



AHELP for CIAO 3.4

get_paramestint

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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](#), [fctest](#), [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](#)