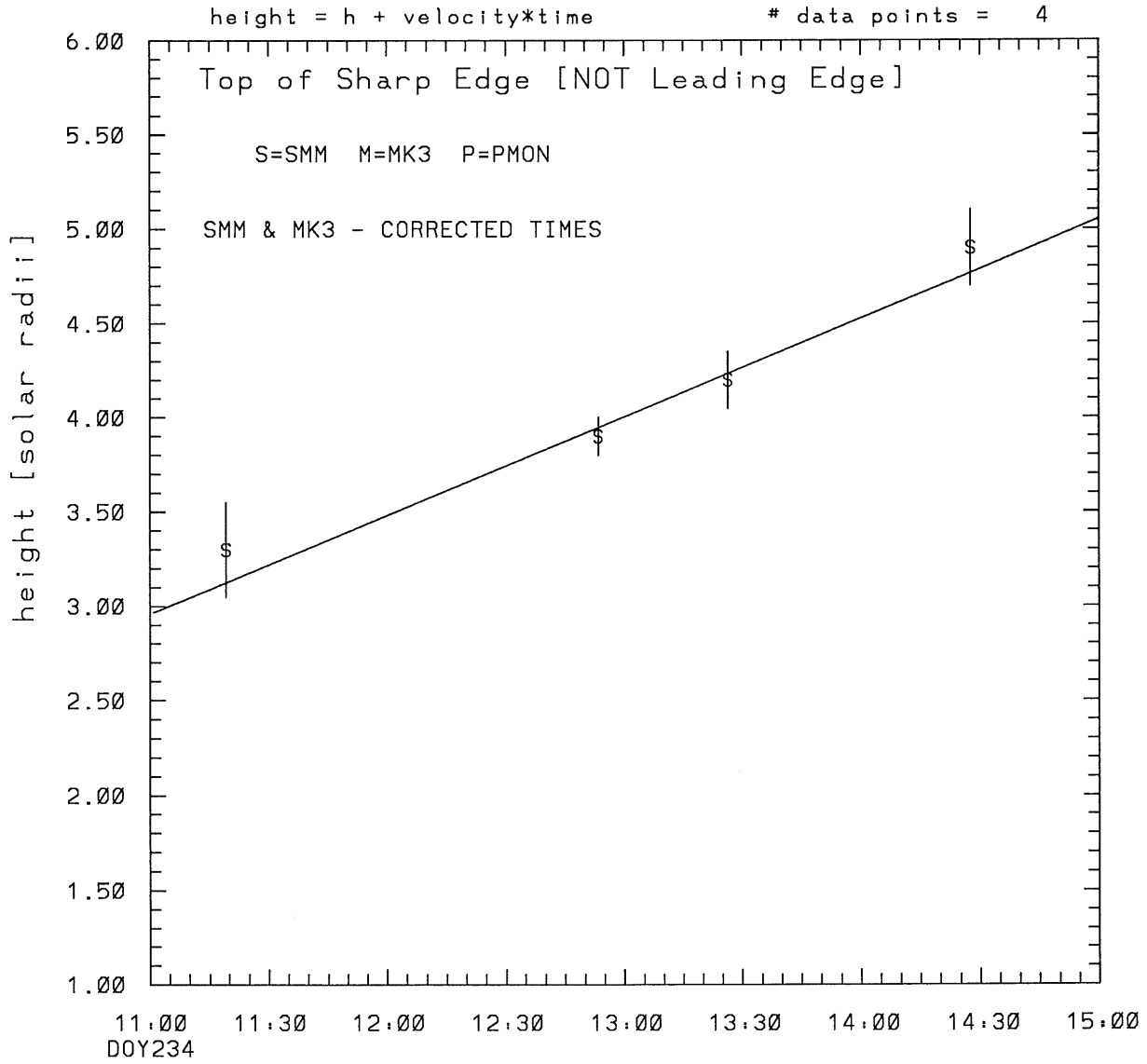
