END OF YEAR 1 DATA RELEASE & PROPOSAL FOR LAT EVENT DATA

Peter F. Michelson

LAT Principal Investigator

Fermi User Group Meeting

February 6, 2009

End of year 1 data release & proposal for LAT event data

- LAT 1st year data release is done through the FSSC
  - Year 1 data delivery to FSSC: August 11, 2009
  - Data available from FSSC within one month of delivery

- Data delivery after initial Year-1 delivery will occur within 72 hours after level-1 processing by ISOC

LAT Public Event Data Release

- all gamma-ray events have well-defined classification, with accompanying instrument performance assessment
  - if LAT team publishes significant gamma-ray results using a new class, best effort will be made to update public archive with the new classification in a timely manner.

- diffuse-class events populate the gamma-ray photon database (remember; event classes are hierarchical)

- event data for all gamma-ray classes. Event data consist of additional information that is either directly useful in an existing analysis tool or is anticipated to be important enough to include in future tools, along with other information pertinent to a GI analysis.

LAT Public Event Data Proposal: Contents

- Event data consists primarily of the following (in addition to items in FT1):
  - for systematic checks in instrument coords: **direction, conversion layer,**
  - Covariance error matrix information in slope space. anticipate new tools to transform onto the sky and to use for analyses.
  - Additional variables to enable possible future event class selections without reprocessing

- Note that event data released do NOT include
  - individual energy estimators
    - no separate performance parameterizations, difficult to support, no obvious science benefit
  - other event selection variables
    - standard suite of classes already sufficient for science topics; <u>without ability to run detailed instrument MC (requiring very high level of expertise and significant computing resources), no means to assess performance when changing cuts.</u>
  - detailed track quality information
    - only meaningful to experts