 0.03 0.000 0.00 0.058 0.054 0.118 0.005 0.004 10.2 31.9 -0.019 5797.36 0.134 -0.027 5802.81 0.677 1.00 0.003 0.03 0.028 0.001 0.04 0.045 0.00 0.038 0.006
0.046 0.002 0.004 3.7 11.7 -0.167 5890.31 0.525 -0.354 5901.59 0.403 0.163 5889.81 0.320 -0.163 -0.464 0.194 1.00 0.024 0.11 0.038 0.004 0.01 0.005 0.041 0.02 0.028 0.025 0.020 0.047 0.00 1.723 0.220 0.357 0.214 0.468 0.035 0.006 0.037 0.021 6.2 63.0
5.8 22.6 1 1 0 1 1 1

1128 5.58510 -69.12358 279.53748 -31.98768 -0.015 5781.00 0.900 -0.133 5785.98 0.900 0.99 0.002 0.12 0.000 0.002 0.01 0.000 0.00 1.056 0.033 0.301 0.004 0.004 8.2 74.4 0.000 5797.56 0.444 -0.042 5802.84 1.000 1.00 0.000 0.00 0.000 0.001 0.04 0.000 0.00 0.857 -0.000
0.106 0.000 0.004 0.0 28.9 -0.100 5890.56 0.752 -0.355 5901.39 0.449 0.244 5889.68 0.349 -0.081 -0.410 0.202 1.00 0.007 0.11 0.068 0.004 0.01 0.005 0.017 0.01 0.015 0.006 0.013 0.019 0.00 1.447 0.188 0.399 0.152 0.462 0.021 0.006 0.018 0.015 8.9 64.6
8.6 29.9 0 1 0 1 1 1

1743 5.66773 -68.89478 279.20886 -31.57363 0.000 5780.84 0.592 -0.017 5786.03 0.555 1.00 0.000 0.00 0.000 0.002 0.06 0.062 0.00 0.725 -0.000 0.024 0.000 0.004 0.0 6.9 -0.017 5797.86 0.348 -0.004 5802.45 0.250 0.99 0.002 0.05 0.048 0.002 0.15 0.000 0.00 0.725 0.015
0.003 0.003 0.001 5.5 2.2 -0.148 5890.55 0.283 -0.130 5901.94 0.732 0.129 5889.63 0.249 -0.164 -0.109 0.067 1.00 0.005 0.01 0.010 0.003 0.02 0.018 0.005 0.01 0.013 0.009 0.009 0.010 0.00 1.940 0.105 0.239 0.116 0.199 0.005 0.008 0.007 0.017 20.7 29.7
15.7 11.9 0 0 0 0 1 1

1491 5.62624 -69.01945 279.38379 -31.78177 -0.024 5780.23 0.360 -0.025 5786.32 0.900 0.99 0.002 0.04 0.000 0.001 0.06 0.000 0.00 0.215 0.022 0.056 0.002 0.003 12.8 18.8 -0.035 5796.94 1.000 0.000 5802.70 0.456 1.01 0.003 0.10 0.000 0.000 0.00 0.000 0.00 1.207 0.087 -
0.000 0.007 0.000 11.9 0.0 -0.108 5890.38 0.620 -0.288 5901.39 0.390 0.149 5889.69 0.374 -0.092 -0.432 0.198 1.00 0.016 0.17 0.078 0.004 0.01 0.005 0.035 0.02 0.027 0.016 0.017 0.035 0.00 1.167 0.168 0.282 0.143 0.422 0.033 0.005 0.031 0.017 5.1 58.2
4.6 24.5 1 1 0 0 1 1

1728 5.66584 -68.92586 279.24640 -31.58047 -0.011 5779.80 0.900 -0.012 5785.65 0.601 1.00 0.002 0.00 0.000 0.002 0.11 0.123 0.00 0.535 0.026 0.018 0.004 0.005 7.1 3.8 -0.019 5796.11 0.148 -0.011 5802.90 0.368 1.00 0.003 0.03 0.027 0.002 0.00 0.074 0.00 0.288 0.007
0.010 0.002 0.003 4.2 3.8 -0.164 5890.48 0.335 -0.151 5901.26 0.399 0.098 5889.71 0.305 -0.145 -0.162 0.080 1.00 0.004 0.02 0.014 0.003 0.01 0.007 0.005 0.03 0.022 0.004 0.005 0.007 0.00 0.815 0.138 0.152 0.121 0.162 0.007 0.004 0.006 0.006 20.7 40.3

20.6 28.5 0 0 0 0 1 1

1385 5.61170 -69.06739 279.45078 -31.85348 -0.009 5781.12 0.360 -0.084 5785.99 0.860 0.99 0.002 0.12 0.000 0.002 0.02 0.021 0.00 0.290 0.008 0.181 0.002 0.006 4.0 31.4 -0.013 5796.87 0.415 -0.024 5802.78 0.250 1.00 0.003 0.00 0.132 0.004 0.05 0.000 0.00 0.592 0.013
0.015 0.006 0.002 2.4 6.6 -0.230 5890.17 0.492 -0.438 5901.51 0.399 0.375 5889.80 0.339 -0.163 -0.519 0.286 1.00 0.070 0.13 0.033 0.004 0.00 0.004 0.091 0.02 0.023 0.051 0.015 0.068 0.00 1.298 0.284 0.438 0.201 0.518 0.088 0.006 0.065 0.016 3.2 69.3
3.1 31.9 0 1 0 0 1 1

1093 5.57890 -69.15203 279.57581 -32.01682 -0.012 5781.08 0.900 -0.016 5785.84 0.576 1.00 0.001 0.05 0.000 0.001 0.03 0.031 0.00 0.368 0.027 0.023 0.001 0.002 21.1 14.1 -0.011 5797.17 0.452 -0.007 5803.04 1.000 1.00 0.001 0.06 0.069 0.001 0.15 0.000 0.00 1.123 0.013
0.017 0.002 0.002 5.1 7.3 -0.189 5890.26 0.547 -0.207 5901.53 0.433 0.142 5889.73 0.359 -0.146 -0.336 0.203 1.00 0.019 0.08 0.028 0.002 0.01 0.005 0.032 0.01 0.020 0.017 0.019 0.036 0.00 1.018 0.259 0.225 0.200 0.364 0.029 0.004 0.026 0.021 9.1 60.5
7.8 17.3 0 1 0 0 1 1

1781 5.67222 -68.94700 279.26682 -31.54403 -0.013 5780.78 0.900 -0.015 5786.98 0.615 1.00 0.001 0.09 0.000 0.001 0.07 0.073 0.00 0.274 0.030 0.024 0.003 0.004 10.8 6.5 -0.011 5797.98 1.000 -0.009 5804.23 0.906 1.00 0.002 0.16 0.000 0.002 0.00 0.236 0.00 0.526 0.028
0.020 0.004 0.007 6.4 3.0 -0.125 5890.52 0.314 -0.087 5901.26 0.400 0.127 5889.67 0.400 -0.118 -0.124 0.130 0.99 0.005 0.02 0.015 0.004 0.02 0.016 0.005 0.02 0.000 0.005 0.011 0.012 0.00 1.278 0.098 0.087 0.093 0.124 0.006 0.005 0.006 0.012 16.2 17.0
16.2 10.3 0 0 0 0 1 1

1605 5.64449 -69.02000 279.37112 -31.68434 0.000 5780.84 0.668 -0.019 5785.00 0.900 0.99 0.000 0.00 0.000 0.002 0.00 0.000 0.00 0.317 -0.000 0.043 0.000 0.005 0.0 9.0 0.000 5797.33 0.459 0.000 5801.97 0.268 0.99 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.487 -0.000 -
0.000 0.000 0.000 0.0 0.0 -0.120 5890.55 0.287 -0.194 5901.24 0.595 0.186 5889.56 0.265 -0.083 -0.190 0.050 1.00 0.005 0.01 0.015 0.004 0.01 0.011 0.006 0.01 0.011 0.005 0.006 0.009 0.00 1.406 0.086 0.290 0.059 0.283 0.006 0.008 0.005 0.011 14.7 37.5
12.1 25.6 0 0 0 0 1 1

1690 5.65969 -68.99680 279.33340 -31.60575 -0.017 5780.45 0.493 -0.040 5785.91 0.790 1.00 0.002 0.06 0.069 0.002 0.03 0.038 0.00 0.218 0.020 0.079 0.004 0.005 5.5 16.4 -0.009 5797.65 0.155 -0.028 5802.57 0.250 1.00 0.005 0.11 0.111 0.004 0.04 0.000 0.00 0.607 0.003
0.018 0.003 0.002 1.1 7.9 -0.209 5890.25 0.460 -0.157 5901.47 0.453 0.281 5889.87 0.400 -0.224 -0.233 0.272 0.99 0.079 0.18 0.056 0.003 0.01 0.009 0.116 0.02 0.000 0.083 0.012 0.123 0.00 0.862 0.241 0.178 0.259 0.264 0.096 0.005 0.101 0.014 2.5 34.6
2.6 18.5 0 1 0 0 1 1

1445 5.61973 -69.08689 279.46744 -31.80842 -0.014 5780.80 0.894 -0.036 5786.15 0.900 0.99 0.001 0.07 0.080 0.001 0.03 0.000 0.00 0.883 0.032 0.081 0.004 0.002 8.7 35.3 -0.004 5797.52 0.628 -0.009 5802.72 1.000 1.00 0.001 0.18 0.193 0.001 0.10 0.000 0.00 0.596 0.006
0.022 0.002 0.002 2.5 11.1 -0.152 5890.25 0.502 -0.280 5901.52 0.424 0.156 5889.78 0.400 -0.129 -0.422 0.153 1.00 0.025 0.12 0.047 0.003 0.01 0.004 0.045 0.02 0.000 0.022 0.017 0.042 0.00 1.119 0.191 0.297 0.162 0.449 0.036 0.004 0.031 0.019 5.3 71.2
5.2 23.5 0 1 0 0 1 1

1608 5.64478 -69.04950 279.40536 -31.67946 -0.015 5781.38 0.900 -0.035 5785.99 0.805 1.00 0.001 0.09 0.000 0.001 0.03 0.040 0.00 0.401 0.033 0.070 0.003 0.004 11.2 15.8 0.000 5797.93 0.441 -0.021 5803.24 1.000 1.00 0.000 0.00 0.000 0.002 0.00 0.000 0.00 0.807 -0.000
0.051 0.000 0.004 0.0 12.9 -0.356 5890.21 0.420 -0.317 5901.23 0.441 0.304 5889.99 0.400 -0.291 -0.402 0.286 1.00 0.857 0.56 0.101 0.003 0.00 0.004 0.985 0.05 0.000 0.703 0.006 0.807 0.00 1.248 0.375 0.350 0.306 0.444 0.906 0.005 0.743 0.008 0.4 69.9
0.4 57.0 0 1 0 0 1 1

1790 5.67403 -68.99836 279.32553 -31.52893 -0.009 5781.13 0.789 -0.060 5785.81 0.900 0.99 0.001 0.12 0.138 0.001 0.02 0.000 0.00 0.971 0.018 0.135 0.004 0.003 4.5 48.8 -0.007 5798.04 0.814 -0.021 5802.41 0.686 1.00 0.001 0.08 0.093 0.001 0.02 0.028 0.00 0.233 0.014
0.036 0.002 0.002 6.9 19.1 -0.162 5890.25 0.497 -0.335 5901.21 0.434 0.170 5889.82 0.339 -0.149 -0.433 0.180 1.00 0.044 0.15 0.042 0.003 0.00 0.004 0.065 0.02 0.034 0.042 0.005 0.060 0.00 0.895 0.202 0.365 0.186 0.471 0.057 0.004 0.055 0.007 3.5 82.0

3.4 71.2 0 1 0 1 1 1

1599 5.64402 -69.07164 279.43176 -31.68099 -0.022 5780.61 0.900 -0.036 5785.95 0.610 0.99 0.002 0.10 0.000 0.003 0.05 0.054 0.00 0.051 0.049 0.055 0.005 0.006 10.2 8.7 -0.013 5797.61 1.000 -0.014 5802.29 0.264 1.00 0.002 0.16 0.000 0.003 0.07 0.076 0.00 0.037 0.031
0.009 0.004 0.003 7.3 2.7 -0.124 5890.63 0.250 -0.298 5901.46 0.428 0.168 5889.80 0.322 -0.115 -0.428 0.158 1.00 0.005 0.01 0.012 0.003 0.01 0.004 0.004 0.01 0.012 0.005 0.010 0.012 0.00 0.571 0.078 0.320 0.072 0.460 0.005 0.005 0.005 0.012 16.4 68.6
16.0 39.1 0 0 0 0 1 1

1297 5.60357 -69.13844 279.54010 -31.88790 -0.013 5780.48 0.900 -0.033 5786.26 0.856 1.00 0.001 0.10 0.000 0.001 0.04 0.046 0.00 0.182 0.029 0.070 0.003 0.005 9.4 14.5 0.000 5796.99 0.506 -0.005 5802.90 0.250 1.00 0.000 0.00 0.000 0.002 0.17 0.000 0.00 0.267 -0.000
0.003 0.000 0.002 0.0 2.0 -0.127 5890.41 0.537 -0.205 5901.59 0.437 0.129 5889.75 0.357 -0.096 -0.360 0.238 1.00 0.014 0.12 0.061 0.004 0.01 0.009 0.033 0.02 0.019 0.014 0.040 0.047 0.00 1.416 0.171 0.224 0.129 0.394 0.027 0.006 0.024 0.044 6.4 37.4
5.4 9.0 0 1 0 0 1 1

1371 5.61053 -69.13558 279.53137 -31.85136 -0.025 5779.80 0.425 -0.028 5786.86 0.755 1.01 0.004 0.00 0.080 0.003 0.09 0.102 0.00 0.046 0.027 0.053 0.007 0.009 4.1 5.7 -0.014 5796.45 0.125 -0.015 5803.00 0.308 1.01 0.004 0.05 0.000 0.003 0.07 0.069 0.00 0.017 0.004
0.011 0.001 0.003 3.8 3.4 -0.106 5890.64 0.295 -0.178 5901.33 0.447 0.142 5889.64 0.241 -0.054 -0.227 0.142 1.00 0.005 0.02 0.018 0.004 0.01 0.009 0.006 0.01 0.011 0.005 0.010 0.012 0.00 0.944 0.078 0.199 0.040 0.254 0.006 0.006 0.004 0.012 12.5 32.2
9.1 20.5 0 0 0 0 1 1

1625 5.64631 -69.09367 279.45584 -31.66631 -0.018 5780.22 0.860 -0.061 5786.09 0.900 0.99 0.001 0.06 0.067 0.001 0.02 0.000 0.00 0.213 0.040 0.137 0.004 0.003 10.0 53.6 0.000 5796.76 0.525 -0.012 5802.90 0.609 1.00 0.000 0.00 0.000 0.001 0.08 0.084 0.00 0.224 -0.000
0.018 0.000 0.003 0.0 5.6 -0.166 5890.46 0.392 -0.414 5901.59 0.435 0.089 5889.70 0.400 -0.138 -0.810 0.388 1.00 0.003 0.02 0.011 0.003 0.00 0.003 0.006 0.02 0.000 0.006 0.092 0.090 0.00 1.169 0.163 0.451 0.135 0.882 0.006 0.005 0.007 0.101 28.3 97.8
19.0 8.7 1 1 0 1 1 1

1917 5.70092 -69.03139 279.34671 -31.38186 -0.023 5780.79 0.861 -0.022 5787.00 0.900 1.00 0.002 0.09 0.104 0.002 0.00 0.000 0.00 0.455 0.049 0.050 0.008 0.005 6.5 10.4 0.000 5797.38 0.338 -0.018 5802.79 1.000 0.99 0.000 0.00 0.000 0.002 0.14 0.000 0.00 0.583 -0.000
0.045 0.000 0.005 0.0 8.6 -0.136 5890.61 0.344 -0.219 5901.78 0.455 0.194 5889.88 0.400 -0.103 -0.241 0.107 1.00 0.007 0.03 0.020 0.004 0.01 0.010 0.009 0.02 0.000 0.007 0.051 0.052 0.00 1.095 0.118 0.249 0.089 0.275 0.009 0.007 0.008 0.058 12.7 34.9
11.2 4.7 0 0 0 0 1 1

1611 5.64518 -69.10989 279.47559 -31.67047 -0.016 5779.80 0.900 -0.086 5786.12 0.900 0.99 0.002 0.00 0.000 0.002 0.02 0.021 0.00 0.516 0.036 0.194 0.004 0.006 9.9 33.6 -0.019 5796.13 0.169 -0.007 5803.37 1.000 1.00 0.004 0.04 0.046 0.002 0.00 0.000 0.00 0.808 0.008
0.018 0.003 0.004 2.8 4.2 -0.171 5890.32 0.473 -0.394 5901.39 0.472 0.232 5889.86 0.383 -0.158 -0.486 0.188 1.00 0.254 0.69 0.187 0.004 0.01 0.004 0.349 0.14 0.076 0.226 0.009 0.319 0.00 0.957 0.203 0.466 0.187 0.574 0.312 0.006 0.278 0.012 0.6 75.4
0.7 48.3 0 1 0 0 1 1

1352 5.60909 -69.15661 279.55704 -31.85640 -0.015 5780.96 0.900 -0.040 5786.56 0.418 1.00 0.002 0.12 0.000 0.003 0.03 0.034 0.00 1.268 0.035 0.042 0.004 0.004 8.6 9.5 -0.010 5797.43 0.133 -0.009 5802.66 1.000 1.00 0.003 0.04 0.039 0.001 0.12 0.000 0.00 0.352 0.003
0.022 0.001 0.002 2.6 9.6 -0.123 5890.37 0.545 -0.177 5901.49 0.484 0.137 5889.80 0.400 -0.095 -0.238 0.124 1.00 0.014 0.10 0.050 0.003 0.01 0.008 0.029 0.02 0.000 0.011 0.012 0.024 0.00 1.298 0.168 0.215 0.130 0.289 0.024 0.005 0.019 0.015 7.0 43.7
6.8 19.0 0 1 0 0 1 1

1619 5.64598 -69.12617 279.49402 -31.66437 -0.007 5779.80 0.900 -0.063 5786.20 0.890 0.99 0.003 0.00 0.000 0.003 0.04 0.049 0.00 0.118 0.015 0.140 0.006 0.010 2.4 14.2 -0.028 5796.65 0.125 -0.008 5802.04 0.351 1.00 0.005 0.03 0.000 0.004 0.18 0.190 0.00 0.085 0.009
0.007 0.002 0.005 5.7 1.4 -0.309 5890.12 0.528 -0.397 5901.56 0.479 0.560 5889.81 0.387 -0.257 -0.480 0.351 1.00 0.104 0.10 0.021 0.004 0.01 0.005 0.116 0.02 0.021 0.080 0.020 0.089 0.00 0.816 0.408 0.477 0.340 0.576 0.139 0.007 0.107 0.025 2.9 64.6

3.2 23.3 0 1 0 0 1 1

1550 5.63350 -69.14486 279.52490 -31.72844 -0.013 5780.82 0.900 -0.031 5785.83 0.784 0.99 0.002 0.16 0.000 0.002 0.07 0.074 0.00 0.643 0.030 0.062 0.005 0.007 6.0 8.2 -0.014 5797.60 0.200 -0.007 5803.08 1.000 1.01 0.004 0.06 0.064 0.002 0.00 0.000 0.00 0.490 0.007
0.018 0.003 0.004 2.4 4.1 -0.159 5890.44 0.578 -0.268 5901.50 0.438 0.260 5889.83 0.273 -0.144 -0.322 0.176 1.01 0.009 0.06 0.032 0.004 0.01 0.006 0.019 0.01 0.013 0.008 0.009 0.017 0.00 0.969 0.230 0.294 0.208 0.353 0.018 0.006 0.016 0.011 13.0 52.1
13.0 32.0 0 0 0 0 1 1

1345 5.60854 -69.17303 279.57663 -31.85728 -0.023 5780.65 0.360 -0.047 5786.07 0.831 0.99 0.001 0.03 0.000 0.001 0.02 0.023 0.00 0.160 0.021 0.098 0.001 0.003 17.3 28.5 0.000 5797.17 0.530 -0.011 5802.11 1.000 1.00 0.000 0.00 0.000 0.002 0.18 0.000 0.00 0.541 -0.000
0.026 0.000 0.004 0.0 6.5 -0.117 5890.38 0.540 -0.242 5901.62 0.411 0.170 5889.86 0.291 -0.084 -0.231 0.082 1.00 0.019 0.13 0.055 0.005 0.01 0.008 0.033 0.02 0.030 0.013 0.014 0.025 0.00 1.754 0.158 0.249 0.114 0.237 0.030 0.007 0.021 0.016 5.2 36.5
5.4 15.3 1 1 0 0 1 1

1740 5.66704 -69.13314 279.48746 -31.55175 -0.020 5781.27 0.665 -0.039 5785.97 0.900 1.00 0.002 0.08 0.087 0.002 0.05 0.000 0.00 0.591 0.033 0.087 0.006 0.004 5.9 21.4 -0.013 5798.19 0.234 -0.023 5802.96 0.388 0.99 0.003 0.06 0.057 0.002 0.04 0.043 0.00 0.365 0.008
0.022 0.002 0.003 3.1 7.0 -0.222 5890.26 0.480 -0.269 5901.57 0.454 0.352 5889.92 0.342 -0.163 -0.374 0.274 1.00 0.080 0.13 0.029 0.004 0.01 0.006 0.098 0.02 0.025 0.061 0.011 0.075 0.00 0.965 0.268 0.306 0.196 0.425 0.098 0.006 0.074 0.014 2.7 51.2
2.6 30.9 0 1 0 1 1 1

1176 5.59404 -69.18842 279.60608 -31.93204 -0.007 5781.80 0.900 -0.127 5785.93 0.900 0.98 0.001 0.00 0.000 0.001 0.01 0.000 0.00 0.225 0.016 0.288 0.003 0.003 5.9 103.4 0.000 5798.29 0.460 -0.045 5803.18 1.000 1.00 0.000 0.00 0.000 0.002 0.05 0.000 0.00 0.551 -0.000
0.113 0.000 0.004 0.0 25.8 -0.103 5890.64 0.838 -0.451 5901.41 0.510 0.194 5889.70 0.333 -0.077 -0.521 0.188 1.01 0.005 0.08 0.053 0.004 0.00 0.004 0.011 0.01 0.014 0.004 0.012 0.015 0.00 0.939 0.216 0.576 0.161 0.666 0.017 0.007 0.014 0.016 13.0 84.3
11.8 40.7 0 1 0 1 1 1

1530 5.63054 -69.17436 279.56152 -31.74066 -0.009 5781.21 0.900 -0.078 5786.11 0.900 0.98 0.001 0.13 0.000 0.001 0.01 0.000 0.00 0.283 0.021 0.177 0.003 0.003 8.1 69.6 -0.022 5797.82 0.290 -0.032 5802.65 0.376 1.00 0.003 0.05 0.048 0.003 0.04 0.038 0.00 0.686 0.016
0.030 0.003 0.004 4.6 7.7 -0.137 5890.29 0.530 -0.380 5901.53 0.489 0.281 5889.89 0.363 -0.113 -0.458 0.191 1.00 0.055 0.19 0.047 0.003 0.01 0.004 0.071 0.02 0.028 0.043 0.010 0.056 0.00 0.908 0.182 0.466 0.151 0.562 0.075 0.006 0.059 0.013 2.4 78.9
2.5 43.2 0 1 0 1 1 1

1485 5.62526 -69.18522 279.57812 -31.76732 -0.013 5781.24 0.360 -0.125 5786.03 0.900 0.99 0.001 0.05 0.000 0.001 0.01 0.000 0.00 0.266 0.012 0.282 0.001 0.002 10.1 136.6 0.000 5797.73 0.479 -0.029 5802.69 0.717 1.00 0.000 0.00 0.000 0.002 0.05 0.056 0.00 0.795 -0.000
0.052 0.000 0.005 0.0 9.8 -0.202 5890.32 0.530 -0.391 5901.52 0.426 0.219 5889.87 0.391 -0.140 -0.490 0.202 1.00 0.085 0.22 0.058 0.003 0.00 0.003 0.119 0.03 0.040 0.064 0.012 0.088 0.00 1.320 0.269 0.417 0.186 0.522 0.116 0.005 0.088 0.013 2.3 86.8
2.1 40.2 0 1 0 1 1 1

1240 5.59995 -69.20236 279.61765 -31.89905 -0.023 5781.58 0.669 -0.106 5786.10 0.900 0.99 0.002 0.06 0.064 0.002 0.01 0.000 0.00 0.471 0.038 0.240 0.005 0.003 8.1 69.9 0.000 5798.10 0.483 -0.057 5802.97 0.475 0.99 0.000 0.00 0.000 0.003 0.02 0.026 0.00 0.771 -0.000
0.068 0.000 0.005 0.0 14.1 -0.157 5890.53 0.271 -0.420 5901.58 0.401 0.080 5889.66 0.339 -0.096 -0.668 0.334 1.00 0.006 0.01 0.013 0.005 0.01 0.006 0.005 0.01 0.026 0.007 0.152 0.151 0.00 1.102 0.106 0.422 0.065 0.671 0.007 0.008 0.005 0.153 16.1 53.1
11.9 4.4 0 1 0 1 1 1

1544 5.63228 -69.19742 279.58716 -31.72873 -0.020 5781.37 0.366 -0.137 5786.07 0.900 0.99 0.003 0.05 0.057 0.002 0.01 0.000 0.00 0.099 0.019 0.309 0.004 0.004 4.9 82.4 0.000 5798.25 0.125 -0.077 5802.95 0.713 1.00 0.000 0.00 0.000 0.002 0.02 0.025 0.00 0.128 -0.000
0.138 0.000 0.006 0.0 22.3 -0.128 5890.52 0.378 -0.374 5901.55 0.422 0.171 5889.84 0.400 -0.106 -0.471 0.170 1.00 0.011 0.05 0.029 0.004 0.01 0.004 0.016 0.04 0.000 0.010 0.018 0.020 0.00 0.732 0.121 0.395 0.100 0.498 0.014 0.005 0.012 0.020 8.7 72.0

8.4 25.3 0 1 0 1 1 1

measures_smcb.dat

983	1.09695	-72.80500	301.44836	-44.28177	-0.229	3933.97	0.332	-0.260	3935.61	0.343	-0.115	3936.83	0.139	0.97	0.015	0.02	0.025	0.015	0.02	0.023	0.022	0.03	0.032	0.00	0.323	0.190	0.224	0.040	0.019	0.019	0.012	10.0	11.6	3.4	1	1
942	1.06833	-72.73080	301.61804	-44.36510	-0.158	3933.99	0.318	-0.270	3935.52	0.273	-0.041	3936.22	0.400	1.00	0.003	0.01	0.008	0.005	0.01	0.006	0.004	0.07	0.000	0.00	0.136	0.126	0.185	0.041	0.004	0.005	0.004	31.4	36.1	9.1	1	1
762	0.96979	-72.60278	302.22449	-44.51616	-0.137	3933.99	0.256	-0.450	3935.57	0.275	-0.303	3936.29	0.203	0.99	0.005	0.01	0.010	0.005	0.00	0.005	0.005	0.01	0.006	0.00	0.320	0.088	0.310	0.154	0.005	0.006	0.005	19.0	48.5	30.5	1	1
929	1.06093	-72.74741	301.66556	-44.35075	-0.174	3933.96	0.314	-0.383	3935.62	0.377	-0.051	3936.33	0.100	0.99	0.007	0.01	0.015	0.007	0.01	0.009	0.013	0.03	0.000	0.00	0.362	0.137	0.361	0.013	0.009	0.011	0.003	15.7	33.4	3.9	1	1
950	1.07309	-72.80672	301.59592	-44.28790	-0.131	3934.05	0.286	-0.225	3935.54	0.396	-0.114	3936.37	0.192	1.00	0.005	0.01	0.013	0.004	0.01	0.014	0.007	0.02	0.015	0.00	0.049	0.094	0.223	0.055	0.006	0.009	0.005	16.9	24.4	10.0	1	1
957	1.07814	-72.82575	301.56662	-44.26732	-0.119	3934.02	0.345	-0.229	3935.49	0.315	-0.058	3936.43	0.273	1.00	0.004	0.01	0.012	0.004	0.01	0.009	0.004	0.03	0.029	0.00	0.211	0.103	0.181	0.040	0.005	0.006	0.005	21.5	31.5	7.8	1	1
987	1.10056	-72.88728	301.43515	-44.19849	-0.155	3933.92	0.225	-0.330	3935.67	0.330	-0.119	3936.48	0.146	0.99	0.004	0.01	0.007	0.004	0.00	0.005	0.005	0.01	0.008	0.00	0.107	0.087	0.273	0.044	0.004	0.005	0.003	23.3	51.8	13.7	1	1
936	1.06400	-72.82750	301.65405	-44.26994	-0.189	3934.00	0.257	-0.310	3935.54	0.307	-0.109	3936.37	0.203	0.99	0.006	0.01	0.009	0.006	0.01	0.008	0.007	0.02	0.017	0.00	0.028	0.122	0.239	0.055	0.006	0.008	0.006	21.0	30.9	9.5	1	1
958	1.07915	-72.89658	301.56754	-44.19635	-0.181	3933.96	0.238	-0.355	3935.55	0.392	-0.036	3936.84	0.125	0.99	0.004	0.01	0.007	0.004	0.00	0.005	0.006	0.02	0.025	0.00	0.135	0.108	0.348	0.011	0.004	0.005	0.003	26.0	63.9	3.8	1	1
813	0.99703	-72.72244	302.06094	-44.39159	-0.126	3933.97	0.356	-0.357	3935.55	0.334	-0.094	3936.38	0.274	1.00	0.007	0.02	0.023	0.007	0.01	0.014	0.009	0.05	0.042	0.00	0.525	0.112	0.299	0.064	0.009	0.014	0.012	12.1	21.7	5.6	1	1
868	1.03136	-72.75450	301.84976	-44.35176	-0.155	3934.07	0.223	-0.304	3935.45	0.276	-0.123	3936.26	0.400	0.99	0.005	0.01	0.008	0.005	0.01	0.006	0.004	0.02	0.000	0.00	0.454	0.086	0.211	0.124	0.004	0.006	0.004	20.2	35.9	27.9	1	1
996	1.11054	-72.96806	301.38315	-44.11443	-0.181	3933.94	0.315	-0.173	3935.62	0.400	-0.060	3936.72	0.201	0.97	0.006	0.01	0.012	0.005	0.01	0.000	0.007	0.03	0.029	0.00	0.215	0.143	0.173	0.030	0.007	0.005	0.006	20.1	37.0	5.3	1	1
848	1.01919	-72.76119	301.92584	-44.34804	-0.157	3933.99	0.218	-0.290	3935.57	0.282	-0.078	3936.24	0.275	1.00	0.005	0.01	0.008	0.008	0.02	0.012	0.008	0.07	0.044	0.00	0.127	0.086	0.205	0.054	0.004	0.011	0.010	19.9	19.5	5.2	1	1
917	1.05666	-72.95461	301.71082	-44.14523	-0.696	3932.93	0.600	-0.562	3934.34	0.400	-0.441	3935.60	0.400	0.74	0.023	0.03	0.000	0.027	0.03	0.000	0.026	0.00	0.000	0.01	0.426	1.046	0.564	0.442	0.034	0.027	0.026	30.6	20.7	16.7	0	0
856	1.02392	-72.88494	301.90585	-44.22335	-0.139	3933.96	0.273	-0.458	3935.68	0.313	-0.045	3936.35	0.398	1.00	0.003	0.01	0.006	0.018	0.01	0.005	0.010	0.18	0.095	0.00	0.095	0.095	0.359	0.045	0.003	0.015	0.015	33.9	23.6	3.1	1	1

953	1.07585	-73.00058	301.59805	-44.09366	-0.131	3933.93	0.337	-0.292	3935.71	0.352	-0.058	3936.56	0.218	1.00	0.003	0.01	0.010	0.003	0.01	0.007	0.004	0.02	0.024	0.00	0.187	0.110	0.257	0.032	0.004	0.006	0.004	24.7	42.9	7.6	1	1
784	0.98309	-72.74267	302.14896	-44.37407	-0.138	3933.97	0.279	-0.436	3935.49	0.286	-0.042	3936.56	0.192	1.00	0.003	0.01	0.006	0.003	0.00	0.002	0.003	0.02	0.017	0.00	0.115	0.096	0.312	0.020	0.003	0.003	0.002	33.4	105.3	8.5	1	1
785	0.98484	-72.78902	302.14075	-44.32744	-0.229	3934.41	0.600	-0.331	3935.65	0.400	-0.268	3936.94	0.400	0.78	0.012	0.05	0.000	0.015	0.03	0.000	0.013	0.03	0.000	0.00	0.072	0.345	0.332	0.269	0.018	0.015	0.013	19.2	21.9	20.3	0	0
773	0.97489	-72.68630	302.19693	-44.43185	-0.150	3934.00	0.274	-0.414	3935.50	0.327	-0.132	3936.33	0.273	1.03	0.010	0.02	0.022	0.010	0.02	0.015	0.011	0.05	0.039	0.00	0.055	0.103	0.339	0.090	0.011	0.018	0.015	9.6	19.1	6.0	1	1
689	0.93819	-72.79353	302.43021	-44.32996	-0.146	3934.57	0.600	-0.349	3935.61	0.381	-0.077	3936.56	0.174	0.98	0.007	0.04	0.000	0.008	0.01	0.013	0.009	0.03	0.026	0.00	0.225	0.220	0.333	0.033	0.011	0.014	0.006	20.6	24.4	5.3	1	1
827	1.00534	-72.89878	302.02109	-44.21373	-0.171	3933.99	0.312	-0.066	3935.00	0.400	-0.089	3935.97	0.400	0.98	0.006	0.02	0.016	0.005	0.07	0.000	0.005	0.04	0.000	0.00	0.116	0.134	0.066	0.089	0.008	0.005	0.005	16.5	12.3	16.4	1	0
964	1.08265	-73.07111	301.56381	-44.02117	-0.160	3933.88	0.319	-0.423	3935.66	0.391	0.000	3936.60	0.200	0.99	0.005	0.01	0.012	0.004	0.00	0.005	-0.000	0.00	0.000	0.00	0.203	0.128	0.414	-0.000	0.006	0.007	0.000	21.2	61.4	0.0	1	1
772	0.97486	-72.82422	302.20450	-44.29404	-0.150	3934.00	0.290	-0.502	3935.50	0.400	-0.308	3936.26	0.299	0.97	0.005	0.01	0.012	0.007	0.01	0.000	0.006	0.01	0.008	0.00	0.081	0.109	0.503	0.231	0.006	0.007	0.008	19.1	76.1	29.2	1	1
822	1.00024	-72.92297	302.05399	-44.19062	-0.135	3933.88	0.404	-0.316	3935.57	0.280	-0.448	3936.48	0.360	0.97	0.005	0.02	0.019	0.007	0.01	0.010	0.006	0.01	0.009	0.00	0.020	0.136	0.221	0.405	0.008	0.009	0.011	16.6	24.6	36.2	1	1
804	0.99151	-72.92767	302.10785	-44.18766	-0.167	3934.06	0.386	-0.202	3935.45	0.218	-0.236	3935.96	0.400	0.97	0.005	0.01	0.014	0.012	0.01	0.013	0.010	0.02	0.000	0.00	0.102	0.161	0.110	0.237	0.007	0.009	0.010	21.7	11.9	24.2	1	1
1002	1.11870	-73.18603	301.35904	-43.89426	-0.160	3933.97	0.453	-0.169	3935.33	0.211	-0.284	3936.03	0.254	0.97	0.003	0.01	0.011	0.005	0.01	0.010	0.004	0.01	0.007	0.00	0.068	0.182	0.089	0.181	0.006	0.005	0.005	31.5	18.8	33.5	1	1
770	0.97290	-72.89628	302.22040	-44.22235	-0.496	3933.79	0.600	-0.338	3935.17	0.400	-0.267	3936.38	0.400	0.52	0.022	0.04	0.000	0.027	0.05	0.000	0.025	0.05	0.000	0.01	0.250	0.746	0.339	0.268	0.033	0.027	0.025	22.5	12.7	10.5	0	0
750	0.96354	-72.66150	302.26663	-44.45848	-0.152	3934.00	0.238	-0.526	3935.63	0.306	0.000	3936.60	0.200	0.98	0.007	0.01	0.012	0.006	0.00	0.004	-0.000	0.00	0.000	0.00	0.302	0.091	0.404	-0.000	0.006	0.007	0.000	14.8	57.6	0.0	1	1
809	0.99354	-72.97642	302.09842	-44.13857	-0.513	3934.38	0.600	-0.692	3935.36	0.400	-0.508	3936.20	0.400	0.90	0.016	0.03	0.000	0.022	0.02	0.000	0.019	0.02	0.000	0.00	0.665	0.771	0.694	0.509	0.024	0.022	0.020	32.4	31.7	26.1	0	0
759	0.96853	-72.71375	302.23807	-44.40548	-0.148	3933.97	0.274	-0.464	3935.56	0.290	-0.277	3936.28	0.244	1.00	0.003	0.01	0.007	0.003	0.00	0.004	0.004	0.01	0.006	0.00	0.086	0.101	0.337	0.169	0.003	0.006	0.005	29.7	60.1	34.8	1	1
757	0.96730	-72.63145	302.24158	-44.48793	-0.154	3933.97	0.315	-0.368	3935.54	0.263	-0.051	3936.28	0.245	0.99	0.005	0.01	0.013	0.006	0.01	0.008	0.006	0.06	0.054	0.00	0.161	0.121	0.243	0.031	0.007	0.008	0.008	18.4	29.2	4.0	1	1

744	0.96043	-72.90772	302.29767	-44.21288	-0.128	3933.93	0.253	-0.500	3935.54	0.328	-0.063	3936.43	0.270	0.99	0.005	0.01	0.012	0.005	0.01	0.005	0.005	0.04	0.036	0.00	0.193	0.082	0.411	0.042	0.005	0.008	0.007	16.6	53.7	6.5	1	1
844	1.01627	-73.06277	301.96570	-44.04755	-0.129	3934.17	0.600	-0.301	3935.56	0.278	-0.790	3936.29	0.400	0.98	0.006	0.04	0.000	0.012	0.02	0.015	0.011	0.01	0.000	0.00	0.331	0.193	0.210	0.792	0.009	0.014	0.011	20.5	14.8	69.1	0	1
712	0.94703	-72.75514	302.37381	-44.36724	-0.146	3933.98	0.242	-0.395	3935.51	0.400	-0.081	3936.53	0.167	1.00	0.006	0.01	0.012	0.004	0.01	0.000	0.008	0.02	0.019	0.00	0.337	0.088	0.396	0.034	0.006	0.004	0.005	15.0	89.1	6.9	1	1
746	0.96251	-72.67152	302.27356	-44.44863	-0.175	3934.02	0.302	-0.535	3935.53	0.294	-0.051	3936.55	0.204	1.01	0.014	0.03	0.029	0.015	0.01	0.010	0.017	0.08	0.083	0.00	0.190	0.133	0.394	0.026	0.017	0.017	0.014	8.0	23.3	1.9	1	1
993	1.10645	-73.36772	301.45279	-43.71754	-0.351	3935.22	0.600	-0.703	3936.16	0.400	-0.394	3937.09	0.400	0.87	0.020	0.05	0.000	0.027	0.02	0.000	0.020	0.03	0.000	0.01	0.380	0.528	0.704	0.395	0.030	0.027	0.020	17.8	26.2	20.0	0	0
892	1.04623	-73.22436	301.79755	-43.87888	-0.545	3934.77	0.600	-0.817	3935.93	0.400	-0.568	3936.90	0.400	0.84	0.021	0.03	0.000	0.028	0.02	0.000	0.025	0.03	0.000	0.01	0.229	0.820	0.819	0.570	0.031	0.028	0.025	26.6	29.7	23.0	0	0
853	1.02276	-73.15672	301.93329	-43.95224	-0.148	3933.94	0.250	-0.406	3935.75	0.319	-0.114	3936.41	0.190	1.00	0.004	0.01	0.007	0.003	0.01	0.006	0.006	0.01	0.012	0.00	0.044	0.092	0.324	0.055	0.004	0.006	0.005	25.7	50.0	12.0	1	1
720	0.95143	-72.91125	302.35315	-44.21062	-0.598	3935.21	0.600	-0.657	3936.18	0.400	-0.393	3937.04	0.400	0.88	0.017	0.03	0.000	0.023	0.02	0.000	0.020	0.03	0.000	0.00	0.735	0.899	0.659	0.394	0.025	0.023	0.020	35.4	28.3	19.6	0	0
952	1.07514	-73.48189	301.64932	-43.61376	-0.192	3933.95	0.330	-0.505	3935.40	0.400	0.000	3936.60	0.200	1.02	0.010	0.02	0.020	0.008	0.01	0.000	-0.000	0.00	0.000	0.00	0.419	0.159	0.506	-0.000	0.013	0.008	0.000	12.5	63.6	0.0	1	1
826	1.00430	-73.17536	302.04581	-43.93768	-0.559	3934.87	0.600	-0.770	3935.98	0.400	-0.521	3936.93	0.400	0.81	0.017	0.03	0.000	0.024	0.02	0.000	0.021	0.02	0.000	0.01	0.580	0.841	0.772	0.522	0.026	0.024	0.021	31.9	32.4	24.7	0	0
885	1.04316	-73.42056	301.83228	-43.68384	-0.182	3933.90	0.248	-0.312	3935.83	0.400	-0.332	3936.60	0.273	1.02	0.008	0.01	0.013	0.008	0.02	0.000	0.008	0.01	0.010	0.00	0.060	0.113	0.312	0.227	0.008	0.008	0.010	15.1	39.9	22.8	1	1
956	1.07787	-73.58459	301.64334	-43.51050	-0.240	3933.91	0.214	-0.320	3935.95	0.400	0.000	3936.60	0.200	1.03	0.016	0.02	0.017	0.011	0.02	0.000	-0.000	0.00	0.000	0.00	1.280	0.129	0.321	-0.000	0.013	0.011	0.000	9.7	30.4	0.0	1	1
926	1.05968	-73.50725	301.74249	-43.59291	-0.164	3933.83	0.311	-0.267	3935.59	0.328	-0.060	3936.46	0.400	1.01	0.004	0.01	0.008	0.004	0.01	0.007	0.004	0.04	0.000	0.00	0.101	0.127	0.220	0.060	0.004	0.006	0.004	28.8	37.1	14.0	1	1
919	1.05735	-73.52561	301.75778	-43.57523	-0.857	3935.39	0.600	-0.775	3936.46	0.400	-0.604	3937.33	0.400	0.68	0.021	0.02	0.000	0.030	0.03	0.000	0.028	0.03	0.000	0.01	0.227	1.289	0.777	0.606	0.032	0.030	0.028	40.1	25.7	21.3	0	0
897	1.04884	-73.52572	301.80765	-43.57740	-0.448	3934.87	0.600	-0.802	3935.96	0.400	-0.642	3936.97	0.400	0.81	0.028	0.06	0.000	0.037	0.03	0.000	0.031	0.03	0.000	0.01	1.656	0.674	0.804	0.644	0.042	0.037	0.031	16.2	21.7	21.0	0	0
738	0.95729	-73.01317	302.32175	-44.10794	-0.143	3933.93	0.233	-0.407	3935.67	0.341	-0.339	3936.39	0.232	1.00	0.005	0.01	0.009	0.004	0.01	0.008	0.007	0.01	0.006	0.00	0.332	0.084	0.348	0.197	0.004	0.009	0.007	20.2	40.0	29.6	1	1

704	0.94304	-72.81139	302.40082	-44.31152	-0.133	3934.29	0.600	-0.359	3935.48	0.351	-0.098	3936.70	0.100	1.01	0.013	0.10	0.000	0.018	0.02	0.023	0.026	0.04	0.000	0.01	2.434	0.200	0.316	0.025	0.020	0.026	0.006	9.9	12.1	3.8	0	1
829	1.00612	-73.34358	302.04608	-43.76928	-0.537	3933.04	0.600	-0.522	3934.43	0.400	-0.420	3935.66	0.400	0.67	0.020	0.03	0.000	0.025	0.03	0.000	0.024	0.03	0.000	0.01	0.501	0.807	0.523	0.421	0.031	0.025	0.024	26.2	21.1	17.8	0	0
729	0.95573	-73.04258	302.33255	-44.07876	-0.163	3933.94	0.284	-0.390	3935.59	0.354	-0.221	3936.46	0.215	1.01	0.003	0.01	0.007	0.003	0.00	0.005	0.004	0.01	0.006	0.00	0.258	0.116	0.346	0.119	0.004	0.005	0.004	31.6	65.0	32.0	1	1
807	0.99346	-73.35756	302.12222	-43.75781	-0.186	3933.95	0.243	-0.023	3935.14	0.400	-0.495	3936.21	0.243	1.06	0.003	0.01	0.005	0.002	0.06	0.000	0.003	0.00	0.002	0.00	0.025	0.114	0.023	0.302	0.003	0.002	0.003	34.2	9.2	89.2	1	1
817	0.99779	-73.40850	302.09970	-43.70609	-0.183	3934.31	0.600	-0.665	3935.78	0.400	-0.504	3936.44	0.400	0.98	0.008	0.04	0.000	0.024	0.02	0.000	0.025	0.02	0.000	0.00	0.466	0.276	0.667	0.505	0.013	0.025	0.025	21.6	27.2	20.0	0	1
867	1.03081	-73.69036	301.92599	-43.41751	-0.572	3935.25	0.600	-0.604	3936.42	0.400	-0.472	3937.42	0.400	0.69	0.020	0.03	0.000	0.027	0.03	0.000	0.024	0.03	0.000	0.01	0.654	0.860	0.605	0.474	0.030	0.027	0.024	28.6	22.8	19.9	0	0
654	0.92765	-72.86889	302.49799	-44.25577	-0.166	3934.00	0.257	-0.349	3935.43	0.400	-0.263	3936.14	0.400	1.01	0.003	0.01	0.006	0.005	0.01	0.000	0.005	0.01	0.000	0.00	0.295	0.107	0.350	0.264	0.003	0.005	0.005	33.9	71.8	54.7	1	1
679	0.93489	-72.84978	302.45267	-44.27411	-0.168	3933.99	0.218	-0.315	3935.18	0.400	-0.271	3936.05	0.400	1.00	0.009	0.01	0.015	0.008	0.02	0.000	0.008	0.02	0.000	0.00	1.312	0.092	0.316	0.272	0.008	0.008	0.008	11.5	37.6	32.8	1	1
840	1.01344	-73.68786	302.02643	-43.42389	-0.270	3934.24	0.499	-0.892	3935.61	0.400	-0.346	3936.42	0.400	0.95	0.011	0.03	0.031	0.016	0.01	0.000	0.018	0.03	0.000	0.00	1.030	0.337	0.894	0.347	0.025	0.016	0.018	13.3	54.4	19.7	1	1
726	0.95472	-73.13233	302.34265	-43.98920	-0.103	3934.28	0.600	-0.721	3935.85	0.393	0.000	3936.51	0.400	1.03	0.008	0.07	0.000	0.010	0.01	0.007	0.000	0.00	0.000	0.00	0.204	0.155	0.710	-0.000	0.012	0.017	0.000	13.0	42.6	0.0	1	1
766	0.97167	-73.53100	302.26056	-43.58827	-0.237	3933.86	0.290	-0.352	3935.72	0.400	-0.818	3936.64	0.400	0.96	0.012	0.02	0.018	0.012	0.02	0.000	0.012	0.01	0.000	0.00	0.718	0.172	0.353	0.820	0.014	0.012	0.012	12.5	30.4	70.8	1	1
715	0.94803	-73.15689	302.38409	-43.96553	-0.501	3935.02	0.600	-0.592	3936.10	0.400	-0.380	3937.09	0.400	0.79	0.016	0.03	0.000	0.022	0.02	0.000	0.018	0.03	0.000	0.01	1.219	0.754	0.593	0.381	0.024	0.022	0.018	31.1	27.3	21.1	0	0
756	0.96730	-73.56397	302.28781	-43.55599	-0.531	3935.43	0.600	-0.525	3936.61	0.400	-0.432	3937.60	0.400	0.61	0.020	0.03	0.000	0.026	0.03	0.000	0.024	0.00	0.000	0.01	0.516	0.799	0.526	0.433	0.030	0.026	0.024	26.4	20.0	18.2	0	0
692	0.93842	-72.98697	302.43591	-44.13656	-0.229	3934.41	0.600	-0.827	3935.51	0.400	-0.437	3936.35	0.400	0.99	0.011	0.05	0.000	0.016	0.01	0.000	0.016	0.02	0.000	0.00	0.921	0.344	0.829	0.438	0.017	0.016	0.016	20.5	50.4	27.0	1	1
488	0.88594	-72.89198	302.75555	-44.23565	-0.154	3934.01	0.309	-0.297	3935.47	0.400	-0.057	3936.50	0.179	1.01	0.003	0.01	0.007	0.002	0.00	0.000	0.004	0.01	0.015	0.00	0.202	0.120	0.298	0.025	0.004	0.002	0.003	33.6	127.6	9.5	1	1
719	0.95045	-73.44344	302.38144	-43.67880	-0.283	3934.58	0.600	-0.781	3935.75	0.400	-0.540	3936.58	0.400	0.94	0.012	0.04	0.000	0.019	0.02	0.000	0.019	0.02	0.000	0.00	0.796	0.425	0.783	0.541	0.019	0.019	0.019	22.8	40.9	27.8	0	1

702	0.94140	-73.09866	302.42194	-44.02456	-0.149	3933.96	0.237	-0.394	3935.40	0.375	-0.247	3936.38	0.216	1.00	0.004	0.01	0.007	0.003	0.00	0.005	0.004	0.00	0.005	0.00	0.139	0.089	0.370	0.134	0.004	0.005	0.004	24.6	68.0	35.6	1	1
554	0.89893	-72.86811	302.67511	-44.25886	-0.157	3934.00	0.299	-0.343	3935.38	0.369	-0.082	3936.44	0.222	1.00	0.004	0.01	0.009	0.004	0.00	0.005	0.004	0.01	0.015	0.00	0.231	0.118	0.317	0.045	0.004	0.006	0.004	26.3	56.1	11.5	1	1
707	0.94415	-73.57308	302.42368	-43.54999	-0.150	3933.88	0.223	-0.558	3936.12	0.400	-0.298	3936.80	0.400	0.94	0.011	0.02	0.019	0.017	0.01	0.000	0.017	0.03	0.000	0.00	0.547	0.084	0.559	0.298	0.009	0.017	0.017	9.1	32.8	17.5	1	1
698	0.93979	-73.39597	302.44269	-43.72754	-0.156	3934.01	0.150	-0.411	3935.67	0.259	0.000	3936.54	0.142	0.93	0.132	0.17	0.000	0.120	0.09	0.089	0.000	0.00	0.000	0.03	21.531	0.059	0.267	-0.000	0.050	0.120	0.000	1.2	2.2	0.0	1	1
609	0.91414	-72.96198	302.58371	-44.16393	-0.191	3933.99	0.230	-0.425	3935.60	0.400	-0.280	3936.57	0.294	1.01	0.005	0.01	0.007	0.003	0.01	0.000	0.004	0.01	0.006	0.00	0.262	0.110	0.426	0.206	0.004	0.003	0.005	26.9	122.9	39.2	1	1
633	0.92036	-72.94686	302.54517	-44.17852	-0.217	3933.97	0.243	-0.384	3935.46	0.400	-0.204	3936.67	0.233	1.01	0.005	0.01	0.006	0.003	0.00	0.000	0.005	0.01	0.007	0.00	0.346	0.132	0.385	0.119	0.004	0.003	0.004	29.8	115.2	27.2	1	1
519	0.89261	-72.94006	302.71524	-44.18726	-0.169	3934.00	0.252	-0.248	3935.46	0.369	-0.055	3936.56	0.165	1.01	0.004	0.01	0.006	0.003	0.01	0.005	0.004	0.02	0.016	0.00	0.415	0.106	0.229	0.023	0.003	0.004	0.003	30.9	52.2	8.2	1	1
526	0.89430	-73.09386	302.70746	-44.03339	-0.143	3933.95	0.245	-0.350	3935.67	0.400	-0.062	3936.51	0.224	1.01	0.004	0.01	0.008	0.003	0.01	0.000	0.004	0.02	0.019	0.00	0.229	0.088	0.351	0.035	0.004	0.003	0.004	24.8	123.8	9.4	1	1
562	0.90052	-73.11919	302.67020	-44.00772	-0.145	3933.95	0.255	-0.130	3935.07	0.202	-0.442	3935.76	0.400	1.01	0.003	0.01	0.006	0.004	0.01	0.007	0.003	0.00	0.000	0.00	0.174	0.093	0.066	0.443	0.003	0.003	0.003	31.1	21.4	169.8	1	1
607	0.91394	-73.32497	302.59418	-43.80102	-0.176	3933.97	0.247	-0.263	3935.59	0.324	-0.219	3936.21	0.254	1.01	0.003	0.00	0.005	0.005	0.02	0.011	0.010	0.01	0.008	0.00	0.103	0.109	0.213	0.140	0.003	0.008	0.008	41.6	25.3	17.4	1	1
631	0.92019	-73.44791	302.56036	-43.67759	-0.232	3933.97	0.218	-0.325	3935.05	0.400	-0.077	3937.32	0.221	1.01	0.004	0.00	0.005	0.003	0.00	0.000	0.004	0.01	0.014	0.00	0.101	0.127	0.326	0.042	0.004	0.003	0.004	34.9	114.8	11.9	1	1
517	0.89209	-73.14336	302.72162	-43.98401	-0.135	3933.95	0.248	-0.410	3935.65	0.384	-0.064	3936.39	0.158	1.01	0.003	0.01	0.008	0.003	0.00	0.005	0.005	0.01	0.016	0.00	0.213	0.084	0.395	0.025	0.003	0.006	0.003	25.0	68.0	7.6	1	1
492	0.88630	-73.17725	302.75708	-43.95037	-0.123	3934.28	0.600	-0.395	3935.69	0.400	-0.123	3936.54	0.144	1.01	0.005	0.03	0.000	0.006	0.01	0.000	0.010	0.01	0.014	0.00	0.748	0.185	0.396	0.045	0.007	0.006	0.006	25.3	67.4	7.7	1	1
587	0.90624	-73.63114	302.64676	-43.49545	-0.299	3933.94	0.275	-0.418	3935.71	0.283	-0.186	3936.38	0.321	1.01	0.005	0.01	0.005	0.015	0.02	0.010	0.010	0.04	0.027	0.00	0.283	0.206	0.297	0.150	0.005	0.014	0.015	38.4	20.6	9.9	1	1
508	0.89034	-73.00383	302.73013	-44.12361	-0.173	3934.08	0.321	-0.443	3935.61	0.400	-0.142	3936.77	0.279	1.02	0.006	0.01	0.014	0.005	0.01	0.000	0.007	0.02	0.017	0.00	0.507	0.139	0.444	0.099	0.008	0.005	0.008	17.4	85.5	13.0	1	1
534	0.89630	-73.23869	302.69785	-43.88846	-0.149	3933.94	0.258	-0.247	3935.39	0.333	-0.226	3936.25	0.265	1.02	0.003	0.01	0.006	0.003	0.01	0.007	0.003	0.01	0.006	0.00	0.093	0.096	0.206	0.150	0.003	0.005	0.004	30.6	39.7	35.1	1	1

