URL: http://cxc.harvard.edu/ciao3.4/get_paramestint.html
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AHELP for CIAO 3.4

get_paramestint

Context: sherpa

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Synopsis

Module functions to retrieve the value and statistic arrays from the most recent run of a parameter estimation method

Syntax

```
Struct_Type get_intunc()
Struct_Type get_intproj()

Error Return Value: NULL
```

Description

These functions retrieve information from the most recent run of the INTERVAL−UNCERTAINTY or run_intunc, and INTERVAL−PROJECTION or run_intproj parameter estimation methods, respectively.

Each returns a structure with five fields:

- x0: the grid of parameter values;
- y: the statistics as a function of parameter value;
- name: the name of the parameter;
- bfit: the best−fit value of the parameter; and
- config: a Struct_Type variable containing the parameters used to calculate x0 and y.

These functions can be used to retrieve information similar to that provided by the XSPEC command steppar.

Example

Fit a dataset; get information about chi−square as a function of power−law amplitude p.ampl after running INTERVAL−PROJECTION:

```
sherpa> DATA example.pha
sherpa> SUBTRACT
sherpa> PARAMPROMPT OFF
sherpa> SOURCE = POW[p]
sherpa> FIT
...
sherpa> INTERVAL−PROJECTION p.ampl
Interval−Projection: computing grid size with covariance...done.
                     outer grid loop 20% done...
                     outer grid loop 40% done...
                     outer grid loop 60% done...
                     outer grid loop 80% done...
[...plot displayed...]
sherpa> intproj = get_intproj()
sherpa> print(intproj)
x0               =  Float_Type[20]
y                =  Float_Type[20]
name             =  p.ampl
bfit             =  0.000191983
config           =  sherpa_VisParEst_State
sherpa> printarr(intproj.x0,3)
0.000158651
0.000162159
0.000165668
sherpa> printarr(intproj.y,3)
197.622
195.83
194.238
```

The second−to−last call displays the first three values of the p.ampl grid, while the last call displays the best−fit statistic given those p.ampl values.

CHANGES IN CIAO 3.1

The structures returned by these functions contain additional fields − name, bfit, and config − which are described above.

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_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, staterrors, syserrors, uncertainty