

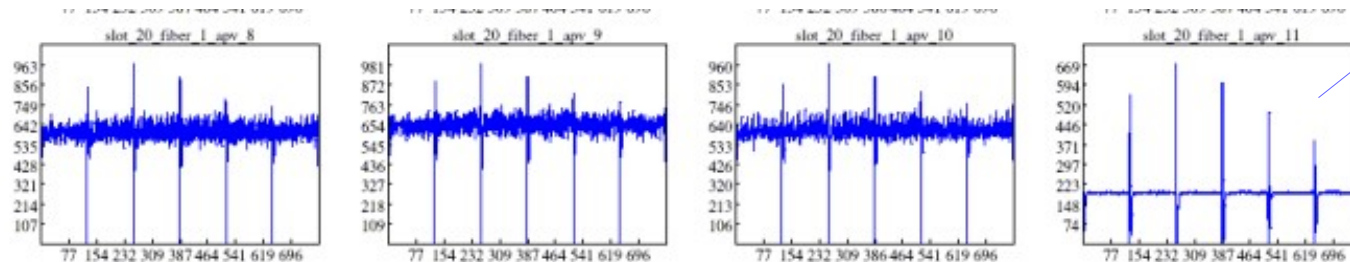
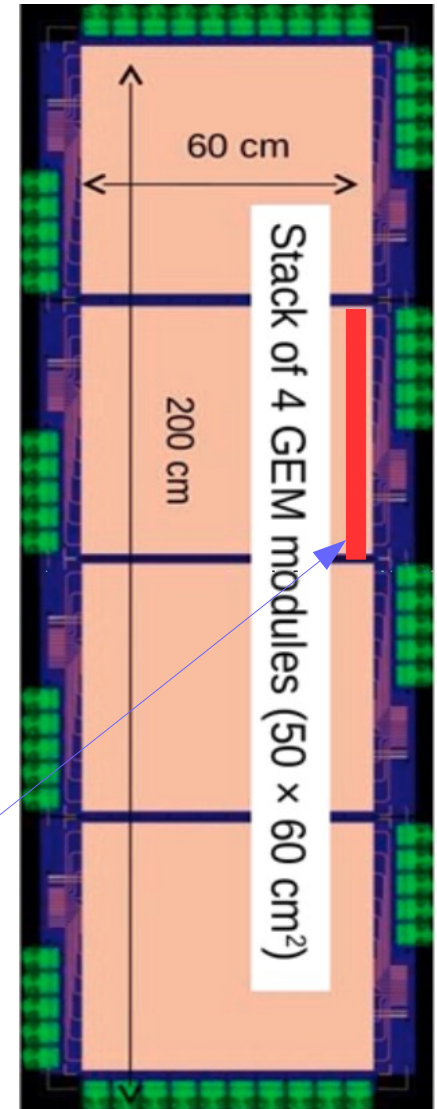
# BB GEMs Update

Sean Jeffas  
August 25, 2021

# APV Connection Test

- One APV (out of 208) on an XY GEM does not look good.
- It is located underneath other modules and impossible to reach.
- Thankfully it is on the edge of acceptance.