479	0.88413	-73.29984	302.77164	-43.82787	-0.127	3934.04	0.320	-0.481	3935.71	0.400	-0.059	3936.49	0.241	1.01	0.003	0.01	0.010	0.003	0.00	0.000	0.004	0.02	0.022	0.00	0.155	0.101	0.482	0.036	0.004	0.003	0.004	25.3	156.3	9.0	1	1
446	0.87689	-73.12078	302.81332	-44.00716	-0.140	3933.98	0.261	-0.391	3935.65	0.400	-0.103	3936.65	0.198	1.01	0.004	0.01	0.010	0.003	0.00	0.000	0.005	0.01	0.012	0.00	0.286	0.091	0.392	0.051	0.005	0.003	0.004	20.1	118.7	12.7	1	1
428	0.87366	-73.16039	302.83316	-43.96764	-0.157	3933.95	0.292	-0.393	3935.51	0.364	-0.162	3936.24	0.400	1.02	0.006	0.01	0.013	0.010	0.02	0.012	0.015	0.04	0.000	0.00	0.100	0.115	0.359	0.163	0.007	0.015	0.015	17.0	24.7	11.0	1	1
467	0.88121	-73.13189	302.78729	-43.99593	-0.131	3933.99	0.252	-0.473	3935.63	0.385	-0.076	3936.55	0.218	1.03	0.004	0.01	0.008	0.003	0.00	0.004	0.004	0.02	0.016	0.00	0.294	0.083	0.456	0.041	0.003	0.006	0.004	24.0	82.6	11.2	1	1
464	0.88038	-73.37036	302.79477	-43.75748	-0.187	3934.00	0.240	-0.476	3935.71	0.372	-0.102	3936.39	0.191	1.00	0.004	0.01	0.007	0.004	0.01	0.007	0.009	0.02	0.017	0.00	0.227	0.112	0.444	0.049	0.004	0.009	0.006	27.0	49.4	8.1	1	1
447	0.87700	-73.39391	302.81506	-43.73404	-0.182	3933.98	0.208	-0.464	3935.67	0.344	-0.203	3936.49	0.207	1.00	0.003	0.00	0.004	0.002	0.00	0.003	0.003	0.00	0.005	0.00	0.125	0.095	0.400	0.105	0.002	0.004	0.003	38.4	94.7	35.9	1	1
470	0.88176	-73.22078	302.78494	-43.90702	-0.135	3933.96	0.234	-0.592	3935.73	0.400	-0.180	3936.75	0.210	1.01	0.004	0.01	0.007	0.003	0.00	0.000	0.004	0.01	0.005	0.00	0.101	0.079	0.594	0.094	0.003	0.003	0.003	24.1	234.7	29.7	1	1
460	0.87942	-73.31014	302.79987	-43.81774	-0.149	3933.92	0.286	-0.318	3935.61	0.399	-0.255	3936.29	0.306	1.01	0.005	0.01	0.012	0.016	0.05	0.025	0.031	0.03	0.018	0.00	0.296	0.107	0.318	0.195	0.006	0.025	0.026	18.8	12.5	7.4	1	1
410	0.87012	-73.31064	302.85541	-43.81747	-0.152	3933.95	0.256	-0.523	3935.55	0.320	-0.157	3936.34	0.224	1.01	0.003	0.01	0.006	0.003	0.00	0.003	0.003	0.01	0.007	0.00	0.147	0.098	0.419	0.088	0.003	0.005	0.003	33.8	92.0	25.5	1	1
468	0.88127	-72.78961	302.78320	-44.33819	-0.186	3934.01	0.229	-0.253	3935.04	0.400	-0.204	3935.96	0.400	1.01	0.004	0.01	0.007	0.004	0.01	0.000	0.004	0.01	0.000	0.00	0.202	0.106	0.253	0.205	0.004	0.004	0.004	26.9	69.1	55.3	1	1
429	0.87378	-73.05302	302.83163	-44.07500	-0.163	3933.99	0.229	-0.265	3935.61	0.400	-0.201	3936.63	0.240	1.01	0.003	0.00	0.005	0.002	0.00	0.000	0.003	0.00	0.004	0.00	0.106	0.093	0.266	0.121	0.003	0.002	0.003	34.8	126.0	42.0	1	1
415	0.87103	-73.17928	302.84915	-43.94880	-0.150	3933.99	0.238	-0.445	3935.75	0.400	-0.093	3936.67	0.206	1.01	0.003	0.01	0.005	0.002	0.00	0.000	0.003	0.01	0.009	0.00	0.109	0.089	0.446	0.048	0.003	0.002	0.003	33.1	214.1	18.3	1	1
393	0.86509	-73.37708	302.88565	-43.75109	-0.191	3933.99	0.221	-0.422	3935.60	0.342	-0.148	3936.45	0.224	1.01	0.003	0.00	0.004	0.003	0.00	0.004	0.003	0.01	0.007	0.00	0.127	0.106	0.362	0.083	0.003	0.004	0.003	40.0	81.7	25.7	1	1
333	0.85143	-73.45284	302.96661	-43.67535	-0.176	3933.99	0.234	-0.383	3935.59	0.308	-0.169	3936.51	0.244	1.01	0.003	0.00	0.004	0.002	0.00	0.003	0.003	0.01	0.006	0.00	0.161	0.103	0.296	0.104	0.002	0.003	0.003	41.9	87.1	35.9	1	1
317	0.84795	-73.46775	302.98709	-43.66041	-0.170	3933.99	0.250	-0.340	3935.64	0.291	-0.280	3936.57	0.225	1.01	0.002	0.00	0.004	0.002	0.00	0.002	0.002	0.00	0.003	0.00	0.132	0.107	0.248	0.158	0.002	0.003	0.002	49.4	95.4	71.5	1	1
395	0.86578	-73.34711	302.88144	-43.78106	-0.160	3933.98	0.231	-0.477	3935.66	0.350	-0.116	3936.53	0.208	1.01	0.003	0.00	0.005	0.002	0.00	0.003	0.003	0.01	0.008	0.00	0.072	0.093	0.418	0.060	0.002	0.004	0.003	37.4	107.8	22.4	1	1

224	0.82590	-73.70509	303.11389	-43.42245	-0.177	3933.92	0.265	-0.401	3935.59	0.270	-0.046	3936.52	0.283	1.01	0.002	0.00	0.004	0.002	0.00	0.002	0.002	0.02	0.020	0.00	0.115	0.117	0.271	0.032	0.002	0.003	0.003	51.4	101.0	11.6	1	1
267	0.83693	-73.57697	303.05115	-43.55096	-0.175	3933.94	0.243	-0.625	3935.58	0.255	-0.034	3936.37	0.374	1.01	0.003	0.00	0.004	0.004	0.00	0.002	0.002	0.06	0.055	0.00	0.022	0.106	0.399	0.032	0.002	0.004	0.005	44.2	100.1	6.2	1	1
238	0.82917	-73.62783	303.09592	-43.49985	-0.188	3933.99	0.245	-0.523	3935.57	0.294	-0.150	3936.30	0.308	1.00	0.004	0.01	0.007	0.007	0.01	0.006	0.007	0.03	0.023	0.00	0.160	0.115	0.385	0.116	0.004	0.010	0.010	27.0	39.8	11.6	1	1
208	0.82154	-73.65575	303.13992	-43.47160	-0.178	3933.95	0.237	-0.466	3935.65	0.324	-0.032	3936.38	0.117	1.01	0.003	0.01	0.005	0.003	0.00	0.003	0.005	0.02	0.023	0.00	0.131	0.106	0.379	0.009	0.003	0.004	0.002	33.4	87.7	3.9	1	1
349	0.85488	-73.39670	302.94629	-43.73152	-0.223	3934.00	0.249	-0.224	3935.40	0.279	-0.218	3936.48	0.219	1.00	0.003	0.00	0.003	0.002	0.00	0.004	0.003	0.00	0.003	0.00	0.179	0.139	0.157	0.120	0.002	0.003	0.002	57.4	59.8	51.9	1	1
360	0.85708	-73.35000	302.93326	-43.77822	-0.213	3933.99	0.227	-0.189	3935.48	0.284	-0.229	3936.48	0.248	1.01	0.003	0.00	0.003	0.003	0.00	0.005	0.003	0.00	0.004	0.00	0.175	0.121	0.135	0.142	0.002	0.003	0.003	49.6	45.2	51.9	1	1
452	0.87771	-73.08675	302.80804	-44.04117	-0.128	3933.98	0.237	-0.255	3935.36	0.315	-0.133	3936.37	0.357	1.01	0.003	0.01	0.006	0.002	0.01	0.005	0.002	0.01	0.010	0.00	0.095	0.076	0.201	0.119	0.002	0.004	0.004	31.7	55.9	29.8	1	1
312	0.84723	-73.40617	302.99164	-43.72198	-0.184	3933.97	0.252	-0.465	3935.59	0.367	-0.152	3936.47	0.256	1.01	0.004	0.01	0.006	0.003	0.00	0.005	0.004	0.01	0.010	0.00	0.237	0.116	0.428	0.097	0.004	0.006	0.005	31.9	67.3	20.3	1	1
272	0.83768	-73.43300	303.04800	-43.69495	-0.169	3933.98	0.218	-0.665	3935.75	0.384	-0.102	3936.65	0.169	1.00	0.005	0.01	0.007	0.004	0.00	0.003	0.006	0.01	0.012	0.00	0.159	0.092	0.641	0.043	0.004	0.006	0.004	22.8	99.0	11.2	1	1
341	0.85276	-73.26542	302.95914	-43.86278	-0.153	3933.96	0.236	-0.535	3935.62	0.344	-0.169	3936.48	0.278	1.01	0.004	0.01	0.007	0.003	0.00	0.004	0.004	0.01	0.011	0.00	0.169	0.090	0.461	0.118	0.003	0.006	0.005	26.4	73.0	22.2	1	1
244	0.83074	-73.43200	303.08908	-43.69574	-0.165	3933.95	0.252	-0.412	3935.52	0.279	-0.228	3936.57	0.222	1.01	0.004	0.01	0.007	0.004	0.00	0.003	0.004	0.00	0.005	0.00	0.131	0.104	0.288	0.127	0.004	0.004	0.004	27.3	69.4	34.7	1	1
150	0.80719	-73.54070	303.22595	-43.58580	-0.120	3933.95	0.286	-0.478	3935.67	0.309	-0.091	3936.66	0.141	1.01	0.007	0.02	0.021	0.007	0.01	0.006	0.010	0.02	0.019	0.00	0.272	0.086	0.371	0.032	0.008	0.009	0.006	10.6	43.0	5.7	1	1
190	0.81733	-73.46333	303.16785	-43.66379	-0.200	3933.98	0.263	-0.508	3935.54	0.279	-0.167	3936.47	0.236	1.01	0.003	0.00	0.005	0.003	0.00	0.002	0.003	0.01	0.006	0.00	0.109	0.132	0.355	0.099	0.003	0.004	0.003	41.1	96.3	29.8	1	1
231	0.82834	-73.38734	303.10385	-43.74030	-0.150	3933.97	0.255	-0.696	3935.68	0.288	-0.240	3936.61	0.289	1.00	0.004	0.01	0.008	0.004	0.00	0.003	0.004	0.01	0.007	0.00	0.338	0.096	0.503	0.174	0.004	0.005	0.005	23.8	95.5	32.9	1	1
180	0.81484	-73.40156	303.18369	-43.72541	-0.204	3933.98	0.254	-0.369	3935.56	0.297	-0.126	3936.54	0.230	1.01	0.004	0.01	0.007	0.004	0.00	0.005	0.005	0.01	0.011	0.00	0.225	0.130	0.274	0.073	0.004	0.005	0.005	29.3	51.8	16.0	1	1
316	0.84774	-73.23947	302.98932	-43.88868	-0.144	3933.91	0.234	-0.452	3935.61	0.342	-0.079	3936.59	0.164	1.00	0.004	0.01	0.008	0.004	0.00	0.004	0.005	0.01	0.013	0.00	0.325	0.084	0.388	0.033	0.004	0.005	0.003	21.3	75.2	9.6	1	1

183	0.81591	-73.36745	303.17798	-43.75958	-0.195	3934.01	0.260	-0.374	3935.55	0.268	-0.070	3936.10	0.115	1.01	0.005	0.01	0.008	0.005	0.01	0.006	0.008	0.02	0.017	0.00	0.019	0.127	0.252	0.020	0.005	0.007	0.004	26.0	38.7	5.3	1	1
262	0.83573	-73.26469	303.06116	-43.86320	-0.168	3934.00	0.234	-0.612	3935.60	0.327	-0.234	3936.57	0.237	1.00	0.003	0.00	0.005	0.003	0.00	0.002	0.003	0.00	0.004	0.00	0.101	0.098	0.502	0.139	0.003	0.004	0.003	35.8	131.5	45.2	1	1
164	0.81008	-73.36367	303.21271	-43.76300	-0.209	3934.03	0.257	-0.458	3935.50	0.289	-0.076	3936.40	0.217	1.01	0.005	0.01	0.008	0.005	0.00	0.004	0.006	0.02	0.022	0.00	0.154	0.135	0.333	0.041	0.005	0.006	0.005	25.9	53.1	7.9	1	1
130	0.80253	-73.35378	303.25784	-43.77235	-0.187	3934.06	0.317	-0.434	3935.53	0.400	-0.335	3936.60	0.400	0.93	0.011	0.02	0.022	0.009	0.01	0.000	0.009	0.02	0.000	0.00	0.627	0.148	0.435	0.335	0.013	0.009	0.009	11.1	47.1	36.5	1	1
178	0.81441	-73.29403	303.18832	-43.83291	-0.178	3933.98	0.269	-0.439	3935.62	0.319	-0.181	3936.61	0.295	1.00	0.006	0.01	0.011	0.006	0.01	0.007	0.006	0.01	0.015	0.00	0.170	0.120	0.351	0.134	0.006	0.009	0.008	18.6	40.2	16.2	1	1
181	0.81523	-73.27564	303.18375	-43.85134	-0.202	3933.97	0.250	-0.466	3935.52	0.315	-0.200	3936.60	0.234	1.00	0.004	0.01	0.005	0.003	0.00	0.003	0.004	0.01	0.006	0.00	0.107	0.127	0.368	0.117	0.004	0.004	0.004	35.2	85.7	32.4	1	1
200	0.81951	-73.24858	303.15860	-43.87864	-0.188	3934.24	0.534	-0.530	3935.58	0.258	-0.252	3936.57	0.275	1.00	0.004	0.01	0.017	0.006	0.00	0.004	0.005	0.01	0.008	0.00	0.906	0.252	0.343	0.173	0.010	0.007	0.006	26.2	52.5	27.4	1	1
215	0.82451	-73.22047	303.12903	-43.90699	-0.164	3933.96	0.224	-0.616	3935.60	0.290	-0.186	3936.53	0.290	1.01	0.005	0.01	0.008	0.004	0.00	0.003	0.004	0.01	0.010	0.00	0.212	0.092	0.447	0.135	0.004	0.006	0.006	22.6	77.9	23.5	1	1
165	0.81008	-73.25525	303.21500	-43.87141	-0.167	3934.00	0.236	-0.585	3935.57	0.311	-0.165	3936.72	0.295	1.00	0.005	0.01	0.009	0.005	0.00	0.003	0.005	0.01	0.011	0.00	0.133	0.099	0.456	0.122	0.005	0.006	0.006	20.9	77.3	21.3	1	1
152	0.80794	-73.24136	303.22815	-43.88515	-0.171	3933.96	0.228	-0.432	3935.56	0.303	-0.292	3936.71	0.309	1.00	0.005	0.01	0.008	0.004	0.00	0.004	0.004	0.01	0.006	0.00	0.225	0.097	0.328	0.226	0.004	0.005	0.005	22.7	61.0	41.4	1	1
135	0.80318	-73.24250	303.25668	-43.88367	-0.178	3934.00	0.232	-0.720	3935.63	0.302	-0.365	3936.89	0.307	1.00	0.005	0.01	0.008	0.004	0.00	0.002	0.004	0.00	0.004	0.00	0.217	0.103	0.545	0.281	0.004	0.005	0.005	23.5	104.6	53.4	1	1
21	0.75164	-73.38661	303.55902	-43.73389	-0.201	3933.96	0.247	-0.584	3935.44	0.277	-0.038	3936.35	0.400	1.01	0.004	0.01	0.006	0.004	0.00	0.003	0.003	0.06	0.000	0.00	0.330	0.124	0.405	0.038	0.004	0.005	0.003	31.5	85.4	11.5	1	1
407	0.86919	-73.03039	302.85947	-44.09772	-0.132	3933.98	0.239	-0.396	3935.49	0.380	-0.126	3936.69	0.241	1.00	0.004	0.01	0.009	0.004	0.00	0.004	0.004	0.01	0.010	0.00	0.372	0.079	0.377	0.076	0.004	0.005	0.004	19.7	68.6	18.1	1	1
167	0.81136	-73.18886	303.20871	-43.93788	-0.161	3934.00	0.212	-0.581	3935.56	0.316	-0.136	3936.45	0.367	1.00	0.004	0.01	0.006	0.004	0.00	0.004	0.003	0.02	0.019	0.00	0.125	0.085	0.460	0.125	0.003	0.006	0.007	26.3	71.3	17.0	1	1
121	0.79970	-73.19522	303.27878	-43.93067	-0.163	3933.94	0.210	-0.576	3935.57	0.286	-0.214	3936.60	0.390	1.01	0.004	0.01	0.007	0.004	0.00	0.003	0.003	0.01	0.010	0.00	0.171	0.086	0.413	0.209	0.004	0.005	0.006	23.9	81.1	32.3	1	1
77	0.78839	-73.20522	303.34656	-43.91966	-0.163	3933.95	0.232	-0.443	3935.53	0.327	-0.226	3936.89	0.264	1.01	0.006	0.01	0.010	0.005	0.00	0.004	0.006	0.01	0.008	0.00	0.457	0.094	0.363	0.149	0.005	0.007	0.006	17.5	55.7	25.7	1	1

45	0.77323	-73.23453	303.43665	-43.88874	-0.158	3934.01	0.213	-0.507	3935.55	0.280	-0.154	3936.59	0.273	1.00	0.006	0.01	0.009	0.005	0.00	0.004	0.005	0.01	0.012	0.00	0.399	0.085	0.356	0.106	0.005	0.006	0.006	18.4	61.9	18.6	1	1
182	0.81544	-73.12497	303.18533	-44.00201	-0.180	3933.93	0.205	-0.728	3935.68	0.352	-0.101	3936.55	0.275	1.00	0.006	0.01	0.008	0.005	0.01	0.005	0.006	0.03	0.027	0.00	0.189	0.093	0.642	0.069	0.005	0.010	0.008	18.5	64.9	8.6	1	1
40	0.77148	-73.20975	303.44809	-43.91331	-0.185	3933.93	0.211	-0.371	3935.46	0.305	-0.197	3936.52	0.400	1.01	0.006	0.01	0.009	0.005	0.01	0.006	0.004	0.01	0.000	0.00	0.594	0.097	0.283	0.197	0.005	0.007	0.004	18.8	40.9	44.9	1	1
362	0.85749	-73.00406	302.93079	-44.12416	-0.179	3934.00	0.221	-0.388	3935.60	0.400	-0.046	3936.41	0.130	1.00	0.004	0.01	0.006	0.003	0.00	0.000	0.005	0.02	0.018	0.00	0.129	0.099	0.389	0.015	0.003	0.003	0.003	28.5	141.2	5.5	1	1
8	0.73576	-73.23836	303.66125	-43.87953	-0.256	3933.98	0.234	-0.412	3935.50	0.301	-0.098	3936.52	0.388	1.02	0.005	0.00	0.005	0.004	0.01	0.005	0.004	0.03	0.027	0.00	0.442	0.150	0.310	0.095	0.004	0.006	0.007	35.9	51.3	12.8	1	1
78	0.78864	-73.11961	303.34769	-44.00528	-0.124	3934.00	0.184	-0.379	3935.48	0.295	-0.073	3936.35	0.400	1.01	0.005	0.01	0.008	0.004	0.00	0.005	0.004	0.03	0.000	0.00	0.152	0.057	0.280	0.073	0.003	0.005	0.004	16.7	52.8	19.6	1	1
382	0.86179	-72.97483	302.90445	-44.15337	-0.164	3933.94	0.211	-0.407	3935.52	0.390	-0.078	3936.56	0.202	1.00	0.005	0.01	0.008	0.004	0.00	0.005	0.005	0.02	0.018	0.00	0.391	0.087	0.398	0.039	0.004	0.007	0.004	20.4	59.7	8.9	1	1
68	0.78407	-73.10078	303.37598	-44.02365	-0.195	3933.99	0.224	-0.430	3935.49	0.315	-0.138	3936.76	0.400	1.02	0.005	0.01	0.006	0.004	0.00	0.004	0.003	0.01	0.000	0.00	0.266	0.110	0.340	0.138	0.004	0.005	0.003	27.7	69.1	44.0	1	1
266	0.83679	-73.00558	303.05719	-44.12234	-0.166	3934.11	0.391	-0.527	3935.58	0.400	-0.109	3936.41	0.341	1.00	0.004	0.01	0.011	0.006	0.01	0.000	0.005	0.03	0.024	0.00	0.089	0.163	0.528	0.093	0.006	0.006	0.008	26.9	87.9	12.3	1	1
6	0.73069	-73.16222	303.69598	-43.95473	-0.188	3934.00	0.248	-0.224	3935.66	0.336	-0.075	3936.62	0.142	1.00	0.006	0.01	0.009	0.005	0.01	0.009	0.007	0.02	0.017	0.00	0.285	0.117	0.189	0.027	0.005	0.007	0.004	21.9	28.9	6.6	1	1
251	0.83209	-73.00242	303.08594	-44.12535	-0.142	3934.00	0.262	-0.273	3935.49	0.350	-0.215	3936.29	0.272	1.00	0.003	0.01	0.008	0.003	0.01	0.009	0.005	0.01	0.009	0.00	0.120	0.093	0.239	0.147	0.004	0.007	0.006	26.3	33.8	25.3	1	1
104	0.79499	-73.04350	303.31140	-44.08196	-0.141	3933.98	0.245	-0.343	3935.67	0.400	-0.060	3936.69	0.199	1.01	0.002	0.00	0.005	0.002	0.00	0.000	0.003	0.01	0.011	0.00	0.080	0.087	0.344	0.030	0.002	0.002	0.002	38.6	203.1	14.5	1	1
48	0.77434	-73.06303	303.43637	-44.06031	-0.159	3933.96	0.266	-0.366	3935.47	0.371	-0.099	3936.45	0.289	1.01	0.009	0.02	0.018	0.008	0.01	0.014	0.009	0.04	0.041	0.00	0.978	0.106	0.340	0.072	0.009	0.015	0.012	11.6	22.9	6.0	1	1
115	0.79876	-73.01997	303.28906	-44.10581	-0.158	3934.02	0.285	-0.396	3935.55	0.322	-0.054	3936.61	0.312	1.00	0.003	0.01	0.006	0.002	0.00	0.003	0.002	0.02	0.022	0.00	0.208	0.113	0.319	0.042	0.003	0.004	0.004	39.6	88.6	11.9	1	1
46	0.77328	-73.03989	303.44370	-44.08332	-0.154	3933.95	0.320	-0.226	3935.31	0.283	-0.143	3936.35	0.400	1.03	0.010	0.02	0.025	0.011	0.02	0.018	0.008	0.03	0.000	0.00	2.071	0.123	0.160	0.144	0.012	0.012	0.008	9.9	12.9	17.4	1	1
254	0.83285	-72.96542	303.08170	-44.16237	-0.147	3934.00	0.303	-0.454	3935.57	0.362	-0.092	3936.51	0.232	0.99	0.006	0.01	0.014	0.005	0.01	0.007	0.007	0.02	0.024	0.00	1.003	0.112	0.412	0.054	0.007	0.009	0.007	16.6	44.5	8.0	1	1

5	0.73057	-73.05367	303.70291	-44.06316	-0.145	3934.00	0.261	-0.278	3935.64	0.354	-0.076	3936.83	0.210	1.00	0.005	0.01	0.012	0.005	0.01	0.007	0.006	0.02	0.020	0.00	0.281	0.095	0.247	0.040	0.005	0.007	0.005	17.3	37.3	8.1	1	1
377	0.86039	-72.95364	302.91299	-44.17456	-0.153	3933.94	0.208	-0.181	3934.90	0.263	-0.191	3935.60	0.309	1.00	0.006	0.01	0.010	0.006	0.01	0.011	0.006	0.00	0.012	0.00	0.308	0.079	0.119	0.148	0.005	0.006	0.007	15.9	18.7	20.8	1	1
97	0.79326	-72.96191	303.32428	-44.16338	-0.138	3934.00	0.217	-0.409	3935.43	0.356	-0.028	3936.54	0.228	1.00	0.005	0.01	0.010	0.004	0.00	0.005	0.005	0.05	0.052	0.00	0.184	0.075	0.365	0.016	0.004	0.006	0.005	17.2	59.4	3.4	1	1
172	0.81304	-72.98075	303.20273	-44.14607	-0.163	3933.98	0.266	-0.634	3935.53	0.349	-0.047	3936.39	0.179	1.01	0.009	0.02	0.017	0.008	0.01	0.006	0.011	0.05	0.053	0.00	0.698	0.108	0.554	0.021	0.009	0.012	0.008	12.3	45.7	2.7	1	1
256	0.83349	-72.92000	303.07828	-44.20781	-0.146	3933.96	0.247	-0.431	3935.46	0.280	-0.163	3936.33	0.243	1.01	0.003	0.01	0.006	0.003	0.00	0.003	0.003	0.01	0.006	0.00	0.195	0.090	0.303	0.099	0.003	0.003	0.003	33.4	87.1	31.6	1	1
14	0.74119	-72.96811	303.64282	-44.15049	-0.184	3933.99	0.223	-0.324	3935.52	0.341	-0.118	3936.46	0.400	1.00	0.005	0.01	0.007	0.004	0.01	0.007	0.004	0.02	0.000	0.00	0.068	0.103	0.277	0.119	0.004	0.006	0.004	24.9	43.3	28.3	1	1
154	0.80851	-72.92975	303.23157	-44.19677	-0.146	3934.00	0.308	-0.243	3935.39	0.262	-0.201	3936.30	0.271	1.01	0.002	0.00	0.005	0.002	0.00	0.003	0.002	0.00	0.004	0.00	0.030	0.113	0.159	0.137	0.002	0.002	0.002	48.8	65.6	55.1	1	1
380	0.86172	-72.88989	302.90472	-44.23831	-0.176	3934.03	0.600	-0.514	3935.48	0.400	-0.138	3936.71	0.400	1.06	0.022	0.10	0.000	0.026	0.03	0.000	0.025	0.10	0.000	0.01	5.301	0.265	0.516	0.138	0.033	0.026	0.025	8.1	19.8	5.5	0	1
327	0.85006	-72.88445	302.97656	-44.24372	-0.149	3933.99	0.258	-0.233	3935.52	0.345	-0.107	3936.39	0.187	1.00	0.002	0.00	0.004	0.002	0.00	0.004	0.003	0.01	0.006	0.00	0.125	0.097	0.201	0.050	0.002	0.003	0.002	43.9	65.5	24.4	1	1
356	0.85654	-72.90659	302.93661	-44.22163	-0.178	3934.01	0.209	-0.407	3935.42	0.371	-0.140	3936.42	0.159	1.00	0.007	0.01	0.010	0.006	0.01	0.007	0.008	0.01	0.012	0.00	0.587	0.094	0.378	0.056	0.006	0.009	0.005	15.9	44.1	10.6	1	1
69	0.78423	-72.87236	303.38257	-44.25202	-0.231	3934.00	0.561	-0.347	3935.47	0.400	-0.189	3936.54	0.400	1.09	0.035	0.11	0.127	0.041	0.08	0.000	0.038	0.12	0.000	0.01	15.405	0.325	0.348	0.190	0.089	0.041	0.039	3.7	8.6	4.9	1	1
223	0.82558	-72.85461	303.12784	-44.27289	-0.132	3934.01	0.297	-0.308	3935.33	0.310	-0.148	3936.34	0.231	1.01	0.003	0.01	0.008	0.003	0.00	0.004	0.003	0.01	0.006	0.00	0.196	0.098	0.240	0.086	0.003	0.004	0.003	30.1	65.4	28.8	1	1
237	0.82912	-72.84436	303.10611	-44.28329	-0.135	3934.01	0.273	-0.503	3935.54	0.400	-0.287	3936.27	0.288	1.00	0.004	0.01	0.009	0.005	0.01	0.000	0.005	0.01	0.006	0.00	0.592	0.092	0.504	0.207	0.004	0.005	0.006	23.9	104.5	37.3	1	1
365	0.85806	-72.87569	302.92725	-44.25253	-0.160	3933.96	0.241	-0.273	3935.51	0.312	-0.181	3936.43	0.195	1.00	0.004	0.01	0.007	0.004	0.00	0.006	0.004	0.01	0.006	0.00	0.206	0.097	0.213	0.089	0.004	0.005	0.004	25.8	44.7	24.8	1	1
143	0.80573	-72.85220	303.25046	-44.27410	-0.173	3933.92	0.504	-0.642	3935.03	0.400	-0.314	3936.17	0.342	0.96	0.011	0.06	0.061	0.018	0.02	0.000	0.012	0.02	0.019	0.00	0.854	0.219	0.644	0.269	0.030	0.018	0.018	7.3	36.2	14.6	1	1
366	0.85826	-72.80783	302.92599	-44.32038	-0.167	3933.99	0.224	-0.253	3935.35	0.400	-0.210	3936.43	0.205	1.01	0.005	0.01	0.008	0.004	0.01	0.000	0.005	0.01	0.006	0.00	0.242	0.094	0.253	0.108	0.005	0.004	0.004	20.8	71.8	24.7	1	1

298	0.84266	-72.79575	303.02274	-44.33231	-0.171	3933.96	0.246	-0.306	3935.29	0.362	-0.170	3936.37	0.230	1.01	0.003	0.00	0.004	0.002	0.00	0.004	0.003	0.00	0.005	0.00	0.134	0.105	0.277	0.098	0.002	0.003	0.003	42.5	81.2	38.9	1	1
309	0.84592	-72.78628	303.00256	-44.34184	-0.151	3933.95	0.257	-0.346	3935.37	0.394	-0.164	3936.43	0.221	1.01	0.004	0.01	0.008	0.004	0.00	0.006	0.004	0.01	0.008	0.00	0.267	0.097	0.342	0.091	0.004	0.006	0.004	23.6	56.9	22.5	1	1
497	0.88828	-72.73450	302.73892	-44.39302	-0.177	3934.09	0.312	-0.387	3935.33	0.400	-0.282	3936.14	0.400	1.00	0.003	0.01	0.008	0.004	0.01	0.000	0.004	0.01	0.000	0.00	0.336	0.139	0.388	0.282	0.004	0.004	0.004	32.6	96.0	69.2	1	1
297	0.84255	-72.77267	303.02359	-44.35539	-0.159	3933.96	0.228	-0.287	3935.31	0.400	-0.274	3936.07	0.400	0.99	0.005	0.01	0.008	0.006	0.01	0.000	0.006	0.01	0.000	0.00	0.535	0.091	0.287	0.275	0.004	0.006	0.006	20.9	49.1	47.6	1	1
73	0.78624	-72.72508	303.37494	-44.39947	-0.161	3934.01	0.230	-0.129	3935.36	0.386	-0.189	3936.21	0.267	0.99	0.005	0.01	0.008	0.004	0.03	0.027	0.007	0.01	0.012	0.00	0.239	0.093	0.124	0.127	0.004	0.010	0.007	21.5	13.0	18.0	1	1
487	0.88575	-72.78064	302.75528	-44.34699	-0.162	3934.10	0.365	-0.433	3935.51	0.384	-0.119	3936.43	0.218	1.00	0.003	0.01	0.011	0.004	0.00	0.006	0.005	0.01	0.012	0.00	0.322	0.148	0.417	0.065	0.005	0.007	0.004	27.9	57.7	15.0	1	1
133	0.80265	-72.73042	303.27252	-44.39563	-0.157	3933.99	0.238	-0.204	3935.49	0.359	-0.280	3936.30	0.225	1.00	0.002	0.00	0.004	0.002	0.01	0.006	0.002	0.00	0.003	0.00	0.099	0.094	0.184	0.158	0.002	0.003	0.002	50.0	54.5	66.3	1	1
424	0.87314	-72.78594	302.83362	-44.34210	-0.159	3933.94	0.204	-0.337	3934.96	0.400	-0.347	3935.95	0.400	1.01	0.004	0.01	0.006	0.003	0.01	0.000	0.003	0.01	0.000	0.00	0.259	0.081	0.338	0.348	0.003	0.003	0.003	25.0	114.2	117.4	1	1
352	0.85574	-72.75214	302.94165	-44.37608	-0.403	3934.46	0.421	-0.249	3935.35	0.288	-0.156	3936.29	0.253	1.01	0.002	0.01	0.005	0.003	0.01	0.006	0.002	0.01	0.006	0.00	0.061	0.425	0.179	0.099	0.005	0.005	0.003	80.1	38.7	37.6	1	1
381	0.86173	-72.69781	302.90427	-44.43040	-0.162	3934.11	0.365	-0.289	3935.37	0.385	-0.222	3936.36	0.223	1.01	0.004	0.01	0.015	0.005	0.01	0.012	0.006	0.01	0.008	0.00	0.179	0.148	0.278	0.124	0.007	0.010	0.005	20.0	28.6	23.0	1	1
196	0.81872	-72.69400	303.17303	-44.43313	-0.187	3934.03	0.226	-0.204	3935.25	0.400	-0.277	3936.19	0.314	1.01	0.006	0.01	0.008	0.005	0.02	0.000	0.005	0.01	0.008	0.00	0.393	0.105	0.204	0.219	0.005	0.005	0.007	21.2	44.5	31.4	1	1
441	0.87630	-72.72256	302.81345	-44.40540	-0.151	3934.10	0.372	-0.369	3935.27	0.400	-0.121	3936.31	0.233	1.01	0.005	0.01	0.016	0.004	0.01	0.000	0.006	0.01	0.014	0.00	0.390	0.141	0.370	0.071	0.007	0.004	0.005	19.0	89.6	13.3	1	1
440	0.87596	-72.75828	302.81589	-44.36969	-0.147	3933.98	0.257	-0.420	3935.20	0.400	-0.124	3936.04	0.400	1.00	0.004	0.01	0.009	0.004	0.01	0.000	0.004	0.02	0.000	0.00	0.211	0.095	0.421	0.125	0.004	0.004	0.004	23.1	100.2	29.8	1	1
311	0.84713	-72.71095	302.99542	-44.41719	-0.151	3933.97	0.266	-0.187	3935.17	0.400	-0.172	3936.28	0.276	1.01	0.003	0.01	0.007	0.002	0.01	0.000	0.003	0.01	0.006	0.00	0.168	0.101	0.188	0.119	0.003	0.002	0.003	30.8	81.4	34.8	1	1
527	0.89435	-72.75797	302.70151	-44.36925	-0.181	3934.01	0.239	-0.455	3935.64	0.400	-0.161	3936.20	0.236	1.00	0.004	0.01	0.006	0.006	0.01	0.000	0.007	0.01	0.011	0.00	0.190	0.109	0.456	0.096	0.004	0.006	0.006	29.3	71.7	15.5	1	1
594	0.90902	-72.78922	302.61102	-44.33706	-0.184	3933.97	0.227	-0.365	3935.38	0.353	-0.132	3936.18	0.228	0.99	0.005	0.01	0.007	0.004	0.01	0.008	0.006	0.02	0.015	0.00	0.146	0.105	0.323	0.075	0.004	0.008	0.006	23.9	38.7	12.6	1	1

414	0.87099	-72.76434	302.84683	-44.36374	-0.150	3933.98	0.210	-0.418	3935.16	0.400	-0.107	3936.23	0.288	1.00	0.004	0.01	0.006	0.002	0.00	0.000	0.003	0.01	0.011	0.00	0.127	0.079	0.419	0.077	0.003	0.002	0.004	26.1	168.5	20.3	1	1
501	0.88869	-72.76720	302.73685	-44.36031	-0.159	3933.99	0.245	-0.297	3935.16	0.371	-0.103	3935.95	0.400	1.00	0.003	0.01	0.007	0.004	0.01	0.009	0.007	0.03	0.000	0.00	0.143	0.098	0.277	0.103	0.003	0.007	0.007	29.8	37.5	15.5	1	1
334	0.85166	-72.68242	302.96722	-44.44577	-0.259	3934.79	0.600	0.000	3935.39	0.400	-0.210	3936.32	0.262	1.00	0.006	0.02	0.000	0.000	0.00	0.000	0.009	0.01	0.013	0.00	1.345	0.389	-0.000	0.138	0.008	0.000	0.009	46.9	0.0	15.2	1	1
420	0.87203	-72.69775	302.83990	-44.43031	-0.156	3933.97	0.295	-0.340	3935.39	0.349	-0.128	3936.32	0.258	1.01	0.005	0.01	0.011	0.005	0.01	0.008	0.005	0.02	0.016	0.00	0.477	0.115	0.298	0.083	0.006	0.008	0.006	20.5	36.8	13.3	1	1
339	0.85227	-72.66953	302.96344	-44.45866	-0.220	3934.70	0.600	-0.077	3935.66	0.227	-0.210	3936.36	0.247	1.01	0.003	0.01	0.000	0.005	0.02	0.025	0.004	0.01	0.009	0.00	0.271	0.330	0.044	0.130	0.004	0.005	0.005	81.8	8.0	24.4	1	1
514	0.89162	-72.69175	302.71744	-44.43561	-0.193	3934.07	0.336	-0.302	3935.29	0.304	-0.105	3936.18	0.400	1.01	0.004	0.01	0.010	0.005	0.01	0.008	0.004	0.03	0.000	0.00	0.427	0.163	0.231	0.105	0.006	0.007	0.004	27.6	34.1	23.9	1	1
268	0.83723	-72.61792	303.05804	-44.51000	-0.181	3934.47	0.600	-0.146	3935.73	0.400	-0.126	3936.43	0.260	1.01	0.005	0.02	0.000	0.008	0.04	0.000	0.009	0.03	0.024	0.00	0.748	0.272	0.146	0.082	0.007	0.008	0.010	39.3	18.4	8.5	1	1
529	0.89507	-72.70969	302.69620	-44.41749	-0.157	3934.03	0.296	-0.257	3935.41	0.400	-0.076	3936.38	0.399	1.00	0.004	0.01	0.008	0.005	0.01	0.000	0.003	0.03	0.032	0.00	0.352	0.116	0.257	0.076	0.004	0.005	0.007	27.2	54.6	11.0	1	1
302	0.84360	-72.62036	303.01801	-44.50772	-0.173	3933.97	0.258	-0.374	3935.17	0.341	-0.191	3936.27	0.316	1.01	0.003	0.01	0.006	0.003	0.00	0.004	0.003	0.01	0.008	0.00	0.312	0.112	0.320	0.152	0.003	0.005	0.004	32.3	65.0	34.8	1	1
457	0.87878	-72.70609	302.79782	-44.42179	-0.139	3934.22	0.600	-0.332	3935.34	0.286	-0.131	3936.31	0.325	1.02	0.004	0.02	0.000	0.005	0.01	0.008	0.005	0.02	0.020	0.00	0.359	0.210	0.238	0.107	0.006	0.008	0.008	37.6	30.5	13.7	1	1
390	0.86397	-72.65625	302.89014	-44.47194	-0.176	3934.03	0.250	-0.231	3935.26	0.400	-0.166	3936.22	0.355	1.00	0.005	0.01	0.009	0.005	0.01	0.000	0.005	0.02	0.016	0.00	0.773	0.110	0.231	0.148	0.005	0.005	0.008	21.1	45.7	19.0	1	1
459	0.87917	-72.69392	302.79529	-44.43395	-0.154	3933.99	0.253	-0.331	3935.33	0.400	-0.217	3936.16	0.329	1.00	0.003	0.01	0.006	0.004	0.01	0.000	0.003	0.01	0.008	0.00	0.132	0.098	0.332	0.179	0.003	0.004	0.005	30.9	88.5	36.8	1	1
303	0.84363	-72.57733	303.01810	-44.55075	-0.169	3933.96	0.207	-0.131	3934.74	0.400	-0.191	3936.13	0.400	1.00	0.005	0.01	0.009	0.004	0.02	0.000	0.003	0.01	0.000	0.00	0.118	0.087	0.131	0.191	0.005	0.004	0.003	18.7	35.1	55.2	1	1
648	0.92456	-72.81361	302.51535	-44.31134	-0.151	3934.01	0.248	-0.282	3935.55	0.359	-0.067	3936.43	0.170	1.00	0.005	0.01	0.009	0.004	0.01	0.007	0.006	0.02	0.019	0.00	0.164	0.094	0.254	0.028	0.005	0.006	0.004	20.7	39.5	7.1	1	1
486	0.88525	-72.70258	302.75739	-44.42506	-0.178	3934.08	0.322	-0.326	3935.35	0.319	-0.130	3936.27	0.258	1.01	0.003	0.01	0.007	0.003	0.00	0.005	0.003	0.01	0.010	0.00	0.241	0.143	0.260	0.084	0.004	0.005	0.004	38.9	55.7	22.7	1	1
443	0.87659	-72.63111	302.81085	-44.49683	-0.183	3933.98	0.233	-0.314	3935.30	0.366	-0.142	3936.06	0.400	1.00	0.003	0.00	0.004	0.003	0.01	0.006	0.006	0.02	0.000	0.00	0.101	0.107	0.288	0.143	0.002	0.006	0.006	44.3	50.9	25.5	1	1

456	0.87874	-72.62395	302.79727	-44.50393	-0.177	3934.01	0.253	-0.345	3935.62	0.400	-0.038	3936.55	0.100	1.00	0.005	0.01	0.009	0.004	0.01	0.000	0.007	0.02	0.000	0.00	0.242	0.112	0.346	0.010	0.005	0.004	0.002	21.9	91.7	5.5	1	1
374	0.86007	-72.53800	302.91443	-44.59021	-0.190	3933.99	0.220	-0.270	3935.32	0.290	-0.143	3936.28	0.278	0.99	0.004	0.01	0.006	0.004	0.01	0.006	0.004	0.01	0.011	0.00	0.049	0.105	0.196	0.100	0.004	0.005	0.005	28.5	39.4	20.6	1	1
511	0.89081	-72.64103	302.72174	-44.48637	-0.161	3934.17	0.437	-0.319	3935.59	0.400	-0.075	3936.51	0.272	1.01	0.005	0.02	0.018	0.005	0.01	0.000	0.006	0.03	0.032	0.00	0.439	0.176	0.320	0.051	0.009	0.005	0.007	19.0	62.3	6.9	1	1
572	0.90278	-72.76878	302.64929	-44.35794	-0.168	3933.99	0.217	-0.244	3935.12	0.400	-0.157	3935.92	0.400	1.01	0.004	0.01	0.007	0.004	0.01	0.000	0.004	0.02	0.000	0.00	0.210	0.091	0.245	0.158	0.004	0.004	0.004	25.8	55.2	35.7	1	1
170	0.81226	-72.32092	303.22110	-44.80577	-0.171	3933.97	0.209	-0.319	3935.72	0.337	-0.059	3936.33	0.175	1.00	0.004	0.01	0.006	0.004	0.01	0.009	0.009	0.03	0.025	0.00	0.162	0.089	0.269	0.026	0.003	0.008	0.005	25.8	34.4	4.8	1	1
623	0.91794	-72.77700	302.55533	-44.34856	-0.166	3934.01	0.235	-0.260	3935.45	0.400	-0.044	3936.45	0.182	1.00	0.004	0.01	0.008	0.003	0.01	0.000	0.005	0.02	0.025	0.00	0.392	0.098	0.261	0.020	0.004	0.003	0.004	23.9	83.2	5.5	1	1
158	0.80877	-72.27889	303.24445	-44.84756	-0.199	3934.22	0.458	-0.022	3935.56	0.139	-0.035	3936.61	0.400	1.02	0.004	0.01	0.011	0.007	0.05	0.052	0.004	0.06	0.000	0.00	1.014	0.228	0.008	0.035	0.007	0.004	0.004	32.0	2.1	9.1	1	1
610	0.91432	-72.68911	302.57553	-44.43674	-0.146	3934.08	0.319	-0.304	3935.60	0.400	0.000	3936.48	0.256	1.00	0.004	0.01	0.012	0.004	0.01	0.000	0.000	0.00	0.000	0.00	0.165	0.117	0.305	-0.000	0.006	0.004	0.000	21.0	85.0	0.0	1	1
394	0.86553	-72.53423	302.87991	-44.59394	-0.190	3933.97	0.200	-0.321	3935.36	0.300	-0.108	3936.33	0.237	1.01	0.003	0.00	0.003	0.002	0.00	0.003	0.002	0.01	0.007	0.00	0.088	0.095	0.241	0.064	0.002	0.003	0.002	47.0	85.7	26.5	1	1
495	0.88693	-72.61658	302.74573	-44.51100	-0.210	3934.08	0.276	-0.314	3935.60	0.390	-0.142	3936.32	0.280	1.01	0.003	0.01	0.005	0.005	0.02	0.013	0.013	0.03	0.016	0.00	0.144	0.145	0.308	0.100	0.004	0.012	0.011	40.0	26.6	9.4	1	1
618	0.91676	-72.71741	302.56104	-44.40824	-0.152	3933.97	0.170	-0.333	3935.52	0.398	-0.014	3936.63	0.100	1.00	0.011	0.01	0.014	0.007	0.01	0.010	0.012	0.12	0.000	0.00	0.187	0.065	0.332	0.003	0.007	0.011	0.003	9.2	29.6	1.2	1	1
499	0.88861	-72.59950	302.73492	-44.52800	-0.219	3934.00	0.222	-1.604	3935.43	0.312	-0.302	3936.37	0.178	1.01	0.138	0.16	0.165	0.121	0.03	0.030	0.154	0.11	0.114	0.03	487.787	0.122	1.257	0.135	0.119	0.153	0.111	1.0	8.2	1.2	0	0
556	0.89968	-72.61581	302.66559	-44.51109	-0.150	3934.07	0.395	-0.452	3935.77	0.380	-0.087	3936.29	0.195	1.01	0.005	0.02	0.017	0.011	0.03	0.019	0.037	0.03	0.048	0.00	0.526	0.149	0.431	0.042	0.008	0.024	0.021	18.0	17.7	2.0	1	1
544	0.89818	-72.67189	302.67609	-44.45510	-0.176	3934.14	0.394	-0.307	3935.57	0.400	-0.048	3936.31	0.242	1.01	0.003	0.01	0.009	0.004	0.01	0.000	0.005	0.03	0.031	0.00	0.292	0.174	0.308	0.029	0.005	0.004	0.005	33.2	83.7	6.3	1	1
535	0.89645	-72.53711	302.68448	-44.58998	-0.179	3933.97	0.219	-0.092	3935.12	0.400	-0.287	3935.83	0.389	1.02	0.004	0.01	0.006	0.014	0.06	0.000	0.008	0.02	0.012	0.00	0.173	0.098	0.092	0.280	0.004	0.014	0.012	27.4	6.7	23.3	1	1
614	0.91553	-72.75291	302.56964	-44.37285	-0.127	3934.04	0.390	-0.332	3935.48	0.332	-0.010	3936.60	0.287	1.02	0.004	0.01	0.015	0.004	0.01	0.006	0.004	0.16	0.173	0.00	0.415	0.124	0.277	0.007	0.006	0.006	0.005	20.6	44.9	1.3	1	1

392	0.86456	-72.40659	302.88562	-44.72159	-0.191	3933.98	0.228	-0.273	3935.53	0.400	-0.185	3936.13	0.311	1.00	0.004	0.01	0.006	0.011	0.02	0.000	0.010	0.02	0.014	0.00	0.169	0.109	0.273	0.144	0.004	0.011	0.010	29.0	24.6	14.5	1	1
585	0.90570	-72.62061	302.62787	-44.50589	-0.187	3934.02	0.267	-0.303	3935.57	0.400	-0.069	3936.24	0.160	1.01	0.003	0.00	0.005	0.002	0.01	0.000	0.004	0.01	0.012	0.00	0.185	0.126	0.304	0.028	0.003	0.002	0.003	39.7	123.4	10.3	1	1
513	0.89149	-72.56333	302.71625	-44.56403	-0.174	3934.01	0.220	-0.161	3935.36	0.271	-0.203	3935.99	0.256	1.02	0.003	0.00	0.004	0.004	0.02	0.011	0.004	0.01	0.008	0.00	0.120	0.096	0.109	0.130	0.002	0.005	0.005	44.6	21.3	26.2	1	1
539	0.89713	-72.58314	302.68103	-44.54391	-0.172	3934.03	0.261	-0.380	3935.66	0.400	0.000	3936.51	0.246	1.00	0.005	0.01	0.010	0.004	0.01	0.000	0.000	0.00	0.000	0.00	0.288	0.112	0.381	-0.000	0.005	0.004	0.000	20.4	95.9	0.0	1	1
445	0.87674	-72.42145	302.80804	-44.70649	-0.178	3933.99	0.231	-0.220	3935.41	0.345	-0.181	3936.18	0.219	1.01	0.002	0.00	0.003	0.002	0.01	0.006	0.003	0.01	0.004	0.00	0.057	0.103	0.191	0.099	0.002	0.004	0.003	54.4	54.0	39.5	1	1
482	0.88467	-72.46167	302.75800	-44.66599	-0.192	3934.01	0.202	-0.267	3935.41	0.311	-0.101	3936.26	0.300	1.06	0.005	0.01	0.006	0.004	0.01	0.009	0.004	0.03	0.024	0.00	0.069	0.097	0.208	0.076	0.004	0.007	0.007	25.8	29.1	10.9	1	1
437	0.87576	-72.37039	302.81384	-44.75757	-0.181	3934.06	0.325	-0.299	3935.60	0.400	-0.195	3936.22	0.191	1.01	0.004	0.01	0.008	0.004	0.01	0.000	0.005	0.01	0.007	0.00	0.158	0.148	0.300	0.093	0.004	0.004	0.004	32.8	79.3	22.5	1	1
613	0.91533	-72.55739	302.56570	-44.56835	-0.146	3934.20	0.501	-0.305	3935.65	0.302	-0.029	3936.40	0.100	1.01	0.005	0.02	0.025	0.007	0.01	0.009	0.010	0.04	0.000	0.00	0.798	0.183	0.231	0.007	0.011	0.008	0.002	16.4	27.1	3.0	1	1
644	0.92359	-72.74411	302.51926	-44.38092	-0.145	3933.96	0.226	-0.320	3935.43	0.400	-0.024	3936.50	0.168	1.01	0.004	0.01	0.008	0.003	0.00	0.000	0.005	0.04	0.040	0.00	0.214	0.083	0.321	0.010	0.004	0.003	0.003	22.2	111.0	3.2	1	1
449	0.87743	-72.35089	302.80298	-44.77703	-0.218	3934.02	0.230	-0.241	3935.48	0.344	-0.221	3936.25	0.216	1.01	0.004	0.01	0.006	0.004	0.01	0.011	0.006	0.01	0.007	0.00	0.044	0.125	0.208	0.119	0.004	0.007	0.005	31.9	29.1	23.6	1	1
436	0.87564	-72.30989	302.81409	-44.81807	-0.221	3933.99	0.237	-0.430	3935.60	0.310	-0.029	3936.34	0.116	1.01	0.004	0.00	0.005	0.003	0.00	0.003	0.005	0.03	0.027	0.00	0.201	0.131	0.335	0.008	0.003	0.004	0.002	38.6	76.4	3.4	1	1
358	0.85682	-72.10995	302.93506	-45.01827	-0.192	3934.04	0.236	-0.074	3935.13	0.231	-0.363	3935.96	0.397	0.98	0.007	0.01	0.010	0.010	0.04	0.037	0.006	0.01	0.013	0.00	0.601	0.114	0.043	0.362	0.006	0.009	0.013	17.5	4.8	28.0	1	1
504	0.88988	-72.40495	302.72403	-44.72248	-0.175	3933.99	0.223	-0.365	3935.46	0.266	-0.121	3936.03	0.272	1.00	0.004	0.01	0.007	0.015	0.02	0.010	0.014	0.06	0.033	0.00	0.146	0.098	0.243	0.082	0.004	0.014	0.014	25.7	17.9	6.0	1	1
549	0.89865	-72.46841	302.66928	-44.65854	-0.169	3933.97	0.218	-0.167	3935.50	0.315	-0.126	3936.16	0.205	1.00	0.005	0.01	0.008	0.005	0.02	0.020	0.008	0.02	0.016	0.00	0.176	0.092	0.132	0.065	0.005	0.009	0.007	20.3	14.5	9.6	1	1
635	0.92095	-72.68994	302.53412	-44.43532	-0.169	3933.97	0.219	-0.152	3935.17	0.400	-0.260	3935.83	0.400	1.01	0.005	0.01	0.008	0.008	0.03	0.000	0.008	0.01	0.000	0.00	0.242	0.093	0.152	0.260	0.004	0.008	0.008	22.2	18.2	31.3	1	1
563	0.90076	-72.42795	302.65506	-44.69887	-0.200	3933.98	0.213	-0.224	3935.40	0.400	-0.098	3936.27	0.272	1.00	0.003	0.00	0.004	0.002	0.01	0.000	0.003	0.01	0.011	0.00	0.205	0.107	0.224	0.066	0.003	0.002	0.003	41.8	93.2	19.8	1	1

