



AHELP for CIAO 3.4

xsvapec

 Context: [sherpa](#)

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

Synopsis

APEC thermal plasma model with variable abundances. XSpec model.

Description

An emission spectrum from collisionally-ionized diffuse gas calculated using the APEC code v1.3.1. Anyone using this model should consult the [Atomic Database \(ATOMDB\) website](#) for details on this code.

Please note that there is no support in CIAO 3.2 for setting the APECROOT variable of the model. It is therefore not possible to change the files from which the atomic data is read.

xsvapec Parameters

Number	Name	Description
1	kT	plasma temperature in keV
2–14	(element)	Abundances for He, C, N, O, Ne, Mg, Al, Si, S, Ar, Ca, Fe, Ni with respect to Solar. Abundances are set by the xspecabundan command.
15	redshift	redshift, z
16	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](#), [deref](#), [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](#),

Ahelp: xsvapec – CIAO 3.4

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slang

[usermodel](#)

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