

*AHELP for CIAO 3.4*

## get\_lfactorial

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## Synopsis

Module function to compute the natural logarithm of the factorial of the input quantity

## Syntax

```
Double_Type get_lfactorial(Double_Type)
```

## Description

This function may be used, e.g., to convert the Cash statistic to the true Poisson log–likelihood in simulation scripts. The input number must be non–negative.

## Example

Compute the natural log of 6 factorial:

```
sherpa> get_lfactorial(6)
6.57925
```

## Bugs

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

## See Also

*chandra*

[guide](#)

*sherpa*

[bye](#), [calc](#), [kcorr](#), [dataspace](#), [dcounts](#), [dollarsign](#), [echo](#), [eflux](#), [eqwidth](#), [erase](#), [flux](#), [get](#), [get\\_dcounts\\_sum](#), [get\\_dir](#), [get\\_eflux](#), [get\\_eqwidth](#), [get\\_filename](#), [get\\_flux2d](#), [get\\_flux\\_str](#), [get\\_mcpoints](#), [get\\_mcpoints\\_sum](#), [get\\_pflux](#), [get\\_source\\_components](#), [get\\_verbose](#), [groupbycounts](#), [guess](#), [is](#), [journal](#), [list](#), [list\\_par](#), [mcpoints](#), [numbersign](#), [paramest](#), [plot\\_eflux](#), [plot\\_rprof](#), [prompt](#), [reset](#), [run](#), [set](#), [set\\_analysis](#), [set\\_axes](#), [set\\_coord](#)

## Ahelp: get\_lfactorial – CIAO 3.4

[set\\_dataspace](#), [set\\_dir](#), [set\\_verbose](#), [setplot](#), [sherpa-module](#), [sherpa\\_plotfns](#), [sherpa\\_utils](#), [show](#), [simspec](#),  
[use](#), [version](#)

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URL:

[http://cxc.harvard.edu/ciao3.4/get\\_lfactorial.html](http://cxc.harvard.edu/ciao3.4/get_lfactorial.html)

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