ICEBERG Cryostat Noise Tests

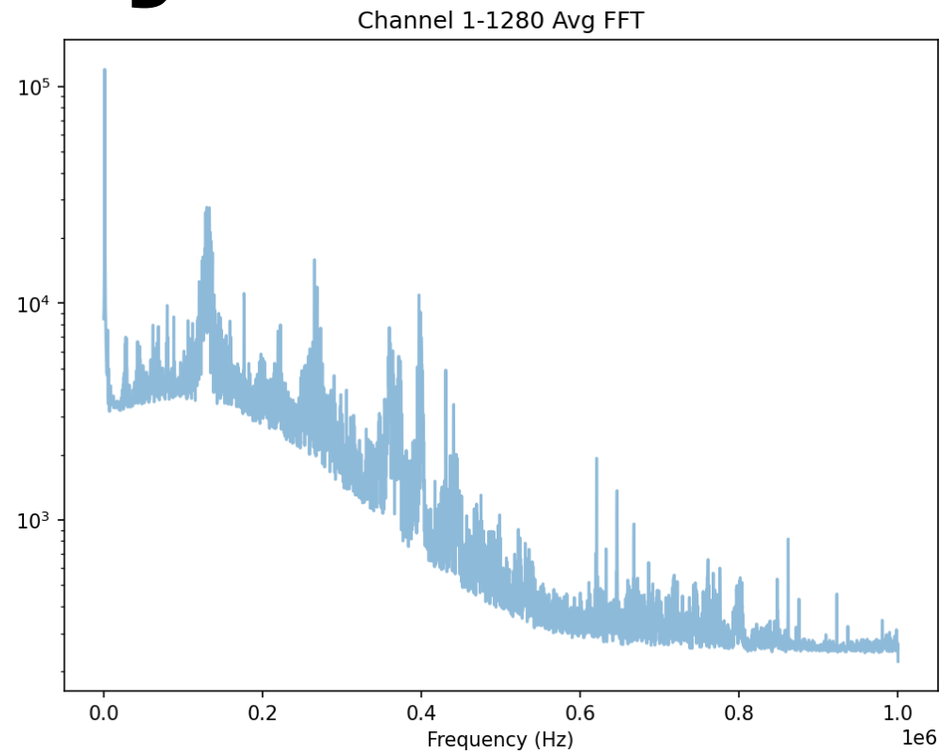
Alejandro Yankelevich

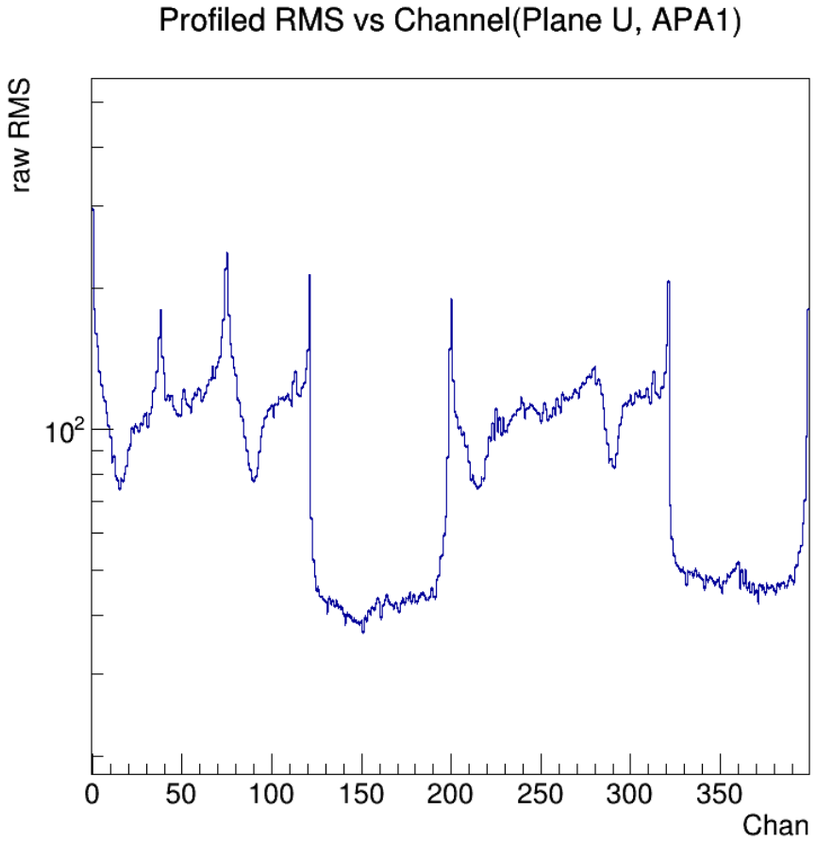
ICEBERG Meeting - April 17, 2024

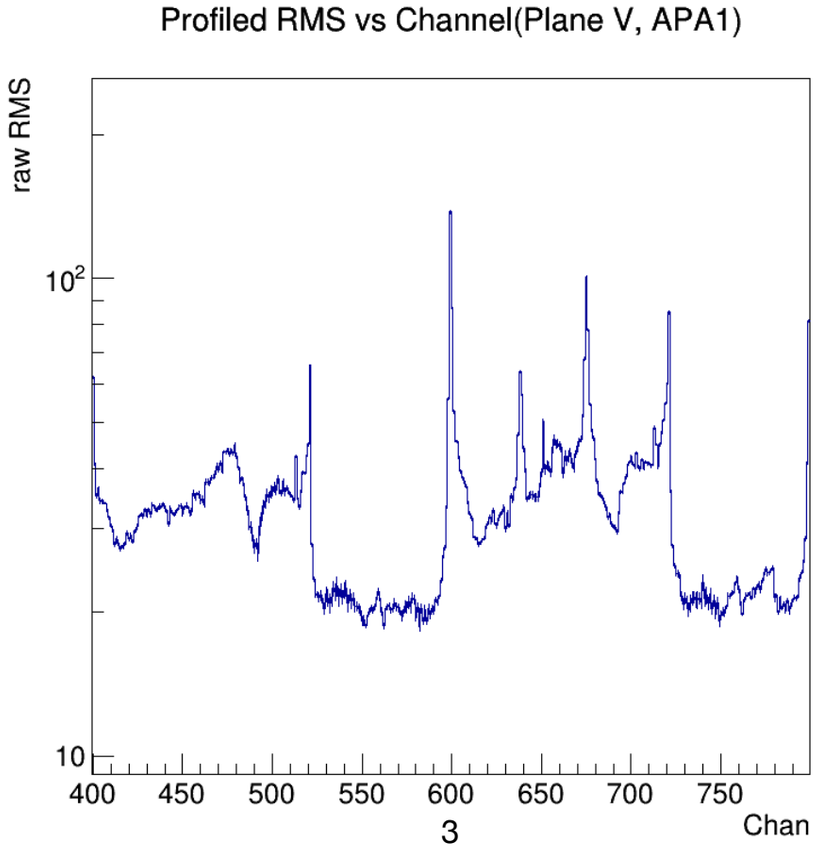
Background

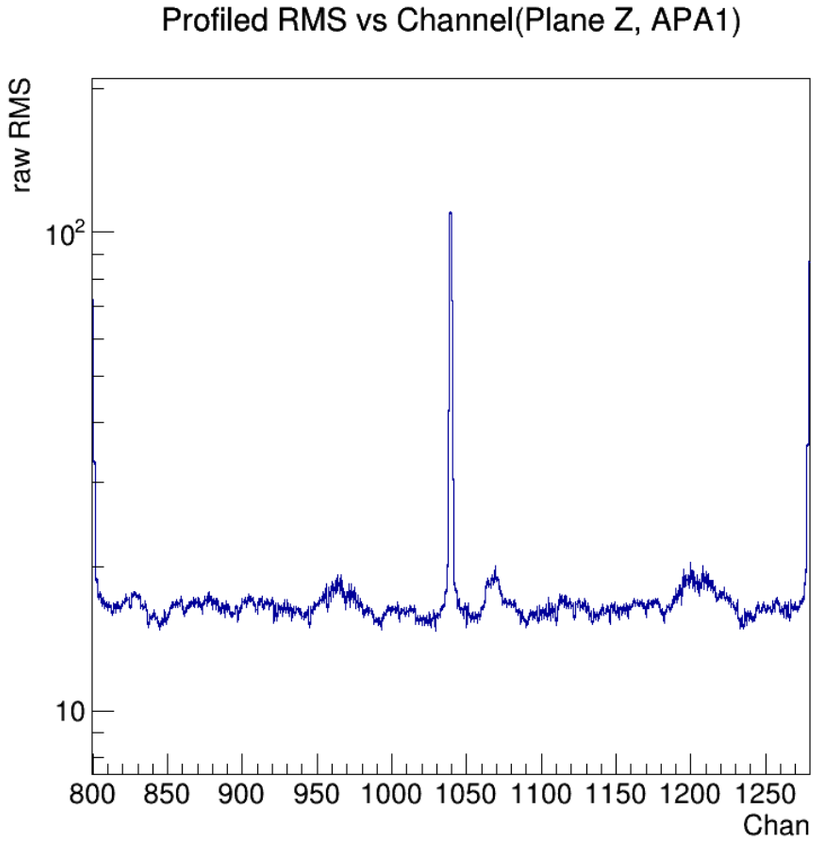
- Previously reported high noise conditions after mounting FEMBs to TPC.
- Many tests to investigate nature of noise and attempt to reduce.
  - Rebundling cables, separating power/data
  - Disabling interlock and powering fans directly
  - Single WIB and single FEMB tests
  - Swapping WIBs
- Last Friday, lowered TPC into cryostat to confirm noise is environmental pickup through the anode wires.

