SMM C/P 1987 DOY298 305 +/- Ø degrees

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

Top of Loop

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

18:40   18:50   19:00   19:10   19:20   19:30   19:40
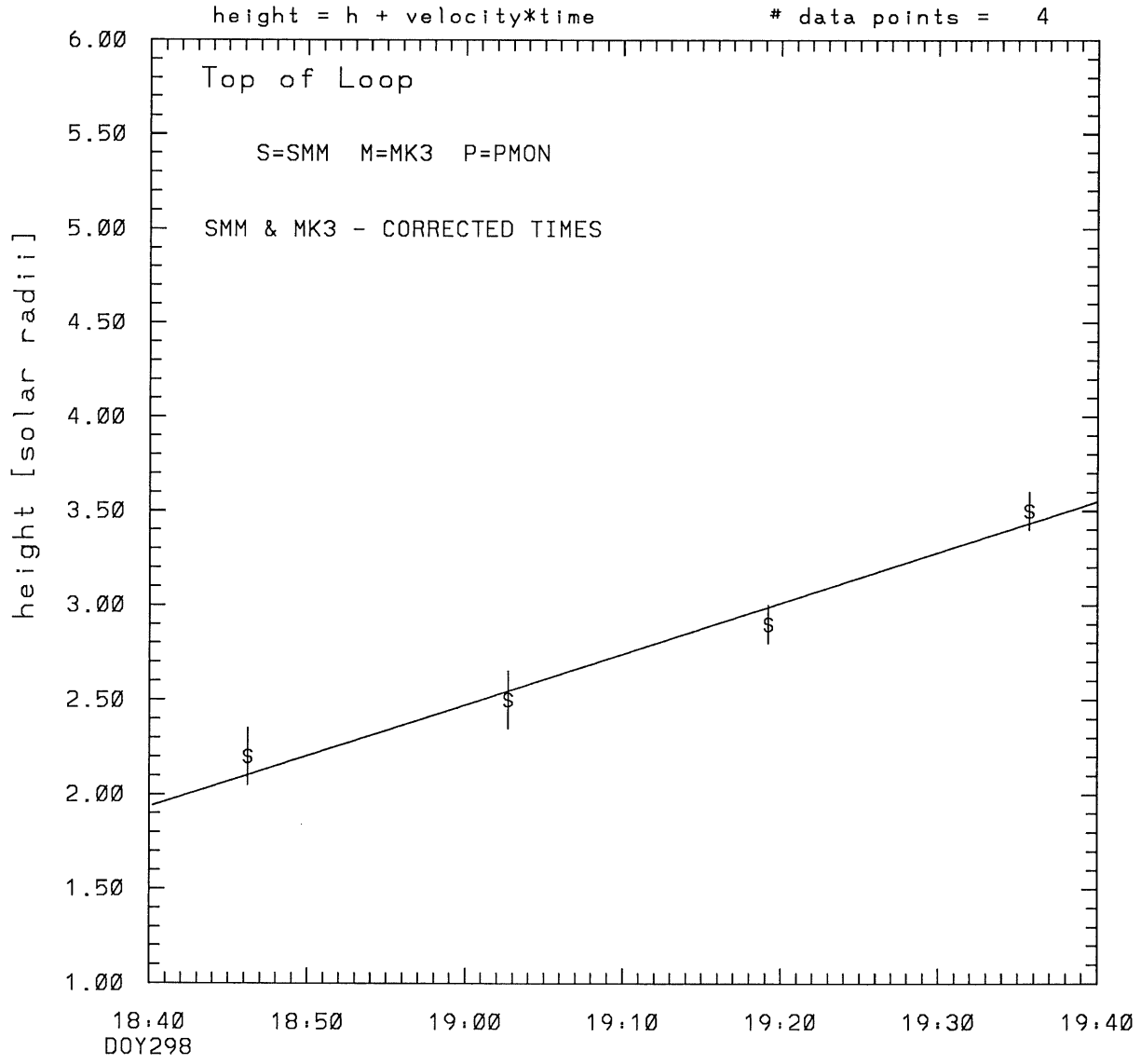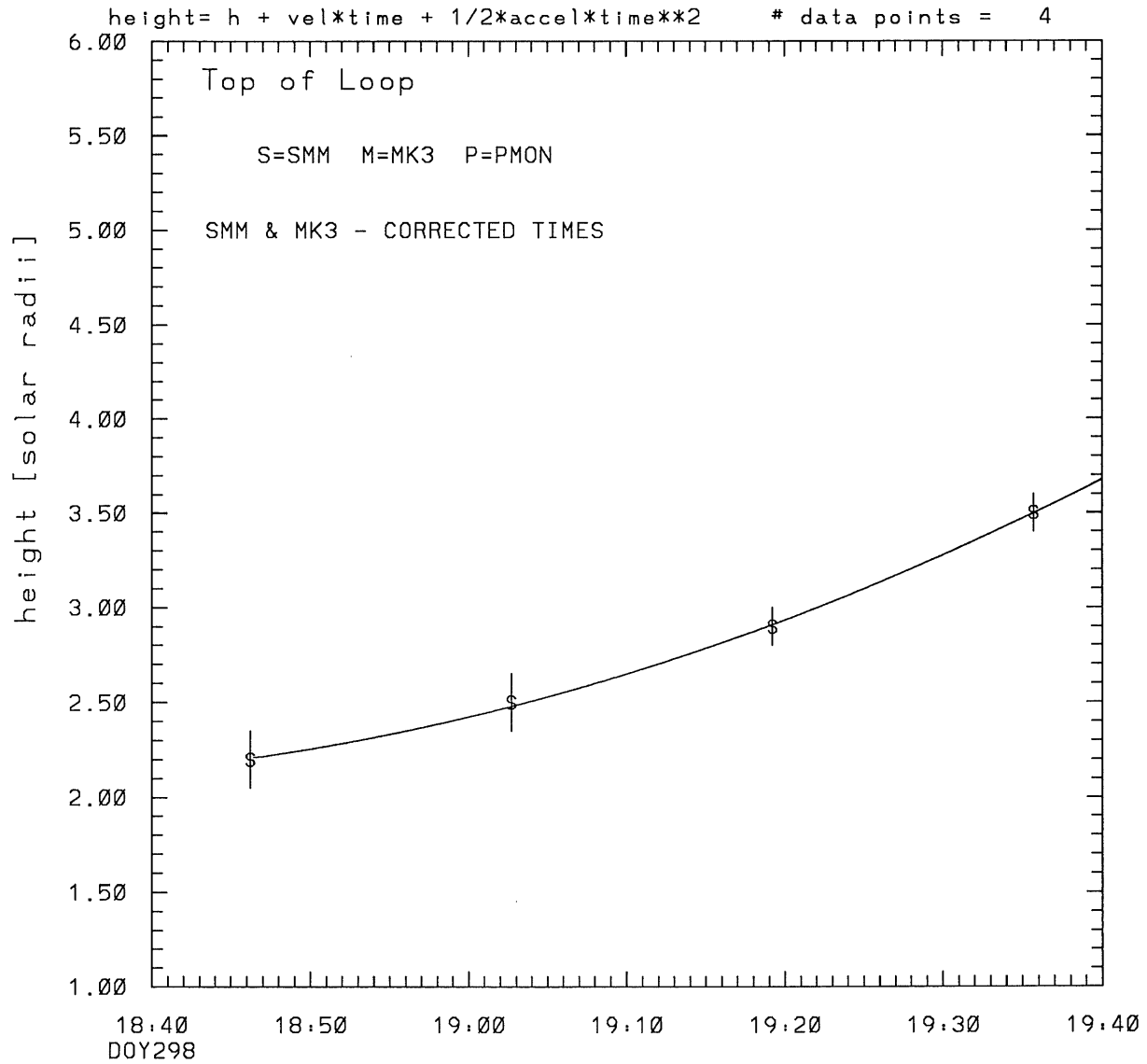DOY298

