URL: http://cxc.harvard.edu/ciao3.4/xsc6mekl.html
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AHELP for CIAO 3.4

xsc6mekl

Context: sherpa

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Synopsis

6th−order Chebyshev polynomial DEM using mekal. XSpec model.

Description

A multi−temperature mekal model using sixth−order Chebyshev polynomial for the differential emission measure. The DEM is not constrained to be positive. The abundance is 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	abundanc	abundance with respect to Solar
9	redshift	redshift, z
10	switch	0 = calculate, 1 = interpolate
11	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, xsc6pmekl, xsc6pvmkl, 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

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usermodel

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