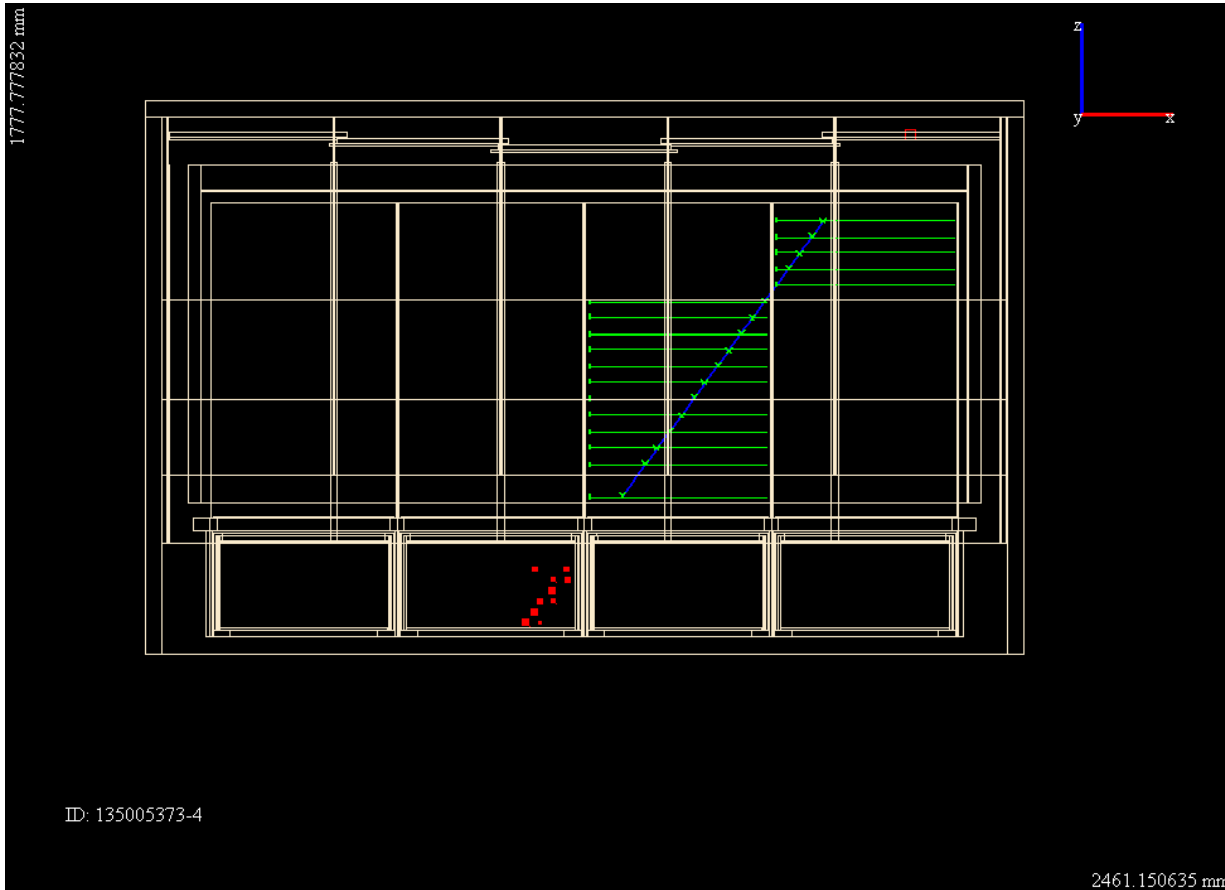


Instrument Analysis Activities



Anders W. Borgland

Science
 Verification,
 Analysis and
 Calibrations

/

Physics
 Verification and
 Optimization

LAT
 Data

Data

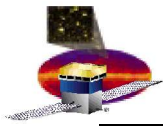
Data

LAT

Data

Data

LAT



LAT Muon Data Is Here!

- All LAT SVAC muon runs are now:
 - **Reprocessed:**
 - Latest calibrations
 - Latest EngineeringModel release
- List of runs:
 - **PDF file with all run numbers**
 - **Use only these runs for your analysis!**

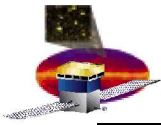
File Edit View Go Bookmarks Tools Help

http://www-glast.slac.stanford.edu/IntegrationTest/SVAC/Instrument_Analysis/Instrument_Analysis.html

Ingrid Google Div Svac IAG My Glast Glast Logbook EPIC

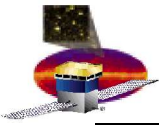
LAT Instrument Analysis Group

Meetings	Finding Data	Data Analysis
Weekly Friday Meetings Workshops 1, 2, 3, 4, 5, 6 SVAC JIRA CCB	Runs Database Trigger runs NEW! How to get data - End2End runs:1, 2, 4, 6, 8 towers - LAT Jan '06 - Rates Register Configuration	Data Analysis Primer (html) (pdf) How to Look at Data Merit Ntuple Description



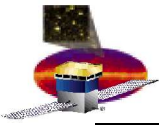
'Unexpected Features'

- Two bugs discovered:
 - Merit ntuple variable 'EvtRun':
 - Problem discovered by Bijan:
 - » Run number for EvtRun did not always match the real run number
 - Declared as float instead of (unsigned) int in AnalysisNtuple
 - Will be incorrect for run numbers in the range we have in real data:
 - » Truncated values
 - But, is **correct for DC2** type runs numbers!
 - Correct run number is available in the SVAC ntuple:
 - » RunID
 - ACD tile has wrong thickness:
 - Row 3, column 4 i.e. tile ID 34.
 - 12 mm instead of 10 mm
 - Discovered by Eric – confirmed by Joanne
 - This **bug is not in the DC2 geometry**:
 - » It was introduced when we made the overlap in the right direction



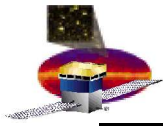
LAT Data Analysis

- Three main groups of analyses:
 - ACD
 - TKR
 - CAL
- Two points:
 - Analyses very sub-system oriented:
 - This is what we need to do in the beginning!
 - » Want to make sure we understand the different subsystems when they are integrated
 - But now it's time to do **LAT Data Analysis!**
 - Not a single analysis/talk from Italy!
 - We miss you guys



Near Future: FSW

- **Flight Software is here!**
 - Power on/off going on right now.
 - **Muons with FSW this week!!!!!!!**
 - Will they look like LATTE muons? :-)
- **LSF:**
 - **Data format changes:**
 - LDF becomes LSF
 - **Main difference for you:**
 - Context information
 - » We will get back to you about this
 - Your SVAC and Merit ntuples will look pretty much the same as now!
- **Pipeline:**
 - **We're working hard on getting the pipeline to digest LSF/FSW:**
 - Getting CCSDS packets to offline
 - Make the pipeline understand if it's LDF or LSF:
 - » We will still take LATTE/LDF data once in a while
 - A new EngineeringModel release:
 - » LSF reader
 - **'We' means Heather, Bryson, Warren, Eric & Jim!**



Summary

- Calibrated and reprocessed LAT muon data:
 - Now Available!
- We need **YOU** to look at it!
 - This is the data to analyze for the IA workshop!
- Final End2End muon runs:
 - Just before we ship the LAT to NRL

- **Instrument Analysis Workshop:**
 - February 27 and 28
 - Just before the DC2 kickoff!
 - Have **YOU** registered?

**LAT DATA
ANALYSIS!**