



AHELP for CIAO 3.4

## ngauss1d

Context: [sherpa](#)

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## Synopsis

1-D normalized Gaussian function. Integration ON.

## Description

A normalized 1-D Gaussian model:

$$f(x) = [A/\sqrt{\pi}/F] \exp[-f(x-x_o/F)^2]$$

with

$$\int_{-\infty}^{+\infty} dx f(x) = A$$

The constant  $f = 2.7725887 = 4\log 2$  relates the full-width at half-maximum  $F$  to the Gaussian sigma so that  $F = \sqrt{8\log 2} * \text{sigma}$ .

See also the 1-D unnormalized Gaussian function, GAUSS1D.

### NGAUSS1D Parameters

Number	Name	Description
1	fwhm	full-width at half-maximum F
2	pos	mean position $x_o$
3	ampl	amplitude A

See "ahelp integrate" for further information about source model integration.

## Bugs

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

## See Also

*sherpa*

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atten, bbody, bbodyfreq, beta1d, beta2d, box1d, box2d, bpl1d, const1d, const2d, cos, delta1d, delta2d, dered, devaucouleurs, edge, erf, erfc, farf, farf2d, fpsf, fpsf1d, frmf, gauss1d, gauss2d, gridmodel, hubble, jdpileup, linebroad, lorentz1d, lorentz2d, models, nbeta, poisson, polynom1d, polynom2d, powlaw1d, ptsrc1d, ptsrc2d, rsp, rsp2d, schechter, shexp, shexp10, shlog10, shloge, sin, sqrt, stephi1d, steplo1d, tan, tpsf, tpsf1d, usermodel, xs, xsabsori, xsacisabs, xsapec, xsbapec, xsbody, xsbodyrad, xsboxrav, xsboxriv, xsbknpower, xsbsmc, xsbremss, xsbvapec, xsc6mekl, xsc6pmekl, xsc6pvmkl, xsc6vmekl, xscabs, xscemekl, xscvmevl, xscflow, xscmpbb, xscmpls, xscmpst, xscmpstt, xscconstant, xscutoffpl, xscyclabs, xsdisk, xsdiskbb, xsdiskline, xsdiskm, xsdisko, xsdiskpn, xsdust, xsedg, xsequil, xsexpabs, xsexpdec, xsexpfac, xsgabs, xsgaussian, xsgnei, xsgrad, xsgrbm, xshighecut, xshrefl, xslaor, xslorentz, xsmeka, xsmekal, xsmkcflow, xsnei, xsnotch, xsnpshock, xsnsa, xsnntea, xspcfabs, xspgpwrlw, xspexrav, xspexriv, xspfabs, xsplabs, xsplcabs, xspesm, xspowerlaw, xspshock, xspwab, xspraymond, xsrdden, xrsedge, xrefsch, xssedov, xssmedg, xsspline, xssrcut, xssresc, xssssice, xsstep, xstbabs, xstbgrain, xstbvarabs, xsubred, xsvapec, xsvarabs, xsvbremss, xsvsequil, xsvgnei, xsvmcfllw, xsvmekal, xsvnei, xsvnpshock, xsvphabs, xsvphock, xsvraymond, xsvsedov, xswabs, xswndabs, xsxion, xszbbody, xszbremss, xszedge, xszgauss, xszhighcut, xszpcfabs, xszphabs, xszpowerlw, xsztbabs, xszvarabs, xszvfeabs, xszvphabs, xszwabs, xszwndabs

*slang*

usermodel

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URL:  
<http://cxc.harvard.edu/ciao3.4/ngauss1d.html>  
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