

G349.7+0.2 spectral analysis

26 July 2011

The following analysis of G349.7+0.2 (Two year Fermi catalog name: 2FGL J1718.1-3725) was done using pointlike with a 15 degree ROI and a Power law fit. The energy range used in the analysis is 100MeV to 100GeV, although the SEDs are shown only in the range of 1-100GeV since there is no reliable measure of their flux at lower energies.

Analysis directory: /afs/slac/g/glast/users/ariel/G349702

Model, catalog, and IRF directory: /u/st/ariel/cassa2FGL

The galactic diffuse model used: ring_2year_P76_v0.fits

The isotropic spectra models used: isotrop_2year_P76_source_v0.txt (For front and back events), isotrop_2year_P76_source_v0_front.txt (For front only events), isotrop_2year_P76_source_v0_back.txt (For back only events)

Catalog used: gll_psc_v04.fit

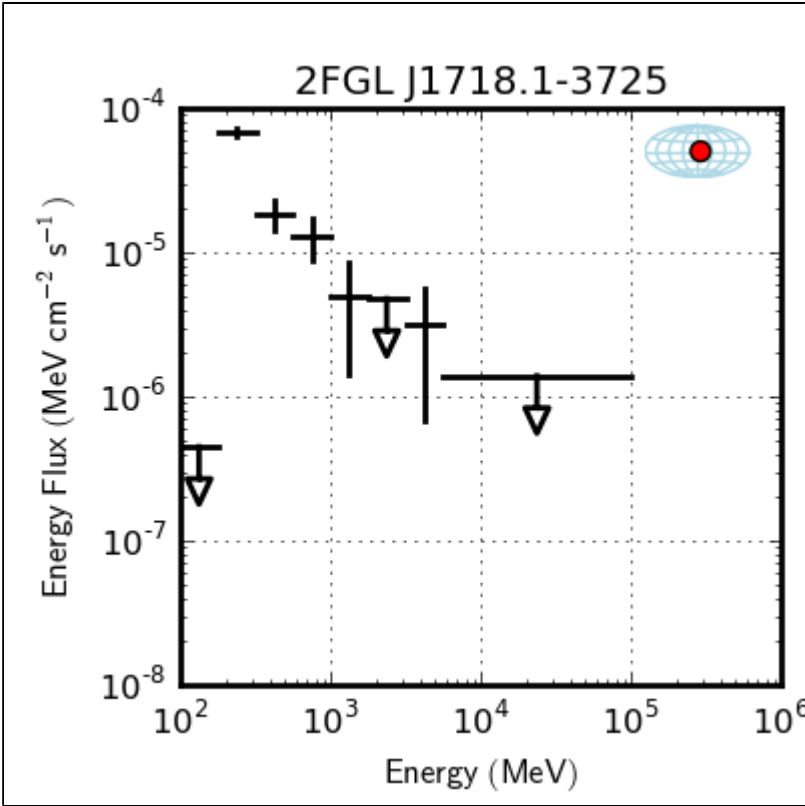
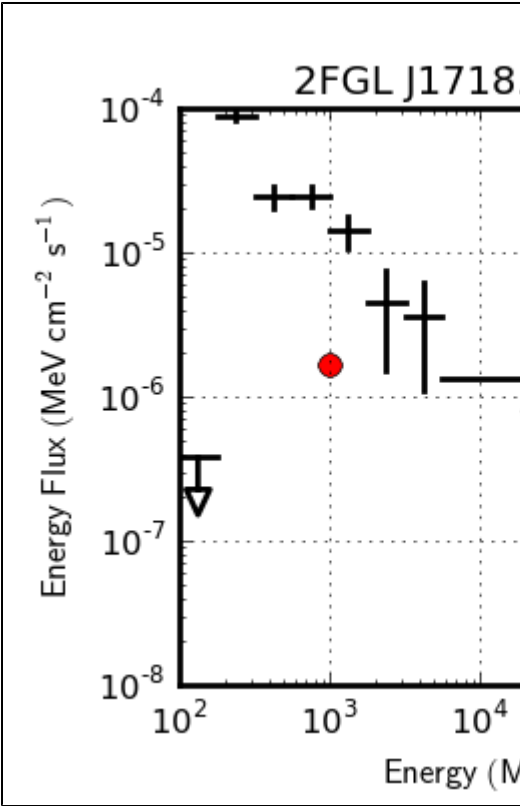
Instrument response function: P7SOURCE_V6