531	0.89537	-72.26683	302.68655	-44.86029	-0.303	3934.01	0.208	-0.232	3935.71	0.376	-0.015	3936.89	0.100	1.01	0.004	0.00	0.003	0.003	0.01	0.006	0.005	0.04	0.000	0.00	0.220	0.158	0.218	0.004	0.003	0.005	0.001	46.8	47.0	3.1	1	1
605	0.91336	-72.51984	302.57718	-44.60606	-0.192	3934.25	0.484	-0.423	3935.69	0.302	0.000	3936.57	0.224	1.02	0.005	0.02	0.018	0.007	0.01	0.006	0.000	0.00	0.000	0.00	0.641	0.233	0.320	-0.000	0.011	0.008	0.000	21.4	39.4	0.0	1	1
589	0.90732	-72.47433	302.61435	-44.65204	-0.217	3934.02	0.255	-0.369	3935.56	0.364	-0.063	3936.38	0.178	1.00	0.004	0.01	0.006	0.004	0.01	0.006	0.005	0.02	0.021	0.00	0.392	0.138	0.336	0.028	0.004	0.007	0.004	32.5	51.6	6.9	1	1
510	0.89061	-72.19434	302.71613	-44.93303	-0.230	3934.01	0.238	-0.268	3935.69	0.400	-0.017	3936.73	0.111	1.01	0.006	0.01	0.007	0.004	0.01	0.000	0.008	0.06	0.062	0.00	0.449	0.137	0.268	0.005	0.005	0.004	0.004	26.5	68.0	1.4	1	1
606	0.91378	-72.40617	302.57156	-44.71967	-0.185	3933.98	0.226	-0.324	3935.76	0.400	0.000	3936.30	0.400	1.01	0.006	0.01	0.008	0.004	0.01	0.000	0.000	0.00	0.000	0.00	1.028	0.104	0.325	-0.000	0.005	0.004	0.000	20.7	82.6	0.0	1	1
568	0.90173	-72.29028	302.64606	-44.83645	-0.239	3934.01	0.206	-0.189	3935.54	0.334	-0.055	3936.21	0.157	1.00	0.004	0.00	0.004	0.004	0.01	0.011	0.006	0.02	0.021	0.00	0.137	0.124	0.158	0.022	0.003	0.006	0.004	36.5	25.6	5.7	1	1
639	0.92231	-72.61947	302.52353	-44.50566	-0.149	3934.26	0.448	-0.534	3935.75	0.400	-0.244	3936.29	0.248	0.98	0.006	0.02	0.026	0.016	0.02	0.000	0.020	0.02	0.016	0.00	0.848	0.168	0.535	0.152	0.012	0.017	0.016	14.0	32.4	9.6	1	1
602	0.91225	-72.46350	302.58276	-44.66248	-0.185	3934.00	0.222	-0.176	3935.19	0.400	-0.197	3935.84	0.400	1.00	0.004	0.01	0.006	0.008	0.02	0.000	0.008	0.02	0.000	0.00	0.019	0.103	0.177	0.198	0.004	0.008	0.008	26.8	21.2	23.8	1	1
588	0.90714	-72.39330	302.61362	-44.73307	-0.185	3933.97	0.217	-0.346	3935.59	0.400	-0.021	3936.37	0.105	1.00	0.005	0.01	0.008	0.004	0.01	0.000	0.008	0.04	0.046	0.00	0.115	0.100	0.347	0.006	0.005	0.004	0.003	22.0	95.4	1.7	1	1
601	0.91140	-72.34406	302.58517	-44.78197	-0.179	3933.99	0.200	-0.091	3934.94	0.400	-0.207	3935.74	0.400	1.00	0.003	0.00	0.005	0.003	0.02	0.000	0.003	0.01	0.000	0.00	0.142	0.090	0.091	0.208	0.003	0.003	0.004	33.0	26.8	59.3	1	1
582	0.90521	-72.09336	302.61929	-45.03311	-0.194	3934.01	0.237	-0.264	3935.76	0.390	-0.020	3937.60	0.400	1.01	0.006	0.01	0.009	0.005	0.01	0.009	0.004	0.00	0.000	0.00	0.405	0.115	0.258	0.020	0.006	0.007	0.004	20.3	34.6	4.4	1	1
640	0.92264	-72.39386	302.51465	-44.73118	-0.187	3933.98	0.247	-0.341	3935.54	0.323	-0.020	3936.33	0.129	1.00	0.003	0.01	0.005	0.003	0.00	0.004	0.005	0.04	0.038	0.00	0.204	0.115	0.276	0.006	0.003	0.004	0.002	35.6	66.2	2.6	1	1
617	0.91627	-72.41939	302.55603	-44.70625	-0.156	3934.14	0.410	-0.383	3935.72	0.400	-0.038	3936.36	0.173	1.00	0.005	0.01	0.016	0.005	0.01	0.000	0.008	0.04	0.046	0.00	0.612	0.160	0.384	0.017	0.008	0.005	0.006	20.1	74.3	2.9	1	1
637	0.92126	-72.52328	302.52728	-44.60192	-0.150	3934.09	0.376	-0.230	3935.60	0.395	-0.016	3936.77	0.100	1.01	0.006	0.02	0.019	0.006	0.01	0.013	0.010	0.08	0.000	0.00	0.701	0.142	0.228	0.004	0.009	0.010	0.002	15.2	23.6	1.7	1	1
608	0.91399	-72.12705	302.56287	-44.99873	-0.201	3933.99	0.256	-0.223	3935.52	0.336	-0.230	3936.42	0.219	0.99	0.005	0.01	0.007	0.004	0.01	0.010	0.005	0.01	0.007	0.00	0.613	0.129	0.188	0.126	0.005	0.007	0.005	27.9	28.6	26.0	1	1
626	0.91844	-72.19058	302.53574	-44.93481	-0.202	3934.00	0.214	-0.284	3935.67	0.303	-0.180	3936.40	0.208	1.00	0.005	0.01	0.006	0.004	0.01	0.008	0.005	0.01	0.009	0.00	0.265	0.108	0.216	0.094	0.004	0.007	0.005	28.4	33.2	19.3	1	1

632	0.92031	-72.14661	302.52231	-44.97860	-0.191	3934.00	0.224	-0.295	3935.55	0.317	-0.203	3936.34	0.216	1.01	0.004	0.01	0.006	0.003	0.01	0.007	0.004	0.01	0.007	0.00	0.236	0.107	0.234	0.110	0.003	0.006	0.004	31.0	41.7	26.1	1	1
666	0.93107	-72.57514	302.46698	-44.54908	-0.141	3934.21	0.457	-0.403	3935.53	0.270	-0.207	3936.24	0.259	1.01	0.004	0.02	0.020	0.006	0.01	0.010	0.007	0.02	0.016	0.00	0.510	0.162	0.272	0.135	0.009	0.011	0.010	18.3	25.5	14.1	1	1
647	0.92447	-71.88605	302.48709	-45.23869	-0.142	3933.97	0.210	-0.048	3934.95	0.193	-0.206	3935.71	0.400	1.00	0.004	0.01	0.007	0.004	0.02	0.023	0.003	0.01	0.000	0.00	0.185	0.075	0.023	0.207	0.003	0.004	0.003	22.2	6.6	70.3	1	1
663	0.93046	-72.42422	302.46576	-44.70003	-0.228	3934.00	0.195	-0.854	3935.67	0.367	0.000	3936.50	0.207	1.03	0.015	0.01	0.015	0.011	0.01	0.006	0.000	0.00	0.000	0.00	1.370	0.112	0.786	-0.000	0.011	0.015	0.000	10.1	50.8	0.0	1	1
681	0.93596	-72.46616	302.43225	-44.65748	-0.161	3933.98	0.223	-0.272	3935.52	0.328	-0.048	3936.19	0.139	1.00	0.005	0.01	0.008	0.004	0.01	0.008	0.007	0.02	0.024	0.00	0.176	0.090	0.224	0.017	0.004	0.006	0.004	22.5	34.9	4.5	1	1
674	0.93360	-71.86489	302.42587	-45.25882	-0.128	3933.96	0.225	-0.257	3935.61	0.362	-0.043	3936.27	0.139	1.01	0.003	0.01	0.006	0.002	0.01	0.006	0.005	0.02	0.018	0.00	0.103	0.072	0.233	0.015	0.002	0.004	0.002	29.2	52.1	6.0	1	1
672	0.93310	-72.49333	302.45135	-44.63065	-0.182	3934.00	0.244	-0.369	3935.60	0.382	-0.064	3936.34	0.275	1.01	0.004	0.01	0.007	0.005	0.02	0.011	0.011	0.06	0.040	0.00	0.425	0.112	0.353	0.044	0.004	0.012	0.010	27.6	30.4	4.3	1	1
687	0.93736	-72.38986	302.42053	-44.73358	-0.199	3933.98	0.249	-0.417	3935.64	0.262	0.000	3936.51	0.100	1.02	0.006	0.01	0.009	0.006	0.00	0.004	0.000	0.00	0.000	0.00	0.599	0.124	0.274	-0.000	0.006	0.006	0.000	21.0	45.1	0.0	1	1
703	0.94199	-72.20289	302.38364	-44.91992	-0.208	3933.98	0.233	-0.332	3935.68	0.387	-0.063	3936.27	0.130	1.00	0.004	0.01	0.006	0.004	0.01	0.009	0.009	0.02	0.021	0.00	0.342	0.121	0.322	0.021	0.004	0.008	0.004	30.4	39.8	4.6	1	1
699	0.94054	-72.46467	302.40311	-44.65842	-0.107	3934.22	0.566	-0.322	3935.61	0.297	0.000	3936.57	0.205	1.01	0.005	0.03	0.038	0.006	0.01	0.008	0.000	0.00	0.000	0.00	0.436	0.152	0.240	-0.000	0.012	0.008	0.000	12.2	29.9	0.0	1	1
731	0.95586	-71.86522	302.27832	-45.25549	-0.159	3933.95	0.216	-0.319	3935.55	0.374	-0.045	3936.38	0.175	1.00	0.007	0.01	0.011	0.006	0.01	0.011	0.009	0.04	0.044	0.00	0.305	0.086	0.299	0.020	0.006	0.010	0.006	14.4	29.4	3.2	1	1
655	0.92771	-72.75056	302.49380	-44.37407	-0.162	3933.97	0.197	-0.184	3934.96	0.323	-0.327	3935.60	0.286	1.01	0.005	0.01	0.009	0.005	0.01	0.015	0.008	0.00	0.006	0.00	0.274	0.080	0.149	0.235	0.004	0.008	0.007	18.1	18.5	32.5	1	1
725	0.95387	-72.37492	302.31445	-44.74635	-0.180	3934.01	0.261	-0.268	3935.59	0.398	-0.042	3936.84	0.400	1.01	0.004	0.01	0.007	0.004	0.01	0.007	0.003	0.05	0.000	0.00	0.455	0.118	0.268	0.042	0.004	0.006	0.003	27.8	45.1	13.0	1	1
711	0.94669	-72.47961	302.36465	-44.64270	-0.153	3933.97	0.234	-0.363	3935.59	0.277	0.000	3936.58	0.199	1.01	0.007	0.01	0.012	0.006	0.01	0.006	0.000	0.00	0.000	0.00	0.322	0.090	0.252	-0.000	0.006	0.007	0.000	14.7	37.7	0.0	1	1
755	0.96582	-71.93897	302.21606	-45.18019	-0.179	3933.96	0.197	-0.453	3935.54	0.337	-0.011	3936.70	0.100	1.01	0.007	0.01	0.010	0.006	0.00	0.005	0.009	0.11	0.000	0.00	0.282	0.089	0.382	0.003	0.006	0.008	0.002	15.6	50.6	1.3	1	1
742	0.95820	-72.26669	302.28171	-44.85388	-0.202	3933.97	0.221	-0.338	3935.68	0.345	-0.045	3936.44	0.262	1.01	0.004	0.00	0.005	0.004	0.01	0.008	0.006	0.06	0.044	0.00	0.262	0.112	0.293	0.030	0.003	0.008	0.006	33.0	37.6	4.6	1	1

765	0.96999	-72.06719	302.19531	-45.05135	-0.147	3933.97	0.266	-0.202	3935.20	0.323	-0.108	3935.92	0.400	1.00	0.005	0.01	0.011	0.007	0.02	0.016	0.009	0.04	0.000	0.00	0.230	0.098	0.163	0.108	0.005	0.010	0.009	18.3	16.6	11.5	1	1
736	0.95652	-72.37930	302.29770	-44.74158	-0.165	3933.93	0.168	-0.312	3935.56	0.348	-0.034	3936.36	0.163	0.99	0.014	0.02	0.016	0.010	0.02	0.017	0.015	0.09	0.091	0.00	0.957	0.070	0.272	0.014	0.009	0.016	0.010	7.8	17.0	1.4	1	1
743	0.96038	-72.36491	302.27237	-44.75539	-0.163	3933.97	0.239	-0.037	3934.90	0.247	-0.273	3935.64	0.400	1.00	0.003	0.01	0.006	0.003	0.03	0.034	0.003	0.01	0.000	0.00	0.225	0.098	0.023	0.273	0.003	0.004	0.003	32.1	6.0	93.1	1	1
741	0.95781	-72.51752	302.29587	-44.60325	-0.203	3933.99	0.191	-0.442	3935.54	0.361	-0.075	3936.42	0.155	1.01	0.011	0.01	0.012	0.008	0.01	0.009	0.012	0.03	0.032	0.00	0.627	0.097	0.400	0.029	0.008	0.013	0.008	12.1	31.1	3.8	1	1
723	0.95294	-72.50111	302.32596	-44.62036	-0.172	3933.99	0.294	-0.376	3935.60	0.319	-0.060	3936.41	0.130	1.01	0.008	0.02	0.017	0.008	0.01	0.009	0.012	0.03	0.033	0.00	0.560	0.127	0.301	0.020	0.009	0.011	0.006	13.5	27.9	3.1	1	1
802	0.99048	-71.97389	302.05566	-45.14073	-0.141	3933.99	0.253	-0.303	3935.53	0.400	-0.149	3936.23	0.187	1.02	0.007	0.01	0.014	0.005	0.01	0.000	0.008	0.01	0.013	0.00	0.935	0.089	0.303	0.070	0.007	0.005	0.006	13.5	55.6	11.0	1	1
796	0.98779	-72.07886	302.07977	-45.03640	-0.169	3934.74	0.600	-0.303	3935.85	0.259	-0.024	3936.79	0.100	1.01	0.006	0.03	0.000	0.010	0.01	0.011	0.013	0.07	0.000	0.00	2.131	0.255	0.197	0.006	0.010	0.011	0.003	26.4	18.3	1.8	1	1
752	0.96393	-72.43983	302.25336	-44.67996	-0.182	3933.99	0.235	-0.356	3935.62	0.268	-0.062	3936.51	0.100	1.00	0.006	0.01	0.009	0.005	0.00	0.005	0.007	0.02	0.000	0.00	0.386	0.107	0.239	0.016	0.005	0.006	0.002	20.7	43.0	8.7	1	1
790	0.98656	-72.16583	302.09302	-44.94975	-0.130	3934.09	0.600	-0.352	3935.86	0.358	0.000	3936.60	0.200	1.00	0.007	0.04	0.000	0.009	0.01	0.012	-0.000	0.00	0.000	0.00	1.441	0.195	0.316	-0.000	0.010	0.013	0.000	18.8	23.7	0.0	1	1
774	0.97592	-72.33783	302.17151	-44.77987	-0.117	3934.18	0.600	-0.774	3935.72	0.266	0.000	3936.70	0.102	1.01	0.006	0.04	0.000	0.009	0.00	0.004	0.000	0.00	0.000	0.00	1.040	0.175	0.515	-0.000	0.008	0.009	0.000	20.8	55.6	0.0	1	1
810	0.99485	-72.13611	302.03735	-44.97777	-0.184	3934.00	0.241	-0.084	3935.01	0.400	-0.348	3935.97	0.348	1.00	0.005	0.01	0.008	0.004	0.04	0.000	0.004	0.01	0.007	0.00	0.282	0.111	0.085	0.303	0.005	0.004	0.007	23.4	19.2	43.9	1	1
808	0.99350	-72.17286	302.04846	-44.94134	-0.174	3933.99	0.311	-0.353	3935.56	0.400	-0.022	3937.36	0.400	1.00	0.006	0.01	0.013	0.005	0.01	0.000	0.005	0.11	0.000	0.00	0.546	0.136	0.354	0.022	0.007	0.005	0.005	18.7	72.6	4.5	1	1
818	0.99805	-72.18025	302.01947	-44.93300	-0.157	3933.97	0.255	-0.162	3935.14	0.196	-0.364	3935.82	0.334	1.01	0.006	0.01	0.011	0.010	0.02	0.013	0.005	0.01	0.010	0.00	0.069	0.101	0.080	0.305	0.005	0.007	0.010	18.3	11.1	29.7	1	1
760	0.96962	-72.49375	302.21994	-44.62514	-0.182	3933.98	0.186	-0.462	3935.50	0.359	-0.032	3936.36	0.100	0.99	0.014	0.02	0.017	0.011	0.01	0.010	0.017	0.07	0.000	0.00	3.756	0.085	0.416	0.008	0.010	0.015	0.004	8.2	27.1	1.9	1	1
843	1.01615	-72.03664	301.89163	-45.07232	-0.263	3934.32	0.332	-0.106	3935.52	0.203	-0.195	3936.10	0.270	1.01	0.010	0.01	0.015	0.022	0.07	0.050	0.013	0.05	0.040	0.00	1.722	0.219	0.054	0.132	0.013	0.018	0.021	17.3	3.1	6.2	1	1
747	0.96259	-72.59228	302.26926	-44.52781	-0.192	3934.00	0.231	-0.374	3935.55	0.267	-0.089	3936.34	0.313	1.01	0.003	0.00	0.005	0.004	0.01	0.004	0.003	0.02	0.022	0.00	0.223	0.111	0.250	0.070	0.003	0.005	0.005	38.5	53.9	13.1	1	1

803	0.99142	-72.33783	302.07220	-44.77695	-0.173	3933.92	0.174	-0.557	3935.69	0.390	0.000	3936.45	0.153	1.00	0.006	0.01	0.007	0.004	0.00	0.003	0.000	0.00	0.000	0.00	1.033	0.075	0.544	-0.000	0.004	0.006	0.000	18.3	86.0	0.0	1	1
850	1.02087	-72.08422	301.86438	-45.02365	-0.119	3933.93	0.205	-0.210	3935.95	0.330	-0.043	3937.04	0.126	0.95	0.010	0.02	0.020	0.008	0.01	0.015	0.013	0.04	0.044	0.00	0.241	0.061	0.174	0.013	0.008	0.010	0.006	7.7	16.9	2.2	0	1
870	1.03268	-72.02233	301.78235	-45.08239	-0.265	3934.08	0.219	-0.119	3935.25	0.260	-0.305	3936.05	0.292	1.00	0.006	0.01	0.006	0.006	0.02	0.022	0.005	0.01	0.010	0.00	0.360	0.146	0.077	0.223	0.005	0.008	0.008	28.6	10.1	26.4	1	1
780	0.98201	-72.44942	302.13892	-44.66728	-0.195	3934.01	0.215	-0.346	3935.55	0.260	-0.080	3936.29	0.156	1.00	0.004	0.01	0.006	0.004	0.00	0.004	0.005	0.01	0.013	0.00	0.268	0.105	0.225	0.031	0.004	0.005	0.003	28.3	48.9	9.3	1	1
864	1.02775	-72.10406	301.82111	-45.00209	-0.259	3933.95	0.368	-0.339	3935.93	0.297	0.000	3936.60	0.200	1.00	0.014	0.02	0.024	0.016	0.02	0.016	-0.000	0.00	0.000	0.00	1.189	0.239	0.253	-0.000	0.020	0.018	0.000	11.7	13.9	0.0	1	1
805	0.99288	-72.38161	302.06561	-44.73293	-0.164	3934.03	0.247	-0.578	3935.60	0.282	0.000	3936.67	0.194	1.01	0.013	0.02	0.023	0.012	0.01	0.007	0.000	0.00	0.000	0.00	1.799	0.102	0.409	-0.000	0.012	0.013	0.000	8.2	30.9	0.0	1	1
798	0.98816	-72.45047	302.09988	-44.66506	-0.192	3934.00	0.238	-0.434	3935.56	0.257	0.000	3936.68	0.120	1.00	0.009	0.01	0.014	0.009	0.01	0.006	0.000	0.00	0.000	0.00	0.386	0.115	0.279	-0.000	0.009	0.009	0.000	13.3	31.2	0.0	1	1
821	1.00017	-72.39789	302.02014	-44.71515	-0.197	3934.01	0.218	-0.389	3935.51	0.305	-0.056	3936.56	0.100	1.00	0.007	0.01	0.010	0.006	0.01	0.006	0.009	0.02	0.000	0.00	0.355	0.108	0.297	0.014	0.006	0.008	0.002	17.1	39.4	6.1	1	1
906	1.05259	-72.03533	301.65323	-45.06378	-0.150	3934.04	0.271	-0.191	3935.73	0.400	-0.029	3936.82	0.355	1.02	0.003	0.01	0.007	0.003	0.01	0.000	0.003	0.05	0.050	0.00	0.031	0.102	0.191	0.026	0.003	0.003	0.004	30.7	73.9	5.8	1	1
916	1.05648	-72.03236	301.62753	-45.06558	-0.144	3934.05	0.257	-0.245	3935.67	0.400	-0.066	3936.42	0.400	1.00	0.004	0.01	0.009	0.006	0.01	0.000	0.006	0.04	0.000	0.00	0.158	0.093	0.246	0.067	0.004	0.006	0.006	22.1	43.7	11.9	1	1
836	1.00953	-72.36533	301.95816	-44.74561	-0.199	3934.00	0.207	-0.570	3935.54	0.285	0.000	3936.60	0.200	0.99	0.017	0.02	0.021	0.015	0.01	0.009	-0.000	0.00	0.000	0.00	2.487	0.103	0.407	-0.000	0.014	0.016	0.000	7.6	25.2	0.0	1	1
854	1.02301	-72.33664	301.86984	-44.77107	-0.217	3933.95	0.179	-0.369	3935.65	0.400	-0.046	3936.51	0.100	0.99	0.009	0.01	0.009	0.006	0.01	0.000	0.011	0.03	0.000	0.00	0.391	0.097	0.370	0.012	0.006	0.006	0.003	15.2	65.9	4.4	1	1
893	1.04682	-72.23917	301.70892	-44.86204	-0.169	3933.88	0.161	-0.313	3935.80	0.400	0.000	3936.60	0.200	0.98	0.009	0.01	0.010	0.005	0.01	0.000	-0.000	0.00	0.000	0.00	0.180	0.068	0.313	-0.000	0.006	0.005	0.000	12.3	61.2	0.0	1	1
837	1.01219	-72.43467	301.94614	-44.67575	-0.191	3933.76	0.365	-0.396	3935.46	0.257	-0.197	3935.99	0.256	1.00	0.003	0.01	0.008	0.018	0.02	0.010	0.018	0.04	0.020	0.00	0.080	0.175	0.256	0.126	0.005	0.015	0.015	35.9	16.9	8.3	1	1
907	1.05266	-72.27292	301.67435	-44.82667	-0.145	3933.96	0.254	-0.263	3935.63	0.400	0.000	3936.60	0.200	0.99	0.007	0.01	0.014	0.005	0.01	0.000	-0.000	0.00	0.000	0.00	0.439	0.092	0.263	-0.000	0.007	0.005	0.000	13.4	52.1	0.0	1	1
896	1.04825	-72.30733	301.70572	-44.79360	-0.210	3934.00	0.199	-0.120	3934.76	0.154	-0.239	3935.65	0.400	0.98	0.009	0.01	0.011	0.011	0.02	0.017	0.006	0.01	0.000	0.00	0.343	0.104	0.046	0.240	0.007	0.007	0.006	14.3	7.1	40.4	1	1

884	1.04269	-72.38934	301.74841	-44.71330	-0.194	3934.05	0.288	-0.160	3935.65	0.400	-0.112	3936.19	0.167	1.00	0.004	0.01	0.007	0.004	0.02	0.000	0.007	0.01	0.012	0.00	0.094	0.140	0.160	0.047	0.005	0.004	0.004	30.9	37.0	10.8	1	1
891	1.04621	-72.41228	301.72797	-44.68943	-0.210	3933.98	0.155	-0.083	3935.43	0.400	0.000	3936.51	0.186	0.95	0.046	0.04	0.040	0.026	0.16	0.000	0.000	0.00	0.000	0.01	18.599	0.082	0.084	-0.000	0.028	0.026	0.000	3.0	3.2	0.0	0	0
824	1.00205	-72.57400	302.01987	-44.53884	-0.194	3933.99	0.273	-0.587	3935.49	0.261	-0.100	3936.11	0.233	1.01	0.005	0.01	0.009	0.007	0.01	0.006	0.009	0.04	0.032	0.00	0.680	0.133	0.384	0.059	0.006	0.010	0.010	23.5	36.8	6.1	1	1
946	1.07044	-72.31322	301.56409	-44.78102	-0.222	3933.90	0.184	-0.279	3935.62	0.400	-0.102	3936.67	0.116	0.97	0.011	0.01	0.010	0.007	0.01	0.000	0.013	0.02	0.018	0.00	0.317	0.103	0.280	0.030	0.008	0.007	0.006	13.6	42.9	5.0	1	1
923	1.05813	-72.37114	301.64832	-44.72703	-0.231	3934.06	0.284	-0.253	3935.44	0.400	-0.192	3935.98	0.400	1.01	0.005	0.01	0.008	0.019	0.03	0.000	0.018	0.03	0.000	0.00	0.069	0.165	0.254	0.193	0.006	0.019	0.019	28.2	13.6	10.4	1	1
988	1.10118	-72.22603	301.35745	-44.85743	-0.156	3934.07	0.278	-0.146	3935.45	0.329	-0.143	3936.16	0.251	1.00	0.003	0.01	0.006	0.003	0.02	0.017	0.006	0.02	0.012	0.00	0.182	0.109	0.120	0.090	0.003	0.007	0.006	33.2	17.7	16.0	1	1
944	1.06979	-72.35078	301.57193	-44.74376	-0.203	3934.08	0.295	-0.141	3935.27	0.400	-0.105	3936.20	0.225	0.99	0.006	0.01	0.010	0.004	0.02	0.000	0.006	0.02	0.018	0.00	0.273	0.150	0.142	0.059	0.007	0.004	0.006	22.6	32.2	10.1	1	1
927	1.05991	-72.40203	301.63983	-44.69568	-0.210	3934.04	0.234	-0.273	3935.41	0.400	0.000	3936.60	0.200	0.99	0.006	0.01	0.008	0.004	0.01	0.000	-0.000	0.00	0.000	0.00	0.418	0.124	0.274	-0.000	0.005	0.004	0.000	23.4	68.5	0.0	1	1
886	1.04414	-72.48331	301.74725	-44.61912	-0.199	3934.07	0.249	-0.409	3935.60	0.376	-0.073	3936.42	0.221	0.99	0.005	0.01	0.007	0.004	0.01	0.007	0.006	0.03	0.025	0.00	0.135	0.124	0.386	0.040	0.005	0.009	0.006	25.9	44.8	6.9	1	1
962	1.08190	-72.37586	301.49719	-44.71479	-0.226	3934.04	0.270	-0.243	3935.64	0.400	0.000	3936.70	0.287	1.00	0.007	0.01	0.010	0.005	0.01	0.000	0.000	0.00	0.000	0.00	0.480	0.153	0.244	-0.000	0.008	0.005	0.000	19.9	44.5	0.0	1	1
851	1.02220	-72.53083	301.88977	-44.57736	-0.246	3934.00	0.250	-0.345	3935.44	0.325	-0.077	3936.43	0.274	0.99	0.004	0.00	0.005	0.004	0.01	0.006	0.004	0.02	0.022	0.00	0.152	0.154	0.282	0.053	0.004	0.006	0.005	37.4	49.1	10.4	1	1
980	1.09442	-72.34067	301.41357	-44.74559	-0.200	3934.05	0.253	-0.233	3935.52	0.400	0.000	3936.60	0.200	0.97	0.007	0.01	0.011	0.005	0.01	0.000	-0.000	0.00	0.000	0.00	0.303	0.127	0.233	-0.000	0.007	0.005	0.000	17.4	43.9	0.0	1	1
971	1.08979	-72.38050	301.44742	-44.70749	-0.262	3933.95	0.211	-0.110	3935.15	0.400	-0.128	3936.27	0.169	0.96	0.016	0.01	0.015	0.010	0.05	0.000	0.017	0.03	0.027	0.00	0.603	0.139	0.110	0.054	0.013	0.010	0.011	10.7	10.7	4.7	1	1
998	1.11284	-72.32475	301.29407	-44.75467	-0.199	3934.10	0.235	-0.086	3935.35	0.400	-0.167	3936.13	0.400	0.98	0.007	0.01	0.010	0.008	0.05	0.000	0.008	0.03	0.000	0.00	0.909	0.117	0.086	0.168	0.006	0.008	0.008	18.5	10.6	21.0	1	1
1008	1.12421	-72.30361	301.21881	-44.77129	-0.200	3934.11	0.242	-0.059	3935.16	0.400	-0.277	3936.09	0.300	0.98	0.006	0.01	0.010	0.005	0.06	0.000	0.006	0.01	0.009	0.00	0.134	0.121	0.059	0.208	0.006	0.005	0.008	20.1	11.8	27.6	1	1
911	1.05492	-72.48875	301.67950	-44.61062	-0.251	3934.05	0.262	-0.426	3935.50	0.350	-0.125	3936.15	0.154	0.98	0.006	0.01	0.008	0.006	0.01	0.009	0.012	0.01	0.016	0.00	0.235	0.165	0.374	0.048	0.006	0.011	0.007	25.9	33.3	7.2	1	1

981	1.09488	-72.43439	301.42090	-44.65199	-0.223	3934.07	0.265	-0.207	3935.49	0.290	-0.087	3936.14	0.211	1.00	0.005	0.01	0.008	0.005	0.02	0.017	0.009	0.04	0.028	0.00	0.187	0.149	0.151	0.046	0.006	0.010	0.008	26.8	15.4	6.0	1	1
872	1.03365	-72.61147	301.82404	-44.49397	-0.198	3933.97	0.264	-0.214	3935.54	0.274	-0.252	3936.23	0.309	1.00	0.004	0.01	0.006	0.007	0.02	0.012	0.005	0.02	0.012	0.00	0.099	0.131	0.147	0.195	0.004	0.008	0.009	34.7	18.4	22.6	1	1
973	1.09023	-72.45303	301.45239	-44.63501	-0.218	3934.02	0.260	-0.159	3935.44	0.380	-0.075	3936.22	0.238	1.00	0.003	0.00	0.005	0.003	0.02	0.016	0.005	0.02	0.019	0.00	0.146	0.142	0.151	0.044	0.003	0.007	0.005	43.4	22.1	9.1	1	1
978	1.09230	-72.47878	301.44205	-44.60862	-0.220	3934.03	0.256	-0.136	3935.44	0.349	-0.043	3937.23	0.177	0.97	0.007	0.01	0.010	0.006	0.02	0.019	0.009	0.04	0.042	0.00	0.249	0.142	0.119	0.019	0.007	0.009	0.006	19.5	13.8	3.2	1	1
1014	1.13228	-72.40617	301.18018	-44.66589	-0.250	3934.04	0.233	-0.106	3935.54	0.400	-0.331	3936.25	0.272	0.99	0.008	0.01	0.009	0.009	0.05	0.000	0.009	0.01	0.010	0.00	0.731	0.145	0.106	0.226	0.007	0.009	0.011	20.2	11.4	21.1	1	1
910	1.05479	-72.57497	301.68814	-44.52462	-0.267	3934.02	0.242	-0.356	3935.51	0.336	-0.298	3936.21	0.189	0.99	0.007	0.01	0.007	0.006	0.01	0.012	0.010	0.01	0.008	0.00	0.581	0.162	0.300	0.142	0.007	0.012	0.008	24.6	25.7	18.1	1	1
924	1.05939	-72.59925	301.66147	-44.49905	-0.237	3933.99	0.244	-0.178	3935.42	0.260	-0.206	3936.08	0.400	0.98	0.010	0.01	0.012	0.013	0.03	0.023	0.012	0.04	0.000	0.00	0.353	0.145	0.116	0.206	0.009	0.013	0.012	16.0	8.7	16.9	1	1
905	1.05193	-72.62206	301.71030	-44.47844	-0.206	3933.98	0.238	-0.289	3935.65	0.381	-0.046	3936.57	0.112	0.99	0.004	0.01	0.006	0.003	0.01	0.006	0.006	0.02	0.018	0.00	0.019	0.123	0.276	0.013	0.004	0.005	0.003	32.0	52.2	4.9	1	1
1005	1.12071	-72.48811	301.26358	-44.58887	-0.137	3933.95	0.581	-0.273	3935.89	0.378	0.000	3936.48	0.144	0.99	0.008	0.04	0.044	0.010	0.02	0.017	0.000	0.00	0.000	0.00	0.432	0.200	0.259	-0.000	0.020	0.015	0.000	10.2	17.1	0.0	1	1
985	1.09817	-72.54403	301.41214	-44.54152	-0.175	3934.12	0.232	-0.251	3935.66	0.400	0.000	3936.50	0.362	0.97	0.010	0.02	0.016	0.007	0.01	0.000	0.000	0.00	0.000	0.00	0.147	0.102	0.252	-0.000	0.009	0.007	0.000	11.1	35.6	0.0	1	1
880	1.03931	-72.65400	301.79205	-44.45004	-0.143	3934.04	0.373	-0.328	3935.59	0.340	-0.097	3936.32	0.192	0.99	0.005	0.01	0.016	0.006	0.01	0.011	0.009	0.02	0.022	0.00	0.022	0.133	0.280	0.047	0.007	0.010	0.007	17.8	27.0	7.0	1	1
967	1.08478	-72.58698	301.50092	-44.50329	-0.188	3934.00	0.240	-0.506	3935.67	0.393	0.000	3936.60	0.200	0.98	0.004	0.01	0.007	0.004	0.00	0.003	-0.000	0.00	0.000	0.00	0.105	0.113	0.499	-0.000	0.004	0.005	0.000	27.1	91.5	0.0	1	1
966	1.08380	-72.60311	301.50873	-44.48753	-0.183	3934.03	0.241	-0.307	3935.58	0.357	0.000	3936.60	0.200	0.99	0.007	0.01	0.010	0.005	0.01	0.008	-0.000	0.00	0.000	0.00	0.116	0.111	0.275	-0.000	0.006	0.008	0.000	17.9	36.0	0.0	1	1
1027	1.14602	-72.52278	301.10843	-44.54405	-0.198	3933.96	0.282	-0.076	3935.04	0.300	-0.129	3935.88	0.331	1.00	0.003	0.01	0.007	0.004	0.04	0.034	0.004	0.02	0.019	0.00	0.023	0.140	0.057	0.107	0.004	0.007	0.007	34.3	8.1	15.5	1	1
945	1.07002	-72.64792	301.59949	-44.44726	-0.182	3934.00	0.226	-0.393	3935.70	0.384	-0.047	3936.50	0.100	1.00	0.006	0.01	0.008	0.005	0.01	0.006	0.008	0.02	0.000	0.00	0.019	0.103	0.378	0.012	0.005	0.007	0.002	20.5	52.4	5.8	1	1
883	1.04229	-72.66167	301.77408	-44.44159	-0.168	3933.97	0.248	-0.207	3935.51	0.296	-0.076	3936.07	0.400	0.99	0.003	0.01	0.006	0.010	0.01	0.010	0.010	0.06	0.000	0.00	0.058	0.105	0.153	0.077	0.003	0.009	0.010	31.4	17.3	7.7	1	1

1020	1.13645	-72.60914	301.17969	-44.46205	-0.189	3933.96	0.306	-0.241	3935.62	0.400	-0.101	3936.17	0.185	0.98	0.006	0.01	0.011	0.007	0.02	0.000	0.010	0.02	0.021	0.00	0.040	0.145	0.242	0.047	0.007	0.007	0.007	21.8	35.6	6.8	1	1
1026	1.14519	-72.61561	301.12589	-44.45198	-0.273	3933.97	0.261	-0.230	3935.32	0.400	-0.258	3936.20	0.320	0.99	0.008	0.01	0.009	0.008	0.02	0.000	0.007	0.01	0.014	0.00	0.315	0.179	0.231	0.207	0.008	0.008	0.011	23.1	30.1	19.2	1	1
899	1.04951	-72.66658	301.72940	-44.43470	-0.201	3933.98	0.302	-0.418	3935.52	0.274	-0.126	3936.04	0.300	0.99	0.006	0.01	0.011	0.064	0.05	0.019	0.051	0.19	0.082	0.00	0.003	0.152	0.287	0.095	0.007	0.048	0.046	21.2	5.9	2.0	1	1
1010	1.12441	-72.67900	301.26355	-44.39726	-0.145	3933.92	0.509	-0.417	3935.75	0.400	-0.020	3936.91	0.100	1.00	0.004	0.02	0.018	0.004	0.01	0.000	0.007	0.05	0.000	0.00	0.033	0.185	0.418	0.005	0.008	0.004	0.002	22.5	102.5	2.7	1	1
1001	1.11829	-72.71589	301.30606	-44.36286	-0.204	3934.05	0.544	-0.431	3935.64	0.336	-0.048	3936.60	0.208	1.00	0.008	0.03	0.031	0.011	0.01	0.013	0.013	0.07	0.073	0.00	0.092	0.278	0.364	0.025	0.019	0.016	0.011	14.3	22.5	2.3	1	1
947	1.07084	-72.69236	301.59869	-44.40268	-0.211	3934.00	0.213	-0.324	3935.61	0.283	-0.091	3936.24	0.152	0.98	0.009	0.01	0.011	0.008	0.01	0.012	0.012	0.03	0.026	0.00	0.074	0.113	0.230	0.035	0.007	0.012	0.008	15.4	19.9	4.6	1	1
992	1.10613	-72.73586	301.38385	-44.34745	-0.156	3933.83	0.600	-0.347	3935.54	0.365	-0.045	3937.33	0.400	0.98	0.007	0.03	0.000	0.009	0.01	0.012	0.008	0.08	0.000	0.00	0.177	0.235	0.317	0.045	0.010	0.013	0.008	22.6	24.4	5.6	1	1
1004	1.11891	-72.74497	301.30566	-44.33365	-0.165	3933.96	0.600	-0.408	3935.58	0.299	-0.126	3936.20	0.221	1.00	0.007	0.03	0.000	0.012	0.03	0.021	0.024	0.06	0.043	0.00	0.210	0.249	0.306	0.070	0.010	0.023	0.019	25.0	13.2	3.7	1	1
982	1.09623	-72.77878	301.44995	-44.30816	-0.164	3934.00	0.282	-0.312	3935.62	0.297	-0.069	3936.52	0.220	1.00	0.007	0.01	0.014	0.007	0.01	0.009	0.008	0.03	0.034	0.00	0.013	0.116	0.232	0.038	0.008	0.009	0.007	15.2	26.0	5.2	1	1
986	1.10022	-72.74480	301.42151	-44.34065	-0.131	3933.99	0.469	-0.350	3935.73	0.400	-0.115	3936.54	0.188	0.99	0.006	0.02	0.026	0.006	0.01	0.000	0.009	0.02	0.019	0.00	0.090	0.154	0.351	0.054	0.011	0.006	0.007	14.2	60.6	7.9	1	1

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983 1.09695 -72.80500 301.44836 -44.28177 -0.015 5780.99 0.900 0.000 5783.62 0.629 1.00 0.002 0.16 0.000 0.000 0.00 0.000 0.00 0.089 0.033 -0.000 0.005 0.000 6.7 0.0 -0.025 5797.49 0.250 -0.010 5799.37 0.664 1.02 0.004 0.05 0.000 0.003 0.00 0.228 0.00 0.095 0.016
0.016 0.002 0.007 6.8 2.3 -0.134 5890.57 0.405 -0.038 5893.11 1.000 -0.047 -0.051 0.051 5889.53 0.400 0.082 0.99 0.005 0.02 0.021 0.003 0.06 0.000 0.005 0.003 0.005 0.03 0.000 0.004 0.00 1.060 0.136 0.096 0.048 0.129 0.008 0.008 0.005 0.008 16.1 12.2 9.2 16.0 0 0 0
0 1 0

942 1.06833 -72.73080 301.61804 -44.36510 -0.010 5781.10 0.900 -0.007 5783.34 0.360 1.00 0.001 0.08 0.000 0.001 0.07 0.000 0.00 0.017 0.024 0.006 0.002 0.001 13.7 6.5 -0.008 5797.56 0.664 0.000 5799.85 0.491 1.02 0.001 0.09 0.092 0.000 0.00 0.000 0.00 0.017 0.013 -
0.000 0.002 0.000 5.6 0.0 -0.085 5890.41 0.404 -0.085 5892.54 0.449 -0.055 -0.057 0.024 5889.61 0.400 0.053 0.99 0.003 0.03 0.023 0.003 0.01 0.015 0.004 0.003 0.005 0.04 0.000 0.004 0.00 1.029 0.086 0.096 0.056 0.064 0.006 0.004 0.005 0.004 15.0 21.7 11.5 18.0 0 0 0
0 1 1

762 0.96979 -72.60278 302.22449 -44.51616 -0.014 5780.49 0.620 -0.023 5783.30 0.900 1.00 0.001 0.06 0.064 0.001 0.05 0.000 0.00 0.015 0.022 0.052 0.003 0.002 7.6 23.3 -0.019 5797.74 0.518 -0.014 5799.71 0.250 1.02 0.001 0.00 0.036 0.001 0.03 0.000 0.00 0.011 0.025
0.009 0.002 0.001 10.9 10.7 -0.187 5890.40 0.445 -0.210 5892.78 0.467 -0.133 -0.141 0.040 5889.72 0.400 0.066 0.98 0.007 0.03 0.019 0.003 0.01 0.007 0.008 0.003 0.014 0.06 0.000 0.012 0.00 1.034 0.209 0.246 0.148 0.164 0.012 0.005 0.011 0.004 17.8 46.2 13.9 38.2 0 1
1 1 1 1

929 1.06093 -72.74741 301.66556 -44.35075 -0.018 5781.10 0.602 -0.001 5783.77 0.360 1.01 0.003 0.00 0.114 0.003 1.67 0.000 0.00 0.042 0.027 0.001 0.007 0.003 4.1 0.3 -0.014 5797.62 0.403 -0.008 5799.90 0.802 1.03 0.002 0.06 0.065 0.001 0.15 0.175 0.00 0.012 0.014
0.016 0.003 0.004 4.8 3.6 -0.090 5890.37 0.401 -0.073 5892.60 0.510 -0.072 -0.062 0.012 5889.86 0.400 0.065 0.99 0.008 0.06 0.032 0.003 0.02 0.021 0.012 0.003 0.014 0.06 0.000 0.015 0.00 0.894 0.090 0.094 0.073 0.079 0.010 0.005 0.013 0.005 8.6 17.4 5.5 16.1 0 0 0
0 1 1

950 1.07309 -72.80672 301.59592 -44.28790 -0.020 5781.10 0.900 -0.013 5783.77 0.900 1.02 0.001 0.00 0.000 0.001 0.10 0.000 0.00 0.018 0.044 0.029 0.003 0.003 14.6 10.1 -0.014 5797.80 0.580 0.000 5800.29 0.462 1.03 0.001 0.05 0.058 0.000 0.00 0.000 0.00 0.010 0.020 -
0.000 0.003 0.000 7.7 0.0 -0.117 5890.48 0.312 0.000 5895.00 1.000 -0.085 -0.040 0.050 5889.47 0.400 0.065 0.97 0.016 0.05 0.053 0.000 0.00 0.000 0.015 0.009 0.014 0.11 0.000 0.013 0.00 21.765 0.092 -0.000 0.066 0.099 0.020 0.000 0.016 0.023 4.6 0.0 4.0 4.3 0 0 0
0 1 0

957 1.07814 -72.82575 301.56662 -44.26732 -0.021 5779.58 0.830 -0.021 5782.60 0.507 1.02 0.001 0.05 0.061 0.002 0.00 0.044 0.00 0.018 0.043 0.027 0.004 0.003 10.4 8.9 -0.010 5795.33 1.000 -0.117 5798.35 0.283 1.04 0.004 0.00 0.000 0.007 0.00 0.020 0.00 0.222 0.025
0.083 0.009 0.008 2.7 10.6 -0.125 5890.32 0.553 0.000 5893.77 1.000 -0.094 -0.022 0.098 5889.85 0.400 0.130 0.99 0.048 0.23 0.067 0.000 0.13 0.000 0.042 0.002 0.071 0.04 0.050 0.056 0.00 1.272 0.173 -0.000 0.131 0.056 0.070 0.000 0.061 0.006 2.5 0.0 2.1 9.0 0 0 0
0 1 0

987 1.10056 -72.88728 301.43515 -44.19849 -0.003 5779.10 0.611 0.000 5783.62 0.688 1.01 0.002 0.00 0.501 0.000 0.00 0.000 0.00 0.034 0.005 -0.000 0.005 0.000 1.0 0.0 -0.017 5796.35 1.000 -0.002 5800.21 0.250 1.03 0.002 0.00 0.000 0.003 0.53 0.000 0.00 0.037 0.042
0.001 0.004 0.002 10.8 0.6 -0.464 5890.12 0.398 -0.111 5893.03 0.471 -0.397 -0.059 0.476 5890.00 0.390 0.426 0.99 6.970 1.90 0.200 0.003 0.01 0.016 5.960 0.003 7.319 0.00 0.025 6.257 0.00 0.846 0.464 0.131 0.396 0.070 6.961 0.006 5.952 0.004 0.1 22.2 0.1 16.2 0 0 0
0 1 1

936 1.06400 -72.82750 301.65405 -44.26994 -0.030 5780.28 0.900 -0.031 5783.64 0.360 1.03 0.003 0.10 0.000 0.004 0.06 0.000 0.00 0.057 0.068 0.028 0.007 0.004 10.4 7.6 -0.026 5797.41 0.250 -0.017 5800.52 0.250 1.04 0.003 0.04 0.000 0.003 0.06 0.000 0.00 0.024 0.016
0.010 0.002 0.002 8.6 5.4 -0.226 5890.32 0.447 -0.033 5893.04 1.000 -0.193 -0.032 0.138 5890.00 0.388 0.188 0.99 0.144 0.26 0.072 0.003 0.07 0.000 0.126 0.003 0.198 0.00 0.021 0.170 0.00 0.985 0.253 0.084 0.217 0.080 0.167 0.007 0.145 0.007 1.5 12.5 1.5 11.8 1 0 0

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958 1.07915 -72.89658 301.56754 -44.19635 -0.022 5779.89 0.361 0.000 5783.53 0.651 1.00 0.002 0.05 0.047 0.000 0.00 0.000 0.00 0.909 0.020 -0.000 0.003 0.000 5.8 0.0 -0.008 5796.35 0.250 -0.022 5800.24 0.347 1.00 0.002 0.10 0.000 0.002 0.04 0.045 0.00 0.790 0.005
0.019 0.001 0.003 3.2 5.9 -0.182 5890.25 0.429 -0.079 5893.06 0.837 -0.169 -0.076 0.131 5889.94 0.400 0.165 0.99 0.265 0.48 0.117 0.003 0.03 0.034 0.257 0.003 0.335 0.09 0.000 0.321 0.00 1.713 0.195 0.166 0.181 0.160 0.290 0.009 0.281 0.009 0.7 17.6 0.6 17.3 1 0 0
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813 0.99703 -72.72244 302.06094 -44.39159 -0.009 5779.83 0.483 0.000 5783.57 0.634 1.00 0.002 0.11 0.113 0.000 0.00 0.000 0.00 0.665 0.011 -0.000 0.003 0.000 3.3 0.0 -0.011 5797.08 0.932 0.000 5800.09 0.525 1.00 0.001 0.00 0.128 0.000 0.00 0.000 0.00 0.588 0.026 -
0.000 0.005 0.000 5.7 0.0 -0.126 5890.45 0.354 -0.096 5892.81 0.470 -0.073 -0.058 0.026 5889.49 0.400 0.040 0.99 0.003 0.01 0.013 0.003 0.01 0.016 0.003 0.003 0.003 0.05 0.000 0.003 0.00 0.989 0.112 0.113 0.064 0.069 0.005 0.005 0.004 0.004 21.7 21.9 16.9 17.3 0 0 0
0 1 1

868 1.03136 -72.75450 301.84976 -44.35176 0.000 5780.02 0.627 0.000 5783.58 0.658 1.00 0.000 0.00 0.000 0.00 0.000 0.00 1.223 -0.000 -0.000 0.000 0.000 0.0 0.0 -0.022 5797.27 0.268 -0.006 5800.07 1.000 1.00 0.001 0.00 0.019 0.001 0.14 0.000 0.00 0.339 0.015
0.014 0.001 0.002 10.6 8.1 -0.163 5890.28 0.423 -0.041 5892.41 0.611 -0.148 -0.035 0.068 5889.88 0.400 0.107 0.99 0.060 0.15 0.047 0.003 0.04 0.048 0.064 0.003 0.081 0.09 0.000 0.081 0.00 1.296 0.172 0.063 0.157 0.053 0.066 0.007 0.070 0.006 2.6 9.5 2.2 8.8 0 0 1
0 1 0

996 1.11054 -72.96806 301.38315 -44.11443 -0.008 5780.71 0.360 -0.019 5782.81 0.654 1.00 0.002 0.10 0.000 0.002 0.06 0.064 0.00 0.430 0.007 0.032 0.002 0.004 4.6 7.9 -0.008 5797.96 0.654 0.000 5799.25 0.595 1.00 0.002 0.00 0.192 0.000 0.00 0.000 0.00 0.726 0.013 -
0.000 0.005 0.000 2.6 0.0 -0.134 5890.32 0.505 -0.042 5893.04 0.268 -0.092 0.000 0.132 5889.75 0.363 0.130 0.99 0.046 0.26 0.102 0.005 0.04 0.037 0.036 0.000 0.084 0.06 0.043 0.059 0.00 1.126 0.170 0.028 0.116 -0.000 0.068 0.005 0.052 0.000 2.5 5.6 2.2 0.0 0 0 0
1 0

848 1.01919 -72.76119 301.92584 -44.34804 -0.018 5780.36 0.900 0.000 5783.61 0.606 1.00 0.001 0.06 0.000 0.000 0.00 0.000 0.00 0.362 0.041 -0.000 0.002 0.000 16.6 0.0 -0.017 5797.52 0.323 -0.010 5800.73 0.488 1.00 0.001 0.03 0.033 0.001 0.07 0.071 0.00 0.232 0.014
0.012 0.002 0.002 7.4 5.3 -0.199 5890.26 0.429 -0.054 5892.56 0.455 -0.131 -0.042 0.105 5889.90 0.400 0.101 0.99 0.115 0.21 0.058 0.003 0.02 0.026 0.083 0.003 0.150 0.09 0.000 0.105 0.00 0.773 0.214 0.062 0.141 0.047 0.127 0.005 0.091 0.004 1.7 12.5 1.5 11.1 1 0 1
0 1 1

917 1.05666 -72.95461 301.71082 -44.14523 -0.019 5780.38 0.900 0.000 5783.70 0.748 1.00 0.002 0.10 0.000 0.000 0.00 0.000 0.00 0.460 0.043 -0.000 0.004 0.000 10.8 0.0 -0.028 5797.41 0.398 0.000 5800.18 0.509 1.00 0.002 0.03 0.034 0.000 0.00 0.000 0.00 0.261 0.028 -
0.000 0.003 0.000 8.8 0.0 -0.879 5889.70 0.502 -0.036 5892.04 0.486 -0.730 -0.021 0.735 5889.78 0.400 0.643 1.00 0.066 0.01 0.008 0.003 0.04 0.049 0.056 0.003 0.067 0.01 0.000 0.057 0.00 0.323 1.105 0.043 0.919 0.026 0.085 0.006 0.072 0.004 13.0 7.5 12.8 5.8 1 0 1
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856 1.02392 -72.88494 301.90585 -44.22335 -0.014 5780.93 0.900 -0.008 5782.69 0.473 1.00 0.001 0.08 0.000 0.001 0.09 0.091 0.00 0.509 0.031 0.009 0.002 0.002 17.1 4.1 -0.009 5796.86 0.250 0.000 5799.20 0.511 1.00 0.001 0.04 0.000 0.000 0.00 0.000 0.00 0.447 0.006 -
0.000 0.001 0.000 8.1 0.0 -0.131 5890.24 0.451 -0.031 5892.82 1.000 -0.111 -0.035 0.080 5889.85 0.400 0.098 0.99 0.081 0.29 0.093 0.002 0.06 0.000 0.072 0.002 0.120 0.06 0.000 0.104 0.00 1.274 0.149 0.077 0.126 0.087 0.097 0.006 0.086 0.006 1.5 13.8 1.5 15.5 1 0 0
0 1 0

953 1.07585 -73.00058 301.59805 -44.09366 -0.007 5780.46 0.360 0.000 5783.59 0.601 1.00 0.001 0.09 0.000 0.000 0.00 0.000 0.00 0.354 0.006 -0.000 0.001 0.000 5.3 0.0 -0.008 5797.71 0.586 -0.008 5800.21 0.358 1.00 0.002 0.00 0.201 0.003 0.13 0.138 0.00 1.141 0.011
0.008 0.005 0.004 2.2 2.0 -0.071 5890.50 0.319 -0.024 5892.41 0.770 -0.051 -0.020 0.036 5889.61 0.400 0.043 0.99 0.004 0.02 0.026 0.003 0.08 0.098 0.004 0.003 0.004 0.05 0.000 0.004 0.00 1.436 0.057 0.046 0.041 0.039 0.005 0.008 0.005 0.007 10.3 6.0 9.0 5.6 0 0 0

