



AHELP for CIAO 3.4

xssmedge

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Synopsis

Smoothed absorption edge. XSpec model.

Description

A smeared edge (Ebisawa PhD thesis, implemented by Frank Marshall).

$$M(E) = 1. \text{ for } E < \text{edgeE}$$

$$M(E) = \exp(-\text{MaxTau} ((E/\text{edgeE})^{\text{index}}(1-\exp((\text{edgeE}-E))/\text{width}))) \text{ for } E > \text{edgeE}$$

xssmedge Parameters

Number	Name	Description
1	edgeE	threshold energy (keV)
2	MaxTau	maximum absorption factor at threshold
3	index	index for photoelectric cross-section (normally -2.67)
4	width	smearing width (keV)

This information is taken from the [XSpec User's Guide](#). Version 11.3.1 of the XSpec models is supplied with CIAO 3.2.

Bugs

For a list of known bugs and issues with the XSPEC models, please visit the [XSPEC bugs page](#).

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](#), [linebroad](#), [lorentz1d](#), [lorentz2d](#), [models](#), [nbeta](#), [ngauss1d](#), [poisson](#), [polynom1d](#), [polynom2d](#), [powlaw1d](#), [ptsrc1d](#), [ptsrc2d](#), [rsp](#), [rsp2d](#), [schechter](#), [shexp](#), [shexp10](#), [shlog10](#), [shloge](#), [sin](#), [sqrt](#), [steph1d](#),

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steplo1d, tan, tpsf, tpsf1d, usermodel, xs, xsabsori, xsacisabs, xsapec, xsbapec, xsbody, xsbodyrad,
xsboxray, xsboxriv, xsboxpower, xsboxmc, xsboxremss, xsboxvapec, xsboxmekl, xsboxpmekl, xsboxpvmkl,
xsboxvmekl, xsboxcabs, xsboxcemekl, xsboxcevmkl, xsboxflow, xsboxcompbb, xsboxcompls, xsboxcompst, xsboxcomptt, xsboxconstant,
xsboxcutoffpl, xsboxcycclabs, xsboxdisk, xsboxdiskbb, xsboxdiskline, xsboxdiskm, xsboxdisko, xsboxdiskpn, xsboxdust, xsboxsedg, xsboxsequil,
xsboxsexpabs, xsboxsexpdec, xsboxsexpfac, xsboxsgabs, xsboxsgaussian, xsboxsgnei, xsboxsgrad, xsboxsgrbm, xsboxshighcut, xsboxshrefl, xsboxslaor,
xsboxslorentz, xsboxsmeka, xsboxsmekal, xsboxsmkcflow, xsboxsnei, xsboxsnotch, xsboxsnphock, xsboxsnsa, xsboxsnteea, xsboxspcfabs,
xsboxspgpwrlw, xsboxspexray, xsboxspexriv, xsboxsphabs, xsboxsplabs, xsboxsplcabs, xsboxspesm, xsboxspowerlaw, xsboxspshock, xsboxspwab,
xsboxsraymond, xsboxsredden, xsboxsredg, xsboxsrefsch, xsboxssedov, xsboxsspline, xsboxssrcut, xsboxssresc, xsboxssssice, xsboxsstep, xsboxstbabs,
xsboxstbgrain, xsboxstbvarabs, xsboxsuvred, xsboxsvapec, xsboxsvarabs, xsboxsvbremss, xsboxsvequil, xsboxsvnei, xsboxsvmcflow, xsboxsvmeka,
xsboxsvmekal, xsboxsvnei, xsboxsvnpshock, xsboxsvphabs, xsboxsvphock, xsboxsvraymond, xsboxsvsedov, xsboxswabs, xsboxswndabs, xsboxsxion,
xsboxszbody, xsboxszbremss, xsboxszedg, xsboxszgauss, xsboxszhighcut, xsboxszpcfabs, xsboxszphabs, xsboxszpowerlw, xsboxsztbabs,
xsboxszvarabs, xsboxszvfeabs, xsboxszvphabs, xsboxszwabs, xsboxszwndabs

slang

usermodel

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