



 AHELP for CIAO 3.4

xraymond

Context: [sherpa](#)

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

Synopsis

Raymond–Smith thermal plasma. XSpec model.

Description

An emission spectrum from hot diffuse gas based on the model calculations of Raymond and Smith (ApJSuppl 35, 419 and additions) including line emission from several elements. This model interpolates on a grid of spectra for different temperatures. The grid is logarithmically spaced with 80 temperatures ranging from 0.008 to 80 keV.

xraymond Parameters

Number	Name	Description
1	kT	plasma temperature in keV
2	Abundanc	metal abundances (He fixed at cosmic) The elements included are C, N, O, Ne, Mg, Si, S, Ar, Ca, Fe, Ni and their relative abundances are set by the xspecabundan command.
3	Redshift	redshift, z
4	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](#),

Ahelp: xraymond – CIAO 3.4

powlaw1d, ptsrc1d, ptsrc2d, rsp, rsp2d, schechter, shexp, shexp10, shlog10, shloge, sin, sqrt, steph1d, steplo1d, tan, tpsf, tpsf1d, usermodel, xs, xsabsori, xsacisabs, xsapec, xsbapec, xsbody, xsbodyrad, xsboxray, xsboxriv, xsbknpower, xsbsmc, xsbremss, xsbvapec, xsc6mekl, xsc6pmekl, xsc6pvmkl, xsc6vmekl, xscabs, xscemekl, xscevmkl, xscflow, xscmpbb, xscmpls, xscmpst, xscmpstt, xscnstant, xscutoffpl, xscyclabs, xsdisk, xsdiskbb, xsdiskline, xsdiskm, xsdisko, xsdiskpn, xsdustr, xsedg, xsequil, xsexpabs, xsexpdec, xsexpfac, xsgabs, xsgaussian, xsgnei, xsggrad, xsgrbm, xshighecut, xshrefl, xslaor, xslorentz, xsmeka, xsmekal, xsmkcflow, xsnei, xsnotch, xsnpshock, xnsa, xnntee, xspcfabs, xspgpwrlw, xspexray, xspexriv, xspfabs, xsplabs, xsplcabs, xspasm, xspowerlaw, xspshock, xspwab, xsrdden, xsredge, xsrfsch, xssedov, xssmedg, xsspline, xssrcut, xssresc, xssssice, xsstp, xstbabs, xstbgrain, xstbvarabs, xsubred, xsvapec, xsvarabs, xsvbremss, xsvsequil, xsvgnei, xsvmcflo, xsvmekal, 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

The Chandra X-Ray Center (CXC) is operated for NASA by the Smithsonian Astrophysical Observatory.
60 Garden Street, Cambridge, MA 02138 USA.
Smithsonian Institution, Copyright © 1998–2006. All rights reserved.

URL:
<http://cxc.harvard.edu/ciao3.4/xraymond.html>
Last modified: December 2006