



AHELP for CIAO 3.4

nestedmodel

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Synopsis

Nested models define the function argument on which a model expression is evaluated to be another model expression. A nested model, <nested_model>, appears as an element of a model expression, <modelExpr>.

Syntax

```
<sherpa_modelname>{<model_stackname>}
<sherpa_modelname>[<modelname>]{<model_stackname>}
<modelname>{<model_stackname>}
```

where <model_stackname> must be enclosed in curly braces, { }, and where the model stack defines the model expression for the function argument.

Example 1

Create a nested model that defines one model component as the argument for another:

```
sherpa> ERASE ALL
sherpa> oscillation = SIN
sherpa> SRC = SHLOGE{oscillation}
```

The user first assigns a model stackname to the Sherpa default model SIN. The final command establishes the nested model, SHLOGE, and assigns it to the source model for dataset number 1. This nested model defines the function argument SIN, over which the model component SHLOGE is to be evaluated. Note that the following syntax is not allowed: SRC = SHLOGE{SIN}.

Example 2

Create two layers of nested models:

```
sherpa> stackA = POLY
sherpa> stackB = GAUSS{stackA}
sherpa> SIN[modeli]
sherpa> SOURCE = modeli{stackB}
```

The command `stackA = POLY` creates the first model stack. The next command creates a second model stack, using the nested model construction, `GAUSS{stackA}`, where the function argument on which the model component `GAUSS` is evaluated is the first model stack. Finally, the source model expression is defined as the nested model `modeli{stackB}` (i.e., `modeli` evaluated upon the second model stack).

Bugs

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

See Also

sherpa

[autoest](#), [background](#), [create](#), [create_model](#), [createparamset](#), [fit](#), [freeze](#), [get_defined_models](#), [get_model_params](#), [get_models](#), [get_num_par](#), [get_par](#), [get_stackexpr](#), [getx](#), [gety](#), [guess](#), [instrument](#), [integrate](#), [is_paramset](#), [jointmode](#), [kernel](#), [lineid](#), [linkparam](#), [mdl](#), [modelexpr](#), [modelstack](#), [noise](#), [paramprompt](#), [paramset](#), [pileup](#), [rename](#), [run_fit](#), [set_par](#), [set_paramset](#), [set_stackexpr](#), [source](#), [thaw](#), [truncate](#), [unlink](#)

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