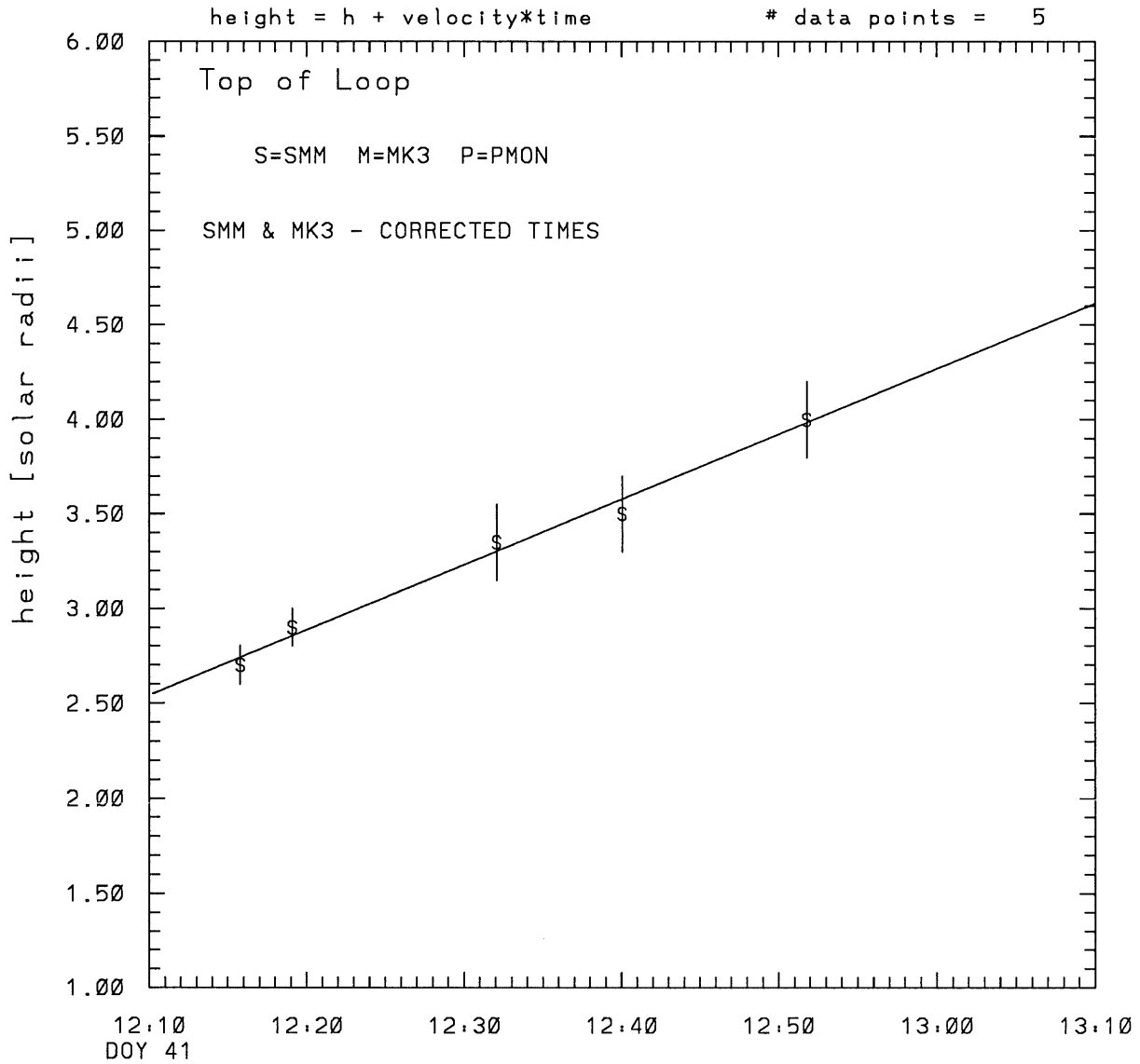
