

Checkout3 GRB analysis

GRB analysis

The tools in this category are **gtbin**, **gtbindex**, **gtrspgen**, and **gtburstfit**. Descriptions of these tools and links to any documentation are in the [science tools section](#) of the User Workbook.

Please edit this page to include results, issues, advice, etc., or links to these.

25 September 2005

Francesco Longo reported last week that the times (like TSTART and TSTOP) in the GBM files of simulated bursts are not consistent with the times for the LAT bursts in the Checkout 3 data. This is apparently because the LAT event files and the GBM files have different values for MJDREF; the burst times are the same in the two sets of files, just measured with respect to different references; Johann Cohen-Tanugi tracked this down, and also pointed out that **gtbin** can be used with the GBM data by not specifying a spacecraft attitude file. The use of different MJDREFs was unintentional, but apparently some or all of the science tools do not check the value, and so the bursts appear to have different times for the two instruments. (Digel)

28 September 2005

I did for the third time the "tutorial" on GRB analysis tools using LAT data. This time I used the version of Science Tools for the Third Checkout. I didn't find particular problems, except for the issue mentioned by Seth. In particular why the tools ask for the FT2 file while there's no need for it? The results of the analysis on the strongest burst are at this page http://www.ts.infn.it/~longof/grb_tutorial_4.html. Now I'm going to check the joint spectral analysis. (Longo)

28 September 2005

I tried to follow the joint spectral analysis tutorial on GRB using LAT and GBM data. I'm using the version of Science Tools for the Third Checkout. I found again the problem regarding the issue mentioned by Seth. In particular when I have to bin the GBM data for the joint spectral analysis I need the FT2 file. Since they are not coherent in time, this prevents any further analysis. The results of the analysis on the burst GRB07018417 will appear at this page http://www.ts.infn.it/~longof/grb_tutorial_5.html. I'll try without the FT2 file. (Longo)

29 September 2005

I tried the joint spectral analysis tutorial on GRB using LAT and GBM data. The **puzzling** results of the analysis on the burst GRB07018417 are on this page http://www.ts.infn.it/~longof/grb_tutorial_5.html. I have probably to check something in the data I've produced. Or probably there are different spectral components. I discovered that I took a too long period for the LAT data selection resulting in an unphysical low flux. For fitting the data with XSPEC, special care are needed for the initial values. Still the resulting spectrum is not good. (Longo)

29 September 2005

Finally I tried the temporal analysis on GRB using LAT data. I followed Johann tutorial .. the link for his work is ftp://ftp-glast.slac.stanford.edu/glast_workingGroups/ScienceTools/tutorials/slides/GRB_083105/tutorial.html. The results are on this page http://www.ts.infn.it/~longof/grb_tutorial_6.html. More documentation on **gtburstfit** is needed. (Longo)