Calibration and characterization meeting (TID/LCLS Ops) - 1 /25/2024

Attendance:

Conny, Philip, Bhavna, Kaz, Alex, Zongde, Xavier, Julian, Nolan, Chris, Lorenzo, Bojan, Dionisio

Agenda items:

1. Lorenzo's presentation on investigated HR issues

Presentations and other relevant documents:

ePixHR V4, Tuning Beamtime Feb2023 (Lorenzo)

Allowed ACQ Trigger Rates for Set Run Trigger Rates

Notes:

Lorenzo's suggestions for Feb beamtime: (types of plots we need)

1. New ADC settings and VrefDAC
   a. pixel vs time
2. Low flux data to analyze data with 14 and 12/11 bits
   a. banding? 1d histogram of pedestal and single photon
3. High intensity scan to demonstrate that thesaturation issue is gone
   a. Tune comparator level to be at least 2k ADU below saturation level in FH/FM
   b. intensity vs wave8, check saturation, look at every pixel
4. Optimize pixel settings
   a. Filter: optimal noise and switching operation
   b. Pixel bias settings
   c. weighting function at low intensity with CompEnOn=1, intensity vs wave8, 1d histogram of pedestal