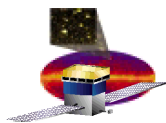


CAL monitoring via TKR extrapolation (1 of 2)

- Eric G's confluence page lists scads of CAL quantities to monitor:
<https://confluence.slac.stanford.edu/display/CAL/CAL+Data+Monitoring>
- To my reading, there are *relative* quantities useful for *trending*, but not absolute quantities to verify that the whole recon chain is intact, for example, that the RDB offline calib constants reflect the instrument.
 - Example 1) pedestal widths reveal electronic noise that may arise but TKR \Leftrightarrow CAL single log position comparisons will show that pedestals are wrong, or that Light Asym has changed.
 - Example 2) Proton landau energy peaks would show if pedestals are wrong and/or if gains have drifted.
- So I suggested to Anders that perhaps the I&T TKR-to-CAL scheme should be added to the monitored quantities. Like, $\langle \Delta x, y \rangle$ per crystal.
- He asked David Paneque to implement it, I sent him my code.



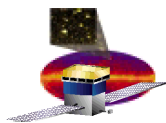
CAL monitoring via TKR extrapolation (2 of 2)

- Since then, I've wondered: better tools to apply to this task?
 - Fred's "carbon peak in a single day" from gcr.root.
 - MIPfinder libraries to use protons to find $\langle \Delta x, y \rangle$ (real geometry!)
- We (me Fred Thierry) suggested to Paneque to wait for post Ops Sims 1 before proceeding, so that we can practice, think, then re-advise.
- During Ops Sims, we'll exercise these sorts of CAL checks.
- MipFinder won't be run as part of Ops Sim1 recon, too slow and not strictly relevant.

Questions:

- Do CAL experts agree that it is worth monitoring these TKR-to-CAL comparisons?
- And I was wondering – does offline CAL recon use static pedestals from RDB* or do pedestals get updated using periodic trigger data or something?

*Is RDB still the "thing" or has it been superseded by some more modern thing that I didn't pay attention to?



Status of the CAL paper (1 of 1)

<https://confluence.slac.stanford.edu/display/SCIGRPS/CAL+Subsystem+Paper>

- Eric Grove wrote an outline of the CAL paper.
- He gave lots of old prose to Patty Sandora, who roughly mapped it into his outline, including Mark's AAS poster figures.
- I edited massively ; ported it to LaTeX "Astroparticle Physics" format ; wrote my assigned sections on calibrations.
- Waiting for feedback from Eric & Neil...
- Neil meanwhile updated LAT paper CAL section, including Bruel suggestions...
- Last week, Fred looked at CAL paper draft, noticed lots of things missing that he and others (Sasha!) have and could add...
- I plan to concentrate again on CAL paper beginning, say, early Nov.
- Primarily "design and fabrication" oriented, as opposed to "performance", which could appear in the "CERN testbeam" paper.
- Need to check coordination with LAT paper CAL section.
- Fred suggested this group may want to become more pro-active.
- NRL needs to guide paper structure, but outsiders can provide the bulk.