

*AHELP for CIAO 3.4*

linebroad

Context: [sherpa](#)*Jump to:* [Description](#) [Bugs](#) [See Also](#)

Synopsis

Line broadening profile. Integration ON.

Description

A line–broadening profile:

$$f(\lambda) = (2A_c/\pi/\lambda/v\sin(i)) x,$$

where

$$x = 1 - [(\Delta)\lambda c/\lambda_{rest}/v\sin(i)]^2$$

and

$$(\Delta)\lambda = \lambda - \lambda_{rest}.$$

LINEBROAD Parameters

| Number | Name | Description |
|--------|-------|--------------------------------------|
| 1 | rest | rest wavelength λ_{rest} (Å) |
| 2 | vsini | rotation velocity $v\sin(i)$ (km/s) |
| 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

[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](#), [lorentz1d](#), [lorentz2d](#), [models](#), [nbeta](#), [ngauss1d](#), [poisson](#), [polynom1d](#), [polynom2d](#), [powlaw1d](#),

ptsrc1d, ptsrc2d, rsp, rsp2d, schechter, shexp, shexp10, shlog10, shlog, sin, sqrt, steph1d, stepl01d, tan,
tpsf, tpsf1d, usermodel, xs, xsabsori, xsacisabs, xsappec, xsbappec, xsbbody, xsbbodyrad, xsbexray,
xsbexriv, xsbknpower, xsbmc, xsbremss, xsvapec, xsc6mekl, xsc6pmekl, xsc6pvmkl, xsc6vmevl,
xscabs, xscemekl, xscfvmkl, xscflow, xscfombb, xscfompls, xscfompst, xscfomptt, xscfomconst, xscfomcutoffpl,
xscyclabs, xscdisk, xscdiskbb, xscdiskline, xscdiskm, xscdisko, xscdiskpn, xscdust, xscedge, xscfomsequil, xscfomexpabs,
xscfomexpdec, xscfomexpfac, xscfomgabs, xscfomgaussian, xscfomgnei, xscfomgrad, xscfomgrbm, xscfomhighcut, xscfomrefl, xscfomlaor, xscfomlorentz,
xscfommeva, xscfommekal, xscfommkflow, xscfomnei, xscfomnotch, xscfomnpshock, xscfomnsa, xscfomntee, xscfompcfabs, xscfompegpwrlw,
xscfompxrav, xscfompxriv, xscfomphabs, xscfomplabs, xscfomplcabs, xscfomposm, xscfompowerlaw, xscfompxpshock, xscfompxpwab, xscfomxraymond,
xscfomreden, xscfomredge, xscfomrefsch, xscfomredov, xscfommedge, xscfompline, xscfomsrcut, xscfomresc, xscfomssice, xscfomstep, xscfomtbabs,
xscfomtbgrain, xscfomtbvarabs, xscfomtvared, xscfomvapec, xscfomvarabs, xscfomvbremss, xscfomvequil, xscfomvgnei, xscfomvcflow, xscfommekal,
xscfommekal, xscfomvnei, xscfomvpshock, xscfomvhabs, xscfomvpshock, xscfomvraymond, xscfomvsedov, xscfomwabs, xscfomwindabs, xscfomxion,
xscfomxbbody, xscfomzbremss, xscfomzedge, xscfomzgauss, xscfomzhighect, xscfomzpcfabs, xscfomzphabs, xscfomzpowerlw, xscfomztbabs,
xscfomzvarabs, xscfomzvfeabs, xscfomzvphabs, xscfomzwabs, xscfomzwndabs

slang

usermodel

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