tstart=DOY298 18: 7 +/-   2.1 [min.]
radial velocity= 312. +/- 3Ø. [km/sec]

SMM C/P 1987 DOY298 305 +/- 0 degrees

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

Top of Loop

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

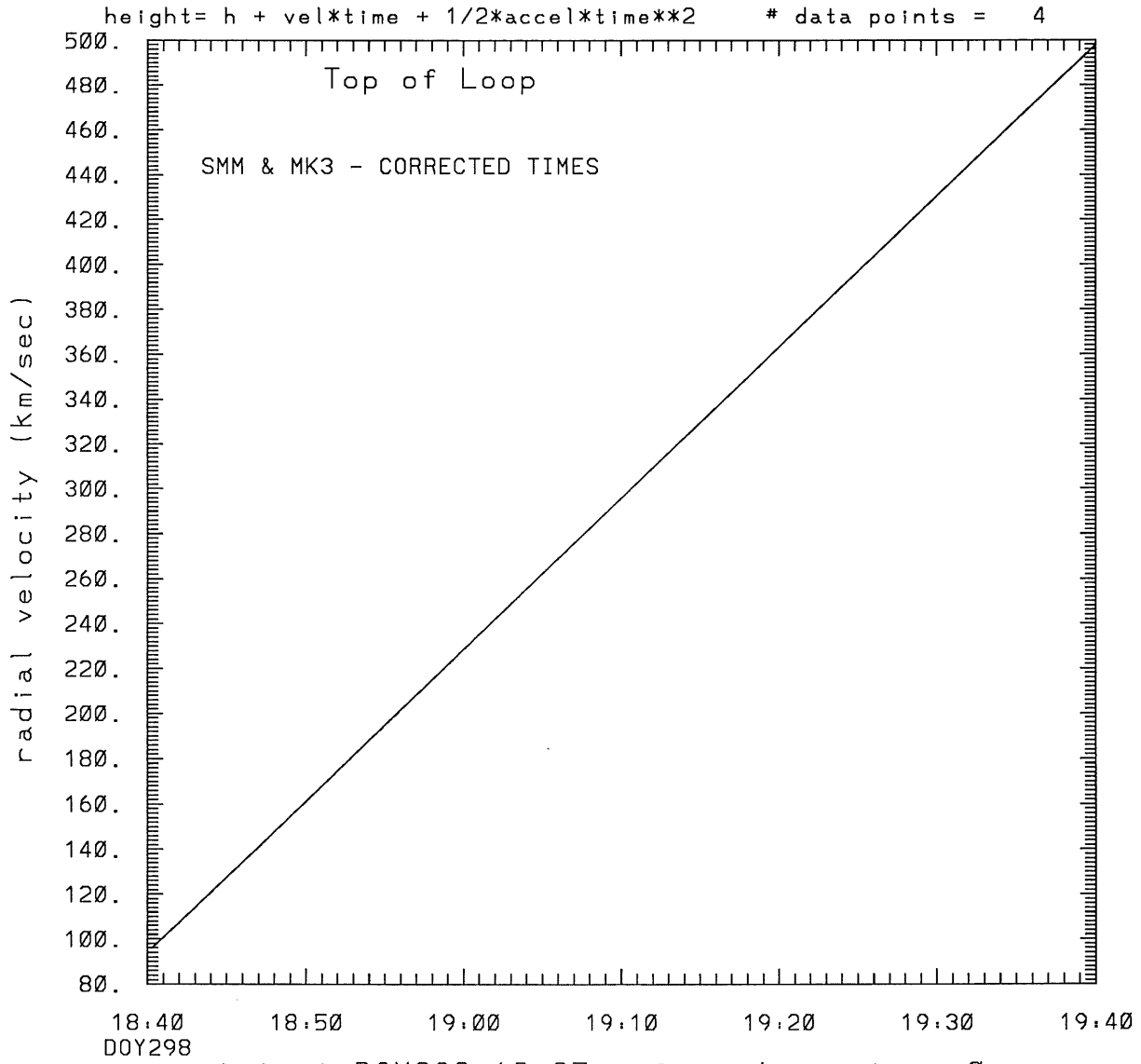18:40   18:50   19:00   19:10   19:20   19:30   19:40
DOY298

tstart=DOY298 18:27   from derivative=0
Event begins at   2.09 Solar Radii
radial acceleration= 0.1122 +/- 0.0107 [km/sec**2]

SMM C/P   1987 DOY298   305 +/-   0 degrees

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

Top of Loop

SMM & MK3 - CORRECTED TIMES

radial velocity (km/sec)

500.
480.
460.
440.
420.
400.
380.
360.
340.
320.
300.
280.
260.
240.
220.
200.
180.
160.
140.
120.
100.
80.

