URL: http://cxc.harvard.edu/ciao3.4/xsc6pvmkl.html
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AHELP for CIAO 3.4

xsc6pvmkl

Context: sherpa

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Synopsis

Variable abundance version of c6pmekl. XSpec model.

Description

A multi−temperature, variable−abundance mekal model using the exponential of a sixth−order Chebyshev polynomial for the differential emission measure (e.g. Lemen et al. ApJ 341, 474, 1989). The abundances are relative to the Solar abundances set by the xspecabundan command. The switch parameter determines whether the mekal code will be run to calculate the model spectrum for each temperature, or whether the model spectrum will be interpolated from a pre−calculated table; the former is slower but more accurate. The reference for this model is Singh et al. (1996, ApJ, 456, 766).

xsc6mekl Parameters

Number	Name	Description
1	CPcoef1	Chebyshev polynomial coefficient 1
2	CPcoef2	Chebyshev polynomial coefficient 2
3	CPcoef3	Chebyshev polynomial coefficient 3
4	CPcoef4	Chebyshev polynomial coefficient 4
5	CPcoef5	Chebyshev polynomial coefficient 5
6	CPcoef6	Chebyshev polynomial coefficient 6
7	nH	H density (cm^−3)
8−21	(element)	Abundances for He, C, N, O, Ne, Na, Mg, Al, Si, S, Ar, Ca, Fe, Ni with respect to Solar
22	redshift	redshift, z
23	switch	0 = calculate, 1 = interpolate
24	norm	10^−14/(4 pi (D_A*(1+z))^2) Int n_e n_H dV, where D_A is the angular size distance to the source (cm), n_e is the electron density (cm^−3), and n_H is the hydrogen density (cm^−3)

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, stephi1d, steplo1d, tan, tpsf, tpsf1d, usermodel, xs, xsabsori, xsacisabs, xsapec, xsbapec, xsbbody, xsbbodyrad, xsbexrav, xsbexriv, xsbknpower, xsbmc, xsbremss, xsbvapec, xsc6mekl, xsc6pmekl, xsc6vmekl, xscabs, xscemekl, xscevmkl, xscflow, xscompbb, xscompls, xscompst, xscomptt, 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, xsnteea, xspcfabs, xspegpwrlw, xspexrav, xspexriv, xsphabs, xsplabs, xsplcabs, xsposm, xspowerlaw, xspshock, xspwab, xsraymond, xsredden, xsredge, xsrefsch, xssedov, xssmedge, xsspline, xssrcut, xssresc, xssssice, xsstep, xstbabs, xstbgrain, xstbvarabs, xsuvred, xsvapec, xsvarabs, xsvbremss, xsvequil, 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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