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# FSSC Data & Software Status

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# FSSC Data Status

## ▶ *LAT Data Server*

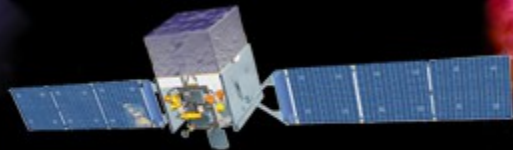
- *Currently Serving P7V6 data*
- *Average of 47 queries/day*
- *Preparing to serve pass 7a, fully reprocessed data*

## ▶ *LAT DATA*

- *Added Lambda column to spacecraft file*

## ▶ *GBM*

- *Transition to full time GBM TTE mode complete*



# Science Tools Status

## ► *Science Tools Release for Spring 2013*

- *Based on LAT Team ST v9r31p0*
- *Likelihood*
  - *Speed improvements in binned analysis*
- *gtobssim*
  - *Updated to include bit mask for the output data*
- *The P7REPV10 IRF's are incorporated*
- *Updated Galactic diffuse model*
- *Updated isotropic emission model*
- *Various minor bug fixes throughout*



# Science Tools Status

- ▶ *Updated / New products available for reprocessed data*
  - *The spacecraft file now includes  $\lambda$  to replace geomagnetic latitude*
  - *High energy PSF improvements*
  - *Calorimeter calibrations updated*
- ▶ *Software will continue support for*
  - *gcc 4.+ compilers (e.g. Ubuntu 10,11+, Fedora 16,17, SL 5 & 6 )*
  - *MAC OSX 10.6 (SnowLeopard), (OSX 10.7) Lion, Mountain Lion*



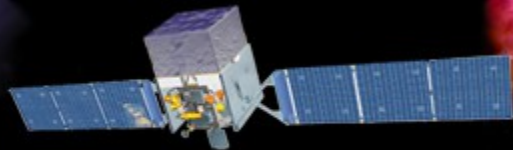
# Science Tools Status

## ► *Updated / New products available*

- *The spacecraft file now includes the position of the Sun for filtering*
- *The data quality flag in the P7 V6 data has been enhanced to include information on short duration events e.g. solar flares*
- *The earth limb template for the 2<sup>nd</sup> Fermi source catalog is now available for use*

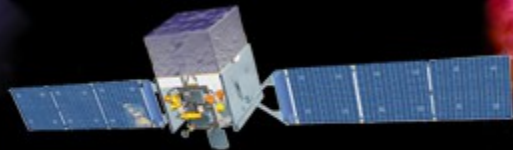
## ► *Software will continue support for*

- *gcc 4.+ compilers (e.g. Ubuntu 10,11+, Fedora 15,16, SL 5 & 6 )*
- *MAC OSX 10.6 (SnowLeopard), (OSX 10.7) Lion*
- *Testing for Mountain Lion will start soon*



# Future Work

- ▶ *Preparations for pass 7 data (full reprocessing)*
  - *Standard test scripts*
  - *Testing by science staff*
- ▶ *Science Tools updates (next release)*
  - *Inclusion of HEALPix support in gtbins*
  - *Better memory management in gtsrcmaps*
  - *Added Solar system tools*
    - *gtexpcubesun*
    - *gtltcubesun*
    - *gtexphsun*
  - *Updated Earth magnetic field model to IGRF-11*



# FSSC Weekly Files Update

## ► *Current Files*

- *~100 MB per weekly file*
- *22 columns of data (standard photon information)*
- *Diffuse columns **populated***
- *Latency <5 min.*

## ► *Proposed Files*

- *~ 200 MB per weekly file*
- *42 columns of data (standard event information)*
- *Diffuse columns **not** populated*
- *Latency up to a few days (Months during reprocessing)*



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# FSSC Weekly Files cont.

▶ *Hybrid Files*

- *~200 MB per weekly file*
- *42 columns of data (standard photon information)*
- *Diffuse columns **populated***
- *Latency up to a few days (> during reprocessing)*
- *More complicated bookkeeping*





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# Time Estimates

- ▶ *Proposed event weekly files*
  - *2 or 3 months*
- ▶ *Hybrid Files*
  - *Up to 6 months*