

HCAL Biweekly Meeting Minutes 1.13.21

Nominal agenda:

- **Review Cosmic Scans, LED scans, and HCal Hardware**
 - Sebastian
 - Vanessa
 - Scott

Attendance:

1. Sebastian Seeds
2. Brian Q
3. Juan Carlos Cornejo
4. Bogdan Wojtsekhowski
5. Scott Barcus
6. Vanessa Brio
7. Jim Napolitano
8. Andrew Puckett

Actual:

General

- Discussion about Hall A meeting content
 - 1/5 of time given for SBS
 - Sebastian and Vanessa both to give talks
 - One of Scott B or Juan Carlos to give one talk
 - Must establish scope of readiness for HCal in talks

Vanessa

- Completed NPE analysis from LEDs
- TDC timing resolution
 - Run 1259

Sebastian's Presentation

- Created preliminary plots
 - Average Max ADC v Channel
 - Average Max TDC v Channel
 - Average Int ADC v Channel
 - Average Int TDC v Channel
 - Average Pedestal v Channel
 - Number of Event Pulses v Channel
- Noted issues
 - ADC threshold too high
 - Set to 50, should be lower (~10 RAU)
 - Vertical cut

- Three in vertical line, no diagonal tracks permitted
 - Apply threshold only to neighbors
- Investigate pedestal artefacts

Scott's Presentation

- Hardware issues
 - TDC thresholds adjusted
 - Discriminator settings adjusted
- Code improvements
 - Number of TDC hits per Module
 - Periodicity due to edge effects of detector (mean free path through and out of detector)
 - ADC
 - Threshold 12 RAU
 - TDC
 - Threshold higher
- Where HCal is going after SBS
 - Not determined yet
 - Put in ESB?
- Need cables for fADC
 - 100 m
- LED NPE analysis
 - Show individual phototubes plots
 - LED info vs channel number
 - HV value vs channel number
 - All calibration
 - 95% of channels should be at target RAU (~61)
 - Develop parameter for health of system

Bogdan

- Tagged pion calibration
 - Used for photoproduction experiments
 - Written up in GMn plans
 - Not in detail
 - Used in CLAS
 - Discussion of change run plan
 - Needs additional commissioning time
 - Maria Satnik working on this
 - HRS Calibration moved to *beginning* of commissioning
 - Three weeks might not be sufficient to do this – so get it complete early
- Don could look at HV monitoring in Hall A and improve it
 - Target: Hall C system
 - Log HV in EPICS