



AHELP for CIAO 3.4

## xscevmkl

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## Synopsis

Multi-temperature vmeka. XSpec model.

## Description

A multi-temperature plasma emission model built from the mekal code. Emission measures follow a power law in temperature (i.e. emission measure from temperature T is proportional to  $(T/T_{\max})^{\alpha}$ ). 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).

### xscevmkl Parameters

Number	Name	Description
1	alpha	index for power law emissivity function
2	Tmax	maximum temperature
3	nH	nH (cm <sup>-3</sup> ) from mekal
4–17	(element)	Abundances for He, C, N, O, Ne, Na, Mg, Al, Si, S, Ar, Ca, Fe, Ni with respect to Solar
18	redshift	redshift, z
19	switch	0 = calculate, 1 = interpolate
20	norm	normalization

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](#),

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sqrt, stephild, steploid, tan, tpsf, tpsfld, usermodel, xs, xsabsori, xsacisabs, xsapec, xsbapec,  
xsbody, xsbodyrad, xsboxray, xsboxriv, xsboxpower, xsboxmc, xsboxremss, xsboxvapec, xsboxmekl,  
xsboxpmekl, xsboxpvmkl, xsboxvmekl, xscabs, xscemekl, xscflow, xscmpbb, xscmpls, xscmpst,  
xscmpptt, xscconstant, xscutoffpl, xscyclabs, xsdisk, xsdiskbb, xsdiskline, xsdiskm, xsdisko, xsdiskpn,  
xsdust, xsedge, xsequil, xsexpabs, xsexpdec, xsexpfac, xsgabs, xsgaussian, xsgnei, xsggrad, xsgrbm,  
xshighecut, xshrefl, xslaor, xslorentz, xsmeka, xsmekal, xsmkcflow, xsnei, xsnotch, xsnpshock, xnsa,  
xnntea, xspcfabs, xspgpwrlw, xspexray, xspexriv, xspfabs, xsplabs, xsplcabs, xspesm, xspowerlaw,  
xspshock, xspwab, xrraymond, xredden, xredge, xrefsch, 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, xszbody, xszbremss, xszedge, xszgauss,  
xszhighcut, xszpcfabs, xszphabs, xszpowerlw, xsztbabs, xszvarabs, xszvfeabs, xszvphabs, xszwabs,  
xszwndabs

*slang*

usermodel

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