



AHHELP for CIAO 3.4

## devaucouleurs

Context: [sherpa](#)

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## Synopsis

DeVaucouleurs profile. Integration OFF.

## Description

A 2-D de Vaucouleurs model:

$$f(x,y) = f(r) = A \exp[-7.67 z^{0.25} - 1]$$

where

$$z = \sqrt{[(x_{\text{maj}}/r_{\text{maj}})^2 + (x_{\text{min}}/r_{\text{min}})^2]}$$

$$r_{\text{maj}} = r_0$$

$$r_{\text{min}} = (1-\text{epsilon})r_0$$

$$x_{\text{maj}} = (x-x_0)\cos(\text{theta}) + (y-y_0)\sin(\text{theta})$$

$$x_{\text{min}} = -(x-x_0)\sin(\text{theta}) + (y-y_0)\cos(\text{theta})$$

### DEVAUCOULEURS Parameters

| Number | Name  | Description                |
|--------|-------|----------------------------|
| 1      | r0    | core radius r_0            |
| 2      | xpos  | x mean position x_o        |
| 3      | ypos  | y mean position y_o        |
| 4      | ellip | ellipticity epsilon        |
| 5      | theta | angle of ellipticity theta |
| 6      | ampl  | amplitude A at (x_o,y_o)   |

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*

[atten](#), [bbody](#), [bbodyfreq](#), [beta1d](#), [beta2d](#), [box1d](#), [box2d](#), [bpl1d](#), [const1d](#), [const2d](#), [cos](#), [delta1d](#), [delta2d](#),

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dered, edge, erf, erfc, farf, farf2d, fpsf, fpsf1d, frmf, gauss1d, gauss2d, gridmodel, hubble, jdpileup, linebroad, lorentz1d, lorentz2d, models, nbeta, ngauss1d, 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, xsbexrav, xsbexriv, xsbknpower, xsbsmc, xsbremss, xsbvapec, xsc6mekl, xsc6pmekl, xsc6pvmkl, xsc6vmekl, xscabs, xscemekl, xscevmkl, xscflow, xscmpbb, xscmpls, xscmpst, xscmpptt, xsconstant, xscutoffpl, xscyclabs, xsdisk, xsdiskbb, xsdiskline, xsdiskm, xsdisko, xsdiskpn, xsdust, xsedge, xsequil, xsexpabs, xsexpdec, xsexpfac, xsgabs, xsgaussian, xsgnei, xsgrad, xsgrbm, xshighecut, xshrefl, xslaor, xslorentz, xsmeka, xsmekal, xsmkcflow, xsnei, xsnotch, xsnpshock, xsnsa, xsnntea, xspcfabs, xspcpwrlw, xspexrav, xspexriv, xspfabs, xsplabs, xsplcabs, xsposm, xspowerlaw, xspshock, xspwab, xstraymond, xsredden, xsredge, xsrefsch, xssedov, xssmedge, xsspline, xssrcut, xssresc, xssssice, xsstep, xstbabs, xstbgrain, xstbvarabs, xsvred, xsvapec, xsvvarabs, xsvbremss, xsvsequil, xsvgnei, xsvmcflow, xsvmeka, xsvmekal, xsvnei, xsvnpshock, xsvphabs, xsvpshock, xsvraymond, xsvsedov, xswabs, xswndabs, xsxion, xszbbody, xszbremss, xszedge, xszgauss, xszhighect, xszpcfabs, xszphabs, xszpowerlw, xsztbabs, xszvarabs, xszvfeabs, xszvphabs, xszwabs, xszwndabs

*slang*

usermodel

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