18:40   18:50   19:00   19:10   19:20   19:30   19:40
DOY298

tstart=DOY298 18:27   from derivative=0
Event begins at   2.09 Solar Radii
radial acceleration=0.112E+00   km/sec**2

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


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

				error in		error in		
year	doy	time	radii	radius		angle	angle	datatype
1987	298	18:46:13	2.20	+/- 0.15		305.0	+/- 0.5	SMM
1987	298	19: 2:42	2.50	+/- 0.15		305.0	+/- 0.5	SMM
1987	298	19:19:13	2.90	+/- 0.10		305.0	+/- 0.5	SMM
1987	298	19:35:42	3.50	+/- 0.10		305.0	+/- 1.0	SMM

```
*****************************************
 Structure being measured:
Top of Loop
*****************************************


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


START TIME:
```

Event began at t = 0 + -0.348E+02 +/- 0.206E+01 [minutes]
In more convenient units:
Event began at DOY 298 18: 7 +/- 0.206E+01 [minutes]

Origin defined at DOY298 18:40

RADIAL INFORMATION:

RADIAL VELOCITY =   312. +/-   30. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

```
c(1) =    0.193E+01 +/-    0.107E+00 [solar radii]
c(2) =    0.269E-01 +/-    0.261E-02 [radii/min]
c(2) =    0.312E+03 +/-    0.303E+02 [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)= 0.10740E+00 [radii] see Bevington pg. 114
error in c(2)= 0.29804E-02 [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) = 305. +/-   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 18:46 = 0.000E+00 km/sec
The TOTAL velocity at 18:46 = 312. km/sec

The TANGENTIAL velocity at 19: 2 = 0.000E+00 km/sec
The TOTAL velocity at 19: 2 = 312. km/sec

The TANGENTIAL velocity at 19:19 = 0.000E+00 km/sec
The TOTAL velocity at 19:19 = 312. km/sec

The TANGENTIAL velocity at 19:35 = 0.000E+00 km/sec
The TOTAL velocity at 19:35 = 312. km/sec

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

Fit is ok [ier=1]

Standard Deviation in the height = 0.56
Standard Deviation in start time measurement =   0.184E+02
Error in time =   0.57800E+01 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.817E-02
Reduced Chi Squared = 0.279E-01
Chi Squared = 0.558E-01
The probability for exceeding chi square = 0.992E+00

The correlation coefficient =   0.988E+00
The probability that no LINEAR correlation exists between the variables =   0.1222E-01
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

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


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

year doy	time	radii	error in radius	angle	error in angle	datatype
1987 298	18:46:13	2.20	+/- 0.15	305.0	+/- 0.5	SMM
1987 298	19: 2:42	2.50	+/- 0.15	305.0	+/- 0.5	SMM
1987 298	19:19:13	2.90	+/- 0.10	305.0	+/- 0.5	SMM
1987 298	19:35:42	3.50	+/- 0.10	305.0	+/- 1.0	SMM

```
*****************************************
 Structure being measured:
Top of Loop
*****************************************


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


START TIME:


 tstart=DOY298 18:27 from derivative = 0
Event begins at   2.09 Solar Radii
 Origin defined at DOY298 18:40


RADIAL INFORMATION:


RADIAL ACCELERATION =  0.112E+00 +/-  0.107E-01 km/sec**2
```

The computed RADIAL coefficients and errors FROM NLLST2 are:

```
c(1) =    0.215E+01 +/-   0.268E-01 [solar radii]
c(2) =    0.810E-02 +/-   0.185E-02 [radii/min]
c(2) =    0.940E+02 +/-   0.215E+02 [km/sec]
c(3) =    0.290E-03 +/-   0.278E-04 [radii/min**2]
c(3) =    0.112E+00 +/-   0.107E-01 [km/sec**2]
```

The computed ERRORS in coefficients [BEVINGTON] are:

```
    Approximate error in c(1) =  0.36530E-01 [radii] Bevington pg 154 (8-30)
         Exact error in c(1) =  0.11106E-01 [radii] Bevington pg 154 (8-28)
    Approximate error in c(2) =  0.28520E-02 [radii/min] Bevington pg 154 (8-30)
         Exact error in c(2) =  0.10875E-02 [radii/min] Bevington pg 154 (8-28)
    Approximate error in c(3) =  0.44809E-04 [radii/min**]  Bevington pg 154 (8-30)
         Exact error in c(3) =  0.16926E-04 [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) = 305. +/- 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 18:46 = 0.000E+00 km/sec
The TOTAL velocity at 18:46 = 136. km/sec

The TANGENTIAL velocity at 19: 2 = 0.000E+00 km/sec
The TOTAL velocity at 19: 2 = 247. km/sec

The TANGENTIAL velocity at 19:19 = 0.000E+00 km/sec
The TOTAL velocity at 19:19 = 358. km/sec

The TANGENTIAL velocity at 19:35 = 0.000E+00 km/sec
The TOTAL velocity at 19:35 = 469. km/sec

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

Fit is ok [ier=1]

Standard Deviation in the height = 0.56
Standard Deviation in start time measurement = 0.184E+02
Value of reduced Chi Squared returned from nllst2 = 0.220E-03
Reduced Chi Squared = 0.125E-02
Chi Squared = 0.125E-02
The probability for exceeding chi square = 0.988E+00