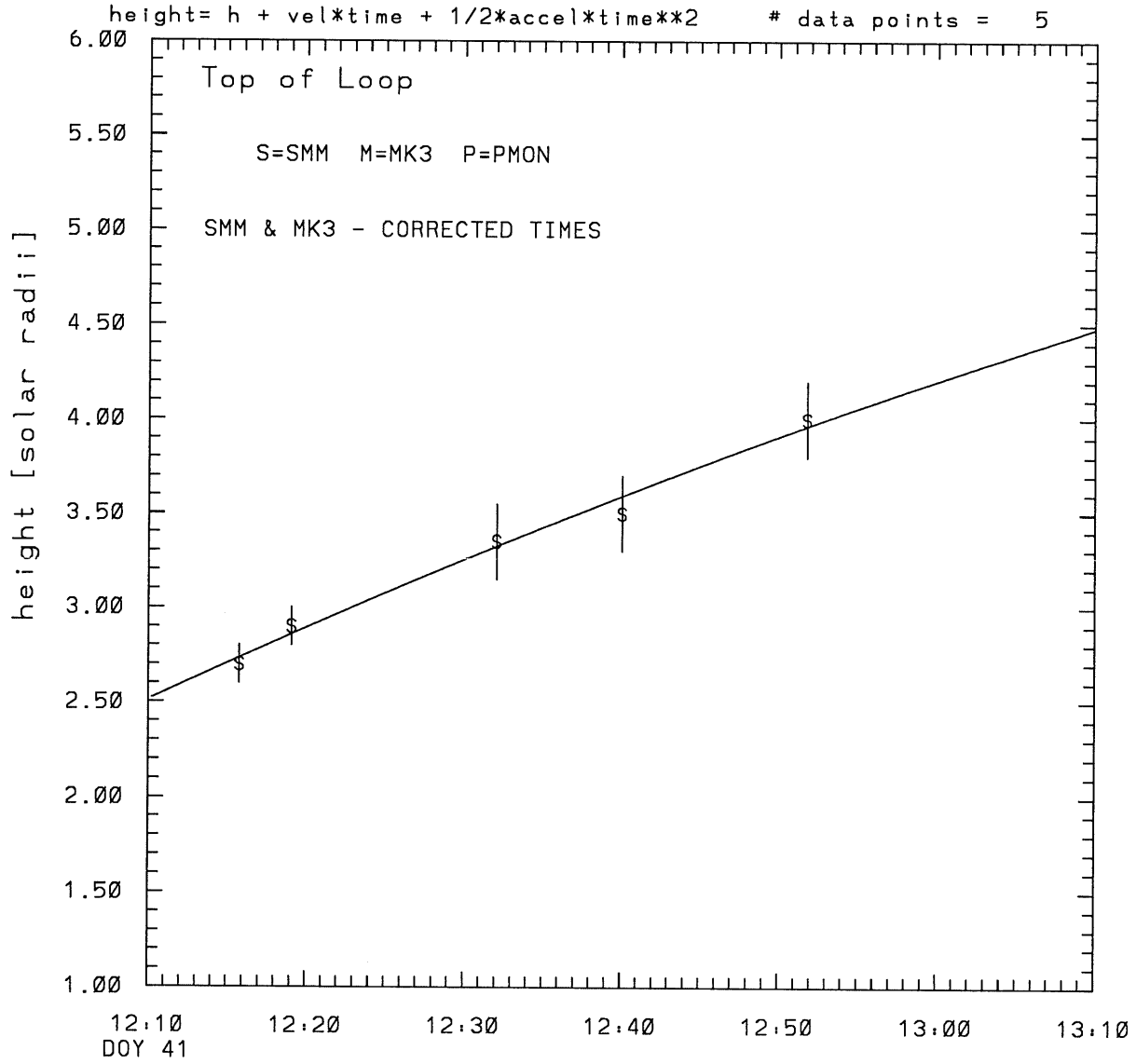