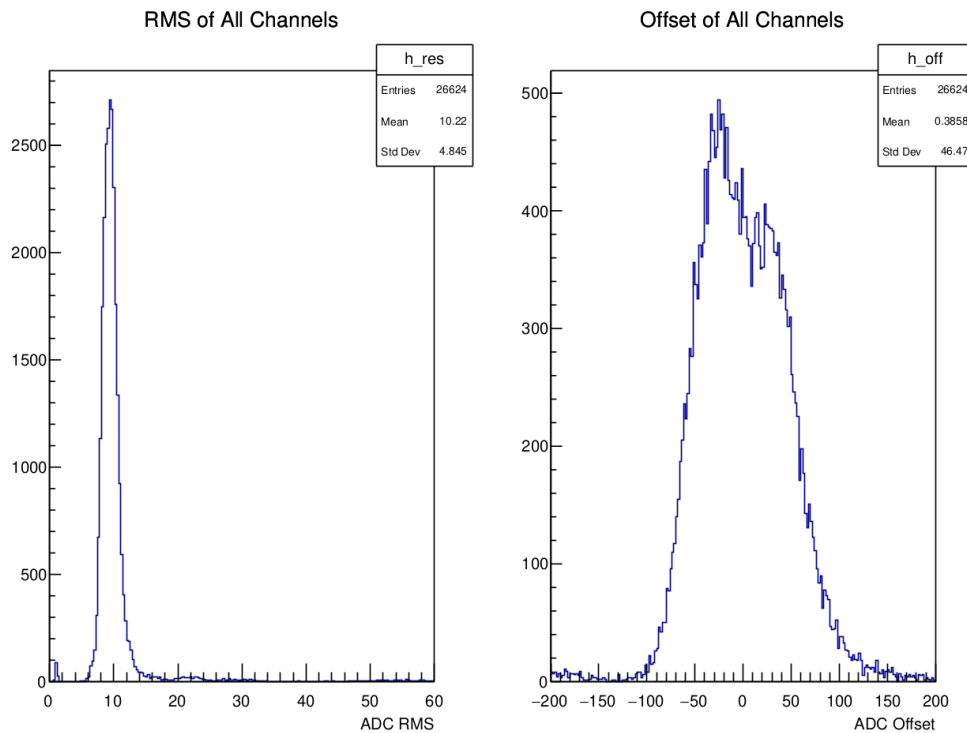
Beam line



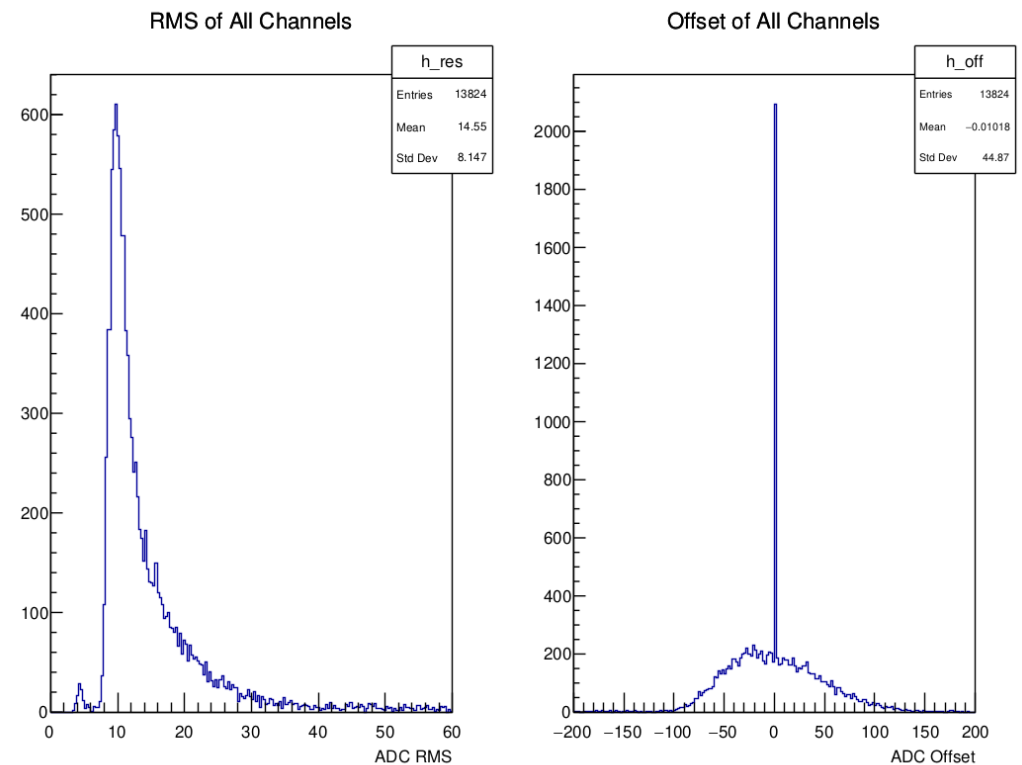
# Pedestal Test

- VTP was configured and pedestals were taken for both UVa and INFN GEMs.
- All UVa APVs look reasonable while INFN APVs have some unknown issues.
- INFN has discovered that their issues are related to our electronics, but still investigating.

