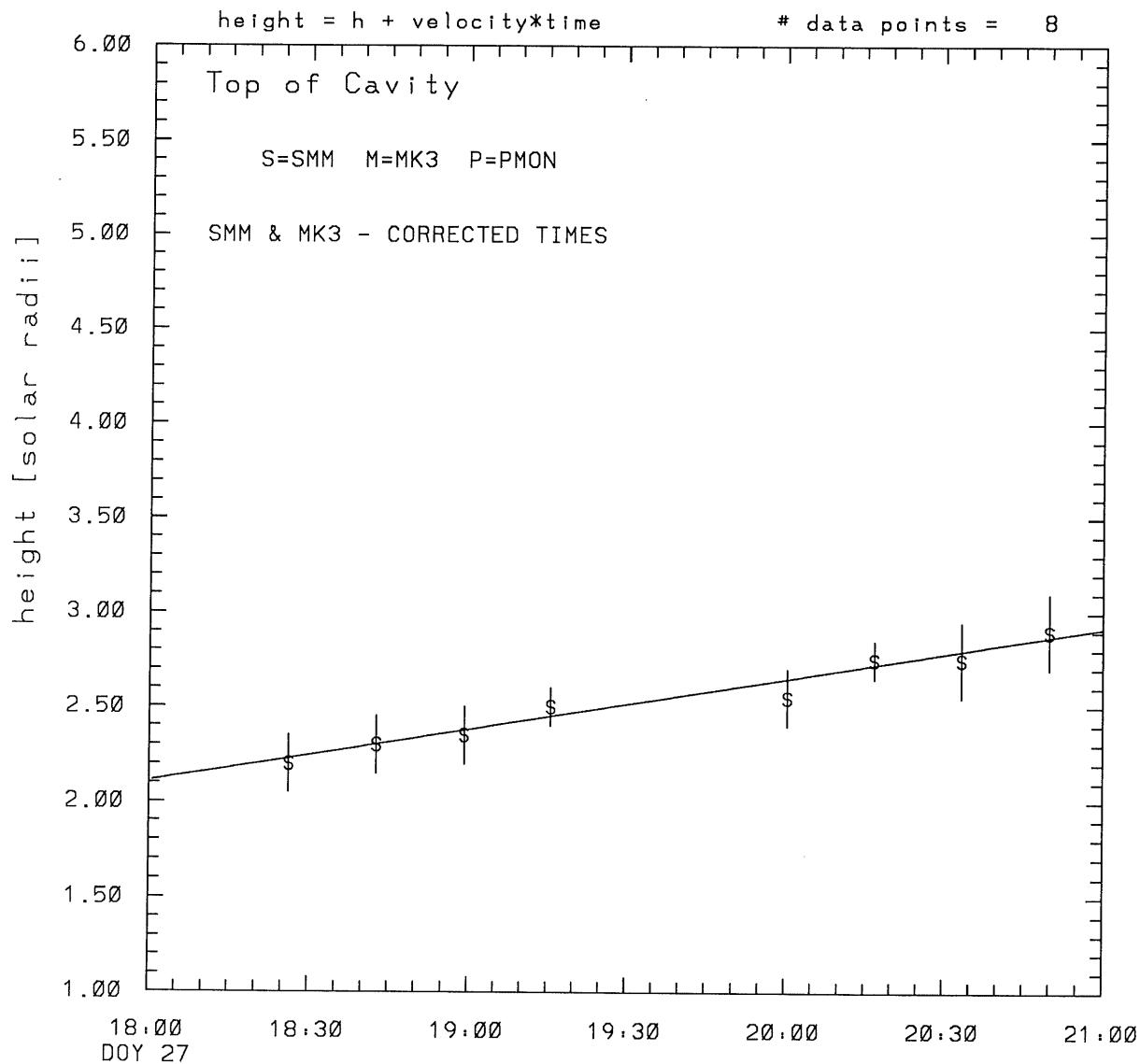