SMM C/P 1986 DOY 41 275 +/- 0 degrees



tstart=DOY 41 11:27 +/- 0.8 [min.]
radial velocity= 400. +/- 23. [km/sec]

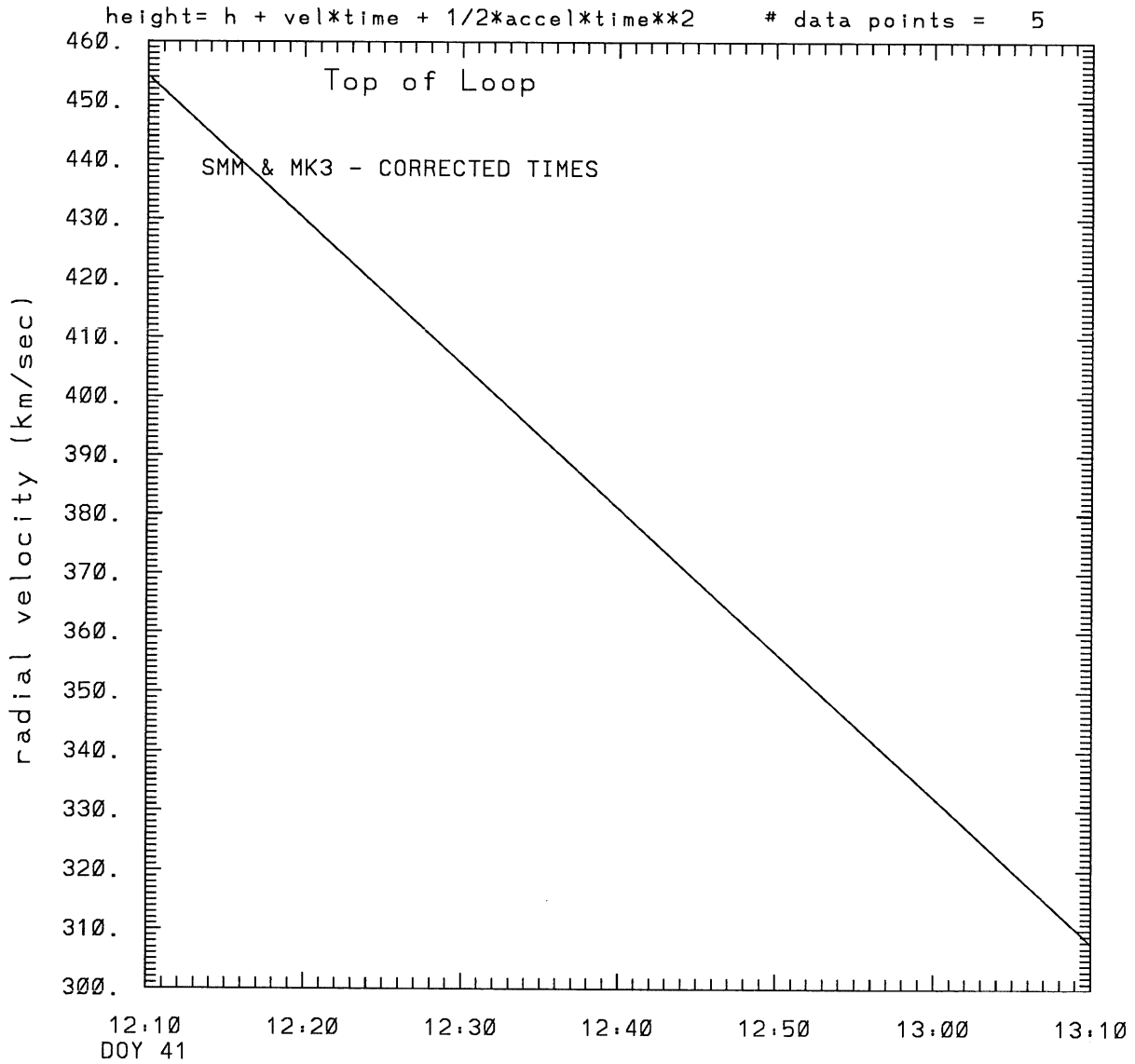
SMM C/P 1986 DOY 41 275 +/- 0 degrees



tstart=DOY 41 11:35 +/- 26.3 [min.]

radial acceleration = -0.0407 ± 0.0986 [km/sec**2]

SMM C/P 1986 DOY 41 275 +/- 0 degrees



tstart=DOY 41 11:35 +/- 26.3 [min.]

radial acceleration=-.407E-01 km/sec**2

This is a 1 order run

INPUT:

year	doy	time	radii	radius	error in	angle	angle	error in	datatype
1986	41	12:15:47	2.70	+/- 0.10	275.0	+/- 0.5			SMM
1986	41	12:19: 4	2.90	+/- 0.10	275.0	+/- 0.5			SMM
1986	41	12:32: 3	3.35	+/- 0.20	275.0	+/- 1.0			SMM
1986	41	12:40: 3	3.50	+/- 0.20	275.0	+/- 1.0			SMM
1986	41	12:51:48	4.00	+/- 0.20	275.0	+/- 1.0			SMM

Structure being measured:

Top of Loop

OUTPUT:

START TIME:

Event began at $t = 0 + -0.447E+02 +/- 0.797E+00$ [minutes]