For a second order fit 3 correlation coefficients are given:
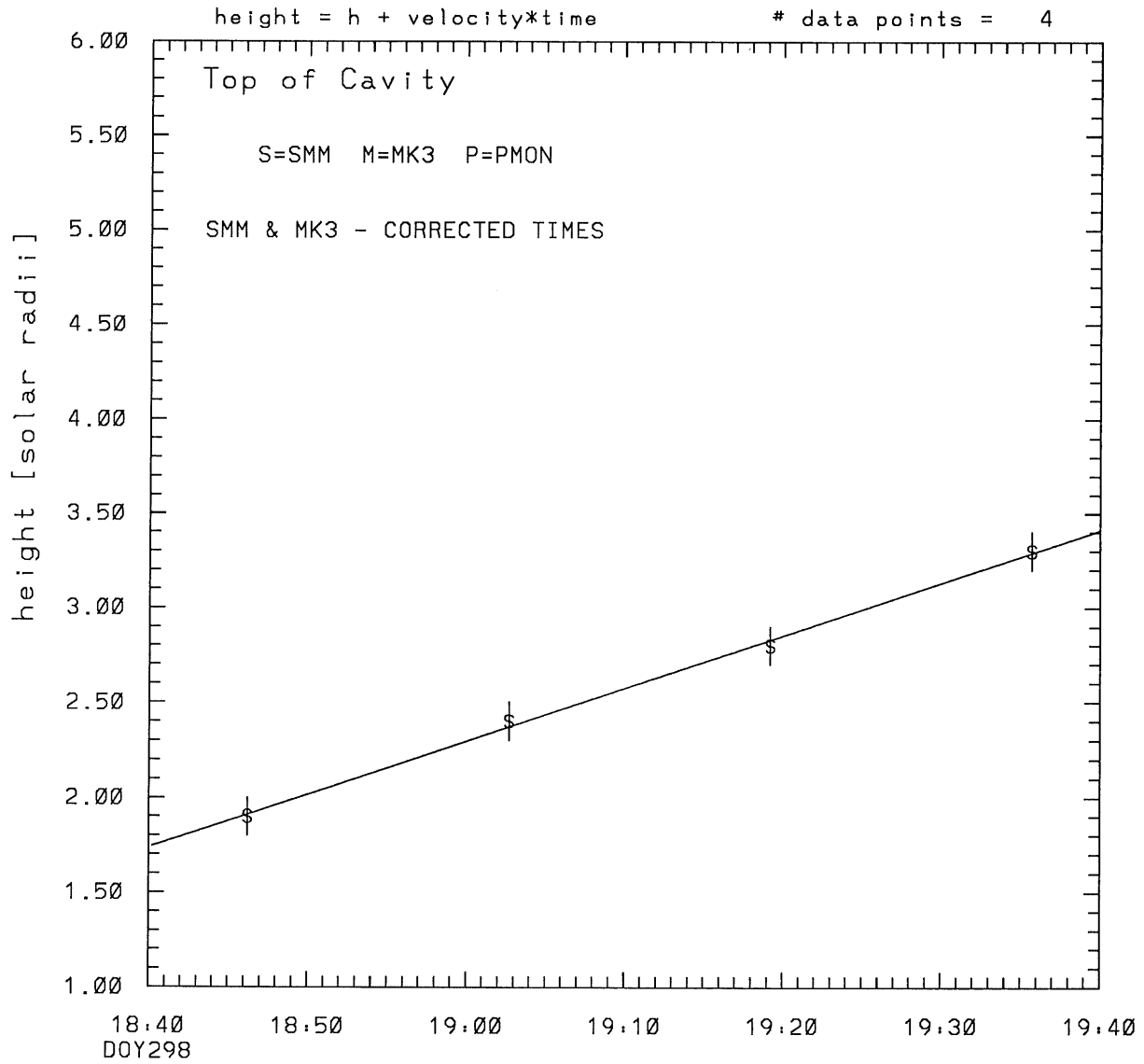 (Using equation of motion: r = a + bt + at**2)
The correlation between the data and the term linear in time = 0.9876E+00
The correlation between the data and the time**2 term = 0.1036E+01
The correlation between the data and the complete equation of motion = 0.1001E+01
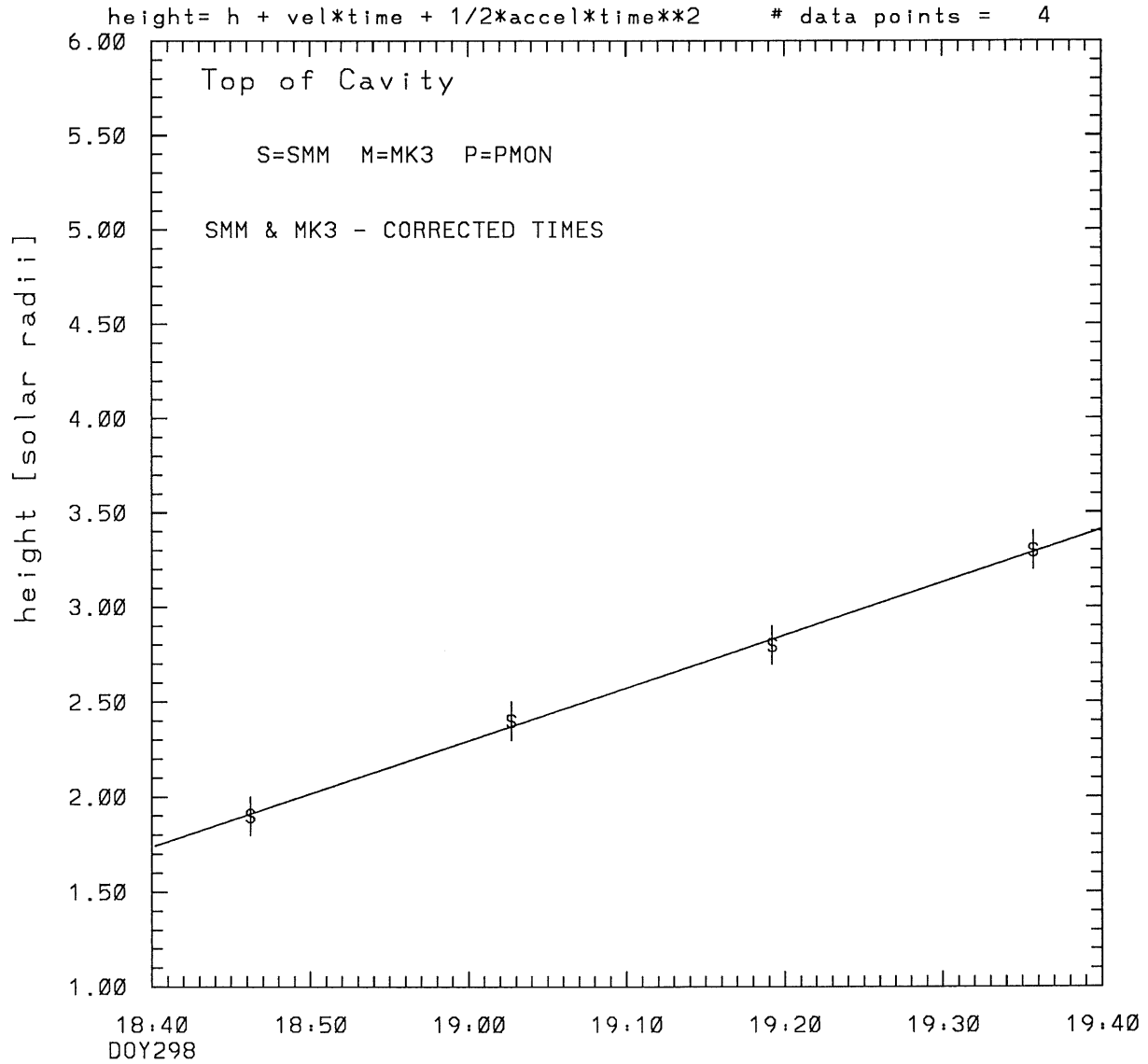SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

SMM C/P 1987 DOY298 305 +/- Ø degrees

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

Top of Cavity

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

18:40   18:50   19:00   19:10   19:20   19:30   19:40
DOY298

tstart=DOY298 18:14 +/-   Ø.2 [min.]
radial velocity= 323. +/-   8. [km/sec]