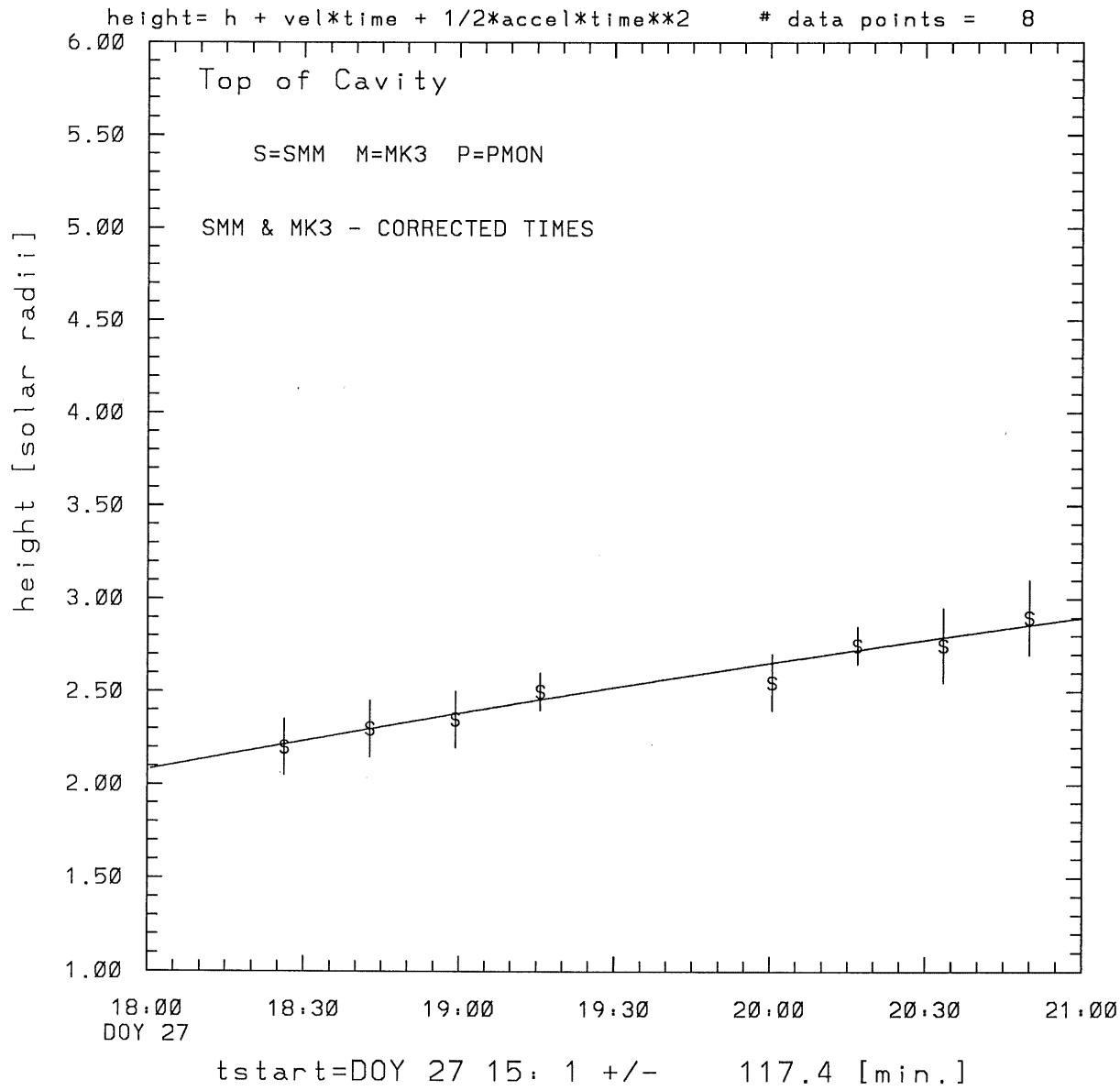


