

Calibration and characterization meeting (TID/LCLS Ops) - 2/7/2024

Attendance:

Agenda items:

- Findings since last time:
 - Lorenzo on new register settings;
 - Philip on column vs. row correction of common mode noise (and its effect on the banding).
- Beamtime prep;
 - Installation;
 - Possibility to run at different DAQ rates;
 - Collecting gain maps (FH/FM/AHL/AML) with new register settings;
 - Staffing of 16 and 17 Feb.
- Measurement schedule;
 - cover updated measurement schedule.
- AOB.

Presentations and other relevant documents:

measurement schedule:

[Beamtime ePixHR Feb 16/17 2024 - v2.xlsx](#)

Shift scheduling:

	Feb 16	Feb 17
shift 1 (6p-1a)	Philip, Dionisio, Kaz, Lorenzo, Alex (remote)	Bhavna, Philip, Julian, Bojan, Alex (remote)
shift 2 (11p-6a)	Bhavna, Zongde, Julian, Bojan, Dionisio (tentative), Alex (remote)	Kaz, Zongde, Alex (remote)

Lorenzo presentation and links:

[ePixHR10kt_v4_tuning.pptx](#)

<https://confluence.slac.stanford.edu/display/ppareg/Supply+2v5+--+2v6>

<https://confluence.slac.stanford.edu/display/ppareg/Charge+Injection+--+Tuning+results>

Notes:

- Philip brought up that descrambling appears to not put the detector in the correct position. Dionisio has requested multi ASIC hardware for properly debugging this.
- Lorenzo presentation:
 - We should run at 2.6V, it improved the linearity (both v1 and v2 has been updated to supply 2.6V to the ASIC now);

To Do:

Things to check before beamtime

- Run ePixHR in RIXS DAQ with 5160/120
- Test pedestal and timing scan scripts
- Check that pedestal scan can run with large event numbers per gain mode (for temp stabilization)
- Temp stabilization (configuration time, or add time at start of ever run?) – check during beamtime
- Set temp to 15C/to the degree possible before beamtime
- Test Grafana for live temp readout
- Documentation
- Take test data pre-beam:
 - 5 pedestal
 - Timing scan without beam
 - ACQ start on scope