SMM C/P 1987 DOY298 305 +/- 0 degrees

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

Top of Cavity

S=SMM M=MK3 P=PMON

SMM & MK3 - CORRECTED TIMES

height [solar radii]
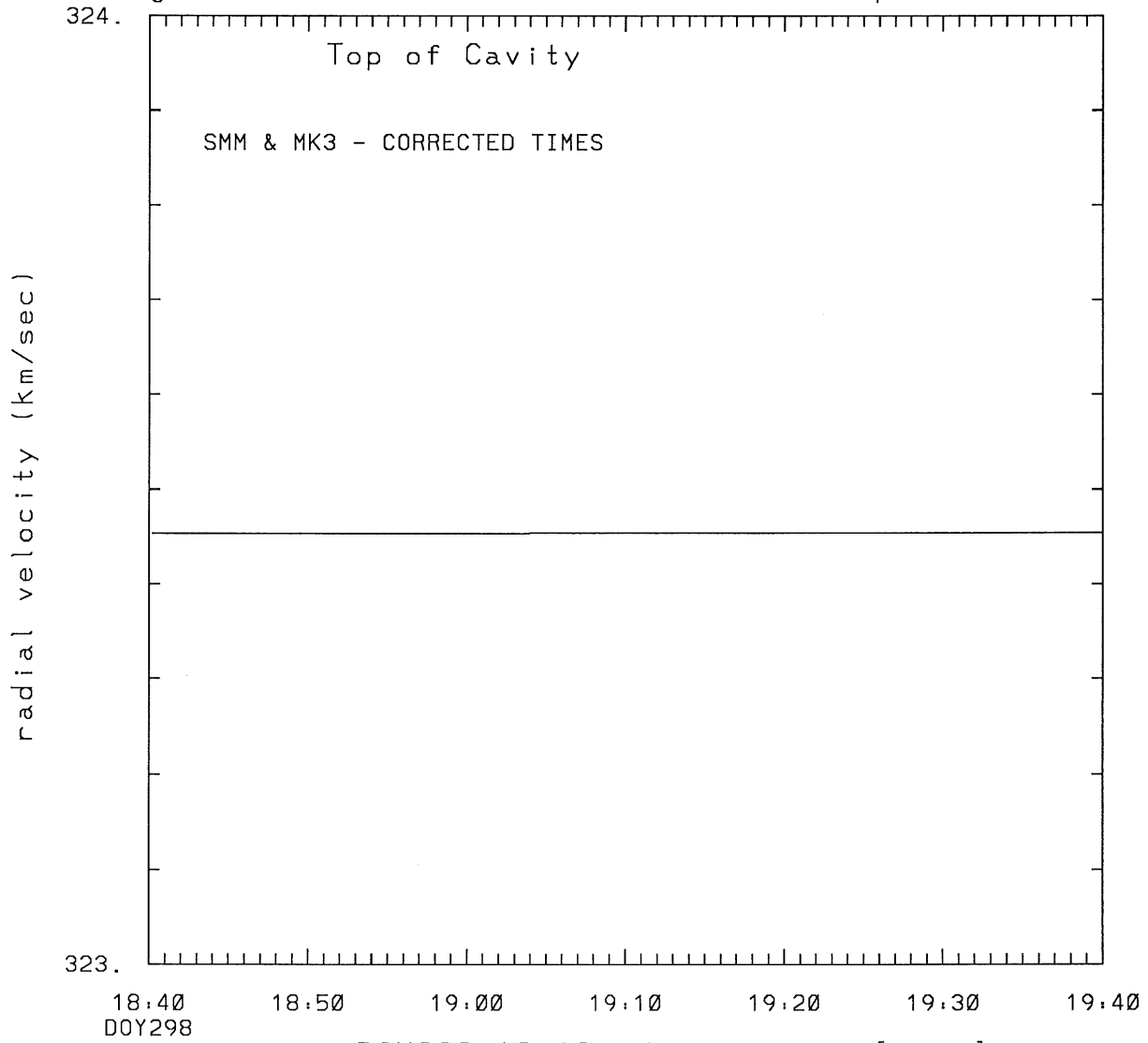
18:40 18:50 19:00 19:10 19:20 19:30 19:40
DOY298

tstart=DOY298 18:12 +/- ******* [min.]

radial acceleration= 0.0000 +/- 0.0227 [km/sec**2]

SMM C/P   1987 DOY298   305 +/-   Ø degrees

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

324. ┌───┐
     │   Top of Cavity   │
     │   │
     │   SMM & MK3 - CORRECTED TIMES   │
     │   │
     │   │
     │   │
radial velocity (km/sec)
     │   │
     │───│
     │   │
     │   │
     │   │
     │   │
     │   │
323. └───┘
     18:4Ø   18:5Ø   19:ØØ   19:1Ø   19:2Ø   19:3Ø   19:4Ø
     DOY298
          tstart=DOY298 18:12 +/- ******** [min.]

     radial acceleration=Ø.113E-Ø6   km/sec**2

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


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


                          error in      error in
year doy    time    radii  radius   angle  angle   datatype
1987 298  18:46:13  1.90 +/- 0.10   305.0 +/-  0.5    SMM
1987 298  19: 2:42  2.40 +/- 0.10   305.0 +/-  0.5    SMM
1987 298  19:19:13  2.80 +/- 0.10   305.0 +/-  0.5    SMM
1987 298  19:35:42  3.30 +/- 0.10   305.0 +/-  1.0    SMM


****************************************
 Structure being measured:
Top of Cavity
****************************************


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


START TIME:


Event began at t = 0 + -0.264E+02 +/-  0.227E+00 [minutes]
In more convenient units:
Event began at DOY 298 18:14 +/-  0.227E+00 [minutes]


Origin defined at DOY298 18:40


RADIAL INFORMATION:


RADIAL VELOCITY =   323. +/-    8. km/sec


The computed RADIAL coefficients and errors FROM NLLST2 are:


c(1) =   0.174E+01 +/-   0.255E-01 [solar radii]
c(2) =   0.279E-01 +/-   0.706E-03 [radii/min]
c(2) =   0.323E+03 +/-   0.820E+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)= 0.31180E-01 [radii] see Bevington pg. 114
          error in c(2)= 0.86524E-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) = 305. +/-   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 18:46 = 0.000E+00 km/sec
The TOTAL velocity at 18:46 = 323. km/sec

The TANGENTIAL velocity at 19: 2 = 0.000E+00 km/sec
The TOTAL velocity at 19: 2 = 323. km/sec

The TANGENTIAL velocity at 19:19 = 0.000E+00 km/sec
The TOTAL velocity at 19:19 = 323. km/sec

The TANGENTIAL velocity at 19:35 = 0.000E+00 km/sec
The TOTAL velocity at 19:35 = 323. km/sec

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

Fit is ok [ier=1]

