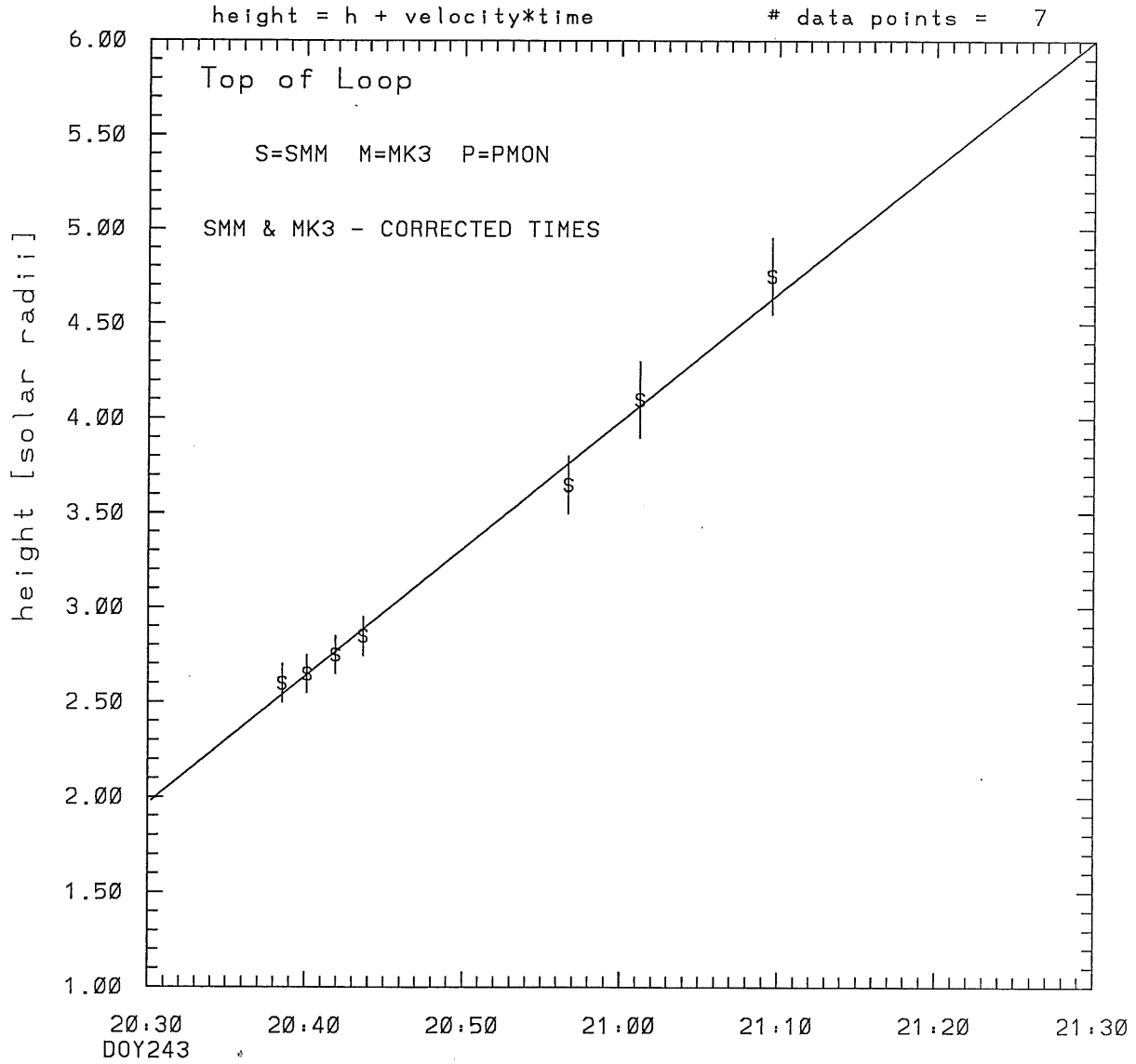
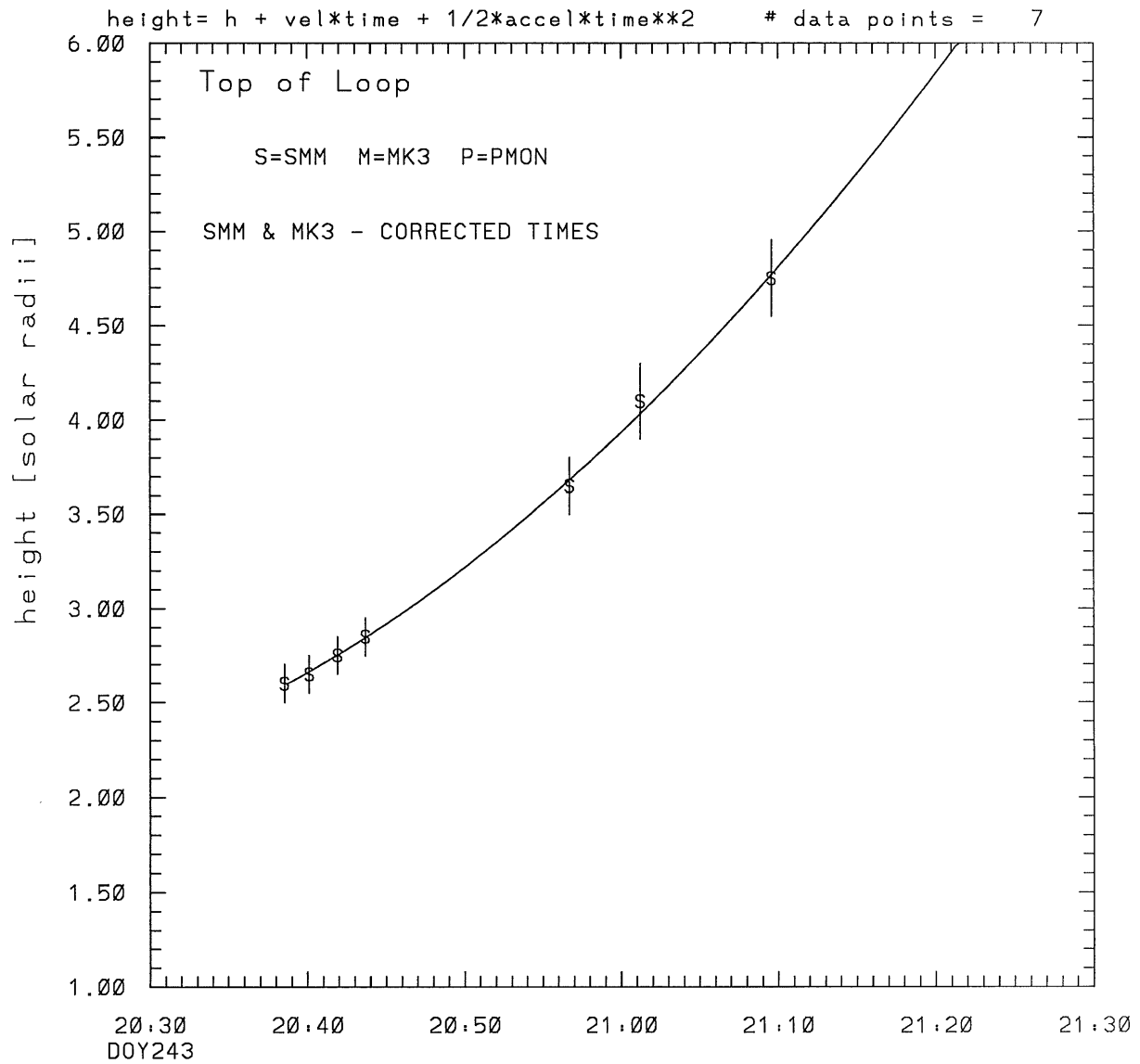


