SRO meeting
Forward Ecal Calibration

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2024 2/27 SRO meeting

Forward Ecal Calibration

- Detector/SiPM — No tower by tower HV adjustments planned (pre-select SiPMs + pre-calibrate SiPM Bd)
- FEEBd — Attenuator adjustments for overall gain
- Readout board — Pedestal on fly, and zero suppression on board
- LED monitor — Dedicated LED run once per day when beam is off (not interleaved with physics)
- IV scan — Dedicated IV scan run when beam is off once per ~2 weeks (~few min?)
- Pi0 calibration
  - No other detectors needed, except we will require good collision selection (not dominated by upstream events)
  - Few hours ~ a day of data at L=10^33 to get few 100s ~ 1k pi0s for each tower
  - Initial gains, mapping, cluster finding, pi0 reconstruction, peak finding, update gain for few iterations
  - We'll need to produce and analyze "DST" with loose collision & pi0 candidate selection for iterations
  - We can automate but human intervention will be needed (pi0 peak fit will go wrong and then gains run away)
  - Results will go in DB to be used for online for "triggering" and offline analysis
- E/pT calibration with DIS/decay electrons
  - Requires tracking @ forward in a good shape
  - May need >> days of data
  - Offline