



AHELP for CIAO 3.4

## xsbknpower

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## Synopsis

Broken power law. XSpec model.

## Description

A broken power law.

$$A(E) = K (E/1 \text{ keV})^{-\text{PhoInd1}} \text{ for } E \leq \text{BreakE}$$

$$A(E) = K \text{BreakE}^{(\text{PhoInd2}-\text{PhoInd1})} * (E/1 \text{ keV})^{(-\text{PhoInd2})} \text{ for } E \geq \text{BreakE}$$

### xsbknpower Parameters

Number	Name	Description
1	PhoInd1	power law photon index for E < break energy
2	BreakE	break point for the energy in keV
3	PhoInd2	power law photon index for E > break energy
4	norm (K)	photons/keV/cm <sup>2</sup> /s at 1 keV

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, xsboxmc, xsboxremss, xsboxvapec, xsc6mekl, xsc6pmekl, xsc6pvmkl, xsc6vmekl, xscabs, xscemekl, xscvfmkl, xscflow, xscmpbb, xscmpls, xscmpst, xscmptt, xscconstant, xscutoffpl, xscyclabs, xsdisk, xsdiskbb, xsdiskline, xsdiskm, xsdisko, xsdiskpn, xsdust, xsedg, xsequil, xsexpabs, xsexpdec, xsexpfac, xsgabs, xsgaussian, xsgnei, xsggrad, xsgrbm, 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, xsredge, xsrfsch, xssedov, xssmedg, xsspline, xssrcut, xssresc, xssssice, xsstp, xstbabs, xstbgrain, xstbvarabs, xsvred, xsvapec, xsvabs, xsvbremss, xsvsequil, xsvnei, xsvmcfow, xsvmeka, xsvmekal, xsvnei, xsvnpshock, xsvphabs, xsvphock, xsvraymond, xsvsedov, xswabs, xswndabs, xsxion, xszbody, xszbremss, xszedge, xszgauss, xszhighect, xszpcfabs, xszphabs, xszpowerlw, xsztbabs, xszvarabs, xszvfeabs, xszvphabs, xszwabs, xszwndabs

*slang*

usermodel

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