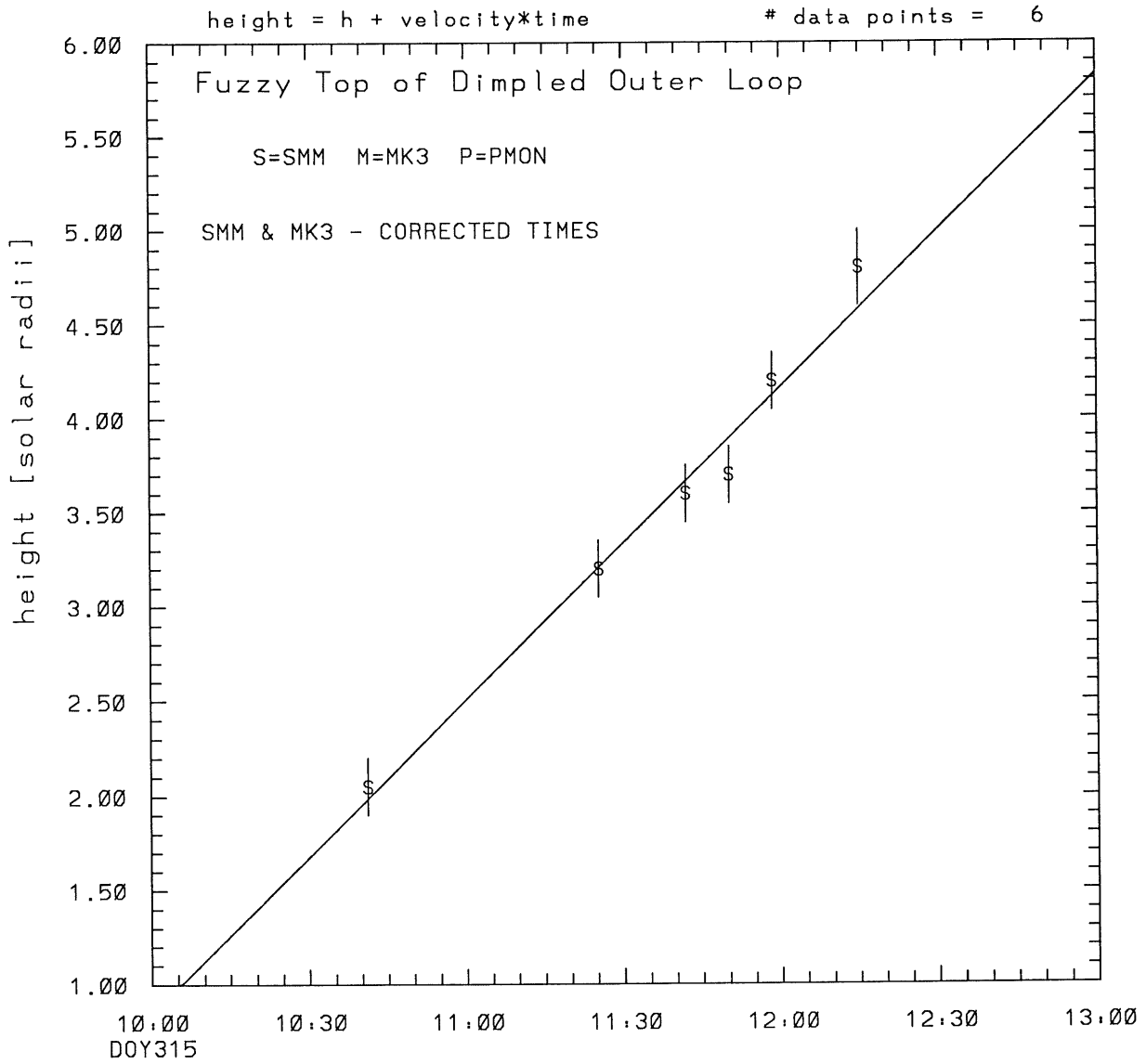
