SMM C/P   1988 DOY179   91 +/-   Ø degrees

height = h + velocity*time   # data points =   4

Back of Cavity in Disconnection Material

S=SMM   M=MK3   P=PMON

SMM & MK3 - CORRECTED TIMES

height [solar radii]

6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00

21:00   21:30   22:00   22:30   23:00   23:30   0:00   0:30   1:00
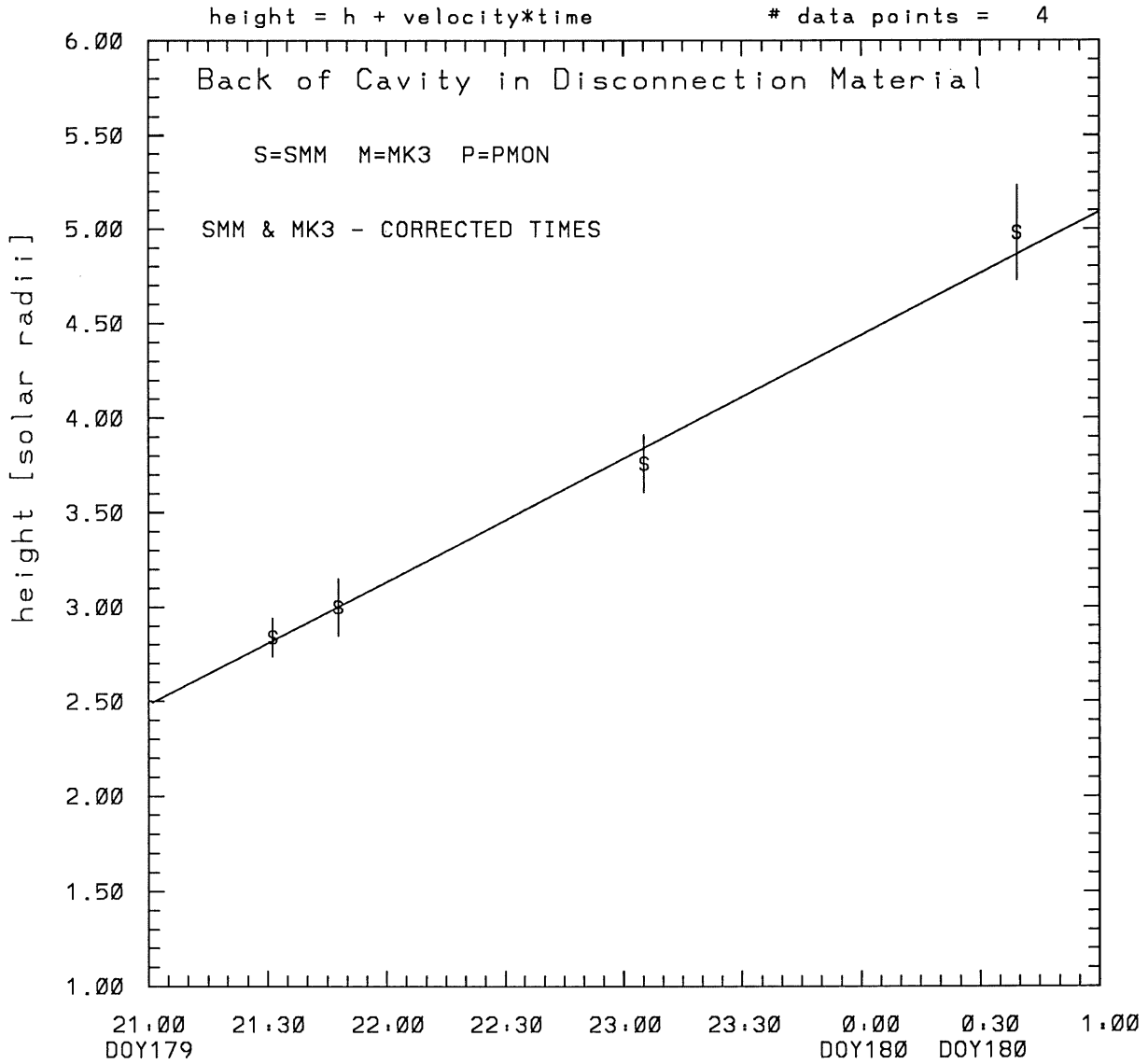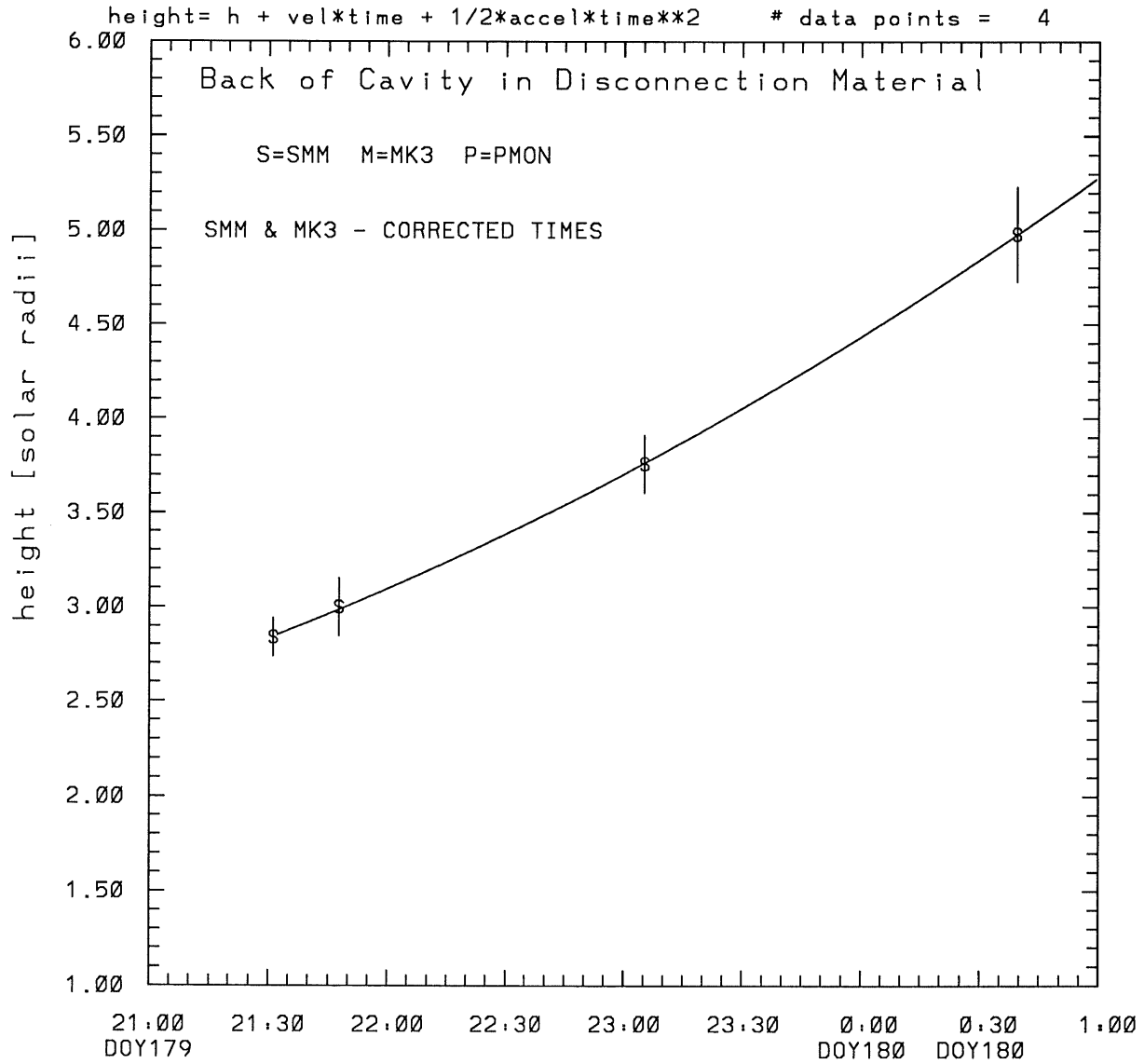DOY179   DOY180 DOY180

