



AHELP for CIAO 3.4

## statistic

Context: [sherpa](#)

*Jump to:* [Description](#) [Example](#) [Bugs](#) [See Also](#)

## 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>	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 [Sherpa bug pages](#) 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](#)

---

The Chandra X-Ray Center (CXC) is operated for NASA by the Smithsonian Astrophysical Observatory.  
60 Garden Street, Cambridge, MA 02138 USA.  
Smithsonian Institution, Copyright © 1998–2006. All rights reserved.

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