SMM C/P 1988 DOY 27 295 +/- 0 degrees

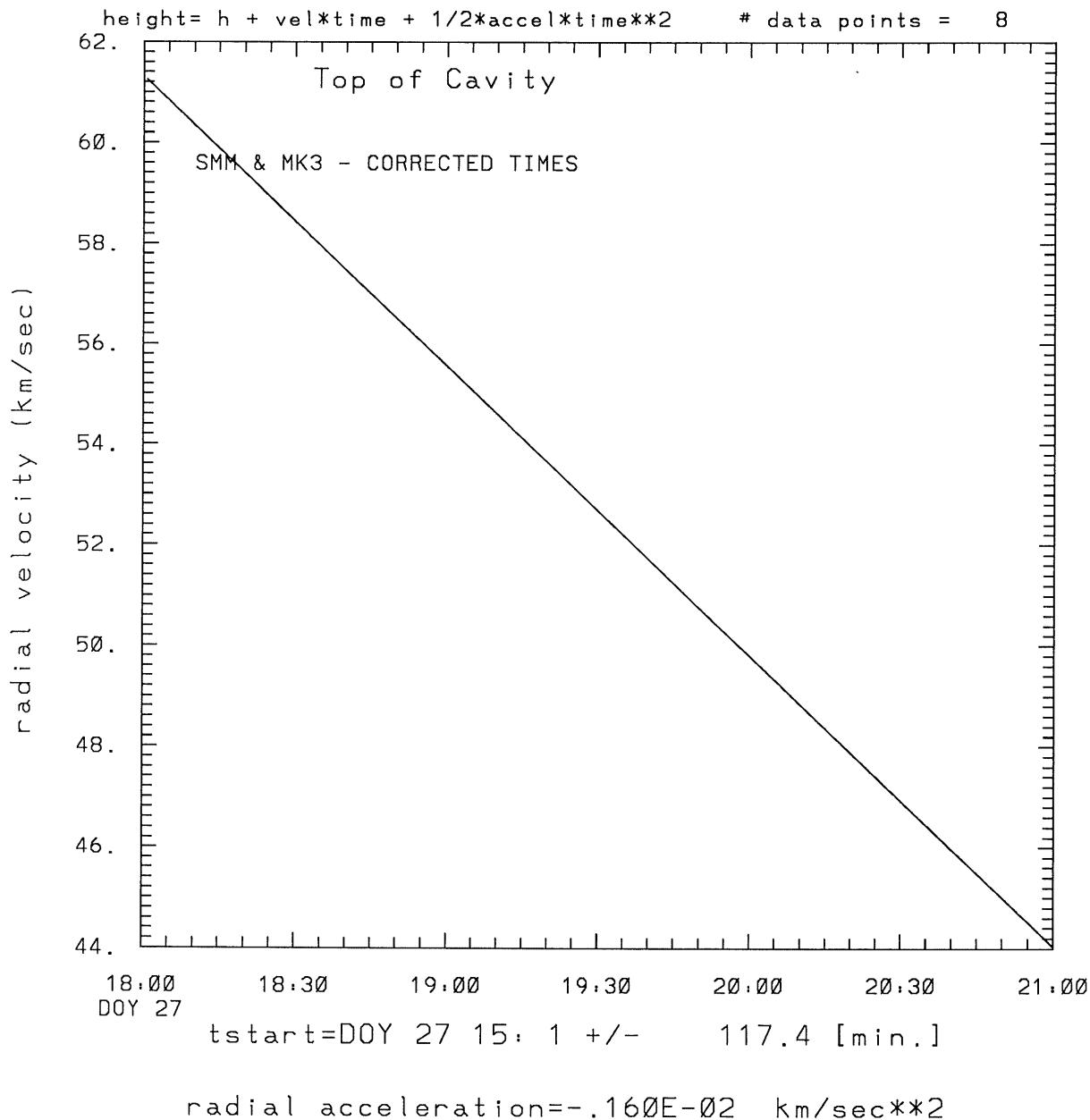


tstart=DOY 27 13:55 +/- 3.4 [min.]  
radial velocity= 52. +/- 5. [km/sec]

SMM C/P 1988 DOY 27 295 +/- 0 degrees



SMM C/P 1988 DOY 27 295 +/- 0 degrees



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This is a 1 order run

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\*\*\*\*\*

INPUT:

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year	doy	time	error in radii	error in radius	error in angle	error in angle	datatype
1988	27	18:26:16	2.20	+/- 0.15	295.0	+/- 0.5	SMM
1988	27	18:42:45	2.30	+/- 0.15	295.0	+/- 0.5	SMM
1988	27	18:59:16	2.35	+/- 0.15	295.0	+/- 0.5	SMM
1988	27	19:15:46	2.50	+/- 0.10	295.0	+/- 0.5	SMM
1988	27	20: 0:26	2.55	+/- 0.15	295.0	+/- 0.5	SMM
1988	27	20:16:56	2.75	+/- 0.10	295.0	+/- 0.5	SMM
1988	27	20:33:27	2.75	+/- 0.20	295.0	+/- 0.5	SMM
1988	27	20:49:56	2.90	+/- 0.20	295.0	+/- 0.5	SMM

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Structure being measured:

Top of Cavity

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OUTPUT:

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( START TIME:

Event began at t = 0 + -0.247E+03 +/- 0.340E+01 [minutes]

In more convenient units:

Event began at DOY 27 13:55 +/- 0.340E+01 [minutes]

Origin defined at DOY 27 18: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 52. +/- 5. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.211E+01 +/- 0.407E-01 [solar radii]  
c(2) = 0.450E-02 +/- 0.389E-03 [radii/min]  
c(2) = 0.522E+02 +/- 0.451E+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)= 0.42093E-01 [radii] see Bevington pg. 114

error in c(2)= 0.38139E-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) = 295. +/- 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 18:26 = 0. km/sec

