

Some Bordeaux OktoberTest Tasks (1 of 1)

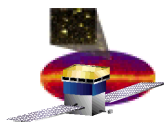
(Marianne & Damien at SLAC. Others in Bordeaux, some with annual national “science festival” commitments.)

(CAL relevant)

- Damien & Dave will apply the old TKR-to-CAL extrapolations to look at single crystal energy peaks and position measurements, with protons instead of muons.
- Thierry & Dave will use gcr.root outputs to look at single crystals with Fred, and to generally get updated on current calibGenCAL, RDB developments.
- Benoit presumably also looking at CAL.

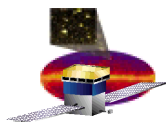
(less CAL relevant)

- Damien to look at Pass 5 cut-by-cut efficiencies on Vela.
- Marianne will apply her monitoring scheme to Vela fluxes and pulsar phases.
- Lucas will do some skymap, Vela counts, lightcurves as per Thierry & Dave’s SO talk last Friday.
- We’ll try to follow shift activities from afar, with M & D at the front lines.



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.



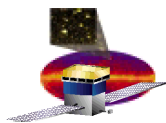
CAL monitoring via TKR extrapolation (2 of 2)

- 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>

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- 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.