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784 0.98309 -72.74267 302.14896 -44.37407 -0.012 5780.43 0.360 -0.012 5782.60 0.534 1.00 0.001 0.05 0.000 0.001 0.00 0.060 0.00 0.433 0.011 0.017 0.001 0.002 9.8 6.8 -0.006 5797.13 0.250 -0.005 5799.10 0.250 1.00 0.001 0.07 0.000 0.001 0.08 0.000 0.00 0.276 0.004
0.003 0.001 0.001 5.0 4.5 -0.167 5890.41 0.379 -0.115 5892.77 0.496 -0.123 -0.078 0.021 5889.75 0.400 0.058 0.99 0.005 0.02 0.014 0.003 0.01 0.014 0.007 0.003 0.008 0.06 0.000 0.008 0.00 1.249 0.159 0.143 0.117 0.097 0.007 0.006 0.008 0.005 22.2 25.6 15.4 21.4 0 0 0
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785 0.98484 -72.78902 302.14075 -44.32744 -0.009 5781.10 0.767 0.000 5783.59 0.645 1.00 0.002 0.00 0.165 0.000 0.00 0.000 0.00 0.810 0.017 -0.000 0.005 0.000 3.6 0.0 -0.006 5796.85 1.000 0.000 5800.13 0.458 1.00 0.001 0.00 0.000 0.000 0.00 0.000 0.00 0.682 0.016 -
0.000 0.003 0.000 5.2 0.0 -0.137 5890.40 0.358 -0.146 5893.46 0.406 -0.087 -0.169 0.032 5889.56 0.400 0.052 0.99 0.004 0.02 0.015 0.003 0.01 0.008 0.004 0.003 0.005 0.05 0.000 0.004 0.00 0.812 0.123 0.149 0.078 0.172 0.006 0.005 0.005 0.005 19.6 32.6 15.6 34.8 0 0 0
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773 0.97489 -72.68630 302.19693 -44.43185 -0.021 5780.67 0.782 -0.006 5784.60 0.799 1.00 0.002 0.06 0.080 0.002 0.00 0.288 0.00 0.442 0.040 0.012 0.005 0.005 7.7 2.2 0.000 5797.16 0.489 -0.003 5800.94 0.250 1.00 0.000 0.00 0.000 0.001 0.17 0.000 0.00 0.199 -0.000
0.002 0.000 0.001 0.0 2.0 -0.169 5890.46 0.285 -0.120 5892.62 0.422 -0.090 -0.074 0.026 5889.43 0.400 0.042 0.99 0.004 0.01 0.008 0.003 0.01 0.013 0.004 0.003 0.003 0.04 0.000 0.003 0.00 0.876 0.120 0.127 0.064 0.079 0.004 0.005 0.003 0.004 27.3 25.0 20.2 19.9 1 0 0
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689 0.93819 -72.79353 302.43021 -44.32996 -0.018 5780.93 0.360 -0.013 5782.63 0.360 1.00 0.002 0.06 0.000 0.002 0.08 0.000 0.00 0.554 0.017 0.011 0.002 0.002 8.3 5.7 -0.018 5797.81 0.250 0.000 5799.13 0.395 1.00 0.003 0.05 0.000 0.000 0.00 0.000 0.00 0.656 0.011 -
0.000 0.002 0.000 6.5 0.0 -0.346 5890.20 0.450 -0.078 5892.58 0.560 -0.250 -0.045 0.226 5889.84 0.400 0.198 0.99 0.137 0.17 0.051 0.003 0.03 0.029 0.100 0.003 0.194 0.03 0.000 0.141 0.00 1.240 0.390 0.110 0.281 0.063 0.160 0.007 0.117 0.006 2.4 14.8 2.4 11.2 1 0 0
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827 1.00534 -72.89878 302.02109 -44.21373 -0.018 5781.10 0.900 -0.014 5783.64 0.360 1.01 0.002 0.00 0.000 0.002 0.07 0.000 0.00 0.755 0.040 0.012 0.003 0.002 11.5 6.3 -0.014 5797.98 0.250 -0.014 5800.22 0.250 1.00 0.002 0.06 0.000 0.002 0.06 0.000 0.00 0.665 0.009
0.009 0.001 0.001 6.0 6.0 -0.119 5890.36 0.503 0.000 5893.98 1.000 -0.096 -0.030 0.078 5889.82 0.275 0.118 1.00 0.010 0.08 0.040 0.000 0.09 0.000 0.010 0.002 0.023 0.01 0.026 0.018 0.00 0.955 0.150 -0.000 0.120 0.075 0.017 0.000 0.016 0.006 8.8 0.0 7.6 13.4 0 0 0
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964 1.08265 -73.07111 301.56381 -44.02117 -0.015 5780.35 0.360 -0.006 5784.04 0.471 1.00 0.001 0.04 0.000 0.001 0.11 0.113 0.00 0.420 0.014 0.007 0.001 0.002 12.2 3.2 0.000 5796.88 0.534 -0.009 5801.29 0.648 1.00 0.000 0.00 0.000 0.001 0.00 0.120 0.00 0.639 -0.000
0.014 0.000 0.003 0.0 4.2 -0.120 5890.36 0.364 -0.059 5892.46 0.578 -0.113 -0.021 0.057 5890.00 0.394 0.106 0.99 0.016 0.07 0.029 0.003 0.03 0.034 0.013 0.003 0.026 0.00 0.032 0.025 0.00 1.516 0.110 0.085 0.103 0.031 0.017 0.006 0.015 0.004 6.5 13.2 7.0 7.4 1 0 0
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772 0.97486 -72.82422 302.20450 -44.29404 -0.018 5780.69 0.900 -0.014 5783.14 0.900 1.00 0.001 0.08 0.000 0.001 0.11 0.000 0.00 0.482 0.041 0.032 0.003 0.003 13.6 10.6 -0.018 5797.62 0.250 -0.013 5800.01 0.250 1.00 0.001 0.02 0.000 0.001 0.03 0.000 0.00 0.161 0.011
0.008 0.001 0.001 15.6 11.2 -0.211 5890.23 0.454 -0.124 5892.90 0.568 -0.175 -0.100 0.107 5889.84 0.400 0.136 0.99 0.076 0.17 0.056 0.003 0.01 0.013 0.066 0.003 0.113 0.04 0.000 0.096 0.00 1.002 0.241 0.177 0.199 0.142 0.091 0.006 0.079 0.005 2.6 31.2 2.5 28.1 0 0 1
1 1 1

822 1.00024 -72.92297 302.05399 -44.19062 -0.013 5780.87 0.900 -0.012 5784.60 0.360 1.00 0.001 0.07 0.000 0.001 0.00 0.000 0.00 0.337 0.030 0.011 0.002 0.001 15.3 9.8 -0.012 5797.11 0.360 -0.007 5801.85 1.000 1.01 0.004 0.12 0.131 0.002 0.00 0.000 0.00 2.232 0.010
0.017 0.005 0.005 2.1 3.1 -0.148 5890.21 0.553 0.000 5892.89 0.436 -0.111 0.000 0.087 5889.75 0.391 0.099 1.00 0.061 0.24 0.067 0.000 0.00 0.000 0.051 0.000 0.088 0.06 0.082 0.067 0.00 1.673 0.205 -0.000 0.154 -0.000 0.088 0.000 0.073 0.000 2.3 0.0 2.1 0.0 1 0 0 0

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804 0.99151 -72.92767 302.10785 -44.18766 -0.014 5780.52 0.360 -0.015 5782.86 0.805 0.99 0.002 0.06 0.000 0.001 0.08 0.087 0.00 0.389 0.012 0.031 0.002 0.004 8.1 7.3 -0.015 5797.77 0.551 0.000 5799.32 0.497 1.00 0.001 0.00 0.054 0.000 0.00 0.000 0.00 0.233 0.020 -0.000 0.003 0.000 7.8 0.0 -0.213 5890.44 0.367 -0.130 5892.79 0.486 -0.129 -0.120 0.042 5889.79 0.400 0.068 1.00 0.008 0.02 0.016 0.004 0.01 0.015 0.009 0.004 0.012 0.07 0.000 0.010 0.00 2.367 0.196 0.159 0.119 0.146 0.011 0.007 0.010 0.007 18.0 23.1 12.0 22.3 0 0 0 0 1 1

1002 1.11870 -73.18603 301.35904 -43.89426 -0.022 5779.93 0.899 -0.020 5784.08 0.900 1.01 0.002 0.07 0.082 0.002 0.07 0.000 0.00 0.775 0.049 0.045 0.006 0.004 8.6 11.9 0.000 5796.38 0.467 -0.017 5800.39 0.250 1.00 0.000 0.00 0.000 0.003 0.05 0.000 0.00 1.094 -0.000 0.011 0.000 0.002 0.0 6.3 -0.193 5890.54 0.324 -0.094 5893.53 0.361 -0.126 -0.069 0.084 5889.48 0.400 0.083 0.98 0.004 0.01 0.009 0.004 0.02 0.016 0.004 0.004 0.004 0.02 0.000 0.004 0.00 1.350 0.157 0.085 0.102 0.063 0.006 0.005 0.004 0.004 27.7 16.0 23.3 14.0 0 0 0 0 1 1

770 0.97290 -72.89628 302.22040 -44.22235 0.000 5780.22 0.552 -0.016 5782.60 0.900 0.99 0.000 0.00 0.000 0.002 0.00 0.000 0.00 0.406 -0.000 0.035 0.000 0.004 0.0 9.7 0.000 5796.75 0.501 -0.038 5798.76 0.269 1.00 0.000 0.00 0.000 0.002 0.02 0.016 0.00 0.178 -0.000 0.026 0.000 0.002 0.0 12.5 -0.376 5890.65 0.450 -0.072 5891.21 0.690 -0.343 -0.029 0.015 5889.99 0.400 0.076 0.99 0.078 0.02 0.016 0.046 0.65 0.254 0.033 0.022 0.030 0.05 0.000 0.019 0.00 0.588 0.424 0.125 0.387 0.050 0.089 0.092 0.040 0.043 4.8 1.4 9.8 1.2 0 0 0 0 1 0

750 0.96354 -72.66150 302.26663 -44.45848 -0.019 5781.08 0.827 -0.019 5783.35 0.900 1.00 0.001 0.08 0.091 0.001 0.11 0.000 0.00 1.451 0.040 0.043 0.005 0.003 7.7 13.9 -0.021 5797.29 0.250 -0.009 5799.21 0.691 1.00 0.001 0.02 0.000 0.001 0.07 0.078 0.00 0.583 0.013 0.016 0.001 0.002 17.5 6.8 -0.186 5890.44 0.378 -0.324 5892.76 0.437 -0.137 -0.236 0.015 5889.55 0.400 0.053 0.99 0.003 0.01 0.009 0.003 0.00 0.004 0.004 0.003 0.004 0.04 0.000 0.004 0.00 1.274 0.177 0.355 0.130 0.258 0.005 0.005 0.005 0.004 32.7 71.5 27.5 61.8 0 0 1 0 1 1

809 0.99354 -72.97642 302.09842 -44.13857 -0.030 5780.52 0.900 -0.024 5783.35 0.900 1.01 0.002 0.06 0.000 0.002 0.07 0.000 0.00 0.475 0.068 0.055 0.004 0.004 18.0 14.4 -0.020 5797.60 0.317 0.000 5799.87 0.541 1.00 0.003 0.05 0.052 0.000 0.00 0.000 0.00 0.522 0.016 -0.000 0.003 0.000 4.7 0.0 -0.246 5890.33 0.359 -0.201 5892.39 0.528 -0.129 -0.154 0.132 5890.00 0.362 0.138 0.99 0.041 0.07 0.029 0.003 0.01 0.010 0.020 0.003 0.066 0.00 0.024 0.036 0.00 0.756 0.221 0.266 0.116 0.203 0.041 0.007 0.020 0.006 5.4 40.3 5.7 35.6 1 0 1 0 1 1

759 0.96853 -72.71375 302.23807 -44.40548 -0.016 5781.10 0.669 -0.016 5783.01 0.360 1.00 0.001 0.00 0.053 0.001 0.03 0.000 0.00 0.526 0.026 0.014 0.003 0.001 10.0 14.2 -0.012 5797.64 0.472 -0.008 5799.78 0.312 1.00 0.001 0.04 0.038 0.001 0.05 0.047 0.00 0.253 0.014 0.006 0.001 0.001 9.6 5.1 -0.139 5890.44 0.371 -0.185 5892.75 0.459 -0.085 -0.132 0.043 5889.40 0.400 0.028 0.99 0.003 0.01 0.010 0.003 0.01 0.008 0.003 0.003 0.003 0.00 0.000 0.003 0.00 1.084 0.130 0.212 0.079 0.152 0.005 0.005 0.004 0.004 27.0 41.5 21.4 35.6 0 1 1 1 1 1

757 0.96730 -72.63145 302.24158 -44.48793 -0.013 5780.73 0.900 -0.021 5782.60 0.360 1.00 0.001 0.09 0.000 0.001 0.00 0.000 0.00 0.581 0.029 0.019 0.002 0.001 13.1 14.1 -0.004 5796.90 0.614 0.000 5799.18 0.459 1.00 0.001 0.22 0.231 0.000 0.00 0.000 0.00 0.688 0.007 -0.000 0.003 0.000 2.0 0.0 -0.169 5890.39 0.370 -0.134 5892.64 0.446 -0.132 -0.093 0.034 5889.83 0.400 0.076 0.99 0.008 0.03 0.015 0.003 0.01 0.012 0.011 0.003 0.012 0.06 0.000 0.012 0.00 1.419 0.157 0.150 0.122 0.104 0.010 0.005 0.011 0.004 16.3 27.5 10.7 23.1 0 1 0 0 1 1

744 0.96043 -72.90772 302.29767 -44.21288 -0.013 5780.13 0.360 -0.015 5782.60 0.743 1.00 0.001 0.05 0.000 0.001 0.00 0.066 0.00 0.812 0.012 0.028 0.001 0.003 9.7 8.7 0.000 5796.66 0.471 -0.002 5799.85 1.000 1.00 0.000 0.00 0.000 0.001 0.00 0.000 0.00 0.636 -0.000 0.005 0.000 0.002 0.0 2.6 -0.187 5890.34 0.432 -0.078 5892.58 0.586 -0.158 -0.056 0.040 5889.87 0.400 0.091 0.99 0.023 0.07 0.029 0.003 0.02 0.026 0.026 0.003 0.038 0.06 0.000 0.037 0.00 1.328 0.202 0.115 0.171 0.082 0.029 0.007 0.031 0.006 7.1 17.1 5.5 14.7 0 0 0 0 0 0

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844 1.01627 -73.06277 301.96570 -44.04755 0.000 5780.51 0.360 0.000 5783.59 0.635 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 1.171 -0.000 -0.000 0.000 0.000 0.0 0.0 -0.005 5797.76 0.812 0.000 5800.07 0.519 1.00 0.001 0.00 0.266 0.000 0.00 0.000 0.00 0.466 0.009 -0.000 0.004 0.000 2.4 0.0 -0.180 5890.46 0.360 -0.084 5893.68 0.607 -0.137 -0.081 0.032 5889.71 0.400 0.064 0.98 0.004 0.01 0.012 0.003 0.02 0.020 0.005 0.003 0.006 0.05 0.000 0.006 0.00 1.589 0.162 0.129 0.123 0.123 0.006 0.006 0.006 0.006 25.4 21.5 20.2 21.0 0 0 0 0 1 1

712 0.94703 -72.75514 302.37381 -44.36724 -0.021 5781.10 0.900 -0.018 5783.44 0.360 1.00 0.001 0.00 0.000 0.001 0.03 0.000 0.00 0.570 0.047 0.016 0.002 0.001 23.4 14.2 -0.017 5797.75 0.264 0.000 5799.98 0.483 1.00 0.002 0.03 0.029 0.000 0.00 0.000 0.00 0.553 0.011 -0.000 0.002 0.000 6.8 0.0 -0.171 5890.46 0.375 -0.115 5892.65 0.489 -0.113 -0.071 0.021 5889.40 0.400 0.039 0.99 0.004 0.01 0.009 0.003 0.01 0.015 0.003 0.003 0.003 0.00 0.000 0.003 0.00 1.834 0.160 0.141 0.106 0.087 0.005 0.006 0.004 0.004 32.5 24.8 26.9 19.7 1 1 1 0 1 1

746 0.96251 -72.67152 302.27356 -44.44863 -0.010 5781.10 0.816 -0.008 5782.60 0.900 1.00 0.001 0.00 0.088 0.001 0.00 0.000 0.00 0.473 0.021 0.018 0.003 0.002 7.5 9.7 -0.006 5797.96 0.269 0.000 5799.14 0.495 1.00 0.001 0.07 0.072 0.000 0.00 0.000 0.00 0.433 0.004 -0.000 0.001 0.000 2.9 0.0 -0.163 5890.39 0.431 -0.164 5892.63 0.408 -0.117 -0.109 0.020 5889.65 0.400 0.062 0.99 0.004 0.02 0.015 0.003 0.01 0.008 0.005 0.003 0.007 0.04 0.000 0.007 0.00 1.377 0.176 0.168 0.126 0.112 0.007 0.005 0.007 0.004 24.4 36.1 18.6 29.9 0 0 0 0 1 1

993 1.10645 -73.36772 301.45279 -43.71754 -0.032 5780.06 0.900 -0.043 5783.32 0.900 1.02 0.004 0.11 0.000 0.004 0.08 0.000 0.00 1.874 0.072 0.098 0.008 0.008 8.8 11.9 -0.017 5795.81 0.250 -0.020 5799.40 0.250 1.00 0.004 0.00 0.000 0.004 0.06 0.000 0.00 0.849 0.011 0.013 0.002 0.002 4.7 5.5 -0.208 5890.29 0.435 -0.305 5893.53 0.447 -0.134 -0.288 0.192 5889.86 0.347 0.152 0.98 0.232 0.53 0.156 0.005 0.01 0.007 0.160 0.005 0.340 0.14 0.077 0.224 0.00 1.536 0.227 0.342 0.146 0.323 0.266 0.007 0.182 0.007 0.9 45.9 0.8 44.7 0 0 0 0 1 1

892 1.04623 -73.22436 301.79755 -43.87888 -0.018 5781.10 0.617 -0.007 5783.89 0.900 1.00 0.001 0.00 0.053 0.001 0.14 0.000 0.00 0.265 0.027 0.017 0.003 0.002 9.1 7.5 -0.074 5798.35 0.552 0.000 5800.40 0.510 1.00 0.004 0.00 0.040 0.000 0.00 0.000 0.00 3.557 0.102 -0.000 0.010 0.000 10.5 0.0 -0.189 5890.48 0.360 -0.297 5893.37 0.430 -0.129 -0.251 0.016 5889.40 0.400 0.039 0.98 0.004 0.01 0.008 0.003 0.00 0.005 0.003 0.003 0.00 0.000 0.003 0.00 0.647 0.171 0.320 0.117 0.270 0.005 0.005 0.004 0.005 34.7 62.6 29.2 58.1 1 0 0 0 1 1

853 1.02276 -73.15672 301.93329 -43.95224 0.000 5780.05 0.573 -0.018 5784.08 0.900 1.01 0.000 0.00 0.000 0.001 0.08 0.000 0.00 1.106 -0.000 0.040 0.000 0.003 0.0 13.0 0.000 5796.55 0.250 0.000 5800.43 0.561 0.99 0.000 0.00 0.000 0.000 0.00 0.000 0.00 33.849 -0.000 -0.000 0.000 0.000 0.0 0.0 -0.229 5890.23 0.432 -0.115 5892.99 0.436 -0.160 -0.078 0.144 5889.93 0.400 0.126 0.99 0.235 0.34 0.082 0.003 0.01 0.012 0.169 0.003 0.299 0.06 0.000 0.213 0.00 1.218 0.248 0.126 0.174 0.085 0.259 0.005 0.186 0.004 1.0 26.5 0.9 22.1 0 0 0 0 1 1

720 0.95143 -72.91125 302.35315 -44.21062 -0.007 5780.43 0.360 -0.009 5783.97 0.804 1.00 0.001 0.08 0.000 0.001 0.09 0.104 0.00 0.267 0.006 0.018 0.001 0.003 5.4 6.1 -0.014 5797.00 0.250 -0.012 5800.35 0.250 1.00 0.002 0.04 0.000 0.002 0.05 0.000 0.00 0.466 0.009 0.008 0.001 0.001 7.9 6.9 -0.224 5890.49 0.354 -0.117 5893.42 0.728 -0.164 -0.118 0.000 5889.62 0.400 0.052 0.99 0.003 0.01 0.005 0.002 0.01 0.014 0.003 0.002 0.000 0.03 0.000 0.003 0.00 1.034 0.199 0.213 0.146 0.215 0.004 0.006 0.004 0.006 48.6 38.3 39.8 38.2 0 0 0 0 1 1

952 1.07514 -73.48189 301.64932 -43.61376 0.000 5780.20 0.583 -0.016 5783.37 0.379 1.01 0.000 0.00 0.000 0.003 0.09 0.090 0.00 0.596 -0.000 0.015 0.000 0.005 0.0 3.2 0.000 5797.16 0.250 0.000 5799.87 0.582 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.400 -0.000 -0.000 0.000 0.000 0.0 0.0 -0.153 5890.52 0.318 -0.051 5892.26 0.681 -0.118 -0.040 0.048 5889.75 0.238 0.065 0.99 0.004 0.02 0.016 0.003 0.04 0.049 0.004 0.003 0.006 0.03 0.026 0.005 0.00 0.071 0.122 0.088 0.094 0.068 0.007 0.008 0.006 0.007 17.3 10.9 16.2 9.9 0 0 0

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826 1.00430 -73.17536 302.04581 -43.93768 -0.021 5781.10 0.868 -0.006 5783.63 0.360 1.00 0.003 0.00 0.128 0.003 0.25 0.000 0.00 0.571 0.047 0.006 0.009 0.003 5.3 1.9 0.000 5797.62 0.772 0.000 5800.17 0.557 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.476 -0.000 -0.000 0.000 0.000 0.0 0.0 -0.208 5890.32 0.505 -0.172 5893.31 0.525 -0.155 -0.179 0.115 5889.86 0.400 0.120 1.00 0.030 0.11 0.045 0.003 0.01 0.010 0.023 0.003 0.056 0.03 0.000 0.041 0.00 0.698 0.263 0.226 0.196 0.236 0.045 0.006 0.034 0.006 5.9 36.4 5.8 37.1 0 0 0 0 1 1

885 1.04316 -73.42056 301.83228 -43.68384 -0.013 5781.05 0.900 -0.012 5783.39 0.768 1.00 0.001 0.13 0.000 0.001 0.11 0.130 0.00 0.462 0.030 0.023 0.003 0.005 10.9 4.9 0.000 5797.53 0.519 -0.010 5799.80 0.984 1.00 0.000 0.00 0.000 0.001 0.11 0.127 0.00 0.412 -0.000 0.026 0.000 0.004 0.0 6.1 -0.162 5890.54 0.302 0.000 5894.06 0.250 -0.098 -0.043 0.030 5889.46 0.400 0.051 0.97 0.016 0.03 0.035 0.000 0.12 0.000 0.015 0.016 0.013 0.13 0.000 0.013 0.00 17.713 0.122 -0.000 0.074 0.027 0.019 0.000 0.014 0.010 6.5 0.0 5.2 2.7 0 0 0 0 1 0

956 1.07787 -73.58459 301.64334 -43.51050 -0.015 5780.72 0.508 -0.008 5783.58 0.727 1.00 0.001 0.05 0.053 0.001 0.11 0.121 0.00 0.075 0.020 0.015 0.003 0.003 7.4 4.7 -0.006 5797.97 0.566 -0.007 5800.83 1.000 1.00 0.001 0.00 0.103 0.001 0.00 0.000 0.00 0.037 0.008 0.016 0.002 0.002 4.2 9.9 -0.144 5890.37 0.461 0.000 5894.00 1.000 -0.112 -0.026 0.059 5890.00 0.389 0.082 0.99 0.065 0.22 0.069 0.000 0.08 0.000 0.052 0.002 0.097 0.00 0.026 0.076 0.00 0.902 0.167 -0.000 0.130 0.066 0.079 0.000 0.063 0.005 2.1 0.0 2.1 14.5 0 0 0 0 1 0

926 1.05968 -73.50725 301.74249 -43.59291 -0.017 5781.10 0.500 -0.008 5782.60 0.738 1.00 0.002 0.00 0.060 0.001 0.00 0.191 0.00 0.426 0.021 0.014 0.003 0.005 6.1 3.1 -0.003 5797.35 0.250 -0.012 5798.38 0.250 1.00 0.002 0.20 0.000 0.002 0.05 0.000 0.00 0.415 0.002 0.008 0.001 0.001 1.7 6.4 -0.201 5890.41 0.447 -0.021 5892.64 1.000 -0.150 -0.019 0.098 5889.95 0.336 0.106 1.00 0.063 0.18 0.061 0.002 0.10 0.000 0.053 0.002 0.103 0.06 0.052 0.079 0.00 0.704 0.225 0.052 0.168 0.047 0.077 0.005 0.064 0.005 2.9 10.9 2.6 9.8 0 0 0 0 1 0

919 1.05735 -73.52561 301.75778 -43.57523 -0.008 5779.77 0.900 -0.009 5782.60 0.858 1.00 0.001 0.16 0.000 0.001 0.00 0.153 0.00 0.200 0.018 0.020 0.003 0.004 7.1 4.5 0.000 5796.34 0.517 0.000 5799.39 0.260 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.365 -0.000 -0.000 0.000 0.000 0.0 0.0 -0.131 5890.44 0.338 -0.214 5893.80 0.381 -0.098 -0.201 0.039 5890.00 0.400 0.068 1.00 0.004 0.02 0.012 0.003 0.00 0.005 0.004 0.003 0.007 0.00 0.000 0.006 0.00 0.450 0.111 0.204 0.083 0.192 0.005 0.004 0.005 0.004 20.3 55.4 18.2 53.8 0 0 0 0 1 1

897 1.04884 -73.52572 301.80765 -43.57740 -0.027 5780.60 0.360 0.000 5783.84 0.443 1.00 0.002 0.04 0.000 0.000 0.00 0.000 0.00 0.748 0.024 -0.000 0.002 0.000 11.5 0.0 -0.013 5796.75 0.250 0.000 5800.41 0.443 1.00 0.002 0.05 0.000 0.000 0.00 0.000 0.00 0.397 0.008 -0.000 0.001 0.000 6.5 0.0 -0.116 5890.50 0.343 -0.214 5893.66 0.395 -0.097 -0.204 0.022 5890.00 0.400 0.053 0.99 0.004 0.02 0.013 0.003 0.00 0.005 0.004 0.003 0.006 0.00 0.000 0.005 0.00 0.623 0.099 0.212 0.084 0.202 0.005 0.004 0.004 0.004 20.1 54.9 18.8 53.8 0 0 0 0 1 1

738 0.95729 -73.01317 302.32175 -44.10794 0.000 5780.23 0.632 -0.019 5782.60 0.900 1.00 0.000 0.00 0.000 0.001 0.00 0.000 0.00 1.331 -0.000 0.042 0.000 0.003 0.0 15.5 -0.011 5797.48 0.415 -0.004 5799.34 1.000 1.00 0.001 0.00 0.050 0.001 0.24 0.000 0.00 0.442 0.012 0.010 0.002 0.002 6.5 6.0 -0.181 5890.38 0.373 -0.065 5892.78 0.615 -0.149 -0.038 0.031 5890.00 0.400 0.067 0.99 0.008 0.02 0.012 0.002 0.02 0.027 0.007 0.002 0.013 0.00 0.000 0.011 0.00 1.327 0.169 0.100 0.139 0.059 0.010 0.006 0.008 0.004 17.4 17.4 16.8 13.5 0 0 0 0 1 1

704 0.94304 -72.81139 302.40082 -44.31152 -0.019 5780.88 0.900 -0.012 5783.60 0.360 1.00 0.001 0.06 0.000 0.001 0.06 0.000 0.00 0.420 0.043 0.011 0.002 0.001 18.0 8.1 -0.015 5798.09 0.577 -0.013 5800.06 0.250 1.00 0.002 0.07 0.073 0.002 0.05 0.000 0.00 0.576 0.022 0.008 0.004 0.001 6.1 6.6 -0.334 5890.27 0.433 -0.081 5892.72 0.389 -0.245 -0.055 0.192 5890.00 0.396 0.181 0.99 0.238 0.22 0.050 0.003 0.01 0.013 0.175 0.002 0.296 0.00 0.012 0.217 0.00 0.595 0.363 0.079 0.266 0.054 0.262 0.004 0.193 0.003 1.4 21.6 1.4 18.1 0 0 0 0

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829 1.00612 -73.34358 302.04608 -43.76928 -0.030 5781.10 0.900 -0.018 5784.50 0.900 1.00 0.001 0.00 0.000 0.001 0.07 0.000 0.00 0.242 0.068 0.040 0.003 0.003 24.4 14.5 -0.021 5798.04 0.584 0.000 5800.88 0.374 1.00 0.002 0.05 0.050 0.000 0.00 0.000 0.00 0.272 0.031 -
0.000 0.003 0.000 9.0 0.0 -0.301 5890.29 0.687 0.000 5893.96 1.000 -0.225 -0.029 0.096 5889.96 0.276 0.091 1.00 0.007 0.01 0.008 0.000 0.08 0.000 0.006 0.002 0.008 0.01 0.017 0.006 0.00 0.493 0.518 -0.000 0.388 0.072 0.013 0.000 0.011 0.005 39.4 0.0 35.1 13.9 1 0 1
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729 0.95573 -73.04258 302.33255 -44.07876 -0.020 5780.28 0.500 -0.010 5782.86 0.360 1.00 0.002 0.06 0.064 0.002 0.10 0.000 0.00 1.484 0.024 0.009 0.004 0.002 6.0 4.8 0.000 5796.81 0.526 0.000 5799.04 0.711 0.99 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.970 -0.000 -
0.000 0.000 0.000 0.0 0.0 -0.223 5890.43 0.419 -0.041 5892.55 0.399 -0.158 -0.031 0.023 5889.68 0.400 0.062 0.98 0.004 0.02 0.012 0.004 0.03 0.037 0.005 0.004 0.008 0.05 0.000 0.007 0.00 1.410 0.234 0.041 0.166 0.031 0.008 0.005 0.007 0.005 28.9 7.8 22.2 6.8 0 0 0
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807 0.99346 -73.35756 302.12222 -43.75781 -0.011 5780.60 0.900 0.000 5783.53 0.588 1.01 0.001 0.09 0.000 0.000 0.00 0.000 0.00 0.336 0.024 -0.000 0.002 0.000 11.3 0.0 -0.010 5797.69 0.250 0.000 5800.04 0.511 1.00 0.002 0.06 0.000 0.000 0.00 0.000 0.00 0.406 0.007 -
0.000 0.001 0.000 6.1 0.0 -0.156 5890.32 0.460 0.000 5893.77 1.000 -0.111 -0.026 0.086 5889.92 0.307 0.097 0.99 0.030 0.10 0.032 0.000 0.09 0.000 0.025 0.002 0.046 0.03 0.041 0.033 0.00 1.125 0.179 -0.000 0.128 0.066 0.037 0.000 0.030 0.005 4.9 0.0 4.3 13.3 0 0 0
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817 0.99779 -73.40850 302.09970 -43.70609 0.000 5780.19 0.623 -0.015 5783.57 0.445 1.01 0.000 0.00 0.000 0.002 0.07 0.076 0.00 0.636 -0.000 0.017 0.000 0.004 0.0 4.5 -0.013 5796.43 0.951 -0.012 5800.70 0.250 1.00 0.001 0.11 0.128 0.002 0.06 0.000 0.00 0.499 0.030
0.007 0.005 0.001 5.8 5.2 -0.208 5890.45 0.385 -0.093 5893.56 0.380 -0.142 -0.123 0.037 5889.66 0.400 0.090 0.99 0.004 0.01 0.010 0.003 0.01 0.011 0.004 0.003 0.006 0.03 0.000 0.005 0.00 0.923 0.201 0.089 0.137 0.117 0.006 0.004 0.006 0.005 31.9 22.2 24.6 25.1 0 0 0
0 1 1

867 1.03081 -73.69036 301.92599 -43.41751 -0.020 5780.55 0.684 -0.005 5784.11 0.900 1.00 0.001 0.03 0.036 0.001 0.16 0.000 0.00 0.202 0.034 0.010 0.002 0.002 15.0 6.0 -0.009 5797.07 0.403 0.000 5800.62 0.510 1.00 0.001 0.05 0.050 0.000 0.00 0.000 0.00 0.187 0.009 -
0.000 0.002 0.000 6.2 0.0 -0.142 5890.42 0.356 -0.239 5893.79 0.373 -0.106 -0.239 0.063 5889.84 0.400 0.085 0.99 0.009 0.03 0.018 0.003 0.00 0.005 0.010 0.003 0.012 0.05 0.000 0.011 0.00 0.558 0.127 0.224 0.095 0.224 0.010 0.004 0.010 0.004 12.6 55.5 9.4 55.5 1 0 1
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654 0.92765 -72.86889 302.49799 -44.25577 -0.017 5780.90 0.723 -0.011 5782.93 0.508 1.00 0.001 0.04 0.048 0.001 0.06 0.055 0.00 0.011 0.031 0.015 0.003 0.002 12.5 7.5 -0.024 5797.47 0.365 0.000 5799.42 0.535 1.00 0.001 0.02 0.023 0.000 0.00 0.000 0.00 0.017 0.022 -
0.000 0.002 0.000 12.1 0.0 -0.309 5890.40 0.380 -0.060 5892.86 0.732 -0.237 -0.049 0.058 5889.83 0.400 0.095 1.00 0.011 0.02 0.010 0.003 0.03 0.037 0.013 0.003 0.017 0.06 0.000 0.015 0.00 0.139 0.294 0.110 0.226 0.090 0.013 0.008 0.014 0.007 22.7 14.5 16.2 13.2 1 0
1 0 1 1

679 0.93489 -72.84978 302.45267 -44.27411 -0.016 5781.10 0.563 -0.013 5782.60 0.536 1.00 0.001 0.00 0.063 0.001 0.00 0.076 0.00 0.537 0.023 0.017 0.003 0.003 7.0 5.4 -0.014 5796.90 0.372 -0.012 5799.85 0.460 1.00 0.001 0.04 0.041 0.001 0.00 0.053 0.00 0.310 0.013
0.014 0.002 0.002 6.9 6.6 -0.305 5890.44 0.361 -0.088 5892.50 0.775 -0.236 -0.066 0.041 5889.91 0.400 0.091 0.99 0.008 0.01 0.008 0.002 0.02 0.025 0.011 0.002 0.012 0.05 0.000 0.012 0.00 1.326 0.276 0.170 0.214 0.128 0.009 0.007 0.011 0.006 29.0 23.7 18.7 21.1 1 0 1
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840 1.01344 -73.68786 302.02643 -43.42389 -0.011 5780.67 0.451 -0.010 5782.60 0.638 1.00 0.001 0.06 0.057 0.001 0.00 0.082 0.00 0.714 0.013 0.017 0.002 0.003 6.2 6.2 -0.005 5797.50 0.924 0.000 5799.06 0.494 1.00 0.001 0.10 0.114 0.000 0.00 0.000 0.00 0.313 0.012 -
0.000 0.002 0.000 6.3 0.0 -0.183 5890.36 0.448 -0.109 5892.95 0.470 -0.172 -0.093 0.068 5889.95 0.400 0.120 0.99 0.060 0.16 0.052 0.003 0.01 0.013 0.062 0.003 0.089 0.05 0.000 0.088 0.00 1.327 0.205 0.129 0.193 0.109 0.071 0.005 0.073 0.005 2.9 26.1 2.6 24.3 0 0 0

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726 0.95472 -73.13233 302.34265 -43.98920 -0.020 5781.10 0.445 -0.006 5783.09 0.751 1.00 0.002 0.00 0.048 0.001 0.20 0.218 0.00 0.502 0.022 0.011 0.003 0.004 7.4 2.7 -0.006 5798.35 0.505 0.000 5799.57 0.587 1.00 0.001 0.00 0.134 0.000 0.00 0.000 0.00 0.397 0.008 -0.000 0.003 0.000 2.9 0.0 -0.209 5890.23 0.451 -0.072 5893.18 0.525 -0.157 -0.055 0.107 5889.90 0.331 0.136 0.99 0.054 0.10 0.024 0.003 0.02 0.024 0.047 0.003 0.070 0.04 0.040 0.055 0.00 1.303 0.236 0.094 0.178 0.072 0.062 0.006 0.055 0.005 3.8 16.3 3.3 14.5 1 0 0 0 1 1

766 0.97167 -73.53100 302.26056 -43.58827 -0.010 5780.32 0.360 -0.013 5782.60 0.585 1.00 0.001 0.06 0.000 0.001 0.00 0.066 0.00 0.352 0.009 0.019 0.001 0.003 7.3 6.8 -0.013 5797.57 0.283 0.000 5799.12 0.499 1.00 0.001 0.00 0.038 0.000 0.00 0.000 0.00 0.274 0.009 -0.000 0.002 0.000 5.6 0.0 -0.179 5890.33 0.386 -0.092 5894.27 0.328 -0.136 -0.133 0.045 5889.96 0.384 0.092 0.98 0.028 0.06 0.024 0.003 0.01 0.009 0.039 0.003 0.035 0.12 0.051 0.035 0.00 0.770 0.174 0.075 0.131 0.109 0.029 0.003 0.038 0.004 5.9 23.7 3.4 28.0 0 0 0 0 1 1

715 0.94803 -73.15689 302.38409 -43.96553 -0.010 5781.10 0.610 -0.014 5783.17 0.360 1.00 0.001 0.00 0.081 0.001 0.04 0.000 0.00 0.486 0.015 0.013 0.003 0.001 5.8 11.9 0.000 5797.67 0.636 0.000 5799.69 0.542 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.528 -0.000 -0.000 0.000 0.000 0.0 0.0 -0.299 5890.31 0.405 -0.113 5893.28 1.000 -0.264 -0.109 0.120 5890.00 0.382 0.168 0.99 0.084 0.11 0.033 0.002 0.01 0.000 0.073 0.002 0.118 0.00 0.017 0.104 0.00 1.060 0.303 0.282 0.268 0.274 0.088 0.005 0.077 0.005 3.4 56.5 3.5 53.8 0 0 0 0 1 1

756 0.96730 -73.56397 302.28781 -43.55599 -0.014 5780.04 0.360 -0.011 5782.99 0.360 1.00 0.001 0.04 0.000 0.001 0.05 0.000 0.00 0.221 0.013 0.010 0.001 0.001 11.5 8.9 -0.016 5796.71 1.000 0.000 5799.47 0.482 1.00 0.001 0.10 0.000 0.000 0.00 0.000 0.00 0.663 0.039 -0.000 0.004 0.000 11.2 0.0 -0.461 5890.18 0.402 -0.254 5894.05 0.370 -0.341 -0.227 0.308 5890.00 0.374 0.292 0.99 0.471 0.19 0.029 0.003 0.00 0.004 0.352 0.003 0.522 0.00 0.022 0.388 0.00 0.422 0.464 0.235 0.344 0.211 0.476 0.004 0.355 0.003 1.0 66.9 1.0 63.7 0 0 0 0 1 1

692 0.93842 -72.98697 302.43591 -44.13656 -0.020 5781.10 0.601 -0.016 5782.64 0.366 1.00 0.001 0.05 0.055 0.001 0.05 0.047 0.00 0.428 0.030 0.015 0.003 0.002 9.1 6.3 -0.016 5797.60 0.250 -0.015 5799.87 0.334 1.00 0.001 0.03 0.000 0.001 0.04 0.038 0.00 0.358 0.010 0.012 0.001 0.002 11.3 6.7 -0.326 5890.34 0.418 -0.199 5892.77 0.441 -0.254 -0.146 0.131 5889.99 0.400 0.173 0.98 0.079 0.08 0.023 0.003 0.01 0.007 0.072 0.003 0.100 0.06 0.000 0.087 0.00 1.026 0.341 0.221 0.266 0.161 0.085 0.005 0.077 0.004 4.0 45.0 3.5 39.0 1 0 0 0 1 1

488 0.88594 -72.89198 302.75555 -44.23565 -0.017 5780.78 0.900 -0.008 5783.36 0.900 1.01 0.001 0.08 0.000 0.001 0.17 0.000 0.00 0.164 0.039 0.019 0.003 0.003 13.9 6.7 -0.003 5797.29 0.250 0.000 5799.88 0.512 1.00 0.002 0.17 0.000 0.000 0.00 0.000 0.00 0.138 0.002 -0.000 0.001 0.000 2.0 0.0 -0.219 5890.42 0.387 -0.038 5892.24 0.529 -0.160 -0.029 0.008 5889.75 0.400 0.043 0.99 0.003 0.01 0.010 0.003 0.04 0.042 0.005 0.003 0.007 0.06 0.000 0.006 0.00 1.199 0.212 0.051 0.156 0.038 0.006 0.005 0.006 0.005 33.4 9.4 24.0 8.4 0 0 0 0 1 0

719 0.95045 -73.44344 302.38144 -43.67880 0.000 5780.13 0.653 -0.013 5782.60 0.857 1.00 0.000 0.00 0.000 0.001 0.00 0.115 0.00 0.533 -0.000 0.027 0.000 0.005 0.0 5.8 -0.011 5797.38 0.760 0.000 5799.06 0.543 1.00 0.001 0.00 0.112 0.000 0.00 0.000 0.00 0.456 0.020 -0.000 0.004 0.000 5.3 0.0 -0.318 5890.17 0.443 -0.144 5893.36 0.473 -0.221 -0.127 0.250 5889.94 0.320 0.220 0.99 0.079 0.06 0.014 0.003 0.01 0.011 0.060 0.003 0.085 0.02 0.027 0.063 0.00 1.169 0.353 0.171 0.245 0.151 0.088 0.006 0.067 0.005 4.0 31.1 3.7 29.4 0 0 0 0 1 1

702 0.94140 -73.09866 302.42194 -44.02456 -0.010 5781.10 0.900 -0.009 5783.35 0.447 1.00 0.001 0.00 0.000 0.001 0.06 0.059 0.00 0.491 0.021 0.010 0.002 0.002 13.7 5.8 -0.013 5797.64 0.430 -0.015 5800.57 0.250 1.00 0.001 0.03 0.034 0.001 0.02 0.000 0.00 0.356 0.014 0.010 0.001 0.001 9.6 16.0 -0.196 5890.40 0.379 -0.048 5892.41 0.650 -0.149 -0.034 0.024 5890.00 0.352 0.059 0.99 0.016 0.05 0.027 0.003 0.04 0.044 0.011 0.003 0.033 0.00 0.039 0.025 0.00 1.410 0.186 0.079 0.141 0.055 0.020 0.007 0.015 0.006 9.3 11.5 9.7 9.9 0 0 1 0 1 1

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554 0.89893 -72.86811 302.67511 -44.25886 -0.020 5780.47 0.900 -0.010 5783.20 0.900 1.01 0.002 0.08 0.000 0.002 0.17 0.000 0.00 1.595 0.046 0.023 0.004 0.004 12.8 6.3 -0.009 5797.38 0.571 0.000 5799.67 0.487 1.00 0.001 0.07 0.074 0.000 0.00 0.000 0.00 0.468 0.013 -
0.000 0.002 0.000 5.9 0.0 -0.209 5890.43 0.391 -0.095 5892.53 0.482 -0.187 -0.070 0.000 5890.00 0.363 0.061 0.99 0.003 0.01 0.005 0.002 0.01 0.013 0.004 0.002 0.000 0.00 0.024 0.005 0.00 0.882 0.205 0.115 0.183 0.084 0.004 0.004 0.005 0.004 53.6 26.5 38.9 23.0 1 0 0
0 1 1

707 0.94415 -73.57308 302.42368 -43.54999 -0.013 5779.94 0.900 -0.004 5784.04 0.360 1.00 0.001 0.09 0.000 0.002 0.18 0.000 0.00 0.942 0.029 0.004 0.003 0.002 10.9 2.6 0.000 5796.49 0.478 -0.007 5800.00 1.000 1.00 0.000 0.00 0.000 0.001 0.16 0.000 0.00 0.712 -0.000
0.018 0.000 0.002 0.0 7.4 -0.824 5889.90 0.454 -0.213 5893.75 0.381 -0.729 -0.152 0.798 5889.87 0.400 0.672 0.99 0.480 0.02 0.033 0.008 0.01 0.014 0.420 0.007 0.483 0.03 0.000 0.422 0.00 5.322 0.938 0.203 0.830 0.145 0.551 0.011 0.482 0.009 1.7 19.3 1.7 16.5 0 0 0
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698 0.93979 -73.39597 302.44269 -43.72754 -0.021 5781.10 0.767 0.000 5783.62 0.575 1.00 0.001 0.00 0.061 0.000 0.00 0.000 0.00 0.516 0.039 -0.000 0.004 0.000 9.8 0.0 -0.008 5797.55 0.250 -0.004 5800.30 0.286 1.00 0.002 0.08 0.000 0.002 0.16 0.164 0.00 0.415 0.005
0.003 0.001 0.002 4.4 1.3 -0.212 5890.48 0.387 -0.069 5893.22 0.443 -0.156 -0.062 0.030 5889.76 0.265 0.073 0.99 0.004 0.01 0.012 0.003 0.02 0.020 0.004 0.003 0.008 0.03 0.023 0.006 0.00 0.922 0.206 0.077 0.151 0.069 0.007 0.005 0.006 0.005 28.3 15.6 24.2 14.9 1 0 0
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609 0.91414 -72.96198 302.58371 -44.16393 -0.012 5781.10 0.900 -0.013 5783.95 0.360 1.00 0.001 0.00 0.000 0.001 0.05 0.000 0.00 0.611 0.028 0.011 0.002 0.001 13.7 9.9 -0.011 5797.67 0.250 -0.004 5800.60 0.250 1.00 0.002 0.05 0.000 0.002 0.16 0.000 0.00 0.910 0.007
0.002 0.001 0.001 6.5 2.2 -0.276 5890.44 0.382 -0.142 5892.64 0.454 -0.208 -0.096 0.017 5889.79 0.400 0.045 0.98 0.004 0.01 0.007 0.003 0.01 0.009 0.006 0.002 0.007 0.06 0.000 0.007 0.00 0.659 0.264 0.161 0.199 0.109 0.006 0.004 0.006 0.004 43.6 37.0 30.7 30.8 0 0 0
0 1 1

633 0.92036 -72.94686 302.54517 -44.17852 -0.020 5781.10 0.900 -0.028 5782.85 0.360 1.01 0.001 0.00 0.000 0.002 0.03 0.000 0.00 0.845 0.044 0.025 0.003 0.002 16.0 16.7 -0.004 5798.35 0.250 0.000 5799.29 0.502 1.00 0.002 0.00 0.000 0.000 0.00 0.000 0.00 0.574 0.003 -
0.000 0.001 0.000 2.5 0.0 -0.260 5890.43 0.369 -0.157 5892.41 0.566 -0.251 -0.086 0.000 5890.00 0.369 0.067 0.99 0.003 0.01 0.005 0.003 0.01 0.012 0.005 0.003 0.000 0.00 0.027 0.006 0.00 1.075 0.241 0.223 0.233 0.122 0.004 0.006 0.005 0.004 54.9 36.9 42.9 27.6 0 1 0
0 1 1

519 0.89261 -72.94006 302.71524 -44.18726 -0.013 5780.59 0.900 0.000 5783.57 0.590 1.01 0.001 0.07 0.000 0.000 0.00 0.000 0.00 0.662 0.030 -0.000 0.002 0.000 14.4 0.0 -0.011 5797.01 0.250 0.000 5800.26 0.316 1.00 0.003 0.10 0.000 0.000 0.00 0.000 0.00 3.297 0.007 -
0.000 0.002 0.000 3.3 0.0 -0.228 5890.41 0.390 -0.036 5892.25 0.568 -0.186 -0.028 0.000 5889.85 0.400 0.069 0.98 0.004 0.01 0.007 0.003 0.05 0.056 0.007 0.003 0.000 0.04 0.000 0.006 0.00 1.264 0.223 0.051 0.182 0.040 0.006 0.007 0.008 0.006 40.5 7.6 22.8 6.9 0 0 0
0 1 0

526 0.89430 -73.09386 302.70746 -44.03339 -0.018 5780.99 0.730 -0.009 5782.60 0.559 1.00 0.001 0.05 0.044 0.001 0.00 0.077 0.00 0.208 0.033 0.012 0.002 0.002 13.4 5.5 -0.004 5797.54 0.250 -0.005 5799.85 0.472 1.00 0.002 0.13 0.000 0.001 0.00 0.138 0.00 0.416 0.002
0.006 0.001 0.002 2.6 2.6 -0.190 5890.32 0.427 -0.044 5893.58 0.497 -0.164 -0.053 0.046 5890.00 0.400 0.104 0.99 0.062 0.12 0.039 0.003 0.02 0.025 0.053 0.003 0.084 0.00 0.000 0.072 0.00 1.024 0.204 0.055 0.176 0.067 0.069 0.004 0.059 0.005 3.0 13.2 3.0 14.3 1 0 0
0 1 1

562 0.90052 -73.11919 302.67020 -44.00772 0.000 5780.27 0.620 -0.017 5782.60 0.900 1.00 0.000 0.00 0.000 0.002 0.00 0.000 0.00 1.956 -0.000 0.037 0.000 0.004 0.0 9.6 -0.007 5796.94 0.250 -0.006 5799.54 1.000 1.00 0.002 0.07 0.000 0.001 0.17 0.000 0.00 0.542 0.005
0.015 0.001 0.002 4.8 6.9 -0.189 5890.40 0.413 -0.083 5893.22 0.484 -0.146 -0.051 0.000 5889.87 0.400 0.051 0.98 0.003 0.01 0.007 0.003 0.02 0.018 0.006 0.003 0.000 0.05 0.000 0.005 0.00 0.606 0.196 0.101 0.151 0.062 0.004 0.005 0.007 0.004 43.6 20.5 21.7 16.2 0 0 0

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607 0.91394 -73.32497 302.59418 -43.80102 -0.023 5780.89 0.440 -0.020 5782.85 0.360 1.01 0.002 0.04 0.041 0.002 0.04 0.000 0.00 0.285 0.025 0.018 0.003 0.002 8.2 11.4 0.000 5797.36 0.476 -0.007 5798.96 0.250 1.01 0.000 0.00 0.000 0.002 0.11 0.000 0.00 0.367 -0.000
0.004 0.000 0.001 0.0 3.1 -0.192 5890.33 0.398 -0.054 5893.08 0.524 -0.152 -0.033 0.026 5890.00 0.400 0.054 0.99 0.018 0.04 0.016 0.002 0.02 0.028 0.014 0.002 0.025 0.00 0.000 0.020 0.00 0.868 0.191 0.071 0.152 0.043 0.019 0.005 0.015 0.004 10.0 14.3 9.8 11.2 0 0 0
0 1 1

631 0.92019 -73.44791 302.56036 -43.67759 -0.017 5779.38 0.860 0.000 5783.58 0.498 1.01 0.002 0.10 0.120 0.000 0.00 0.000 0.00 0.481 0.036 -0.000 0.006 0.000 5.7 0.0 -0.008 5795.13 1.000 -0.003 5800.83 1.000 1.01 0.002 0.00 0.000 0.002 0.00 0.000 0.00 0.430 0.019
0.008 0.004 0.004 4.9 2.0 -0.335 5890.08 0.496 0.000 5893.20 0.797 -0.217 0.000 0.222 5889.87 0.390 0.182 1.01 0.230 0.11 0.029 0.000 0.00 0.000 0.164 0.000 0.238 0.07 0.070 0.166 0.00 1.388 0.417 -0.000 0.269 -0.000 0.288 0.000 0.205 0.000 1.4 0.0 1.3 0.0 0 0 0
1 0

517 0.89209 -73.14336 302.72162 -43.98401 -0.019 5780.65 0.900 0.000 5783.58 0.581 1.01 0.001 0.07 0.000 0.000 0.00 0.000 0.00 1.229 0.042 -0.000 0.003 0.000 14.3 0.0 -0.011 5797.90 0.950 0.000 5800.11 0.561 1.00 0.001 0.00 0.102 0.000 0.00 0.000 0.00 0.652 0.027 -
0.000 0.004 0.000 7.3 0.0 -0.217 5890.29 0.459 -0.044 5893.07 0.546 -0.159 -0.038 0.052 5889.88 0.400 0.104 0.99 0.068 0.17 0.061 0.003 0.04 0.044 0.055 0.003 0.108 0.05 0.000 0.083 0.00 1.703 0.250 0.060 0.183 0.052 0.085 0.007 0.068 0.006 2.9 8.9 2.7 8.3 1 0 0 0
1 1

492 0.88630 -73.17725 302.75708 -43.95037 -0.015 5780.25 0.360 -0.008 5782.60 0.900 1.00 0.003 0.08 0.000 0.002 0.00 0.000 0.00 1.031 0.014 0.019 0.002 0.004 5.9 4.6 -0.030 5797.50 0.548 -0.016 5798.80 0.250 1.00 0.003 0.00 0.063 0.003 0.07 0.000 0.00 1.156 0.041
0.010 0.006 0.002 7.0 4.7 -0.276 5890.27 0.442 -0.091 5893.03 0.521 -0.199 -0.069 0.180 5889.81 0.334 0.130 0.99 0.134 0.26 0.083 0.003 0.02 0.019 0.097 0.003 0.207 0.10 0.067 0.150 0.00 0.885 0.306 0.119 0.221 0.090 0.159 0.006 0.115 0.005 1.9 20.1 1.9 17.7 0 0 0
0 1 1

587 0.90624 -73.63114 302.64676 -43.49545 -0.021 5781.10 0.900 -0.020 5784.31 0.900 1.01 0.002 0.00 0.000 0.002 0.09 0.000 0.00 0.592 0.047 0.044 0.004 0.004 10.7 10.3 -0.017 5798.35 0.372 -0.017 5800.27 0.250 1.00 0.003 0.00 0.083 0.003 0.07 0.000 0.00 0.832 0.016
0.011 0.005 0.002 3.4 5.1 -0.162 5890.30 0.391 -0.126 5893.07 0.387 -0.187 -0.058 0.000 5890.00 0.271 0.126 0.98 0.004 0.01 0.009 0.004 0.01 0.016 0.009 0.004 0.000 0.00 0.017 0.011 0.00 0.993 0.159 0.123 0.183 0.056 0.006 0.007 0.010 0.005 28.3 18.6 17.8 12.4 0 0 0
0 1 1

508 0.89034 -73.00383 302.73013 -44.12361 -0.016 5780.71 0.566 -0.015 5782.74 0.493 1.01 0.002 0.08 0.085 0.002 0.08 0.085 0.00 0.454 0.023 0.018 0.004 0.004 5.2 4.6 -0.014 5797.00 0.360 0.000 5799.36 0.355 1.00 0.003 0.09 0.091 0.000 0.00 0.000 0.00 0.745 0.012 -
0.000 0.004 0.000 3.0 0.0 -0.234 5890.42 0.410 -0.038 5892.52 0.505 -0.187 -0.023 0.000 5889.93 0.341 0.072 0.99 0.004 0.01 0.007 0.003 0.04 0.046 0.010 0.003 0.000 0.05 0.035 0.007 0.00 1.598 0.240 0.049 0.192 0.029 0.005 0.006 0.011 0.004 43.9 8.3 17.5 6.4 0 0 0
0 1 0

534 0.89630 -73.23869 302.69785 -43.88846 -0.014 5780.12 0.517 -0.011 5782.60 0.900 1.00 0.002 0.10 0.102 0.002 0.00 0.000 0.00 1.756 0.019 0.026 0.005 0.004 3.9 6.3 -0.013 5797.05 0.250 -0.008 5799.85 0.369 1.00 0.001 0.03 0.000 0.001 0.00 0.056 0.00 0.258 0.008
0.008 0.001 0.002 12.0 5.0 -0.205 5890.42 0.376 -0.063 5893.68 0.363 -0.171 -0.079 0.000 5889.94 0.400 0.065 0.98 0.003 0.01 0.006 0.003 0.01 0.015 0.008 0.003 0.000 0.05 0.000 0.007 0.00 0.947 0.193 0.057 0.161 0.072 0.004 0.004 0.008 0.004 43.7 15.5 19.9 17.1 0 0
1 0 1 1

479 0.88413 -73.29984 302.77164 -43.82787 -0.012 5781.10 0.900 -0.051 5783.79 0.869 1.00 0.001 0.00 0.000 0.001 0.03 0.029 0.00 0.690 0.026 0.111 0.003 0.005 8.5 23.1 -0.009 5797.79 0.521 -0.008 5800.11 0.938 1.00 0.001 0.12 0.116 0.001 0.16 0.185 0.00 0.443 0.011
0.020 0.003 0.005 3.6 4.2 -0.220 5890.26 0.476 -0.231 5893.16 0.473 -0.150 -0.156 0.114 5889.83 0.321 0.106 1.00 0.046 0.12 0.036 0.003 0.01 0.008 0.035 0.003 0.070 0.03 0.050 0.048 0.00 1.476 0.262 0.274 0.179 0.185 0.058 0.006 0.043 0.005 4.5 46.9 4.1 39.1 0 1 0

0 1 1

446 0.87689 -73.12078 302.81332 -44.00716 0.000 5780.20 0.648 -0.020 5782.72 0.900 1.01 0.000 0.00 0.000 0.002 0.11 0.000 0.00 1.596 -0.000 0.045 0.000 0.005 0.0 9.4 -0.008 5797.45 0.419 0.000 5799.23 0.460 1.00 0.002 0.00 0.123 0.000 0.00 0.000 0.00 0.577 0.008 -
0.000 0.003 0.000 2.6 0.0 -0.197 5890.40 0.401 -0.071 5892.72 0.673 -0.151 -0.045 0.000 5889.79 0.400 0.049 0.99 0.004 0.01 0.008 0.003 0.03 0.031 0.006 0.003 0.000 0.06 0.000 0.005 0.00 1.378 0.198 0.121 0.152 0.076 0.005 0.007 0.007 0.006 36.5 16.4 21.6 13.2 0 0 0
0 1 1

