



AHELP for CIAO 3.4

chidvar

Context: [sherpa](#)

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

Synopsis

Chi-square statistic with variance computed from the data.

Description

If the number of counts in each bin is large (> 5), then the shape of the Poisson distribution from which the counts are sampled tends asymptotically towards that of a Gaussian distribution, with variance

$$\sigma(i)^2 = N(i,S) + [A(S)/A(B)]^2 N(i,B) .$$

The background term appears only if a background region is specified and background subtraction is done.

See CHISQUARE for more information, including definitions of the quantities shown above.

Example

Specify the fitting statistic and then confirm it has been set.

```
sherpa> STATISTIC CHI DVAR
sherpa> SHOW STATISTIC
Statistic:          Chi-Squared Data Variance
```

Bugs

See the [Sherpa bug pages](#) online for an up-to-date listing of known bugs.

See Also

sherpa

[bayes](#), [cash](#), [chicvar](#), [chigehrels](#), [chimvar](#), [chiprimini](#), [chisquare](#), [cstat](#), [get_stat_expr](#), [statistic](#), [truncate](#), [userstat](#)

Ahelp: chidvar – CIAO 3.4

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URL:
<http://cxc.harvard.edu/ciao3.4/chidvar.html>
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