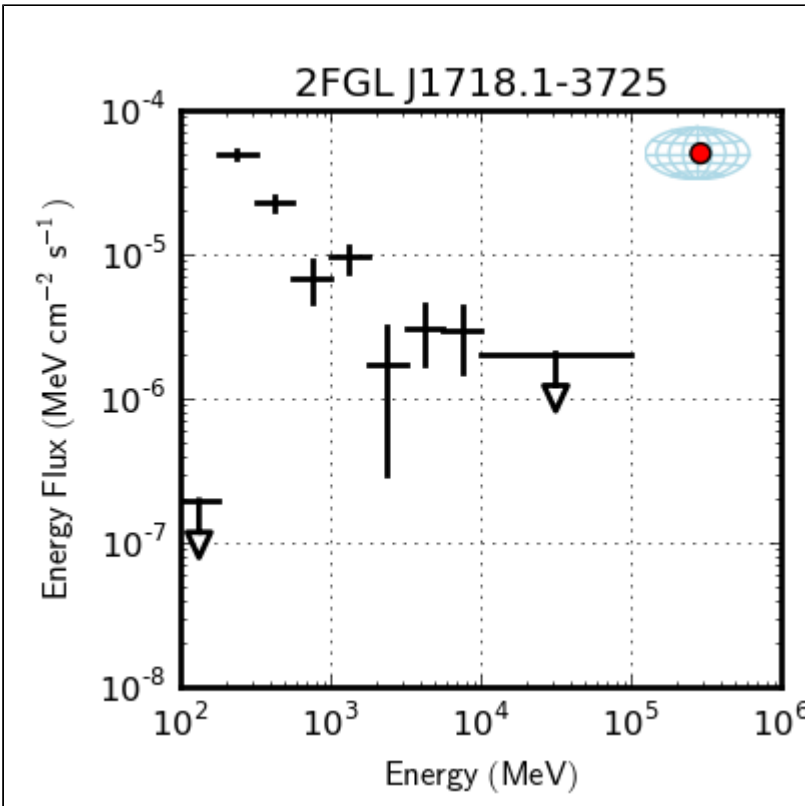
Full time window

MET

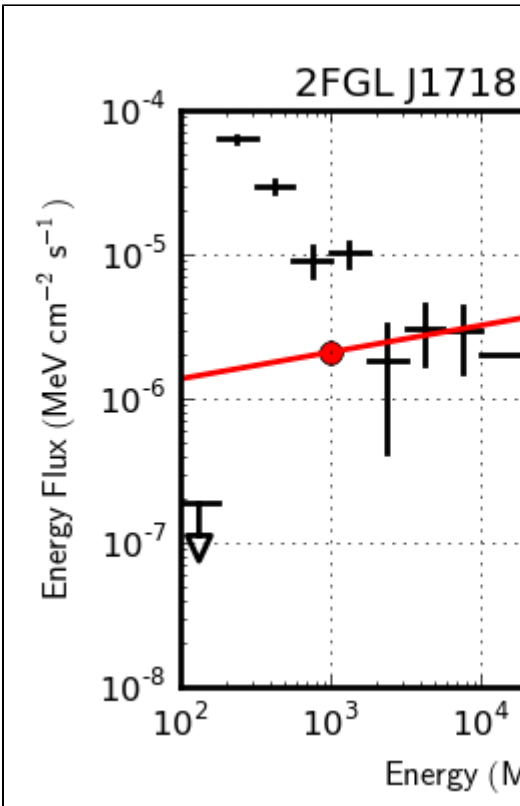
Start = 239557417 seconds (2008-08-04T15:43:37)

Stop = 328855431 seconds (2011-06-04T04:43:49)

