BCAL Tasks

Finalize Spring running conditions

Detector & Analysis Action Items

- ~~Take LED runs to check system (Elton and Noemi)~~
- ~~Investigate pedestal parameters for different temperatures (Tegan)~~
- ~~Pedestal-threshold fluctuation effect: fluctuating atten lengths, etc~~
- mod7 vs mod8 running (Mark?)
- ~~Analyze runs at different overbias for efficiency/noise (Ahmed)~~
- Think about how best to use BCAL-triggered runs to study calibrations (Andrei and Zisis)
- ~~Investigate how to check efficiency vs DAQ thresholds (Elton)~~
- Determine effective velocity for each channel (George)
- Determine time-walk corrections (George)
- Determine time offsets (?)
- Cosmics at Regina to check reflections (Noemi, Laura) - Elton's scripts
- Cosmics with BCAL self-triggering (?) - CDC people are included, Beni's data (A+Z)
- Long-term LED pulser running to validate relative monitoring (?)
- TDCs from pulsers, cosmics, data (?) - Occupancy plots- GV's stuff
- One-ended hits (Andrei, Zisis)

Simulation & Reconstruction Action Items

- Rerun cosmics with lower threshold (Irina, Andrei)
- Check new dark hits code after David's adjustments (Tegan)
- Shower curvature tables: compare KLOE to IU codes (Tegan, Andrei)
- Software benchmark hangup: BCAL code (mcsmear) - not multithreaded?
- z-coordinate determination from up/down amplitude ratio (Tegan, Andrei)
- Cleanup: (Tegan, Will L.)
-      Set variable "failures" to a number other than zero (e.g. -9999 or similar)
-      Comb code for constants to be pulled out into a database
- Sampling fraction tables
- Charged particle simulations (Andrei, Irina)

From ZP's email to MD, February 19, 2015: on temperatures

Temperature of sensors: I had a discussion with Eugene and Alexandre about this. The +5C temp is our planned operation for when the SiPMs have sustained radiation damage, so we may be good to run higher in the beginning. We should look at the data we took and see if the 24C->18C->12C shows an effect somewhere. Eugene expressed a desire to run at a temperature and other settings that we think we would want to run in the fall, and possible set those for our upcoming spring run. Going to lower temps now would a) test the system to make sure we can work with chillers at +5C (SiPMs at 7-8 C) for long periods, and b) give us a bigger lever arm on data. We should come up with a plan of how to decrease the temps over the years/months, perhaps based on accumulated neutron fluence, or something similar, with a possible goal of trying to keep the resolution constant as noise increases due to degradation.

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