Standard Deviation in the height = 0.59
Standard Deviation in start time measurement =   0.184E+02
Error in time =   0.16187E+01 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.679E-03
Reduced Chi Squared = 0.255E-02
Chi Squared = 0.509E-02
The probability for exceeding chi square = 0.999E+00

The correlation coefficient =   0.999E+00
The probability that no LINEAR correlation exists between the variables =   0.9601E-03
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

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


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

year doy	time	radii	error in radius	angle	error in angle	datatype
1987 298	18:46:13	1.90 +/-	0.10	305.0 +/-	0.5	SMM
1987 298	19: 2:42	2.40 +/-	0.10	305.0 +/-	0.5	SMM
1987 298	19:19:13	2.80 +/-	0.10	305.0 +/-	0.5	SMM
1987 298	19:35:42	3.30 +/-	0.10	305.0 +/-	1.0	SMM

```
*****************************************
 Structure being measured:
Top of Cavity
*****************************************


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

START TIME:

Event began at t = 0 + -0.280E+02 +/- 0.398E+07 [minutes]
In more convenient units:
Event began at DOY 298 18:12 +/- 0.398E+07 [minutes]

Origin defined at DOY298 18:40

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.113E-06 +/- 0.227E-01 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

```
c(1) =    0.174E+01 +/-   0.478E-01 [solar radii]
c(2) =    0.279E-01 +/-   0.373E-02 [radii/min]
c(2) =    0.323E+03 +/-   0.433E+02 [km/sec]
c(3) =    0.292E-09 +/-   0.587E-04 [radii/min**2]
c(3) =    0.113E-06 +/-   0.227E-01 [km/sec**2]
```

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.67648E-01 [radii] Bevington pg 154 (8-30)
     Exact error in c(1) = 0.20036E-01 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.52815E-02 [radii/min] Bevington pg 154 (8-30)
     Exact error in c(2) = 0.25849E-02 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.82980E-04 [radii/min**] Bevington pg 154 (8-30)
     Exact error in c(3) = 0.41491E-04 [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) = 305. +/- 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 18:46 = 0.000E+00 km/sec
The TOTAL velocity at 18:46 = 323. km/sec

The TANGENTIAL velocity at 19: 2 = 0.000E+00 km/sec
The TOTAL velocity at 19: 2 = 323. km/sec

The TANGENTIAL velocity at 19:19 = 0.000E+00 km/sec
The TOTAL velocity at 19:19 = 323. km/sec

The TANGENTIAL velocity at 19:35 = 0.000E+00 km/sec
The TOTAL velocity at 19:35 = 323. km/sec

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

Fit is ok [ier=1]

Standard Deviation in the height = 0.59
Standard Deviation in start time measurement =   0.184E+02