Outside Cryostat

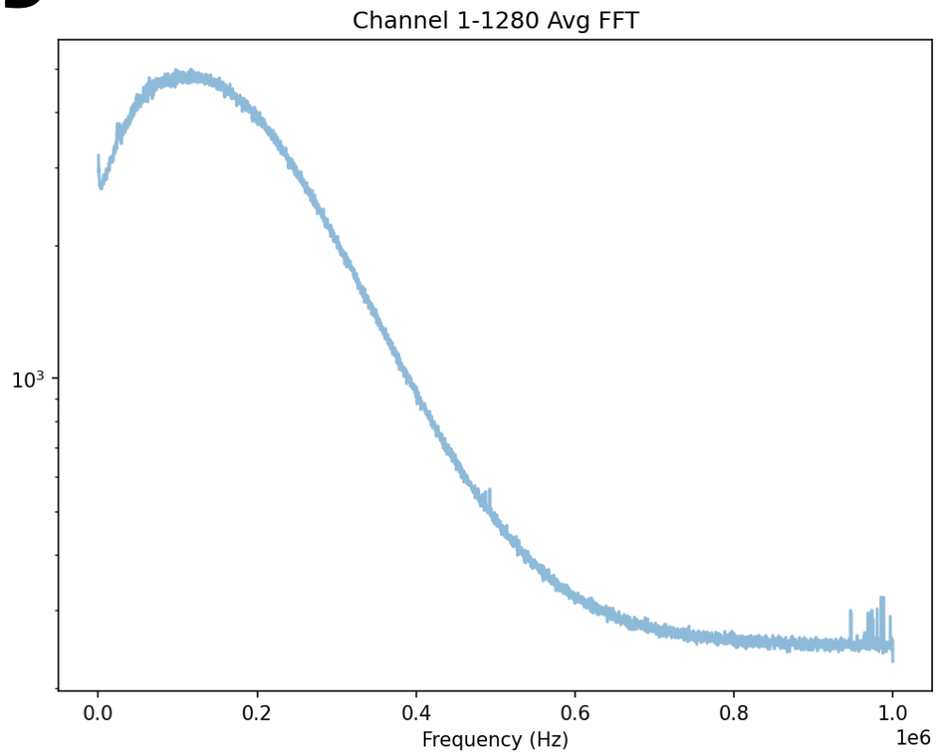


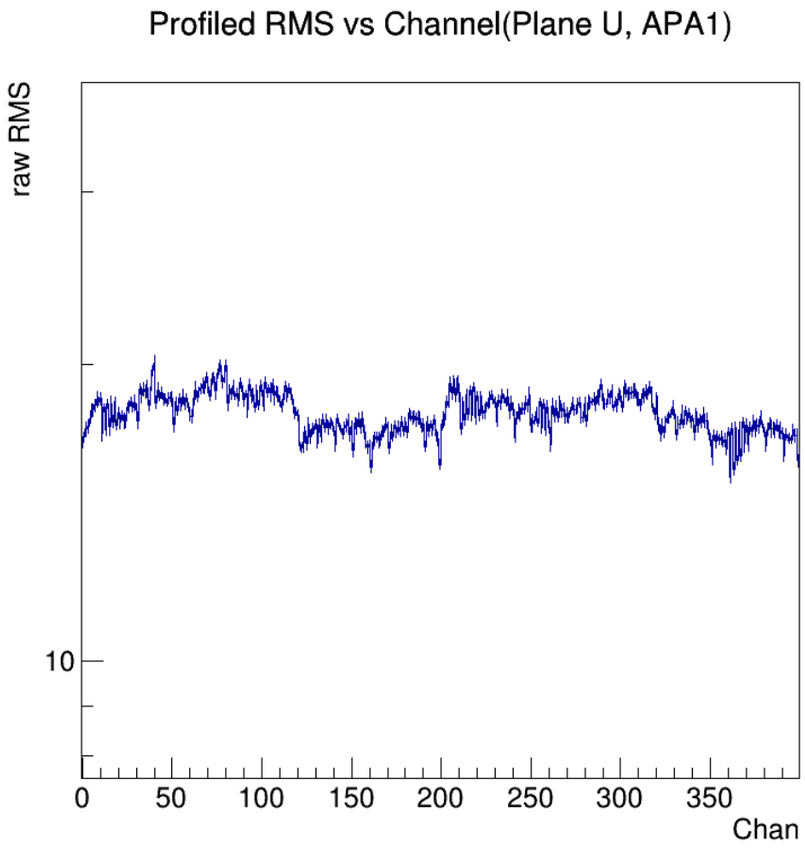


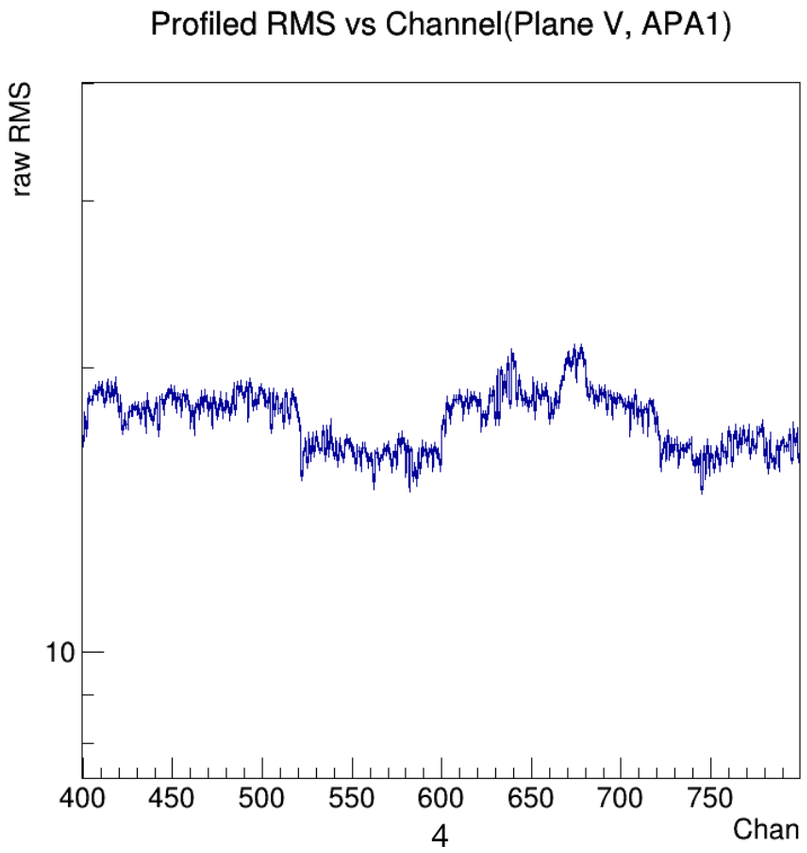