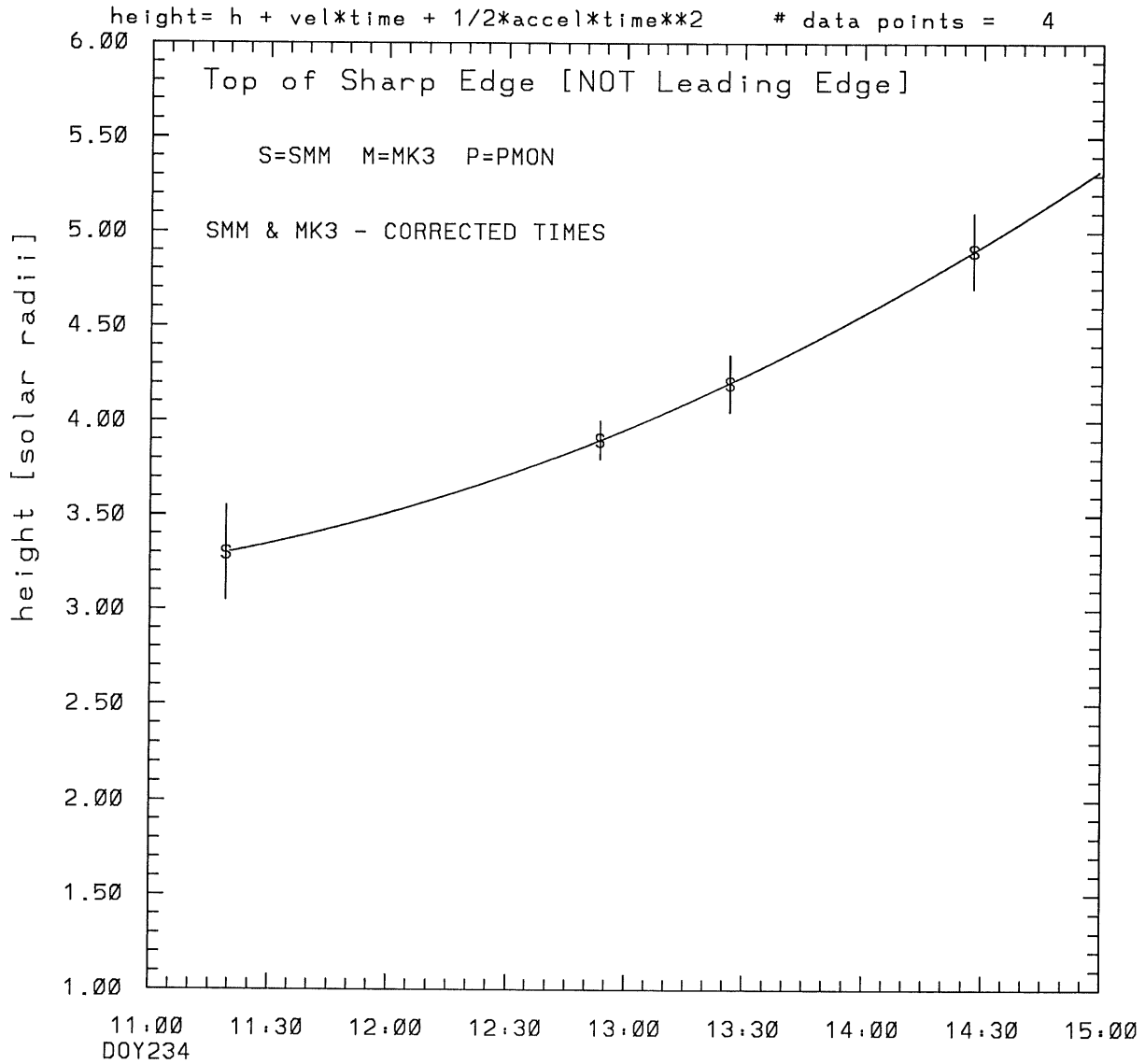


SMM C/P 1987 DOY234 90 +/- 0 degrees



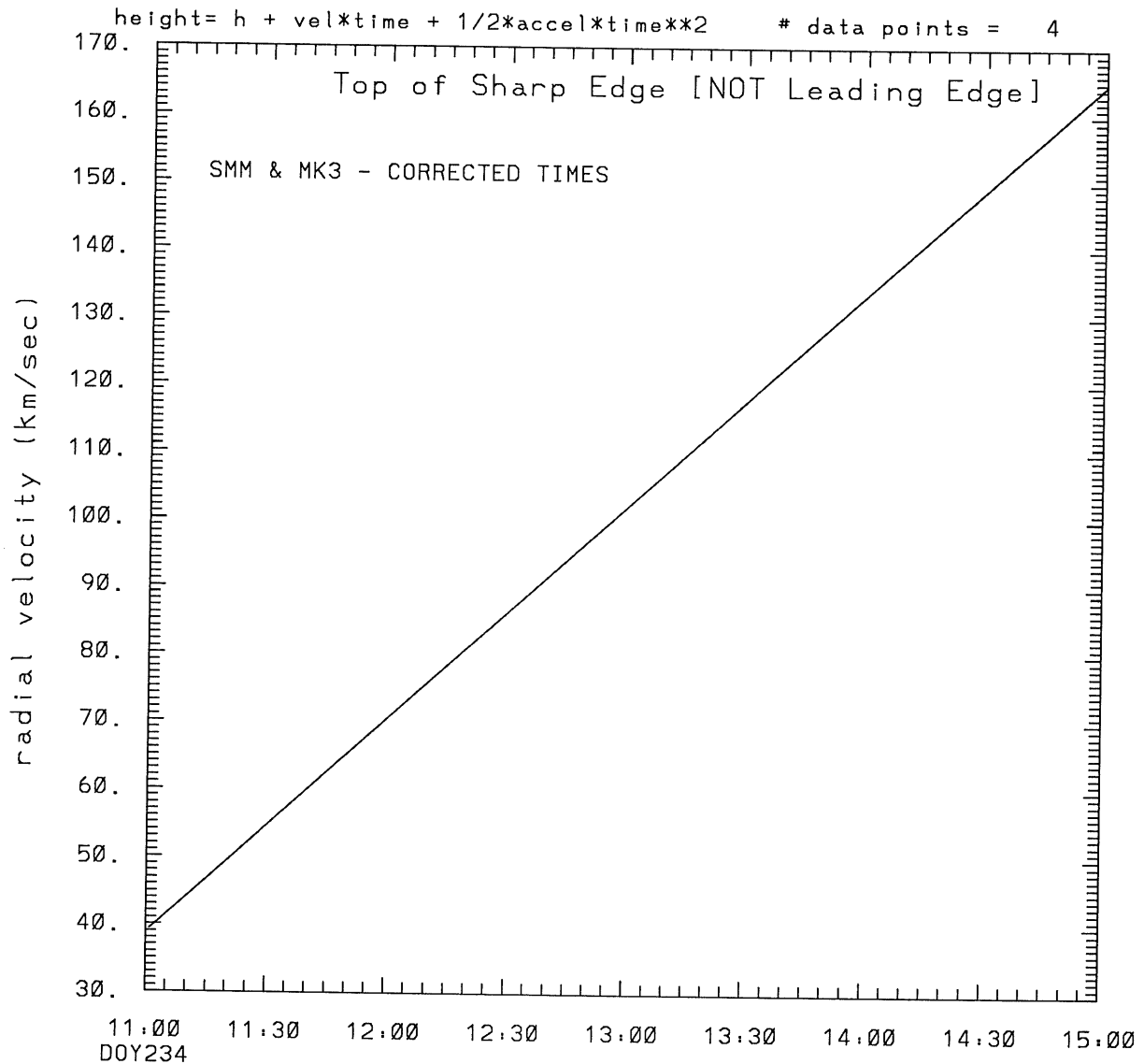
tstart=DOY234 7:17 +/- 19.0 [min.]
radial velocity= 101. +/- 12. [km/sec]

SMM C/P 1987 DOY234 90 +/- 0 degrees



tstart=DOY234 9:47 from derivative=0
Event begins at 3.10 Solar Radii
radial acceleration = 0.0087 +/- 0.0001 [km/sec**2]

SMM C/P 1987 DOY234 90 +/- 0 degrees



tstart=DOY234 9:47 from derivative=0
Event begins at 3.10 Solar Radii
radial acceleration=0.875E-02 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
1987	234	11:19:10	3.30 +/-	0.25	90.0 +/-	1.0	SMM
1987	234	12:53:23	3.90 +/-	0.10	90.0 +/-	1.0	SMM
1987	234	13:26:23	4.20 +/-	0.15	90.0 +/-	1.0	SMM
1987	234	14:27:38	4.90 +/-	0.20	90.0 +/-	1.0	SMM