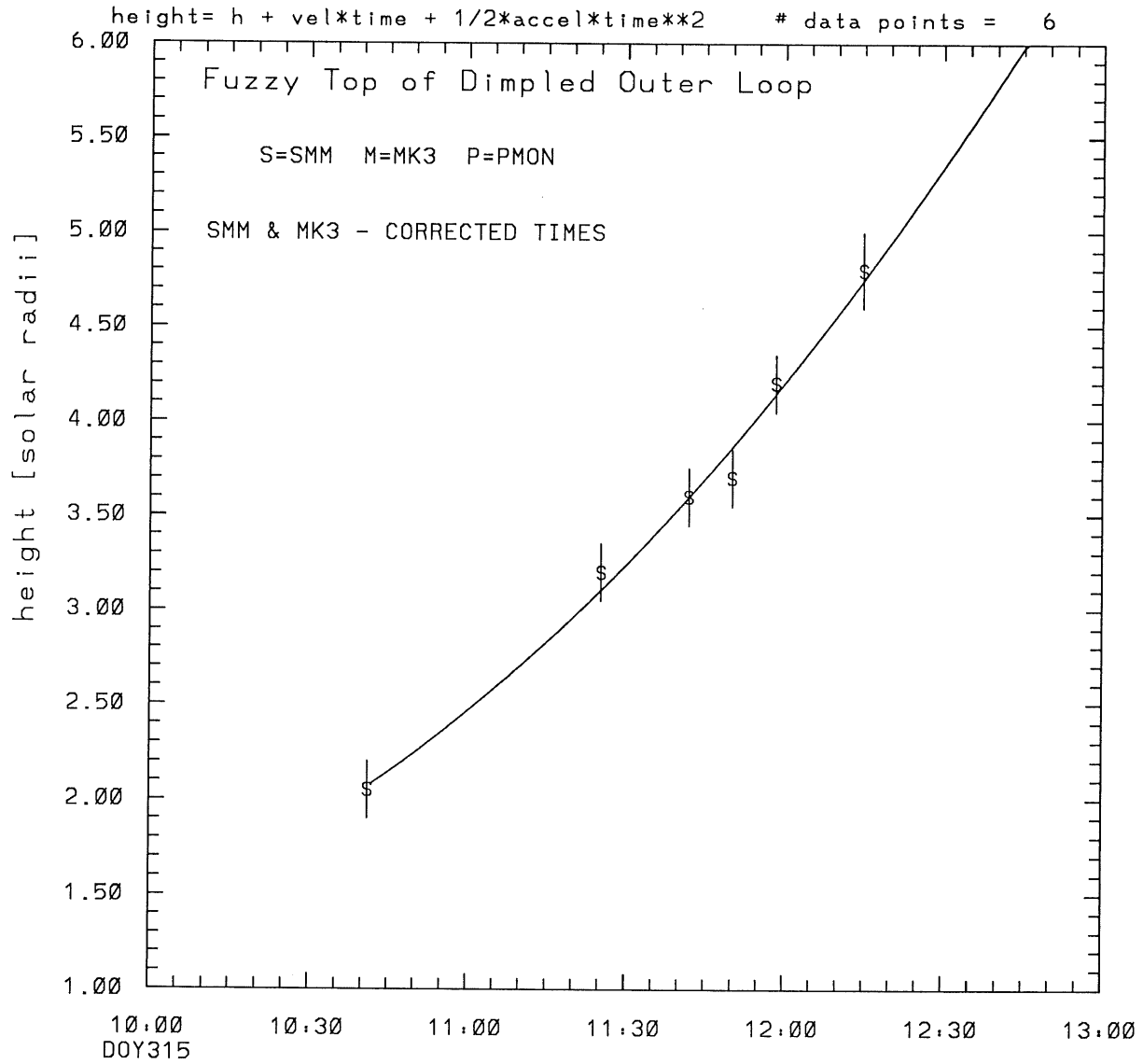


