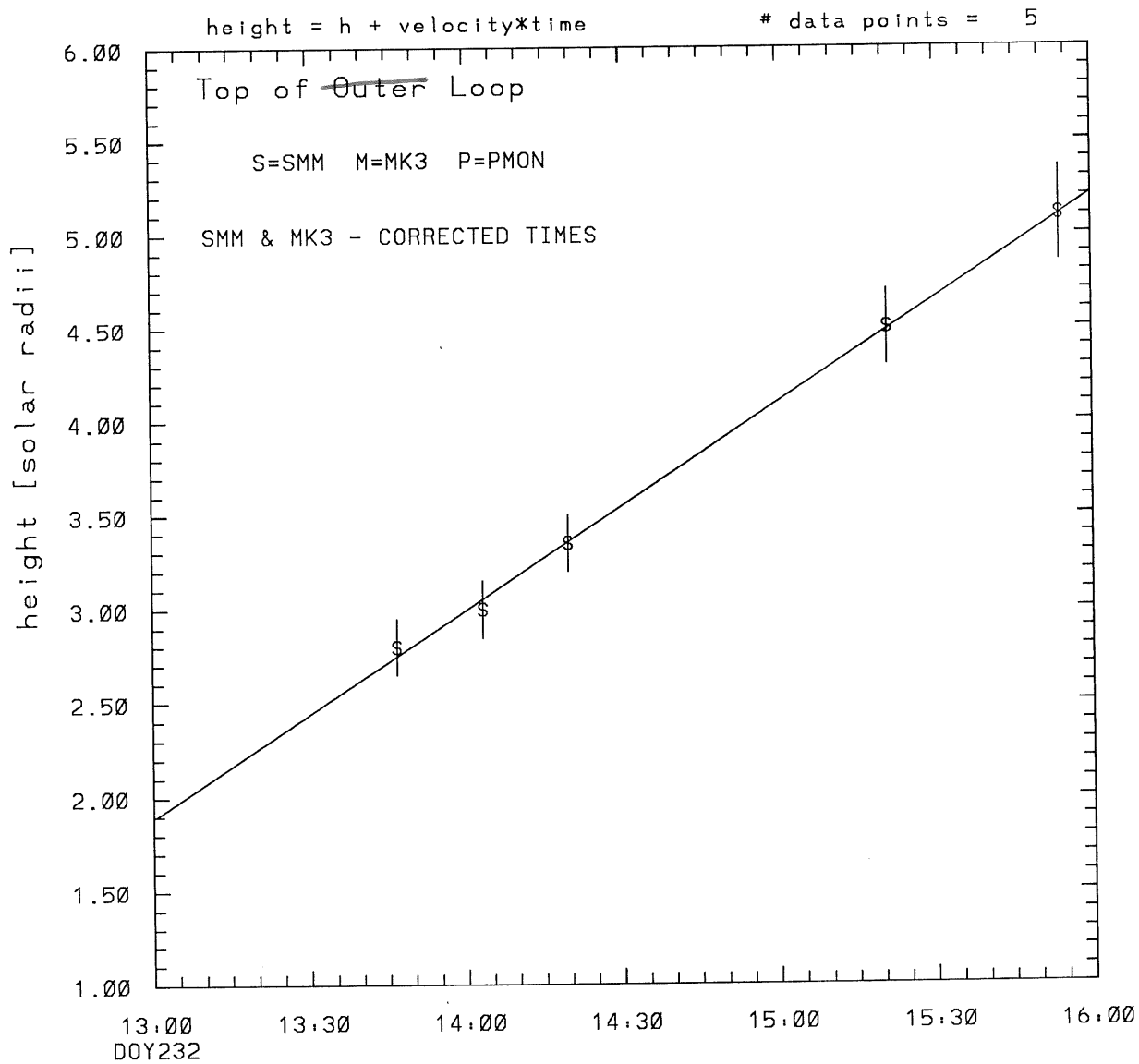
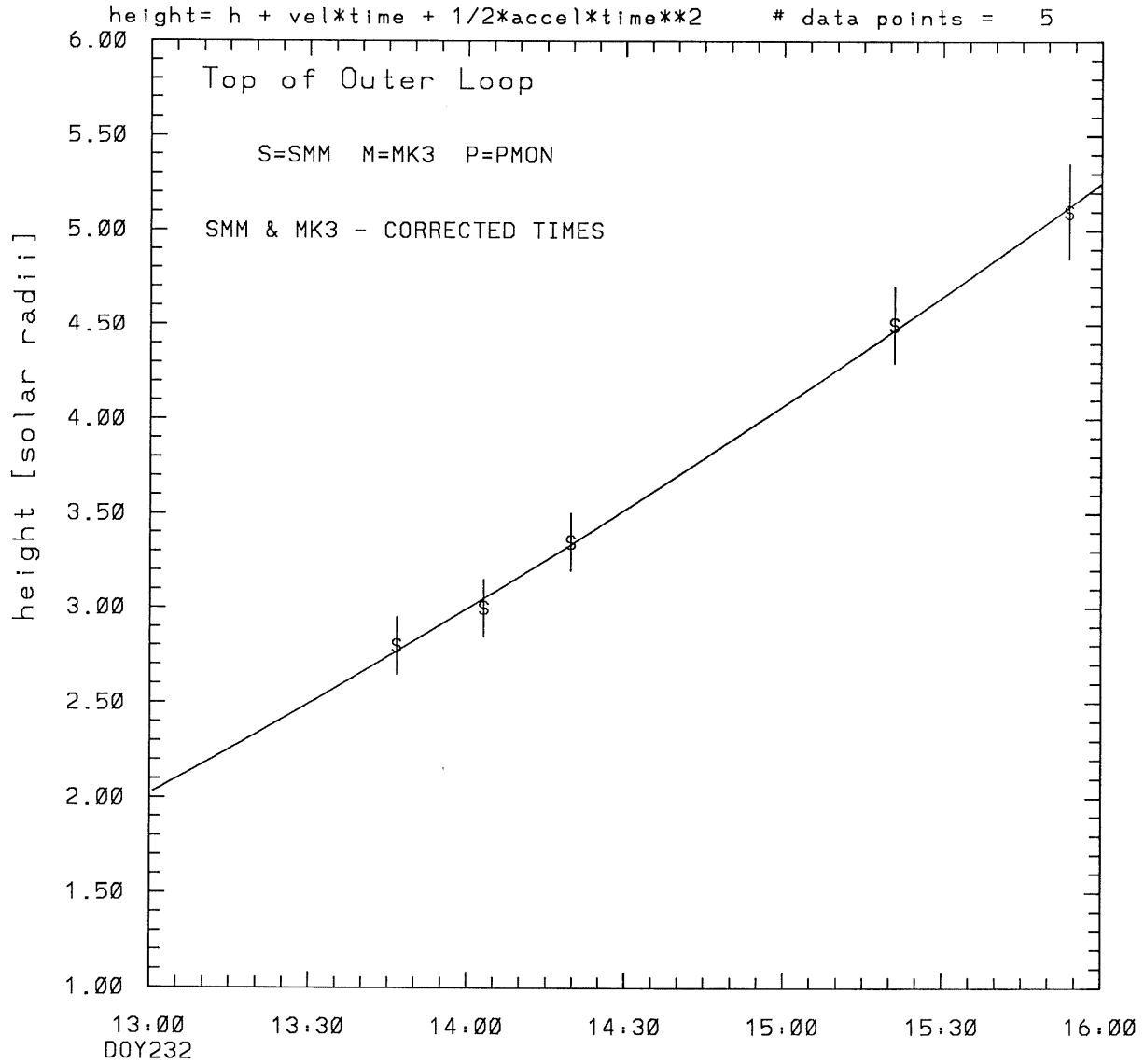