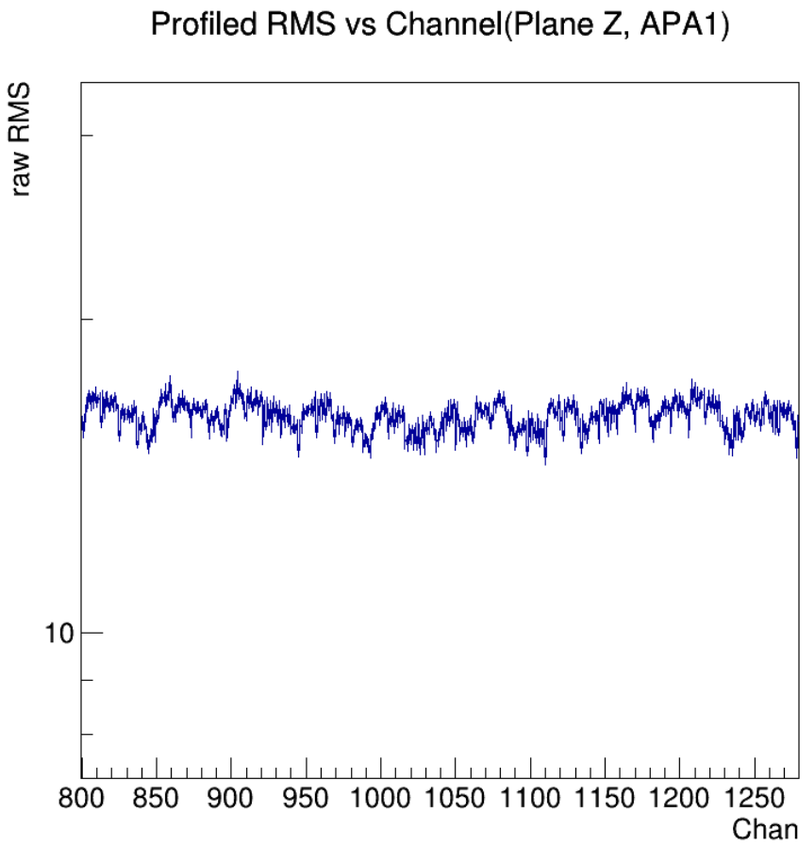


Inside Cryostat

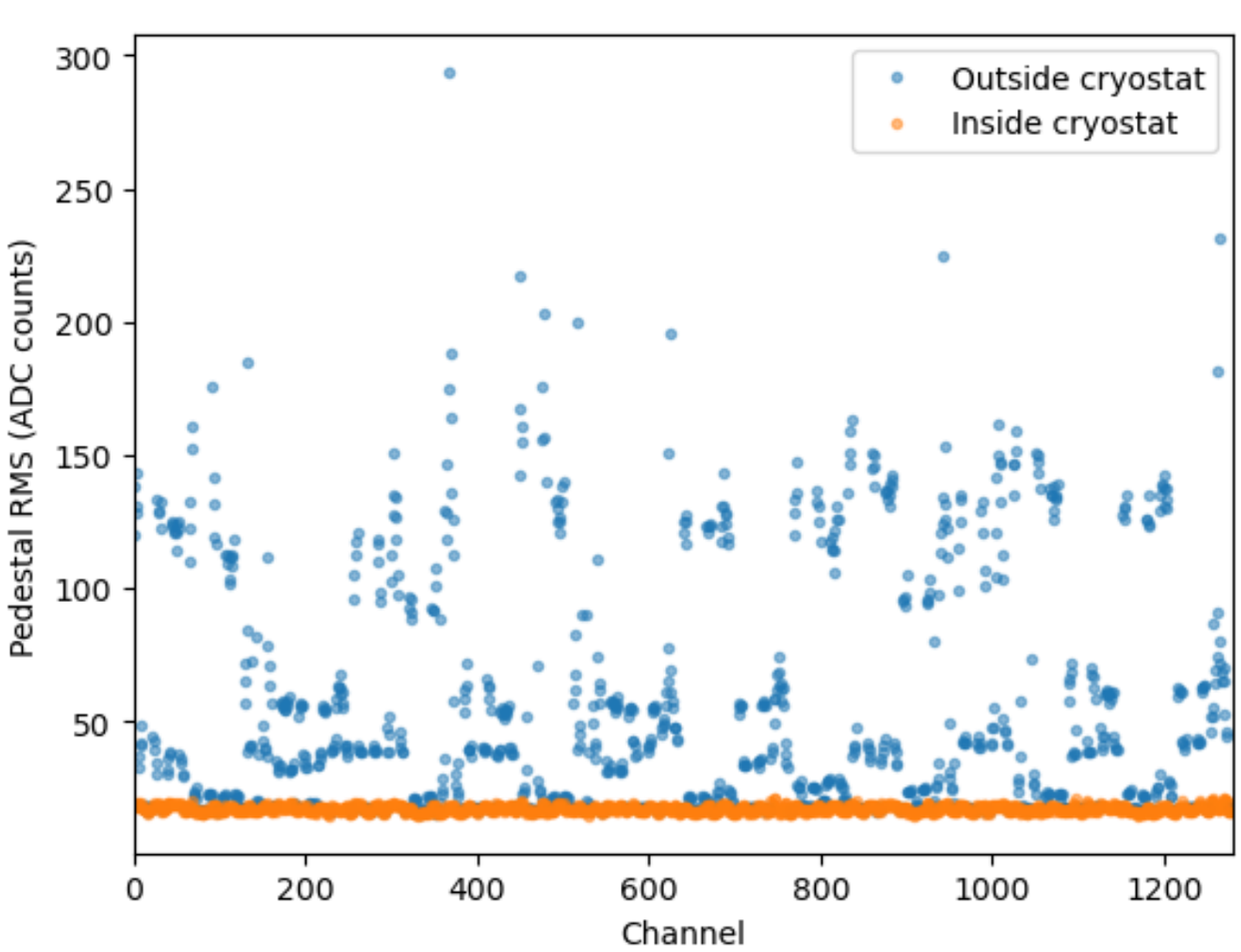