## UVa

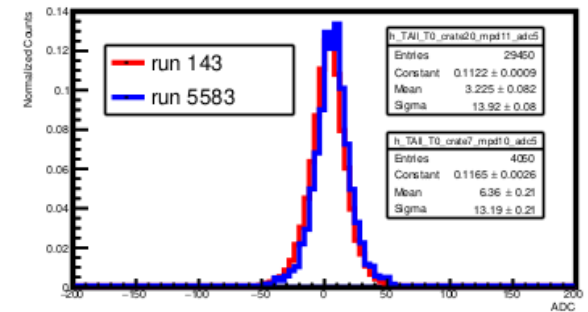
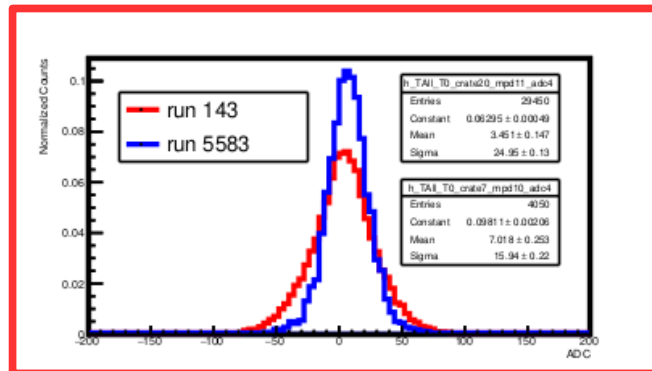
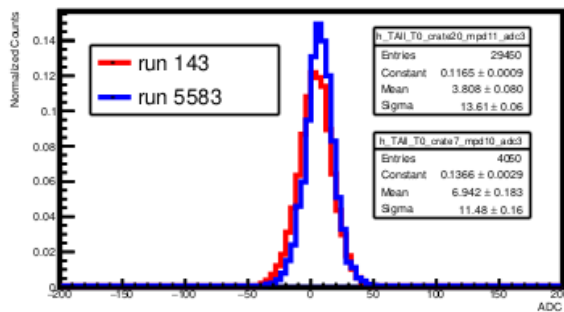
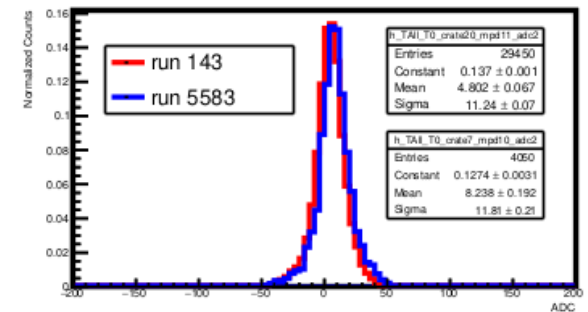
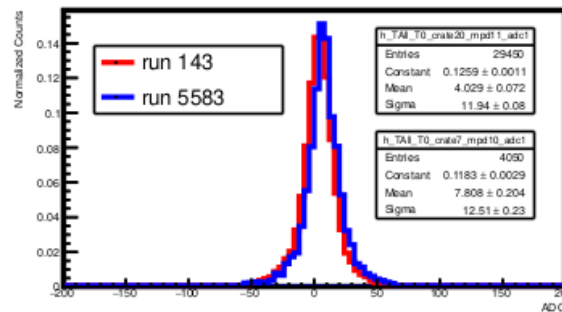
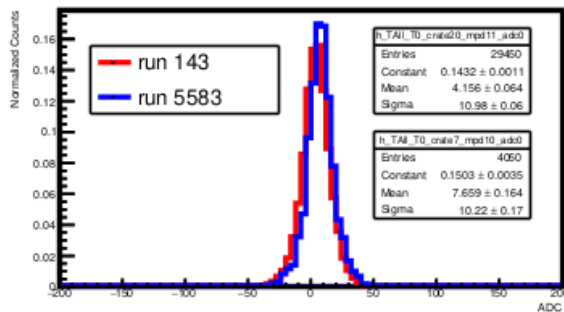


