

BigBite Working Group Bi-Weekly Meeting Minutes

9.15.2021

Agenda:

- Implementation of capacitive coupling, replacement of PS FIFOs - Provakar/Arun
- Status of pulser tests - round2 - provakar/Arun
- Acquiring FADCs from Alex + new SD board - Alex
- Cables for monitoring the thresholds - Sebastian/Ellen
- Raspberry pi for monitoring the thresholds - Ellen
- Status of coincidence studies and EDTM setup with HCAL - Mark/Scott/Arun
- Calibrations - look-up tables and plan as we move forward
- Online monitoring - what plots, scripts etc
- Preparing "How-to" notes for shifters
- Any other topics?

Attendance:

1. Sebastian Seeds
2. Eric Fuchey
3. Arun Tadepelli
4. Alex Camsonne
5. Mark Jones
6. Eric Fuchey

Actual:

- Added capacitive couplings for FIFOs to address DC offsets
 - Installation in process – need four connectors from Brad (on the way)
 - All will be shielded
- Bad LaCroy FIFOs
 - Many channels do not map sums on input correctly to output
 - PS tends to saturate at higher input value
 - Using mostly PS modules. All bad modules relocated and labeled.
 - Installed termination to verify signal amplitude
 - 50 mV differences are no longer evident (corrected issue)
- Will finish pulser tests with new FIFOs today
- Next steps
 - Calibration scripts
 - Need to be written with new root tree structure
 - User notes
 - For CH
 - New fADCs
 - Alex update: tests ongoing
 - Alex will check with Brad to get fADCs more quickly and trade tested ones when complete

- Jumper cable in hand
- Threshold monitors
 - Sebastian: Cables made
 - Ellen and Steve Wood: Raspberry pie installation and coordination as DC to digital monitor
- Coincidence
 - 90% complete
 - EDTM
 - Module from DVCS with pulser available in parallel with HCAL DVCS pulser for this
 - Alex C and Mark J to help set this up. Put in hodoscope crate.
 - Mark Jones to help set up delay to address coincidence trigger timing offset between BB and HCAL
 - Will not get a new SD board
 - No coordination with David F. necessary
 - TDCs used for record of trigger
 - Mark Jones setting up
- Rate testing
 - fADC
 - Alex C and Mark J – testing ongoing
- Test replay script
 - Cosmic runs with commonDAQ and check PS and SH signal integrity
 - Alex will take cosmics to test TI and replay
 - Latency not well understood
 - Delay on TI? Relative to what? Alex will work on it.
 - Need to get reference time
 - Not in window – will need to change delay on single slot to move into window. Mark Jones working on it.
 - A copy should go to all crates
 - BB has extra fADC channels for this
 - Provakar: SH replay is working