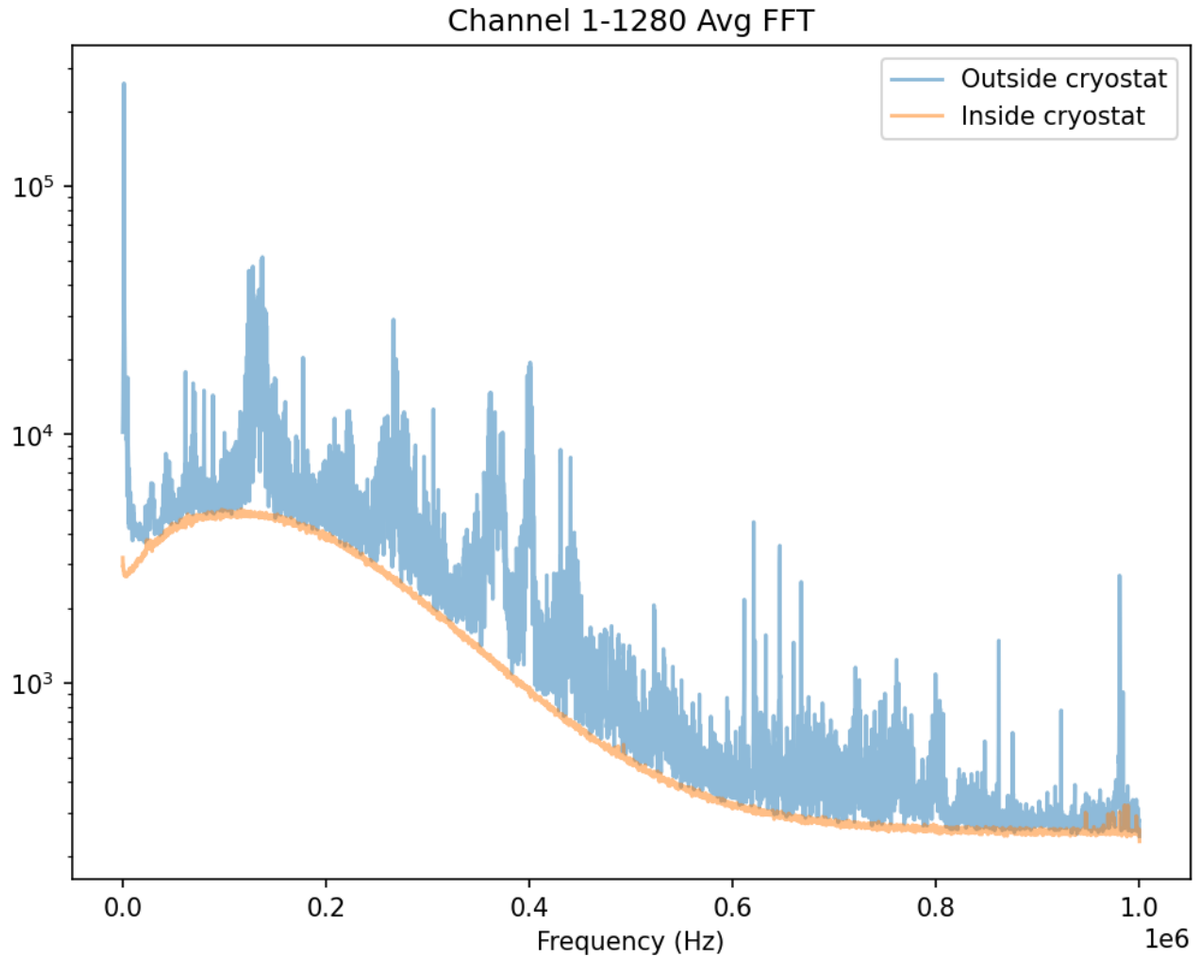






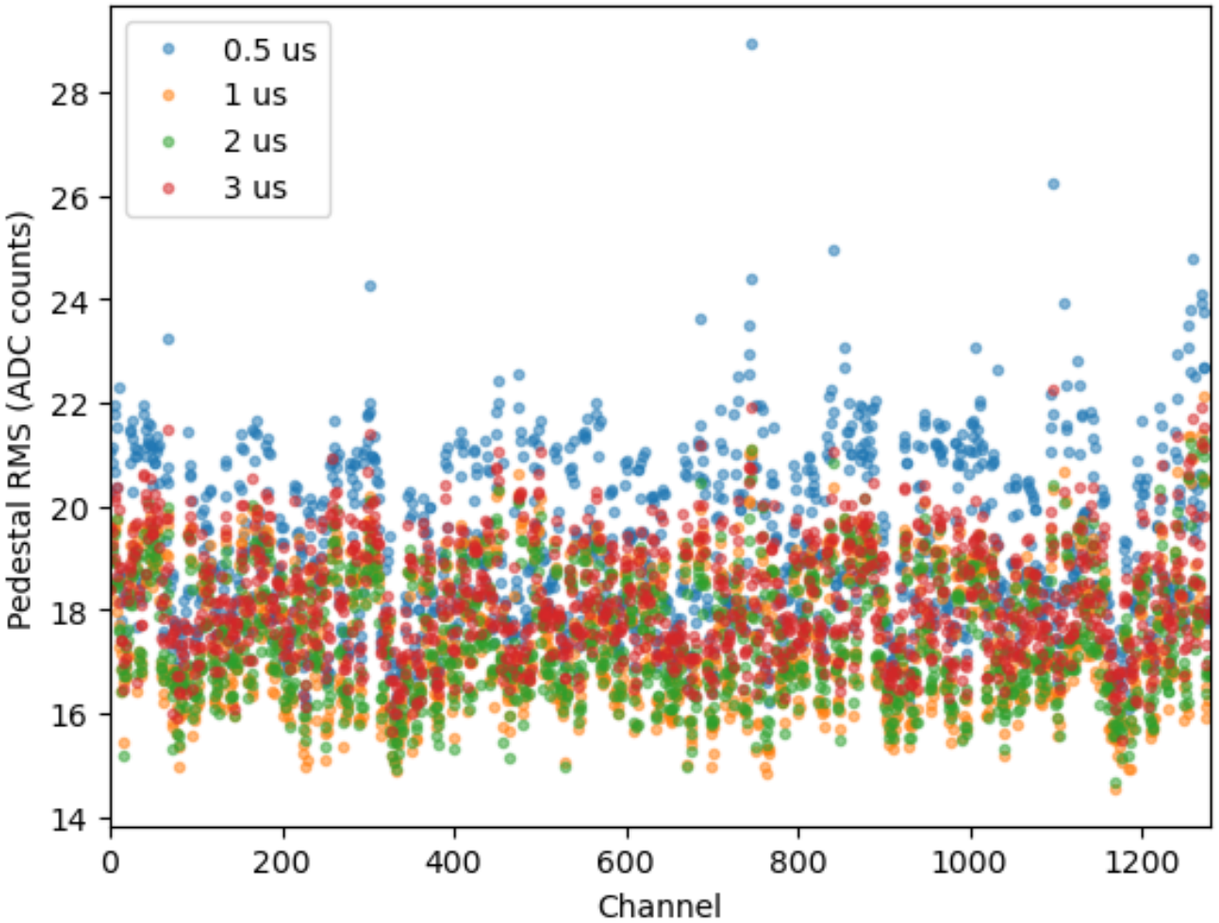
Inside vs Outside Cryostat