SMM C/P 1988 DOY315 305 +/- 0 degrees



tstart=DOY315 10: 6 +/- 0.3 [min.]
radial velocity= 321. +/- 21. [km/sec]

SMM C/P 1988 DOY315 305 +/- 0 degrees

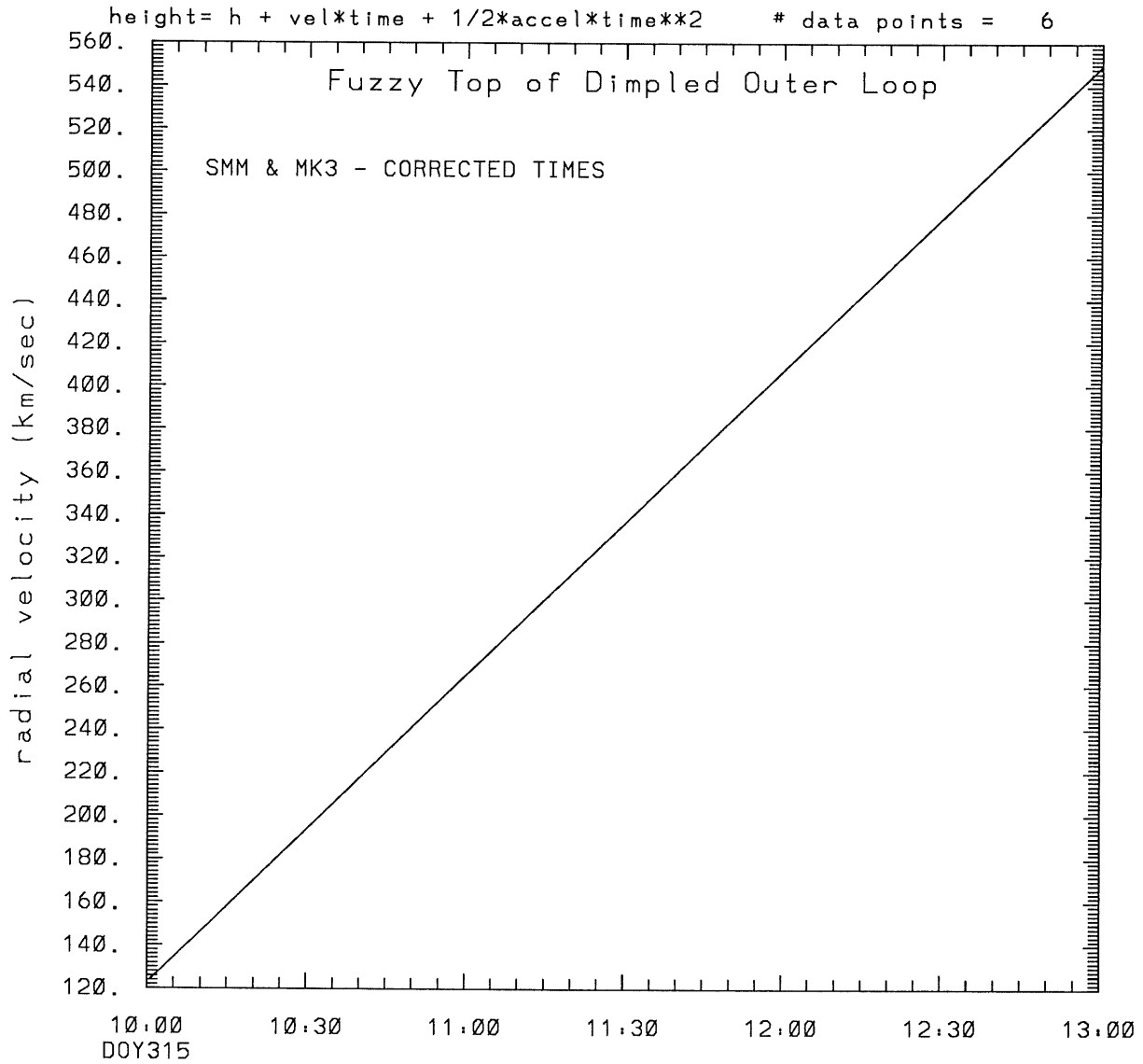


tstart=DOY315 9: 9 from derivative=0

Event begins at 1.19 Solar Radii

radial acceleration = 0.0395 +/- 0.0201 [km/sec**2]

SMM C/P 1988 DOY315 305 +/- 0 degrees



tstart=DOY315 9: 9 from derivative=0
Event begins at 1.19 Solar Radii
radial acceleration=0.395E-01 km/sec**2

This is a 1 order run

INPUT:

year	doy	time	radii	error in radius	angle	error in angle	datatype
1988	315	10:41: 9	2.05	+/- 0.15	305.0	+/- 0.5	SMM
1988	315	11:25:23	3.20	+/- 0.15	305.0	+/- 1.0	SMM
1988	315	11:41:53	3.60	+/- 0.15	305.0	+/- 1.0	SMM
1988	315	11:50: 9	3.70	+/- 0.15	305.0	+/- 1.0	SMM
1988	315	11:58:26	4.20	+/- 0.15	305.0	+/- 1.0	SMM
1988	315	12:14:57	4.80	+/- 0.20	305.0	+/- 1.0	SMM