## INFN



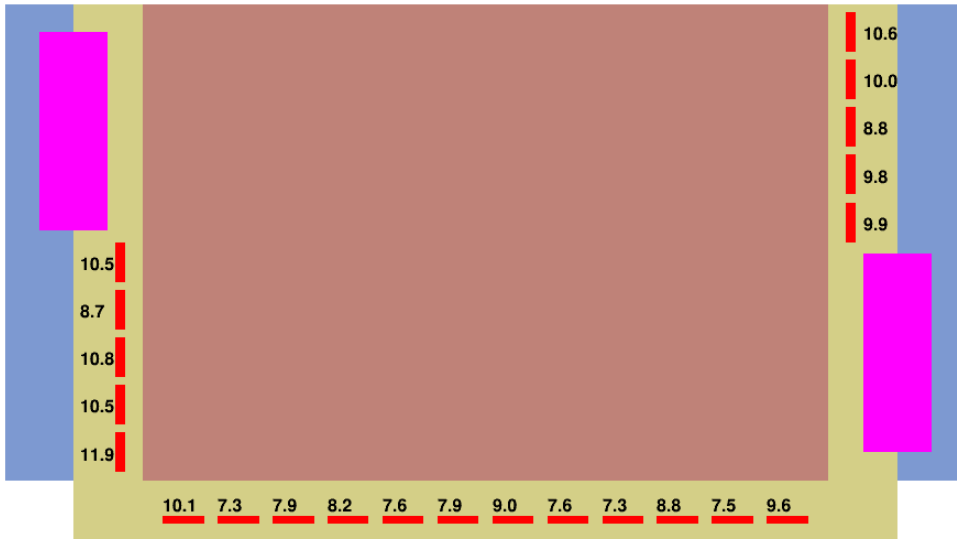
# Common Mode Fluctuations

- Sigma of Gaussian fits were checked for all APVs.
- Also compared data from shielded modules in the cleanroom to the hall.
- Almost all results have a sigma less than 15 ADC, except for one outlier.
- Might be worth taking a lift to inspect APV?