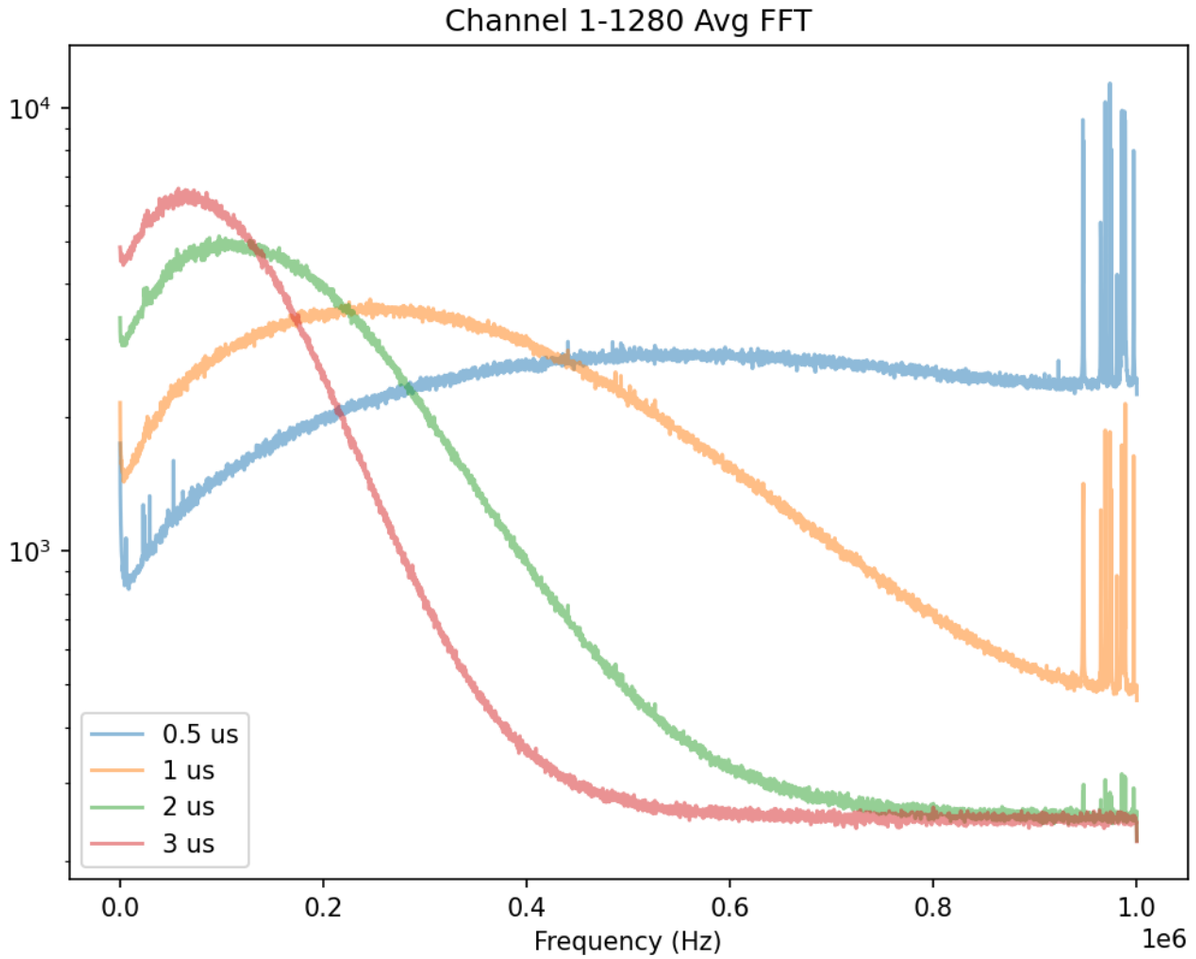




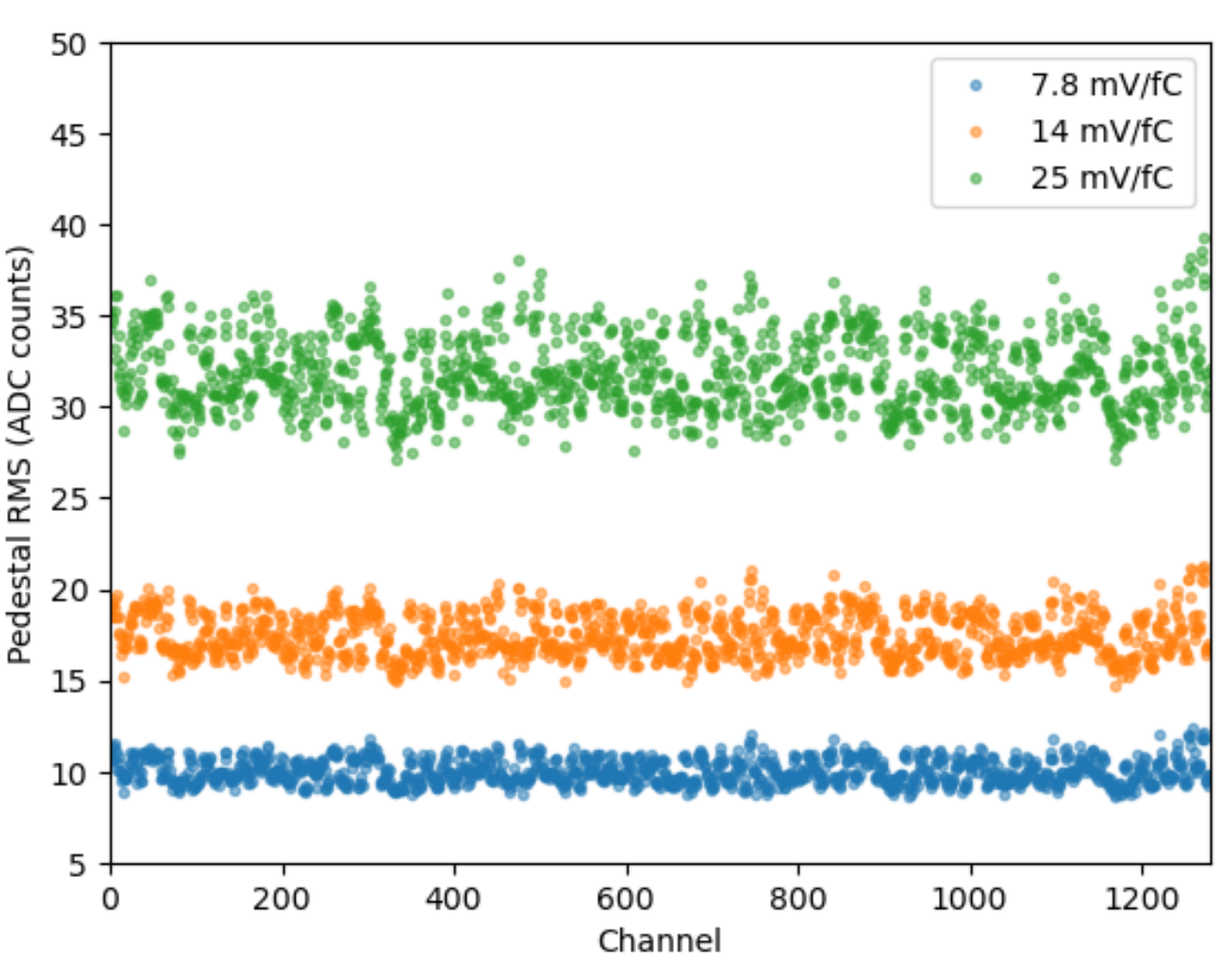
Note: Channel map is not applied in python-based analysis.