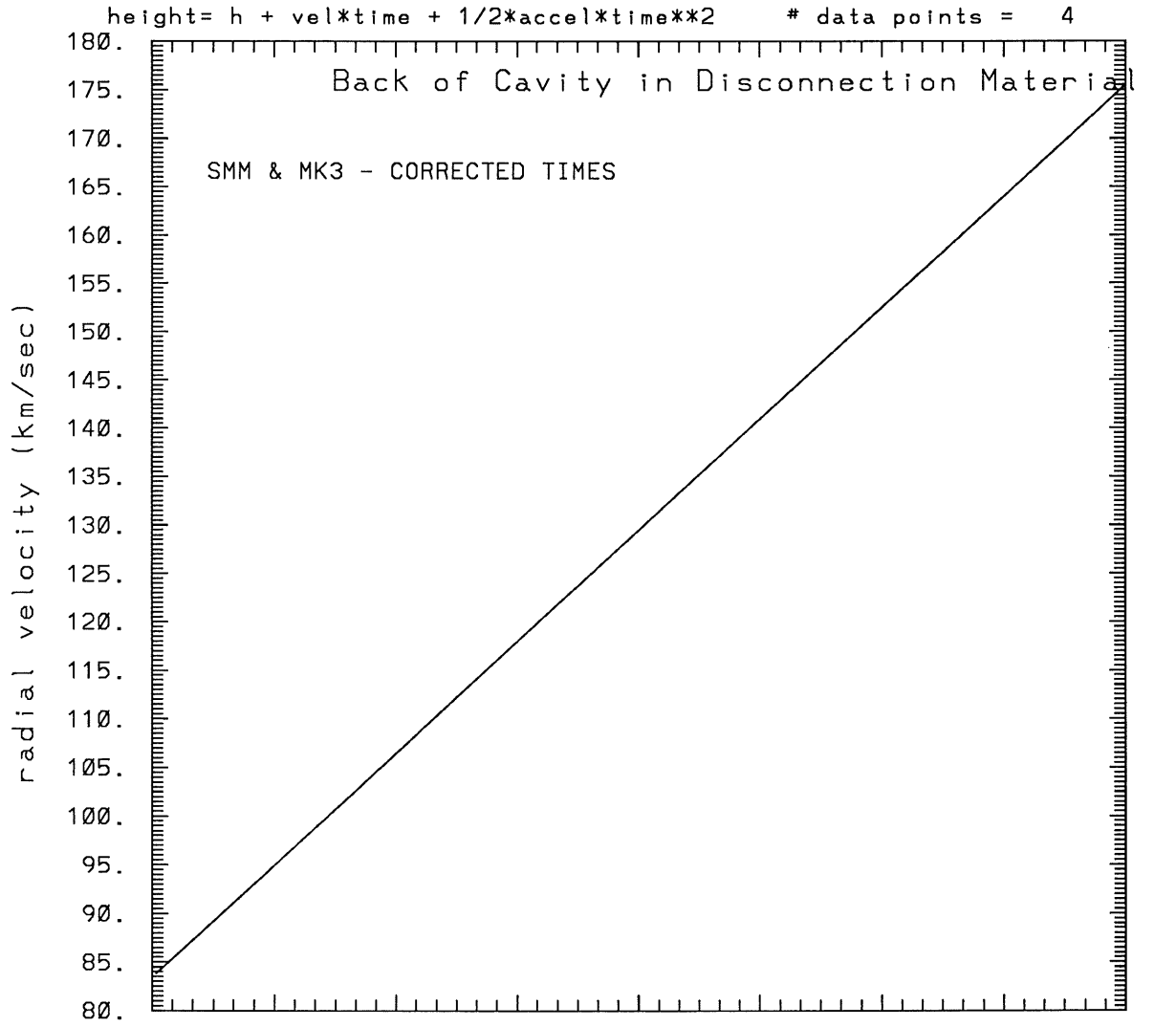tstart=DOY179 18:44 +/-   4.6 [min.]
radial velocity= 126. +/-   6. [km/sec]

SMM C/P 1988 DOY179 91 +/- 0 degrees

height= h + vel*time + 1/2*accel*time**2   # data points = 4

Back of Cavity in Disconnection Material

S=SMM M=MK3 P=PMON

SMM & MK3 - CORRECTED TIMES

height [solar radii]