SMM C/P 1980 DOY243 145 +/- 0 degrees



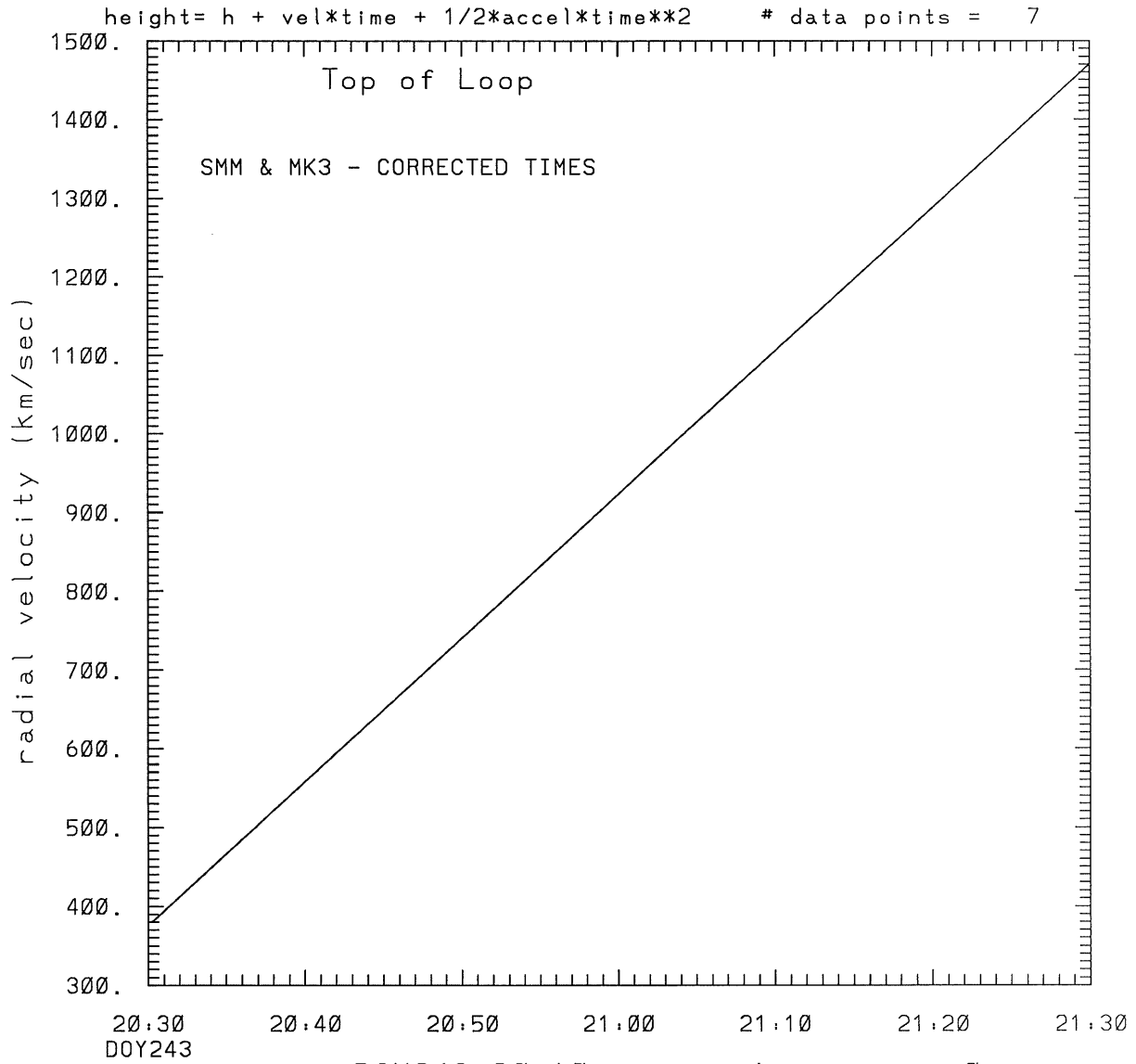
tstart=DOY243 20:16 +/- 0.1. [min.]
radial velocity= 780. +/- 30. [km/sec]

SMM C/P 1980 DOY243 145 +/- 0 degrees



tstart=DOY243 20:10 from derivative=0
Event begins at 1.92 Solar Radii
radial acceleration = 0.3040 +/- 0.0537 [km/sec**2]

SMM C/P 1980 DOY243 145 +/- 0 degrees



tstart=DOY243 20:10 from derivative=0
Event begins at 1.92 Solar Radii
radial acceleration=0.304E+00 km/sec**2

This is a 1 order run

INPUT:

year	doy	time	error in radii	error in radius	error in angle	error in angle	datatype
1980	243	20:38:32	2.60 +/- 0.10		145.0 +/- 0.5		SMM
1980	243	20:40: 7	2.65 +/- 0.10		145.0 +/- 0.5		SMM
1980	243	20:41:54	2.75 +/- 0.10		145.0 +/- 0.5		SMM
1980	243	20:43:40	2.85 +/- 0.10		145.0 +/- 0.5		SMM
1980	243	20:56:42	3.65 +/- 0.15		145.0 +/- 1.0		SMM
1980	243	21: 1:13	4.10 +/- 0.20		145.0 +/- 1.0		SMM
1980	243	21: 9:35	4.75 +/- 0.20		145.0 +/- 1.0		SMM

Structure being measured:

Top of Loop

OUTPUT:

START TIME:

Event began at $t = 0 + -0.144E+02 +/- 0.148E+00$ [minutes]

In more convenient units:

Event began at DOY 243 20:16 +/- 0.148E+00 [minutes]

Origin defined at DOY243 20:30

RADIAL INFORMATION:

RADIAL VELOCITY = 780. +/- 30. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.197E+01 +/- 0.451E-01 [solar radii]
c(2) = 0.673E-01 +/- 0.263E-02 [radii/min]
c(2) = 0.780E+03 +/- 0.305E+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)= 0.63722E-01 [radii] see Bevington pg. 114

error in c(2)= 0.27503E-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) = 145. +/- 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 20:38 = 0.000E+00 km/sec

The TOTAL velocity at 20:38 = 780. km/sec

The TANGENTIAL velocity at 20:40 = 0.000E+00 km/sec

The TOTAL velocity at 20:40 = 780. km/sec

The TANGENTIAL velocity at 20:41 = 0.000E+00 km/sec

The TOTAL velocity at 20:41 = 780. km/sec

The TANGENTIAL velocity at 20:43 = 0.000E+00 km/sec

The TOTAL velocity at 20:43 = 780. km/sec

The TANGENTIAL velocity at 20:56 = 0.000E+00 km/sec

The TOTAL velocity at 20:56 = 780. km/sec

The TANGENTIAL velocity at 21: 1 = 0.000E+00 km/sec

The TOTAL velocity at 21: 1 = 780. km/sec

The TANGENTIAL velocity at 21: 9 = 0.000E+00 km/sec

The TOTAL velocity at 21: 9 = 780. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.84

Standard Deviation in start time measurement = 0.113E+02

Error in time = 0.27260E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.346E-02

Reduced Chi Squared = 0.365E-01

Chi Squared = 0.183E+00

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.996E+00

The probability that no LINEAR correlation exists between the variables = 0.1423E-05

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
1980	243	20:38:32	2.60	+/- 0.10	145.0	+/- 0.5			SMM
1980	243	20:40: 7	2.65	+/- 0.10	145.0	+/- 0.5			SMM
1980	243	20:41:54	2.75	+/- 0.10	145.0	+/- 0.5			SMM
1980	243	20:43:40	2.85	+/- 0.10	145.0	+/- 0.5			SMM
1980	243	20:56:42	3.65	+/- 0.15	145.0	+/- 1.0			SMM
1980	243	21: 1:13	4.10	+/- 0.20	145.0	+/- 1.0			SMM
1980	243	21: 9:35	4.75	+/- 0.20	145.0	+/- 1.0			SMM

Structure being measured:
Top of Loop

OUTPUT:

START TIME:

tstart=DOY243 20:10 from derivative = 0
Event begins at 1.92 Solar Radii
Origin defined at DOY243 20:30

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.304E+00 +/- 0.537E-01 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.226E+01 +/- 0.542E-01 [solar radii]
c(2) = 0.324E-01 +/- 0.625E-02 [radii/min]
c(2) = 0.375E+03 +/- 0.725E+02 [km/sec]
c(3) = 0.786E-03 +/- 0.139E-03 [radii/min**2]
c(3) = 0.304E+00 +/- 0.537E-01 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.79141E-01 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.16102E-01 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.84987E-02 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.17708E-02 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.18068E-03 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.36401E-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) = 145. +/- 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 20:38 = 0.000E+00 km/sec

