Command FIT

PURPOSE Execute ft of the specified function to the data

PARAMETERS

WINDOWS List of display window names (letter or #) or condition numbers to be

considered by the fit. If no windows are specified, the fit region is given by the windows defined by the command "FWIN". Irrespectively

of the window limits only displayed data are fitted.

/DATA Mark the data inside the fit window(s). Also data with zero content and

zero error bar are excluded, if they are not considered for the fit.

/LEASTSQ Fit by the method of least squares. Weighting factors are represented y

the reciprocal squares of the experimental errors specified by the

command "FERR" or by constants if no errors are given.

/POISSON Fit by the method of maximum likelihood assuming the data to be

Poisson distributed.

/ZEROES Bins with zero contents are included by the fit. In case of leastsquares

fit the weight factor is 1 unless a non zero error is given.

/ERRANAL Perform a special error analysis for the parameters specified by the

commands "FAREA", "FPOS", "FWIDTH", or "FPAR".

/ITER(i) Maximum number of iterations; default i = 10 or the last quoted

number. The fit is interrupted by pressing the BREAK button on the SATAN interface window, even if the number of iterations required is not yet reached. If the fit did not yet converge, it can be continued by

entering another FIT command.

/LIST For each iteration a detailed output is given, comprising true and

estimated values of the likelihood function, number of terms processed, l-parameter, condition flag in case of divergence and current values either of fit parameter(s) with the error analysis flag set or of the first non fixed parameter. An extended error analysis for concerned fit parameters is performed. Resulting values of it parameters, errors and

correlations are listed.

/NODISP No display of the fit curve.

EXAMPLE FIT A B C / I(20) LI Z NOD P

Fit the data given by the display windows A, B and C in Poisson fit mode by a maximum of 20 iterations. List results after each iteration. Do not display the fit curve.

FIT / E

Fit the data of the temporary window excluding zeroes by the default maximum number of iterations. Take the previously defined fit mode. Perform a special error analysis and display the fit curve if the fit was successful.