The TOTAL velocity at 18:26 = 52. km/sec

The TANGENTIAL velocity at 18:42 = 0. km/sec

The TOTAL velocity at 18:42 = 52. km/sec

The TANGENTIAL velocity at 18:59 = 0. km/sec

The TOTAL velocity at 18:59 = 52. km/sec

The TANGENTIAL velocity at 19:15 = 0. km/sec

The TOTAL velocity at 19:15 = 52. km/sec

The TANGENTIAL velocity at 20: 0 = 0. km/sec

The TOTAL velocity at 20: 0 = 52. km/sec

The TANGENTIAL velocity at 20:16 = 0. km/sec

The TOTAL velocity at 20:16 = 52. km/sec

The TANGENTIAL velocity at 20:33 = 0. km/sec

The TOTAL velocity at 20:33 = 52. km/sec

The TANGENTIAL velocity at 20:49 = 0. km/sec

The TOTAL velocity at 20:49 = 52. km/sec

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The following info is for estimating goodness of the fit

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Fit is ok [ier=1]

Standard Deviation in the height = 0.25

Standard Deviation in start time measurement = 0.506E+02

Error in time = 0.29714E+02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.242E-02

Reduced Chi Squared = 0.150E-01

Chi Squared = 0.900E-01

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.981E+00

The probability that no LINEAR correlation exists between the variables = 0.1804E-04

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

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This is a 2 order run

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INPUT:

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year	doy	time	radii	radius	error in radii	angle	error in angle	datatype
1988	27	18:26:16	2.20	+/- 0.15	295.0	+/- 0.5	SMM	
1988	27	18:42:45	2.30	+/- 0.15	295.0	+/- 0.5	SMM	
1988	27	18:59:16	2.35	+/- 0.15	295.0	+/- 0.5	SMM	
1988	27	19:15:46	2.50	+/- 0.10	295.0	+/- 0.5	SMM	
1988	27	20: 0:26	2.55	+/- 0.15	295.0	+/- 0.5	SMM	
1988	27	20:16:56	2.75	+/- 0.10	295.0	+/- 0.5	SMM	
1988	27	20:33:27	2.75	+/- 0.20	295.0	+/- 0.5	SMM	
1988	27	20:49:56	2.90	+/- 0.20	295.0	+/- 0.5	SMM	

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Structure being measured:

Top of Cavity

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OUTPUT:

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START TIME:

Event began at t = 0 + -0.179E+03 +/- 0.117E+03 [minutes]

In more convenient units:

Event began at DOY 27 15: 1 +/- 0.117E+03 [minutes]

Origin defined at DOY 27 18: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = -0.160E-02 +/- 0.447E-02 km/sec\*\*2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.208E+01 +/- 0.927E-01 [solar radii]  
c(2) = 0.529E-02 +/- 0.224E-02 [radii/min]  
c(2) = 0.613E+02 +/- 0.260E+02 [km/sec]  
c(3) = -0.413E-05 +/- 0.116E-04 [radii/min\*\*2]  
c(3) = -0.160E-02 +/- 0.447E-02 [km/sec\*\*2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.98297E-01 [radii] Bevington pg 154 (8-30)

Exact error in c(1) = 0.16765E-01 [radii] Bevington pg 154 (8-28)

Approximate error in c(2) = 0.24358E-02 [radii/min] Bevington pg 154 (8-30)

Exact error in c(2) = 0.50538E-03 [radii/min] Bevington pg 154 (8-28)  
Approximate error in c(3) = 0.12225E-04 [radii/min\*\*] Bevington pg 154 (8-30)  
Exact error in c(3) = 0.26805E-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) = 295. +/- 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 18:26 = 0. km/sec

The TOTAL velocity at 18:26 = 59. km/sec

The TANGENTIAL velocity at 18:42 = 0. km/sec

The TOTAL velocity at 18:42 = 57. km/sec

The TANGENTIAL velocity at 18:59 = 0. km/sec

The TOTAL velocity at 18:59 = 56. km/sec

The TANGENTIAL velocity at 19:15 = 0. km/sec

The TOTAL velocity at 19:15 = 54. km/sec

The TANGENTIAL velocity at 20: 0 = 0. km/sec

The TOTAL velocity at 20: 0 = 50. km/sec

The TANGENTIAL velocity at 20:16 = 0. km/sec

The TOTAL velocity at 20:16 = 48. km/sec

The TANGENTIAL velocity at 20:33 = 0. km/sec

The TOTAL velocity at 20:33 = 47. km/sec

The TANGENTIAL velocity at 20:49 = 0. km/sec

The TOTAL velocity at 20:49 = 45. km/sec

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The following info is for estimating goodness of the fit

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Fit is ok [ier=1]

Standard Deviation in the height = 0.25

Standard Deviation in start time measurement = 0.506E+02

Value of reduced Chi Squared returned from nllst2 = 0.276E-02

Reduced Chi Squared = 0.195E-01

Chi Squared = 0.974E-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 = 0.8630E+00

The correlation between the data and the time $^{**2}$  term = 0.8215E+00

0The correlation between the data and the complete equation of motion = 0.9521E+00

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