SMM C/P 1987 DOY232 115 +/- 0 degrees



tstart=DOY232 12:12 +/- 0.3 [min.]
radial velocity= 214. +/- 5. [km/sec]

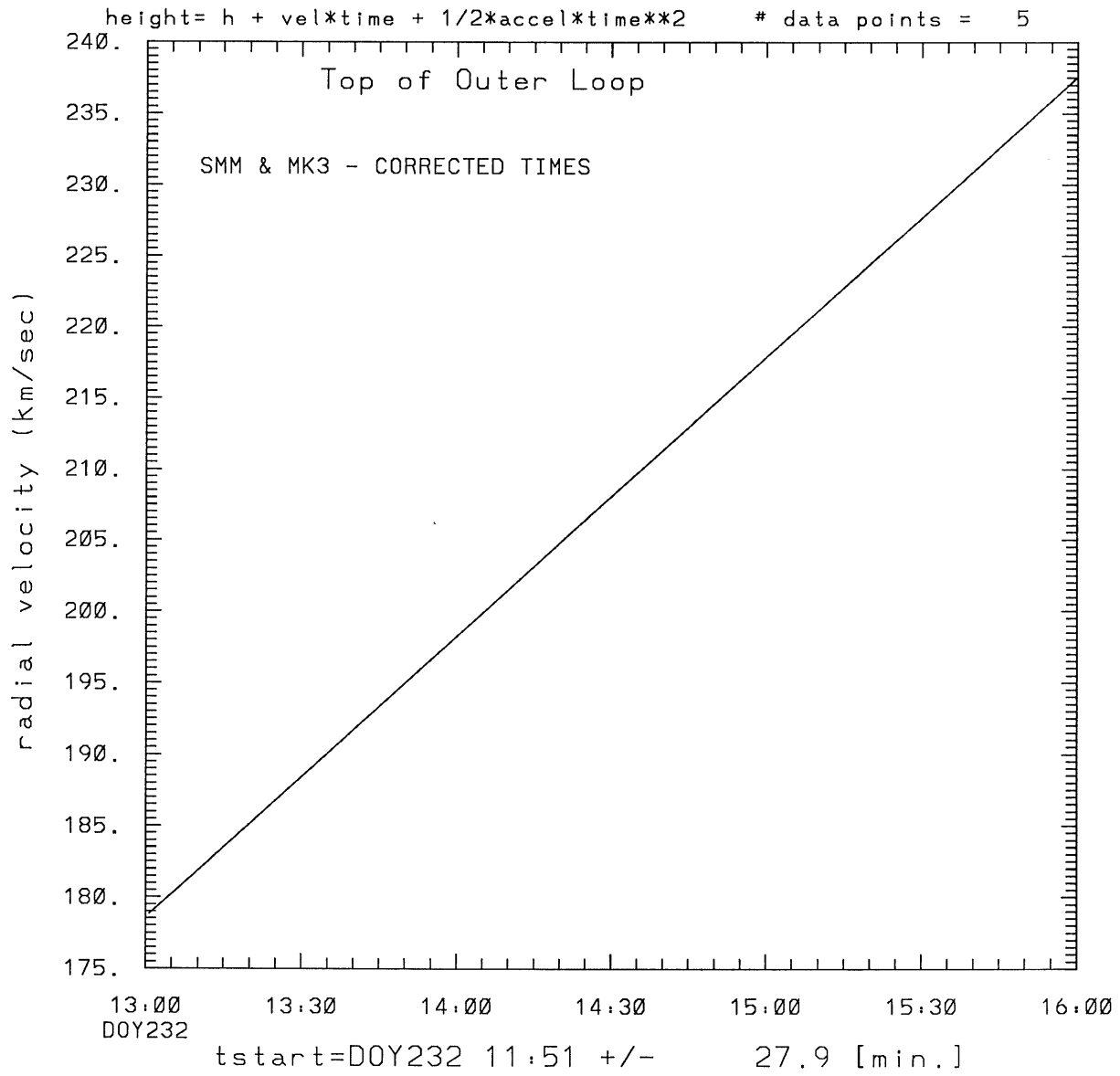
SMM C/P 1987 DOY232 115 +/- 0 degrees



tstart=DOY232 11:51 +/- 27.9 [min.]

radial acceleration = 0.0055 +/- 0.0056 [km/sec**2]

SMM C/P 1987 DOY232 115 +/- 0 degrees



tstart=DOY232 11:51 +/- 27.9 [min.]

radial acceleration=0.546E-02 km/sec**2

This is a 1 order run

INPUT:

| year | doy | time | radii | error in radius | angle | error in angle | datatype |
|------|-----|----------|-------|-----------------|-------|----------------|----------|
| 1987 | 232 | 13:46:40 | 2.80 | +/- 0.15 | 115.0 | +/- 0.5 | SMM |
| 1987 | 232 | 14: 3:10 | 3.00 | +/- 0.15 | 115.0 | +/- 1.0 | SMM |
| 1987 | 232 | 14:19:40 | 3.35 | +/- 0.15 | 115.0 | +/- 1.0 | SMM |
| 1987 | 232 | 15:20:54 | 4.50 | +/- 0.20 | 115.0 | +/- 1.0 | SMM |
| 1987 | 232 | 15:53:54 | 5.10 | +/- 0.25 | 115.0 | +/- 1.0 | SMM |

Structure being measured:

Top of Outer Loop

OUTPUT:

START TIME:

Event began at t = 0 + -0.484E+02 +/- 0.273E+00 [minutes]