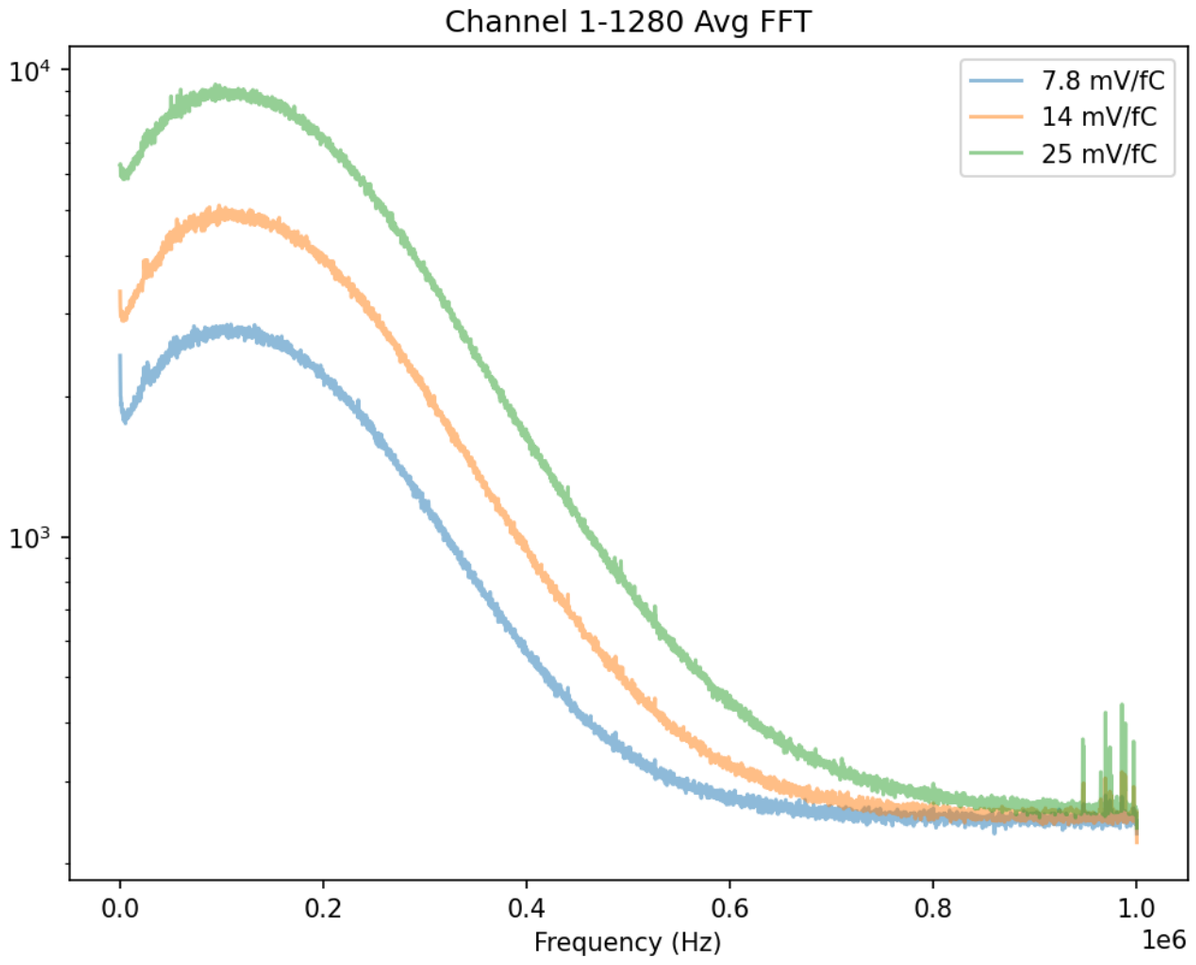
Varying Shaping Time



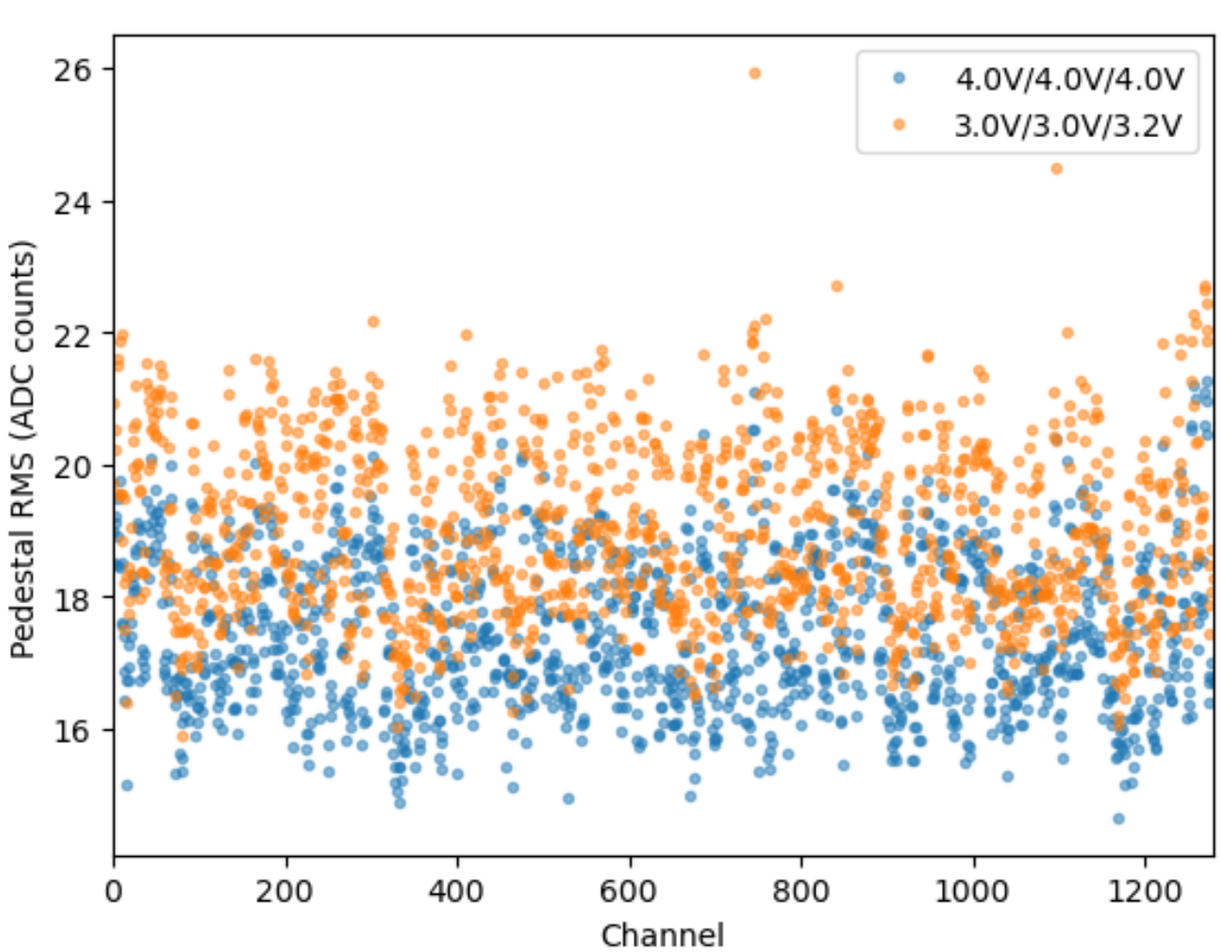


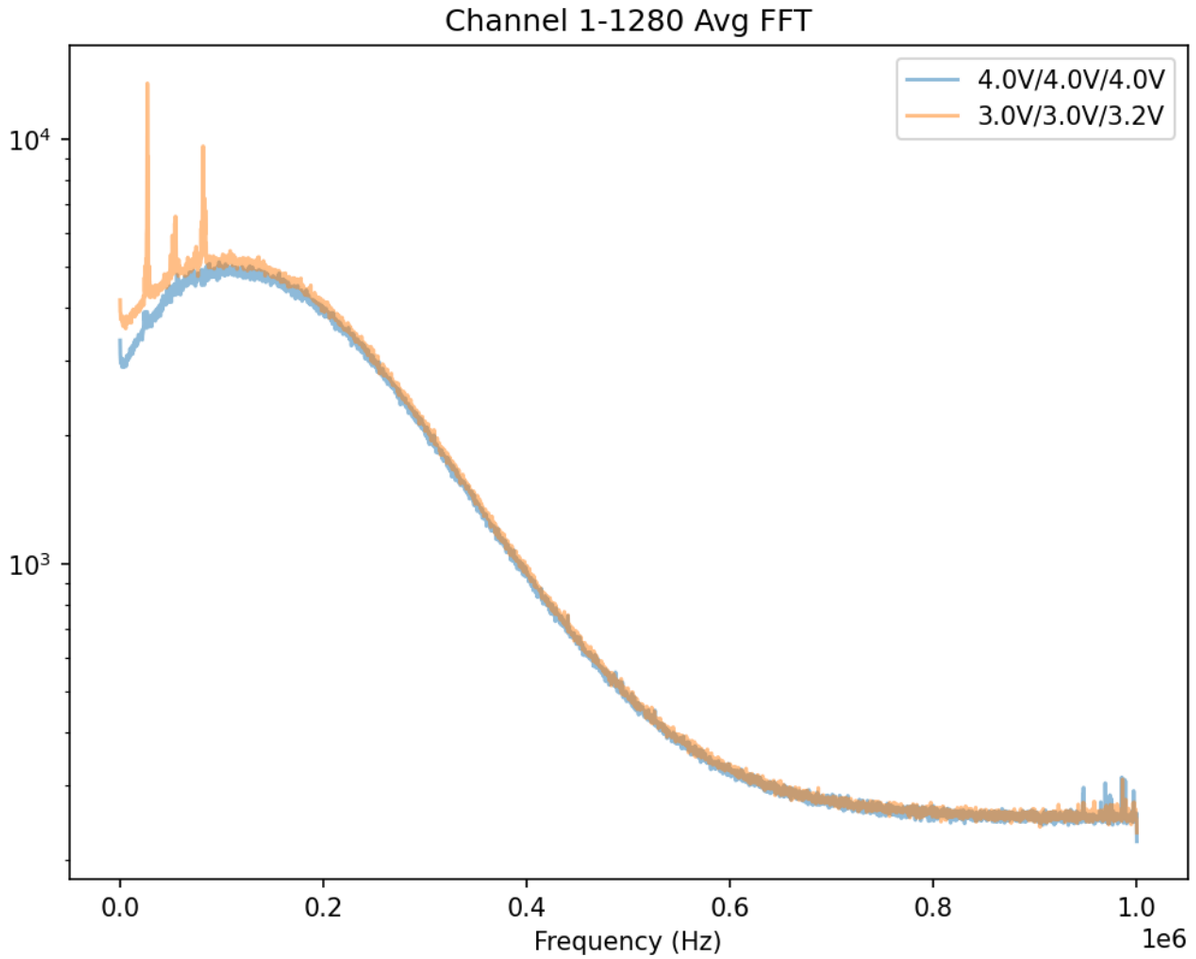