Structure being measured:

Fuzzy Top of Dimpled Outer Loop

OUTPUT:

START TIME:

Event began at $t = 0 + 0.552E+01 +/- 0.336E+00$ [minutes]

In more convenient units:

Event began at DOY 315 10: 6 +/- 0.336E+00 [minutes]

Origin defined at DOY315 10: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 321. +/- 21. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.847E+00 +/- 0.184E+00 [solar radii]
c(2) = 0.277E-01 +/- 0.183E-02 [radii/min]
c(2) = 0.321E+03 +/- 0.213E+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)= 0.22383E+00 [radii] see Bevington pg. 114

error in c(2)= 0.21717E-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 10:41 = 0. km/sec

The TOTAL velocity at 10:41 = 321. km/sec

The TANGENTIAL velocity at 11:25 = 0. km/sec

The TOTAL velocity at 11:25 = 321. km/sec

The TANGENTIAL velocity at 11:41 = 0. km/sec

The TOTAL velocity at 11:41 = 321. km/sec

The TANGENTIAL velocity at 11:50 = 0. km/sec

The TOTAL velocity at 11:50 = 321. km/sec

The TANGENTIAL velocity at 11:58 = 0. km/sec

The TOTAL velocity at 11:58 = 321. km/sec

The TANGENTIAL velocity at 12:14 = 0. km/sec

The TOTAL velocity at 12:14 = 321. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.94

Standard Deviation in start time measurement = 0.298E+02

Error in time = 0.11471E+02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.171E-01

Reduced Chi Squared = 0.122E+00

Chi Squared = 0.489E+00

The probability for exceeding chi square = 0.999E+00

The correlation coefficient = 0.989E+00

The probability that no LINEAR correlation exists between the variables = 0.1851E-03

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

This is a 2 order run

INPUT:

year	doy	time	radii	radius	error in	angle	error in	angle	datatype
1988	315	10:41: 9	2.05	+/- 0.15	305.0	+/- 0.5	SMM		
1988	315	11:25:23	3.20	+/- 0.15	305.0	+/- 1.0	SMM		
1988	315	11:41:53	3.60	+/- 0.15	305.0	+/- 1.0	SMM		
1988	315	11:50: 9	3.70	+/- 0.15	305.0	+/- 1.0	SMM		
1988	315	11:58:26	4.20	+/- 0.15	305.0	+/- 1.0	SMM		
1988	315	12:14:57	4.80	+/- 0.20	305.0	+/- 1.0	SMM		

Structure being measured:

Fuzzy Top of Dimpled Outer Loop

OUTPUT:

START TIME:

tstart=DOY315 9: 9 from derivative = 0

Event begins at 1.19 Solar Radii

Origin defined at DOY315 10: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.395E-01 +/- 0.201E-01 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.146E+01 +/- 0.344E+00 [solar radii]
c(2) = 0.106E-01 +/- 0.882E-02 [radii/min]
c(2) = 0.123E+03 +/- 0.102E+03 [km/sec]
c(3) = 0.102E-03 +/- 0.521E-04 [radii/min**2]
c(3) = 0.395E-01 +/- 0.201E-01 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.38252E+00 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.44699E-01 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.94825E-02 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.13588E-02 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.54352E-04 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.92051E-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) = 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 10:41 = 0. km/sec

The TOTAL velocity at 10:41 = 220. km/sec

The TANGENTIAL velocity at 11:25 = 0. km/sec

The TOTAL velocity at 11:25 = 325. km/sec

The TANGENTIAL velocity at 11:41 = 0. km/sec

The TOTAL velocity at 11:41 = 364. km/sec

The TANGENTIAL velocity at 11:50 = 0. km/sec

The TOTAL velocity at 11:50 = 384. km/sec

The TANGENTIAL velocity at 11:58 = 0. km/sec

The TOTAL velocity at 11:58 = 404. km/sec

The TANGENTIAL velocity at 12:14 = 0. km/sec

The TOTAL velocity at 12:14 = 443. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.94

Standard Deviation in start time measurement = 0.298E+02

Value of reduced Chi Squared returned from nllst2 = 0.109E-01

Reduced Chi Squared = 0.522E-01

Chi Squared = 0.157E+00

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 = 0.9702E+00

The correlation between the data and the time**2 term = 0.9475E+00

The correlation between the data and the complete equation of motion = 0.9886E+00

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