In more convenient units:

Event began at DOY 232 12:12 +/- 0.273E+00 [minutes]

Origin defined at DOY232 13: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 214. +/- 5. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.189E+01 +/- 0.433E-01 [solar radii]

c(2) = 0.184E-01 +/- 0.461E-03 [radii/min]

c(2) = 0.214E+03 +/- 0.535E+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)= 0.45130E-01 [radii] see Bevington pg. 114

error in c(2)= 0.40331E-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) = 115. +/- 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 13:46 = 0.000E+00 km/sec
The TOTAL velocity at 13:46 = 214. km/sec

The TANGENTIAL velocity at 14: 3 = 0.000E+00 km/sec
The TOTAL velocity at 14: 3 = 214. km/sec

The TANGENTIAL velocity at 14:19 = 0.000E+00 km/sec
The TOTAL velocity at 14:19 = 214. km/sec

The TANGENTIAL velocity at 15:20 = 0.000E+00 km/sec
The TOTAL velocity at 15:20 = 214. km/sec

The TANGENTIAL velocity at 15:53 = 0.000E+00 km/sec
The TOTAL velocity at 15:53 = 214. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 1.00
Standard Deviation in start time measurement = 0.485E+02
Error in time = 0.41115E+01 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.178E-02
Reduced Chi Squared = 0.321E-02
Chi Squared = 0.962E-02
The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.999E+00
The probability that no LINEAR correlation exists between the variables = 0.2257E-04
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

This is a 2 order run

INPUT:

| year | doy | time | radii | radius | error in | angle | angle | error in | datatype |
|------|-----|----------|-------|----------|----------|---------|-------|----------|----------|
| 1987 | 232 | 13:46:40 | 2.80 | +/- 0.15 | 115.0 | +/- 0.5 | | | SMM |
| 1987 | 232 | 14: 3:10 | 3.00 | +/- 0.15 | 115.0 | +/- 1.0 | | | SMM |
| 1987 | 232 | 14:19:40 | 3.35 | +/- 0.15 | 115.0 | +/- 1.0 | | | SMM |
| 1987 | 232 | 15:20:54 | 4.50 | +/- 0.20 | 115.0 | +/- 1.0 | | | SMM |
| 1987 | 232 | 15:53:54 | 5.10 | +/- 0.25 | 115.0 | +/- 1.0 | | | SMM |

Structure being measured:

Top of Outer Loop

OUTPUT:

START TIME:

Event began at t = 0 + -0.709E+02 +/- 0.279E+02 [minutes]

In more convenient units:

Event began at DOY 232 11:51 +/- 0.279E+02 [minutes]

Origin defined at DOY232 13: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.546E-02 +/- 0.561E-02 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.202E+01 +/- 0.141E+00 [solar radii]
c(2) = 0.154E-01 +/- 0.313E-02 [radii/min]
c(2) = 0.179E+03 +/- 0.363E+02 [km/sec]
c(3) = 0.141E-04 +/- 0.145E-04 [radii/min**2]
c(3) = 0.546E-02 +/- 0.561E-02 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.16630E+00 [radii] Bevington pg 154 (8-30)

Exact error in c(1) = 0.64449E-01 [radii] Bevington pg 154 (8-28)

Approximate error in c(2) = 0.35959E-02 [radii/min] Bevington pg 154 (8-30)

Exact error in c(2) = 0.12651E-02 [radii/min] Bevington pg 154 (8-28)

Approximate error in c(3) = 0.16103E-04 [radii/min**] Bevington pg 154 (8-30)

Exact error in c(3) = 0.54104E-05 [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) = 115. +/- 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 13:46 = 0.000E+00 km/sec

The TOTAL velocity at 13:46 = 194. km/sec

The TANGENTIAL velocity at 14: 3 = 0.000E+00 km/sec

The TOTAL velocity at 14: 3 = 199. km/sec

The TANGENTIAL velocity at 14:19 = 0.000E+00 km/sec

The TOTAL velocity at 14:19 = 205. km/sec

The TANGENTIAL velocity at 15:20 = 0.000E+00 km/sec

The TOTAL velocity at 15:20 = 225. km/sec

The TANGENTIAL velocity at 15:53 = 0.000E+00 km/sec

The TOTAL velocity at 15:53 = 236. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 1.00

Standard Deviation in start time measurement = 0.485E+02

Value of reduced Chi Squared returned from nllst2 = 0.181E-02

Reduced Chi Squared = 0.651E-02

Chi Squared = 0.130E-01

The probability for exceeding chi square = 0.998E+00

For a second order fit 3 correlation coefficients are given:

(Using equation of motion: $r = a + bt + at^{**2}$)

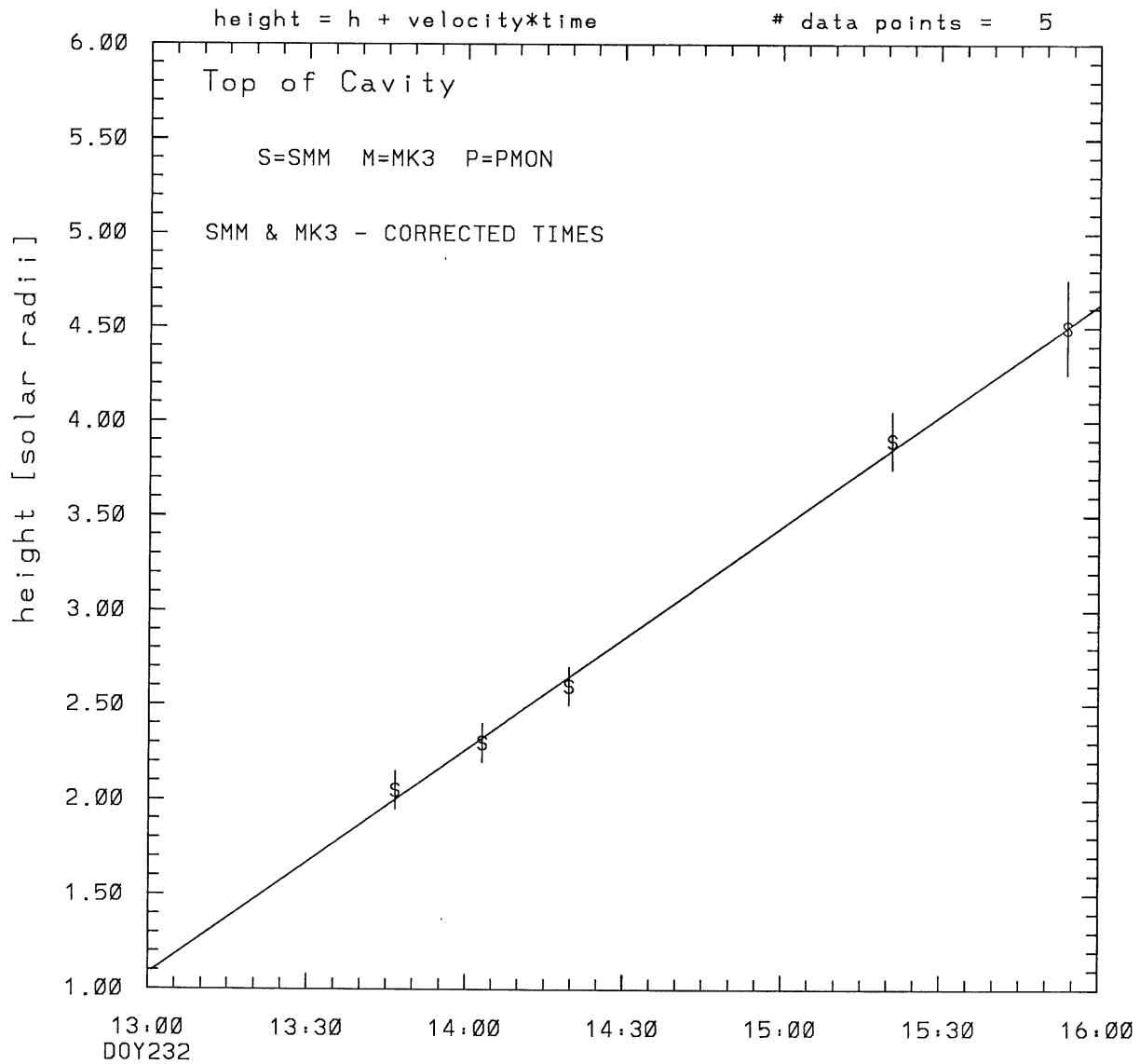
The correlation between the data and the term linear in time = 0.9090E+00