6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00

21:00   21:30   22:00   22:30   23:00   23:30   0:00   0:30   1:00
DOY179   DOY180 DOY180

tstart=DOY179 17:23   from derivative=0
Event begins at 1.82 Solar Radii
radial acceleration= 0.0064 +/- 0.0007 [km/sec**2]

SMM C/P   1988 DOY179   91 +/-   0 degrees

height= h + vel*time + 1/2*accel*time**2   # data points =   4

Back of Cavity in Disconnection Material

SMM & MK3 - CORRECTED TIMES

radial velocity (km/sec)

180.
175.
170.
165.
160.
155.
150.
145.
140.
135.
130.
125.
120.
115.
110.
105.
100.
95.
90.
85.
80.

21:00   21:30   22:00   22:30   23:00   23:30   0:00   0:30   1:00
DOY179   DOY180

tstart=DOY179 17:23   from derivative=0
Event begins at   1.82 Solar Radii
radial acceleration=0.639E-02 km/sec**2

```
********************
This is a 1 order run
********************


*******
INPUT:
*******


                         error in       error in
year doy   time    radii  radius    angle  angle    datatype
1988 179  21:31:13  2.84 +/- 0.10   91.0 +/-  0.5     SMM
1988 179  21:47:43  3.00 +/- 0.15   91.0 +/-  1.0     SMM
1988 179  23: 5:16  3.76 +/- 0.15   91.0 +/-  1.0     SMM
1988 180   0:39:19  4.98 +/- 0.25   91.0 +/-  1.0     SMM


*****************************************
Structure being measured:
Back of Cavity in Disconnection Material
*****************************************


********
OUTPUT:
********
```

START TIME:

Event began at t = 0 + -0.136E+03 +/- 0.461E+01 [minutes]
In more convenient units:
Event began at DOY 179 18:44 +/- 0.461E+01 [minutes]

Origin defined at DOY179 21: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 126. +/- 6. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

```
c(1) =   0.248E+01 +/-   0.475E-01 [solar radii]
c(2) =   0.109E-01 +/-   0.527E-03 [radii/min]
c(2) =   0.126E+03 +/-   0.611E+01 [km/sec]
c(3) =   0.000E+00 +/-   0.000E+00 [radii/min**2]
c(3) =   0.000E+00 +/-   0.000E+00 [km/sec**2]
```

The computed ERRORS in coefficients [BEVINGTON] are:

error in c(1)= 0.88066E-01 [radii] see Bevington pg. 114
error in c(2)= 0.68024E-03 [radii/min] see Bevington pg. 114

ANGULAR INFORMATION:

ANGULAR VELOCITY = 0.0000E+00 +/- 0.0000E+00[radians/sec]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 91. +/-   0. [degrees]
a(2) =   0.000E+00 +/-   0.000E+00 [degrees/min]
a(2) =   0.000E+00 +/-   0.000E+00 [rad/sec]
a(3) =   0.000E+00 +/-   0.000E+00 [degrees/min**2]
a(3) =   0.000E+00 +/-   0.000E+00 [rad/sec**2]

THE TANGENTIAL AND TOTAL VELOCITIES AT EACH DATA POINT ARE:
The TANGENTIAL velocity at 21:31 =   0. km/sec
The TOTAL velocity at 21:31 = 126. km/sec

The TANGENTIAL velocity at 21:47 =   0. km/sec
The TOTAL velocity at 21:47 = 126. km/sec

The TANGENTIAL velocity at 23: 5 =   0. km/sec
The TOTAL velocity at 23: 5 = 126. km/sec

The TANGENTIAL velocity at 0:39 =   0. km/sec
The TOTAL velocity at 0:39 = 126. km/sec

****
 The following info is for estimating goodness of the fit
****

Fit is ok [ier=1]

Standard Deviation in the height = 0.98
Standard Deviation in start time measurement =   0.745E+02
Error in time =   0.13196E+02 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.360E-02
Reduced Chi Squared = 0.371E-01
Chi Squared = 0.743E-01
The probability for exceeding chi square = 0.996E+00