428 0.87366 -73.16039 302.83316 -43.96764 -0.026 5780.33 0.686 -0.017 5783.99 0.690 1.01 0.002 0.05 0.058 0.002 0.08 0.090 0.00 0.590 0.046 0.030 0.005 0.005 9.2 6.0 0.000 5796.80 0.513 0.000 5800.52 0.481 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.497 -0.000 -
0.000 0.000 0.000 0.0 0.0 -1.258 5890.05 0.414 -0.024 5892.99 0.908 -1.091 -0.025 1.140 5890.00 0.390 1.060 0.99 1.088 0.04 0.005 0.002 0.06 0.080 0.955 0.002 1.095 0.00 0.018 0.960 0.00 0.762 1.305 0.056 1.131 0.057 1.128 0.007 0.990 0.007 1.2 8.1 1.1 8.2 1 0 0 0
1 0

467 0.88121 -73.13189 302.78729 -43.99593 -0.032 5780.80 0.612 -0.017 5784.47 0.900 1.01 0.002 0.04 0.044 0.002 0.09 0.000 0.00 1.240 0.049 0.038 0.005 0.004 10.8 10.4 -0.011 5797.26 0.436 -0.006 5800.53 0.250 1.00 0.001 0.05 0.052 0.001 0.08 0.000 0.00 0.357 0.012
0.004 0.002 0.001 6.4 4.5 -0.167 5890.39 0.378 0.000 5894.06 0.266 -0.160 -0.043 0.000 5890.00 0.376 0.062 0.98 0.003 0.01 0.006 0.000 0.02 0.025 0.005 0.004 0.000 0.00 0.024 0.005 0.00 0.965 0.159 -0.000 0.152 0.029 0.004 0.000 0.005 0.004 42.6 0.0 30.5 8.0 1 0 1
0 1 0

464 0.88038 -73.37036 302.79477 -43.75748 -0.014 5780.57 0.900 -0.024 5782.98 0.900 1.00 0.002 0.13 0.000 0.002 0.08 0.000 0.00 0.772 0.032 0.053 0.004 0.004 8.6 14.2 0.000 5797.09 0.555 0.000 5799.45 0.672 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.424 -0.000 -
0.000 0.000 0.000 0.0 0.0 -0.234 5890.20 0.513 -0.131 5892.96 0.533 -0.193 -0.100 0.120 5889.92 0.389 0.142 1.00 0.106 0.13 0.025 0.004 0.02 0.018 0.099 0.004 0.117 0.07 0.072 0.104 0.00 2.164 0.300 0.176 0.248 0.134 0.137 0.008 0.128 0.007 2.2 22.3 1.9 19.6 0 0 0
0 1 1

447 0.87700 -73.39391 302.81506 -43.73404 -0.018 5781.10 0.791 -0.014 5783.38 0.809 1.00 0.001 0.00 0.045 0.001 0.05 0.048 0.00 0.619 0.036 0.029 0.002 0.002 14.4 13.0 0.000 5797.41 0.315 0.000 5799.94 0.496 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 1.365 -0.000 -
0.000 0.000 0.000 0.0 0.0 -0.172 5890.43 0.385 -0.191 5893.05 0.414 -0.141 -0.131 0.001 5889.88 0.400 0.053 0.99 0.005 0.02 0.013 0.003 0.01 0.008 0.008 0.003 0.009 0.06 0.000 0.010 0.00 0.878 0.166 0.198 0.136 0.136 0.007 0.005 0.009 0.004 23.2 40.1 14.8 33.8 0 0 0
0 1 1

470 0.88176 -73.22078 302.78494 -43.90702 -0.020 5780.49 0.718 -0.047 5783.50 0.900 1.00 0.001 0.06 0.066 0.001 0.03 0.000 0.00 1.030 0.036 0.105 0.004 0.003 8.6 36.0 -0.010 5797.59 0.250 -0.016 5800.29 0.327 1.00 0.001 0.04 0.000 0.001 0.03 0.028 0.00 0.306 0.006
0.013 0.001 0.001 9.2 8.9 -0.172 5890.45 0.384 -0.213 5893.04 0.443 -0.144 -0.174 0.004 5890.00 0.382 0.049 0.99 0.009 0.03 0.020 0.003 0.01 0.007 0.007 0.003 0.017 0.00 0.051 0.015 0.00 1.370 0.165 0.236 0.138 0.194 0.012 0.006 0.010 0.005 13.6 42.8 14.1 39.2 0 1 0
1 1 1

460 0.87942 -73.31014 302.79987 -43.81774 -0.019 5781.10 0.642 -0.018 5783.29 0.360 1.01 0.002 0.00 0.068 0.002 0.05 0.000 0.00 0.272 0.031 0.017 0.004 0.002 7.4 9.9 -0.010 5797.15 0.443 -0.011 5800.54 0.504 1.00 0.002 0.10 0.106 0.002 0.00 0.101 0.00 0.285 0.011
0.014 0.003 0.004 3.2 3.9 -0.166 5890.38 0.401 -0.012 5891.89 0.871 -0.156 -0.016 0.000 5889.99 0.373 0.074 0.99 0.004 0.01 0.011 0.002 0.25 0.245 0.022 0.002 0.000 0.08 0.045 0.013 0.00 0.891 0.167 0.025 0.157 0.035 0.006 0.009 0.022 0.011 26.6 2.9 7.0 3.2 0 0 0
0 1 0

410 0.87012 -73.31064 302.85541 -43.81747 -0.011 5781.10 0.900 -0.027 5783.38 0.900 1.00 0.001 0.00 0.000 0.001 0.04 0.000 0.00 1.063 0.025 0.060 0.003 0.002 9.6 25.6 -0.006 5797.59 0.302 -0.017 5800.29 0.528 1.00 0.001 0.06 0.067 0.001 0.03 0.034 0.00 0.452 0.005
0.023 0.001 0.002 3.5 12.1 -0.165 5890.44 0.357 -0.189 5892.89 0.433 -0.140 -0.148 0.000 5889.97 0.400 0.058 0.99 0.004 0.01 0.008 0.003 0.01 0.008 0.010 0.003 0.000 0.06 0.000 0.007 0.00 1.291 0.148 0.205 0.125 0.161 0.005 0.005 0.009 0.004 32.4 41.4 13.9 37.1 0 1
0 1 0

0 1 1 1

468 0.88127 -72.78961 302.78320 -44.33819 -0.015 5780.59 0.740 -0.012 5782.91 0.360 1.00 0.001 0.07 0.077 0.002 0.06 0.000 0.00 0.797 0.027 0.011 0.004 0.001 7.5 8.0 0.000 5797.07 0.533 -0.009 5799.04 0.630 1.00 0.000 0.00 0.000 0.001 0.08 0.087 0.00 0.462 -0.000
0.014 0.000 0.002 0.0 5.6 -0.296 5890.47 0.358 -0.030 5892.89 1.000 -0.238 -0.030 0.000 5890.00 0.400 0.052 0.99 0.004 0.00 0.005 0.002 0.06 0.000 0.004 0.002 0.000 0.00 0.000 0.005 0.00 1.963 0.265 0.075 0.213 0.075 0.005 0.006 0.005 0.006 55.9 13.3 43.7 13.2 0 0 0
0 1 0

429 0.87378 -73.05302 302.83163 -44.07500 -0.013 5780.74 0.651 -0.007 5782.73 0.360 1.00 0.001 0.05 0.058 0.001 0.07 0.000 0.00 0.366 0.022 0.007 0.002 0.001 8.8 6.6 -0.012 5796.65 0.907 -0.006 5798.76 0.284 1.00 0.001 0.06 0.066 0.001 0.07 0.069 0.00 0.219 0.027
0.004 0.002 0.001 10.9 3.2 -0.225 5890.41 0.357 -0.022 5892.13 0.489 -0.196 -0.009 0.000 5890.00 0.386 0.072 0.99 0.003 0.01 0.006 0.003 0.07 0.078 0.005 0.003 0.000 0.00 0.025 0.005 0.00 1.220 0.201 0.027 0.175 0.011 0.004 0.006 0.005 0.004 46.5 4.8 34.1 3.1 0 0 0
0 1 0

415 0.87103 -73.17928 302.84915 -43.94880 -0.017 5780.70 0.831 -0.007 5782.85 0.529 1.00 0.001 0.04 0.047 0.001 0.08 0.082 0.00 0.207 0.034 0.009 0.002 0.002 15.0 5.3 -0.014 5797.33 0.298 -0.003 5799.20 0.589 1.00 0.001 0.02 0.025 0.001 0.16 0.172 0.00 0.231 0.010
0.004 0.001 0.002 9.0 2.6 -0.197 5890.34 0.436 -0.058 5893.03 0.533 -0.158 -0.044 0.036 5889.92 0.283 0.074 0.99 0.016 0.05 0.021 0.003 0.02 0.026 0.017 0.003 0.031 0.03 0.042 0.025 0.00 1.100 0.215 0.078 0.173 0.059 0.021 0.005 0.021 0.004 10.3 15.0 8.3 13.2 1 0 1
0 1 1

393 0.86509 -73.37708 302.88565 -43.75109 -0.014 5780.98 0.883 -0.014 5783.70 0.534 1.00 0.001 0.04 0.048 0.001 0.03 0.036 0.00 0.247 0.032 0.018 0.002 0.002 14.4 11.5 -0.006 5797.62 1.000 -0.011 5800.76 0.250 1.00 0.001 0.11 0.000 0.001 0.03 0.000 0.00 0.265 0.015
0.007 0.001 0.001 10.9 11.8 -0.155 5890.40 0.381 -0.106 5892.92 0.512 -0.130 -0.065 0.003 5890.00 0.337 0.056 0.99 0.015 0.06 0.029 0.003 0.01 0.014 0.012 0.003 0.030 0.00 0.032 0.025 0.00 1.243 0.148 0.136 0.124 0.083 0.018 0.005 0.015 0.004 8.1 26.4 8.4 20.9 1 1 0
0 1 1

333 0.85143 -73.45284 302.96661 -43.67535 -0.017 5781.07 0.900 -0.015 5783.30 0.360 1.00 0.001 0.08 0.000 0.002 0.06 0.000 0.00 0.543 0.038 0.014 0.003 0.002 12.8 8.4 -0.019 5797.88 0.250 -0.008 5800.55 1.000 1.00 0.002 0.03 0.000 0.001 0.00 0.000 0.00 0.430 0.012
0.019 0.001 0.003 9.9 6.8 -0.391 5890.19 0.421 -0.130 5892.86 0.422 -0.244 -0.082 0.313 5889.99 0.359 0.225 0.98 0.419 0.18 0.019 0.003 0.01 0.012 0.273 0.003 0.444 0.07 0.058 0.287 0.00 1.130 0.412 0.137 0.257 0.087 0.442 0.005 0.288 0.004 0.9 26.9 0.9 21.7 0 0 0
0 1 1

317 0.84795 -73.46775 302.98709 -43.66041 0.000 5780.13 0.614 -0.023 5783.47 0.632 1.00 0.000 0.00 0.000 0.001 0.04 0.043 0.00 0.370 -0.000 0.036 0.000 0.003 0.0 11.3 -0.006 5796.40 0.250 -0.023 5800.31 0.310 1.00 0.002 0.10 0.000 0.002 0.03 0.027 0.00 0.336 0.003
0.018 0.001 0.002 3.4 8.7 -0.227 5890.40 0.412 -0.112 5892.63 0.529 -0.177 -0.081 0.054 5889.96 0.309 0.086 0.98 0.039 0.11 0.042 0.003 0.02 0.017 0.038 0.003 0.072 0.07 0.049 0.059 0.00 1.491 0.234 0.148 0.182 0.108 0.046 0.007 0.043 0.005 5.1 22.7 4.2 19.6 0 1 0
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395 0.86578 -73.34711 302.88144 -43.78106 -0.014 5780.62 0.900 -0.017 5783.05 0.900 1.00 0.001 0.07 0.000 0.001 0.06 0.000 0.00 0.310 0.033 0.038 0.002 0.002 16.0 18.8 -0.010 5797.87 0.423 0.000 5799.60 0.548 1.00 0.002 0.00 0.085 0.000 0.00 0.000 0.00 0.605 0.011 -
0.000 0.003 0.000 3.8 0.0 -0.177 5890.27 0.434 -0.156 5892.98 0.407 -0.125 -0.104 0.065 5889.96 0.304 0.091 0.98 0.041 0.09 0.022 0.004 0.01 0.011 0.036 0.004 0.053 0.05 0.052 0.040 0.00 1.949 0.193 0.159 0.136 0.107 0.045 0.006 0.040 0.005 4.3 28.4 3.4 23.6 0 0 0
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224 0.82590 -73.70509 303.11389 -43.42245 -0.018 5781.01 0.540 -0.013 5782.88 0.506 1.01 0.001 0.05 0.050 0.001 0.06 0.068 0.00 0.321 0.024 0.016 0.003 0.003 8.7 6.0 0.000 5797.37 0.250 0.000 5799.35 0.459 0.99 0.000 0.00 0.000 0.000 0.00 0.000 0.00 1.985 -0.000 -
0.000 0.000 0.000 0.0 0.0 -0.130 5890.40 0.356 -0.027 5892.19 0.634 -0.103 -0.019 0.000 5889.97 0.400 0.065 0.99 0.003 0.01 0.011 0.003 0.06 0.074 0.011 0.002 0.000 0.06 0.000 0.008 0.00 1.748 0.116 0.043 0.092 0.030 0.005 0.007 0.010 0.005 25.0 6.6 9.3 5.7 0 0 0

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267 0.83693 -73.57697 303.05115 -43.55096 -0.019 5781.10 0.900 -0.014 5783.41 0.900 1.01 0.001 0.00 0.000 0.001 0.10 0.000 0.00 0.907 0.043 0.031 0.003 0.003 14.1 11.4 -0.014 5797.39 0.357 -0.002 5799.19 0.950 1.00 0.001 0.03 0.036 0.001 0.41 0.471 0.00 0.232 0.013
0.005 0.002 0.003 7.6 1.8 -0.199 5890.37 0.375 -0.164 5892.86 0.403 -0.155 -0.100 0.026 5890.00 0.356 0.092 0.98 0.019 0.05 0.023 0.003 0.01 0.009 0.013 0.003 0.033 0.00 0.025 0.026 0.00 1.369 0.187 0.166 0.146 0.100 0.021 0.005 0.016 0.004 8.9 34.0 9.4 26.8 0 0 1
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238 0.82917 -73.62783 303.09592 -43.49985 -0.015 5780.85 0.900 0.000 5783.58 0.599 1.00 0.001 0.04 0.000 0.000 0.00 0.000 0.00 0.271 0.033 -0.000 0.001 0.000 28.6 0.0 -0.010 5797.90 0.624 -0.007 5800.42 0.250 1.00 0.001 0.05 0.059 0.001 0.05 0.000 0.00 0.380 0.015
0.004 0.002 0.001 8.2 6.6 -0.197 5890.37 0.401 -0.058 5892.61 0.482 -0.151 -0.038 0.033 5890.00 0.400 0.068 0.99 0.015 0.04 0.017 0.003 0.02 0.027 0.012 0.003 0.023 0.00 0.000 0.018 0.00 1.197 0.198 0.070 0.152 0.045 0.017 0.005 0.013 0.004 11.5 13.5 11.3 11.0 1 0 1
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208 0.82154 -73.65575 303.13992 -43.47160 -0.012 5780.29 0.900 -0.010 5782.60 0.900 1.00 0.001 0.10 0.000 0.001 0.00 0.000 0.00 0.652 0.026 0.022 0.002 0.003 10.9 8.1 -0.005 5797.44 0.944 -0.006 5799.85 1.000 1.00 0.001 0.19 0.202 0.001 0.00 0.000 0.00 0.425 0.013
0.014 0.003 0.002 3.7 6.0 -0.157 5890.37 0.412 -0.064 5892.72 0.536 -0.129 -0.054 0.021 5889.99 0.251 0.068 0.99 0.011 0.05 0.019 0.003 0.02 0.025 0.013 0.003 0.022 0.03 0.038 0.018 0.00 1.516 0.162 0.087 0.134 0.072 0.014 0.006 0.015 0.005 11.9 15.7 9.0 14.4 0 0 0
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349 0.85488 -73.39670 302.94629 -43.73152 -0.012 5781.10 0.900 -0.002 5783.36 0.360 1.00 0.001 0.00 0.000 0.001 0.22 0.000 0.00 0.504 0.027 0.002 0.002 0.001 15.2 2.1 -0.008 5797.93 0.268 0.000 5799.88 0.465 1.00 0.001 0.06 0.061 0.000 0.00 0.000 0.00 0.577 0.005 -
0.000 0.002 0.000 3.3 0.0 -0.390 5890.16 0.446 -0.018 5892.25 0.527 -0.314 -0.017 0.260 5890.00 0.400 0.265 0.99 0.074 0.04 0.016 0.002 0.06 0.072 0.068 0.002 0.075 0.05 0.000 0.067 0.00 1.003 0.436 0.024 0.350 0.022 0.084 0.005 0.077 0.004 5.2 5.3 4.6 5.1 0 0 0 0
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360 0.85708 -73.35000 302.93326 -43.77822 -0.011 5780.32 0.858 -0.016 5782.84 0.360 1.01 0.001 0.06 0.070 0.001 0.03 0.000 0.00 0.245 0.024 0.014 0.003 0.001 9.5 16.4 0.000 5797.05 0.250 0.000 5799.30 0.482 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 1.894 -0.000 -
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452 0.87771 -73.08675 302.80804 -44.04117 -0.014 5781.09 0.843 -0.023 5783.81 0.360 1.00 0.001 0.06 0.069 0.001 0.02 0.000 0.00 0.809 0.030 0.021 0.003 0.001 9.5 19.0 -0.011 5797.34 0.489 0.000 5800.34 0.519 1.00 0.001 0.05 0.054 0.000 0.00 0.000 0.00 0.611 0.013 -
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312 0.84723 -73.40617 302.99164 -43.72198 -0.015 5780.46 0.360 -0.021 5783.53 0.900 1.00 0.002 0.05 0.000 0.001 0.06 0.000 0.00 0.583 0.013 0.048 0.002 0.003 8.7 17.6 0.000 5797.01 0.512 -0.013 5800.71 0.323 1.00 0.000 0.00 0.000 0.002 0.07 0.069 0.00 0.819 -0.000
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272 0.83768 -73.43300 303.04800 -43.69495 -0.010 5779.90 0.491 -0.014 5782.87 0.900 1.00 0.001 0.07 0.073 0.001 0.07 0.000 0.00 0.330 0.013 0.033 0.002 0.002 5.2 15.1 -0.004 5796.18 0.250 0.000 5799.40 0.533 1.00 0.001 0.12 0.000 0.000 0.00 0.000 0.00 0.305 0.003 -
0.000 0.001 0.000 2.8 0.0 -0.307 5890.24 0.397 -0.291 5893.19 0.401 -0.221 -0.212 0.144 5890.00 0.359 0.151 0.98 0.286 0.25 0.054 0.003 0.00 0.005 0.208 0.003 0.350 0.00 0.027 0.252 0.00 1.188 0.306 0.292 0.220 0.213 0.287 0.005 0.209 0.004 1.1 62.6 1.1 54.2 0 0 0

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341 0.85276 -73.26542 302.95914 -43.86278 -0.023 5780.55 0.900 -0.024 5783.65 0.533 1.01 0.001 0.05 0.000 0.002 0.04 0.042 0.00 0.580 0.053 0.032 0.003 0.003 19.0 9.9 -0.024 5797.42 0.696 -0.017 5800.90 1.000 1.01 0.002 0.05 0.058 0.001 0.00 0.000 0.00 0.823 0.042
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244 0.83074 -73.43200 303.08908 -43.69574 -0.009 5781.10 0.900 0.000 5783.55 0.614 1.00 0.001 0.00 0.000 0.000 0.00 0.000 0.00 0.995 0.021 -0.000 0.003 0.000 7.6 0.0 -0.009 5798.11 0.250 -0.009 5799.44 0.386 1.00 0.001 0.05 0.000 0.001 0.06 0.065 0.00 0.443 0.006
0.009 0.001 0.002 7.1 4.6 -0.238 5890.39 0.360 -0.041 5892.51 0.358 -0.167 -0.033 0.000 5890.00 0.355 0.049 0.99 0.003 0.01 0.005 0.003 0.02 0.026 0.004 0.003 0.000 0.00 0.031 0.005 0.00 0.979 0.215 0.037 0.151 0.030 0.004 0.004 0.005 0.003 53.8 9.8 33.5 8.9 0 0 0
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150 0.80719 -73.54070 303.22595 -43.58580 0.000 5779.87 0.573 -0.019 5782.61 0.370 1.00 0.000 0.00 0.000 0.004 0.09 0.095 0.00 0.826 -0.000 0.018 0.000 0.006 0.0 3.0 -0.018 5796.17 0.250 -0.011 5799.54 1.000 1.00 0.005 0.08 0.000 0.003 0.26 0.000 0.00 0.883 0.011
0.029 0.003 0.007 4.0 4.4 -7.031 5889.93 0.413 -0.142 5892.98 0.548 -4.934 -0.110 6.908 5889.91 0.400 4.907 0.99 131.808 0.17 0.118 0.004 0.01 0.015 93.051 0.004 131.810 0.16 0.124 93.052 0.00 1.329 7.274 0.196 5.105 0.151 136.387 0.007 96.283 0.006 0.1 26.4 0.1 23.4 0
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190 0.81733 -73.46333 303.16785 -43.66379 -0.022 5780.89 0.360 -0.010 5782.98 0.360 1.00 0.002 0.04 0.000 0.002 0.09 0.000 0.00 0.579 0.020 0.009 0.002 0.002 12.0 5.5 -0.014 5797.48 0.250 -0.009 5799.09 0.250 1.00 0.002 0.05 0.000 0.002 0.08 0.000 0.00 0.544 0.009
0.006 0.001 0.001 7.0 4.4 -0.223 5890.32 0.413 -0.083 5892.67 0.471 -0.247 -0.050 0.047 5890.00 0.362 0.135 0.99 0.082 0.15 0.045 0.003 0.02 0.018 0.092 0.003 0.118 0.00 0.014 0.131 0.00 1.082 0.231 0.097 0.256 0.059 0.089 0.005 0.099 0.004 2.6 19.9 2.6 15.6 1 0 1
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231 0.82834 -73.38734 303.10385 -43.74030 0.000 5780.16 0.629 -0.024 5783.50 0.433 1.00 0.000 0.00 0.000 0.002 0.04 0.040 0.00 1.063 -0.000 0.026 0.000 0.003 0.0 8.3 -0.007 5797.41 0.928 -0.024 5800.30 0.342 1.00 0.001 0.00 0.175 0.002 0.03 0.029 0.00 0.709 0.017
0.020 0.004 0.002 4.1 8.9 -0.166 5890.41 0.370 -0.217 5893.18 0.423 -0.116 -0.152 0.000 5889.88 0.337 0.054 0.99 0.004 0.01 0.010 0.004 0.01 0.007 0.010 0.003 0.000 0.06 0.050 0.006 0.00 1.819 0.154 0.231 0.108 0.162 0.006 0.006 0.010 0.005 27.9 41.7 11.1 35.5 0 1 0
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180 0.81484 -73.40156 303.18369 -43.72541 -0.028 5781.10 0.765 0.000 5783.73 0.621 1.01 0.004 0.00 0.129 0.000 0.00 0.000 0.00 3.031 0.053 -0.000 0.012 0.000 4.6 0.0 -0.015 5797.75 0.366 -0.018 5800.54 0.250 1.00 0.002 0.05 0.055 0.002 0.04 0.000 0.00 0.376 0.014
0.011 0.003 0.001 5.1 9.2 -0.370 5890.23 0.447 -0.037 5892.74 0.440 -0.297 -0.020 0.216 5890.00 0.376 0.237 0.97 0.201 0.14 0.024 0.005 0.06 0.068 0.167 0.005 0.234 0.00 0.043 0.190 0.00 1.860 0.415 0.041 0.333 0.022 0.226 0.008 0.188 0.006 1.8 4.9 1.8 3.6 0 0 1 1
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316 0.84774 -73.23947 302.98932 -43.88868 -0.016 5780.62 0.829 -0.028 5783.15 0.900 1.00 0.001 0.09 0.107 0.001 0.06 0.000 0.00 0.495 0.032 0.062 0.005 0.003 6.4 21.3 0.000 5797.28 0.357 -0.021 5800.13 0.250 1.00 0.000 0.00 0.000 0.002 0.03 0.000 0.00 0.383 -0.000
0.013 0.000 0.001 0.0 11.9 -0.433 5890.16 0.431 -0.220 5892.98 0.412 -0.363 -0.156 0.330 5890.00 0.375 0.332 0.99 0.213 0.08 0.009 0.003 0.01 0.006 0.183 0.003 0.229 0.00 0.026 0.194 0.00 1.661 0.468 0.227 0.392 0.161 0.231 0.005 0.198 0.004 2.0 47.3 2.0 40.5 0 1 0
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183 0.81591 -73.36745 303.17798 -43.75958 -0.019 5781.10 0.900 0.000 5783.53 0.558 1.00 0.001 0.00 0.000 0.000 0.00 0.000 0.00 0.898 0.044 -0.000 0.003 0.000 13.3 0.0 -0.004 5797.09 0.547 -0.011 5799.52 0.250 1.01 0.001 0.17 0.179 0.001 0.04 0.000 0.00 0.334 0.006
0.007 0.003 0.001 2.3 7.5 -0.265 5890.45 0.349 -0.036 5892.44 0.420 -0.197 -0.028 0.000 5889.90 0.400 0.039 0.99 0.003 0.00 0.004 0.002 0.03 0.029 0.005 0.002 0.000 0.06 0.000 0.004 0.00 0.764 0.232 0.038 0.172 0.029 0.003 0.004 0.005 0.003 66.9 10.3 34.5 9.2 1 0 0

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262 0.83573 -73.26469 303.06116 -43.86320 -0.015 5781.10 0.900 -0.018 5783.62 0.900 1.01 0.001 0.00 0.000 0.001 0.06 0.000 0.00 1.089 0.035 0.040 0.002 0.002 14.9 18.5 0.000 5797.60 0.544 -0.009 5800.50 0.275 1.00 0.000 0.00 0.000 0.001 0.03 0.033 0.00 0.319 -0.000
0.006 0.000 0.001 0.0 6.4 -0.211 5890.43 0.389 -0.154 5892.94 0.482 -0.165 -0.098 0.002 5889.91 0.366 0.054 0.99 0.005 0.02 0.013 0.003 0.01 0.010 0.012 0.003 0.012 0.07 0.052 0.012 0.00 1.300 0.206 0.186 0.161 0.118 0.009 0.005 0.013 0.004 23.5 34.7 12.3 28.0 0 0 0
0 1 1

164 0.81008 -73.36367 303.21271 -43.76300 -0.015 5781.10 0.749 -0.014 5782.69 0.360 1.00 0.001 0.00 0.092 0.002 0.06 0.000 0.00 0.539 0.028 0.013 0.004 0.002 6.7 8.2 -0.006 5798.22 0.250 0.000 5799.21 0.470 1.00 0.002 0.11 0.000 0.000 0.00 0.000 0.00 0.545 0.004 -
0.000 0.001 0.000 3.2 0.0 -0.259 5890.45 0.379 -0.114 5892.71 0.397 -0.207 -0.086 0.000 5890.00 0.381 0.053 0.99 0.003 0.01 0.005 0.003 0.01 0.011 0.004 0.003 0.000 0.00 0.032 0.005 0.00 1.168 0.247 0.114 0.197 0.085 0.004 0.004 0.005 0.004 57.5 26.5 40.7 23.2 0 0 0
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130 0.80253 -73.35378 303.25784 -43.77235 0.000 5780.55 0.572 0.000 5783.46 0.654 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.929 -0.000 -0.000 0.000 0.000 0.0 0.0 -0.007 5796.81 0.250 -0.023 5800.71 1.000 1.01 0.007 0.33 0.000 0.004 0.00 0.000 0.00 1.897 0.004
0.058 0.004 0.010 1.0 5.7 -0.783 5890.12 0.438 -0.133 5893.17 0.814 -0.610 -0.091 0.623 5890.00 0.368 0.520 0.99 0.322 0.05 0.006 0.004 0.02 0.029 0.255 0.004 0.334 0.00 0.027 0.263 0.00 1.766 0.859 0.271 0.670 0.185 0.354 0.013 0.281 0.011 2.4 20.9 2.4 17.2 0 0 0
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178 0.81441 -73.29403 303.18832 -43.83291 -0.017 5780.08 0.900 -0.023 5782.60 0.599 1.01 0.002 0.11 0.000 0.002 0.00 0.067 0.00 0.676 0.039 0.035 0.004 0.005 10.6 7.0 -0.016 5796.96 0.402 -0.016 5798.47 0.330 1.00 0.003 0.07 0.076 0.003 0.07 0.070 0.00 0.730 0.017
0.013 0.004 0.004 4.1 3.7 -0.247 5890.41 0.376 -0.110 5892.86 0.487 -0.178 -0.070 0.000 5889.72 0.320 0.041 0.99 0.003 0.01 0.005 0.003 0.01 0.014 0.005 0.003 0.000 0.04 0.041 0.004 0.00 0.654 0.233 0.135 0.168 0.085 0.004 0.005 0.005 0.004 52.4 26.9 33.5 21.6 0 0 0
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181 0.81523 -73.27564 303.18375 -43.85134 -0.019 5781.10 0.900 -0.022 5783.26 0.544 1.00 0.001 0.00 0.000 0.001 0.04 0.043 0.00 0.511 0.042 0.030 0.003 0.003 16.8 9.7 -0.006 5797.09 1.000 -0.006 5800.51 0.489 1.00 0.001 0.13 0.000 0.001 0.00 0.106 0.00 0.247 0.015
0.007 0.002 0.002 8.1 3.6 -0.300 5890.42 0.347 -0.212 5892.94 0.644 -0.241 -0.157 0.000 5890.00 0.325 0.057 0.99 0.012 0.02 0.015 0.009 0.03 0.029 0.017 0.009 0.000 0.00 0.102 0.018 0.00 14.092 0.261 0.342 0.210 0.254 0.015 0.021 0.017 0.018 17.2 16.2 12.4 14.1 0 0
0 0 1 1

200 0.81951 -73.24858 303.15860 -43.87864 -0.013 5780.15 0.900 -0.016 5782.60 0.826 1.00 0.001 0.10 0.000 0.001 0.00 0.084 0.00 0.540 0.030 0.034 0.002 0.004 12.5 8.0 0.000 5796.74 0.501 -0.006 5798.44 1.000 1.00 0.000 0.00 0.000 0.001 0.22 0.000 0.00 0.696 -0.000
0.015 0.000 0.003 0.0 5.3 -0.286 5890.41 0.395 -0.169 5892.89 0.404 -0.250 -0.100 0.000 5889.87 0.400 0.055 0.99 0.003 0.00 0.004 0.003 0.01 0.007 0.006 0.003 0.000 0.04 0.000 0.005 0.00 0.974 0.283 0.171 0.247 0.102 0.004 0.004 0.006 0.003 70.9 41.0 39.3 32.0 0 0 0
0 1 1

215 0.82451 -73.22047 303.12903 -43.90699 -0.016 5780.92 0.900 -0.013 5784.28 0.401 1.00 0.001 0.06 0.000 0.001 0.05 0.051 0.00 0.291 0.036 0.013 0.002 0.002 17.3 6.0 -0.095 5798.17 0.258 0.000 5800.78 0.497 1.00 0.007 0.00 0.023 0.000 0.00 0.000 0.00 5.627 0.061 -
0.000 0.007 0.000 8.6 0.0 -0.209 5890.40 0.393 -0.254 5892.82 0.410 -0.177 -0.187 0.011 5889.84 0.400 0.066 0.99 0.004 0.02 0.009 0.003 0.00 0.005 0.008 0.003 0.008 0.05 0.000 0.009 0.00 1.231 0.206 0.261 0.174 0.192 0.007 0.004 0.009 0.003 31.1 66.0 20.2 57.4 1 0 0
0 1 1

165 0.81008 -73.25525 303.21500 -43.87141 -0.028 5780.89 0.418 -0.011 5783.66 0.900 1.01 0.002 0.03 0.033 0.001 0.12 0.000 0.00 1.187 0.030 0.025 0.003 0.003 9.7 8.6 0.000 5797.44 0.538 -0.002 5800.25 0.250 1.00 0.000 0.00 0.000 0.002 0.26 0.000 0.00 0.929 -0.000
0.001 0.000 0.001 0.0 1.3 -0.389 5890.26 0.421 -0.223 5892.74 0.384 -0.342 -0.151 0.192 5890.00 0.352 0.233 0.98 0.100 0.08 0.017 0.003 0.00 0.005 0.091 0.003 0.126 0.00 0.021 0.111 0.00 1.008 0.411 0.215 0.361 0.146 0.107 0.004 0.097 0.003 3.8 54.3 3.7 45.4 1 0 0

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152 0.80794 -73.24136 303.22815 -43.88515 -0.010 5781.10 0.900 0.000 5783.58 0.648 1.00 0.001 0.00 0.000 0.000 0.00 0.000 0.00 1.042 0.023 -0.000 0.003 0.000 9.0 0.0 0.000 5797.18 0.250 0.000 5800.08 0.514 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 1.315 -0.000 -0.000 0.000 0.000 0.000 0.0 0.0 -0.185 5890.44 0.365 -0.165 5892.72 0.384 -0.194 -0.138 0.000 5890.00 0.341 0.062 0.98 0.004 0.01 0.007 0.004 0.01 0.008 0.005 0.003 0.000 0.00 0.030 0.006 0.00 1.676 0.170 0.159 0.177 0.133 0.005 0.005 0.006 0.004 36.0 32.9 29.9 30.4 0 0 0 0 1 1

135 0.80318 -73.24250 303.25668 -43.88367 -0.021 5780.55 0.900 -0.124 5783.31 0.900 1.00 0.002 0.10 0.000 0.002 0.02 0.000 0.00 1.015 0.047 0.280 0.005 0.005 10.3 61.9 -0.010 5797.80 0.838 -0.043 5800.03 0.736 1.01 0.001 0.00 0.147 0.001 0.03 0.025 0.00 0.287 0.020 0.079 0.004 0.004 4.7 22.4 -0.355 5890.30 0.423 -0.496 5892.88 0.430 -0.327 -0.411 0.155 5889.99 0.339 0.219 0.99 0.117 0.11 0.023 0.003 0.00 0.003 0.120 0.003 0.149 0.04 0.039 0.144 0.00 0.948 0.376 0.534 0.346 0.443 0.126 0.005 0.129 0.004 3.0 109.9 2.7 101.1 0 1 0 1 1 1

21 0.75164 -73.38661 303.55902 -43.73389 -0.015 5780.59 0.813 -0.040 5783.14 0.900 1.00 0.001 0.06 0.068 0.001 0.03 0.000 0.00 0.403 0.030 0.090 0.003 0.002 9.8 49.7 -0.011 5797.84 0.250 -0.013 5799.88 0.528 1.00 0.001 0.00 0.000 0.001 0.05 0.051 0.00 0.447 0.007 0.018 0.001 0.002 8.5 7.9 -0.248 5890.44 0.407 -0.342 5892.67 0.411 -0.212 -0.277 0.000 5889.94 0.400 0.061 0.99 0.003 0.01 0.006 0.003 0.00 0.004 0.008 0.003 0.000 0.05 0.000 0.007 0.00 1.098 0.254 0.353 0.217 0.285 0.005 0.005 0.008 0.004 52.6 75.7 25.8 68.8 0 1 0 1 1 1

407 0.86919 -73.03039 302.85947 -44.09772 -0.022 5780.53 0.360 -0.016 5782.60 0.733 1.00 0.002 0.05 0.000 0.002 0.00 0.116 0.00 0.561 0.019 0.029 0.002 0.006 9.2 5.0 -0.007 5796.75 0.250 0.000 5798.97 0.480 1.00 0.002 0.12 0.000 0.000 0.00 0.000 0.00 0.489 0.005 -0.000 0.002 0.000 2.9 0.0 -0.749 5890.11 0.430 -0.028 5892.56 1.000 -0.577 -0.027 0.635 5890.00 0.360 0.545 0.99 0.245 0.04 0.006 0.003 0.10 0.000 0.194 0.003 0.252 0.00 0.020 0.198 0.00 1.635 0.808 0.071 0.622 0.067 0.264 0.008 0.210 0.008 3.1 9.3 3.0 8.7 0 0 0 0 1 0

167 0.81136 -73.18886 303.20871 -43.93788 -0.011 5781.10 0.900 -0.024 5783.63 0.900 1.00 0.001 0.00 0.000 0.001 0.06 0.000 0.00 0.293 0.025 0.054 0.003 0.003 7.9 17.8 -0.010 5797.65 0.250 -0.018 5800.41 0.438 0.99 0.002 0.07 0.000 0.002 0.05 0.054 0.00 0.292 0.006 0.019 0.001 0.003 4.6 6.2 -0.260 5890.45 0.344 -0.175 5892.85 0.434 -0.228 -0.108 0.000 5890.00 0.341 0.053 0.98 0.003 0.00 0.005 0.003 0.01 0.008 0.004 0.003 0.000 0.00 0.031 0.005 0.00 1.049 0.224 0.191 0.197 0.118 0.004 0.005 0.005 0.004 55.2 40.4 43.0 32.2 0 1 0 1 1 1

121 0.79970 -73.19522 303.27878 -43.93067 -0.013 5780.41 0.832 -0.038 5783.52 0.857 1.00 0.001 0.07 0.079 0.001 0.03 0.029 0.00 0.537 0.028 0.081 0.003 0.003 8.3 23.4 -0.015 5797.44 0.250 -0.011 5799.27 0.996 1.00 0.002 0.03 0.000 0.001 0.00 0.115 0.00 0.569 0.009 0.027 0.001 0.004 9.4 7.1 -0.201 5890.41 0.384 -0.277 5892.72 0.405 -0.184 -0.206 0.008 5889.93 0.400 0.060 0.99 0.006 0.02 0.010 0.003 0.00 0.004 0.012 0.003 0.011 0.06 0.000 0.014 0.00 1.193 0.194 0.281 0.177 0.209 0.008 0.004 0.012 0.004 23.8 67.8 14.4 59.2 0 1 0 1 1 1

77 0.78839 -73.20522 303.34656 -43.91966 -0.008 5781.10 0.505 -0.011 5782.85 0.360 1.00 0.001 0.00 0.092 0.001 0.05 0.000 0.00 0.367 0.010 0.010 0.002 0.001 4.2 9.7 -0.016 5797.42 0.283 -0.004 5800.10 1.000 1.00 0.001 0.03 0.030 0.001 0.00 0.000 0.00 0.363 0.011 0.009 0.002 0.002 7.1 4.6 -0.239 5890.39 0.379 -0.079 5892.68 0.502 -0.222 -0.046 0.017 5889.87 0.183 0.081 0.99 0.004 0.02 0.014 0.004 0.02 0.025 0.005 0.003 0.014 0.02 0.024 0.012 0.00 2.112 0.227 0.100 0.211 0.058 0.009 0.007 0.009 0.005 24.9 14.9 23.0 11.4 0 0 1 0 1 1

45 0.77323 -73.23453 303.43665 -43.88874 -0.015 5779.79 0.645 -0.016 5783.69 0.360 1.00 0.002 0.07 0.081 0.002 0.05 0.000 0.00 0.591 0.024 0.014 0.004 0.002 6.1 8.6 -0.010 5796.53 0.742 -0.007 5800.47 0.250 1.00 0.001 0.11 0.125 0.002 0.10 0.000 0.00 0.582 0.019 0.004 0.004 0.001 4.6 3.4 -0.287 5890.20 0.439 -0.134 5892.75 0.401 -0.214 -0.099 0.155 5889.97 0.370 0.186 0.99 0.189 0.13 0.018 0.003 0.01 0.011 0.165 0.003 0.206 0.07 0.052 0.171 0.00 1.472 0.316 0.135 0.235 0.100 0.208 0.005 0.181 0.004 1.5 26.3 1.3 22.9 0 0 0 0 1 1

182 0.81544 -73.12497 303.18533 -44.00201 -0.028 5780.88 0.362 -0.052 5783.67 0.900 1.00 0.002 0.03 0.027 0.001 0.02 0.000 0.00 0.281 0.025 0.118 0.002 0.002 10.3 47.0 -0.018 5797.29 0.250 -0.024 5799.79 0.448 1.00 0.002 0.03 0.000 0.001 0.03 0.032 0.00 0.209 0.011
0.027 0.001 0.003 11.3 10.6 -0.211 5890.37 0.398 -0.445 5893.03 0.554 -0.222 -0.360 0.000 5890.00 0.367 0.083 0.99 0.004 0.01 0.007 0.003 0.00 0.004 0.006 0.003 0.000 0.00 0.024 0.007 0.00 1.144 0.211 0.619 0.221 0.500 0.005 0.006 0.007 0.005 42.5 101.0 30.2 91.7 1 1
1 1 1 1

40 0.77148 -73.20975 303.44809 -43.91331 -0.015 5781.10 0.900 0.000 5783.61 0.602 1.00 0.002 0.00 0.000 0.000 0.00 0.000 0.00 0.674 0.033 -0.000 0.003 0.000 9.5 0.0 -0.011 5797.45 0.250 -0.016 5799.40 1.000 1.01 0.003 0.10 0.000 0.002 0.14 0.000 0.00 1.054 0.007 0.041
0.002 0.005 3.2 8.8 -0.291 5890.30 0.427 -0.153 5892.78 0.432 -0.222 -0.097 0.103 5890.00 0.305 0.132 0.99 0.040 0.05 0.013 0.003 0.01 0.011 0.034 0.003 0.055 0.00 0.032 0.043 0.00 1.379 0.312 0.166 0.238 0.105 0.044 0.006 0.037 0.004 7.1 30.1 6.4 24.3 0 0 0 0 1 1

362 0.85749 -73.00406 302.93079 -44.12416 -0.021 5780.49 0.480 -0.016 5782.60 0.900 1.00 0.002 0.04 0.040 0.001 0.00 0.000 0.00 0.585 0.026 0.037 0.003 0.002 9.2 15.0 -0.026 5797.55 0.250 0.000 5799.14 0.445 1.00 0.001 0.02 0.000 0.000 0.00 0.000 0.00 0.361 0.016 -
0.000 0.001 0.000 19.0 0.0 -0.234 5890.42 0.381 -0.033 5892.67 0.796 -0.175 -0.029 0.000 5889.93 0.332 0.064 0.98 0.004 0.01 0.007 0.003 0.06 0.069 0.011 0.003 0.000 0.05 0.041 0.006 0.00 1.806 0.223 0.065 0.167 0.057 0.005 0.008 0.011 0.007 40.6 8.6 15.8 8.1 1 0 1
0 1 0

8 0.73576 -73.23836 303.66125 -43.87953 -0.023 5780.77 0.758 -0.029 5783.20 0.900 1.00 0.001 0.06 0.063 0.001 0.06 0.000 0.00 0.403 0.044 0.065 0.004 0.003 9.9 23.8 -0.007 5797.58 1.000 0.000 5799.66 0.532 1.00 0.001 0.15 0.000 0.000 0.00 0.000 0.00 0.295 0.017 -0.000
0.002 0.000 7.6 0.0 -0.250 5890.42 0.367 -0.172 5892.62 0.476 -0.216 -0.125 0.000 5889.96 0.400 0.069 0.99 0.008 0.02 0.011 0.004 0.01 0.011 0.016 0.004 0.013 0.07 0.000 0.017 0.00 2.529 0.230 0.206 0.198 0.149 0.010 0.006 0.015 0.005 23.5 31.8 12.8 27.4 1 1 0 0 1 0

78 0.78864 -73.11961 303.34769 -44.00528 -0.016 5781.10 0.900 -0.002 5784.22 0.597 1.00 0.001 0.00 0.000 0.001 0.42 0.467 0.00 0.285 0.036 0.003 0.002 0.003 15.4 1.0 -0.012 5797.68 0.443 -0.010 5801.47 1.000 1.00 0.002 0.07 0.076 0.001 0.00 0.000 0.00 0.431 0.013
0.024 0.003 0.003 4.5 8.2 -0.172 5890.37 0.355 -0.040 5892.39 0.493 -0.128 -0.037 0.000 5889.94 0.366 0.060 0.99 0.003 0.01 0.008 0.003 0.03 0.031 0.020 0.003 0.000 0.10 0.059 0.010 0.00 1.022 0.153 0.050 0.114 0.045 0.004 0.005 0.018 0.004 35.1 11.1 6.5 10.6 0 0 0
0 1 1

382 0.86179 -72.97483 302.90445 -44.15337 -0.018 5780.80 0.445 -0.013 5782.86 0.900 1.00 0.001 0.03 0.036 0.001 0.07 0.000 0.00 0.702 0.020 0.030 0.002 0.002 9.6 16.7 -0.011 5797.62 0.791 0.000 5799.34 0.527 1.00 0.001 0.07 0.077 0.000 0.00 0.000 0.00 0.709 0.022 -
0.000 0.003 0.000 8.0 0.0 -0.211 5890.39 0.381 -0.204 5892.65 0.406 -0.167 -0.161 0.007 5889.90 0.400 0.059 0.99 0.007 0.02 0.011 0.003 0.01 0.007 0.012 0.003 0.012 0.07 0.000 0.013 0.00 1.128 0.201 0.208 0.160 0.164 0.009 0.005 0.012 0.004 23.0 44.7 13.3 40.2 1 0 1
0 1 1

68 0.78407 -73.10078 303.37598 -44.02365 -0.010 5780.57 0.360 -0.016 5782.77 0.900 1.00 0.001 0.05 0.000 0.001 0.05 0.000 0.00 0.472 0.009 0.035 0.001 0.002 9.5 20.1 -0.008 5796.85 1.000 -0.015 5799.78 0.289 1.00 0.001 0.09 0.000 0.001 0.03 0.027 0.00 0.342 0.020
0.011 0.002 0.001 12.8 8.1 -0.255 5890.36 0.411 -0.167 5892.72 0.448 -0.221 -0.147 0.036 5890.00 0.387 0.089 0.99 0.034 0.06 0.025 0.003 0.01 0.008 0.028 0.003 0.054 0.00 0.028 0.047 0.00 1.103 0.263 0.188 0.228 0.165 0.038 0.004 0.032 0.004 6.9 41.8 7.2 39.4 0 0 0
0 1 1

266 0.83679 -73.00558 303.05719 -44.12234 -0.018 5780.22 0.422 -0.014 5783.68 0.900 1.00 0.002 0.04 0.044 0.001 0.08 0.000 0.00 0.259 0.019 0.031 0.003 0.002 7.4 12.7 -0.019 5797.47 0.264 -0.010 5800.66 1.000 1.01 0.002 0.00 0.036 0.001 0.13 0.000 0.00 0.327 0.012
0.025 0.002 0.003 5.5 8.8 -0.461 5890.23 0.419 -0.159 5892.95 0.466 -0.368 -0.110 0.220 5890.00 0.376 0.233 0.99 0.283 0.16 0.030 0.003 0.01 0.010 0.229 0.003 0.335 0.00 0.028 0.268 0.00 0.107 0.485 0.186 0.387 0.129 0.299 0.005 0.242 0.004 1.6 35.6 1.6 30.1 1 0 0
0 1 1

6 0.73069 -73.16222 303.69598 -43.95473 -0.021 5780.78 0.691 -0.025 5784.38 0.408 1.01 0.002 0.08 0.095 0.003 0.06 0.060 0.00 0.650 0.037 0.025 0.006 0.005 5.7 5.3 -0.001 5796.72 0.250 0.000 5800.89 0.542 1.00 0.002 0.67 0.000 0.000 0.00 0.000 0.00 0.300 0.001 -0.000
0.001 0.000 0.5 0.0 -0.460 5890.02 0.493 -0.022 5892.10 0.250 -0.324 -0.016 0.379 5889.82 0.399 0.319 0.99 0.202 0.07 0.015 0.004 0.04 0.046 0.153 0.004 0.208 0.03 0.032 0.155 0.00 0.190 0.569 0.014 0.400 0.010 0.251 0.003 0.189 0.003 2.3 3.9 2.1 3.4 1 1 0 0 1 0

251 0.83209 -73.00242 303.08594 -44.12535 -0.022 5780.41 0.360 -0.026 5782.60 0.900 1.01 0.002 0.05 0.000 0.002 0.00 0.000 0.00 0.802 0.020 0.058 0.002 0.004 9.6 15.4 -0.013 5797.20 0.250 0.000 5799.09 0.484 0.99 0.002 0.05 0.000 0.000 0.00 0.000 0.00 0.460 0.008 -0.000 0.001 0.000 6.3 0.0 -0.243 5890.39 0.352 -0.095 5892.83 0.465 -0.190 -0.061 0.025 5890.00 0.400 0.068 0.99 0.006 0.01 0.008 0.003 0.01 0.014 0.005 0.002 0.009 0.00 0.000 0.008 0.00 0.909 0.215 0.110 0.167 0.071 0.007 0.005 0.006 0.004 30.0 24.0 27.9 19.5 0 0 0 0 1 1

104 0.79499 -73.04350 303.31140 -44.08196 -0.010 5780.24 0.538 -0.011 5783.64 0.360 1.01 0.002 0.09 0.096 0.002 0.07 0.000 0.00 1.142 0.014 0.010 0.003 0.001 4.3 6.6 -0.012 5796.99 0.250 -0.009 5799.39 0.476 1.00 0.002 0.05 0.000 0.002 0.00 0.101 0.00 1.167 0.007 0.011 0.001 0.003 6.1 3.6 -0.339 5890.19 0.449 -0.029 5892.61 0.759 -0.321 -0.024 0.176 5890.00 0.391 0.241 0.99 0.115 0.07 0.009 0.002 0.05 0.062 0.113 0.002 0.127 0.00 0.024 0.122 0.00 1.185 0.382 0.056 0.362 0.045 0.130 0.006 0.127 0.005 3.0 9.4 2.8 8.6 0 0 0 0 1 0

48 0.77434 -73.06303 303.43637 -44.06031 -0.026 5781.09 0.900 -0.018 5783.72 0.900 1.01 0.002 0.07 0.000 0.002 0.10 0.000 0.00 1.233 0.058 0.040 0.004 0.004 15.8 10.9 -0.018 5797.65 0.785 -0.015 5800.01 0.250 1.01 0.002 0.11 0.122 0.003 0.08 0.000 0.00 2.364 0.036 0.009 0.007 0.002 5.0 4.4 -0.172 5890.45 0.381 -0.096 5892.86 0.468 -0.157 -0.052 0.002 5889.82 0.400 0.026 0.99 0.003 0.01 0.009 0.002 0.01 0.013 0.005 0.002 0.005 0.09 0.000 0.006 0.00 0.623 0.165 0.112 0.150 0.061 0.005 0.004 0.006 0.003 35.0 26.3 25.5 19.5 0 0 0 0 1 1

115 0.79876 -73.01997 303.28906 -44.10581 -0.012 5780.90 0.360 -0.019 5782.97 0.887 1.00 0.002 0.07 0.000 0.001 0.06 0.077 0.00 0.832 0.010 0.041 0.002 0.004 6.9 9.2 0.000 5797.39 0.517 -0.008 5799.69 0.250 1.00 0.000 0.00 0.000 0.001 0.05 0.000 0.00 0.407 -0.000 0.005 0.000 0.001 0.0 6.8 -0.206 5890.36 0.392 -0.185 5892.80 0.390 -0.176 -0.140 0.012 5889.89 0.400 0.080 0.99 0.009 0.03 0.014 0.004 0.01 0.008 0.015 0.003 0.015 0.06 0.000 0.018 0.00 1.611 0.202 0.181 0.173 0.137 0.011 0.005 0.016 0.004 17.7 36.2 10.8 32.0 0 0 0 0 1 1

46 0.77328 -73.03989 303.44370 -44.08332 -0.023 5780.91 0.525 -0.008 5783.48 0.360 1.01 0.002 0.05 0.053 0.002 0.11 0.000 0.00 0.886 0.031 0.008 0.004 0.002 7.6 4.1 -0.013 5797.27 0.250 0.000 5800.02 0.509 1.00 0.002 0.05 0.000 0.000 0.00 0.000 0.00 0.564 0.008 -0.000 0.001 0.000 6.9 0.0 -0.224 5890.33 0.426 -0.102 5892.40 0.352 -0.178 -0.089 0.039 5890.00 0.400 0.076 0.99 0.046 0.08 0.029 0.003 0.01 0.011 0.037 0.003 0.065 0.00 0.000 0.052 0.00 1.113 0.239 0.090 0.190 0.079 0.052 0.004 0.041 0.004 4.6 23.4 4.6 22.1 0 0 0 0 1 1

254 0.83285 -72.96542 303.08170 -44.16237 -0.021 5781.10 0.900 -0.025 5783.42 0.360 1.00 0.001 0.00 0.000 0.002 0.03 0.000 0.00 0.305 0.047 0.023 0.002 0.001 18.8 16.2 0.000 5797.71 0.430 -0.004 5800.10 0.250 1.00 0.000 0.00 0.000 0.003 0.22 0.000 0.00 0.771 -0.000 0.003 0.000 0.002 0.0 1.5 -0.202 5890.37 0.387 -0.148 5892.75 0.367 -0.198 -0.063 0.000 5889.95 0.359 0.086 0.98 0.009 0.02 0.020 0.009 0.03 0.027 0.047 0.008 0.000 0.17 0.102 0.027 0.00 5.809 0.195 0.136 0.192 0.058 0.014 0.013 0.047 0.009 14.3 10.3 4.1 6.5 1 1 0 0 1 1

5 0.73057 -73.05367 303.70291 -44.06316 -0.017 5780.62 0.900 -0.010 5784.10 0.360 1.00 0.001 0.05 0.000 0.001 0.05 0.000 0.00 0.375 0.039 0.009 0.002 0.001 20.7 8.8 -0.009 5796.77 0.250 0.000 5800.61 0.462 1.00 0.002 0.08 0.000 0.000 0.00 0.000 0.00 0.828 0.005 -0.000 0.001 0.000 4.5 0.0 -0.301 5890.19 0.421 -0.008 5892.10 0.290 -0.254 -0.026 0.153 5890.00 0.348 0.202 0.99 0.078 0.06 0.008 0.003 0.04 0.045 0.070 0.004 0.089 0.00 0.023 0.077 0.00 1.051 0.317 0.006 0.267 0.019 0.083 0.002 0.074 0.004 3.8 2.4 3.6 4.8 1 1 0 0 1 0

377 0.86039 -72.95364 302.91299 -44.17456 -0.016 5780.86 0.900 -0.023 5782.85 0.434 1.00 0.001 0.07 0.000 0.001 0.03 0.034 0.00 0.450 0.036 0.025 0.002 0.002 16.8 10.1 -0.015 5797.42 0.250 0.000 5799.33 0.528 1.00 0.002 0.04 0.000 0.000 0.00 0.000 0.00 0.750 0.010 -0.000 0.001 0.000 7.8 0.0 -0.238 5890.37 0.378 -0.120 5892.50 0.422 -0.184 -0.088 0.036 5889.91 0.400 0.062 0.99 0.016 0.03 0.012 0.003 0.01 0.011 0.019 0.003 0.021 0.09 0.000 0.020 0.00 0.992 0.226 0.127 0.174 0.093 0.016 0.004 0.018 0.004 13.8 29.1 9.5 25.2 1 1 0 0 1 1