The correlation between the data and the time**2 term = 0.8800E+00

The correlation between the data and the complete equation of motion = 0.9987E+00

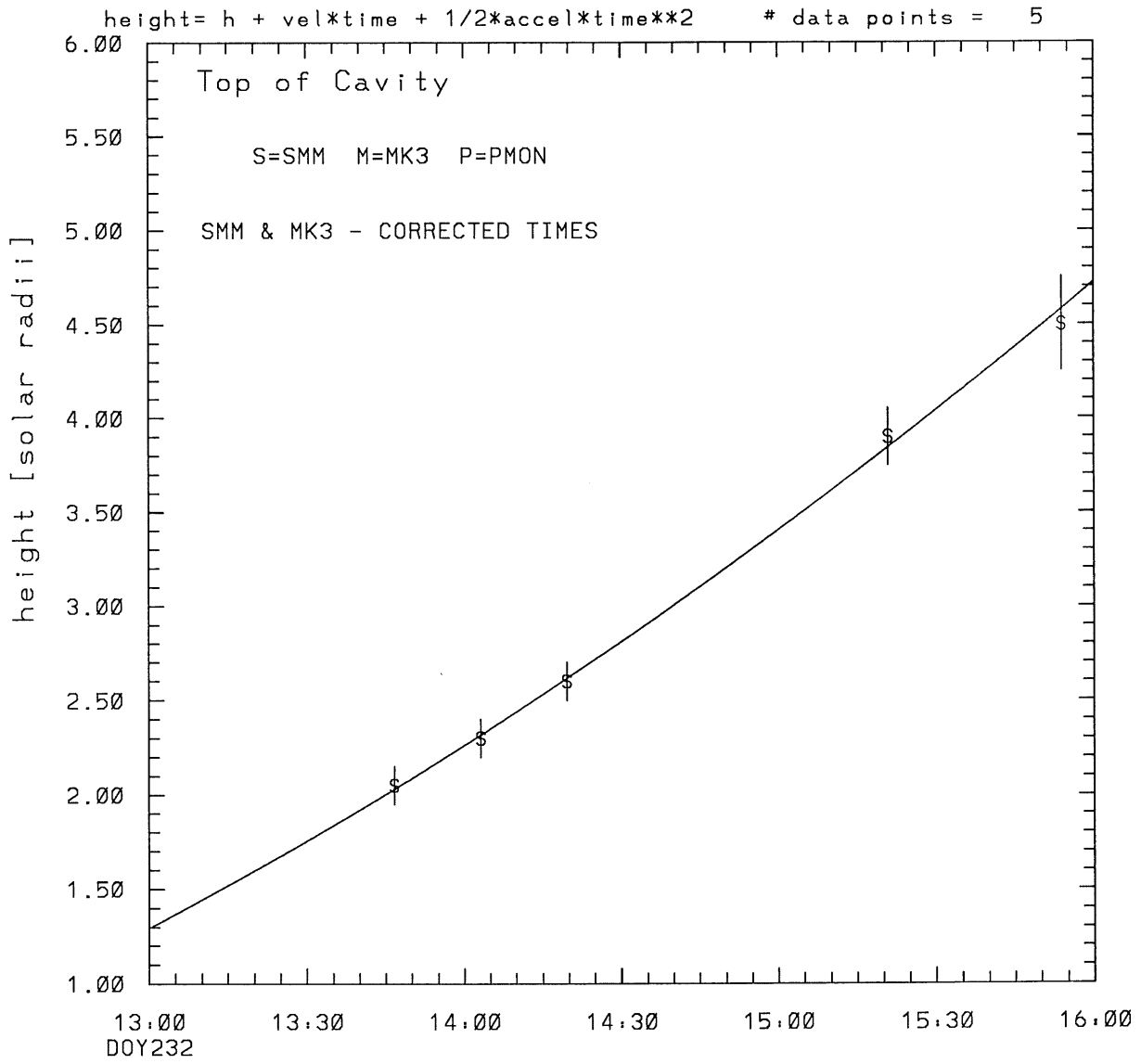
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

SMM C/P 1987 DOY232 115 +/- 0 degrees



tstart=DOY232 12:56 +/- 0.1 [min.]
radial velocity= 228. +/- 7. [km/sec]

