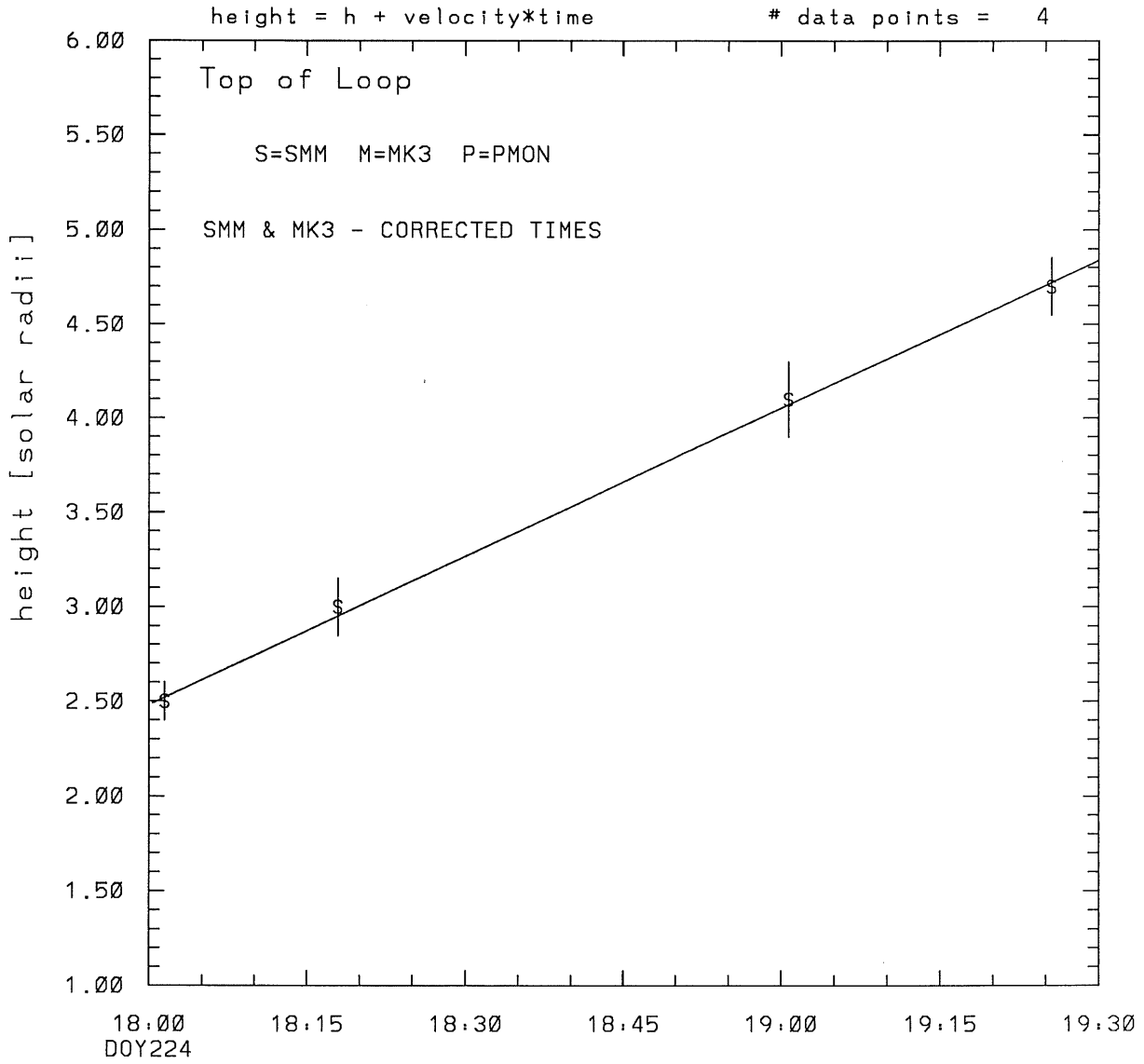
