

Light Curve Examples

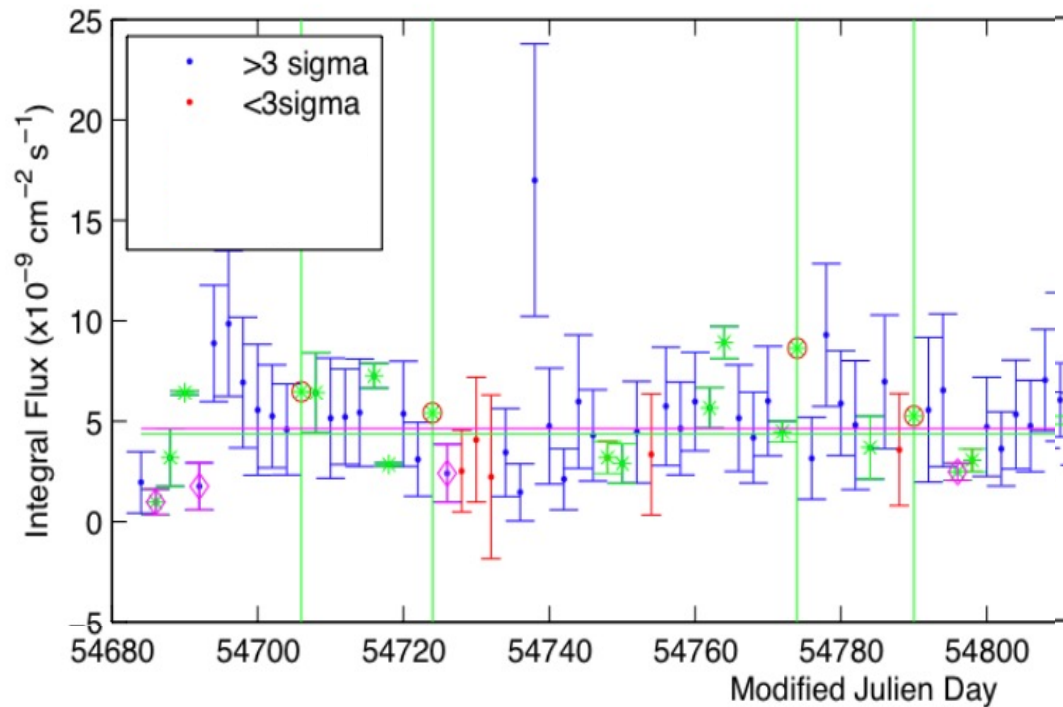
Light Curve Example Part A

The plot shows Integral Flux (flux integrated in energy above 100 MeV) measured in 2-day bins for a preliminary analysis.

Blue points have $TS > 9$
Red points have $TS < 9$

- 1) Is this source variable?
- 2) Should I worry about the fluxes in this light curve?

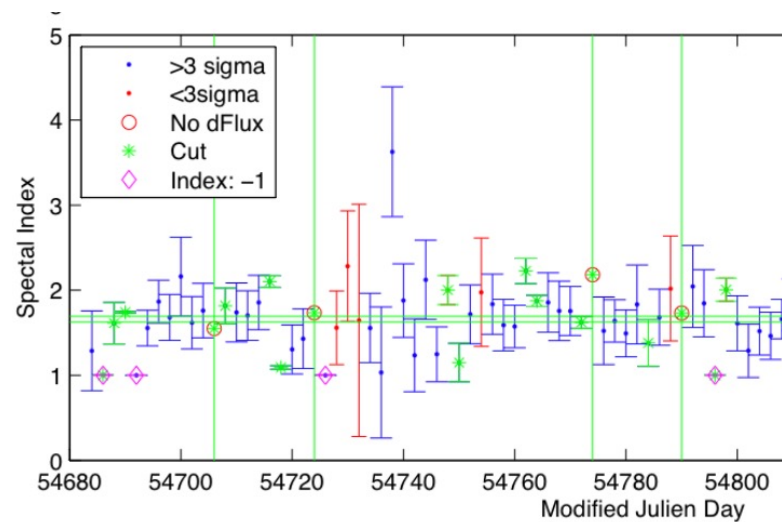
(Ignore the different colored markers for now and examine flux values and flux errors.)



Light Curve Example Part B

This plot shows the power-law index fit for 2-day bins for this source.

- 1) Is the index varying?
- 2) What does a photon index of -1 mean?



Light Curve Example Part C

Red circles have a fit issue and no error. Green asterisks have Flux/Flux Error exceeding $n_{\text{pred}}/\text{sqrt}(n_{\text{pred}})$. Magenta diamonds have a photon index fit at the lower limit.

What could you do to understand or fix some of these issues?

FYI, this preliminary fit used a model including both diffuse components and 2 nearby sources and did one pass of the likelihood fit.