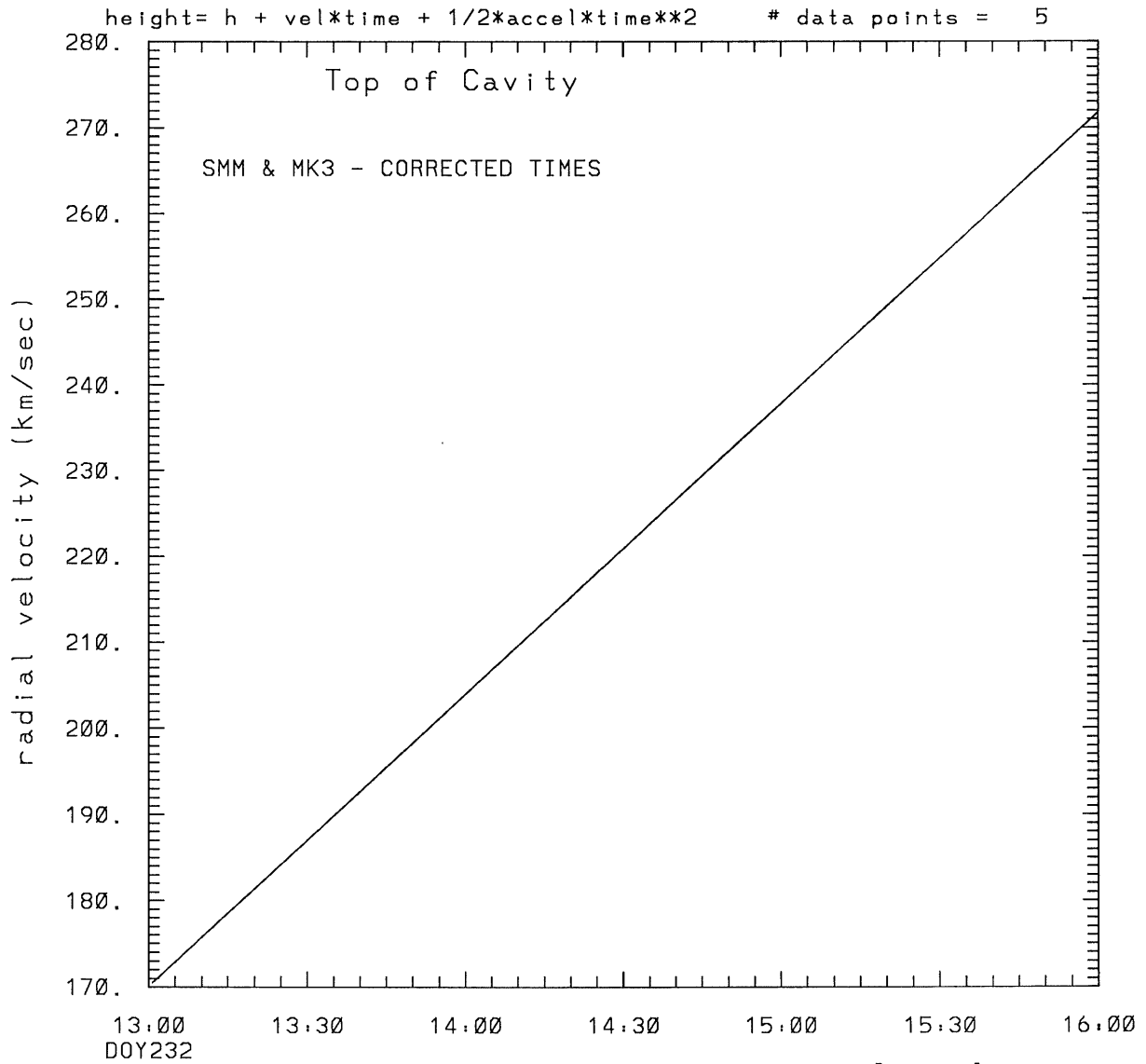
SMM C/P 1987 DOY232 115 +/- 0 degrees



tstart=DOY232 12:41 +/- 6.0 [min.]

radial acceleration = 0.0094 ± 0.0057 [km/sec**2]

SMM C/P 1987 DOY232 115 +/- 0 degrees



tstart=DOY232 12:41 +/- 6.0 [min.]

radial acceleration= $0.941E-02$ km/sec**2

This is a 1 order run

INPUT:

| year | doy | time | radii | error in radius | angle | error in angle | datatype |
|------|-----|----------|-------|-----------------|-------|----------------|----------|
| 1987 | 232 | 13:46:40 | 2.05 | +/- 0.10 | 115.0 | +/- 0.5 | SMM |
| 1987 | 232 | 14: 3:10 | 2.30 | +/- 0.10 | 115.0 | +/- 0.5 | SMM |
| 1987 | 232 | 14:19:40 | 2.60 | +/- 0.10 | 115.0 | +/- 0.5 | SMM |
| 1987 | 232 | 15:20:54 | 3.90 | +/- 0.15 | 115.0 | +/- 1.0 | SMM |
| 1987 | 232 | 15:53:54 | 4.50 | +/- 0.25 | 115.0 | +/- 1.0 | SMM |

Structure being measured:

Top of Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.415E+01 +/- 0.710E-01$ [minutes]

In more convenient units:

Event began at DOY 232 12:56 +/- 0.710E-01 [minutes]

Origin defined at DOY232 13: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 228. +/- 7. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.108E+01 +/- 0.515E-01$ [solar radii]
 $c(2) = 0.197E-01 +/- 0.604E-03$ [radii/min]
 $c(2) = 0.228E+03 +/- 0.701E+01$ [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 $c(1) = 0.52449E-01$ [radii] see Bevington pg. 114

error in $c(2) = 0.46871E-03$ [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) = 115. +/- 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 13:46 = 0.000E+00 km/sec
The TOTAL velocity at 13:46 = 228. km/sec

The TANGENTIAL velocity at 14: 3 = 0.000E+00 km/sec
The TOTAL velocity at 14: 3 = 228. km/sec

The TANGENTIAL velocity at 14:19 = 0.000E+00 km/sec
The TOTAL velocity at 14:19 = 228. km/sec

The TANGENTIAL velocity at 15:20 = 0.000E+00 km/sec
The TOTAL velocity at 15:20 = 228. km/sec

The TANGENTIAL velocity at 15:53 = 0.000E+00 km/sec
The TOTAL velocity at 15:53 = 228. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 1.07
Standard Deviation in start time measurement = 0.485E+02
Error in time = 0.44743E+01 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.224E-02
Reduced Chi Squared = 0.660E-02
Chi Squared = 0.198E-01
The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.999E+00
The probability that no LINEAR correlation exists between the variables = 0.2817E-04
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 | 232 | 13:46:40 | 2.05 | +/- 0.10 | 115.0 | +/- 0.5 | SMM |
| 1987 | 232 | 14: 3:10 | 2.30 | +/- 0.10 | 115.0 | +/- 0.5 | SMM |
| 1987 | 232 | 14:19:40 | 2.60 | +/- 0.10 | 115.0 | +/- 0.5 | SMM |
| 1987 | 232 | 15:20:54 | 3.90 | +/- 0.15 | 115.0 | +/- 1.0 | SMM |
| 1987 | 232 | 15:53:54 | 4.50 | +/- 0.25 | 115.0 | +/- 1.0 | SMM |