S E D s	ROI 10 degrees diameter	ROI 15 degrees diameter
B a c k e v e n t s	 sedE2to5ROI10B.png Norm : 3.81e-32 Index : 0.179 Ph. Flux : 7.63e-27 (DERIVED) En. Flux : 2.76e-27 (DERIVED) TS: 0	 sedE2to5ROI15B.png Norm : 1.67e-12 Index : 1.82 Ph. Flux : 1.34e-08 (DERIVED) En. Flux : -9.56e-12 (DERIVED) TS: 7.1

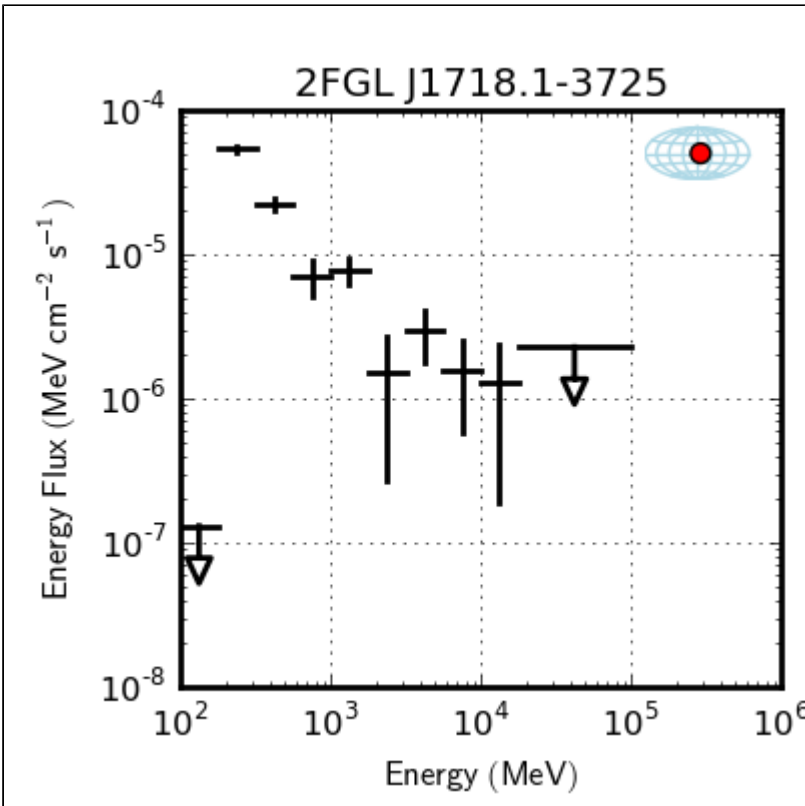


sedE2to5ROI10F.png
Norm : $7.4\text{e-}26$
Index : 6.87
Ph. Flux : $9.27\text{e-}18$ (DERIVED)
En. Flux : $1.79\text{e-}21$ (DERIVED)
TS: 0

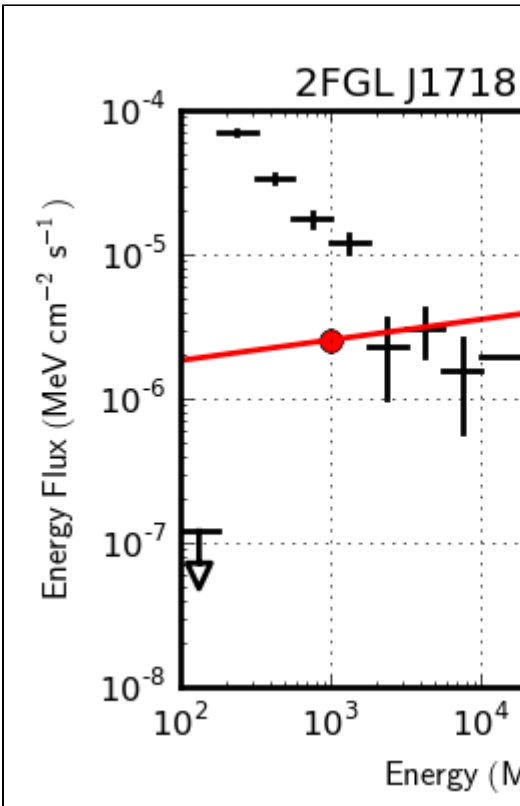


sedE2to5ROI15F.png
Norm : $2.1\text{e-}12$
Index : 1.81
Ph. Flux : $1.68\text{e-}08$ (DERIVED)
En. Flux : $-1.18\text{e-}11$ (DERIVED)
TS: 31.4