97 0.79326 -72.96191 303.32428 -44.16338 -0.015 5780.67 0.685 -0.020 5782.97 0.900 1.00 0.001 0.08 0.088 0.001 0.08 0.000 0.00 0.944 0.025 0.045 0.004 0.003 6.4 17.1 -0.015 5797.32 0.250 -0.009 5800.22 0.706 1.00 0.001 0.03 0.000 0.001 0.00 0.077 0.00 0.381 0.009

0.016 0.001 0.002 13.0 7.1 -0.204 5890.43 0.392 -0.233 5892.64 0.481 -0.156 -0.178 0.000 5889.98 0.357 0.064 0.99 0.003 0.01 0.007 0.003 0.01 0.006 0.013 0.003 0.000 0.06 0.043 0.007 0.00 1.306 0.200 0.281 0.154 0.215 0.005 0.005 0.013 0.004 40.6 56.5 11.7 50.0 0 0 1 0 1 1

172 0.81304 -72.98075 303.20273 -44.14607 -0.013 5781.10 0.745 -0.019 5783.34 0.900 1.00 0.001 0.00 0.075 0.001 0.05 0.000 0.00 0.018 0.023 0.043 0.003 0.002 8.0 24.8 -0.005 5797.41 0.270 -0.014 5799.84 0.250 1.00 0.001 0.08 0.087 0.001 0.03 0.000 0.00 0.016 0.003 0.009 0.001 0.001 2.4 12.2 -0.215 5890.38 0.398 -0.269 5892.79 0.409 -0.197 -0.186 0.003 5890.00 0.390 0.087 0.99 0.016 0.04 0.016 0.003 0.00 0.005 0.013 0.003 0.024 0.00 0.023 0.023 0.00 0.871 0.214 0.275 0.197 0.191 0.018 0.004 0.015 0.003 12.2 65.4 13.0 55.2 0 1 0 1 1 1

256 0.83349 -72.92000 303.07828 -44.20781 -0.013 5780.76 0.900 -0.006 5783.13 0.900 1.00 0.001 0.10 0.000 0.001 0.21 0.000 0.00 0.632 0.029 0.013 0.002 0.002 12.0 5.6 -0.007 5797.23 0.652 -0.011 5798.98 0.250 1.00 0.001 0.10 0.108 0.001 0.04 0.000 0.00 0.389 0.011 0.007 0.002 0.001 4.7 9.2 -0.201 5890.35 0.369 -0.253 5892.69 0.450 -0.194 -0.188 0.000 5889.99 0.400 0.081 0.99 0.004 0.01 0.007 0.004 0.01 0.007 0.018 0.003 0.000 0.07 0.000 0.015 0.00 1.412 0.186 0.285 0.179 0.212 0.005 0.006 0.017 0.005 35.7 49.1 10.5 42.8 0 0 0 0 1 1

14 0.74119 -72.96811 303.64282 -44.15049 -0.014 5780.48 0.623 -0.007 5782.60 0.900 1.00 0.001 0.07 0.070 0.001 0.00 0.000 0.00 0.567 0.021 0.016 0.003 0.002 6.8 6.9 -0.008 5797.18 1.000 0.000 5799.05 0.502 1.00 0.001 0.13 0.000 0.000 0.00 0.000 0.00 0.469 0.020 -0.000 0.002 0.000 9.2 0.0 -0.218 5890.37 0.411 -0.037 5892.47 0.563 -0.184 -0.017 0.000 5889.89 0.400 0.065 0.99 0.003 0.01 0.007 0.003 0.05 0.054 0.009 0.003 0.000 0.05 0.000 0.007 0.00 1.570 0.224 0.052 0.190 0.024 0.005 0.007 0.010 0.005 43.2 8.0 19.7 5.4 0 0 0 0 1 0

154 0.80851 -72.92975 303.23157 -44.19677 -0.021 5781.10 0.530 -0.021 5782.91 0.671 1.01 0.002 0.00 0.055 0.001 0.06 0.060 0.00 0.566 0.028 0.035 0.004 0.004 7.7 8.8 0.000 5797.66 0.474 -0.006 5798.94 0.250 1.00 0.000 0.00 0.000 0.002 0.11 0.000 0.00 0.580 -0.000 0.004 0.000 0.001 0.0 3.1 -0.220 5890.38 0.392 -0.027 5892.11 0.496 -0.174 -0.005 0.007 5889.84 0.400 0.075 0.99 0.004 0.01 0.010 0.003 0.06 0.061 0.008 0.002 0.009 0.04 0.000 0.009 0.00 0.678 0.216 0.033 0.171 0.006 0.007 0.005 0.008 0.003 31.5 6.4 20.1 2.0 0 0 0 0 1 0

380 0.86172 -72.88989 302.90472 -44.23831 -0.009 5780.08 0.900 -0.014 5782.91 0.900 1.01 0.002 0.17 0.000 0.002 0.11 0.000 0.00 1.240 0.021 0.032 0.003 0.003 6.2 9.3 0.000 5796.85 0.703 0.000 5799.41 0.490 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.692 -0.000 -0.000 0.000 0.000 0.0 0.0 -0.255 5890.43 0.364 -0.153 5892.82 0.450 -0.188 -0.063 0.000 5889.68 0.400 0.051 0.99 0.003 0.01 0.005 0.003 0.01 0.011 0.004 0.003 0.000 0.04 0.000 0.004 0.00 0.978 0.233 0.173 0.172 0.071 0.005 0.005 0.005 0.004 51.5 32.4 37.5 20.1 0 0 0 0 1 1

327 0.85006 -72.88445 302.97656 -44.24372 -0.009 5780.70 0.643 -0.011 5782.60 0.427 1.00 0.001 0.10 0.106 0.001 0.00 0.075 0.00 1.506 0.015 0.011 0.003 0.003 4.7 4.5 -0.012 5797.55 0.383 0.000 5799.08 0.494 1.00 0.001 0.03 0.027 0.000 0.00 0.000 0.00 0.346 0.012 -0.000 0.000 0.001 0.000 10.9 0.0 -0.223 5890.36 0.379 -0.035 5892.54 0.649 -0.209 -0.024 0.032 5889.97 0.400 0.090 0.99 0.019 0.03 0.012 0.002 0.04 0.051 0.028 0.002 0.024 0.07 0.000 0.031 0.00 1.130 0.212 0.057 0.198 0.039 0.019 0.006 0.028 0.005 11.0 9.6 7.1 8.2 0 0 1 0 1 0

356 0.85654 -72.90659 302.93661 -44.22163 -0.017 5781.10 0.544 -0.039 5783.07 0.900 1.00 0.001 0.00 0.059 0.001 0.03 0.000 0.00 0.156 0.023 0.087 0.003 0.002 7.3 37.2 -0.008 5797.72 0.750 -0.036 5800.10 0.537 1.00 0.001 0.13 0.148 0.001 0.02 0.025 0.00 0.140 0.015 0.049 0.004 0.003 4.0 16.7 -0.406 5889.83 0.672 -0.172 5892.62 0.383 -0.381 -0.142 0.354 5889.66 0.400 0.426 0.98 0.047 0.03 0.037 0.013 0.03 0.031 0.046 0.013 0.053 0.02 0.000 0.052 0.00 16.824 0.685 0.165 0.643 0.136 0.087 0.019 0.085 0.017 7.8 8.9 7.6 8.1 0 1 0 1 1 1

69 0.78423 -72.87236 303.38257 -44.25202 -0.013 5781.10 0.900 0.000 5783.56 0.653 1.00 0.001 0.00 0.000 0.000 0.00 0.000 0.00 0.389 0.029 -0.000 0.002 0.000 14.8 0.0 -0.004 5796.85 1.000 -0.003 5800.27 0.250 1.00 0.001 0.00 0.000 0.002 0.20 0.000 0.00 0.499 0.009 0.002 0.002 0.001 3.9 1.7 -0.236 5890.31 0.387 -0.026 5892.05 0.596 -0.184 -0.021 0.039 5890.00 0.362 0.084 0.99 0.074 0.12 0.042 0.002 0.07 0.076 0.056 0.002 0.107 0.00 0.028 0.084 0.00 1.170 0.229 0.039 0.178 0.031 0.076 0.006 0.058 0.005 3.0 6.3 3.1 5.9 1 0 0 0

1 0

223 0.82558 -72.85461 303.12784 -44.27289 -0.012 5780.38 0.659 -0.015 5782.60 0.900 1.00 0.001 0.05 0.052 0.001 0.00 0.000 0.00 0.685 0.021 0.034 0.002 0.002 9.7 21.4 -0.006 5796.13 0.250 0.000 5799.16 0.501 1.00 0.002 0.00 0.000 0.000 0.00 0.000 0.00 1.360 0.004 -0.000 0.001 0.000 3.6 0.0 -0.238 5890.40 0.399 -0.269 5892.44 0.387 -0.167 -0.244 0.008 5889.76 0.400 0.048 0.99 0.004 0.01 0.009 0.003 0.00 0.004 0.006 0.003 0.007 0.06 0.000 0.007 0.00 1.202 0.237 0.261 0.167 0.237 0.006 0.004 0.007 0.004 36.6 63.7 24.7 61.0 0 0 0 0 1 1

237 0.82912 -72.84436 303.10611 -44.28329 -0.023 5780.91 0.900 -0.024 5783.55 0.900 1.01 0.001 0.06 0.000 0.001 0.06 0.000 0.00 1.618 0.051 0.054 0.003 0.003 18.1 18.9 -0.008 5797.54 0.627 -0.004 5799.84 0.613 1.00 0.001 0.07 0.074 0.001 0.11 0.124 0.00 0.345 0.012 0.007 0.002 0.002 6.8 3.9 -0.239 5890.39 0.407 -0.313 5892.78 0.558 -0.172 -0.247 0.015 5889.80 0.400 0.065 0.99 0.004 0.02 0.010 0.002 0.00 0.005 0.007 0.002 0.009 0.05 0.000 0.008 0.00 1.105 0.244 0.438 0.175 0.345 0.007 0.005 0.008 0.004 32.8 87.2 21.6 78.2 0 0 0 0 1 1

365 0.85806 -72.87569 302.92725 -44.25253 -0.011 5780.53 0.523 -0.011 5783.38 0.360 1.00 0.001 0.07 0.079 0.001 0.06 0.000 0.00 0.529 0.014 0.009 0.003 0.001 5.1 7.5 -0.013 5797.54 0.250 -0.012 5800.63 0.312 1.00 0.002 0.04 0.000 0.002 0.00 0.052 0.00 0.555 0.008 0.010 0.001 0.002 8.0 4.5 -0.351 5890.20 0.444 -0.104 5892.67 0.504 -0.245 -0.077 0.165 5889.93 0.356 0.160 0.99 0.115 0.09 0.015 0.002 0.01 0.012 0.088 0.002 0.133 0.04 0.042 0.098 0.00 1.091 0.391 0.132 0.272 0.098 0.128 0.004 0.098 0.004 3.0 29.9 2.8 26.1 0 0 0 0 1 1

143 0.80573 -72.85220 303.25046 -44.27410 -0.017 5781.10 0.766 -0.019 5782.60 0.831 1.00 0.002 0.00 0.118 0.002 0.00 0.118 0.00 1.016 0.033 0.039 0.007 0.007 5.0 5.6 -0.016 5797.83 0.412 -0.006 5799.85 1.000 1.00 0.001 0.04 0.036 0.001 0.00 0.000 0.00 0.308 0.017 0.014 0.002 0.002 8.7 7.2 -0.238 5890.35 0.428 -0.042 5893.98 0.332 -0.185 -0.071 0.042 5889.84 0.400 0.087 0.99 0.019 0.05 0.022 0.004 0.02 0.024 0.021 0.005 0.032 0.07 0.000 0.029 0.00 2.532 0.256 0.035 0.198 0.059 0.024 0.004 0.025 0.006 10.6 8.1 7.9 10.4 1 0 1 0 1 1

366 0.85826 -72.80783 302.92599 -44.32038 -0.021 5780.81 0.833 -0.010 5782.60 0.732 1.01 0.001 0.07 0.069 0.002 0.00 0.127 0.00 0.886 0.043 0.019 0.004 0.004 9.6 4.3 -0.017 5797.23 0.250 0.000 5799.02 0.463 1.00 0.002 0.03 0.000 0.000 0.00 0.000 0.00 0.693 0.011 -0.000 0.001 0.000 11.4 0.0 -0.254 5890.44 0.394 -0.053 5892.31 0.475 -0.206 -0.037 0.000 5890.00 0.370 0.063 0.99 0.003 0.01 0.005 0.003 0.03 0.028 0.005 0.003 0.000 0.00 0.027 0.005 0.00 1.397 0.250 0.063 0.203 0.044 0.005 0.005 0.005 0.004 54.8 12.5 38.0 10.6 1 0 1 0 1 1

298 0.84266 -72.79575 303.02274 -44.33231 -0.016 5780.94 0.900 -0.017 5783.03 0.900 1.01 0.001 0.07 0.000 0.001 0.07 0.000 0.00 0.529 0.036 0.037 0.002 0.002 17.9 18.4 -0.009 5797.42 0.250 -0.007 5799.34 0.300 1.00 0.002 0.06 0.000 0.002 0.09 0.089 0.00 1.009 0.006 0.005 0.001 0.002 5.3 2.6 -0.224 5890.39 0.403 -0.220 5892.40 0.394 -0.168 -0.189 0.012 5889.84 0.400 0.056 0.99 0.006 0.02 0.011 0.003 0.01 0.005 0.009 0.003 0.011 0.06 0.000 0.011 0.00 1.680 0.227 0.218 0.170 0.186 0.009 0.004 0.010 0.004 26.2 51.1 16.7 47.7 0 0 0 0 1 1

309 0.84592 -72.78628 303.00256 -44.34184 -0.016 5781.07 0.900 -0.014 5783.03 0.581 1.00 0.001 0.07 0.000 0.001 0.05 0.057 0.00 0.443 0.036 0.020 0.002 0.002 20.4 8.3 -0.008 5797.24 0.250 -0.006 5798.78 0.416 1.00 0.003 0.12 0.000 0.003 0.00 0.215 0.00 2.519 0.005 0.006 0.002 0.004 2.7 1.5 -0.211 5890.40 0.392 -0.216 5892.56 0.394 -0.138 -0.153 0.005 5889.76 0.400 0.048 0.98 0.006 0.02 0.016 0.005 0.01 0.009 0.009 0.005 0.011 0.09 0.000 0.010 0.00 3.460 0.208 0.213 0.136 0.151 0.010 0.007 0.010 0.006 20.9 30.4 13.5 25.9 0 0 0 0 1 1

497 0.88828 -72.73450 302.73892 -44.39302 -0.008 5780.66 0.360 -0.007 5782.98 0.690 1.00 0.001 0.05 0.000 0.001 0.08 0.086 0.00 0.423 0.007 0.012 0.001 0.002 9.9 6.3 -0.008 5797.84 0.518 -0.010 5799.59 0.250 1.00 0.001 0.07 0.071 0.001 0.04 0.000 0.00 0.507 0.010 0.006 0.002 0.001 5.6 9.0 -0.204 5890.42 0.412 -0.120 5892.83 0.688 -0.156 -0.094 0.008 5889.88 0.400 0.047 0.99 0.005 0.02 0.012 0.002 0.01 0.014 0.008 0.002 0.011 0.06 0.000 0.011 0.00 0.945 0.211 0.207 0.161 0.161 0.008 0.005 0.010 0.005 25.3 37.7 16.8 33.7 0 0 0 0 1 1

0 1 1

297 0.84255 -72.77267 303.02359 -44.35539 -0.013 5781.10 0.900 -0.014 5783.07 0.900 1.00 0.001 0.00 0.000 0.001 0.06 0.000 0.00 0.737 0.030 0.032 0.002 0.002 15.3 19.9 -0.008 5798.00 0.616 -0.012 5800.07 0.349 1.00 0.001 0.06 0.068 0.001 0.03 0.034 0.00 0.477 0.012
0.010 0.002 0.001 7.0 7.8 -0.266 5890.43 0.400 -0.268 5892.65 0.439 -0.212 -0.225 0.000 5889.98 0.363 0.056 1.00 0.004 0.01 0.006 0.003 0.01 0.006 0.015 0.003 0.000 0.09 0.057 0.009 0.00 0.047 0.266 0.294 0.213 0.247 0.006 0.005 0.015 0.005 46.9 55.9 13.9 51.7 1 0 0
0 1 1

73 0.78624 -72.72508 303.37494 -44.39947 -0.011 5780.88 0.900 0.000 5783.56 0.555 1.00 0.001 0.13 0.000 0.000 0.00 0.000 0.00 0.552 0.025 -0.000 0.003 0.000 8.3 0.0 -0.016 5797.30 0.953 -0.018 5800.81 1.000 1.01 0.002 0.15 0.169 0.002 0.00 0.000 0.00 1.566 0.039 0.046
0.009 0.006 4.3 7.7 -0.259 5890.37 0.401 0.000 5893.26 1.000 -0.222 -0.019 0.000 5889.94 0.400 0.067 0.99 0.003 0.01 0.005 0.000 0.12 0.000 0.009 0.002 0.000 0.05 0.000 0.008 0.00 0.842 0.260 -0.000 0.222 0.047 0.004 0.000 0.010 0.005 58.4 0.0 22.7 9.9 0 0 0 0 1 0

487 0.88575 -72.78064 302.75528 -44.34699 -0.015 5781.06 0.524 0.000 5783.59 0.583 1.00 0.001 0.06 0.060 0.000 0.00 0.000 0.00 0.285 0.020 -0.000 0.003 0.000 6.7 0.0 -0.009 5797.03 0.250 0.000 5800.23 0.425 1.00 0.004 0.17 0.000 0.000 0.00 0.000 0.00 1.623 0.005 -
0.000 0.003 0.000 2.0 0.0 -0.260 5890.44 0.384 -0.111 5892.59 0.542 -0.215 -0.072 0.003 5889.95 0.400 0.072 0.98 0.007 0.02 0.010 0.003 0.02 0.018 0.012 0.003 0.012 0.06 0.000 0.014 0.00 1.382 0.250 0.151 0.207 0.098 0.009 0.007 0.013 0.005 26.8 22.8 16.1 18.7 0 0 0
0 1 1

133 0.80265 -72.73042 303.27252 -44.39563 -0.013 5781.10 0.900 -0.006 5782.60 0.582 1.00 0.001 0.00 0.000 0.001 0.00 0.105 0.00 0.679 0.030 0.009 0.002 0.002 18.3 4.3 -0.013 5797.40 0.666 -0.007 5798.98 0.250 1.00 0.001 0.04 0.047 0.001 0.05 0.000 0.00 0.490 0.022
0.004 0.002 0.001 11.2 6.8 -0.284 5890.29 0.411 -0.071 5892.57 0.508 -0.270 -0.052 0.085 5890.00 0.400 0.150 0.99 0.042 0.05 0.017 0.003 0.02 0.021 0.039 0.003 0.054 0.00 0.000 0.052 0.00 1.423 0.293 0.091 0.278 0.066 0.044 0.005 0.042 0.004 6.6 18.0 6.6 15.5 0 0 0
0 1 1

424 0.87314 -72.78594 302.83362 -44.34210 -0.013 5781.10 0.900 -0.003 5782.79 0.900 1.00 0.001 0.00 0.000 0.001 0.24 0.000 0.00 0.390 0.030 0.008 0.002 0.001 16.8 5.7 -0.009 5797.70 0.485 0.000 5799.29 0.545 1.00 0.001 0.05 0.054 0.000 0.00 0.000 0.00 0.436 0.011 -
0.000 0.002 0.000 6.9 0.0 -0.225 5890.37 0.384 -0.089 5892.42 0.561 -0.202 -0.061 0.010 5890.00 0.400 0.074 0.99 0.014 0.03 0.012 0.002 0.02 0.018 0.023 0.002 0.020 0.07 0.000 0.025 0.00 1.307 0.216 0.126 0.194 0.086 0.015 0.005 0.023 0.004 14.4 23.7 8.5 20.0 0 0 0
0 1 1

352 0.85574 -72.75214 302.94165 -44.37608 -0.016 5781.10 0.823 -0.015 5782.95 0.360 1.00 0.001 0.00 0.072 0.001 0.04 0.000 0.00 0.856 0.033 0.014 0.004 0.001 9.2 11.0 -0.008 5797.31 0.535 -0.013 5798.78 0.308 1.00 0.001 0.07 0.076 0.001 0.03 0.035 0.00 0.424 0.011
0.010 0.002 0.001 5.7 7.1 -0.292 5890.46 0.477 -0.116 5892.47 0.409 -0.211 -0.086 0.047 5889.91 0.320 0.082 0.99 0.013 0.04 0.020 0.003 0.01 0.010 0.013 0.003 0.031 0.03 0.033 0.022 0.00 0.876 0.349 0.119 0.252 0.088 0.021 0.004 0.019 0.004 16.3 28.5 13.4 25.0 0 0 0
0 1 1

381 0.86173 -72.69781 302.90427 -44.43040 -0.016 5781.10 0.900 0.000 5783.56 0.642 1.00 0.001 0.00 0.000 0.000 0.00 0.000 0.00 0.994 0.037 -0.000 0.002 0.000 19.4 0.0 -0.005 5796.89 1.000 -0.009 5799.31 0.443 1.00 0.001 0.14 0.000 0.001 0.00 0.052 0.00 0.469 0.012
0.010 0.001 0.002 8.8 6.6 -0.246 5890.38 0.400 -0.187 5892.55 0.396 -0.199 -0.148 0.000 5889.93 0.365 0.061 0.99 0.003 0.01 0.005 0.003 0.01 0.006 0.012 0.003 0.000 0.06 0.041 0.007 0.00 1.212 0.247 0.185 0.200 0.146 0.004 0.004 0.012 0.003 56.6 47.8 16.3 42.9 1 0 0
0 1 1

196 0.81872 -72.69400 303.17303 -44.43313 -0.018 5780.86 0.877 -0.010 5783.29 0.362 1.00 0.002 0.08 0.096 0.002 0.09 0.097 0.00 1.025 0.039 0.009 0.006 0.003 7.2 2.9 -0.006 5798.11 0.791 0.000 5799.76 0.533 1.00 0.001 0.00 0.149 0.000 0.00 0.000 0.00 0.366 0.012 -
0.000 0.003 0.000 4.1 0.0 -0.284 5890.38 0.384 -0.035 5892.57 0.607 -0.208 -0.026 0.000 5889.74 0.342 0.045 0.99 0.003 0.00 0.004 0.002 0.04 0.042 0.005 0.002 0.000 0.04 0.041 0.004 0.00 1.162 0.273 0.054 0.200 0.040 0.004 0.005 0.006 0.004 65.4 10.5 35.0 9.2 0 0 0
0 1 0

441 0.87630 -72.72256 302.81345 -44.40540 -0.020 5781.10 0.360 -0.006 5783.16 0.765 1.00 0.001 0.00 0.000 0.001 0.13 0.146 0.00 0.339 0.018 0.012 0.001 0.003 16.5 4.0 -0.006 5797.58 0.346 0.000 5799.64 0.511 1.00 0.001 0.09 0.096 0.000 0.00 0.000 0.00 0.370 0.005 -0.000 0.002 0.000 2.7 0.0 -0.213 5890.40 0.386 -0.200 5892.54 0.401 -0.174 -0.172 0.010 5889.90 0.400 0.052 0.99 0.006 0.02 0.010 0.003 0.00 0.005 0.010 0.003 0.010 0.06 0.000 0.011 0.00 0.795 0.206 0.201 0.168 0.173 0.008 0.004 0.010 0.003 27.2 53.5 16.4 49.9 1 0 0 0 1 1

440 0.87596 -72.75828 302.81589 -44.36969 -0.008 5780.69 0.855 -0.015 5782.61 0.900 1.00 0.001 0.17 0.153 0.001 0.11 0.000 0.00 0.341 0.018 0.033 0.004 0.003 4.8 11.7 0.000 5797.22 0.464 -0.005 5798.88 0.650 1.00 0.000 0.00 0.000 0.001 0.13 0.136 0.00 0.490 -0.000 0.008 0.000 0.002 0.0 3.7 -0.212 5890.42 0.409 -0.165 5892.48 0.416 -0.186 -0.143 0.000 5889.95 0.400 0.062 0.99 0.003 0.01 0.006 0.003 0.01 0.007 0.008 0.003 0.000 0.04 0.000 0.007 0.00 1.414 0.217 0.172 0.191 0.149 0.004 0.004 0.008 0.004 51.1 42.7 23.0 40.0 0 0 0 0 1 1

311 0.84713 -72.71095 302.99542 -44.41719 -0.020 5780.87 0.732 -0.012 5782.60 0.745 1.00 0.002 0.07 0.067 0.002 0.00 0.124 0.00 0.920 0.037 0.023 0.004 0.005 8.4 4.7 -0.008 5797.01 1.000 0.000 5799.11 0.511 1.00 0.002 0.22 0.000 0.000 0.00 0.000 0.00 1.915 0.021 -0.000 0.004 0.000 5.3 0.0 -0.281 5890.29 0.432 0.000 5894.39 0.973 -0.232 -0.018 0.110 5889.98 0.335 0.147 0.99 0.074 0.09 0.019 0.000 0.12 0.134 0.069 0.002 0.093 0.04 0.041 0.081 0.00 1.442 0.305 -0.000 0.251 0.045 0.081 0.000 0.076 0.008 3.8 0.0 3.3 5.6 0 0 0 0 1 0

527 0.89435 -72.75797 302.70151 -44.36925 -0.015 5781.10 0.900 0.000 5783.55 0.641 1.00 0.001 0.00 0.000 0.000 0.00 0.000 0.00 0.537 0.034 -0.000 0.003 0.000 11.0 0.0 -0.020 5797.41 0.692 0.000 5800.06 0.486 1.00 0.002 0.06 0.068 0.000 0.00 0.000 0.00 0.515 0.035 -0.000 0.004 0.000 7.8 0.0 -0.248 5890.40 0.389 -0.118 5893.10 0.626 -0.219 -0.092 0.000 5890.00 0.372 0.077 0.99 0.004 0.01 0.006 0.003 0.01 0.017 0.006 0.003 0.000 0.00 0.027 0.007 0.00 1.308 0.241 0.185 0.214 0.145 0.005 0.007 0.007 0.006 45.6 26.7 31.9 23.9 0 0 0 0 1 1

594 0.90902 -72.78922 302.61102 -44.33706 -0.027 5781.10 0.900 0.000 5783.42 0.626 1.01 0.002 0.00 0.000 0.000 0.00 0.000 0.00 5.032 0.061 -0.000 0.005 0.000 11.9 0.0 -0.015 5798.35 0.652 0.000 5799.91 0.622 1.01 0.002 0.00 0.117 0.000 0.00 0.000 0.00 3.100 0.024 -0.000 0.006 0.000 4.3 0.0 -0.305 5890.32 0.427 -0.077 5892.51 0.408 -0.238 -0.057 0.088 5890.00 0.400 0.114 0.99 0.048 0.06 0.021 0.003 0.01 0.014 0.038 0.002 0.067 0.00 0.000 0.052 0.00 0.944 0.327 0.079 0.255 0.058 0.054 0.004 0.042 0.003 6.0 20.7 6.0 18.0 0 0 0 0 1 1

414 0.87099 -72.76434 302.84683 -44.36374 -0.018 5781.10 0.900 0.000 5783.51 0.707 1.00 0.001 0.00 0.000 0.000 0.00 0.000 0.00 0.802 0.041 -0.000 0.003 0.000 13.2 0.0 -0.011 5797.66 0.250 -0.006 5799.26 1.000 1.00 0.002 0.05 0.000 0.001 0.00 0.000 0.00 0.365 0.007 0.014 0.001 0.002 7.3 6.2 -0.232 5890.36 0.421 -0.041 5892.23 0.450 -0.185 -0.043 0.047 5889.92 0.400 0.087 0.99 0.030 0.06 0.025 0.003 0.03 0.037 0.032 0.003 0.046 0.08 0.000 0.042 0.00 1.114 0.245 0.047 0.195 0.048 0.035 0.005 0.036 0.006 6.9 8.5 5.4 8.6 0 0 0 0 1 0

501 0.88869 -72.76720 302.73685 -44.36031 -0.010 5780.36 0.360 -0.009 5782.60 0.900 1.00 0.002 0.10 0.000 0.002 0.00 0.000 0.00 0.730 0.009 0.019 0.002 0.003 4.6 5.7 0.000 5796.97 0.573 -0.010 5798.39 0.793 1.00 0.000 0.00 0.000 0.001 0.11 0.126 0.00 0.458 -0.000 0.020 0.000 0.004 0.0 4.9 -0.354 5890.22 0.444 -0.085 5892.47 0.498 -0.290 -0.043 0.155 5890.00 0.360 0.213 0.99 0.075 0.05 0.008 0.003 0.02 0.022 0.066 0.003 0.086 0.00 0.024 0.073 0.00 1.104 0.394 0.106 0.323 0.053 0.083 0.006 0.074 0.004 4.7 17.5 4.4 12.3 0 0 0 0 1 1

334 0.85166 -72.68242 302.96722 -44.44577 -0.062 5780.26 0.360 -0.011 5783.83 0.552 1.01 0.003 0.02 0.000 0.002 0.14 0.152 0.00 0.611 0.056 0.015 0.002 0.005 23.1 2.8 -0.011 5797.51 0.376 -0.002 5800.42 0.250 1.00 0.002 0.00 0.063 0.002 0.28 0.000 0.00 0.185 0.011 0.001 0.002 0.001 4.6 1.2 -0.231 5890.39 0.396 -0.042 5891.73 0.269 -0.181 -0.015 0.000 5889.89 0.400 0.071 0.99 0.004 0.01 0.007 0.005 0.03 0.035 0.009 0.004 0.000 0.05 0.000 0.007 0.00 1.681 0.229 0.028 0.179 0.010 0.006 0.005 0.009 0.003 40.7 5.8 19.0 3.3 1 0 0 0 1 0

420 0.87203 -72.69775 302.83990 -44.43031 -0.007 5781.04 0.360 -0.019 5782.76 0.759 1.00 0.002 0.14 0.000 0.001 0.07 0.079 0.00 0.560 0.006 0.036 0.002 0.005 3.4 7.9 -0.006 5797.30 0.414 -0.010 5799.36 0.722 1.00 0.002 0.13 0.132 0.001 0.10 0.118 0.00 0.433 0.006
0.018 0.003 0.004 2.5 4.9 -0.307 5890.34 0.440 -0.207 5892.57 0.389 -0.219 -0.180 0.052 5889.85 0.339 0.099 0.99 0.021 0.05 0.022 0.003 0.01 0.006 0.021 0.003 0.043 0.04 0.027 0.032 0.00 0.797 0.339 0.202 0.242 0.175 0.029 0.004 0.026 0.004 11.7 49.0 9.2 46.0 0 0 0
0 1 1

339 0.85227 -72.66953 302.96344 -44.45866 -0.016 5780.73 0.900 0.000 5783.62 0.586 1.00 0.001 0.06 0.000 0.000 0.00 0.000 0.00 0.272 0.037 -0.000 0.002 0.000 16.7 0.0 -0.018 5797.30 0.316 0.000 5800.13 0.510 1.00 0.001 0.03 0.027 0.000 0.00 0.000 0.00 0.169 0.014 -
0.000 0.002 0.000 8.8 0.0 -0.240 5890.36 0.431 -0.033 5892.13 0.428 -0.198 -0.030 0.025 5889.88 0.400 0.087 0.99 0.015 0.04 0.020 0.003 0.04 0.046 0.018 0.003 0.028 0.05 0.000 0.027 0.00 1.240 0.259 0.035 0.214 0.032 0.020 0.005 0.022 0.005 12.8 6.9 9.6 6.6 1 0 1
0 1 0

514 0.89162 -72.69175 302.71744 -44.43561 -0.011 5780.80 0.526 -0.007 5782.75 0.360 1.00 0.001 0.05 0.053 0.001 0.06 0.000 0.00 0.333 0.015 0.007 0.002 0.001 7.6 7.4 -0.007 5796.55 0.782 -0.015 5798.54 0.378 1.00 0.001 0.00 0.160 0.002 0.05 0.046 0.00 0.613 0.014
0.014 0.004 0.002 3.9 6.3 -0.245 5890.43 0.410 -0.051 5892.38 0.525 -0.191 -0.038 0.004 5889.90 0.400 0.061 0.99 0.005 0.02 0.011 0.003 0.03 0.030 0.008 0.002 0.011 0.05 0.000 0.011 0.00 1.431 0.252 0.067 0.196 0.051 0.009 0.005 0.010 0.004 29.3 13.3 19.6 11.8 0 0 0
0 1 0

268 0.83723 -72.61792 303.05804 -44.51000 -0.039 5781.08 0.566 -0.019 5783.01 0.360 1.01 0.002 0.03 0.034 0.002 0.05 0.000 0.00 0.425 0.055 0.017 0.004 0.002 13.1 9.6 -0.006 5797.61 0.250 0.000 5799.45 0.515 1.00 0.002 0.11 0.000 0.000 0.00 0.000 0.00 0.310 0.004 -
0.000 0.001 0.000 3.0 0.0 -0.274 5890.39 0.384 -0.020 5892.14 0.901 -0.230 -0.015 0.000 5890.00 0.350 0.065 0.99 0.004 0.01 0.006 0.002 0.15 0.171 0.006 0.002 0.000 0.00 0.027 0.006 0.00 1.425 0.264 0.045 0.221 0.034 0.006 0.010 0.006 0.008 47.2 4.5 34.0 4.1 1 0 0
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529 0.89507 -72.70969 302.69620 -44.41749 -0.015 5780.72 0.810 0.000 5783.62 0.613 1.00 0.001 0.07 0.078 0.000 0.00 0.000 0.00 0.385 0.030 -0.000 0.004 0.000 8.1 0.0 -0.003 5796.47 1.000 0.000 5800.13 0.474 1.00 0.001 0.00 0.000 0.000 0.00 0.000 0.00 0.249 0.007 -
0.000 0.002 0.000 3.7 0.0 -0.247 5890.41 0.421 -0.070 5892.59 0.490 -0.178 -0.050 0.018 5889.84 0.400 0.064 0.98 0.006 0.02 0.012 0.003 0.02 0.023 0.009 0.003 0.013 0.05 0.000 0.012 0.00 1.380 0.260 0.086 0.188 0.062 0.010 0.005 0.011 0.004 25.5 16.0 17.3 13.8 0 0 0
0 1 1

302 0.84360 -72.62036 303.01801 -44.50772 -0.014 5781.05 0.900 -0.014 5782.85 0.496 1.00 0.001 0.07 0.000 0.001 0.04 0.045 0.00 0.447 0.032 0.018 0.002 0.002 19.9 8.8 -0.013 5797.34 0.857 0.000 5799.31 0.511 1.00 0.001 0.08 0.091 0.000 0.00 0.000 0.00 1.083 0.028 -
0.000 0.004 0.000 7.3 0.0 -0.223 5890.40 0.421 -0.028 5892.21 0.756 -0.189 -0.027 0.001 5889.87 0.400 0.069 0.99 0.008 0.03 0.020 0.003 0.09 0.109 0.013 0.003 0.018 0.06 0.000 0.018 0.00 1.845 0.235 0.052 0.199 0.051 0.014 0.009 0.016 0.009 16.4 5.7 12.2 5.6 0 0 0
0 1 0

457 0.87878 -72.70609 302.79782 -44.42179 -0.022 5780.45 0.900 -0.016 5783.76 0.360 1.00 0.001 0.07 0.000 0.002 0.06 0.000 0.00 0.569 0.050 0.014 0.003 0.002 15.3 7.8 0.000 5797.00 0.501 0.000 5800.05 0.250 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.689 -0.000 -
0.000 0.000 0.000 0.0 0.0 -0.313 5890.31 0.433 -0.104 5892.54 0.382 -0.245 -0.073 0.082 5889.93 0.400 0.131 0.99 0.059 0.08 0.025 0.003 0.01 0.012 0.054 0.003 0.083 0.05 0.000 0.071 0.00 0.439 0.340 0.100 0.266 0.070 0.067 0.004 0.060 0.004 5.1 22.4 4.4 19.0 0 0 0
0 1 1

390 0.86397 -72.65625 302.89014 -44.47194 -0.023 5780.87 0.900 -0.021 5782.62 0.360 1.01 0.001 0.04 0.000 0.001 0.02 0.026 0.00 0.548 0.052 0.019 0.002 0.002 31.0 10.7 -0.008 5797.90 0.595 -0.009 5799.75 0.250 1.00 0.001 0.05 0.055 0.001 0.03 0.000 0.00 0.245 0.012
0.006 0.001 0.001 8.3 11.0 -0.259 5890.41 0.399 -0.088 5892.60 0.521 -0.192 -0.058 0.017 5889.72 0.400 0.060 0.99 0.004 0.01 0.008 0.003 0.02 0.018 0.005 0.003 0.007 0.05 0.000 0.006 0.00 1.523 0.259 0.115 0.192 0.076 0.006 0.005 0.007 0.004 39.9 21.8 28.9 17.9 1 0
0 0 1 1

459 0.87917 -72.69392 302.79529 -44.43395 -0.013 5780.43 0.360 -0.012 5783.83 0.360 1.00 0.001 0.04 0.000 0.001 0.04 0.000 0.00 0.553 0.012 0.011 0.001 0.001 12.0 11.0 -0.011 5797.43 0.730 -0.004 5801.08 0.377 1.00 0.001 0.04 0.046 0.001 0.00 0.093 0.00 0.238 0.021
0.004 0.002 0.001 12.2 3.1 -0.336 5890.39 0.410 -0.106 5892.56 0.490 -0.269 -0.069 0.068 5890.00 0.400 0.117 0.99 0.015 0.02 0.011 0.003 0.01 0.015 0.012 0.003 0.024 0.00 0.000 0.019 0.00 1.189 0.345 0.131 0.276 0.085 0.018 0.005 0.014 0.004 19.4 24.4 19.1 19.9 1 0
1 0 1 1

303 0.84363 -72.57733 303.01810 -44.55075 -0.018 5780.95 0.541 0.000 5783.55 0.657 1.00 0.002 0.05 0.058 0.000 0.00 0.000 0.00 0.705 0.024 -0.000 0.003 0.000 7.2 0.0 -0.007 5797.60 0.250 0.000 5800.01 0.515 1.00 0.001 0.06 0.000 0.000 0.00 0.000 0.00 0.333 0.004 -
0.000 0.001 0.000 5.4 0.0 -0.341 5890.38 0.397 -0.001 5893.62 1.000 -0.261 -0.024 0.025 5889.88 0.400 0.074 0.99 0.008 0.01 0.007 0.002 0.09 0.000 0.011 0.002 0.014 0.05 0.000 0.014 0.00 1.051 0.339 0.004 0.259 0.061 0.010 0.005 0.012 0.005 33.1 0.8 21.1 12.8 0 0 0
0 1 0

648 0.92456 -72.81361 302.51535 -44.31134 -0.017 5780.61 0.900 -0.015 5782.81 0.900 1.01 0.001 0.05 0.000 0.001 0.06 0.000 0.00 0.894 0.038 0.034 0.002 0.002 22.1 19.6 -0.010 5797.69 0.453 0.000 5799.31 0.506 1.00 0.001 0.05 0.048 0.000 0.00 0.000 0.00 0.912 0.012 -
0.000 0.002 0.000 7.2 0.0 -0.258 5890.32 0.435 -0.114 5892.75 0.440 -0.202 -0.072 0.084 5889.95 0.400 0.122 0.99 0.080 0.13 0.038 0.003 0.01 0.013 0.071 0.003 0.111 0.06 0.000 0.093 0.00 1.400 0.282 0.126 0.220 0.079 0.091 0.005 0.079 0.004 3.1 25.5 2.8 20.5 0 0 0
0 1 1

486 0.88525 -72.70258 302.75739 -44.42506 -0.014 5781.10 0.639 0.000 5783.63 0.573 1.00 0.001 0.00 0.061 0.000 0.00 0.000 0.00 0.803 0.023 -0.000 0.003 0.000 8.0 0.0 -0.009 5798.20 0.250 0.000 5800.18 0.449 1.00 0.001 0.06 0.000 0.000 0.00 0.000 0.00 0.779 0.005 -
0.000 0.001 0.000 5.8 0.0 -0.270 5890.41 0.379 -0.051 5892.50 0.409 -0.204 -0.038 0.030 5889.98 0.400 0.063 0.99 0.015 0.02 0.010 0.003 0.02 0.023 0.018 0.003 0.020 0.08 0.000 0.020 0.00 1.316 0.256 0.052 0.194 0.039 0.015 0.004 0.018 0.004 16.7 12.8 10.6 11.3 0 0 0
0 1 1

443 0.87659 -72.63111 302.81085 -44.49683 -0.019 5780.81 0.900 -0.015 5783.20 0.451 1.00 0.001 0.06 0.000 0.002 0.05 0.058 0.00 0.645 0.044 0.017 0.002 0.003 17.9 6.1 -0.008 5797.63 0.745 0.000 5799.69 0.576 1.00 0.001 0.13 0.143 0.000 0.00 0.000 0.00 0.648 0.014 -
0.000 0.004 0.000 4.0 0.0 -0.360 5890.29 0.412 -0.036 5892.08 0.527 -0.303 -0.031 0.108 5890.00 0.400 0.159 0.99 0.060 0.06 0.019 0.003 0.04 0.050 0.051 0.003 0.079 0.00 0.000 0.066 0.00 1.300 0.372 0.048 0.313 0.042 0.065 0.006 0.054 0.005 5.8 8.1 5.7 7.7 0 0 0 0
1 0

456 0.87874 -72.62395 302.79727 -44.50393 0.000 5780.25 0.660 -0.015 5782.60 0.900 1.00 0.000 0.00 0.000 0.001 0.00 0.000 0.00 1.798 -0.000 0.033 0.000 0.003 0.0 10.6 0.000 5796.87 0.499 -0.008 5798.35 0.548 1.00 0.000 0.00 0.000 0.002 0.00 0.150 0.00 1.522 -0.000
0.010 0.000 0.004 0.0 2.8 -0.333 5890.29 0.423 -0.031 5892.42 0.635 -0.286 -0.022 0.110 5889.97 0.400 0.146 0.99 0.145 0.14 0.035 0.002 0.05 0.061 0.135 0.002 0.182 0.07 0.000 0.165 0.00 1.322 0.354 0.049 0.303 0.035 0.157 0.006 0.146 0.005 2.3 8.0 2.1 7.0 0 0 0 0
1 0

374 0.86007 -72.53800 302.91443 -44.59021 -0.022 5780.96 0.855 -0.012 5782.83 0.360 1.00 0.001 0.03 0.033 0.001 0.03 0.000 0.00 0.347 0.046 0.011 0.002 0.001 21.0 14.1 -0.006 5796.87 0.250 -0.006 5799.63 0.780 1.00 0.001 0.05 0.000 0.001 0.09 0.094 0.00 0.342 0.004
0.012 0.001 0.002 6.5 6.4 -0.232 5890.43 0.389 -0.031 5892.24 0.445 -0.215 -0.023 0.000 5889.96 0.356 0.075 0.99 0.003 0.01 0.006 0.003 0.04 0.043 0.012 0.003 0.000 0.05 0.035 0.007 0.00 1.007 0.226 0.035 0.210 0.025 0.005 0.005 0.012 0.004 48.7 7.5 17.2 6.5 1 0 1
0 1 0

511 0.89081 -72.64103 302.72174 -44.48637 -0.015 5781.10 0.900 -0.002 5782.60 0.856 1.00 0.001 0.00 0.000 0.001 0.00 0.445 0.00 0.422 0.033 0.004 0.002 0.003 19.2 1.6 -0.006 5797.74 0.250 0.000 5799.06 0.565 1.00 0.001 0.07 0.000 0.000 0.00 0.000 0.00 0.619 0.004 -
0.000 0.001 0.000 4.6 0.0 -0.221 5890.41 0.390 -0.051 5892.39 0.573 -0.181 -0.036 0.000 5889.96 0.400 0.058 0.99 0.003 0.01 0.006 0.003 0.03 0.033 0.009 0.003 0.000 0.06 0.000 0.007 0.00 1.334 0.216 0.073 0.177 0.052 0.005 0.006 0.009 0.005 46.5 12.8 19.0 11.0 1 0 0
0 1 0

572 0.90278 -72.76878 302.64929 -44.35794 -0.015 5781.01 0.395 -0.012 5782.60 0.879 1.00 0.001 0.03 0.028 0.001 0.00 0.068 0.00 0.289 0.015 0.027 0.001 0.003 10.4 10.8 -0.007 5797.16 0.250 -0.011 5798.45 0.577 1.00 0.001 0.06 0.000 0.001 0.06 0.066 0.00 0.462 0.004
0.017 0.001 0.002 5.0 7.1 -0.304 5890.42 0.394 -0.068 5892.53 0.467 -0.236 -0.070 0.031 5889.96 0.400 0.078 0.99 0.013 0.02 0.010 0.003 0.02 0.018 0.017 0.003 0.020 0.06 0.000 0.020 0.00 1.501 0.301 0.080 0.233 0.082 0.015 0.005 0.018 0.005 20.0 17.7 13.0 17.9 1 0 0
0 1 1

170 0.81226 -72.32092 303.22110 -44.80577 -0.013 5781.10 0.900 -0.011 5782.81 0.391 1.00 0.001 0.00 0.000 0.002 0.06 0.065 0.00 0.854 0.030 0.011 0.002 0.002 12.6 4.6 -0.011 5797.85 0.250 -0.005 5799.82 1.000 1.00 0.001 0.03 0.000 0.001 0.16 0.000 0.00 0.359 0.007
0.012 0.001 0.002 9.9 7.5 -0.197 5890.40 0.382 -0.033 5892.57 0.623 -0.167 -0.024 0.002 5890.00 0.400 0.059 0.99 0.009 0.02 0.013 0.003 0.05 0.056 0.008 0.003 0.015 0.00 0.000 0.013 0.00 1.401 0.189 0.052 0.160 0.037 0.011 0.006 0.009 0.005 17.3 8.3 16.9 7.2 0 0 0
0 1 0

623 0.91794 -72.77700 302.55533 -44.34856 -0.018 5779.99 0.376 -0.008 5784.43 0.900 1.01 0.002 0.04 0.039 0.001 0.13 0.000 0.00 0.601 0.017 0.018 0.002 0.002 7.3 7.6 0.000 5796.49 0.528 0.000 5800.63 0.673 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.473 -0.000 -
0.000 0.000 0.000 0.0 0.0 -0.232 5890.39 0.422 -0.049 5892.54 0.495 -0.173 -0.034 0.038 5889.83 0.400 0.078 0.99 0.009 0.03 0.014 0.003 0.03 0.031 0.011 0.003 0.017 0.05 0.000 0.015 0.00 0.932 0.245 0.061 0.183 0.042 0.013 0.005 0.013 0.004 19.0 11.9 13.7 10.1 1 0 0
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158 0.80877 -72.27889 303.24445 -44.84756 -0.019 5780.89 0.788 -0.012 5782.60 0.360 1.00 0.001 0.05 0.063 0.002 0.00 0.000 0.00 0.672 0.038 0.011 0.004 0.002 10.0 7.3 -0.010 5796.64 1.000 -0.006 5799.33 1.000 1.00 0.001 0.00 0.000 0.001 0.17 0.000 0.00 0.422 0.025
0.014 0.002 0.002 11.8 7.2 -0.155 5890.34 0.484 0.000 5894.66 0.899 -0.129 -0.025 0.025 5889.90 0.400 0.087 0.99 0.040 0.16 0.062 0.000 0.10 0.111 0.034 0.003 0.069 0.04 0.000 0.058 0.00 1.512 0.189 -0.000 0.156 0.057 0.054 0.000 0.046 0.009 3.5 0.0 3.4 6.3 0 0 0
0 1 0

610 0.91432 -72.68911 302.57553 -44.43674 -0.016 5781.00 0.900 -0.011 5784.60 0.900 1.00 0.002 0.12 0.000 0.002 0.00 0.000 0.00 0.625 0.035 0.025 0.004 0.004 8.2 5.8 -0.017 5797.26 0.909 -0.018 5801.85 0.957 1.01 0.002 0.12 0.162 0.002 0.00 0.159 0.00 0.871 0.040
0.044 0.009 0.009 4.4 4.8 -0.187 5890.39 0.444 -0.047 5892.47 0.406 -0.142 -0.018 0.000 5889.79 0.269 0.092 0.99 0.003 0.01 0.008 0.003 0.03 0.031 0.004 0.003 0.000 0.02 0.016 0.005 0.00 0.902 0.208 0.048 0.158 0.019 0.005 0.005 0.005 0.003 42.8 10.0 29.3 6.0 0 0 0
0 1 0

394 0.86553 -72.53423 302.87991 -44.59394 -0.016 5781.02 0.815 0.000 5783.58 0.625 1.00 0.001 0.06 0.067 0.000 0.00 0.000 0.00 1.078 0.032 -0.000 0.003 0.000 9.5 0.0 -0.018 5797.18 0.250 -0.003 5799.33 1.000 1.00 0.001 0.03 0.000 0.001 0.00 0.000 0.00 0.995 0.011
0.008 0.001 0.002 12.2 3.8 -0.236 5890.36 0.438 -0.049 5892.22 0.426 -0.193 -0.033 0.034 5889.89 0.400 0.087 0.99 0.020 0.05 0.022 0.003 0.03 0.031 0.022 0.003 0.034 0.05 0.000 0.032 0.00 1.245 0.258 0.052 0.212 0.035 0.026 0.005 0.027 0.004 10.1 10.2 7.9 8.6 1 0 1
0 1 0

495 0.88693 -72.61658 302.74573 -44.51100 -0.020 5780.80 0.900 -0.008 5782.75 0.360 1.01 0.001 0.07 0.000 0.002 0.10 0.000 0.00 0.639 0.046 0.007 0.003 0.002 16.8 4.7 0.000 5797.25 0.467 0.000 5799.29 0.250 0.99 0.000 0.00 0.000 0.000 0.00 0.000 0.00 2.180 -0.000 -
0.000 0.000 0.000 0.0 0.0 -0.225 5890.38 0.405 0.000 5893.55 1.000 -0.161 -0.026 0.000 5889.98 0.370 0.067 0.99 0.003 0.01 0.007 0.000 0.09 0.000 0.017 0.002 0.000 0.08 0.047 0.011 0.00 1.351 0.229 -0.000 0.164 0.066 0.005 0.000 0.018 0.005 43.2 0.0 9.3 12.7 1 0 0
0 1 0

618 0.91676 -72.71741 302.56104 -44.40824 -0.014 5780.46 0.360 -0.010 5783.86 0.360 1.00 0.001 0.04 0.000 0.001 0.05 0.000 0.00 0.591 0.013 0.009 0.001 0.001 11.9 8.9 -0.009 5797.71 1.000 -0.010 5799.61 0.360 1.00 0.001 0.00 0.000 0.002 0.00 0.063 0.00 0.786 0.023
0.009 0.002 0.002 10.1 4.3 -0.174 5890.37 0.442 -0.096 5892.81 0.488 -0.143 -0.072 0.013 5889.81 0.400 0.062 0.99 0.007 0.03 0.019 0.003 0.01 0.015 0.010 0.003 0.015 0.05 0.000 0.015 0.00 1.378 0.193 0.117 0.159 0.088 0.011 0.005 0.013 0.004 16.8 24.0 12.4 21.1 1 1
0 0 1 1

499 0.88861 -72.59950 302.73492 -44.52800 -0.019 5780.83 0.900 -0.017 5782.78 0.360 1.00 0.001 0.04 0.000 0.001 0.03 0.000 0.00 0.606 0.044 0.015 0.002 0.001 28.6 16.7 -0.016 5797.67 0.481 -0.008 5798.88 0.250 1.00 0.001 0.03 0.039 0.001 0.06 0.000 0.00 0.631 0.020
0.005 0.002 0.001 10.0 6.3 -0.262 5890.35 0.418 -0.036 5892.53 0.602 -0.243 -0.023 0.045 5890.00 0.400 0.114 0.99 0.026 0.04 0.017 0.002 0.04 0.047 0.024 0.002 0.038 0.00 0.000 0.035 0.00 1.189 0.274 0.055 0.255 0.034 0.029 0.006 0.027 0.004 9.4 9.7 9.4 7.9 1 0 1
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556 0.89968 -72.61581 302.66559 -44.51109 -0.014 5781.03 0.849 0.000 5783.53 0.572 1.00 0.001 0.07 0.084 0.000 0.00 0.000 0.00 0.594 0.030 -0.000 0.004 0.000 7.9 0.0 -0.016 5797.61 0.266 -0.006 5800.19 0.250 1.00 0.002 0.04 0.037 0.002 0.09 0.000 0.00 0.619 0.011
0.004 0.002 0.001 5.5 3.8 -0.256 5890.42 0.410 -0.086 5892.70 0.535 -0.209 -0.055 0.000 5889.85 0.328 0.047 0.99 0.003 0.01 0.006 0.003 0.02 0.020 0.007 0.003 0.000 0.05 0.046 0.005 0.00 1.578 0.263 0.116 0.215 0.074 0.005 0.006 0.008 0.005 50.1 19.5 27.2 15.8 0 0 0
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544 0.89818 -72.67189 302.67609 -44.45510 -0.015 5781.10 0.786 -0.009 5782.89 0.900 1.00 0.001 0.00 0.055 0.001 0.10 0.000 0.00 0.418 0.029 0.020 0.003 0.002 11.2 12.9 -0.010 5797.79 0.564 -0.006 5800.14 1.000 1.00 0.001 0.05 0.047 0.001 0.00 0.000 0.00 0.264 0.014
0.014 0.001 0.001 9.2 11.3 -0.230 5890.36 0.451 -0.092 5892.74 0.475 -0.178 -0.074 0.035 5889.90 0.400 0.075 0.99 0.027 0.07 0.027 0.003 0.01 0.015 0.025 0.003 0.044 0.06 0.000 0.038 0.00 1.287 0.260 0.110 0.201 0.088 0.034 0.005 0.031 0.004 7.7 23.4 6.5 21.2 0 0 0
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535 0.89645 -72.53711 302.68448 -44.58998 -0.017 5780.18 0.417 -0.008 5782.83 0.366 1.00 0.002 0.05 0.056 0.002 0.10 0.106 0.00 1.145 0.018 0.007 0.003 0.003 5.8 2.6 -0.009 5797.23 0.912 0.000 5799.30 0.473 1.00 0.001 0.11 0.121 0.000 0.00 0.000 0.00 0.692 0.021 -
0.000 0.004 0.000 5.9 0.0 -0.301 5890.34 0.419 -0.026 5892.49 0.592 -0.257 -0.027 0.064 5890.00 0.400 0.114 0.99 0.064 0.07 0.022 0.002 0.05 0.057 0.065 0.002 0.083 0.07 0.000 0.079 0.00 1.214 0.316 0.038 0.270 0.040 0.069 0.005 0.070 0.005 4.6 7.4 3.9 7.6 0 0 0 0
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614 0.91553 -72.75291 302.56964 -44.37285 -0.020 5780.41 0.710 -0.011 5782.60 0.861 1.00 0.001 0.06 0.058 0.001 0.00 0.148 0.00 0.963 0.035 0.023 0.004 0.005 9.4 4.8 0.000 5796.95 0.509 -0.014 5798.35 0.523 1.00 0.000 0.00 0.000 0.001 0.00 0.049 0.00 0.518 -0.000
0.018 0.000 0.002 0.0 8.1 -0.206 5890.35 0.431 -0.092 5892.49 0.445 -0.144 -0.068 0.032 5889.90 0.400 0.090 0.99 0.016 0.05 0.020 0.003 0.01 0.014 0.017 0.003 0.027 0.04 0.000 0.023 0.00 1.316 0.222 0.102 0.155 0.075 0.021 0.004 0.019 0.004 10.8 23.3 8.0 20.2 0 0 0
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392 0.86456 -72.40659 302.88562 -44.72159 -0.015 5780.13 0.900 -0.015 5782.74 0.566 1.00 0.001 0.07 0.000 0.001 0.05 0.054 0.00 0.751 0.034 0.021 0.002 0.003 16.8 8.2 -0.006 5796.85 0.250 -0.010 5798.61 0.934 1.00 0.002 0.10 0.000 0.001 0.12 0.143 0.00 0.948 0.004
0.022 0.001 0.004 2.9 5.3 -0.244 5890.43 0.401 -0.035 5892.72 0.803 -0.175 -0.031 0.011 5889.80 0.400 0.052 0.99 0.004 0.01 0.009 0.002 0.04 0.053 0.006 0.002 0.008 0.05 0.000 0.007 0.00 0.967 0.245 0.071 0.176 0.062 0.007 0.006 0.007 0.006 36.7 11.3 25.2 10.7 0 0 0
0 1 0