Structure being measured:

Top of Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.207E+02 +/- 0.597E+01$ [minutes]

In more convenient units:

Event began at DOY 232 12:41 +/- 0.597E+01 [minutes]

Origin defined at DOY232 13: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = $0.941E-02 +/- 0.569E-02$ km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = $0.129E+01 +/- 0.135E+00$ [solar radii]
c(2) = $0.147E-01 +/- 0.306E-02$ [radii/min]
c(2) = $0.170E+03 +/- 0.355E+02$ [km/sec]
c(3) = $0.243E-04 +/- 0.147E-04$ [radii/min**2]
c(3) = $0.941E-02 +/- 0.569E-02$ [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = $0.23994E+00$ [radii] Bevington pg 154 (8-30)
Exact error in c(1) = $0.56583E-01$ [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = $0.51882E-02$ [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = $0.12917E-02$ [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = $0.23234E-04$ [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = $0.66000E-05$ [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) = 115. +/- 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 13:46 = 0.000E+00 km/sec

The TOTAL velocity at 13:46 = 196. km/sec

The TANGENTIAL velocity at 14: 3 = 0.000E+00 km/sec

The TOTAL velocity at 14: 3 = 206. km/sec

The TANGENTIAL velocity at 14:19 = 0.000E+00 km/sec

The TOTAL velocity at 14:19 = 215. km/sec

The TANGENTIAL velocity at 15:20 = 0.000E+00 km/sec

The TOTAL velocity at 15:20 = 250. km/sec

The TANGENTIAL velocity at 15:53 = 0.000E+00 km/sec

The TOTAL velocity at 15:53 = 268. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 1.07

Standard Deviation in start time measurement = 0.485E+02

Value of reduced Chi Squared returned from nllst2 = 0.156E-02

Reduced Chi Squared = 0.232E-01

Chi Squared = 0.463E-01

The probability for exceeding chi square = 0.998E+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 = 0.8664E+00

The correlation between the data and the time**2 term = 0.8264E+00

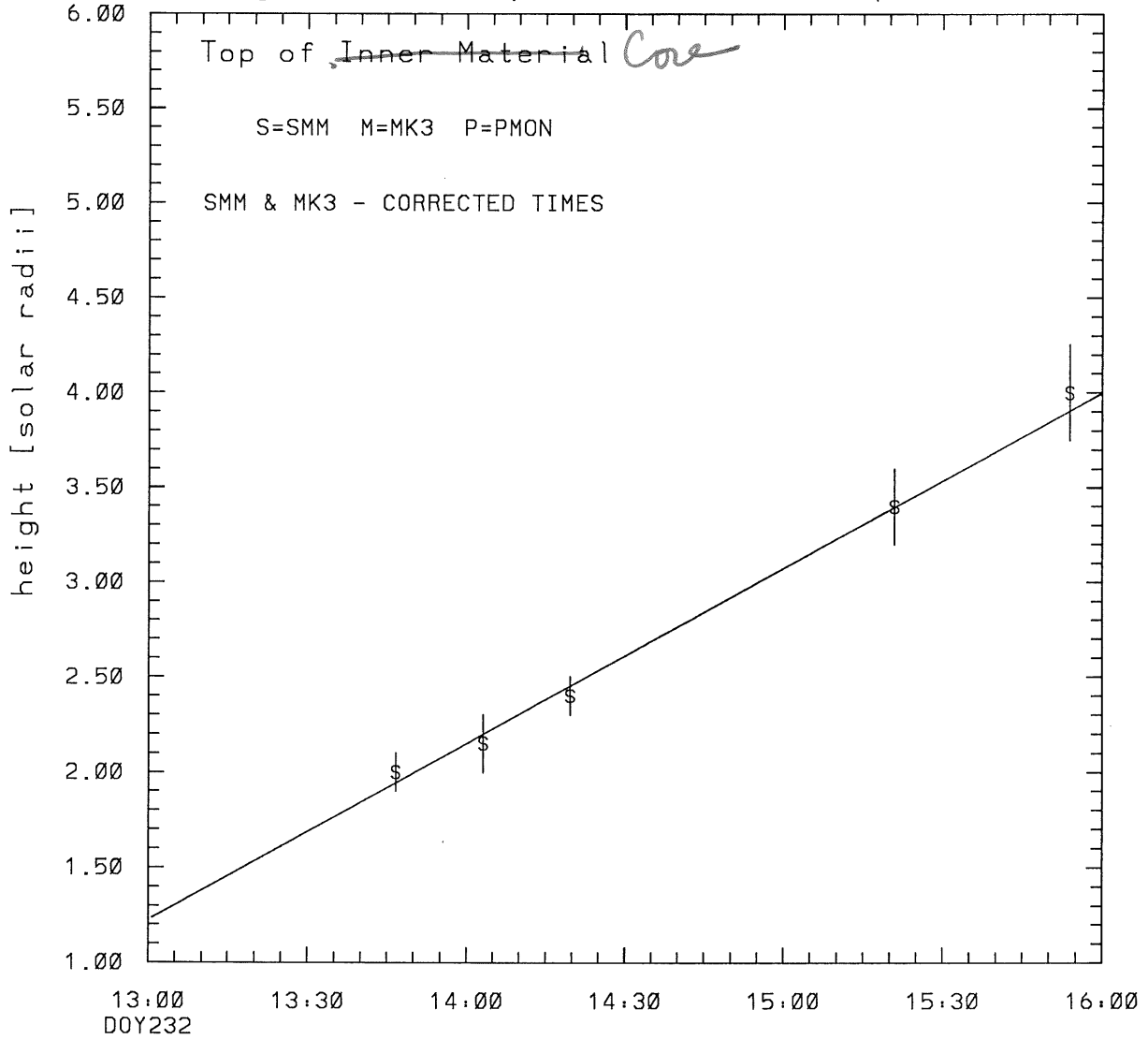
The correlation between the data and the complete equation of motion = 0.1003E+01

SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

SMM C/P 1987 DOY232 120 +/- 0 degrees

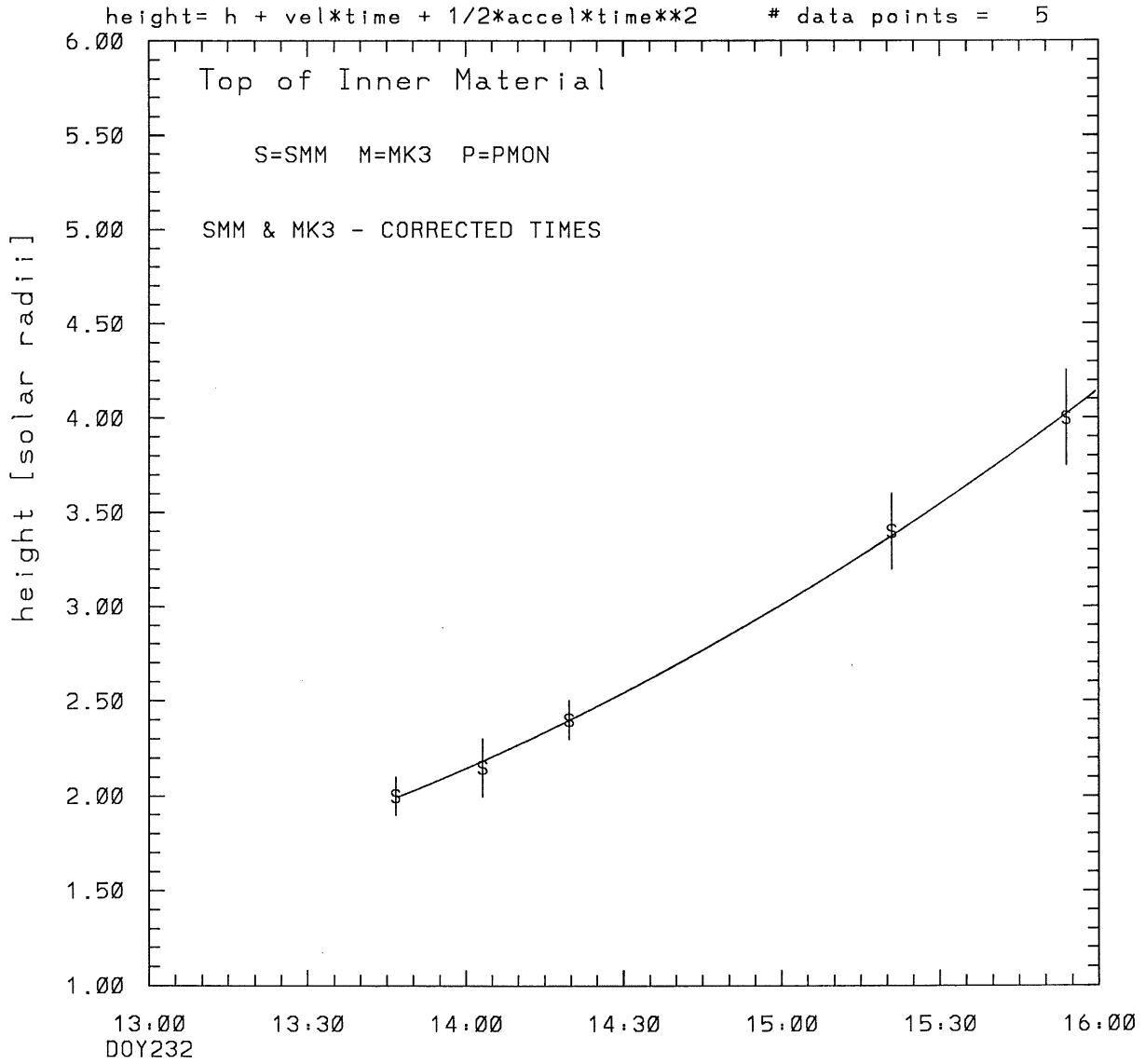
height = h + velocity*time

data points = 5



tstart=DOY232 12:47 +/- 0.4 [min.]
radial velocity= 179. +/- 9. [km/sec]