Front and back events

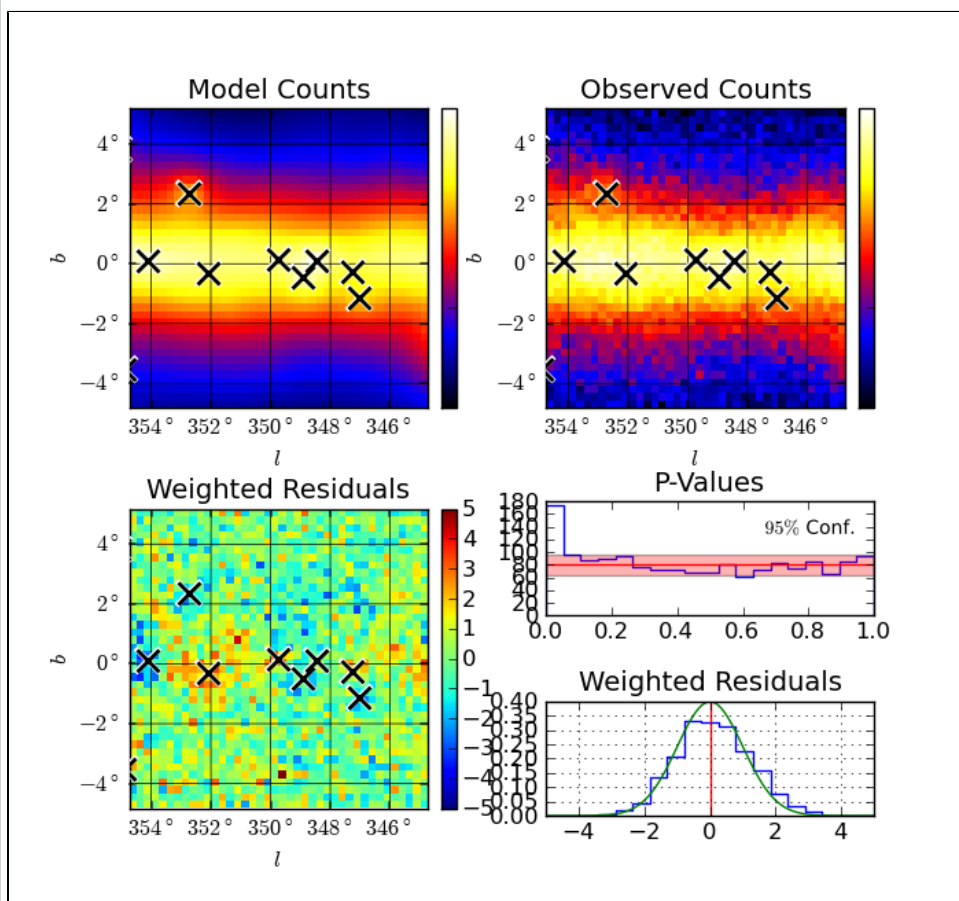


sedE2to5ROI10FB.png
Norm : 1.57e-20
Index : 0.687
Ph. Flux : 3.26e-16 (DERIVED)
En. Flux : 6.68e-17 (DERIVED)
TS: 0