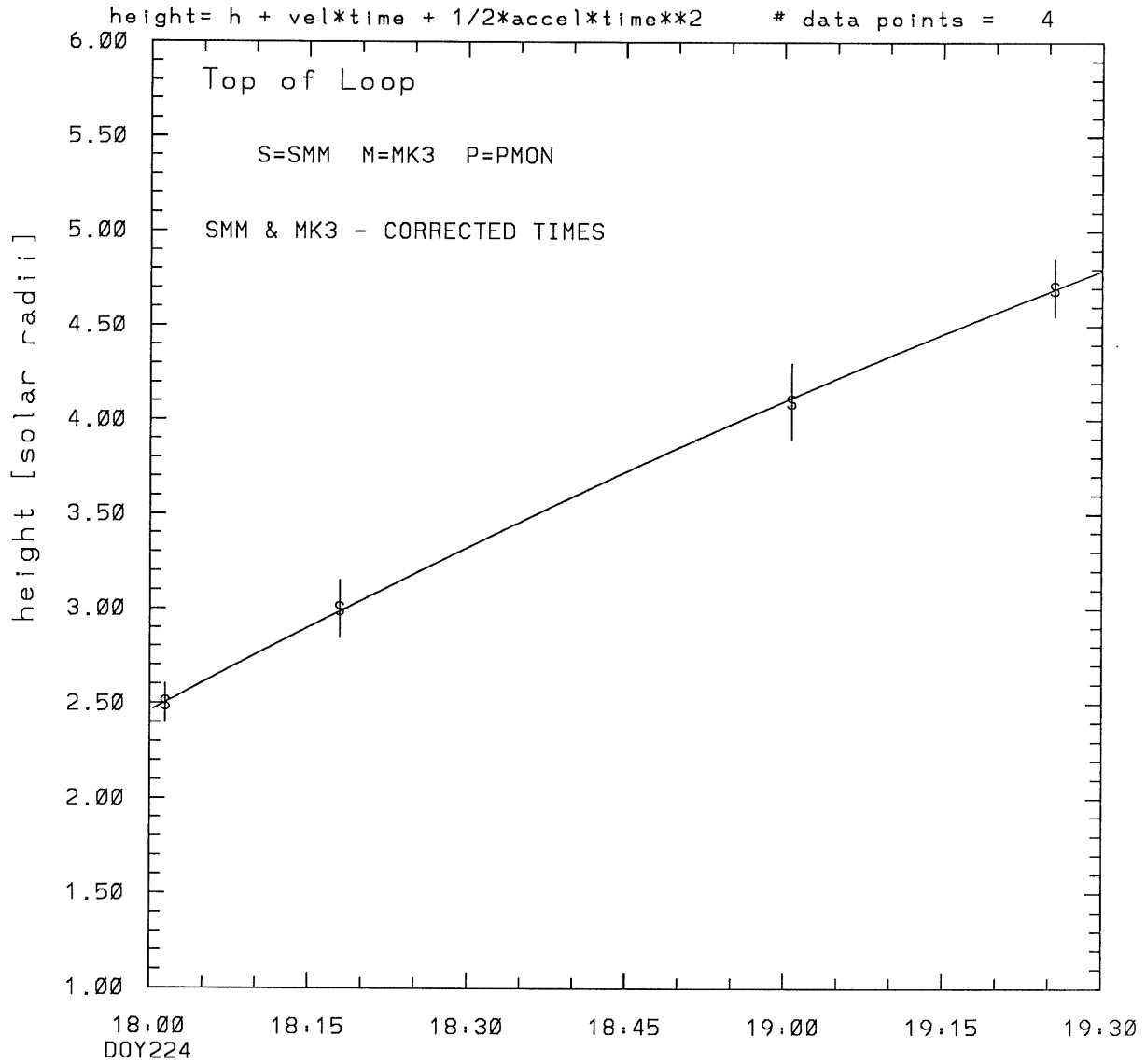