Value of reduced Chi Squared returned from nllst2 = 0.102E-02
Reduced Chi Squared = 0.509E-02
Chi Squared = 0.509E-02
The probability for exceeding chi square = 0.975E+00

For a second order fit 3 correlation coefficients are given:
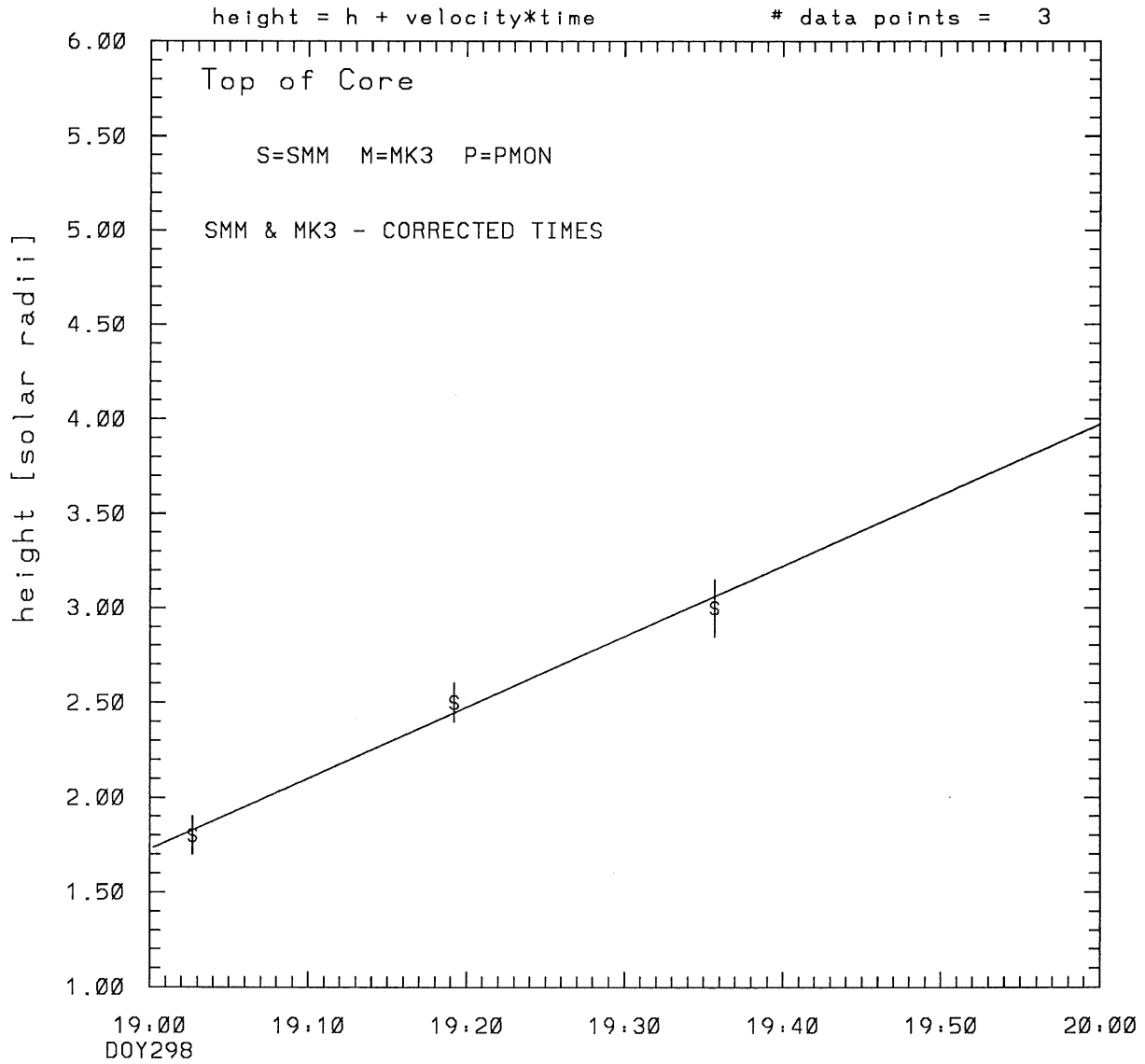 (Using equation of motion: r = a + bt + at**2)
The correlation between the data and the term linear in time =   0.9990E+00
The correlation between the data and the time**2 term =   0.9719E+00
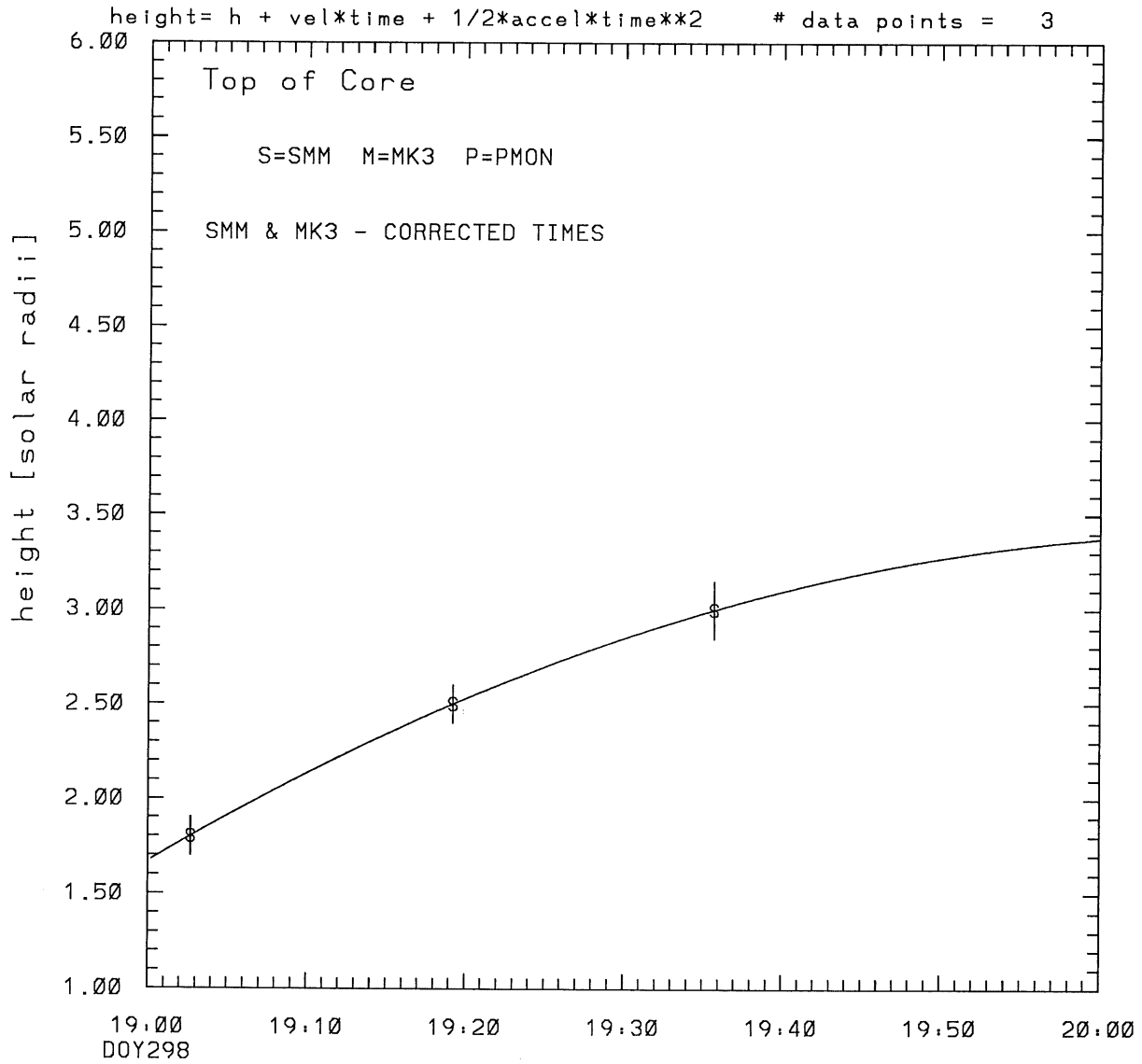The correlation between the data and the complete equation of motion =   0.9981E+00
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

SMM C/P   1987 DOY298   305 +/-   0 degrees

height = h + velocity*time   # data points =   3

Top of Core

S=SMM   M=MK3   P=PMON

SMM & MK3 - CORRECTED TIMES

height [solar radii]

tstart=DOY298 18:41 +/-   1.0 [min.]
radial velocity=   434. +/-   32. [km/sec]

SMM C/P   1987 DOY298   305 +/-   0 degrees

height= h + vel*time + 1/2*accel*time**2   # data points =   3

Top of Core

S=SMM   M=MK3   P=PMON

SMM & MK3 - CORRECTED TIMES

height [solar radii]

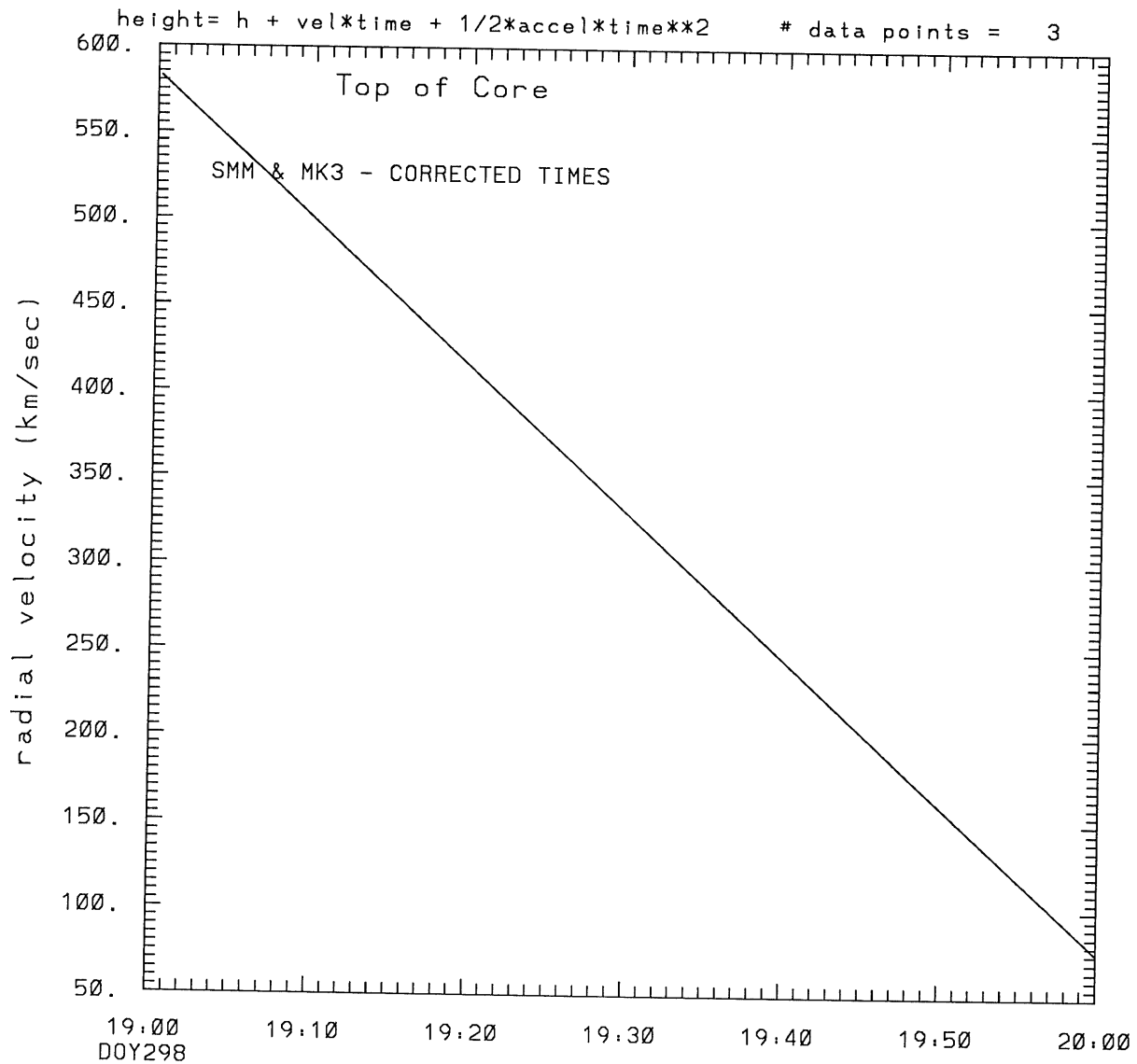tstart=DOY298 18:48 +/-   0.0 [min.]

radial acceleration=-0.1412 +/- 0.0000 [km/sec**2]

SMM C/P 1987 DOY298 305 +/- Ø degrees

height= h + vel*time + 1/2*accel*time**2   # data points =   3

600.

Top of Core

550.

SMM & MK3 - CORRECTED TIMES

500.

450.

radial velocity (km/sec)

400.

350.

300.

250.

200.

150.

100.

50.

19:00   19:10   19:20   19:30   19:40   19:50   20:00
DOY298

tstart=DOY298 18:48 +/-   Ø.Ø [min.]

radial acceleration=-.141E+ØØ km/sec**2

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


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


                   error in       error in
year doy   time   radii radius   angle  angle   datatype
1987 298  19: 2:42  1.80 +/- 0.10  305.0 +/-  0.5    SMM
1987 298  19:19:13  2.50 +/- 0.10  305.0 +/-  0.5    SMM
1987 298  19:35:42  3.00 +/- 0.15  305.0 +/-  1.0    SMM


**************************************
 Structure being measured:
Top of Core
**************************************


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


START TIME:

Event began at t = 0 + -0.194E+02 +/-  0.105E+01 [minutes]
In more convenient units:
Event began at DOY 298 18:41 +/-  0.105E+01 [minutes]


Origin defined at DOY298 19: 0

RADIAL INFORMATION:

RADIAL VELOCITY =   434. +/-   32. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

 c(1) =   0.173E+01 +/-   0.541E-01 [solar radii]
 c(2) =   0.374E-01 +/-   0.275E-02 [radii/min]