The TOTAL velocity at 20:38 = 531. km/sec

The TANGENTIAL velocity at 20:40 = 0.000E+00 km/sec

The TOTAL velocity at 20:40 = 560. km/sec

The TANGENTIAL velocity at 20:41 = 0.000E+00 km/sec

The TOTAL velocity at 20:41 = 592. km/sec

The TANGENTIAL velocity at 20:43 = 0.000E+00 km/sec

The TOTAL velocity at 20:43 = 625. km/sec

The TANGENTIAL velocity at 20:56 = 0.000E+00 km/sec

The TOTAL velocity at 20:56 = 862. km/sec

The TANGENTIAL velocity at 21: 1 = 0.000E+00 km/sec

The TOTAL velocity at 21: 1 = 945. km/sec

The TANGENTIAL velocity at 21: 9 = 0.000E+00 km/sec

The TOTAL velocity at 21: 9 = 1097. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.84

Standard Deviation in start time measurement = 0.113E+02

Value of reduced Chi Squared returned from nllst2 = 0.561E-03

Reduced Chi Squared = 0.883E-02

Chi Squared = 0.353E-01

The probability for exceeding chi square = 0.100E+01

For a second order fit 3 correlation coefficients are given:

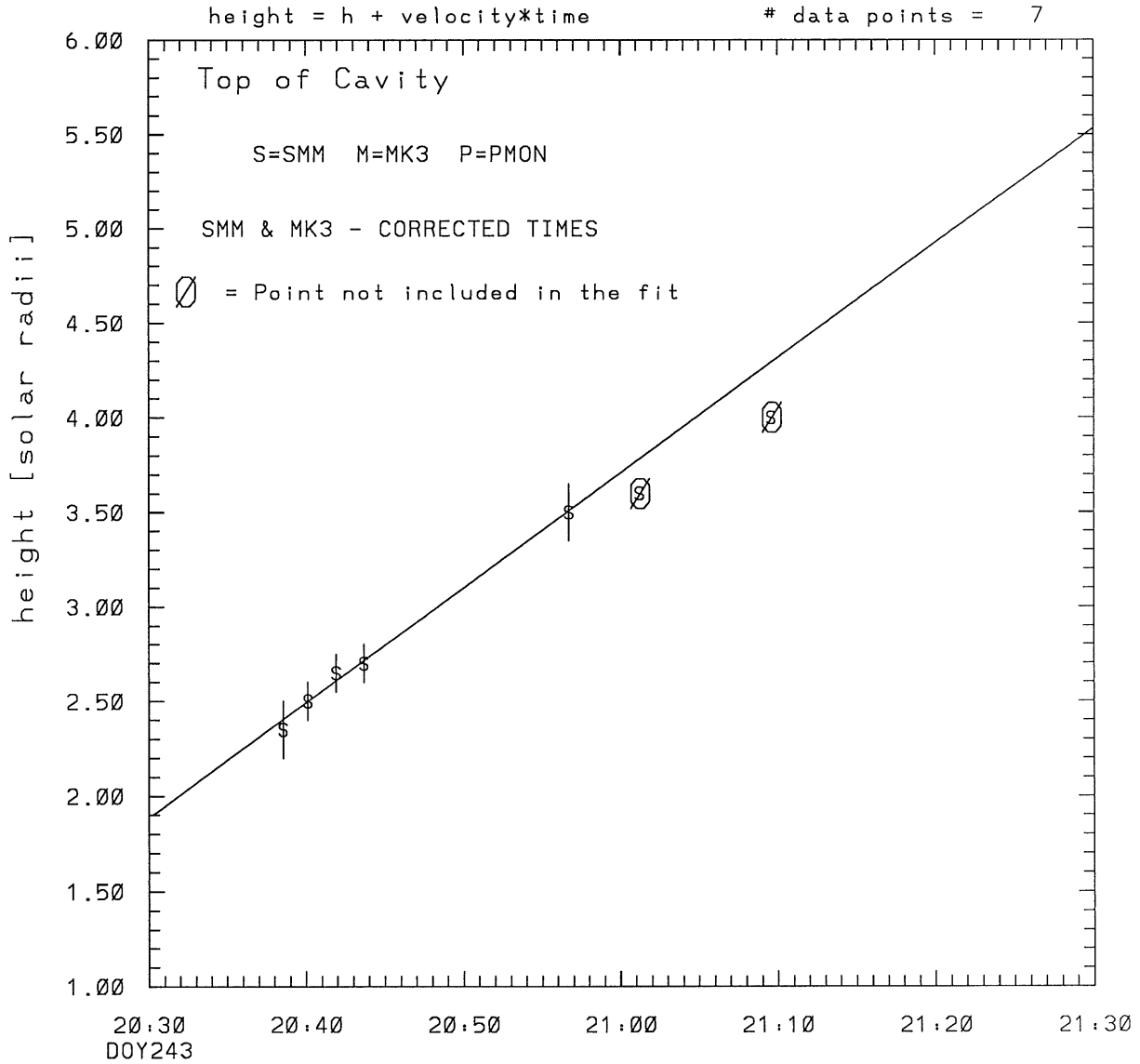
(Using equation of motion: $r = a + bt + at^{**2}$)

The correlation between the data and the term linear in time = 0.8849E+00

The correlation between the data and the time**2 term = 0.8503E+00

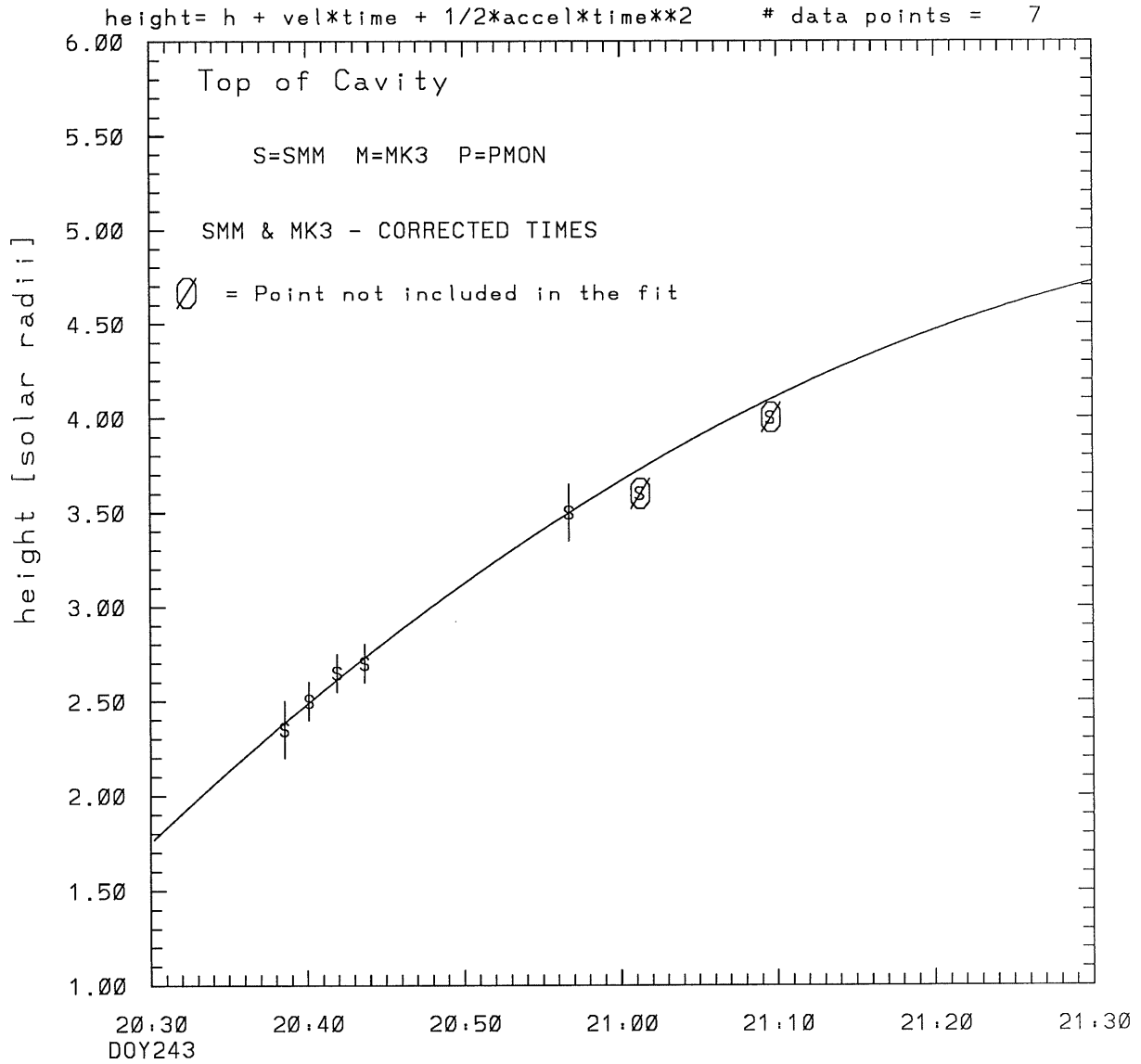
The correlation between the data and the complete equation of motion = $0.9968E+00$
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