585 0.90570 -72.62061 302.62787 -44.50589 -0.026 5780.95 0.714 -0.012 5783.25 0.360 1.01 0.002 0.05 0.059 0.002 0.08 0.000 0.00 1.233 0.046 0.011 0.005 0.002 9.4 6.0 -0.049 5796.70 0.934 -0.072 5799.00 0.498 1.01 0.009 0.00 0.205 0.011 0.00 0.092 0.00 35.782 0.115
0.090 0.032 0.022 3.6 4.2 -0.264 5890.41 0.398 -0.030 5892.38 0.691 -0.198 -0.030 0.027 5889.77 0.400 0.058 0.98 0.006 0.02 0.012 0.003 0.06 0.068 0.008 0.003 0.011 0.07 0.000 0.010 0.00 1.152 0.264 0.051 0.198 0.052 0.010 0.007 0.010 0.007 27.5 7.6 20.3 7.6 1 0 0
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513 0.89149 -72.56333 302.71625 -44.56403 -0.014 5780.55 0.900 -0.006 5782.60 0.605 1.00 0.001 0.07 0.000 0.001 0.00 0.123 0.00 0.276 0.032 0.009 0.002 0.002 19.7 4.0 -0.003 5797.24 0.526 0.000 5799.09 0.548 1.00 0.002 0.40 0.424 0.000 0.00 0.000 0.00 1.062 0.004 -
0.000 0.004 0.000 1.0 0.0 -0.242 5890.39 0.400 0.000 5894.27 1.000 -0.183 -0.016 0.012 5889.77 0.400 0.052 1.00 0.004 0.01 0.008 0.000 0.12 0.000 0.006 0.002 0.007 0.05 0.000 0.007 0.00 0.771 0.243 -0.000 0.183 0.041 0.006 0.000 0.007 0.004 41.0 0.0 27.7 9.8 0 0 0
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539 0.89713 -72.58314 302.68103 -44.54391 -0.016 5780.84 0.900 -0.004 5782.60 0.900 1.00 0.001 0.04 0.000 0.001 0.00 0.000 0.00 0.735 0.037 0.008 0.001 0.002 32.1 5.4 -0.010 5797.58 0.379 0.000 5799.07 0.506 1.00 0.001 0.04 0.042 0.000 0.00 0.000 0.00 1.075 0.010 -0.000 0.001 0.000 6.9 0.0 -0.270 5890.37 0.409 -0.042 5892.44 0.624 -0.232 -0.032 0.034 5889.94 0.400 0.090 0.99 0.019 0.03 0.015 0.003 0.04 0.047 0.025 0.003 0.029 0.06 0.000 0.031 0.00 1.574 0.277 0.065 0.238 0.050 0.022 0.006 0.027 0.005 12.4 10.1 9.0 9.1 1 0 1 0 1 0

445 0.87674 -72.42145 302.80804 -44.70649 -0.011 5780.85 0.900 -0.005 5782.60 0.779 1.00 0.001 0.09 0.000 0.001 0.00 0.191 0.00 0.315 0.025 0.009 0.002 0.003 14.3 3.2 -0.010 5797.74 0.285 -0.000 5799.36 0.250 1.00 0.001 0.04 0.046 0.001 0.92 0.000 0.00 0.362 0.007 0.000 0.002 0.001 4.7 0.4 -0.217 5890.37 0.393 -0.020 5892.14 0.447 -0.174 -0.017 0.022 5889.97 0.400 0.081 0.99 0.015 0.03 0.014 0.003 0.06 0.062 0.021 0.003 0.022 0.06 0.000 0.023 0.00 1.221 0.214 0.023 0.171 0.019 0.017 0.004 0.021 0.004 12.8 5.2 8.1 4.9 0 0 0 0 1 0

482 0.88467 -72.46167 302.75800 -44.66599 -0.027 5780.51 0.509 -0.014 5784.47 0.813 1.00 0.003 0.06 0.066 0.002 0.14 0.171 0.00 1.183 0.034 0.029 0.006 0.008 6.0 3.8 -0.008 5797.76 0.581 0.000 5800.91 0.490 1.00 0.002 0.00 0.163 0.000 0.00 0.000 0.00 0.669 0.012 -0.000 0.004 0.000 2.7 0.0 -0.289 5890.43 0.427 0.000 5894.28 1.000 -0.232 -0.022 0.016 5889.83 0.400 0.061 0.98 0.006 0.02 0.011 0.000 0.11 0.000 0.009 0.002 0.013 0.06 0.000 0.013 0.00 1.167 0.309 -0.000 0.248 0.056 0.010 0.000 0.011 0.005 30.6 0.0 21.7 10.4 0 0 0 0 1 0

437 0.87576 -72.37039 302.81384 -44.75757 -0.020 5780.63 0.839 -0.014 5783.05 0.430 1.00 0.001 0.04 0.046 0.001 0.04 0.041 0.00 0.519 0.041 0.016 0.003 0.002 14.4 8.1 0.000 5797.15 0.542 0.000 5799.59 0.467 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.459 -0.000 -0.000 0.000 0.000 0.0 0.0 -0.192 5890.39 0.379 -0.026 5892.64 1.000 -0.150 -0.023 0.000 5889.98 0.400 0.042 0.99 0.003 0.01 0.006 0.002 0.07 0.000 0.010 0.002 0.000 0.08 0.000 0.008 0.00 1.457 0.182 0.064 0.142 0.059 0.004 0.005 0.010 0.005 43.8 13.8 14.6 12.6 1 0 0 0 1 0

613 0.91533 -72.55739 302.56570 -44.56835 -0.017 5780.79 0.689 -0.009 5782.60 0.900 1.00 0.001 0.04 0.037 0.001 0.00 0.000 0.00 0.368 0.030 0.021 0.002 0.002 14.6 13.0 -0.011 5797.69 0.770 -0.002 5799.85 0.785 1.00 0.001 0.06 0.059 0.001 0.00 0.480 0.00 0.336 0.021 0.003 0.002 0.002 10.1 1.3 -0.223 5890.39 0.393 -0.027 5892.28 0.638 -0.177 -0.020 0.009 5889.87 0.400 0.066 0.99 0.006 0.02 0.013 0.003 0.07 0.078 0.010 0.003 0.012 0.06 0.000 0.013 0.00 1.241 0.219 0.042 0.174 0.032 0.009 0.007 0.012 0.006 23.2 6.3 15.0 5.7 1 0 1 0 1 0

644 0.92359 -72.74411 302.51926 -44.38092 -0.010 5781.10 0.830 0.000 5783.61 0.605 1.00 0.001 0.00 0.100 0.000 0.00 0.000 0.00 0.532 0.020 -0.000 0.003 0.000 6.5 0.0 -0.010 5797.11 0.264 0.000 5800.86 0.281 1.00 0.002 0.05 0.053 0.000 0.00 0.000 0.00 0.586 0.007 -0.000 0.002 0.000 3.8 0.0 -0.232 5890.36 0.421 -0.075 5892.49 0.470 -0.182 -0.044 0.047 5889.93 0.352 0.088 0.99 0.034 0.08 0.031 0.003 0.02 0.019 0.034 0.003 0.057 0.07 0.031 0.049 0.00 1.054 0.245 0.088 0.193 0.051 0.040 0.005 0.039 0.004 6.1 18.3 5.0 14.2 0 0 0 0 1 1

449 0.87743 -72.35089 302.80298 -44.77703 -0.010 5781.03 0.900 -0.012 5782.60 0.596 1.00 0.001 0.08 0.000 0.001 0.00 0.046 0.00 0.070 0.023 0.017 0.001 0.002 18.8 9.9 -0.008 5797.90 0.250 0.000 5799.09 0.548 1.00 0.001 0.05 0.000 0.000 0.00 0.000 0.00 0.139 0.005 -0.000 0.001 0.000 6.6 0.0 -0.178 5890.42 0.404 -0.153 5892.74 0.423 -0.146 -0.109 0.000 5890.00 0.388 0.058 0.99 0.003 0.01 0.007 0.003 0.01 0.009 0.005 0.003 0.000 0.00 0.029 0.005 0.00 1.244 0.181 0.163 0.148 0.116 0.004 0.005 0.005 0.004 40.7 35.8 27.1 30.7 0 0 0 0 1 1

436 0.87564 -72.30989 302.81409 -44.81807 -0.009 5781.10 0.900 -0.019 5783.21 0.900 1.00 0.001 0.00 0.000 0.001 0.05 0.000 0.00 0.590 0.021 0.042 0.002 0.002 10.5 24.1 -0.006 5797.53 0.438 -0.014 5800.01 0.499 1.00 0.001 0.07 0.073 0.001 0.03 0.036 0.00 0.372 0.007 0.018 0.002 0.002 4.6 10.7 -0.215 5890.33 0.432 -0.237 5892.64 0.451 -0.159 -0.190 0.052 5889.94 0.400 0.085 0.99 0.045 0.09 0.031 0.003 0.01 0.006 0.040 0.003 0.064 0.07 0.000 0.053 0.00 1.376 0.233 0.268 0.172 0.215 0.051 0.005 0.045 0.004 4.5 57.5 3.8 52.1 0 1 0 1 1 1

358 0.85682 -72.10995 302.93506 -45.01827 -0.011 5781.10 0.900 -0.007 5783.57 0.360 1.00 0.001 0.00 0.000 0.002 0.11 0.000 0.00 0.912 0.024 0.006 0.003 0.001 9.0 4.1 -0.013 5798.35 0.572 -0.020 5799.32 0.250 1.00 0.002 0.00 0.110 0.003 0.00 0.000 0.00 1.156 0.019
0.013 0.004 0.002 4.3 7.3 -0.164 5890.42 0.471 -0.211 5893.43 0.779 -0.159 -0.198 0.009 5889.83 0.237 0.055 0.99 0.005 0.04 0.026 0.003 0.01 0.012 0.007 0.003 0.017 0.04 0.047 0.015 0.00 1.789 0.194 0.413 0.188 0.387 0.012 0.009 0.013 0.009 15.8 45.1 14.2 43.6 0 0 0
0 1 1

504 0.88988 -72.40495 302.72403 -44.72248 -0.008 5780.39 0.650 -0.014 5783.55 0.360 1.00 0.001 0.11 0.126 0.002 0.05 0.000 0.00 0.721 0.013 0.012 0.003 0.001 4.0 9.0 -0.019 5797.34 0.536 -0.011 5799.88 0.301 1.00 0.001 0.04 0.040 0.002 0.05 0.049 0.00 0.479 0.026
0.008 0.002 0.002 10.3 4.6 -0.230 5890.36 0.391 -0.033 5892.60 0.688 -0.183 -0.028 0.031 5890.00 0.400 0.080 0.99 0.018 0.03 0.018 0.003 0.06 0.076 0.015 0.003 0.027 0.00 0.000 0.022 0.00 2.431 0.226 0.057 0.180 0.048 0.020 0.009 0.017 0.008 11.1 6.7 10.8 6.2 0 1 0
0 1 0

549 0.89865 -72.46841 302.66928 -44.65854 -0.014 5781.10 0.682 -0.014 5782.60 0.746 1.00 0.001 0.00 0.064 0.001 0.00 0.072 0.00 0.360 0.025 0.026 0.003 0.003 8.2 8.2 0.000 5797.58 0.490 -0.006 5799.39 0.250 1.00 0.000 0.00 0.000 0.001 0.08 0.000 0.00 0.476 -0.000
0.004 0.000 0.001 0.0 4.2 -0.261 5890.36 0.397 0.000 5895.00 0.728 -0.229 -0.033 0.028 5890.00 0.385 0.098 0.99 0.030 0.06 0.023 0.000 0.00 0.086 0.024 0.003 0.048 0.00 0.034 0.043 0.00 1.895 0.260 -0.000 0.228 0.060 0.034 0.000 0.028 0.009 7.7 0.0 8.2 6.5 0 0 0 0
1 0

635 0.92095 -72.68994 302.53412 -44.43532 -0.012 5781.10 0.900 0.000 5783.55 0.597 1.00 0.001 0.00 0.000 0.000 0.00 0.000 0.00 0.439 0.026 -0.000 0.001 0.000 19.6 0.0 -0.009 5797.80 0.250 -0.001 5800.11 0.250 1.00 0.001 0.04 0.000 0.001 0.47 0.000 0.00 0.405 0.006
0.000 0.001 0.001 9.5 0.7 -0.218 5890.39 0.401 -0.019 5892.31 0.513 -0.174 -0.016 0.021 5889.95 0.400 0.069 0.99 0.013 0.03 0.013 0.002 0.06 0.070 0.016 0.002 0.019 0.06 0.000 0.020 0.00 0.600 0.219 0.024 0.175 0.021 0.015 0.005 0.018 0.004 15.0 5.4 9.9 5.0 0 0 0
0 1 0

563 0.90076 -72.42795 302.65506 -44.69887 -0.019 5781.10 0.807 -0.016 5783.11 0.360 1.01 0.002 0.00 0.087 0.002 0.06 0.000 0.00 1.098 0.038 0.014 0.005 0.002 7.4 8.2 -0.012 5796.89 0.293 -0.015 5798.86 0.277 1.00 0.001 0.04 0.041 0.001 0.00 0.030 0.00 0.375 0.009
0.011 0.002 0.002 5.5 7.0 -0.222 5890.41 0.406 0.000 5895.00 0.693 -0.188 -0.030 0.000 5889.92 0.400 0.059 0.99 0.003 0.01 0.006 0.000 0.00 0.063 0.007 0.002 0.000 0.05 0.000 0.006 0.00 0.110 0.226 -0.000 0.192 0.053 0.004 0.000 0.008 0.006 53.4 0.0 25.4 8.5 0 0 0
0 1 0

531 0.89537 -72.26683 302.68655 -44.86029 -0.013 5780.10 0.529 -0.011 5782.61 0.537 1.00 0.001 0.06 0.068 0.001 0.08 0.082 0.00 0.694 0.017 0.015 0.003 0.003 5.9 5.0 0.000 5796.59 0.515 -0.011 5798.36 0.525 1.00 0.000 0.00 0.000 0.001 0.00 0.085 0.00 0.825 -0.000
0.014 0.000 0.003 0.0 4.7 -0.258 5890.45 0.381 -0.029 5892.46 0.568 -0.203 -0.021 0.000 5889.77 0.400 0.043 0.98 0.004 0.01 0.006 0.003 0.06 0.062 0.005 0.003 0.000 0.06 0.000 0.004 0.00 1.141 0.247 0.041 0.194 0.030 0.005 0.006 0.006 0.005 50.2 6.7 34.6 5.9 0 0 0
0 1 0

605 0.91336 -72.51984 302.57718 -44.60606 -0.019 5780.61 0.700 -0.010 5783.02 0.360 1.00 0.001 0.06 0.062 0.002 0.08 0.000 0.00 0.796 0.033 0.009 0.004 0.001 8.7 6.0 -0.003 5797.58 1.000 -0.002 5800.27 0.709 1.00 0.001 0.33 0.000 0.001 0.00 0.528 0.00 0.518 0.009
0.003 0.002 0.003 3.9 1.1 -0.248 5890.39 0.386 -0.020 5892.41 1.000 -0.195 -0.025 0.014 5889.98 0.363 0.062 0.99 0.015 0.03 0.018 0.002 0.09 0.000 0.023 0.002 0.027 0.10 0.056 0.025 0.00 1.215 0.239 0.050 0.189 0.063 0.019 0.005 0.024 0.005 12.9 9.5 7.8 11.9 0 0 0
0 1 0

589 0.90732 -72.47433 302.61435 -44.65204 -0.013 5780.64 0.647 -0.002 5783.95 0.360 1.00 0.001 0.04 0.047 0.001 0.20 0.000 0.00 0.180 0.021 0.002 0.002 0.001 10.8 2.3 -0.004 5797.10 1.000 -0.005 5800.20 0.250 1.00 0.001 0.16 0.000 0.001 0.06 0.000 0.00 0.138 0.010
0.003 0.001 0.001 7.3 5.3 -0.267 5890.44 0.394 -0.057 5892.69 0.544 -0.240 -0.043 0.002 5889.81 0.400 0.055 0.99 0.003 0.01 0.007 0.002 0.02 0.026 0.006 0.002 0.006 0.05 0.000 0.007 0.00 1.402 0.263 0.078 0.236 0.059 0.006 0.005 0.007 0.004 46.9 15.7 34.2 13.8 1 0 0
0 1 1

510 0.89061 -72.19434 302.71613 -44.93303 -0.024 5780.91 0.900 -0.020 5783.30 0.414 1.01 0.001 0.04 0.000 0.001 0.03 0.032 0.00 0.646 0.053 0.021 0.002 0.002 27.4 10.0 -0.007 5796.99 1.000 -0.010 5799.88 0.393 1.00 0.001 0.10 0.000 0.001 0.05 0.048 0.00 0.387 0.019
0.010 0.002 0.002 11.5 6.3 -0.414 5890.21 0.417 -0.058 5893.12 0.632 -0.380 -0.056 0.225 5890.00 0.400 0.267 0.99 0.791 0.43 0.078 0.003 0.02 0.029 0.726 0.003 0.905 0.00 0.000 0.830 0.00 1.849 0.433 0.091 0.398 0.088 0.831 0.006 0.763 0.006 0.5 15.4 0.5 15.2 1 1 0
1 1 1

606 0.91378 -72.40617 302.57156 -44.71967 -0.015 5780.85 0.736 -0.010 5782.60 0.360 1.01 0.001 0.04 0.044 0.001 0.00 0.000 0.00 0.284 0.028 0.009 0.002 0.001 13.2 10.6 -0.004 5797.55 0.250 -0.011 5798.54 0.250 1.00 0.001 0.09 0.000 0.001 0.03 0.000 0.00 0.294 0.002
0.007 0.001 0.001 3.7 10.7 -0.250 5890.37 0.401 -0.040 5893.22 0.512 -0.181 -0.039 0.045 5889.84 0.400 0.079 0.99 0.010 0.02 0.011 0.002 0.03 0.031 0.012 0.002 0.016 0.05 0.000 0.015 0.00 1.091 0.251 0.051 0.182 0.050 0.013 0.004 0.013 0.004 19.8 11.7 13.8 11.6 1 0
1 0 1 1

568 0.90173 -72.29028 302.64606 -44.83645 -0.008 5780.50 0.825 -0.003 5783.99 0.360 1.00 0.001 0.15 0.172 0.002 0.28 0.000 0.00 1.126 0.017 0.003 0.005 0.002 3.8 1.6 -0.010 5797.33 0.250 -0.008 5800.72 0.250 1.00 0.001 0.04 0.000 0.001 0.05 0.000 0.00 0.282 0.006
0.005 0.001 0.001 9.5 7.4 -0.246 5890.37 0.399 -0.052 5892.46 0.459 -0.205 -0.040 0.042 5889.83 0.400 0.073 0.99 0.014 0.03 0.015 0.003 0.03 0.031 0.017 0.003 0.022 0.08 0.000 0.021 0.00 1.689 0.246 0.060 0.205 0.046 0.017 0.006 0.019 0.005 14.8 10.9 11.0 9.6 0 0 0
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639 0.92231 -72.61947 302.52353 -44.50566 -0.015 5780.82 0.900 -0.006 5783.81 0.360 1.00 0.001 0.04 0.000 0.001 0.07 0.000 0.00 0.272 0.034 0.005 0.001 0.001 22.8 6.5 -0.018 5797.53 0.456 -0.006 5801.06 1.000 1.00 0.001 0.03 0.035 0.001 0.00 0.000 0.00 0.402 0.021
0.016 0.002 0.002 10.2 8.0 -0.231 5890.44 0.384 -0.144 5892.97 0.589 -0.181 -0.105 0.007 5889.79 0.400 0.065 0.99 0.003 0.01 0.008 0.002 0.01 0.011 0.005 0.002 0.006 0.04 0.000 0.006 0.00 1.259 0.223 0.212 0.174 0.155 0.006 0.006 0.006 0.005 38.5 38.5 27.0 33.4 1 0
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602 0.91225 -72.46350 302.58276 -44.66248 -0.012 5780.77 0.360 0.000 5783.48 0.649 1.00 0.002 0.08 0.000 0.000 0.00 0.000 0.00 1.166 0.011 -0.000 0.002 0.000 6.0 0.0 -0.019 5797.55 0.405 -0.016 5800.73 1.000 1.01 0.002 0.05 0.049 0.001 0.00 0.000 0.00 0.767 0.019
0.040 0.003 0.003 6.4 13.3 -0.285 5890.37 0.393 -0.040 5892.73 0.671 -0.238 -0.047 0.036 5889.91 0.400 0.090 0.99 0.014 0.02 0.011 0.002 0.03 0.039 0.019 0.003 0.021 0.06 0.000 0.022 0.00 1.255 0.281 0.067 0.234 0.079 0.016 0.006 0.020 0.006 17.6 11.7 11.7 12.5 0 0
0 0 1 1

588 0.90714 -72.39330 302.61362 -44.73307 -0.013 5780.83 0.830 -0.009 5782.60 0.487 1.00 0.001 0.05 0.050 0.001 0.00 0.050 0.00 0.414 0.026 0.011 0.002 0.001 13.5 7.5 -0.012 5797.39 0.250 -0.005 5799.85 0.924 1.00 0.001 0.02 0.000 0.001 0.00 0.130 0.00 0.558 0.008
0.012 0.001 0.002 13.6 5.5 -0.232 5890.27 0.515 -0.084 5892.72 0.506 -0.180 -0.076 0.091 5889.77 0.365 0.121 0.99 0.045 0.13 0.045 0.003 0.02 0.020 0.041 0.003 0.076 0.04 0.052 0.060 0.00 2.186 0.300 0.106 0.232 0.096 0.064 0.006 0.057 0.006 4.7 17.8 4.1 17.0 1 0 1
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601 0.91140 -72.34406 302.58517 -44.78197 -0.011 5781.10 0.887 -0.009 5783.01 0.527 1.00 0.001 0.00 0.079 0.001 0.06 0.053 0.00 0.513 0.024 0.013 0.003 0.002 9.3 7.4 -0.011 5797.45 0.476 0.000 5799.50 0.509 1.00 0.001 0.05 0.048 0.000 0.00 0.000 0.00 0.649 0.013 -
0.000 0.002 0.000 7.6 0.0 -0.232 5890.36 0.383 -0.035 5892.31 0.545 -0.179 -0.027 0.043 5889.90 0.400 0.077 0.99 0.017 0.03 0.013 0.003 0.04 0.045 0.020 0.002 0.023 0.07 0.000 0.022 0.00 1.408 0.223 0.048 0.171 0.037 0.018 0.005 0.020 0.005 12.6 9.1 8.7 8.1 1 0 1
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582 0.90521 -72.09336 302.61929 -45.03311 -0.020 5781.10 0.746 -0.015 5782.60 0.468 1.01 0.001 0.00 0.066 0.002 0.00 0.056 0.00 0.538 0.037 0.018 0.004 0.003 9.2 6.1 -0.010 5797.49 0.782 -0.008 5799.59 0.321 1.00 0.001 0.13 0.147 0.002 0.11 0.107 0.00 0.839 0.020
0.007 0.005 0.003 4.2 2.3 -0.217 5890.36 0.467 -0.020 5892.30 0.250 -0.190 -0.067 0.052 5889.94 0.400 0.097 0.99 0.051 0.13 0.047 0.004 0.02 0.000 0.047 0.004 0.083 0.04 0.000 0.074 0.00 1.227 0.255 0.012 0.222 0.042 0.065 0.002 0.060 0.002 3.9 5.3 3.7 18.2 0 0 0
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640 0.92264 -72.39386 302.51465 -44.73118 -0.014 5781.10 0.867 -0.004 5782.60 0.815 1.00 0.001 0.00 0.087 0.001 0.00 0.304 0.00 0.655 0.030 0.007 0.004 0.004 8.0 2.1 -0.005 5797.16 0.777 -0.004 5799.24 0.250 1.00 0.000 0.07 0.080 0.001 0.06 0.000 0.00 0.176 0.010
0.002 0.001 0.000 7.5 5.8 -0.319 5890.28 0.417 -0.088 5892.64 0.441 -0.293 -0.072 0.123 5889.97 0.400 0.175 0.99 0.140 0.13 0.031 0.003 0.02 0.017 0.144 0.003 0.170 0.08 0.000 0.169 0.00 1.765 0.334 0.098 0.307 0.079 0.149 0.005 0.152 0.005 2.2 18.7 2.0 17.1 0 0 0
0 1 1

617 0.91627 -72.41939 302.55603 -44.70625 -0.022 5780.87 0.576 -0.013 5782.70 0.360 1.01 0.001 0.03 0.035 0.001 0.05 0.000 0.00 0.538 0.032 0.011 0.002 0.001 12.7 10.8 -0.008 5797.84 0.250 -0.006 5799.94 0.250 1.00 0.001 0.05 0.000 0.001 0.07 0.000 0.00 0.441 0.005
0.004 0.001 0.001 6.8 4.7 -0.245 5890.40 0.412 -0.082 5892.87 0.560 -0.202 -0.057 0.016 5889.80 0.400 0.074 0.99 0.005 0.02 0.010 0.003 0.02 0.019 0.007 0.002 0.010 0.04 0.000 0.010 0.00 1.202 0.254 0.116 0.208 0.081 0.008 0.005 0.009 0.004 32.8 21.6 22.8 18.2 1 0 0
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637 0.92126 -72.52328 302.52728 -44.60192 -0.020 5781.10 0.602 -0.011 5783.72 0.487 1.00 0.001 0.00 0.047 0.001 0.07 0.074 0.00 0.824 0.031 0.014 0.003 0.003 9.9 5.1 0.000 5797.62 0.527 -0.008 5800.14 0.280 1.00 0.000 0.00 0.000 0.002 0.07 0.075 0.00 0.741 -0.000
0.005 0.000 0.002 0.0 2.9 -0.312 5890.28 0.419 -0.050 5892.68 0.301 -0.239 -0.040 0.119 5890.00 0.385 0.139 0.99 0.202 0.22 0.055 0.003 0.02 0.021 0.154 0.003 0.262 0.00 0.011 0.200 0.00 1.406 0.328 0.037 0.250 0.030 0.216 0.004 0.165 0.003 1.5 10.3 1.5 9.3 0 0 0
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608 0.91399 -72.12705 302.56287 -44.99873 -0.018 5781.10 0.900 -0.009 5783.84 0.360 1.00 0.001 0.00 0.000 0.001 0.05 0.000 0.00 0.433 0.040 0.008 0.002 0.001 24.5 8.5 -0.005 5797.54 0.934 -0.002 5800.45 0.250 1.00 0.001 0.15 0.175 0.001 0.17 0.000 0.00 0.474 0.012
0.002 0.003 0.001 4.2 2.0 -0.236 5890.24 0.450 -0.022 5894.07 1.000 -0.208 -0.038 0.096 5889.86 0.400 0.146 0.99 0.086 0.17 0.052 0.002 0.06 0.000 0.080 0.002 0.126 0.04 0.000 0.114 0.00 1.032 0.267 0.056 0.234 0.095 0.102 0.006 0.094 0.006 2.6 10.1 2.5 16.6 1 0 0
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626 0.91844 -72.19058 302.53574 -44.93481 -0.026 5779.87 0.900 -0.016 5782.60 0.900 1.05 0.001 0.05 0.000 0.001 0.00 0.000 0.00 0.118 0.059 0.037 0.003 0.003 20.7 12.5 0.000 5796.44 0.250 0.000 5799.12 0.393 1.03 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.350 -0.000 -
0.000 0.000 0.000 0.0 0.0 -0.308 5890.26 0.450 -0.024 5892.51 1.000 -0.264 -0.027 0.125 5889.88 0.400 0.165 0.99 0.090 0.14 0.044 0.002 0.09 0.000 0.081 0.002 0.132 0.04 0.000 0.116 0.00 1.615 0.347 0.061 0.298 0.068 0.107 0.006 0.096 0.006 3.3 10.6 3.1 11.9 0 0 0
0 1 0

632 0.92031 -72.14661 302.52231 -44.97860 -0.012 5780.37 0.900 -0.012 5783.68 0.360 1.00 0.001 0.09 0.000 0.002 0.06 0.000 0.00 0.278 0.027 0.011 0.002 0.001 10.9 7.8 -0.006 5797.62 0.885 -0.005 5800.85 0.250 1.00 0.002 0.00 0.360 0.003 0.18 0.000 0.00 0.765 0.013
0.003 0.007 0.002 1.9 1.8 -0.144 5890.45 0.395 -0.064 5894.09 0.277 -0.085 -0.070 0.050 5889.49 0.400 0.036 0.98 0.004 0.02 0.019 0.005 0.02 0.018 0.004 0.005 0.006 0.06 0.000 0.004 0.00 1.314 0.143 0.045 0.084 0.049 0.008 0.004 0.006 0.005 17.7 10.3 14.9 10.7 0 0 0
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666 0.93107 -72.57514 302.46698 -44.54908 -0.014 5781.10 0.362 -0.015 5782.60 0.873 1.00 0.001 0.00 0.037 0.001 0.00 0.071 0.00 0.362 0.013 0.033 0.002 0.003 7.2 10.2 -0.007 5797.80 0.250 -0.006 5799.85 1.000 1.00 0.001 0.06 0.000 0.001 0.00 0.000 0.00 0.363 0.004
0.015 0.001 0.002 5.7 8.2 -0.249 5890.29 0.448 -0.255 5892.64 0.420 -0.189 -0.201 0.098 5889.92 0.400 0.122 0.99 0.103 0.18 0.055 0.003 0.00 0.005 0.082 0.003 0.147 0.04 0.000 0.115 0.00 1.537 0.279 0.269 0.212 0.212 0.121 0.005 0.096 0.004 2.3 55.6 2.2 49.9 1 0 0
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647 0.92447 -71.88605 302.48709 -45.23869 -0.020 5780.97 0.900 -0.005 5784.12 0.900 1.00 0.001 0.06 0.000 0.001 0.22 0.000 0.00 1.068 0.045 0.012 0.003 0.003 16.8 4.5 -0.011 5797.62 0.771 -0.013 5800.38 0.263 1.00 0.001 0.09 0.101 0.002 0.05 0.048 0.00 0.993 0.022
0.008 0.004 0.002 5.9 4.1 -0.261 5890.26 0.408 -0.026 5892.12 0.464 -0.255 -0.023 0.102 5890.00 0.399 0.164 0.99 0.133 0.15 0.038 0.002 0.04 0.048 0.129 0.002 0.167 0.00 0.023 0.163 0.00 1.175 0.267 0.030 0.261 0.027 0.139 0.004 0.134 0.004 1.9 7.1 1.9 6.8 1 0 0 0
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663 0.93046 -72.42422 302.46576 -44.70003 -0.012 5780.89 0.637 -0.016 5782.86 0.360 1.00 0.001 0.09 0.097 0.002 0.05 0.000 0.00 1.033 0.019 0.015 0.004 0.002 5.1 9.7 -0.192 5797.14 0.250 -0.012 5798.64 0.283 1.01 0.008 0.01 0.000 0.009 0.24 0.249 0.00 17.429 0.121
0.008 0.005 0.010 24.0 0.9 -0.250 5890.37 0.381 -0.382 5893.03 0.349 -0.199 -0.302 0.000 5889.89 0.265 0.058 1.02 0.007 0.01 0.012 0.007 0.01 0.007 0.013 0.007 0.000 0.07 0.061 0.012 0.00 6.936 0.238 0.334 0.190 0.264 0.010 0.009 0.014 0.008 23.8 37.9 13.7 34.1 0 0
0 0 1 1

681 0.93596 -72.46616 302.43225 -44.65748 -0.015 5781.10 0.757 0.000 5783.58 0.648 1.00 0.001 0.00 0.061 0.000 0.00 0.000 0.00 0.833 0.028 -0.000 0.003 0.000 9.6 0.0 -0.009 5797.87 0.250 -0.005 5800.23 0.250 1.00 0.001 0.03 0.000 0.001 0.06 0.000 0.00 0.289 0.005
0.003 0.001 0.001 10.4 6.0 -0.181 5890.38 0.395 -0.032 5892.24 0.572 -0.131 -0.016 0.017 5889.56 0.400 0.053 0.99 0.003 0.01 0.011 0.003 0.05 0.062 0.004 0.003 0.005 0.05 0.000 0.005 0.00 1.351 0.180 0.045 0.130 0.024 0.006 0.006 0.005 0.004 29.3 7.2 24.1 5.4 0 0 0
0 1 0

674 0.93360 -71.86489 302.42587 -45.25882 -0.023 5780.84 0.524 -0.010 5782.60 0.900 1.01 0.001 0.04 0.036 0.001 0.00 0.000 0.00 0.587 0.030 0.022 0.003 0.002 11.3 9.4 -0.013 5797.36 0.257 -0.007 5798.38 0.361 1.00 0.001 0.03 0.034 0.001 0.07 0.083 0.00 0.257 0.009
0.006 0.001 0.002 6.2 3.7 -0.182 5890.37 0.372 -0.020 5891.84 0.632 -0.140 0.000 0.034 5889.73 0.390 0.058 0.99 0.009 0.03 0.014 0.003 0.12 0.131 0.014 0.000 0.011 0.10 0.054 0.010 0.00 1.614 0.170 0.032 0.130 -0.000 0.011 0.008 0.014 0.000 15.8 4.1 9.3 0.0 1 0 1
0 1 0

672 0.93310 -72.49333 302.45135 -44.63065 -0.014 5780.85 0.549 -0.008 5782.60 0.900 1.00 0.001 0.05 0.050 0.001 0.00 0.000 0.00 0.436 0.019 0.017 0.002 0.002 8.5 9.1 -0.010 5797.59 0.250 -0.005 5798.40 0.311 1.00 0.002 0.07 0.000 0.002 0.12 0.136 0.00 0.538 0.006
0.004 0.001 0.002 5.5 1.9 -0.188 5890.44 0.403 -0.032 5892.52 1.000 -0.129 -0.032 0.002 5890.00 0.181 0.058 0.99 0.004 0.02 0.012 0.002 0.07 0.000 0.004 0.002 0.011 0.00 0.024 0.008 0.00 1.320 0.190 0.081 0.131 0.079 0.007 0.005 0.006 0.005 26.7 14.7 21.6 14.4 0 0 0
0 1 0

687 0.93736 -72.38986 302.42053 -44.73358 -0.015 5780.65 0.900 -0.019 5782.75 0.360 1.01 0.001 0.08 0.000 0.002 0.04 0.000 0.00 0.833 0.034 0.018 0.002 0.001 14.1 12.6 -0.006 5797.35 0.250 -0.008 5798.62 0.845 1.00 0.002 0.08 0.000 0.001 0.14 0.156 0.00 0.500 0.004
0.017 0.001 0.004 2.7 4.6 -0.249 5890.31 0.422 -0.132 5892.75 0.384 -0.194 -0.085 0.093 5889.97 0.400 0.137 0.99 0.083 0.12 0.032 0.003 0.01 0.010 0.075 0.003 0.107 0.06 0.000 0.092 0.00 1.222 0.264 0.127 0.205 0.082 0.091 0.005 0.081 0.004 2.9 27.7 2.5 22.5 1 1 0
0 1 1

703 0.94199 -72.20289 302.38364 -44.91992 -0.020 5781.10 0.870 -0.012 5783.37 0.395 1.00 0.001 0.00 0.080 0.002 0.08 0.079 0.00 0.193 0.043 0.012 0.005 0.003 8.6 3.9 -0.012 5796.85 0.451 0.000 5799.93 0.356 1.00 0.002 0.00 0.073 0.000 0.00 0.000 0.00 0.159 0.014 -
0.000 0.003 0.000 4.7 0.0 -0.333 5890.28 0.454 -0.033 5892.14 0.327 -0.258 -0.028 0.182 5890.00 0.378 0.204 0.98 0.243 0.21 0.033 0.005 0.04 0.047 0.208 0.005 0.283 0.08 0.065 0.232 0.00 1.384 0.379 0.027 0.294 0.023 0.277 0.005 0.237 0.005 1.4 4.9 1.2 4.6 0 0 0 0
1 0

699 0.94054 -72.46467 302.40311 -44.65842 -0.018 5781.10 0.900 0.000 5783.57 0.654 1.00 0.001 0.00 0.000 0.000 0.00 0.000 0.00 0.433 0.041 -0.000 0.002 0.000 23.9 0.0 -0.003 5797.69 0.250 -0.007 5799.32 0.413 1.00 0.001 0.18 0.000 0.001 0.00 0.091 0.00 0.521 0.002
0.007 0.001 0.002 1.8 3.5 -0.179 5890.28 0.449 -0.079 5892.60 0.438 -0.140 -0.058 0.075 5889.92 0.400 0.096 0.99 0.099 0.25 0.074 0.003 0.02 0.018 0.080 0.003 0.142 0.05 0.000 0.113 0.00 1.417 0.202 0.086 0.157 0.064 0.116 0.005 0.094 0.004 1.7 17.7 1.7 15.4 1 0 0
0 1 1

731 0.95586 -71.86522 302.27832 -45.25549 -0.015 5781.10 0.731 0.000 5783.58 0.614 1.00 0.001 0.00 0.084 0.000 0.00 0.000 0.00 0.510 0.028 -0.000 0.004 0.000 6.8 0.0 0.000 5797.64 0.463 -0.012 5800.08 0.368 1.00 0.000 0.00 0.000 0.002 0.07 0.073 0.00 0.548 -0.000
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0 1 0

655 0.92771 -72.75056 302.49380 -44.37407 -0.017 5780.97 0.848 -0.011 5783.23 0.446 1.00 0.001 0.04 0.051 0.001 0.05 0.050 0.00 0.328 0.035 0.012 0.003 0.002 13.4 7.1 -0.007 5797.38 0.608 0.000 5799.78 0.477 1.00 0.001 0.09 0.091 0.000 0.00 0.000 0.00 0.417 0.011 -0.000 0.002 0.000 5.1 0.0 -0.226 5890.40 0.422 -0.115 5892.70 0.438 -0.187 -0.079 0.036 5890.00 0.376 0.087 0.99 0.030 0.08 0.032 0.003 0.01 0.013 0.024 0.003 0.053 0.00 0.024 0.044 0.00 0.812 0.239 0.126 0.198 0.086 0.037 0.005 0.030 0.004 6.5 25.7 6.7 21.5 1 0 0 0 1 1

725 0.95387 -72.37492 302.31445 -44.74635 -0.011 5780.54 0.900 -0.006 5782.60 0.900 1.00 0.001 0.06 0.000 0.001 0.00 0.000 0.00 0.444 0.026 0.014 0.001 0.001 20.5 9.4 -0.005 5797.47 0.336 0.000 5799.11 0.462 1.00 0.001 0.08 0.084 0.000 0.00 0.000 0.00 0.659 0.005 -0.000 0.001 0.000 3.1 0.0 -0.178 5890.34 0.392 -0.029 5891.85 0.250 -0.144 -0.150 0.035 5889.86 0.364 0.085 0.98 0.026 0.08 0.039 0.007 0.01 0.000 0.037 0.007 0.042 0.13 0.067 0.040 0.00 4.618 0.175 0.018 0.142 0.094 0.031 0.004 0.039 0.004 5.7 4.5 3.6 22.9 0 0 0 0 1 0

711 0.94669 -72.47961 302.36465 -44.64270 -0.008 5779.86 0.900 -0.013 5782.60 0.900 1.00 0.001 0.10 0.000 0.001 0.00 0.000 0.00 0.425 0.019 0.029 0.002 0.002 10.4 15.5 0.000 5796.38 0.518 -0.007 5798.85 0.266 1.00 0.000 0.00 0.000 0.002 0.07 0.069 0.00 0.494 -0.000 0.005 0.000 0.002 0.0 2.9 -0.198 5890.26 0.445 -0.103 5892.64 0.455 -0.144 -0.070 0.080 5889.88 0.400 0.104 0.99 0.073 0.17 0.053 0.003 0.01 0.014 0.059 0.003 0.106 0.06 0.000 0.082 0.00 1.030 0.221 0.117 0.161 0.079 0.086 0.005 0.068 0.004 2.6 24.6 2.4 20.4 0 0 0 0 1 1

755 0.96582 -71.93897 302.21606 -45.18019 -0.012 5780.45 0.360 0.000 5783.60 0.601 1.00 0.001 0.06 0.000 0.000 0.00 0.000 0.00 0.455 0.011 -0.000 0.001 0.000 8.0 0.0 -0.009 5796.91 0.250 0.000 5800.07 0.477 1.00 0.002 0.07 0.000 0.000 0.00 0.000 0.00 0.477 0.005 -0.000 0.001 0.000 5.0 0.0 -0.155 5890.47 0.389 0.000 5893.09 0.422 -0.148 0.000 0.000 5889.86 0.400 0.046 1.00 0.005 0.01 0.012 0.000 0.00 0.000 0.008 0.000 0.000 0.08 0.000 0.007 0.00 2.412 0.151 -0.000 0.144 -0.000 0.006 0.000 0.009 0.000 23.6 0.0 15.8 0.0 0 0 0 0 1 0

742 0.95820 -72.26669 302.28171 -44.85388 -0.011 5781.06 0.761 -0.005 5782.60 0.726 1.00 0.001 0.08 0.082 0.001 0.00 0.166 0.00 0.507 0.022 0.009 0.003 0.003 7.4 3.1 -0.015 5797.62 0.264 -0.009 5798.78 0.250 1.00 0.001 0.03 0.027 0.001 0.04 0.000 0.00 0.603 0.010 0.006 0.001 0.001 7.4 8.1 -0.204 5890.39 0.425 -0.048 5892.77 0.650 -0.153 -0.032 0.030 5889.86 0.400 0.064 0.99 0.011 0.04 0.018 0.002 0.03 0.038 0.013 0.002 0.020 0.07 0.000 0.018 0.00 1.048 0.217 0.079 0.163 0.052 0.015 0.006 0.015 0.005 14.7 12.9 10.7 10.6 0 0 0 0 1 0

765 0.96999 -72.06719 302.19531 -45.05135 -0.024 5781.10 0.376 -0.020 5783.03 0.360 1.00 0.002 0.00 0.042 0.002 0.05 0.000 0.00 0.473 0.023 0.018 0.003 0.002 6.9 9.7 0.000 5797.53 0.428 -0.016 5800.07 0.250 1.00 0.000 0.00 0.000 0.003 0.06 0.000 0.00 0.792 -0.000 0.010 0.000 0.002 0.0 5.3 -0.213 5890.23 0.470 -0.096 5892.59 0.463 -0.133 -0.038 0.118 5889.82 0.400 0.101 0.99 0.091 0.24 0.083 0.005 0.03 0.028 0.058 0.004 0.146 0.05 0.000 0.092 0.00 2.239 0.251 0.111 0.157 0.044 0.117 0.009 0.074 0.006 2.2 12.6 2.1 7.6 0 0 0 0 1 0

736 0.95652 -72.37930 302.29770 -44.74158 -0.012 5780.79 0.900 -0.015 5783.04 0.765 1.00 0.001 0.09 0.000 0.001 0.06 0.066 0.00 0.298 0.028 0.029 0.002 0.003 15.3 9.6 -0.011 5797.12 0.250 0.000 5799.53 0.498 1.00 0.001 0.03 0.000 0.000 0.00 0.000 0.00 0.273 0.007 -0.000 0.001 0.000 9.9 0.0 -0.205 5890.29 0.435 -0.129 5892.76 0.423 -0.165 -0.076 0.083 5889.92 0.400 0.105 0.99 0.099 0.19 0.055 0.003 0.01 0.012 0.088 0.003 0.135 0.08 0.000 0.115 0.00 1.360 0.223 0.137 0.180 0.080 0.112 0.005 0.098 0.004 2.0 27.2 1.8 21.1 0 0 0 0 1 1

743 0.96038 -72.36491 302.27237 -44.75539 0.000 5780.10 0.655 -0.007 5782.60 0.844 1.00 0.000 0.00 0.000 0.001 0.00 0.130 0.00 0.408 -0.000 0.015 0.000 0.003 0.0 5.1 -0.005 5796.50 0.968 -0.008 5798.35 0.398 1.00 0.001 0.22 0.245 0.001 0.00 0.076 0.00 0.341 0.012 0.008 0.003 0.002 3.3 4.0 -0.155 5890.39 0.416 -0.076 5892.58 0.525 -0.126 -0.035 0.020 5889.91 0.400 0.053 0.99 0.017 0.06 0.028 0.003 0.02 0.028 0.021 0.003 0.027 0.11 0.000 0.027 0.00 2.097 0.162 0.101 0.131 0.046 0.020 0.007 0.023 0.005 7.9 14.5 5.6 9.7 0 0 0 0 1 1

741 0.95781 -72.51752 302.29587 -44.60325 -0.012 5780.28 0.519 -0.022 5782.60 0.900 1.00 0.001 0.07 0.076 0.001 0.00 0.000 0.00 0.648 0.016 0.050 0.003 0.003 5.3 19.8 -0.007 5797.36 1.000 -0.007 5799.85 0.899 1.00 0.001 0.19 0.000 0.001 0.00 0.194 0.00 0.456 0.017
0.015 0.002 0.004 7.8 3.8 -0.212 5890.43 0.419 -0.248 5892.69 0.437 -0.198 -0.200 0.014 5889.92 0.400 0.070 0.99 0.008 0.03 0.013 0.003 0.00 0.005 0.013 0.003 0.015 0.05 0.000 0.017 0.00 1.126 0.223 0.272 0.207 0.219 0.011 0.004 0.015 0.004 20.0 63.4 14.0 57.5 0 0 0
0 1 1

723 0.95294 -72.50111 302.32596 -44.62036 -0.017 5781.10 0.606 -0.019 5783.68 0.360 1.00 0.002 0.00 0.070 0.002 0.04 0.000 0.00 0.792 0.025 0.017 0.004 0.002 6.7 10.7 0.000 5797.65 0.478 -0.012 5799.96 0.250 1.00 0.000 0.00 0.000 0.002 0.05 0.000 0.00 0.487 -0.000
0.007 0.000 0.001 0.0 7.3 -0.236 5890.27 0.452 -0.165 5892.75 0.432 -0.184 -0.131 0.122 5889.89 0.400 0.131 0.99 0.095 0.19 0.057 0.003 0.01 0.009 0.077 0.003 0.138 0.04 0.000 0.110 0.00 1.429 0.267 0.179 0.208 0.142 0.113 0.005 0.091 0.004 2.4 35.7 2.3 32.2 0 0 0
0 1 1

802 0.99048 -71.97389 302.05566 -45.14073 -0.020 5780.87 0.613 -0.015 5782.60 0.896 1.01 0.003 0.09 0.089 0.002 0.00 0.176 0.00 1.501 0.031 0.034 0.006 0.008 5.0 4.1 0.000 5797.30 0.503 -0.010 5798.63 0.250 1.01 0.000 0.00 0.000 0.003 0.10 0.000 0.00 1.523 -0.000
0.006 0.000 0.002 0.0 3.5 -0.145 5890.33 0.465 -0.050 5892.29 0.464 -0.112 -0.039 0.053 5889.85 0.400 0.097 0.98 0.034 0.16 0.066 0.003 0.03 0.037 0.031 0.003 0.061 0.05 0.000 0.050 0.00 2.021 0.169 0.058 0.130 0.045 0.046 0.006 0.040 0.005 3.7 9.4 3.2 8.5 0 0 0
1 1

796 0.98779 -72.07886 302.07977 -45.03640 -0.021 5781.10 0.484 -0.014 5783.40 0.900 1.00 0.002 0.00 0.055 0.001 0.11 0.000 0.00 1.203 0.026 0.032 0.004 0.003 6.9 10.3 -0.008 5797.78 1.000 -0.008 5799.91 0.362 1.00 0.001 0.13 0.000 0.001 0.07 0.077 0.00 0.514 0.021
0.008 0.002 0.002 10.0 3.6 -0.095 5890.43 0.313 -0.055 5892.05 1.000 -0.061 -0.037 0.012 5889.65 0.400 0.050 0.99 0.004 0.02 0.019 0.002 0.06 0.000 0.005 0.002 0.004 0.05 0.000 0.004 0.00 1.210 0.075 0.137 0.048 0.092 0.006 0.006 0.005 0.006 13.0 21.9 9.9 14.8 0 0 0
0 1 0

752 0.96393 -72.43983 302.25336 -44.67996 -0.013 5780.74 0.699 -0.022 5783.03 0.607 1.00 0.001 0.07 0.083 0.001 0.04 0.045 0.00 0.438 0.023 0.034 0.003 0.003 6.9 11.0 -0.005 5797.44 0.250 -0.014 5799.37 1.000 1.01 0.002 0.16 0.000 0.001 0.12 0.000 0.00 1.022 0.003
0.034 0.001 0.003 2.0 10.3 -0.221 5890.33 0.462 -0.249 5892.82 0.396 -0.153 -0.190 0.094 5889.86 0.400 0.095 0.99 0.042 0.11 0.040 0.003 0.00 0.005 0.032 0.003 0.068 0.05 0.000 0.049 0.00 0.943 0.256 0.247 0.177 0.189 0.053 0.004 0.040 0.004 4.8 59.2 4.5 52.4 0 1 0
0 1 1

790 0.98656 -72.16583 302.09302 -44.94975 -0.018 5780.32 0.900 -0.003 5783.51 0.387 1.00 0.001 0.05 0.000 0.001 0.20 0.213 0.00 0.300 0.040 0.003 0.002 0.002 21.0 1.4 -0.012 5796.23 0.250 0.000 5800.02 0.470 1.00 0.002 0.05 0.000 0.000 0.00 0.000 0.00 0.562 0.008 -
0.000 0.001 0.000 6.8 0.0 -0.226 5890.42 0.396 -0.091 5893.10 0.421 -0.158 -0.067 0.049 5889.90 0.400 0.064 0.99 0.019 0.04 0.019 0.003 0.02 0.017 0.019 0.003 0.028 0.10 0.000 0.023 0.00 1.955 0.224 0.097 0.157 0.070 0.022 0.005 0.021 0.005 10.1 17.8 7.6 15.5 1 0 1
0 1 1

774 0.97592 -72.33783 302.17151 -44.77987 -0.012 5781.10 0.755 -0.013 5782.60 0.900 1.00 0.001 0.00 0.075 0.001 0.00 0.000 0.00 0.502 0.022 0.030 0.003 0.002 8.1 16.0 -0.010 5796.85 0.362 -0.010 5798.35 0.479 1.00 0.001 0.00 0.064 0.001 0.00 0.080 0.00 0.728 0.009
0.012 0.002 0.002 4.4 4.7 -0.292 5890.26 0.445 -0.159 5892.75 0.422 -0.222 -0.113 0.160 5889.96 0.393 0.176 0.99 0.465 0.48 0.093 0.004 0.01 0.010 0.383 0.003 0.560 0.15 0.079 0.448 0.00 1.906 0.325 0.168 0.248 0.119 0.522 0.006 0.431 0.005 0.6 29.9 0.6 25.5 0 0 0
0 1 1

810 0.99485 -72.13611 302.03735 -44.97777 -0.013 5781.10 0.855 -0.012 5783.05 0.360 1.00 0.001 0.09 0.113 0.002 0.07 0.000 0.00 0.407 0.029 0.011 0.005 0.002 6.1 6.5 -0.018 5798.35 0.436 -0.015 5800.30 1.000 1.01 0.001 0.00 0.040 0.001 0.00 0.000 0.00 0.252 0.019
0.036 0.002 0.002 8.4 16.8 -0.240 5890.36 0.418 -0.029 5892.82 1.000 -0.191 -0.029 0.061 5890.00 0.382 0.097 0.99 0.055 0.11 0.039 0.002 0.06 0.000 0.043 0.002 0.086 0.00 0.023 0.069 0.00 0.976 0.251 0.073 0.200 0.073 0.063 0.005 0.049 0.005 4.0 14.1 4.1 13.9 0 0 0
0 1 0

808 0.99350 -72.17286 302.04846 -44.94134 -0.009 5780.48 0.731 -0.011 5782.95 0.509 1.00 0.001 0.08 0.089 0.001 0.06 0.061 0.00 0.312 0.017 0.014 0.003 0.002 6.4 6.5 -0.009 5797.62 0.250 -0.002 5799.47 0.250 1.00 0.001 0.03 0.000 0.001 0.13 0.000 0.00 0.139 0.006
0.001 0.001 0.001 11.2 2.6 -0.199 5890.32 0.447 -0.067 5892.57 0.523 -0.158 -0.049 0.058 5889.94 0.400 0.102 0.99 0.060 0.14 0.047 0.002 0.02 0.021 0.053 0.002 0.089 0.05 0.000 0.075 0.00 1.011 0.223 0.088 0.178 0.065 0.071 0.005 0.062 0.004 3.1 18.5 2.9 16.2 0 0 1
0 1 1

818 0.99805 -72.18025 302.01947 -44.93300 -0.010 5779.96 0.366 -0.008 5782.60 0.900 1.00 0.002 0.09 0.098 0.001 0.00 0.000 0.00 0.768 0.009 0.019 0.003 0.003 2.8 5.7 0.000 5796.42 0.471 -0.005 5798.84 0.250 1.00 0.000 0.00 0.000 0.002 0.13 0.000 0.00 0.523 -0.000
0.003 0.000 0.001 0.0 2.7 -0.163 5890.43 0.391 -0.081 5892.91 0.549 -0.148 -0.053 0.017 5889.97 0.400 0.069 0.99 0.010 0.03 0.015 0.002 0.02 0.019 0.015 0.002 0.015 0.06 0.000 0.018 0.00 0.725 0.160 0.111 0.145 0.073 0.011 0.005 0.016 0.004 14.4 21.7 9.1 17.9 0 0 0
0 1 1

