*AHELP for CIAO 3.4*

# staterrors

Context: sherpa

*Jump to:* Description Example Bugs See Also

# Synopsis

Defines an expression or file to be used to specify the statistical errors for source data.

# Syntax

```
sherpa> [B]STATERRORS [<dataset range> | ALLSETS] = <errorExpr>

STATERRORS is used for specifying statistical errors in source
datasets, while BSTATERRORS is used for specifying statistical errors
in background datasets.

<dataset range> = # (or more generally #:#,#:#, etc.) such that #
specifies a dataset number and #:# represents an inclusive range of
datasets; one may specify multiple inclusive ranges by separating them
with commas. The default dataset is dataset 1.
```

# Description

The error expression, <errorExpr>, may be composed of one or more (algebraically–combined) of the following elements:

| Component: | Description: |
|---|---|
| DATA | An input dataset |
| numericals | Numerical values |
| operators | + − * / ( ) |

A few things to note:

- Statistical error expressions cannot be defined without first reading in a source dataset.
- Statistical errors are added in quadrature with systematic errors (if specified) to produce an overall error estimate in each data bin.
- Currently, statistical errors cannot be specified in an input file.

For additional information, see the related command ERRORS.

# Example

Define an expression to be used for the statistical errors.

```
sherpa> DATA data.dat
sherpa> STATERRORS = 5
```

# Bugs

See the Sherpa bug pages online for an up–to–date listing of known bugs.

# See Also

*sherpa*

berrors, bsyserrors, compute_errors, compute_statistic, covariance, errors, ftest, get_paramest, get_paramestint, get_paramestlim, get_paramestreg, goodness, interval–projection, interval–uncertainty, list_paramest, mlr, projection, region–projection, region–uncertainty, restore_paramest, run_paramest, run_paramestint, run_paramestlim, run_paramestreg, set_errors, set_syserrors, syserrors, uncertainty

---