SMM C/P 1980 DOY243 145 +/- 0 degrees



tstart=DOY243 20:17 +/- 0.1 [min.]
radial velocity= 705. +/- 27. [km/sec]

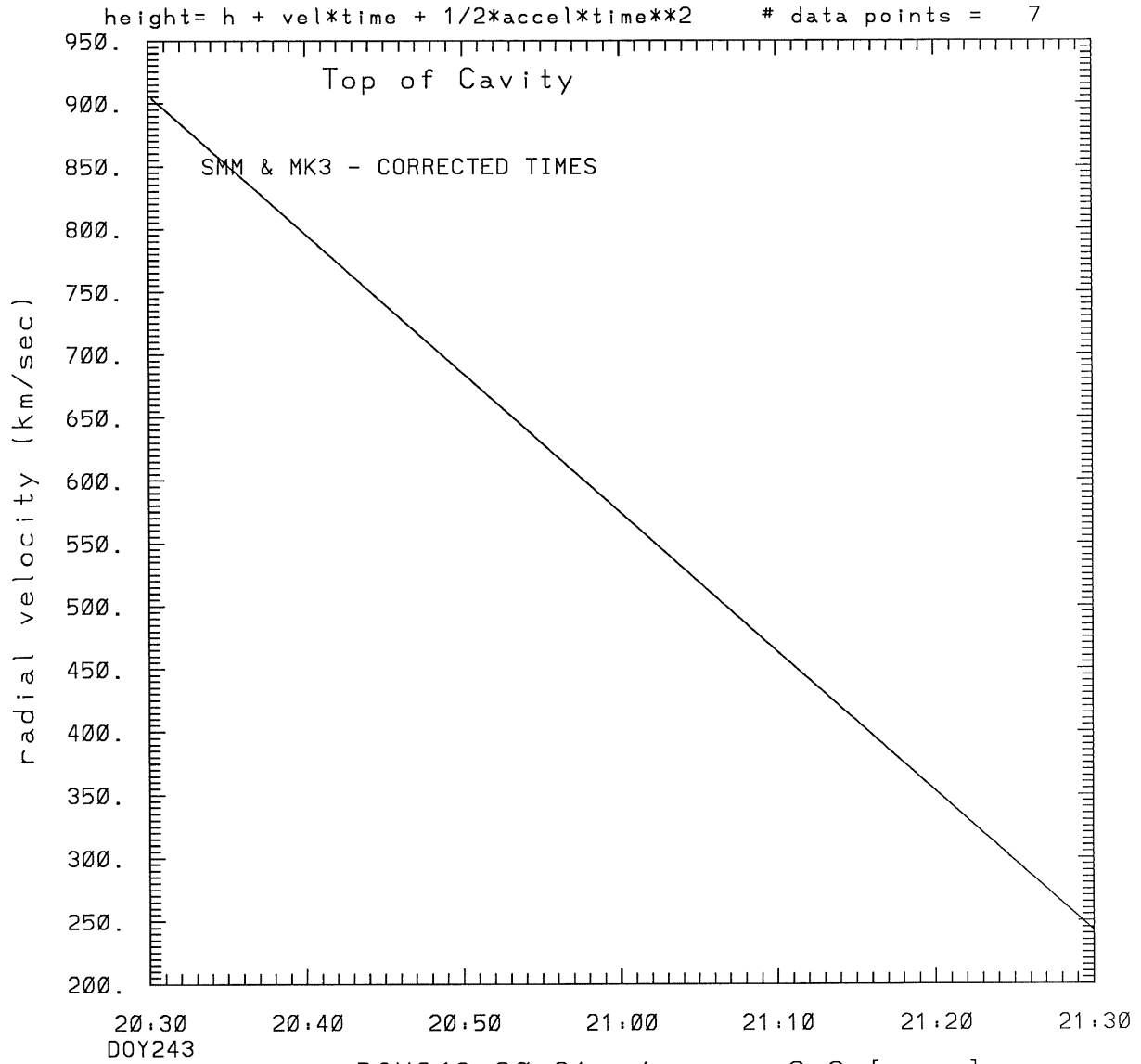
SMM C/P 1980 DOY243 145 +/- 0 degrees



tstart=DOY243 20:21 +/- 2.2 [min.]

radial acceleration = $-0.1845 +/- 0.1916$ [km/sec**2]

SMM C/P 1980 DOY243 145 +/- 0 degrees



tstart=DOY243 20:21 +/- 2.2 [min.]

radial acceleration=-.184E+00 km/sec**2

This is a 1 order run

INPUT:

year	day	time	radii	radius	error in	angle	error in	datatype
1980	243	20:38:32	2.35	+/- 0.15	145.0	+/- 0.5	SMM	
1980	243	20:40: 7	2.50	+/- 0.10	145.0	+/- 0.5	SMM	
1980	243	20:41:54	2.65	+/- 0.10	145.0	+/- 0.5	SMM	
1980	243	20:43:40	2.70	+/- 0.10	145.0	+/- 0.5	SMM	
1980	243	20:56:42	3.50	+/- 0.15	145.0	+/- 1.0	SMM	
1980	243	21: 1:13	3.60	-----	145.00	+/- ----	SMM THIS POINT WASN'T USED IN THE FIT.	
1980	243	21: 9:35	4.00	-----	145.00	+/- ----	SMM THIS POINT WASN'T USED IN THE FIT.	

Structure being measured:
Top of Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.145E+02 +/- 0.530E-01$ [minutes]
In more convenient units:
Event began at DOY 243 20:17 +/- 0.530E-01 [minutes]

Origin defined at DOY243 20:30

RADIAL INFORMATION:

RADIAL VELOCITY = 705. +/- 27. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.188E+01 +/- 0.328E-01$ [solar radii]
 $c(2) = 0.608E-01 +/- 0.232E-02$ [radii/min]
 $c(2) = 0.705E+03 +/- 0.269E+02$ [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 $c(1) = 0.12191E+00$ [radii] see Bevington pg. 114
error in $c(2) = 0.52615E-02$ [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) = 145. +/- 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 20:38 = 0.000E+00 km/sec

The TOTAL velocity at 20:38 = 705. km/sec

The TANGENTIAL velocity at 20:40 = 0.000E+00 km/sec

The TOTAL velocity at 20:40 = 705. km/sec

The TANGENTIAL velocity at 20:41 = 0.000E+00 km/sec

The TOTAL velocity at 20:41 = 705. km/sec

The TANGENTIAL velocity at 20:43 = 0.000E+00 km/sec

The TOTAL velocity at 20:43 = 705. km/sec

The TANGENTIAL velocity at 20:56 = 0.000E+00 km/sec

The TOTAL velocity at 20:56 = 705. km/sec

The TANGENTIAL velocity at 21: 1 = 0.000E+00 km/sec

The TOTAL velocity at 21: 1 = 705. km/sec

The TANGENTIAL velocity at 21: 9 = 0.000E+00 km/sec

The TOTAL velocity at 21: 9 = 705. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.64

Standard Deviation in start time measurement = 0.113E+02

Error in time = 0.57681E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.988E-03

Reduced Chi Squared = 0.161E+00

Chi Squared = 0.803E+00

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.995E+00

The probability that no LINEAR correlation exists between the variables = 0.3819E-05

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

This is a 2 order run

INPUT:

year	day	time	radii	radius	error in	angle	error in	angle	datatype
1980	243	20:38:32	2.35	+/- 0.15	145.0	+/- 0.5			SMM
1980	243	20:40: 7	2.50	+/- 0.10	145.0	+/- 0.5			SMM
1980	243	20:41:54	2.65	+/- 0.10	145.0	+/- 0.5			SMM
1980	243	20:43:40	2.70	+/- 0.10	145.0	+/- 0.5			SMM
1980	243	20:56:42	3.50	+/- 0.15	145.0	+/- 1.0			SMM
1980	243	21: 1:13	3.60	-----	145.00	+/- ----			SMM THIS POINT WASN'T USED IN THE FIT.
1980	243	21: 9:35	4.00	-----	145.00	+/- ----			SMM THIS POINT WASN'T USED IN THE FIT.