760 0.96962 -72.49375 302.21994 -44.62514 -0.015 5780.39 0.767 -0.023 5782.60 0.360 1.00 0.001 0.08 0.087 0.002 0.00 0.000 0.00 0.957 0.030 0.021 0.004 0.002 6.8 12.8 -0.004 5797.64 0.605 0.000 5799.04 0.494 1.00 0.001 0.00 0.205 0.000 0.00 0.000 0.00 0.582 0.007 -
0.000 0.003 0.000 2.3 0.0 -0.207 5890.43 0.473 -0.334 5892.78 0.410 -0.159 -0.290 0.025 5889.78 0.400 0.076 0.99 0.006 0.03 0.019 0.003 0.00 0.004 0.008 0.003 0.015 0.04 0.000 0.013 0.00 1.290 0.245 0.343 0.189 0.298 0.012 0.005 0.012 0.004 20.5 74.2 16.1 69.7 0 1 0
0 1 1

843 1.01615 -72.03664 301.89163 -45.07232 0.000 5780.21 0.625 -0.003 5783.58 0.360 1.00 0.000 0.00 0.000 0.002 0.25 0.000 0.00 0.793 -0.000 0.003 0.000 0.002 0.0 1.9 0.000 5796.79 0.480 0.000 5800.58 0.250 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.602 -0.000 -
0.000 0.000 0.000 0.0 0.0 -0.187 5890.22 0.574 0.000 5894.60 1.000 -0.138 -0.024 0.141 5889.83 0.330 0.136 0.99 0.016 0.04 0.015 0.000 0.10 0.000 0.013 0.002 0.020 0.02 0.021 0.015 0.00 1.207 0.269 -0.000 0.199 0.059 0.024 0.000 0.020 0.005 11.1 0.0 9.9 11.1 0 0 0
0 1 0

747 0.96259 -72.59228 302.26926 -44.52781 -0.015 5780.66 0.900 -0.008 5782.63 0.900 1.00 0.001 0.07 0.000 0.001 0.13 0.000 0.00 0.702 0.035 0.019 0.002 0.002 17.4 9.6 -0.009 5797.43 0.558 0.000 5799.11 0.512 1.00 0.001 0.06 0.062 0.000 0.00 0.000 0.00 0.670 0.013 -
0.000 0.002 0.000 6.9 0.0 -0.278 5890.33 0.442 -0.119 5892.67 0.435 -0.226 -0.077 0.099 5889.94 0.400 0.131 0.99 0.078 0.12 0.039 0.003 0.01 0.013 0.070 0.003 0.112 0.06 0.000 0.096 0.00 1.305 0.308 0.129 0.251 0.084 0.091 0.005 0.080 0.004 3.4 25.1 3.1 20.5 1 0 1
0 1 1

803 0.99142 -72.33783 302.07220 -44.77695 -0.008 5780.11 0.360 -0.013 5782.60 0.802 1.00 0.001 0.05 0.000 0.001 0.00 0.054 0.00 0.768 0.007 0.026 0.001 0.002 9.0 11.6 -0.010 5797.36 0.618 -0.009 5799.29 0.250 1.00 0.001 0.00 0.061 0.001 0.04 0.000 0.00 0.775 0.015
0.006 0.002 0.001 7.8 8.6 -0.180 5890.44 0.410 -0.235 5892.73 0.409 -0.133 -0.176 0.038 5889.78 0.400 0.068 0.98 0.006 0.03 0.016 0.003 0.01 0.006 0.007 0.003 0.011 0.05 0.000 0.010 0.00 1.463 0.185 0.240 0.137 0.181 0.009 0.005 0.009 0.004 20.0 52.0 15.0 45.7 0 0 0
0 1 1

850 1.02087 -72.08422 301.86438 -45.02365 -0.015 5779.91 0.880 -0.015 5782.98 0.360 1.00 0.001 0.08 0.094 0.002 0.05 0.000 0.00 0.475 0.033 0.013 0.005 0.002 7.3 8.6 -0.007 5796.09 0.250 0.000 5799.45 0.505 1.00 0.002 0.09 0.000 0.000 0.00 0.000 0.00 0.481 0.004 -
0.000 0.001 0.000 3.6 0.0 -0.176 5890.50 0.274 -0.090 5893.54 0.316 -0.131 -0.065 0.072 5889.82 0.333 0.088 0.99 0.007 0.02 0.012 0.004 0.01 0.014 0.009 0.004 0.006 0.05 0.032 0.005 0.00 0.744 0.121 0.071 0.090 0.052 0.007 0.004 0.007 0.004 16.8 16.2 12.6 14.0 0 0 0
0 1 1

870 1.03268 -72.02233 301.78235 -45.08239 -0.018 5781.10 0.900 -0.043 5784.08 0.395 1.01 0.002 0.00 0.000 0.003 0.03 0.028 0.00 1.271 0.041 0.043 0.004 0.004 10.5 11.0 -0.018 5797.40 0.250 -0.011 5800.78 0.428 1.00 0.002 0.04 0.000 0.002 0.09 0.094 0.00 0.905 0.011
0.012 0.001 0.003 8.0 3.5 -0.369 5890.20 0.401 -0.165 5893.55 0.408 -0.281 -0.181 0.333 5890.00 0.392 0.288 0.98 0.820 0.50 0.090 0.004 0.01 0.008 0.624 0.004 0.942 0.00 0.027 0.718 0.00 0.844 0.370 0.169 0.282 0.185 0.828 0.005 0.630 0.005 0.4 33.5 0.4 34.9 0 0 0
0 1 1

780 0.98201 -72.44942 302.13892 -44.66728 -0.020 5781.10 0.900 -0.007 5784.60 0.893 1.00 0.001 0.00 0.000 0.001 0.00 0.170 0.00 1.072 0.044 0.016 0.003 0.004 16.9 4.1 -0.004 5797.91 0.526 0.000 5801.09 0.532 1.00 0.002 0.24 0.254 0.000 0.00 0.000 0.00 1.500 0.005 -0.000 0.003 0.000 1.6 0.0 -0.248 5890.31 0.451 -0.121 5892.65 0.433 -0.210 -0.083 0.145 5889.92 0.358 0.166 0.99 0.198 0.35 0.093 0.004 0.02 0.017 0.182 0.004 0.278 0.10 0.082 0.242 0.00 1.794 0.281 0.131 0.237 0.090 0.231 0.007 0.211 0.006 1.2 19.1 1.1 16.1 0 0 0 0 1 1

864 1.02775 -72.10406 301.82111 -45.00209 -0.020 5779.99 0.459 -0.013 5784.47 0.900 1.00 0.003 0.08 0.091 0.002 0.18 0.000 0.00 0.832 0.023 0.029 0.006 0.005 3.9 5.4 -0.036 5796.89 0.250 -0.022 5800.76 0.250 1.01 0.005 0.05 0.000 0.005 0.08 0.000 0.00 1.767 0.023 0.014 0.003 0.003 7.0 4.2 -0.122 5890.50 0.316 0.000 5893.77 1.000 -0.126 -0.031 0.033 5889.83 0.365 0.071 0.99 0.009 0.04 0.021 0.000 0.11 0.000 0.017 0.003 0.009 0.11 0.064 0.010 0.00 1.110 0.097 -0.000 0.100 0.078 0.009 0.000 0.015 0.007 10.2 0.0 6.8 10.9 0 0 0 0 1 0

805 0.99288 -72.38161 302.06561 -44.73293 -0.009 5781.10 0.729 -0.019 5782.94 0.360 0.99 0.001 0.00 0.118 0.001 0.04 0.000 0.00 0.425 0.016 0.017 0.003 0.001 4.9 14.0 -0.017 5796.98 0.433 0.000 5799.44 0.543 1.00 0.001 0.04 0.041 0.000 0.00 0.000 0.00 0.412 0.018 -0.000 0.002 0.000 8.0 0.0 -0.242 5890.33 0.441 -0.267 5892.74 0.400 -0.165 -0.191 0.134 5889.90 0.400 0.107 0.99 0.076 0.14 0.045 0.003 0.00 0.005 0.055 0.003 0.109 0.07 0.000 0.077 0.00 1.067 0.268 0.267 0.183 0.191 0.089 0.004 0.063 0.004 3.0 61.2 2.9 52.5 0 0 0 0 1 1

798 0.98816 -72.45047 302.09988 -44.66506 -0.009 5779.75 0.806 -0.015 5782.71 0.900 1.00 0.001 0.09 0.106 0.001 0.06 0.000 0.00 0.555 0.017 0.034 0.003 0.002 6.0 18.4 -0.006 5797.00 0.891 -0.005 5798.46 0.560 1.00 0.001 0.00 0.184 0.001 0.00 0.132 0.00 0.542 0.014 0.008 0.003 0.003 4.0 3.0 -0.225 5890.36 0.440 -0.201 5892.79 0.409 -0.194 -0.166 0.089 5889.97 0.400 0.117 0.99 0.102 0.19 0.058 0.004 0.01 0.008 0.095 0.004 0.142 0.08 0.000 0.129 0.00 1.565 0.248 0.206 0.214 0.170 0.117 0.006 0.109 0.005 2.1 37.0 2.0 34.0 0 0 0 0 1 1

821 1.00017 -72.39789 302.02014 -44.71515 -0.016 5781.10 0.778 -0.007 5782.60 0.633 1.00 0.001 0.00 0.057 0.001 0.00 0.105 0.00 0.396 0.032 0.011 0.003 0.003 10.9 4.5 -0.010 5797.44 0.250 0.000 5799.07 0.559 1.00 0.002 0.06 0.000 0.000 0.00 0.000 0.00 1.034 0.006 -0.000 0.001 0.000 5.5 0.0 -0.245 5890.27 0.469 -0.231 5892.68 0.417 -0.186 -0.187 0.125 5889.93 0.377 0.127 0.99 0.125 0.19 0.038 0.003 0.00 0.005 0.102 0.002 0.157 0.06 0.062 0.123 0.00 0.754 0.288 0.241 0.218 0.196 0.149 0.004 0.122 0.003 1.9 63.5 1.8 57.8 0 0 0 0 1 1

906 1.05259 -72.03533 301.65323 -45.06378 -0.017 5780.51 0.541 -0.006 5783.31 0.900 1.00 0.001 0.04 0.046 0.001 0.16 0.000 0.00 0.935 0.023 0.013 0.003 0.002 9.2 6.3 -0.005 5797.53 0.582 0.000 5799.83 0.501 1.00 0.001 0.12 0.131 0.000 0.00 0.000 0.00 0.665 0.007 -0.000 0.002 0.000 3.4 0.0 -0.128 5890.52 0.344 -0.032 5892.39 0.654 -0.088 -0.021 0.026 5889.66 0.400 0.049 0.99 0.003 0.01 0.014 0.003 0.05 0.063 0.004 0.002 0.004 0.04 0.000 0.004 0.00 1.327 0.111 0.053 0.076 0.034 0.005 0.007 0.004 0.005 21.0 8.1 17.5 6.7 0 0 0 0 1 0

916 1.05648 -72.03236 301.62753 -45.06558 -0.016 5780.92 0.379 -0.013 5783.33 0.900 1.00 0.003 0.08 0.087 0.002 0.16 0.000 0.00 0.640 0.015 0.030 0.004 0.004 3.4 6.8 0.000 5797.46 0.353 -0.021 5799.13 0.250 1.00 0.000 0.00 0.000 0.003 0.05 0.000 0.00 0.788 -0.000 0.013 0.000 0.002 0.0 6.2 -0.176 5890.45 0.343 0.000 5893.87 1.000 -0.129 -0.032 0.104 5889.92 0.398 0.121 0.98 0.048 0.06 0.024 0.000 0.11 0.000 0.052 0.003 0.037 0.15 0.060 0.034 0.00 1.029 0.151 -0.000 0.111 0.079 0.043 0.000 0.045 0.007 3.5 0.0 2.4 11.0 0 0 0 0 1 0

836 1.00953 -72.36533 301.95816 -44.74561 -0.015 5781.06 0.900 -0.005 5782.60 0.900 1.00 0.001 0.09 0.000 0.001 0.00 0.000 0.00 0.731 0.034 0.011 0.002 0.003 16.4 3.8 -0.006 5797.99 0.250 0.000 5799.13 0.501 1.00 0.001 0.05 0.000 0.000 0.00 0.000 0.00 0.355 0.004 -0.000 0.001 0.000 6.4 0.0 -0.198 5890.47 0.385 -0.028 5892.57 0.714 -0.164 -0.031 0.027 5889.92 0.400 0.051 0.99 0.009 0.03 0.014 0.002 0.05 0.057 0.012 0.002 0.015 0.09 0.000 0.015 0.00 1.033 0.191 0.051 0.158 0.056 0.011 0.006 0.013 0.006 17.0 9.0 12.1 9.4 1 0 0 0 1 0

854 1.02301 -72.33664 301.86984 -44.77107 -0.013 5780.85 0.421 -0.015 5782.68 0.478 1.00 0.001 0.03 0.034 0.001 0.03 0.033 0.00 0.250 0.014 0.018 0.001 0.002 9.5 11.4 -0.003 5797.91 1.000 0.000 5799.16 0.559 1.00 0.001 0.31 0.000 0.000 0.00 0.000 0.00 0.572 0.008 -
0.000 0.002 0.000 3.8 0.0 -0.193 5890.55 0.357 -0.058 5892.52 0.551 -0.135 -0.042 0.036 5889.78 0.297 0.064 0.99 0.004 0.02 0.014 0.003 0.03 0.036 0.005 0.003 0.007 0.05 0.035 0.006 0.00 1.350 0.173 0.081 0.120 0.058 0.008 0.007 0.007 0.006 21.7 11.5 18.1 10.0 1 0 0
0 1 1

893 1.04682 -72.23917 301.70892 -44.86204 -0.020 5781.10 0.782 0.000 5783.51 0.536 1.01 0.001 0.00 0.051 0.000 0.00 0.000 0.00 0.571 0.038 -0.000 0.003 0.000 11.9 0.0 -0.011 5797.50 0.513 0.000 5799.61 0.250 1.00 0.001 0.06 0.062 0.000 0.00 0.000 0.00 0.453 0.014 -
0.000 0.002 0.000 6.4 0.0 -0.171 5890.40 0.500 0.000 5894.25 1.000 -0.136 -0.024 0.078 5889.92 0.400 0.101 0.99 0.022 0.09 0.040 0.000 0.09 0.000 0.018 0.002 0.041 0.02 0.000 0.033 0.00 0.972 0.214 -0.000 0.170 0.060 0.032 0.000 0.026 0.005 6.6 0.0 6.4 13.0 1 0 1
0 1 0

837 1.01219 -72.43467 301.94614 -44.67575 -0.020 5780.23 0.900 -0.012 5782.60 0.900 1.01 0.001 0.08 0.000 0.001 0.00 0.000 0.00 0.967 0.044 0.027 0.003 0.003 14.7 8.3 -0.013 5797.48 0.445 -0.010 5798.35 0.367 1.00 0.001 0.00 0.057 0.002 0.00 0.060 0.00 0.323 0.014
0.009 0.002 0.002 6.1 4.5 -0.194 5890.31 0.456 -0.190 5892.54 0.472 -0.183 -0.146 0.101 5889.88 0.400 0.132 0.99 0.048 0.13 0.044 0.003 0.01 0.007 0.048 0.002 0.074 0.04 0.000 0.072 0.00 0.527 0.222 0.224 0.209 0.172 0.059 0.004 0.058 0.004 3.8 51.7 3.6 45.9 0 0 0
0 1 1

907 1.05266 -72.27292 301.67435 -44.82667 -0.014 5780.66 0.900 0.000 5783.66 0.570 1.00 0.001 0.08 0.000 0.000 0.00 0.000 0.00 0.415 0.031 -0.000 0.002 0.000 12.9 0.0 -0.010 5797.91 0.854 -0.008 5799.67 0.250 1.00 0.001 0.00 0.165 0.002 0.10 0.000 0.00 0.600 0.021
0.005 0.005 0.001 4.2 3.3 -0.214 5890.22 0.502 -0.018 5892.22 0.275 -0.173 -0.031 0.200 5889.94 0.363 0.210 1.00 0.065 0.08 0.019 0.004 0.04 0.041 0.058 0.004 0.072 0.03 0.031 0.061 0.00 0.821 0.269 0.013 0.218 0.021 0.083 0.003 0.074 0.004 3.2 3.9 3.0 4.9 0 0 0 0
1 0

896 1.04825 -72.30733 301.70572 -44.79360 -0.012 5780.88 0.900 0.000 5783.54 0.533 1.00 0.001 0.13 0.000 0.000 0.00 0.000 0.00 0.904 0.026 -0.000 0.003 0.000 8.3 0.0 -0.016 5797.33 0.541 -0.013 5799.29 0.262 1.00 0.002 0.06 0.061 0.002 0.00 0.050 0.00 0.600 0.022
0.009 0.003 0.002 6.8 4.0 -0.261 5890.36 0.375 -0.020 5892.72 1.000 -0.209 -0.029 0.154 5890.00 0.388 0.154 0.99 0.026 0.05 0.022 0.002 0.08 0.000 0.021 0.002 0.047 0.00 0.024 0.038 0.00 0.771 0.245 0.050 0.197 0.072 0.029 0.006 0.023 0.006 8.6 8.7 8.7 12.5 0 0 0
0 1 0

884 1.04269 -72.38934 301.74841 -44.71330 -0.010 5780.79 0.877 -0.007 5783.26 0.360 1.00 0.001 0.09 0.104 0.001 0.08 0.000 0.00 0.735 0.021 0.007 0.003 0.001 6.6 6.3 -0.003 5798.04 0.443 0.000 5799.76 0.506 1.00 0.001 0.00 0.138 0.000 0.00 0.000 0.00 0.359 0.004 -
0.000 0.001 0.000 2.5 0.0 -0.168 5890.44 0.360 -0.024 5891.79 0.966 -0.129 -0.015 0.041 5889.90 0.400 0.064 0.99 0.012 0.03 0.019 0.002 0.24 0.220 0.014 0.002 0.014 0.08 0.000 0.013 0.00 1.394 0.152 0.057 0.116 0.036 0.014 0.014 0.014 0.010 11.0 4.0 8.4 3.6 0 0 0
0 1 0

891 1.04621 -72.41228 301.72797 -44.68943 -0.014 5780.52 0.900 -0.008 5783.36 0.360 1.00 0.001 0.08 0.000 0.002 0.09 0.000 0.00 0.420 0.032 0.008 0.003 0.001 12.7 5.3 0.000 5797.03 0.508 -0.002 5800.61 1.000 1.00 0.000 0.00 0.000 0.001 0.00 0.000 0.00 0.381 -0.000
0.005 0.000 0.002 0.0 2.0 -0.245 5890.36 0.355 -0.060 5892.05 0.413 -0.190 -0.042 0.142 5889.99 0.395 0.148 0.99 0.153 0.08 0.022 0.003 0.02 0.025 0.150 0.003 0.126 0.27 0.073 0.117 0.00 1.665 0.218 0.062 0.169 0.043 0.137 0.005 0.134 0.004 1.6 12.0 1.3 10.2 0 0 0
0 1 0

824 1.00205 -72.57400 302.01987 -44.53884 -0.013 5780.41 0.900 -0.014 5782.67 0.900 1.00 0.001 0.11 0.000 0.001 0.10 0.000 0.00 1.223 0.029 0.032 0.003 0.003 10.7 12.0 -0.008 5797.65 0.522 -0.008 5798.80 0.250 1.00 0.001 0.09 0.100 0.002 0.06 0.000 0.00 0.668 0.011
0.005 0.003 0.001 4.3 5.1 -0.278 5890.28 0.405 -0.220 5892.68 0.425 -0.284 -0.152 0.158 5890.00 0.400 0.210 1.00 0.046 0.05 0.018 0.004 0.01 0.007 0.047 0.003 0.059 0.00 0.000 0.060 0.00 1.499 0.282 0.234 0.288 0.162 0.048 0.006 0.049 0.005 5.8 41.8 5.8 35.3 0 0 0
0 1 1

946 1.07044 -72.31322 301.56409 -44.78102 -0.019 5779.76 0.360 -0.015 5783.21 0.360 1.00 0.002 0.06 0.000 0.002 0.07 0.000 0.00 0.955 0.017 0.014 0.002 0.002 7.9 6.3 -0.011 5795.51 1.000 -0.019 5798.96 1.000 1.00 0.001 0.00 0.000 0.002 0.00 0.000 0.00 0.701 0.027
0.047 0.004 0.004 7.1 12.4 -0.236 5890.22 0.454 -0.154 5892.68 0.512 -0.141 -0.132 0.248 5889.86 0.350 0.165 1.00 0.213 0.35 0.078 0.004 0.01 0.013 0.131 0.004 0.277 0.05 0.066 0.167 0.00 1.191 0.269 0.197 0.160 0.170 0.247 0.007 0.152 0.006 1.1 29.2 1.1 27.2 0 0 0
0 1 1

923 1.05813 -72.37114 301.64832 -44.72703 -0.007 5780.08 0.443 -0.013 5782.60 0.900 1.00 0.001 0.07 0.069 0.001 0.00 0.000 0.00 0.339 0.008 0.028 0.002 0.002 4.9 18.8 -0.012 5797.33 0.341 -0.004 5798.35 1.000 1.00 0.002 0.00 0.064 0.001 0.00 0.000 0.00 0.902 0.010
0.011 0.002 0.003 4.1 3.8 -0.204 5890.29 0.471 -0.294 5892.70 0.419 -0.159 -0.235 0.134 5889.85 0.365 0.136 0.99 0.123 0.31 0.089 0.003 0.00 0.005 0.103 0.003 0.181 0.09 0.067 0.144 0.00 1.195 0.241 0.309 0.187 0.246 0.152 0.005 0.126 0.004 1.6 66.0 1.5 59.5 0 1 0
0 1 1

988 1.10118 -72.22603 301.35745 -44.85743 -0.018 5780.02 0.360 -0.016 5783.10 0.541 1.00 0.002 0.05 0.000 0.002 0.07 0.075 0.00 0.431 0.016 0.022 0.002 0.004 9.1 5.6 -0.003 5797.27 1.000 0.000 5799.55 0.535 1.00 0.002 0.00 0.000 0.000 0.00 0.000 0.00 0.610 0.008 -
0.000 0.004 0.000 2.0 0.0 -0.285 5890.21 0.488 -0.026 5892.23 0.559 -0.231 -0.023 0.272 5889.93 0.389 0.252 0.99 0.191 0.17 0.024 0.003 0.07 0.081 0.161 0.003 0.211 0.05 0.048 0.176 0.00 0.888 0.349 0.036 0.283 0.032 0.234 0.007 0.197 0.006 1.5 5.5 1.4 5.2 0 0 0 0
1 0

944 1.06979 -72.35078 301.57193 -44.74376 -0.018 5781.10 0.552 -0.005 5782.85 0.360 1.00 0.001 0.00 0.050 0.001 0.13 0.000 0.00 0.855 0.025 0.005 0.003 0.001 8.7 3.8 0.000 5797.70 0.791 0.000 5799.32 0.528 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.763 -0.000 -
0.000 0.000 0.000 0.0 0.0 -0.118 5890.49 0.302 -0.017 5891.80 1.000 -0.084 -0.019 0.024 5889.56 0.400 0.047 0.99 0.004 0.01 0.013 0.002 0.15 0.000 0.004 0.002 0.003 0.04 0.000 0.003 0.00 0.923 0.089 0.042 0.064 0.047 0.005 0.005 0.004 0.005 19.0 7.8 15.8 8.9 0 0 0
0 1 0

927 1.05991 -72.40203 301.63983 -44.69568 -0.014 5779.68 0.360 -0.011 5782.60 0.900 1.00 0.001 0.04 0.000 0.001 0.00 0.000 0.00 0.047 0.012 0.024 0.001 0.002 10.5 11.6 -0.004 5796.39 1.000 -0.020 5798.35 0.250 1.00 0.001 0.24 0.000 0.001 0.00 0.000 0.00 0.044 0.010
0.013 0.002 0.001 5.0 13.5 -0.171 5890.51 0.428 -0.159 5892.79 0.409 -0.137 -0.139 0.064 5889.84 0.400 0.082 0.99 0.008 0.04 0.022 0.003 0.01 0.008 0.009 0.003 0.016 0.05 0.000 0.014 0.00 1.097 0.184 0.163 0.147 0.142 0.013 0.005 0.012 0.004 14.1 35.4 11.9 33.3 0 0
0 0 1 1

886 1.04414 -72.48331 301.74725 -44.61912 -0.013 5780.55 0.360 -0.015 5782.80 0.900 1.01 0.002 0.08 0.000 0.002 0.11 0.000 0.00 1.070 0.011 0.034 0.002 0.004 5.6 9.6 0.000 5797.02 0.531 -0.006 5798.61 0.444 1.00 0.000 0.00 0.000 0.001 0.09 0.099 0.00 0.304 -0.000
0.007 0.000 0.002 0.0 3.4 -0.226 5890.37 0.472 -0.179 5892.74 0.416 -0.187 -0.138 0.089 5889.89 0.379 0.120 0.98 0.060 0.15 0.050 0.003 0.01 0.008 0.058 0.003 0.094 0.08 0.041 0.082 0.00 2.258 0.268 0.187 0.221 0.144 0.076 0.005 0.072 0.004 3.5 39.0 3.1 34.7 0 0 0
0 1 1

962 1.08190 -72.37586 301.49719 -44.71479 -0.018 5779.27 0.360 -0.019 5782.60 0.900 1.01 0.002 0.05 0.000 0.001 0.00 0.000 0.00 0.500 0.016 0.044 0.002 0.003 9.0 13.6 0.000 5795.72 0.250 -0.010 5798.35 1.000 1.00 0.000 0.00 0.000 0.002 0.00 0.000 0.00 0.841 -0.000
0.026 0.000 0.004 0.0 6.1 -0.152 5890.60 0.323 -0.055 5892.70 0.553 -0.116 -0.055 0.080 5889.78 0.332 0.101 0.99 0.005 0.02 0.019 0.004 0.03 0.036 0.006 0.004 0.006 0.04 0.029 0.005 0.00 1.040 0.123 0.077 0.094 0.076 0.008 0.007 0.007 0.007 14.6 10.8 12.6 10.7 0 0 0
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851 1.02220 -72.53083 301.88977 -44.57736 -0.008 5779.69 0.900 -0.009 5783.44 0.586 1.00 0.001 0.13 0.000 0.001 0.09 0.104 0.00 0.266 0.018 0.013 0.002 0.003 7.4 4.4 0.000 5796.20 0.860 0.000 5799.98 0.522 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.361 -0.000 -
0.000 0.000 0.000 0.0 0.0 -0.220 5890.41 0.429 -0.074 5892.58 0.478 -0.181 -0.046 0.082 5889.99 0.290 0.108 0.99 0.033 0.09 0.033 0.003 0.02 0.021 0.032 0.003 0.059 0.03 0.044 0.049 0.00 1.412 0.237 0.089 0.195 0.055 0.040 0.005 0.037 0.004 5.9 16.5 5.2 13.1 0 0 0
0 1 1

980 1.09442 -72.34067 301.41357 -44.74559 -0.013 5780.39 0.360 -0.020 5783.19 0.900 1.00 0.002 0.07 0.000 0.001 0.07 0.000 0.00 0.450 0.011 0.046 0.002 0.003 6.2 14.2 -0.014 5796.80 0.250 -0.008 5799.87 1.000 1.01 0.002 0.05 0.000 0.001 0.17 0.000 0.00 0.306 0.009
0.019 0.001 0.003 7.2 6.9 -0.166 5890.28 0.495 -0.171 5892.83 0.456 -0.142 -0.129 0.209 5889.94 0.336 0.179 1.00 0.051 0.12 0.029 0.004 0.01 0.010 0.044 0.004 0.062 0.02 0.032 0.053 0.00 1.151 0.206 0.196 0.176 0.147 0.064 0.006 0.055 0.005 3.2 32.0 3.2 28.1 0 0 0
0 1 1

971 1.08979 -72.38050 301.44742 -44.70749 -0.023 5779.25 0.507 0.000 5783.64 0.609 1.00 0.002 0.05 0.056 0.000 0.00 0.000 0.00 0.474 0.030 -0.000 0.004 0.000 6.9 0.0 -0.029 5795.40 0.865 -0.033 5800.89 1.000 1.02 0.004 0.13 0.159 0.004 0.00 0.000 0.00 2.331 0.062
0.083 0.014 0.009 4.3 8.8 -0.122 5890.62 0.272 -0.035 5891.19 0.850 -0.118 -0.019 0.063 5889.78 0.273 0.072 0.99 0.016 0.01 0.020 0.007 0.36 0.214 0.009 0.005 0.014 0.03 0.030 0.007 0.00 1.213 0.083 0.076 0.080 0.040 0.012 0.024 0.008 0.015 6.8 3.1 9.7 2.7 0 0 0 0
1 0

998 1.11284 -72.32475 301.29407 -44.75467 -0.026 5780.55 0.360 0.000 5783.65 0.710 1.00 0.003 0.05 0.000 0.000 0.00 0.000 0.00 1.365 0.023 -0.000 0.003 0.000 9.3 0.0 -0.017 5797.07 0.395 0.000 5800.14 0.544 1.00 0.001 0.04 0.038 0.000 0.00 0.000 0.00 0.264 0.017 -
0.000 0.002 0.000 8.0 0.0 -0.180 5890.33 0.598 0.000 5894.71 1.000 -0.130 -0.035 0.222 5889.86 0.334 0.191 1.00 0.014 0.05 0.020 0.000 0.07 0.000 0.011 0.002 0.020 0.01 0.015 0.015 0.00 1.049 0.270 -0.000 0.195 0.089 0.023 0.000 0.018 0.006 11.6 0.0 10.7 15.7 1 0 1
0 1 0

1008 1.12421 -72.30361 301.21881 -44.77129 0.000 5779.90 0.536 -0.020 5783.55 0.360 1.00 0.000 0.00 0.000 0.004 0.10 0.000 0.00 1.325 -0.000 0.018 0.000 0.004 0.0 4.7 -0.019 5796.03 0.250 0.000 5800.09 0.464 1.00 0.004 0.08 0.000 0.000 0.00 0.000 0.00 0.910 0.012 -
0.000 0.003 0.000 4.4 0.0 -0.173 5890.68 0.310 0.000 5894.15 1.000 -0.181 -0.041 0.202 5889.81 0.258 0.130 1.00 0.005 0.01 0.012 0.000 0.09 0.000 0.005 0.003 0.006 0.01 0.011 0.006 0.00 0.855 0.134 -0.000 0.140 0.103 0.007 0.000 0.007 0.008 19.8 0.0 20.0 13.1 0 0 0
0 1 0

911 1.05492 -72.48875 301.67950 -44.61062 -0.020 5781.10 0.889 -0.006 5784.60 0.900 1.00 0.001 0.05 0.058 0.001 0.00 0.000 0.00 0.662 0.043 0.014 0.004 0.002 11.9 6.0 -0.010 5797.68 0.250 -0.008 5801.23 0.250 1.00 0.002 0.06 0.000 0.002 0.07 0.000 0.00 0.920 0.006
0.005 0.001 0.001 5.5 4.6 -0.218 5890.49 0.390 -0.091 5892.64 0.557 -0.182 -0.058 0.091 5889.97 0.400 0.093 0.99 0.029 0.06 0.024 0.003 0.02 0.021 0.027 0.003 0.039 0.09 0.000 0.034 0.00 1.309 0.213 0.128 0.178 0.081 0.031 0.006 0.029 0.005 6.8 19.7 6.2 15.9 1 0 0
0 1 1

981 1.09488 -72.43439 301.42090 -44.65199 -0.012 5781.10 0.900 -0.010 5783.35 0.900 1.01 0.001 0.00 0.000 0.001 0.10 0.000 0.00 0.738 0.028 0.022 0.002 0.002 13.4 11.8 -0.007 5798.17 0.250 0.000 5799.89 0.500 1.00 0.001 0.06 0.000 0.000 0.00 0.000 0.00 0.582 0.004 -
0.000 0.001 0.000 6.0 0.0 -0.193 5890.62 0.367 -0.120 5892.70 0.359 -0.153 -0.110 0.039 5889.79 0.397 0.077 0.98 0.009 0.03 0.022 0.007 0.02 0.021 0.014 0.007 0.011 0.10 0.073 0.009 0.00 5.986 0.177 0.108 0.140 0.099 0.014 0.009 0.015 0.008 13.1 12.2 9.1 11.7 0 0 0
0 1 1

872 1.03365 -72.61147 301.82404 -44.49397 -0.008 5781.10 0.900 0.000 5783.57 0.599 1.00 0.001 0.00 0.000 0.000 0.00 0.000 0.00 0.471 0.017 -0.000 0.002 0.000 8.5 0.0 -0.013 5798.15 0.250 -0.012 5800.75 0.250 1.00 0.001 0.04 0.000 0.001 0.04 0.000 0.00 0.449 0.008
0.007 0.001 0.001 9.0 8.2 -0.143 5890.43 0.390 -0.029 5892.59 1.000 -0.137 -0.029 0.024 5889.88 0.400 0.067 0.99 0.008 0.04 0.020 0.002 0.07 0.000 0.013 0.002 0.014 0.07 0.000 0.016 0.00 1.107 0.140 0.072 0.134 0.073 0.011 0.006 0.015 0.006 13.0 12.5 9.1 12.6 0 0 0
0 1 0

973 1.09023 -72.45303 301.45239 -44.63501 -0.012 5780.83 0.776 -0.009 5782.98 0.360 1.00 0.001 0.06 0.072 0.001 0.06 0.000 0.00 0.770 0.024 0.008 0.003 0.001 8.4 7.8 -0.009 5797.97 0.356 -0.012 5799.42 0.258 1.00 0.002 0.10 0.099 0.002 0.06 0.061 0.00 1.945 0.008
0.008 0.003 0.002 2.7 3.2 -0.157 5890.60 0.363 -0.020 5891.85 1.000 -0.125 -0.020 0.036 5889.83 0.323 0.069 0.99 0.004 0.02 0.017 0.003 0.17 0.000 0.006 0.002 0.006 0.04 0.031 0.005 0.00 1.402 0.143 0.050 0.114 0.049 0.008 0.006 0.008 0.006 18.3 7.8 15.0 7.8 0 0 0
0 1 0

978 1.09230 -72.47878 301.44205 -44.60862 -0.042 5780.46 0.360 -0.016 5782.78 0.900 1.00 0.003 0.03 0.000 0.002 0.13 0.000 0.00 0.832 0.037 0.035 0.002 0.004 15.2 8.1 -0.013 5797.71 0.573 0.000 5799.26 0.544 1.00 0.001 0.00 0.077 0.000 0.00 0.000 0.00 0.281 0.018 -0.000 0.003 0.000 5.7 0.0 -0.516 5890.17 0.480 -0.025 5892.03 0.683 -0.356 -0.027 0.536 5889.99 0.400 0.404 0.99 0.089 0.03 0.021 0.003 0.12 0.119 0.063 0.003 0.088 0.03 0.000 0.062 0.00 1.162 0.621 0.043 0.428 0.046 0.111 0.009 0.078 0.009 5.6 4.7 5.5 4.8 1 0 1 0 1 0

1014 1.13228 -72.40617 301.18018 -44.66589 0.000 5780.14 0.631 0.000 5783.17 0.360 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.590 -0.000 -0.000 0.000 0.000 0.0 0.0 0.000 5796.78 0.408 -0.012 5799.12 1.000 1.00 0.000 0.00 0.000 0.002 0.15 0.000 0.00 0.587 -0.000 0.031 0.000 0.004 0.0 7.7 -0.211 5890.46 0.564 -0.011 5893.67 1.000 -0.156 -0.039 0.155 5889.90 0.325 0.137 1.00 0.019 0.08 0.033 0.003 0.07 0.000 0.015 0.003 0.035 0.01 0.029 0.026 0.00 1.098 0.298 0.028 0.221 0.098 0.032 0.007 0.025 0.007 9.3 4.3 8.8 14.2 0 0 0 0 1 0

910 1.05479 -72.57497 301.68814 -44.52462 -0.014 5780.34 0.900 -0.009 5783.09 0.900 1.00 0.001 0.09 0.000 0.001 0.14 0.000 0.00 0.788 0.032 0.019 0.003 0.003 12.3 7.4 0.000 5796.86 0.519 -0.003 5800.34 1.000 1.00 0.000 0.00 0.000 0.001 0.00 0.000 0.00 0.752 -0.000 0.006 0.000 0.002 0.0 2.6 -0.146 5890.51 0.321 -0.051 5892.64 0.628 -0.126 -0.029 0.021 5889.55 0.400 0.048 0.99 0.003 0.01 0.009 0.003 0.03 0.036 0.003 0.002 0.003 0.04 0.000 0.003 0.00 1.175 0.117 0.080 0.102 0.046 0.004 0.006 0.004 0.005 27.8 13.2 25.9 10.0 0 0 0 0 1 1

924 1.05939 -72.59925 301.66147 -44.49905 -0.003 5781.10 0.806 -0.015 5782.60 0.710 1.00 0.001 0.00 0.461 0.002 0.00 0.092 0.00 0.667 0.007 0.027 0.005 0.005 1.4 5.9 0.000 5797.51 0.530 -0.003 5799.06 0.250 1.00 0.000 0.00 0.000 0.002 0.20 0.000 0.00 0.904 -0.000 0.002 0.000 0.001 0.0 1.7 -0.210 5890.39 0.466 -0.110 5892.69 0.386 -0.166 -0.080 0.144 5889.93 0.342 0.135 0.99 0.089 0.24 0.074 0.003 0.01 0.011 0.074 0.003 0.139 0.06 0.060 0.111 0.00 0.894 0.245 0.107 0.194 0.077 0.111 0.004 0.092 0.004 2.2 24.6 2.1 21.2 0 0 0 0 1 1

905 1.05193 -72.62206 301.71030 -44.47844 -0.012 5780.64 0.360 -0.018 5783.58 0.407 1.00 0.001 0.04 0.000 0.001 0.03 0.032 0.00 0.316 0.010 0.018 0.001 0.002 10.8 9.8 0.000 5797.74 0.357 0.000 5800.05 0.512 1.00 0.000 0.00 0.000 0.000 0.00 0.000 0.00 0.596 -0.000 -0.000 0.000 0.000 0.0 0.0 -0.220 5890.27 0.453 -0.113 5892.68 0.423 -0.201 -0.095 0.172 5889.91 0.364 0.181 0.99 0.264 0.46 0.102 0.004 0.01 0.014 0.250 0.004 0.342 0.10 0.094 0.317 0.00 1.224 0.250 0.119 0.228 0.101 0.305 0.005 0.288 0.005 0.8 21.9 0.8 20.3 1 1 0 0 1 0

1005 1.12071 -72.48811 301.26358 -44.58887 -0.022 5780.84 0.445 -0.038 5783.13 0.361 1.00 0.005 0.11 0.120 0.005 0.06 0.062 0.00 1.914 0.025 0.035 0.009 0.008 2.9 4.5 -0.009 5798.09 0.551 0.000 5799.57 0.564 1.01 0.003 0.00 0.212 0.000 0.00 0.000 0.00 0.759 0.012 -0.000 0.006 0.000 2.0 0.0 -0.156 5890.60 0.414 -0.026 5892.69 1.000 -0.159 -0.028 0.302 5889.86 0.304 0.219 1.00 0.009 0.05 0.037 0.003 0.13 0.000 0.008 0.003 0.017 0.02 0.012 0.018 0.00 0.921 0.162 0.066 0.165 0.070 0.017 0.009 0.017 0.009 9.3 7.6 10.0 8.1 0 0 0 0 1 1

985 1.09817 -72.54403 301.41214 -44.54152 -0.018 5781.10 0.900 -0.016 5784.31 0.900 1.01 0.002 0.00 0.000 0.002 0.11 0.000 0.00 0.093 0.041 0.035 0.004 0.004 10.4 9.0 -0.025 5798.35 0.386 -0.011 5801.56 0.689 1.01 0.003 0.00 0.052 0.002 0.00 0.171 0.00 0.117 0.024 0.018 0.004 0.006 5.6 3.1 -0.231 5890.45 0.507 -0.109 5892.83 0.457 -0.196 -0.082 0.169 5889.89 0.345 0.173 0.99 0.056 0.19 0.073 0.004 0.02 0.019 0.051 0.004 0.103 0.05 0.050 0.088 0.00 1.400 0.294 0.125 0.249 0.094 0.083 0.007 0.074 0.006 3.6 17.6 3.4 15.4 0 0 0 0 1 1

880 1.03931 -72.65400 301.79205 -44.45004 -0.024 5780.67 0.360 -0.004 5784.30 0.900 1.00 0.001 0.03 0.000 0.001 0.22 0.000 0.00 0.238 0.021 0.010 0.001 0.002 18.1 4.6 -0.012 5797.92 0.876 -0.010 5801.55 1.000 1.00 0.001 0.00 0.101 0.001 0.00 0.000 0.00 0.301 0.027 0.025 0.004 0.003 6.7 9.2 -0.137 5890.37 0.455 -0.074 5892.63 0.478 -0.142 -0.056 0.110 5889.96 0.367 0.129 0.99 0.242 0.78 0.204 0.003 0.02 0.022 0.260 0.003 0.335 0.20 0.134 0.352 0.00 1.244 0.156 0.089 0.162 0.067 0.285 0.005 0.306 0.005 0.5 16.2 0.5 14.2 1 0 0 0 1 1

967 1.08478 -72.58698 301.50092 -44.50329 -0.011 5780.80 0.360 0.000 5783.59 0.568 0.99 0.005 0.22 0.000 0.000 0.00 0.000 0.00 7.931 0.010 -0.000 0.004 0.000 2.2 0.0 -0.012 5797.70 0.503 -0.006 5800.17 0.600 1.01 0.001 0.04 0.047 0.001 0.09 0.101 0.00 0.255 0.015
0.009 0.002 0.002 8.2 4.5 -0.161 5890.41 0.474 -0.169 5892.94 0.532 -0.142 -0.128 0.108 5889.94 0.342 0.109 1.00 0.091 0.33 0.104 0.003 0.01 0.011 0.084 0.003 0.144 0.08 0.090 0.128 0.00 1.147 0.191 0.226 0.168 0.171 0.117 0.006 0.106 0.005 1.6 36.9 1.6 32.5 0 0 0
0 1 1

966 1.08380 -72.60311 301.50873 -44.48753 -0.014 5780.90 0.824 -0.008 5782.94 0.564 1.00 0.001 0.10 0.102 0.001 0.15 0.133 0.00 0.518 0.029 0.011 0.004 0.003 7.0 3.5 -0.014 5798.15 0.377 -0.002 5800.19 0.820 1.00 0.001 0.00 0.031 0.001 0.00 0.379 0.00 0.260 0.014
0.004 0.001 0.002 9.5 1.7 -0.160 5890.48 0.377 -0.149 5892.72 0.447 -0.134 -0.116 0.080 5889.95 0.365 0.089 0.99 0.045 0.11 0.035 0.003 0.01 0.010 0.046 0.003 0.051 0.17 0.052 0.046 0.00 0.902 0.151 0.167 0.127 0.130 0.045 0.005 0.045 0.004 3.4 33.0 2.8 29.5 1 0 1
0 1 1

1027 1.14602 -72.52278 301.10843 -44.54405 -0.024 5781.00 0.632 -0.014 5782.60 0.360 1.00 0.002 0.06 0.069 0.002 0.00 0.000 0.00 0.456 0.037 0.013 0.005 0.002 7.2 5.8 -0.014 5797.32 0.780 0.000 5799.07 0.522 1.00 0.002 0.11 0.125 0.000 0.00 0.000 0.00 0.463 0.028 -
0.000 0.006 0.000 4.8 0.0 -0.093 5890.73 0.347 -0.069 5892.59 0.634 -0.075 -0.052 0.106 5889.92 0.355 0.117 0.99 0.006 0.05 0.036 0.003 0.03 0.033 0.007 0.003 0.008 0.04 0.027 0.006 0.00 0.620 0.081 0.110 0.065 0.082 0.010 0.007 0.009 0.006 8.0 14.8 7.0 13.1 0 0 0
0 1 1

945 1.07002 -72.64792 301.59949 -44.44726 -0.009 5781.10 0.360 0.000 5783.64 0.646 1.00 0.001 0.00 0.000 0.000 0.00 0.000 0.00 0.418 0.008 -0.000 0.001 0.000 5.9 0.0 -0.008 5798.24 0.250 -0.004 5799.39 0.783 1.00 0.002 0.08 0.000 0.001 0.00 0.413 0.00 0.528 0.005
0.007 0.001 0.005 3.6 1.6 -0.131 5890.51 0.340 -0.079 5892.79 0.477 -0.105 -0.057 0.032 5889.76 0.400 0.050 0.99 0.004 0.02 0.015 0.003 0.02 0.020 0.005 0.003 0.006 0.06 0.000 0.005 0.00 1.062 0.111 0.095 0.090 0.068 0.006 0.005 0.006 0.005 18.1 17.3 15.4 14.9 0 0 0
0 1 1

883 1.04229 -72.66167 301.77408 -44.44159 -0.016 5781.10 0.799 -0.006 5783.68 0.360 1.00 0.001 0.00 0.053 0.001 0.08 0.000 0.00 0.458 0.032 0.006 0.003 0.001 11.8 5.8 -0.013 5797.86 0.482 0.000 5800.17 0.470 1.00 0.001 0.04 0.046 0.000 0.00 0.000 0.00 0.463 0.016 -
0.000 0.002 0.000 8.0 0.0 -0.134 5890.39 0.438 -0.094 5892.65 0.436 -0.110 -0.069 0.046 5889.90 0.400 0.077 1.00 0.024 0.10 0.042 0.003 0.01 0.016 0.025 0.003 0.039 0.08 0.000 0.036 0.00 0.300 0.147 0.103 0.121 0.075 0.030 0.005 0.030 0.004 4.9 19.9 4.0 17.3 1 0 1
0 1 1

1020 1.13645 -72.60914 301.17969 -44.46205 -0.015 5780.26 0.900 -0.012 5783.18 0.900 1.00 0.002 0.12 0.000 0.002 0.14 0.000 0.00 0.576 0.033 0.028 0.004 0.004 8.7 7.4 -0.014 5796.01 1.000 -0.014 5798.93 0.561 1.00 0.001 0.00 0.000 0.002 0.00 0.074 0.00 0.338 0.036
0.020 0.003 0.003 12.3 5.8 -0.233 5890.30 0.554 -0.105 5893.13 0.733 -0.145 -0.105 0.362 5889.92 0.354 0.245 1.00 0.043 0.08 0.022 0.003 0.02 0.024 0.028 0.003 0.051 0.01 0.019 0.032 0.00 1.764 0.323 0.193 0.202 0.192 0.061 0.009 0.040 0.009 5.3 21.6 5.1 21.5 0 0 0
0 1 1

1026 1.14519 -72.61561 301.12589 -44.45198 -0.018 5780.97 0.360 0.000 5783.64 0.643 0.99 0.002 0.06 0.000 0.000 0.00 0.000 0.00 0.682 0.016 -0.000 0.002 0.000 7.4 0.0 0.000 5797.46 0.524 -0.011 5799.69 0.691 1.01 0.000 0.00 0.000 0.002 0.13 0.139 0.00 0.525 -0.000
0.019 0.000 0.005 0.0 3.8 -0.071 5890.56 0.381 -0.138 5892.95 0.580 -0.053 -0.100 0.082 5889.82 0.400 0.093 0.99 0.006 0.07 0.046 0.003 0.01 0.016 0.007 0.003 0.011 0.05 0.000 0.009 0.00 0.703 0.068 0.201 0.051 0.146 0.010 0.007 0.009 0.006 6.6 27.3 5.7 23.5 0 0 0
0 1 1

899 1.04951 -72.66658 301.72940 -44.43470 -0.006 5779.55 0.360 -0.010 5783.30 0.537 1.00 0.001 0.10 0.000 0.001 0.07 0.077 0.00 0.355 0.005 0.013 0.001 0.002 4.8 5.4 -0.009 5796.80 0.446 0.000 5799.80 0.442 1.00 0.002 0.00 0.125 0.000 0.00 0.000 0.00 1.042 0.010 -
0.000 0.004 0.000 2.7 0.0 -0.129 5890.54 0.342 -0.132 5892.75 0.469 -0.108 -0.091 0.015 5889.56 0.400 0.033 0.99 0.004 0.01 0.012 0.003 0.01 0.012 0.004 0.003 0.003 0.06 0.000 0.003 0.00 1.392 0.111 0.155 0.092 0.107 0.005 0.005 0.004 0.004 23.0 29.1 21.1 24.5 0 0 0
0 1 1

1010 1.12441 -72.67900 301.26355 -44.39726 -0.012 5781.10 0.900 0.000 5783.54 0.639 1.00 0.001 0.00 0.000 0.000 0.00 0.000 0.00 0.774 0.028 -0.000 0.003 0.000 8.7 0.0 -0.016 5798.03 0.250 -0.011 5800.40 0.250 1.00 0.002 0.04 0.000 0.002 0.06 0.000 0.00 0.480 0.010
0.007 0.001 0.001 8.5 6.0 -0.088 5890.64 0.561 -0.167 5892.79 0.475 -0.061 -0.116 0.122 5889.97 0.285 0.109 0.99 0.010 0.15 0.090 0.004 0.01 0.013 0.008 0.004 0.027 0.02 0.031 0.019 0.00 1.072 0.124 0.199 0.086 0.138 0.024 0.007 0.018 0.006 5.1 27.8 4.8 23.6 0 0 0
0 1 1

1001 1.11829 -72.71589 301.30606 -44.36286 -0.020 5779.86 0.420 -0.027 5783.48 0.798 1.00 0.003 0.06 0.068 0.002 0.06 0.073 0.00 0.470 0.021 0.055 0.004 0.006 4.7 8.5 0.000 5796.50 0.534 -0.009 5800.60 0.250 1.00 0.000 0.00 0.000 0.003 0.13 0.000 0.00 0.636 -0.000
0.006 0.000 0.002 0.0 2.7 -0.050 5890.71 0.265 -0.137 5892.82 0.447 -0.054 -0.076 0.090 5889.83 0.290 0.089 0.99 0.005 0.03 0.031 0.004 0.01 0.014 0.005 0.004 0.005 0.02 0.019 0.005 0.00 1.064 0.033 0.153 0.036 0.085 0.005 0.007 0.005 0.005 6.7 23.4 6.8 17.5 0 0 0
0 1 1

947 1.07084 -72.69236 301.59869 -44.40268 -0.014 5781.10 0.467 0.000 5783.55 0.599 1.00 0.001 0.00 0.053 0.000 0.00 0.000 0.00 0.515 0.016 -0.000 0.002 0.000 6.8 0.0 -0.018 5797.90 0.599 -0.006 5800.32 0.325 1.00 0.001 0.05 0.058 0.002 0.12 0.124 0.00 0.744 0.027
0.005 0.003 0.002 8.0 2.0 -0.144 5890.39 0.436 -0.046 5892.65 0.626 -0.121 -0.039 0.087 5889.92 0.323 0.090 1.00 0.074 0.30 0.105 0.003 0.03 0.040 0.067 0.003 0.124 0.10 0.078 0.106 0.00 1.105 0.157 0.072 0.132 0.061 0.090 0.006 0.080 0.006 1.8 11.6 1.6 10.8 1 0 1
0 1 1

992 1.10613 -72.73586 301.38385 -44.34745 -0.022 5780.15 0.426 -0.011 5782.60 0.900 1.00 0.002 0.05 0.052 0.002 0.00 0.000 0.00 0.367 0.023 0.025 0.004 0.004 6.3 7.1 -0.007 5796.59 0.250 -0.012 5798.68 0.985 1.00 0.004 0.18 0.000 0.002 0.19 0.230 0.00 0.720 0.004
0.031 0.002 0.009 1.7 3.4 -0.189 5890.57 0.520 -0.102 5892.78 0.567 -0.140 -0.078 0.290 5889.93 0.345 0.240 1.00 0.046 0.24 0.108 0.004 0.03 0.030 0.036 0.004 0.098 0.03 0.032 0.073 0.00 1.055 0.246 0.146 0.183 0.110 0.079 0.010 0.060 0.008 3.1 14.7 3.0 13.2 0 0 0
0 1 1

1004 1.11891 -72.74497 301.30566 -44.33365 -0.028 5780.59 0.360 -0.015 5783.88 0.874 1.01 0.004 0.06 0.000 0.003 0.18 0.211 0.00 1.376 0.025 0.032 0.003 0.010 7.4 3.2 -0.013 5796.34 1.000 0.000 5800.38 0.502 1.00 0.002 0.00 0.000 0.000 0.00 0.000 0.00 0.546 0.033 -
0.000 0.004 0.000 8.6 0.0 -0.055 5890.71 0.709 -0.121 5892.98 0.589 -0.039 -0.079 0.235 5889.90 0.263 0.182 0.99 0.006 0.15 0.117 0.004 0.03 0.027 0.005 0.004 0.013 0.01 0.013 0.010 0.00 1.077 0.099 0.179 0.070 0.117 0.019 0.010 0.015 0.008 5.2 17.3 4.8 14.5 0 0 0
0 0 0

982 1.09623 -72.77878 301.44995 -44.30816 -0.020 5780.46 0.360 0.000 5783.60 0.609 1.00 0.002 0.05 0.000 0.000 0.00 0.000 0.00 1.302 0.018 -0.000 0.002 0.000 10.1 0.0 -0.011 5796.30 0.250 -0.015 5800.30 0.250 1.00 0.001 0.05 0.000 0.001 0.03 0.000 0.00 0.508 0.007
0.010 0.001 0.001 7.2 10.2 -0.116 5890.49 0.540 -0.100 5892.84 0.547 -0.114 -0.064 0.149 5889.87 0.336 0.151 1.00 0.030 0.24 0.107 0.004 0.02 0.023 0.029 0.004 0.060 0.03 0.045 0.059 0.00 1.358 0.157 0.138 0.154 0.088 0.051 0.008 0.050 0.006 3.1 17.7 3.1 14.4 0 0 0
0 0 0

986 1.10022 -72.74480 301.42151 -44.34065 -0.011 5780.84 0.360 -0.012 5784.06 0.424 1.00 0.002 0.07 0.000 0.002 0.07 0.075 0.00 0.621 0.010 0.012 0.001 0.003 7.0 4.4 -0.008 5796.59 0.993 -0.018 5800.32 0.317 1.01 0.001 0.00 0.205 0.002 0.04 0.044 0.00 0.715 0.019
0.015 0.005 0.003 3.8 5.6 -0.136 5890.54 0.569 -0.158 5893.03 0.558 -0.102 -0.120 0.198 5889.88 0.354 0.139 0.99 0.030 0.22 0.101 0.004 0.01 0.014 0.022 0.003 0.062 0.03 0.038 0.046 0.00 1.273 0.194 0.221 0.145 0.168 0.055 0.007 0.041 0.006 3.5 30.2 3.6 26.6 0 0 0
0 0 0