Varying Gain



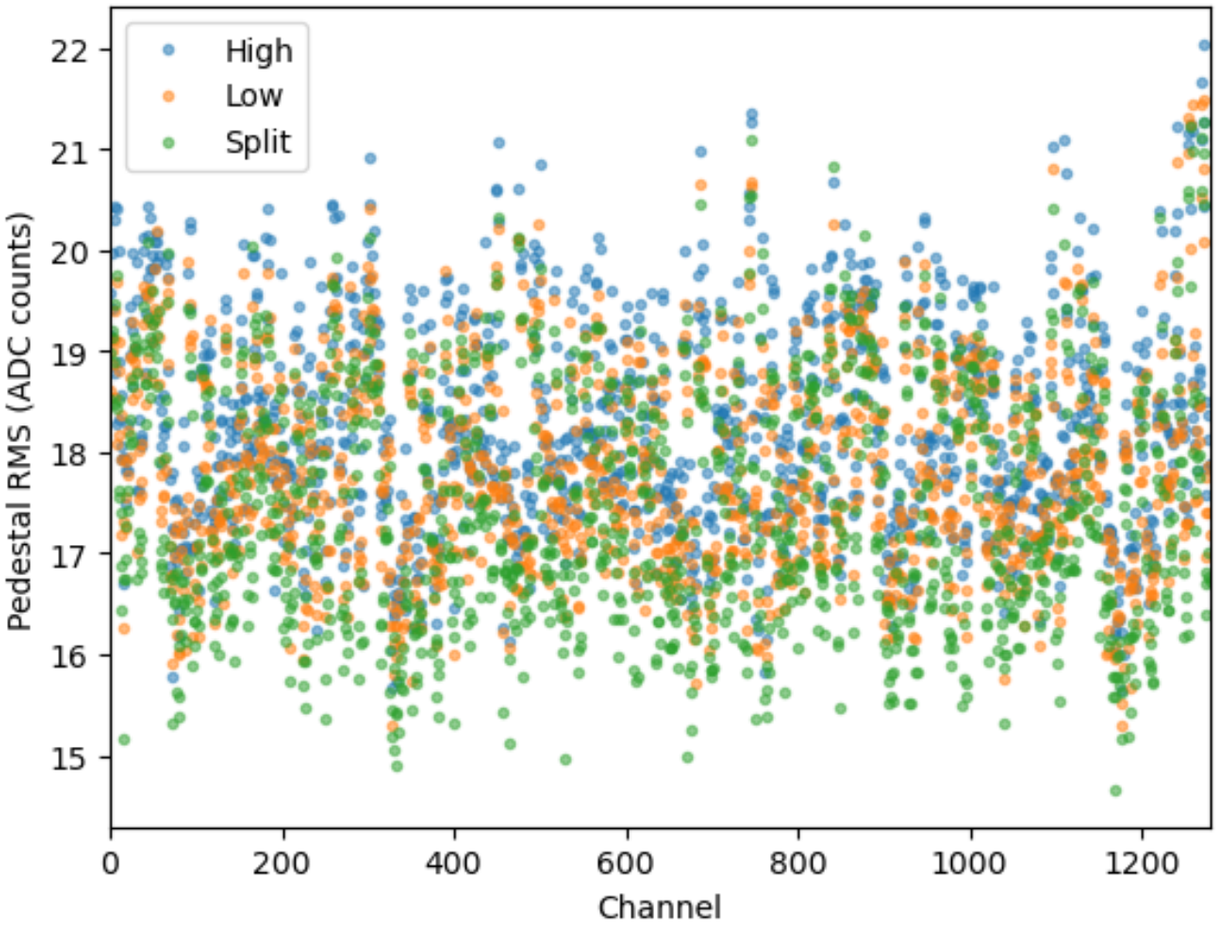


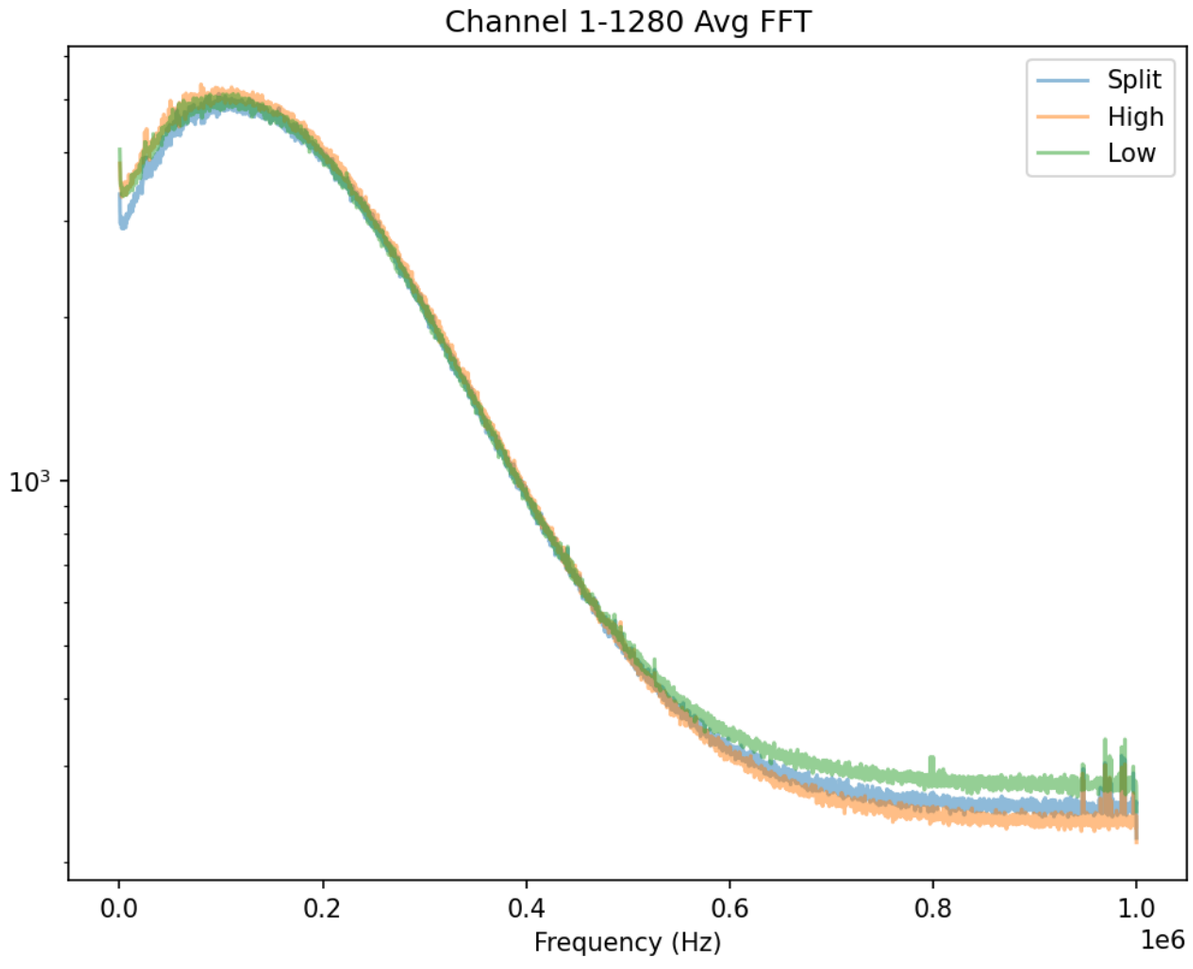
