# Science Tools Update, May 26, 2009

## Science Tools Working Group

The current release of the Science Tools is now **v9r13**. Here are the package [differences](#) from v9r12. Jim reports that the driver for the release was some changes to support Pass 7 reprocessing (see below) but does not include Pass 7 IRFs (all of which are preliminary at this point). The release includes the speed-up for Likelihood analysis and the new options for simulating isotropic sources that were mentioned in [last week's report](#).

Eric W. reports that he is starting work on a port of **v9r13** to the FSSC build environment. For the packages/tools that are part of the FSSC builds this will mean that a larger variety of binary distributions will be available.

**Late breaking:** Jean has reported that **hidden parameters** have a **surprising feature** in the Science Tools. He points out that the switch to toltype=ABS in gtlike (the default since **v9r12** for this hidden parameter) will not take place if the user already has a local copy of gtlike.par with the earlier default (toltype=REL). James Peachey reminds that the FTOOL **pset** can be used to permanently change the value of a hidden parameter.

**Data products:** The full Pass 7 reprocessing is "charging ahead" at the Merit level, and the results are being checked. As of this writing (Monday evening), 1,384,014,512 events have been processed, according to the Data Catalog.

### Databases and related utilities

No news

### Likelihood analysis

No news

### GRB tools

No news

### Pulsar tools

Masa reports that he is continuing to work on improving the unit tests for the pulsar tools

### Observation simulation

No news

### User interface and infrastructure (& utilities)

**Important update for Pass 7** *From Jim:*
From the user perspective, the main change is the content of the EVENT_CLASS variable in FT1, which is now filled with FT1EventClass from merit. Operationally, this means that one can now filter on event class using gtselect, e.g.,

```
gtselect evclsmin=3
```

instead of needing to resort to using fcopy (or the like) to filter on CTBCLASSLEVEL (now no longer filled in FT1). There is a related change in gtdiffrsp. Previously, one could restrict the diffuse response calculation to diffuse class photons (even if the FT1 file contained transient and source class events) by doing

```
gtdiffrsp ctbmin=3
```

Now one would do

```
gtdiffrsp evclsmin=3
```

## Source Catalog

Last week the topics included unidentified sources, the pulsar catalog, the influence of the diffuse emission model on the 6-month source list, and plans for the 9-month source list, which Jean is decoupling from Pass 7.