Structure being measured:

Top of Cavity

OUTPUT:

START TIME:

Event began at t = 0 + -0.910E+01 +/- 0.223E+01 [minutes]

In more convenient units:

Event began at DOY 243 20:21 +/- 0.223E+01 [minutes]

Origin defined at DOY243 20:30

RADIAL INFORMATION:

RADIAL ACCELERATION = -0.184E+00 +/- 0.192E+00 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

- c(1) = 0.175E+01 +/- 0.142E+00 [solar radii]
- c(2) = 0.782E-01 +/- 0.182E-01 [radii/min]
- c(2) = 0.907E+03 +/- 0.211E+03 [km/sec]
- c(3) = -0.477E-03 +/- 0.496E-03 [radii/min**2]
- c(3) = -0.184E+00 +/- 0.192E+00 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

- Approximate error in c(1) = 0.16978E+00 [radii] Bevington pg 154 (8-30)
- Exact error in c(1) = 0.31717E-01 [radii] Bevington pg 154 (8-28)
- Approximate error in c(2) = 0.18232E-01 [radii/min] Bevington pg 154 (8-30)
- Exact error in c(2) = 0.42111E-02 [radii/min] Bevington pg 154 (8-28)

Approximate error in $c(3) = 0.38761E-03$ [radii/min**] Bevington pg 154 (8-30)

Exact error in $c(3) = 0.11363E-03$ [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:

$a(1) = 145.$ +/- $0.$ [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 20:38 = $0.000E+00$ km/sec

The TOTAL velocity at 20:38 = 812. km/sec

The TANGENTIAL velocity at 20:40 = $0.000E+00$ km/sec

The TOTAL velocity at 20:40 = 795. km/sec

The TANGENTIAL velocity at 20:41 = $0.000E+00$ km/sec

The TOTAL velocity at 20:41 = 775. km/sec

The TANGENTIAL velocity at 20:43 = $0.000E+00$ km/sec

The TOTAL velocity at 20:43 = 755. km/sec

The TANGENTIAL velocity at 20:56 = $0.000E+00$ km/sec

The TOTAL velocity at 20:56 = 611. km/sec

The TANGENTIAL velocity at 21: 1 = $0.000E+00$ km/sec

The TOTAL velocity at 21: 1 = 561. km/sec

The TANGENTIAL velocity at 21: 9 = $0.000E+00$ km/sec

The TOTAL velocity at 21: 9 = 468. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.64

Standard Deviation in start time measurement = $0.113E+02$

Value of reduced Chi Squared returned from nllst2 = $0.100E-02$

Reduced Chi Squared = $0.424E-01$

Chi Squared = $0.169E+00$

The probability for exceeding chi square = $0.100E+01$

For a second order fit 3 correlation coefficients are given:

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

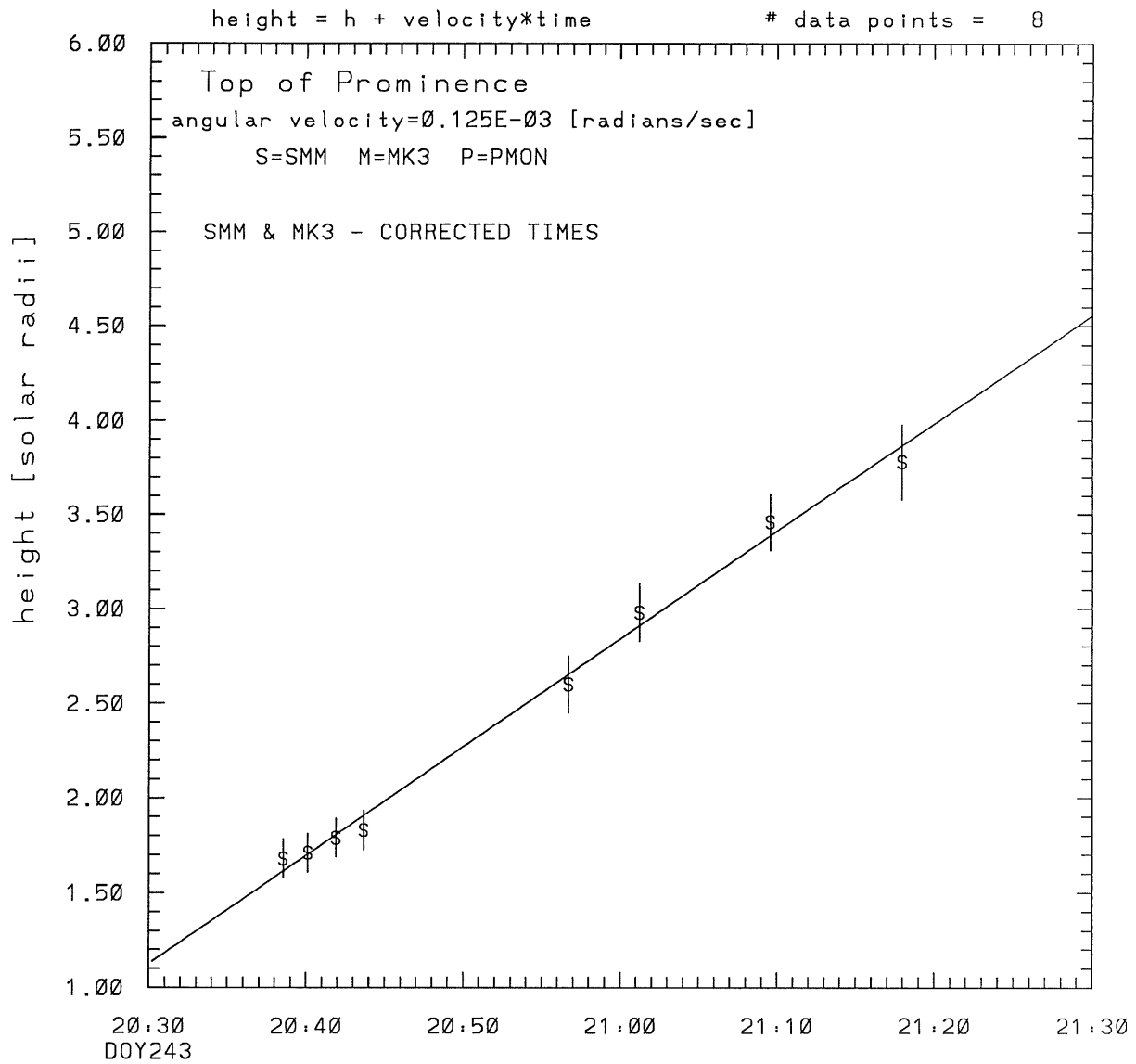
The correlation between the data and the term linear in time = 0.7684E+00

The correlation between the data and the time**2 term = 0.7064E+00

The correlation between the data and the complete equation of motion = 0.1051E+01