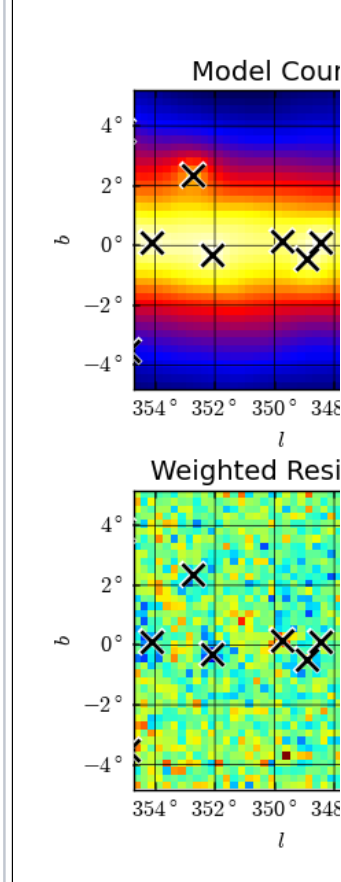


sedE2to5ROI15FB.png
Norm : 2.55e-12
Index : 1.86
Ph. Flux : 2.14e-08 (DERIVED)
En. Flux : 2.07e-11 (DERIVED)
TS: 51.4

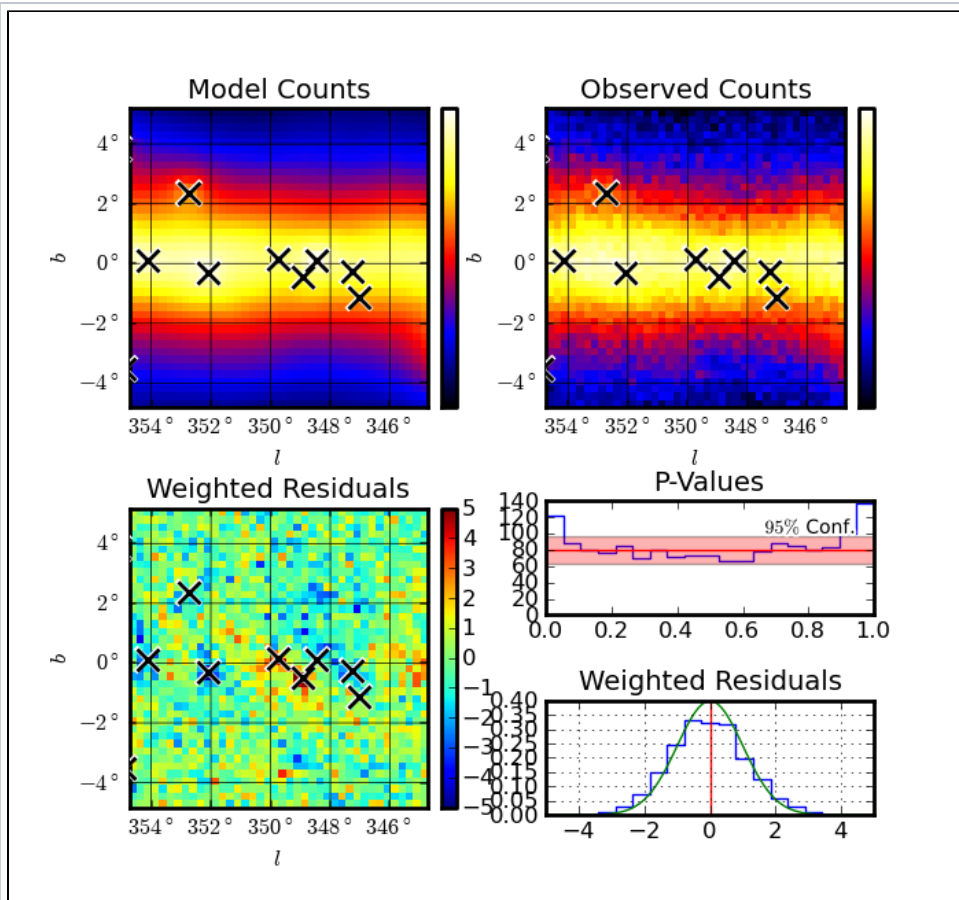
C o u n t s M a p s	R O I	ROI 15 degrees diameter	ROI 20 degrees diameter
	B a c k e v e n t s		



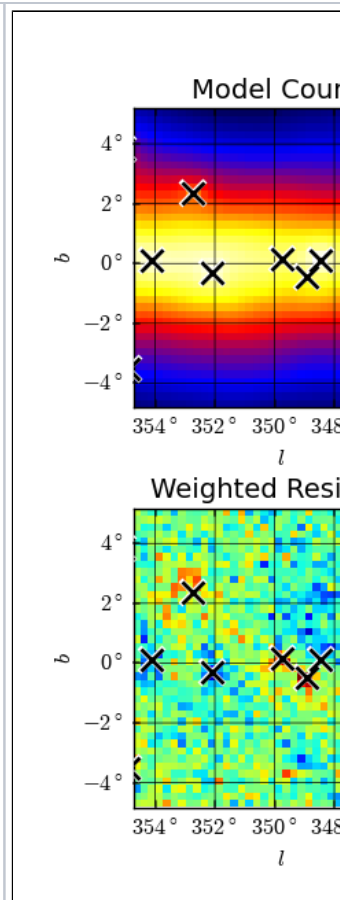
countsE2to5ROI15F.png



countsE2to5ROI20F.png



countsE2to5ROI15FB.png

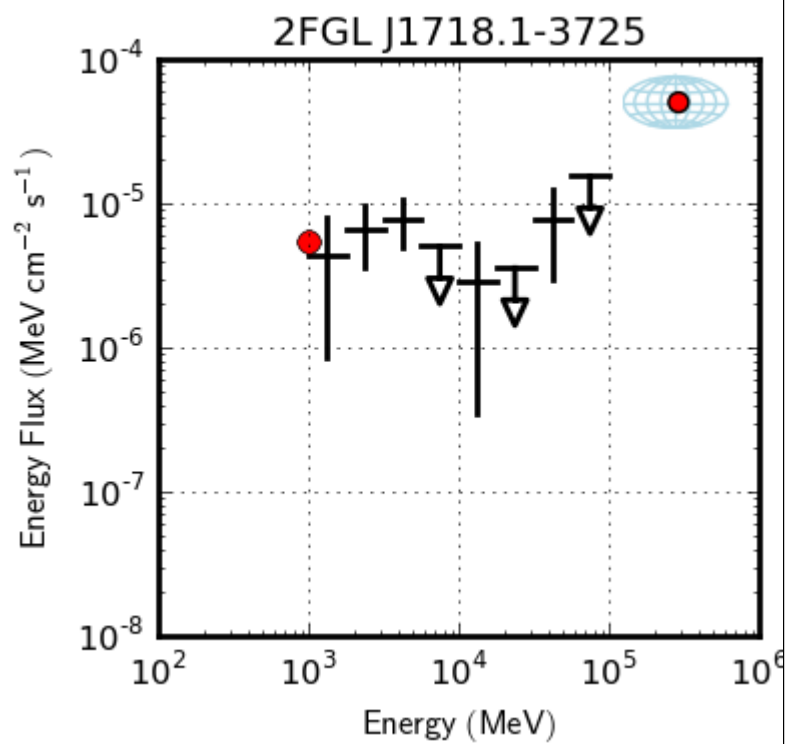


countsE2to5ROI20FB.png

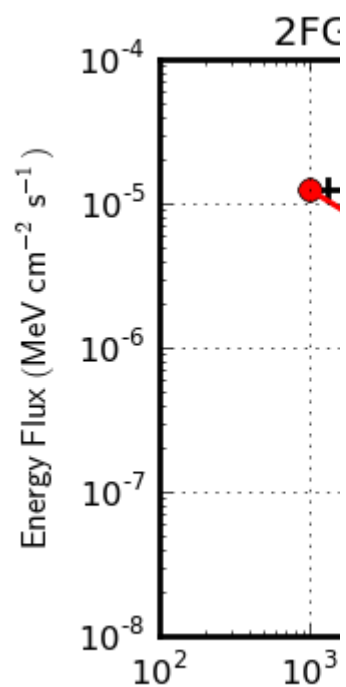
28 July 2011

Another attempt at fitting a power law for a new energy band of 1-100GeV for an ROI of 15 degrees width:

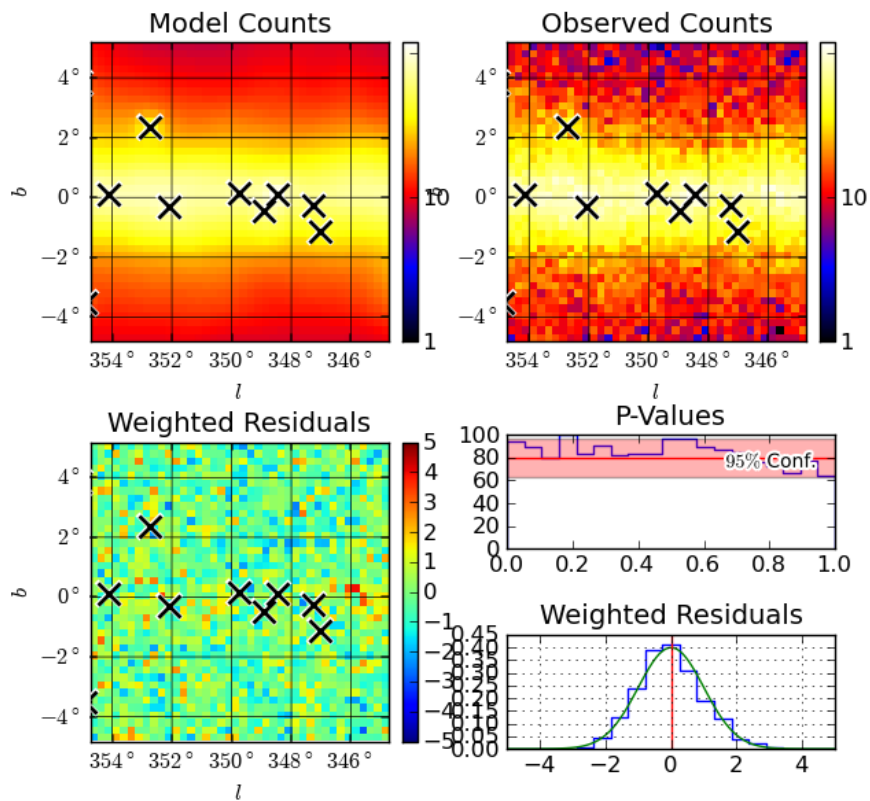
F ul l ti m e wi nd ow M E T St ar t = 2 3 9 5 5 7 4 1 7 s e c o nd s (2 0 0 8- 0 8- 0 4 T 1 5: 4 3: 3 7) St o p = 3 2 8 8 5 5 4 3 1 s e c o nd s (2 0 0 1- 0 6- 0 4 T 0 4: 4 3: 4 9)	Back only events	Front only events
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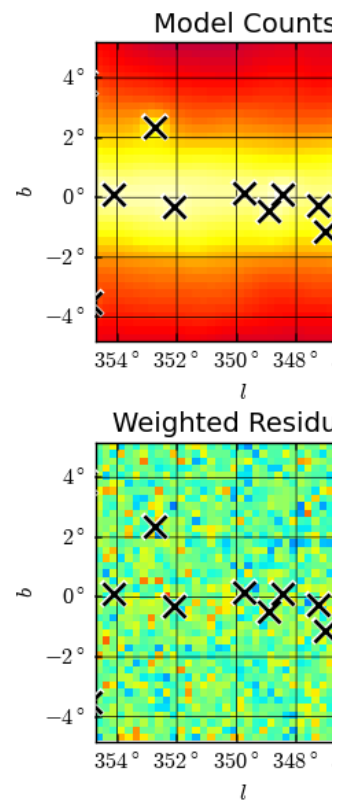
sedE3to5ROI15B.png
Norm: 5.42e-12
Index: 2.14
Ph. Flux: 6.55e-08
En. Flux: 8.64e-11
TS: 20.7



sedE3to5ROI15F.png
Norm: 1.25e-11
Index: 2.64
Ph. Flux: 3.32e-07
En. Flux: 1.36e-10
TS: 100.4



countsE3to5ROI15B.png



countsE3to5ROI15F.png