The correlation coefficient =   0.997E+00
The probability that no LINEAR correlation exists between the variables =   0.2679E-02
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

```
********************
 This is a 2 order run
********************


*******
 INPUT:
*******
```

				error in	error in	
year	doy	time	radii	radius	angle	angle	datatype
1988	179	21:31:13	2.84 +/- 0.10	91.0 +/- 0.5	SMM
1988	179	21:47:43	3.00 +/- 0.15	91.0 +/- 1.0	SMM
1988	179	23: 5:16	3.76 +/- 0.15	91.0 +/- 1.0	SMM
1988	180	0:39:19	4.98 +/- 0.25	91.0 +/- 1.0	SMM

```
****************************************
 Structure being measured:
 Back of Cavity in Disconnection Material
****************************************


********
 OUTPUT:
********


START TIME:


tstart=DOY179 17:23 from derivative = 0
Event begins at  1.82 Solar Radii
 Origin defined at DOY179 21: 0


RADIAL INFORMATION:


RADIAL ACCELERATION =  0.639E-02 +/-  0.711E-03 km/sec**2


The computed RADIAL coefficients and errors FROM NLLST2 are:


c(1) =    0.260E+01 +/-    0.163E-01 [solar radii]
c(2) =    0.719E-02 +/-    0.420E-03 [radii/min]
c(2) =    0.834E+02 +/-    0.488E+01 [km/sec]
c(3) =    0.165E-04 +/-    0.184E-05 [radii/min**2]
c(3) =    0.639E-02 +/-    0.711E-03 [km/sec**2]


The computed ERRORS in coefficients [BEVINGTON] are:


     Approximate error in c(1) =  0.26635E-01 [radii] Bevington pg 154 (8-30)
          Exact error in c(1) =  0.84255E-02 [radii] Bevington pg 154 (8-28)
     Approximate error in c(2) =  0.58619E-03 [radii/min] Bevington pg 154 (8-30)
          Exact error in c(2) =  0.16735E-03 [radii/min] Bevington pg 154 (8-28)
     Approximate error in c(3) =  0.22999E-05 [radii/min**] Bevington pg 154 (8-30)
          Exact error in c(3) =  0.62835E-06 [radii/min**] Bevington pg 154 (8-28)


ANGULAR INFORMATION:
```

ANGULAR ACCELERATION= 0.0000E+00 +/-   0.0000E+00[radians/sec**2]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) =   91. +/-   0. [degrees]
a(2) =   0.000E+00 +/-   0.000E+00 [degrees/min]
a(2) =   0.000E+00 +/-   0.000E+00 [rad/sec]
a(3) =   0.000E+00 +/-   0.000E+00 [degrees/min**2]
a(3) =   0.000E+00 +/-   0.000E+00 [rad/sec**2]

THE TANGENTIAL AND TOTAL VELOCITIES AT EACH DATA POINT ARE:
The TANGENTIAL velocity at 21:31 =   0. km/sec
The TOTAL velocity at 21:31 =   95. km/sec

The TANGENTIAL velocity at 21:47 =   0. km/sec
The TOTAL velocity at 21:47 = 102. km/sec

The TANGENTIAL velocity at 23: 5 =   0. km/sec
The TOTAL velocity at 23: 5 = 131. km/sec

The TANGENTIAL velocity at 0:39 =   0. km/sec
The TOTAL velocity at 0:39 = 168. km/sec

****
 The following info is for estimating goodness of the fit
****

Fit is ok [ier=1]

Standard Deviation in the height = 0.98
Standard Deviation in start time measurement =   0.745E+02
Value of reduced Chi Squared returned from nllst2 = 0.131E-03
Reduced Chi Squared = 0.568E-03
Chi Squared = 0.568E-03
The probability for exceeding chi square = 0.991E+00

For a second order fit 3 correlation coefficients are given:
 (Using equation of motion: r = a + bt + at**2)
 The correlation between the data and the term linear in time =   0.9022E+00
 The correlation between the data and the time**2 term =   0.8155E+00
0The correlation between the data and the complete equation of motion =   0.9984E+00
 SEE BEVINGTON "Data Reduction and Error Analysis" [1969]