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

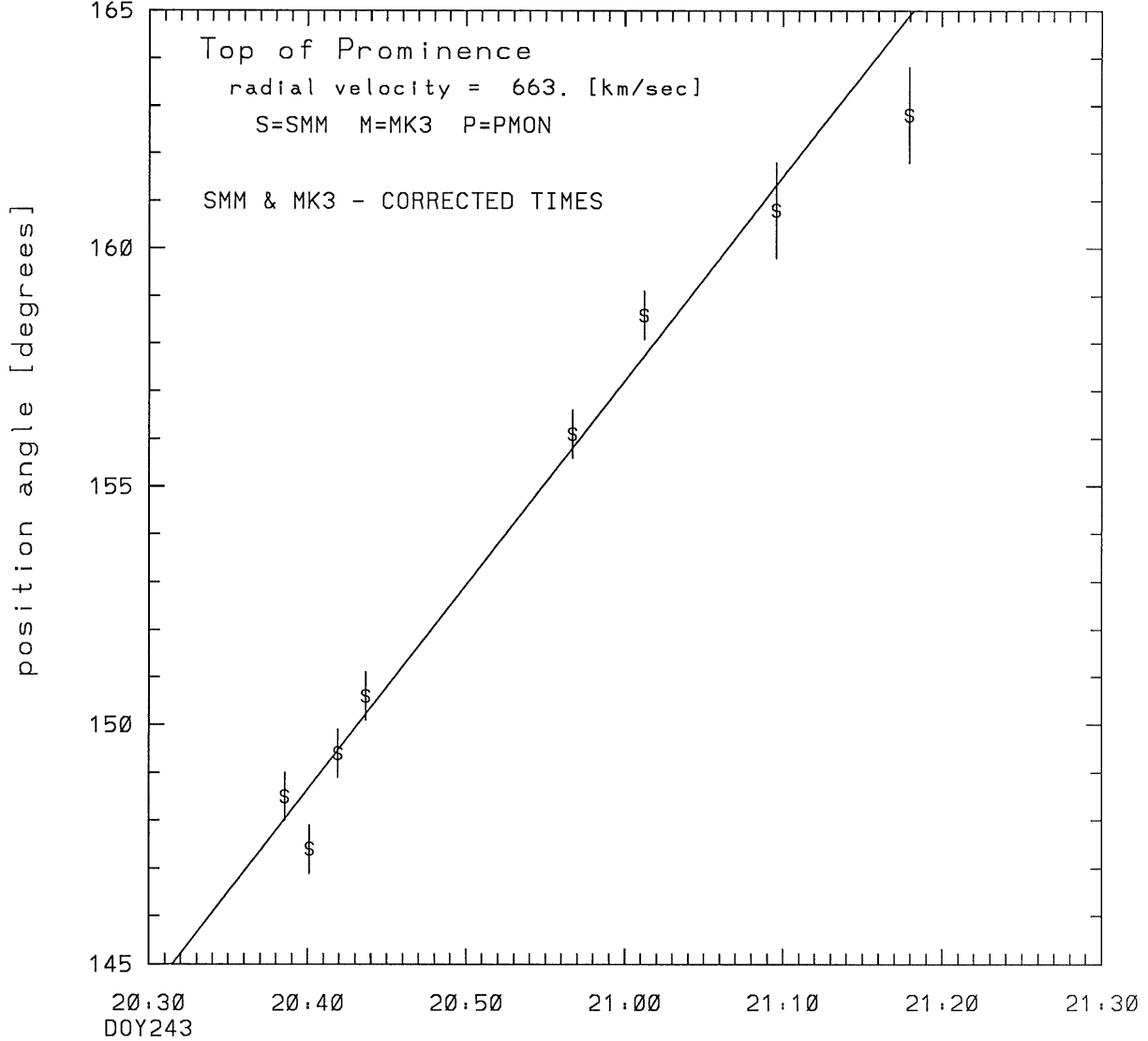
SMM C/P 1980 DOY243 154 +/- 8 degrees



tstart=DOY243 20:28 +/- 0.0 [min.]
radial velocity= 663. +/- 22. [km/sec]

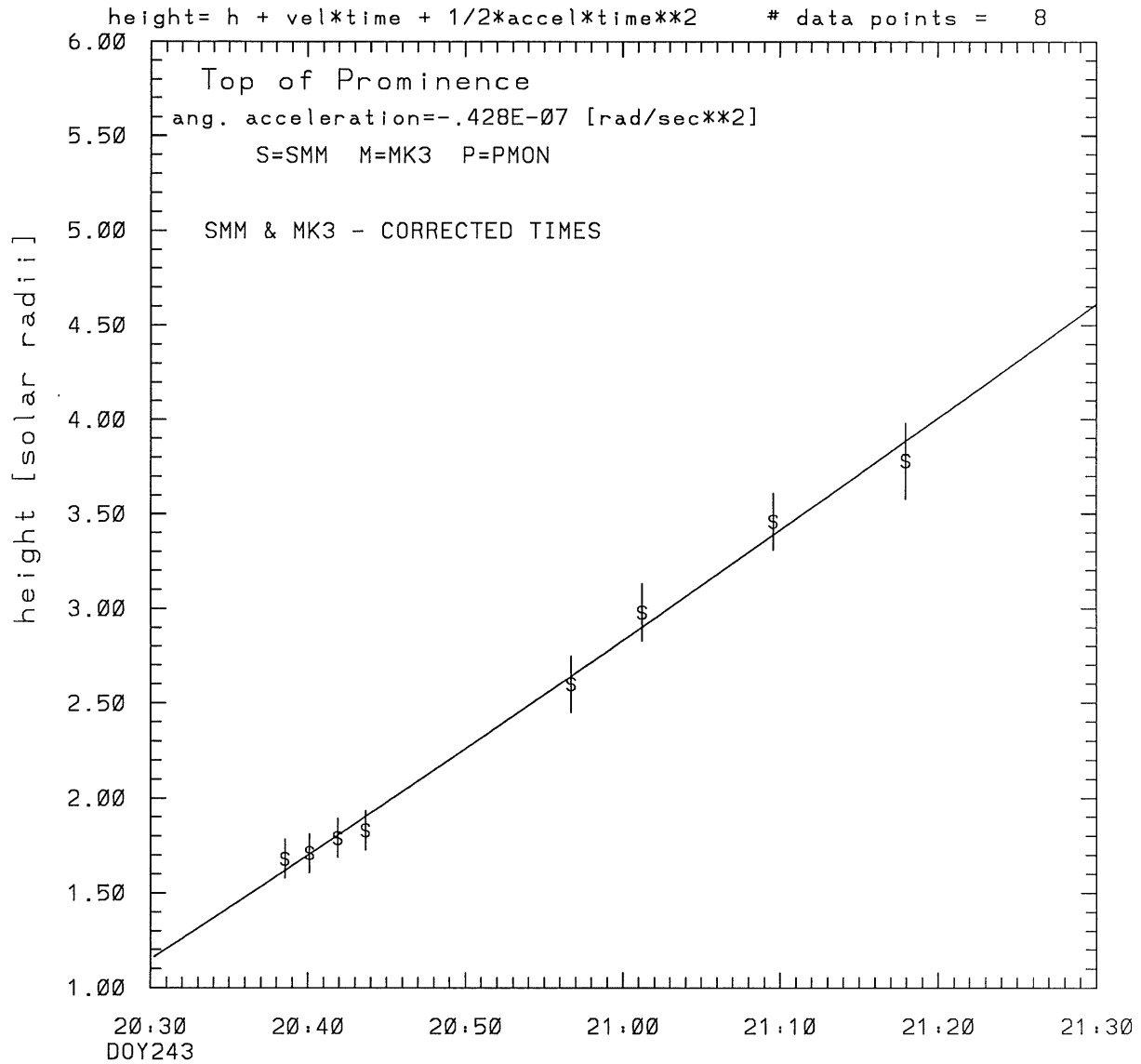
SMM C/P 1980 DOY243 154 +/- 8 degrees

angle = initial angle + angular velocity * time # data points = 8



tstart = DOY243 20:28 +/- 0.0 [min.]
angular velocity = 0.125E-03 +/- 0.789E-05 [rad/sec]