SMM C/P 1989 DOY224 265 +/- 0 degrees



tstart=DOY224 17: 5 +/- 0.6 [min.]
radial velocity= 304. +/- 6. [km/sec]

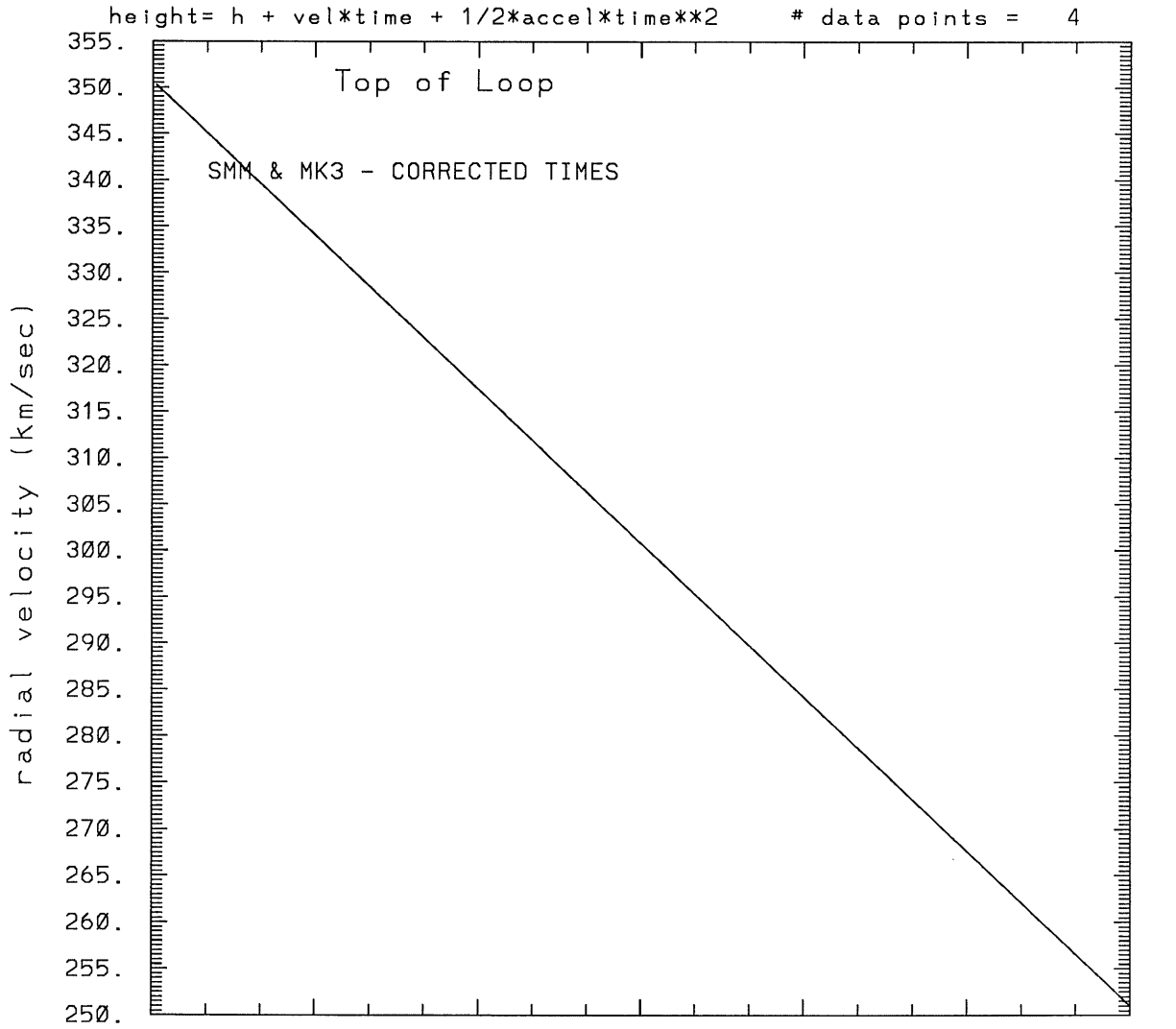
SMM C/P 1989 DOY224 265 +/- 0 degrees



tstart=DOY224 17:15 +/- 8.8 [min.]

radial acceleration = -0.0185 ± 0.0045 [km/sec**2]

