

URL: http://cxc.harvard.edu/ciao3.4/statistic.html Last modified: December 2006

AHELP for CIAO 3.4

### statistic

Context: sherpa

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### **Synopsis**

Specifies the fitting statistic.

### **Syntax**

sherpa> STATISTIC <sherpa\_statisticname>

### Description

<sherpa\_statisticname> is the name of one of the supported fitting statistics:

#### **STATISTIC Command Arguments**

<sherpa_statisticname></sherpa_statisticname>	Description
BAYES	A Bayesian maximum likelihood function.
CASH	A maximum likelihood function.
{CHI CVAR   CHI PARENT}	Chi-square statistic with constant variance computed from the counts data.
CHI DVAR	Chi-square statistic with variance computed from the data.
CHI GEHRELS	Chi-square statistic with the Gehrels variance function.
CHI MVAR	Chi-square statistic with variance computed from model amplitudes.
CHI PRIMINI	Chi-square statistic with Primini variance function.
CSTAT	A maximum likelihood function: XSPEC implementation of CASH
USERSTAT	User-implemented statistic.

The default statistic is CHI GEHRELS. It is the default because of its behavior in the low-counts regime.

The statistic that has been set in the current Sherpa session may be listed with the command SHOW STATISTIC.

See the Sherpa manual for more information.

## Example

Specify a fitting statistic to be used; report on it:

sherpa> STATISTIC BAYES sherpa> SHOW STATISTIC Statistic: Bayes

### Bugs

See the <u>Sherpa bug pages</u> online for an up-to-date listing of known bugs.

# See Also

sherpa

bayes, cash, chicvar, chidvar, chigehrels, chimvar, chiprimini, chisquare, cstat, get stat expr, truncate, userstat

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