SMM C/P 1980 DOY243 154 +/- 8 degrees

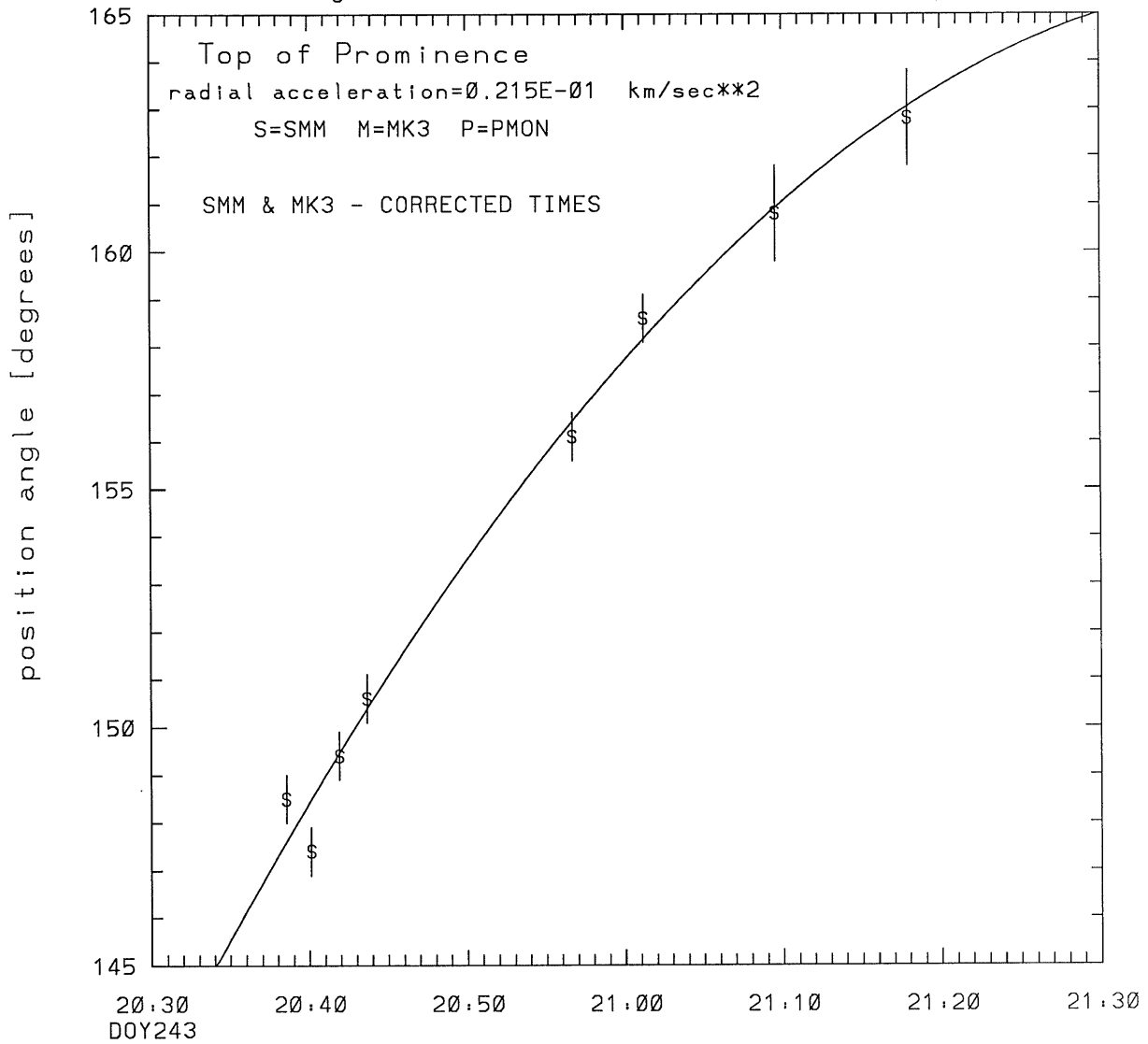


tstart=DOY243 20:29 +/- 3.3 [min.]

radial acceleration = $0.0215 +/- 0.0826$ [km/sec**2]

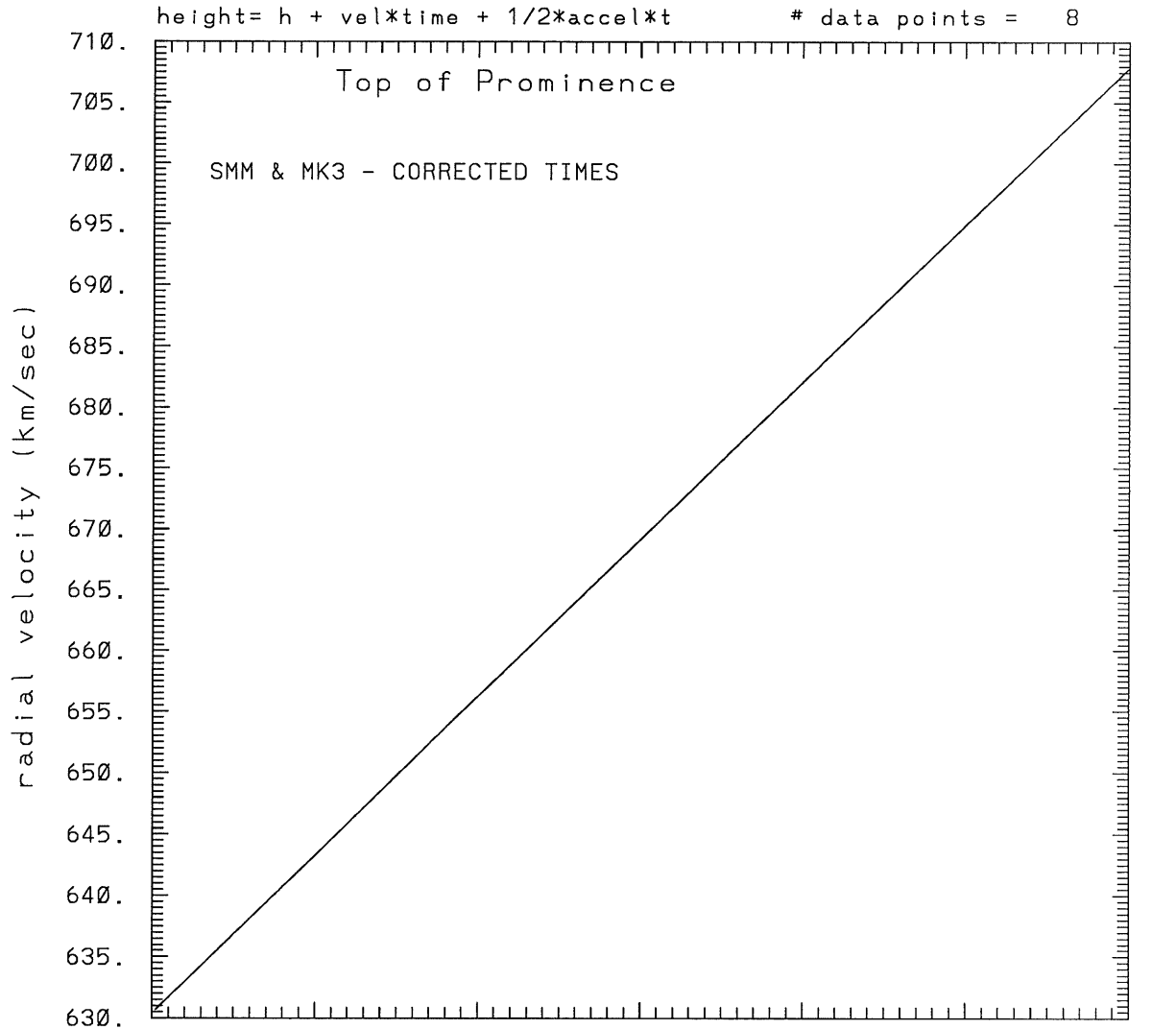
SMM C/P 1980 DOY243 154 +/- 8 degrees

angle = initial angle + angular velocity*time
+ 1/2 angular acceleration*time**2 # data points = 8



tstart=DOY243 20:29 +/- 3.3 [min.]
angular acceleration=-.428E-07 +/-0.204E-07 [rad/sec**2]

SMM C/P 1980 DOY243 154 +/- 8 degrees



20:30
DOY243

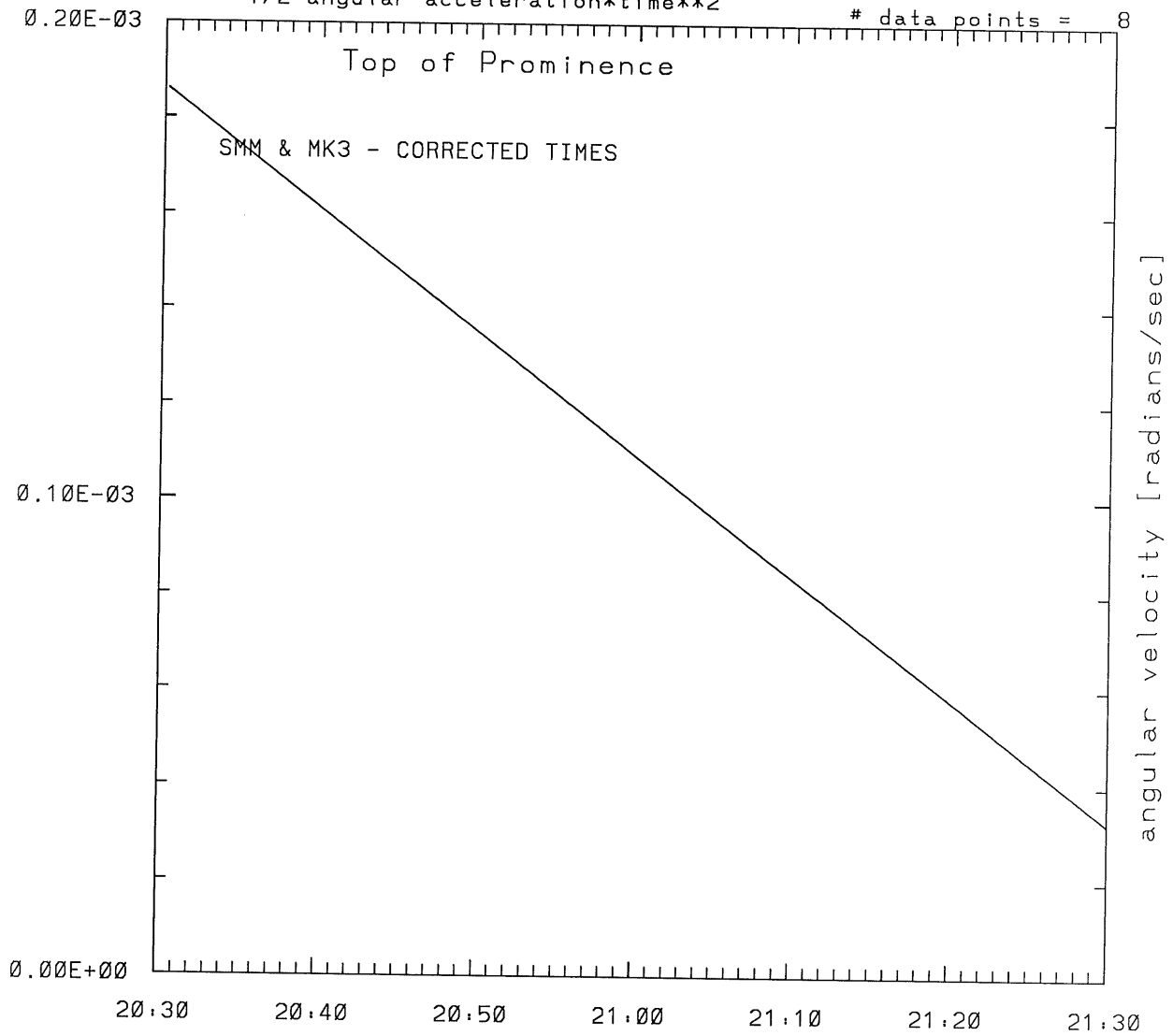
tstart=DOY243 20:29 +/- 3.3 [min.]