In more convenient units:

Event began at DOY 41 11:27 +/- 0.797E+00 [minutes]

Origin defined at DOY 41 12:10

RADIAL INFORMATION:

RADIAL VELOCITY = 400. +/- 23. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.254E+01 +/- 0.364E-01 [solar radii]
c(2) = 0.345E-01 +/- 0.202E-02 [radii/min]
c(2) = 0.400E+03 +/- 0.234E+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)= 0.55205E-01 [radii] see Bevington pg. 114

error in c(2)= 0.21646E-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) = 275. +/- 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 12:15 = 0.000E+00 km/sec

The TOTAL velocity at 12:15 = 400. km/sec

The TANGENTIAL velocity at 12:19 = 0.000E+00 km/sec

The TOTAL velocity at 12:19 = 400. km/sec

The TANGENTIAL velocity at 12:32 = 0.000E+00 km/sec

The TOTAL velocity at 12:32 = 400. km/sec

The TANGENTIAL velocity at 12:40 = 0.000E+00 km/sec

The TOTAL velocity at 12:40 = 400. km/sec

The TANGENTIAL velocity at 12:51 = 0.000E+00 km/sec

The TOTAL velocity at 12:51 = 400. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.51

Standard Deviation in start time measurement = 0.133E+02

Error in time = 0.32342E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.270E-02

Reduced Chi Squared = 0.129E-01

Chi Squared = 0.386E-01

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.994E+00

The probability that no LINEAR correlation exists between the variables = 0.5421E-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
1986	41	12:15:47	2.70 +/- 0.10	275.0 +/- 0.5	275.0 +/- 0.5	SMM	
1986	41	12:19: 4	2.90 +/- 0.10	275.0 +/- 0.5	275.0 +/- 0.5	SMM	
1986	41	12:32: 3	3.35 +/- 0.20	275.0 +/- 1.0	275.0 +/- 1.0	SMM	
1986	41	12:40: 3	3.50 +/- 0.20	275.0 +/- 1.0	275.0 +/- 1.0	SMM	
1986	41	12:51:48	4.00 +/- 0.20	275.0 +/- 1.0	275.0 +/- 1.0	SMM	

Structure being measured:

Top of Loop

OUTPUT:

START TIME:

Event began at $t = 0 + -0.353E+02 +/- 0.263E+02$ [minutes]

In more convenient units:

Event began at DOY 41 11:35 +/- 0.263E+02 [minutes]

Origin defined at DOY 41 12:10

RADIAL INFORMATION:

RADIAL ACCELERATION = $-0.407E-01 +/- 0.986E-01$ km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = $0.251E+01 +/- 0.839E-01$ [solar radii]
c(2) = $0.392E-01 +/- 0.115E-01$ [radii/min]
c(2) = $0.454E+03 +/- 0.133E+03$ [km/sec]
c(3) = $-0.105E-03 +/- 0.255E-03$ [radii/min**2]
c(3) = $-0.407E-01 +/- 0.986E-01$ [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = $0.11979E+00$ [radii] Bevington pg 154 (8-30)
Exact error in c(1) = $0.37120E-01$ [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = $0.12845E-01$ [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = $0.37929E-02$ [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = $0.27065E-03$ [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = $0.77863E-04$ [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) = 275. +/- 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 12:15 = 0.000E+00 km/sec

The TOTAL velocity at 12:15 = 440. km/sec

The TANGENTIAL velocity at 12:19 = 0.000E+00 km/sec

The TOTAL velocity at 12:19 = 432. km/sec

The TANGENTIAL velocity at 12:32 = 0.000E+00 km/sec

The TOTAL velocity at 12:32 = 400. km/sec

The TANGENTIAL velocity at 12:40 = 0.000E+00 km/sec

The TOTAL velocity at 12:40 = 381. km/sec

The TANGENTIAL velocity at 12:51 = 0.000E+00 km/sec

The TOTAL velocity at 12:51 = 352. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.51

Standard Deviation in start time measurement = 0.133E+02

Value of reduced Chi Squared returned from nllst2 = 0.341E-02

Reduced Chi Squared = 0.239E-01

Chi Squared = 0.478E-01

The probability for exceeding chi square = 0.997E+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 = 0.1041E+01

The correlation between the data and the time**2 term = 0.9449E+00

The correlation between the data and the complete equation of motion = 0.9966E+00

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