SMM C/P 1989 DOY224 265 +/- 0 degrees

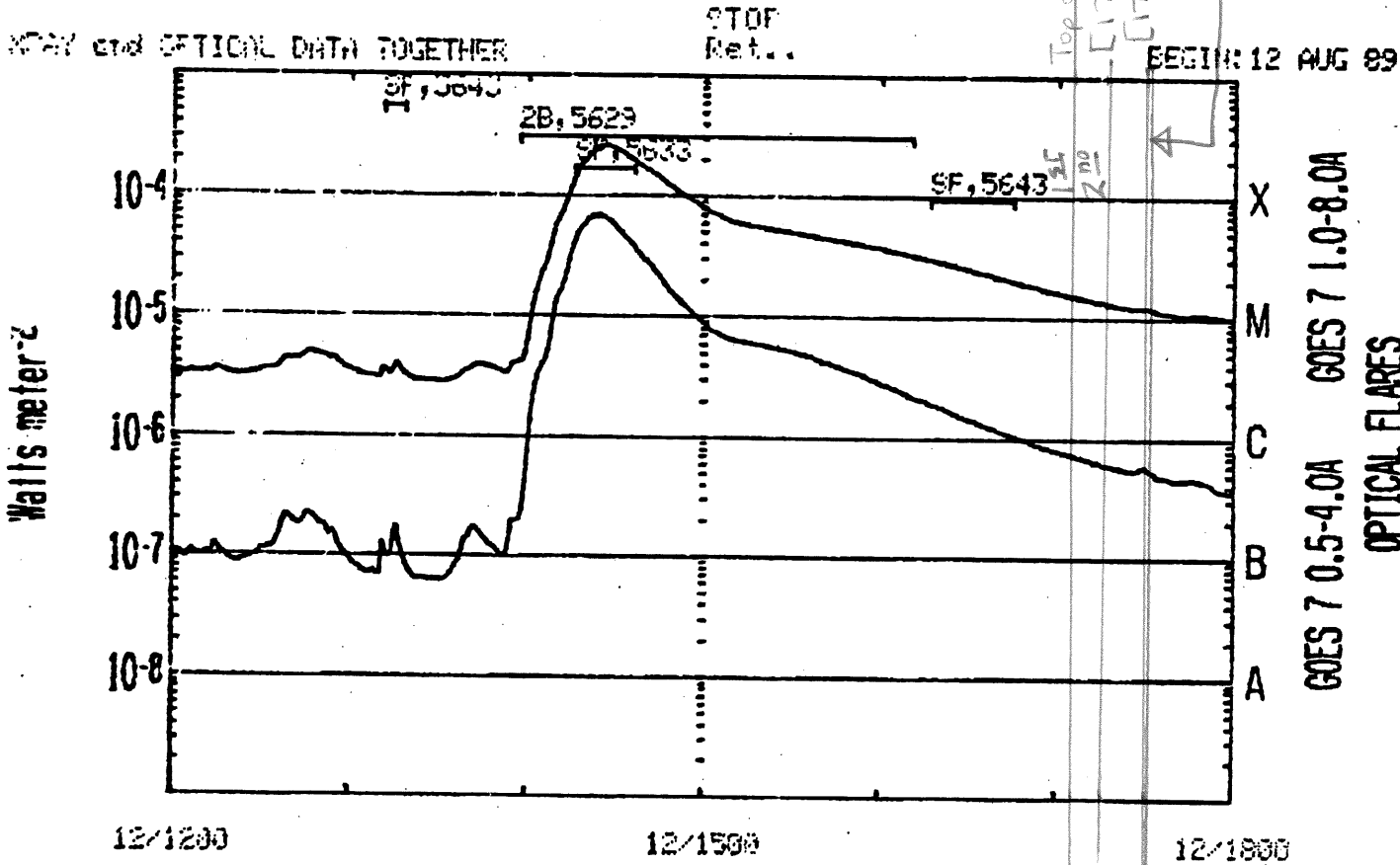


18:00
DOY224

tstart=DOY224 17:15 +/- 8.8 [min.]

radial acceleration=-.185E-01 km/sec**2

1989 DOY 224



GOES-7 1 MIN DATA: OPTICAL FLARE DUR. IMP. REGION

SAA's NIGHT

RUN: 1834UT
14 AUG 89

This is a 1 order run

INPUT:

year	day	time	radii	error in radius	angle	error in angle	datatype
1989	224	18: 1:29	2.50	+/- 0.10	265.0	+/- 1.0	SMM
1989	224	18:17:57	3.00	+/- 0.15	265.0	+/- 1.0	SMM
1989	224	19: 0:44	4.10	+/- 0.20	265.0	+/- 1.0	SMM
1989	224	19:25:32	4.70	+/- 0.15	265.0	+/- 1.0	SMM

