



AHELP for CIAO 3.4

xsgbrm

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Synopsis

Gamma-ray burst model. XSpec model.

Description

A model for gamma-ray burst continuum spectra developed by D. Band, et. al., 1993 (ApJ 413, 281).

$$A(E) = K (E/100.)^{\alpha} \exp(-E/\text{temp}) \text{ for } E < (\alpha - \beta) * \text{temp}$$

$$A(E) = K' (E/100.)^{\beta} \text{ for } E > (\alpha - \beta) * \text{temp}$$

xsgbrm Parameters

Number	Name	Description
1	alpha	first power law index
2	beta	second power law index
3	temp	characteristic energy in keV
4	norm (K)	normalization constant; K' is set to provide a continuous model at $E=(\alpha-\beta)*\text{temp}$

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](#), [steph1d](#),

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steplo1d, tan, tpsf, tpsf1d, usermodel, xs, xsabsori, xsacisabs, xsapec, xsbapec, xsbody, xsbodyrad,
xsboxray, xsboxriv, xsboxpower, xsboxmc, xsboxremss, xsboxvapec, xsc6mekl, xsc6pmekl, xsc6pvmkl,
xsc6vmekl, xscabs, xscemekl, xscvfmkl, xscflow, xscmpbb, xscmpls, xscmpst, xscmpptt, xscconstant,
xscutoffpl, xscyclabs, xsdisk, xsdiskbb, xsdiskline, xsdiskm, xsdisko, xsdiskpn, xsdust, xsedge, xsequil,
xsexpabs, xsexpdec, xsexpfac, xsgabs, xsgaussian, xsgnei, xsggrad, xshighecut, xshrefl, xslaor, xslorentz,
xsmeka, xsmekal, xsmkcfow, xsnei, xsnotch, xsnpshock, xsnsa, xsnntea, xspcfabs, xspcpwrlw,
xspexray, xspexriv, xspfabs, xsplabs, xsplcabs, xspesm, xspowerlaw, xspshock, xspwab, xrraymond,
xsrdden, xsrddge, xsrdfsch, xssedov, xssmedge, xsspline, xssrcut, xssresc, xssssice, xsstp, xstbabs,
xstbgrain, xstbvarabs, xsvred, xsvapec, xsvvarabs, xsvbremss, xsvsequil, xsvgnei, xsvmcfow, xsvmeka,
xsvmekal, xsvnei, xsvnpshock, xsvphabs, xsvphshock, 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/xsgrbm.html>
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