Structure being measured:

Top of Sharp Edge [NOT Leading Edge]

OUTPUT:

START TIME:

Event began at $t = 0 + -0.225E+03 +/- 0.190E+02$ [minutes]

In more convenient units:

Event began at DOY 234 7:17 +/- 0.190E+02 [minutes]

Origin defined at DOY234 11: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 101. +/- 12. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.296E+01 +/- 0.136E+00$ [solar radii]
 $c(2) = 0.871E-02 +/- 0.102E-02$ [radii/min]
 $c(2) = 0.101E+03 +/- 0.118E+02$ [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 $c(1) = 0.16398E+00$ [radii] see Bevington pg. 114

error in $c(2) = 0.11761E-02$ [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) = 90. +/- 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 11:19 = 0.000E+00 km/sec

The TOTAL velocity at 11:19 = 101. km/sec

The TANGENTIAL velocity at 12:53 = 0.000E+00 km/sec

The TOTAL velocity at 12:53 = 101. km/sec

The TANGENTIAL velocity at 13:26 = 0.000E+00 km/sec

The TOTAL velocity at 13:26 = 101. km/sec

The TANGENTIAL velocity at 14:27 = 0.000E+00 km/sec

The TOTAL velocity at 14:27 = 101. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.67

Standard Deviation in start time measurement = 0.681E+02

Error in time = 0.26020E+02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.857E-02

Reduced Chi Squared = 0.543E-01

Chi Squared = 0.109E+00

The probability for exceeding chi square = 0.991E+00

The correlation coefficient = 0.986E+00

The probability that no LINEAR correlation exists between the variables = 0.1360E-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	234	11:19:10	3.30	+/- 0.25	90.0	+/- 1.0	SMM
1987	234	12:53:23	3.90	+/- 0.10	90.0	+/- 1.0	SMM
1987	234	13:26:23	4.20	+/- 0.15	90.0	+/- 1.0	SMM
1987	234	14:27:38	4.90	+/- 0.20	90.0	+/- 1.0	SMM

Structure being measured:

Top of Sharp Edge [NOT Leading Edge]

OUTPUT:

START TIME:

tstart=DOY234 9:47 from derivative = 0

Event begins at 3.10 Solar Radii

Origin defined at DOY234 11: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.875E-02 +/- 0.144E-03 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.323E+01 +/- 0.591E-02 [solar radii]
c(2) = 0.335E-02 +/- 0.931E-04 [radii/min]
c(2) = 0.388E+02 +/- 0.108E+01 [km/sec]
c(3) = 0.226E-04 +/- 0.373E-06 [radii/min**2]
c(3) = 0.875E-02 +/- 0.144E-03 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.50775E-02 [radii] Bevington pg 154 (8-30)

Exact error in c(1) = 0.14203E-02 [radii] Bevington pg 154 (8-28)

Approximate error in c(2) = 0.10312E-03 [radii/min] Bevington pg 154 (8-30)

Exact error in c(2) = 0.36092E-04 [radii/min] Bevington pg 154 (8-28)

Approximate error in c(3) = 0.45093E-06 [radii/min**] Bevington pg 154 (8-30)

Exact error in c(3) = 0.16163E-06 [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) = 90. +/- 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 11:19 = 0.000E+00 km/sec

The TOTAL velocity at 11:19 = 49. km/sec

The TANGENTIAL velocity at 12:53 = 0.000E+00 km/sec

The TOTAL velocity at 12:53 = 98. km/sec

The TANGENTIAL velocity at 13:26 = 0.000E+00 km/sec

The TOTAL velocity at 13:26 = 116. km/sec

The TANGENTIAL velocity at 14:27 = 0.000E+00 km/sec

The TOTAL velocity at 14:27 = 148. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.67

Standard Deviation in start time measurement = 0.681E+02

Value of reduced Chi Squared returned from nllst2 = 0.699E-05

Reduced Chi Squared = 0.406E-04

Chi Squared = 0.406E-04

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 = 0.6503E+00

The correlation between the data and the time**2 term = 0.7275E+00

The correlation between the data and the complete equation of motion = 0.1000E+01

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