Structure being measured:
Top of Loop

OUTPUT:

START TIME:

Event began at $t = 0 + -0.565E+02 +/- 0.587E+00$ [minutes]
In more convenient units:
Event began at DOY 224 17: 5 +/- 0.587E+00 [minutes]

Origin defined at DOY224 18: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 304. +/- 6. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.248E+01 +/- 0.224E-01$ [solar radii]
 $c(2) = 0.262E-01 +/- 0.499E-03$ [radii/min]
 $c(2) = 0.304E+03 +/- 0.579E+01$ [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 $c(1) = 0.35843E-01$ [radii] see Bevington pg. 114
error in $c(2) = 0.67350E-03$ [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) = 265. +/- 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 18: 1 = 0. km/sec

The TOTAL velocity at 18: 1 = 304. km/sec

The TANGENTIAL velocity at 18:17 = 0. km/sec

The TOTAL velocity at 18:17 = 304. km/sec

The TANGENTIAL velocity at 19: 0 = 0. km/sec

The TOTAL velocity at 19: 0 = 304. km/sec

The TANGENTIAL velocity at 19:25 = 0. km/sec

The TOTAL velocity at 19:25 = 304. 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 = 0.334E+02

Error in time = 0.24300E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.116E-02

Reduced Chi Squared = 0.470E-02

Chi Squared = 0.941E-02

The probability for exceeding chi square = 0.999E+00

The correlation coefficient = 0.999E+00

The probability that no LINEAR correlation exists between the variables = 0.5915E-03

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

This is a 2 order run

INPUT:

year	day	time	error in radii	error in radius	error in angle	error in angle	datatype
1989	224	18: 1:29	2.50 +/- 0.10	265.0 +/- 1.0			SMM
1989	224	18:17:57	3.00 +/- 0.15	265.0 +/- 1.0			SMM
1989	224	19: 0:44	4.10 +/- 0.20	265.0 +/- 1.0			SMM
1989	224	19:25:32	4.70 +/- 0.15	265.0 +/- 1.0			SMM

Structure being measured:
Top of Loop

OUTPUT:

START TIME:

Event began at $t = 0 + -0.451E+02 +/- 0.878E+01$ [minutes]
In more convenient units:
Event began at DOY 224 17:15 +/- 0.878E+01 [minutes]

Origin defined at DOY224 18: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = $-0.185E-01 +/- 0.449E-02$ km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = $0.246E+01 +/- 0.104E-01$ [solar radii]
c(2) = $0.302E-01 +/- 0.100E-02$ [radii/min]
c(2) = $0.351E+03 +/- 0.116E+02$ [km/sec]
c(3) = $-0.477E-04 +/- 0.116E-04$ [radii/min**2]
c(3) = $-0.185E-01 +/- 0.449E-02$ [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = $0.23596E-01$ [radii] Bevington pg 154 (8-30)
Exact error in c(1) = $0.40108E-02$ [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = $0.16240E-02$ [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = $0.80282E-03$ [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = $0.18303E-04$ [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = $0.92091E-05$ [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) = 265. +/- 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 18: 1 = 0. km/sec

The TOTAL velocity at 18: 1 = 349. km/sec

The TANGENTIAL velocity at 18:17 = 0. km/sec

The TOTAL velocity at 18:17 = 331. km/sec

The TANGENTIAL velocity at 19: 0 = 0. km/sec

The TOTAL velocity at 19: 0 = 283. km/sec

The TANGENTIAL velocity at 19:25 = 0. km/sec

The TOTAL velocity at 19:25 = 256. 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 = 0.334E+02

Value of reduced Chi Squared returned from nllst2 = 0.184E-03

Reduced Chi Squared = 0.154E-02

Chi Squared = 0.154E-02

The probability for exceeding chi square = 0.989E+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 = 0.1082E+01

The correlation between the data and the time**2 term = 0.1002E+01

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

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