 c(2) =   0.434E+03 +/-   0.320E+02 [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)= 0.87448E-01 [radii] see Bevington pg. 114
          error in c(2)= 0.37276E-02 [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) = 305. +/- 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 19: 2 = 0.000E+00 km/sec
The TOTAL velocity at 19: 2 = 434. km/sec

The TANGENTIAL velocity at 19:19 = 0.000E+00 km/sec
The TOTAL velocity at 19:19 = 434. km/sec

The TANGENTIAL velocity at 19:35 = 0.000E+00 km/sec
The TOTAL velocity at 19:35 = 434. km/sec

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

Fit is ok [ier=1]

Standard Deviation in the height = 0.60
Standard Deviation in start time measurement =   0.135E+02
Error in time =   0.23254E+01 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.334E-02
Reduced Chi Squared = 0.182E-01
Chi Squared = 0.182E-01
The probability for exceeding chi square = 0.954E+00

The correlation coefficient =   0.995E+00
The probability that no LINEAR correlation exists between the variables =   0.6070E-01
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
 1987 298  19: 2:42  1.80 +/- 0.10   305.0 +/- 0.5     SMM
 1987 298  19:19:13  2.50 +/- 0.10   305.0 +/- 0.5     SMM
 1987 298  19:35:42  3.00 +/- 0.15   305.0 +/- 1.0     SMM


**************************************
 Structure being measured:
 Top of Core
**************************************


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


START TIME:

Event began at t = 0 + -0.122E+02 +/-  0.000E+00 [minutes]
In more convenient units:
Event began at DOY 298 18:48 +/-  0.000E+00 [minutes]


Origin defined at DOY298 19: 0


RADIAL INFORMATION:


RADIAL ACCELERATION = -0.141E+00 +/-  0.582E-06 km/sec**2


The computed RADIAL coefficients and errors FROM NLLST2 are:


 c(1) =    0.167E+01 +/-   0.400E-06 [solar radii]
 c(2) =    0.504E-01 +/-   0.559E-07 [radii/min]
 c(2) =    0.584E+03 +/-   0.648E-03 [km/sec]
 c(3) =   -0.365E-03 +/-   0.151E-08 [radii/min**2]
 c(3) =   -0.141E+00 +/-   0.582E-06 [km/sec**2]


ANGULAR INFORMATION:


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


The computed ANGULAR coefficients and errors FROM NLLST2 are:


 a(1) = 305. +/-   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 19: 2 = 0.000E+00 km/sec
The TOTAL velocity at 19: 2 = 562. km/sec

The TANGENTIAL velocity at 19:19 = 0.000E+00 km/sec
The TOTAL velocity at 19:19 = 422. km/sec

The TANGENTIAL velocity at 19:35 = 0.000E+00 km/sec
The TOTAL velocity at 19:35 = 282. km/sec

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

Number data points = number of coefficients. No error analysis is possible.

Correlation coefficient is not computable!