

# Science Tools Update, January 25, 2007

## Science Tools Working Group

We met this week. Our next meeting will be on a to-be-determined date after the GLAST Symposium.

The current version of ScienceTools remains **v7r6p1**.

**Data products:** No news

### Databases and related utilities

Not much news. Richard has posted the [core of a proposal](#) for how the data should be organized for access; this is open for comment

### Likelihood analysis

No news; Jim has a couple of bug reports from Jean, but work on them has not started yet.

We had a long discussion about the state of our understanding about how Test Statistic values relate to significances. Short answer: incomplete. Some potentially-useful directions are being explored - like simulations that Pat is developing to test a potential analytical form being worked out by Ramani Pilla (Case Western Univ.) for the distribution of TS.

### GRB tools

No news

### Pulsar tools

Masa and James are continuing to work on implementing the blind search for periodicity; they are also working out numerically stable ways of calculating the loss of significance for periodicity detection due to trials factors.

### Observation simulation

Max R. is continuing to work on PulsarSpectrum to simulate binary pulsars and has not had a chance yet to try to reproduce the apparent bug mentioned last week.

Toby has got a 'moon' point source that is fixed in the reference frame of the moon working in Gleam simulations. Next step in terms of fidelity would be to implement orbital parallax.

Toby has modified the flux package to allow an offset to be specified for the assignment of MC\_SRC\_ID values and Jim has implemented this as a hidden parameter for **gtobssim**. This allows some flexibility for creating distinct MC\_SRC\_ID values in models that are generated as separate runs for different components of the sky model.

### User interface and infrastructure

No news

## Source Catalog

Did not meet this week.