SMM C/P 1987 DOY232 120 +/- 0 degrees

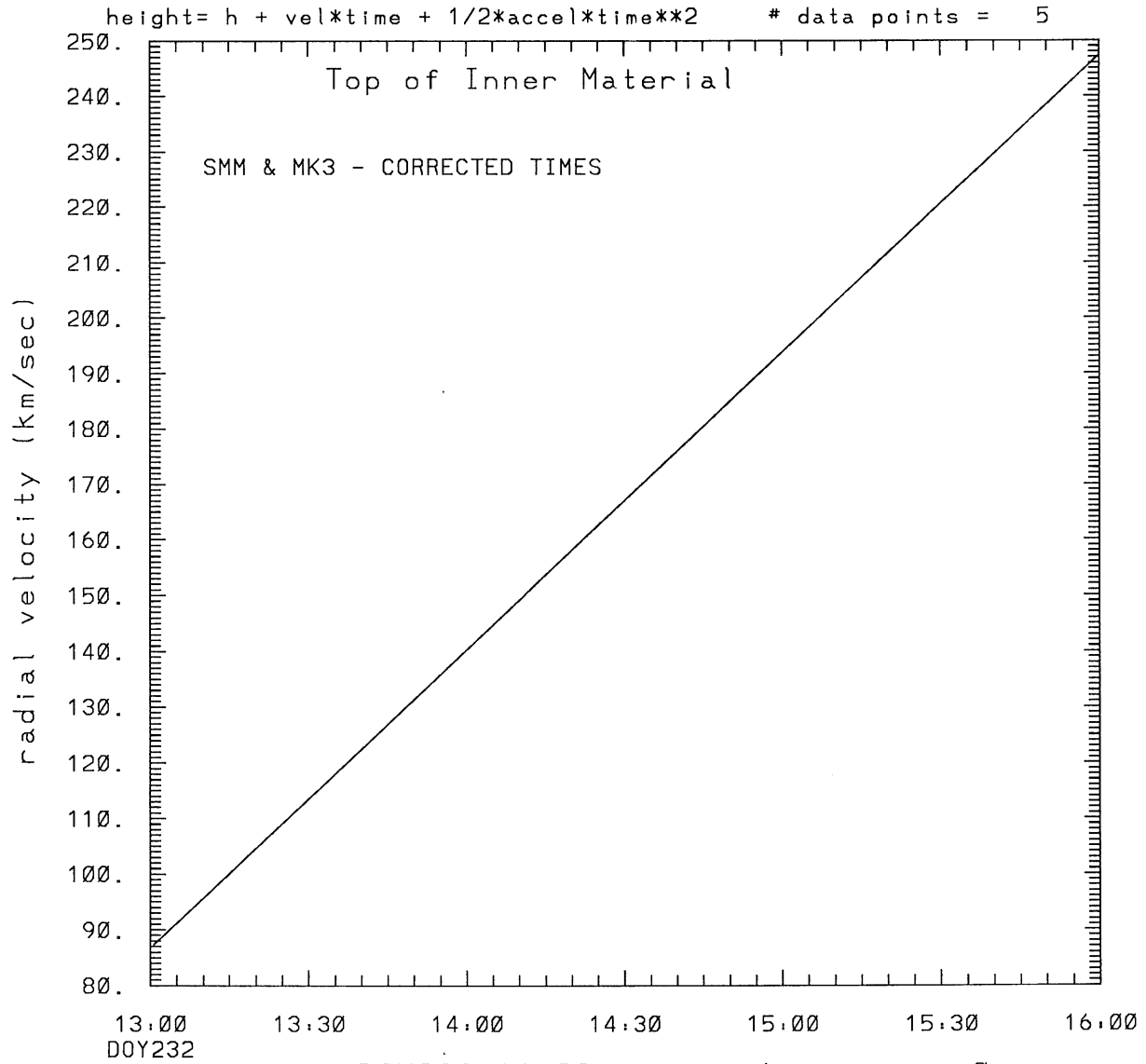


tstart=DOY232 11:23 from derivative=0

Event begins at 1.19 Solar Radii

radial acceleration = 0.0149 ± 0.0028 [km/sec**2]

SMM C/P 1987 DOY232 120 +/- 0 degrees



tstart=DOY232 11:23 from derivative=0
Event begins at 1.19 Solar Radii
radial acceleration=0.149E-01 km/sec**2

This is a 1 order run

INPUT:

| year | doy | time | error in radii radius | error in angle angle | datatype |
|------|-----|----------|--------------------------|-------------------------|----------|
| 1987 | 232 | 13:46:40 | 2.00 +/- 0.10 | 120.0 +/- 0.5 | SMM |
| 1987 | 232 | 14: 3:10 | 2.15 +/- 0.15 | 120.0 +/- 0.5 | SMM |
| 1987 | 232 | 14:19:40 | 2.40 +/- 0.10 | 120.0 +/- 0.5 | SMM |
| 1987 | 232 | 15:20:54 | 3.40 +/- 0.20 | 120.0 +/- 1.0 | SMM |
| 1987 | 232 | 15:53:54 | 4.00 +/- 0.25 | 120.0 +/- 1.0 | SMM |

Structure being measured:

Top of Inner Material

OUTPUT:

START TIME:

Event began at $t = 0 + -0.146E+02 +/- 0.423E+00$ [minutes]

In more convenient units:

Event began at DOY 232 12:47 +/- 0.423E+00 [minutes]

Origin defined at DOY232 13: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 179. +/- 9. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.122E+01 +/- 0.646E-01$ [solar radii]
 $c(2) = 0.154E-01 +/- 0.770E-03$ [radii/min]
 $c(2) = 0.179E+03 +/- 0.894E+01$ [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 $c(1) = 0.78670E-01$ [radii] see Bevington pg. 114

error in $c(2) = 0.70303E-03$ [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) = 120. +/- 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 13:46 = 0.000E+00 km/sec

The TOTAL velocity at 13:46 = 179. km/sec

The TANGENTIAL velocity at 14: 3 = 0.000E+00 km/sec

The TOTAL velocity at 14: 3 = 179. km/sec

The TANGENTIAL velocity at 14:19 = 0.000E+00 km/sec

The TOTAL velocity at 14:19 = 179. km/sec

The TANGENTIAL velocity at 15:20 = 0.000E+00 km/sec

The TOTAL velocity at 15:20 = 179. km/sec

The TANGENTIAL velocity at 15:53 = 0.000E+00 km/sec

The TOTAL velocity at 15:53 = 179. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.87

Standard Deviation in start time measurement = 0.485E+02

Error in time = 0.85642E+01 using best fit method

See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.367E-02

Reduced Chi Squared = 0.207E-01

Chi Squared = 0.620E-01

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.998E+00

The probability that no LINEAR correlation exists between the variables = 0.1136E-03

SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

This is a 2 order run

INPUT:

| year | doy | time | error in radii | error in radius | error in angle | error in angle | datatype |
|------|-----|----------|-------------------|--------------------|-------------------|-------------------|----------|
| 1987 | 232 | 13:46:40 | 2.00 +/- 0.10 | | 120.0 +/- 0.5 | | SMM |
| 1987 | 232 | 14: 3:10 | 2.15 +/- 0.15 | | 120.0 +/- 0.5 | | SMM |
| 1987 | 232 | 14:19:40 | 2.40 +/- 0.10 | | 120.0 +/- 0.5 | | SMM |
| 1987 | 232 | 15:20:54 | 3.40 +/- 0.20 | | 120.0 +/- 1.0 | | SMM |
| 1987 | 232 | 15:53:54 | 4.00 +/- 0.25 | | 120.0 +/- 1.0 | | SMM |

Structure being measured:

Top of Inner Material

OUTPUT:

START TIME:

tstart=DOY232 11:23 from derivative = 0

Event begins at 1.19 Solar Radii

Origin defined at DOY232 13: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.149E-01 +/- 0.284E-02 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.156E+01 +/- 0.678E-01 [solar radii]
c(2) = 0.748E-02 +/- 0.154E-02 [radii/min]
c(2) = 0.867E+02 +/- 0.179E+02 [km/sec]
c(3) = 0.385E-04 +/- 0.734E-05 [radii/min**2]
c(3) = 0.149E-01 +/- 0.284E-02 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.11235E+00 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.22884E-01 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.24292E-02 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.45045E-03 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.10879E-04 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.20933E-05 [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) = 120. +/- 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 13:46 = 0.000E+00 km/sec

The TOTAL velocity at 13:46 = 128. km/sec

The TANGENTIAL velocity at 14: 3 = 0.000E+00 km/sec

The TOTAL velocity at 14: 3 = 143. km/sec

The TANGENTIAL velocity at 14:19 = 0.000E+00 km/sec

The TOTAL velocity at 14:19 = 158. km/sec

The TANGENTIAL velocity at 15:20 = 0.000E+00 km/sec

The TOTAL velocity at 15:20 = 212. km/sec

The TANGENTIAL velocity at 15:53 = 0.000E+00 km/sec

The TOTAL velocity at 15:53 = 242. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.87

Standard Deviation in start time measurement = 0.485E+02

Value of reduced Chi Squared returned from nllst2 = 0.483E-03

Reduced Chi Squared = 0.356E-02

Chi Squared = 0.712E-02

The probability for exceeding chi square = 0.100E+01

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 = 0.8837E+00

The correlation between the data and the time**2 term = 0.8468E+00

The correlation between the data and the complete equation of motion = 0.1002E+01

SEE BEVINGTON "Data Reduction and Error Analysis" [1969]