Varying Power Settings





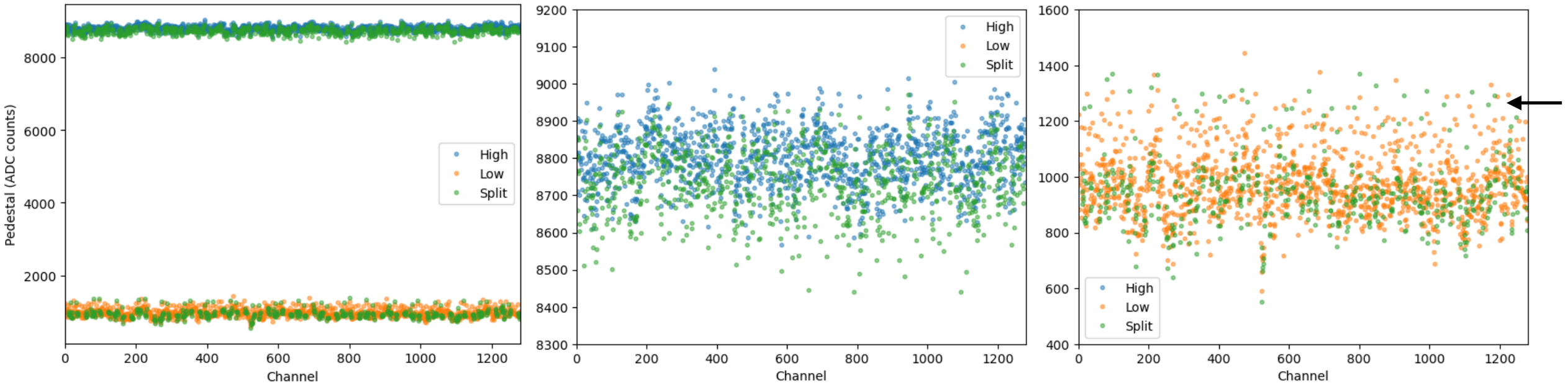
Varying Baseline





Varying Baseline

Pedestals



Split baseline: