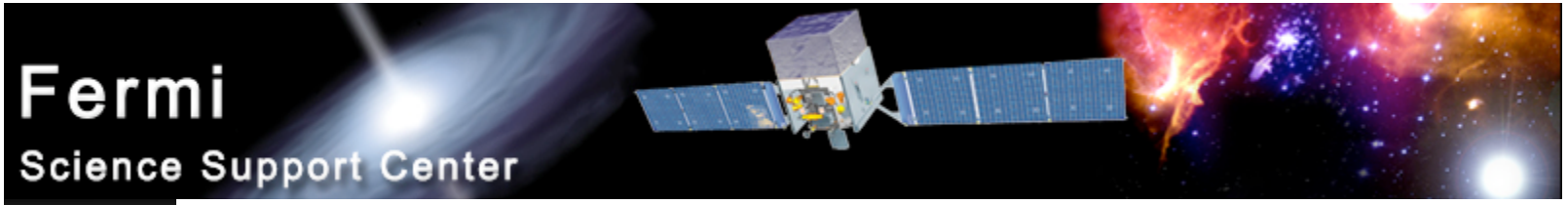
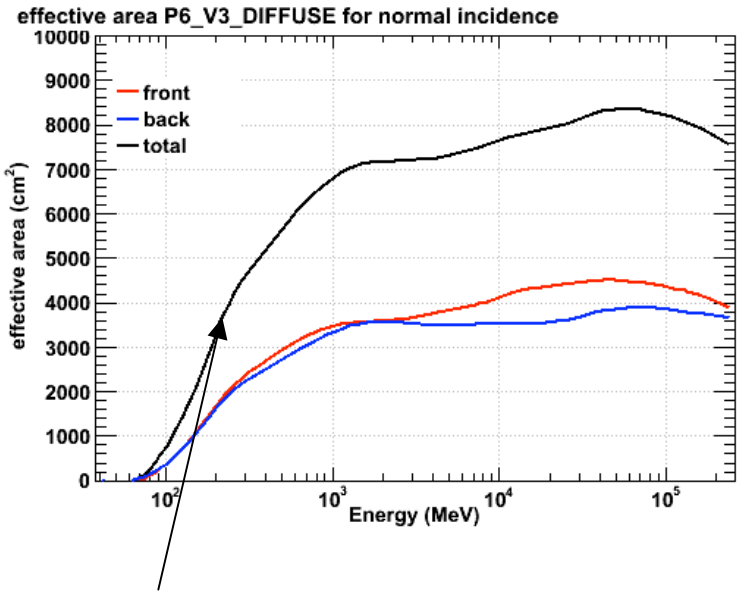


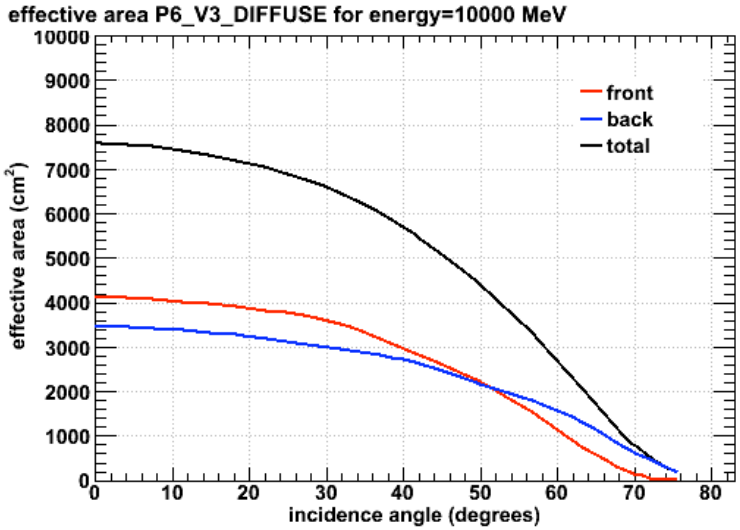
FSSC Science Tools

Data Selection and Caveats

Event selection

- *Use Events >100 MeV for spectral analysis*
  - *To avoid spurious features due to rapidly changing effective area with energy and because of residual uncertainty in the instrument response.*

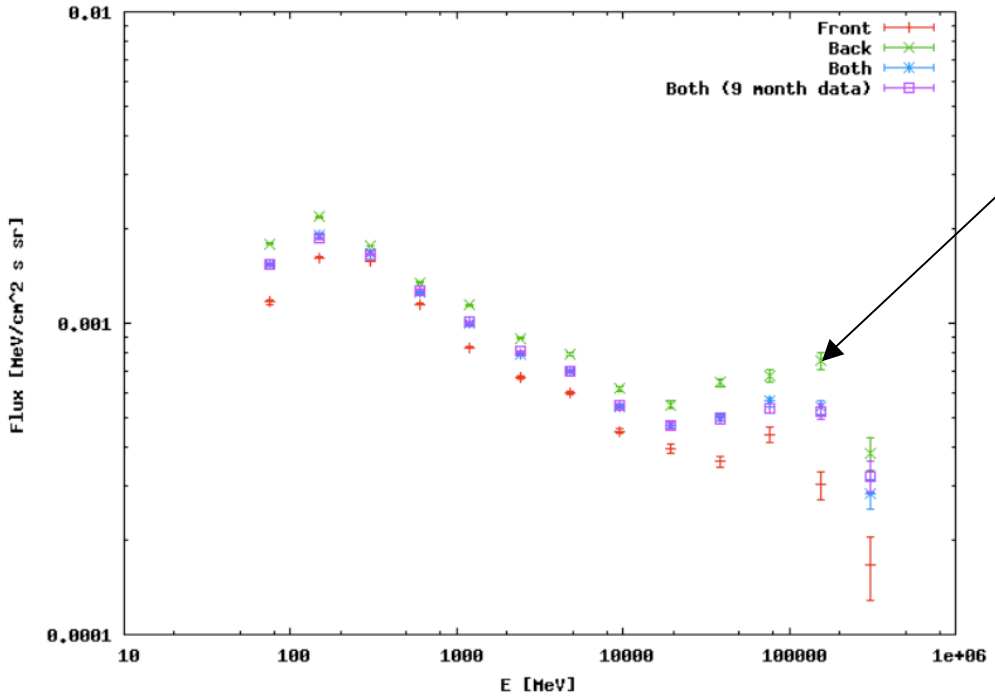




Small uncertainty in energy scale results in relatively large systematic error in final result.

Event selection

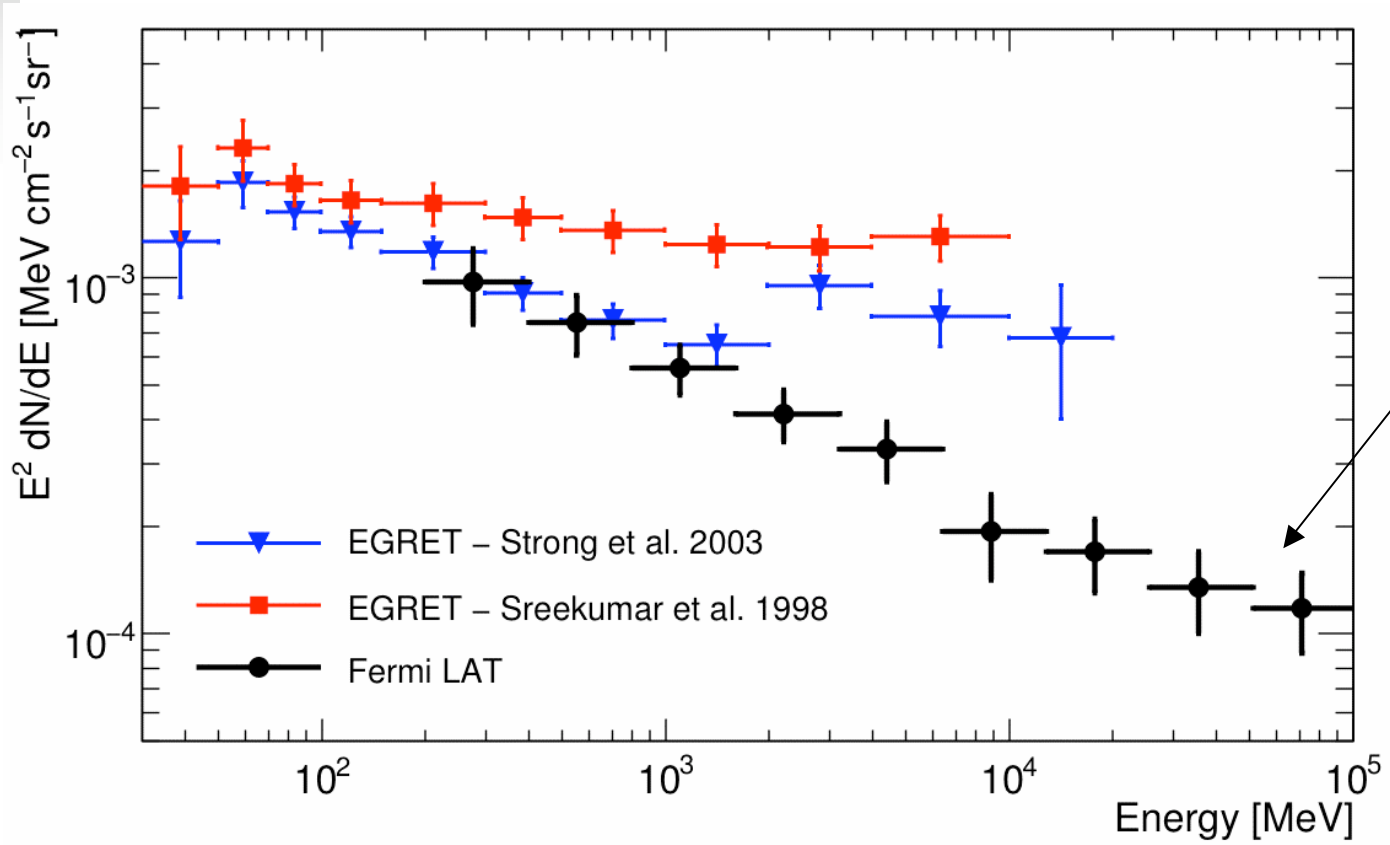
- *Use "Diffuse" class for diffuse, extended, and point source analysis. (evclsmin=3, evclsmax=3).* ***NOTE - this applies to P6 IRFs only, future recommended event selections might change.***
  - *Other event classes have higher charged-particle background contamination and may result in spurious spectral features.*



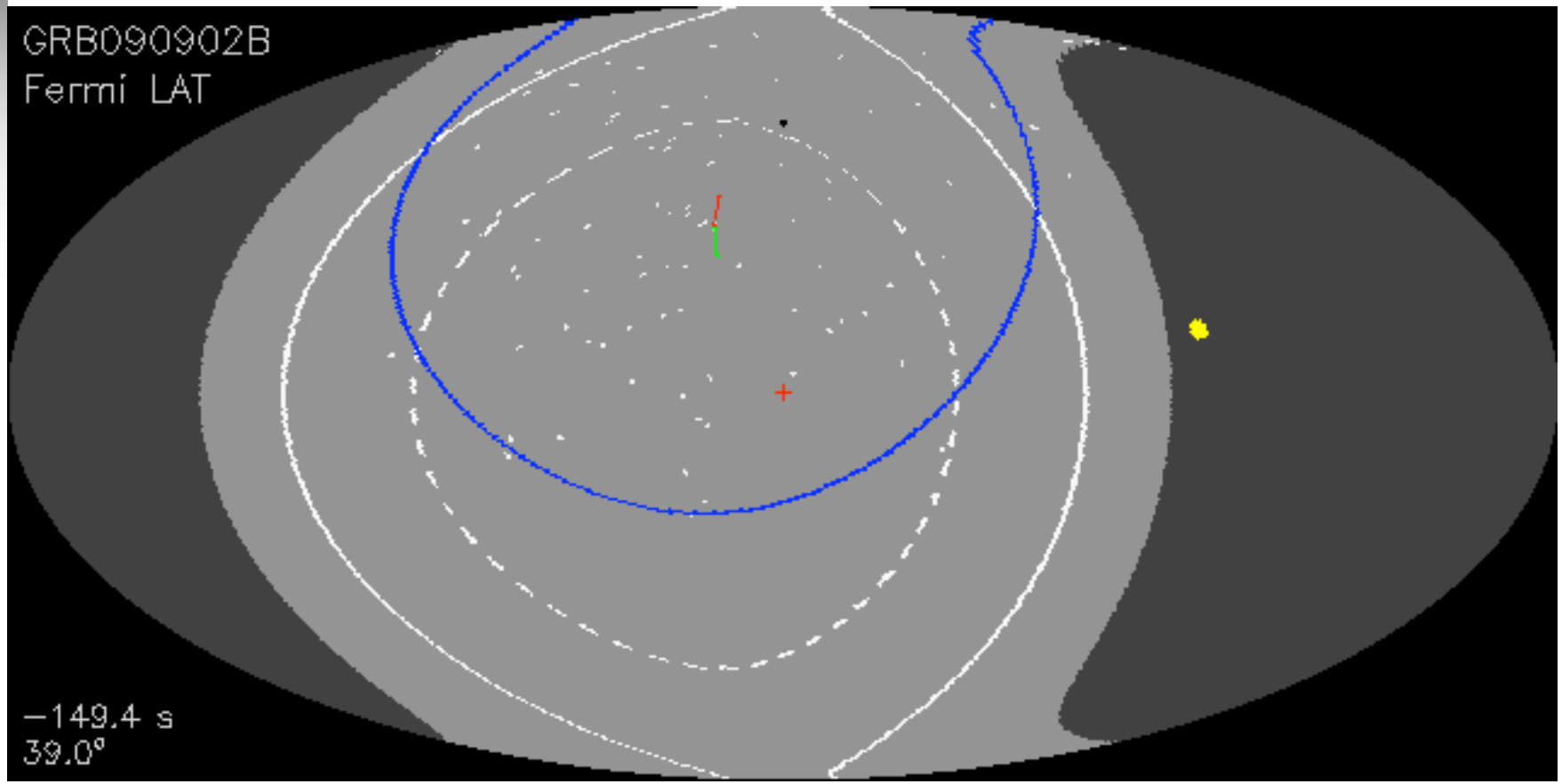
Residual cosmic-ray (charged particle) background.

Spectral templates are provided for the **diffuse class** event selection that allow you to account for the presence of residual cosmic-ray backgrounds in your model fits.

Isotropic gamma-ray spectrum (for comparison)



The Earth is Bright!



Exclude all periods where the edge of your region of interest comes within 8 deg of the Earths limb (zenith angle of 105 deg)

Caveats Documentation