radial acceleration=0.215E-01 km/sec**2

SMM C/P 1980 DOY243 154 +/- 8 degrees

$$\text{angle} = \text{initial angle} + \text{angular velocity} * \text{time} + \frac{1}{2} \text{angular acceleration} * \text{time} ** 2$$

data points = 8



0.00E+00

0.10E-03

0.20E-03

20:30
DOY243

20:40

20:50

21:00

21:10

21:20

21:30

angular velocity [radians/sec]

tstart=DOY243 20:29 +/- 3.3 [min.]

angular acceleration=-.428E-07 +/-

0.204E-07 [rad/sec**2]

This is a 1 order run

INPUT:

year	doy	time	radii	radius	error in angle	error in angle	datatype
1980	243	20:38:32	1.68 +/- 0.10	148.5 +/- 0.5		SMM	
1980	243	20:40: 7	1.71 +/- 0.10	147.4 +/- 0.5		SMM	
1980	243	20:41:54	1.79 +/- 0.10	149.4 +/- 0.5		SMM	
1980	243	20:43:40	1.83 +/- 0.10	150.6 +/- 0.5		SMM	
1980	243	20:56:42	2.60 +/- 0.15	156.1 +/- 0.5		SMM	
1980	243	21: 1:13	2.98 +/- 0.15	158.6 +/- 0.5		SMM	
1980	243	21: 9:35	3.46 +/- 0.15	160.8 +/- 1.0		SMM	
1980	243	21:17:57	3.78 +/- 0.20	162.8 +/- 1.0		SMM	

Structure being measured:
Top of Prominence

OUTPUT:

START TIME:

Event began at t = 0 + -0.219E+01 +/- 0.248E-01 [minutes]
In more convenient units:
Event began at DOY 243 20:28 +/- 0.248E-01 [minutes]

Origin defined at DOY243 20:30

RADIAL INFORMATION:

RADIAL VELOCITY = 663. +/- 22. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.113E+01 +/- 0.395E-01 [solar radii]
c(2) = 0.572E-01 +/- 0.186E-02 [radii/min]
c(2) = 0.663E+03 +/- 0.216E+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)= 0.49939E-01 [radii] see Bevington pg. 114
error in c(2)= 0.18149E-02 [radii/min] see Bevington pg. 114

ANGULAR INFORMATION:

ANGULAR VELOCITY = 0.1245E-03 +/- 0.7889E-05[radians/sec]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 144. +/- 1. [degrees]
a(2) = 0.428E+00 +/- 0.271E-01 [degrees/min]
a(2) = 0.125E-03 +/- 0.789E-05 [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 RADIAL velocity at 20:38 = 663. km/sec

The RADIAL velocity at 20:40 = 663. km/sec
The RADIAL velocity at 20:41 = 663. km/sec
The RADIAL velocity at 20:43 = 663. km/sec
The RADIAL velocity at 20:56 = 663. km/sec
The RADIAL velocity at 21: 1 = 663. km/sec
The RADIAL velocity at 21: 9 = 663. km/sec
The RADIAL velocity at 21:17 = 663. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.85
Standard Deviation in start time measurement = 0.140E+02
Error in time = 0.30720E+01 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.372E-02
Reduced Chi Squared = 0.279E-01
Chi Squared = 0.167E+00
The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.997E+00
The probability that no LINEAR correlation exists between the variables = -0.7334
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

This is a 2 order run

INPUT:

year	day	time	radii	radius	angle	error in angle	error in datatype
1980	243	20:38:32	1.68 +/- 0.10	148.5 +/- 0.5	SMM		
1980	243	20:40: 7	1.71 +/- 0.10	147.4 +/- 0.5	SMM		
1980	243	20:41:54	1.79 +/- 0.10	149.4 +/- 0.5	SMM		
1980	243	20:43:40	1.83 +/- 0.10	150.6 +/- 0.5	SMM		
1980	243	20:56:42	2.60 +/- 0.15	156.1 +/- 0.5	SMM		
1980	243	21: 1:13	2.98 +/- 0.15	158.6 +/- 0.5	SMM		
1980	243	21: 9:35	3.46 +/- 0.15	160.8 +/- 1.0	SMM		
1980	243	21:17:57	3.78 +/- 0.20	162.8 +/- 1.0	SMM		

Structure being measured:
Top of Prominence

OUTPUT:

START TIME:

Event began at t = 0 + -0.277E+01 +/- 0.330E+01 [minutes]
In more convenient units:
Event began at DOY 243 20:29 +/- 0.330E+01 [minutes]

Origin defined at DOY243 20:30

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.215E-01 +/- 0.826E-01 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.115E+01 +/- 0.105E+00 [solar radii]
c(2) = 0.543E-01 +/- 0.110E-01 [radii/min]
c(2) = 0.630E+03 +/- 0.128E+03 [km/sec]
c(3) = 0.557E-04 +/- 0.214E-03 [radii/min**2]
c(3) = 0.215E-01 +/- 0.826E-01 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.12027E+00 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.25262E-01 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.11178E-01 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.31121E-02 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.20402E-03 [radii/min**2] Bevington pg 154 (8-30)
Exact error in c(3) = 0.66096E-04 [radii/min**2] Bevington pg 154 (8-28)

ANGULAR INFORMATION:

ANGULAR ACCELERATION= -0.4284E-07 +/- 0.2039E-07[radians/sec**2]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 142. +/- 1. [degrees]
a(2) = 0.641E+00 +/- 0.104E+00 [degrees/min]
a(2) = 0.187E-03 +/- 0.302E-04 [rad/sec]

a(3) = -0.442E-02 +/- 0.210E-02 [degrees/min**2]
a(3) = -0.428E-07 +/- 0.204E-07 [rad/sec**2]

The RADIAL velocity at 20:38 = 641. km/sec

The RADIAL velocity at 20:40 = 643. km/sec

The RADIAL velocity at 20:41 = 646. km/sec

The RADIAL velocity at 20:43 = 648. km/sec

The RADIAL velocity at 20:56 = 665. km/sec

The RADIAL velocity at 21: 1 = 671. km/sec

The RADIAL velocity at 21: 9 = 682. km/sec

The RADIAL velocity at 21:17 = 692. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.85
Standard Deviation in start time measurement = 0.140E+02
Value of reduced Chi Squared returned from nllst2 = 0.429E-02
Reduced Chi Squared = 0.389E-01
Chi Squared = 0.194E+00
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 = 0.9280E+00
The correlation between the data and the time**2 term = 0.8631E+00
The correlation between the data and the complete equation of motion=0.9955E+00
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]