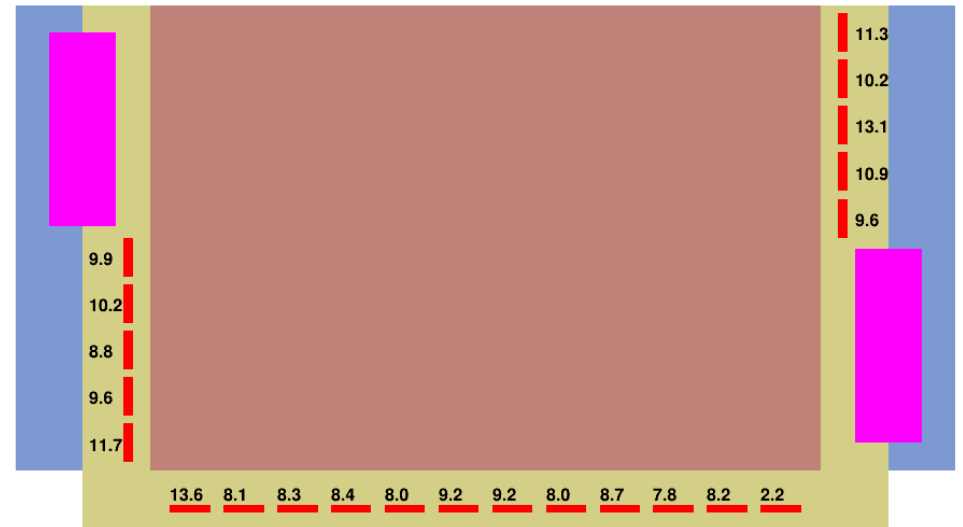


# Common Mode Fluctuations

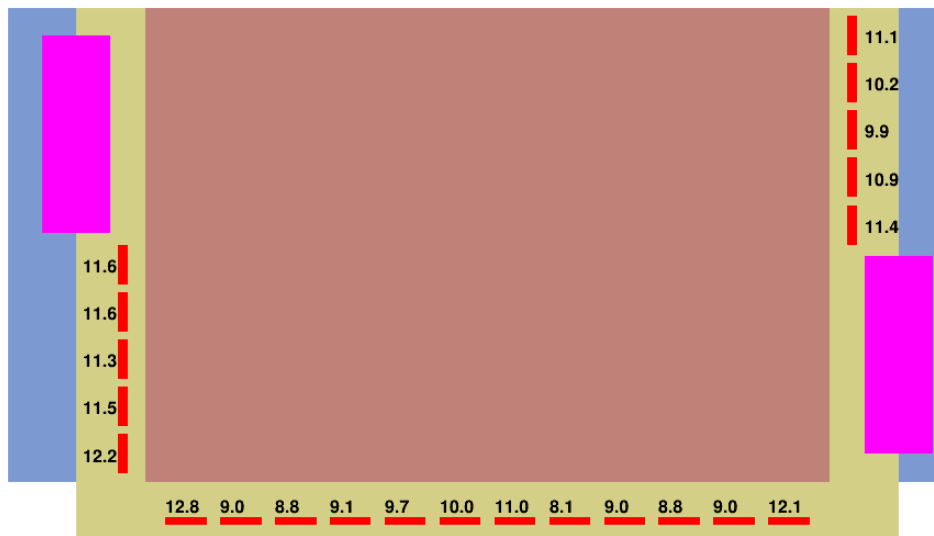
Module 0



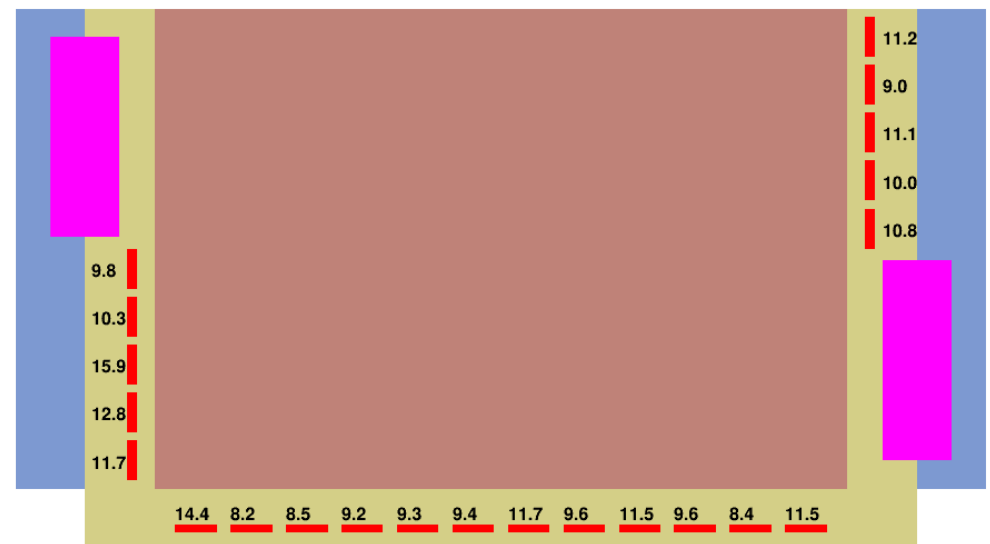
Module 1



Module 2

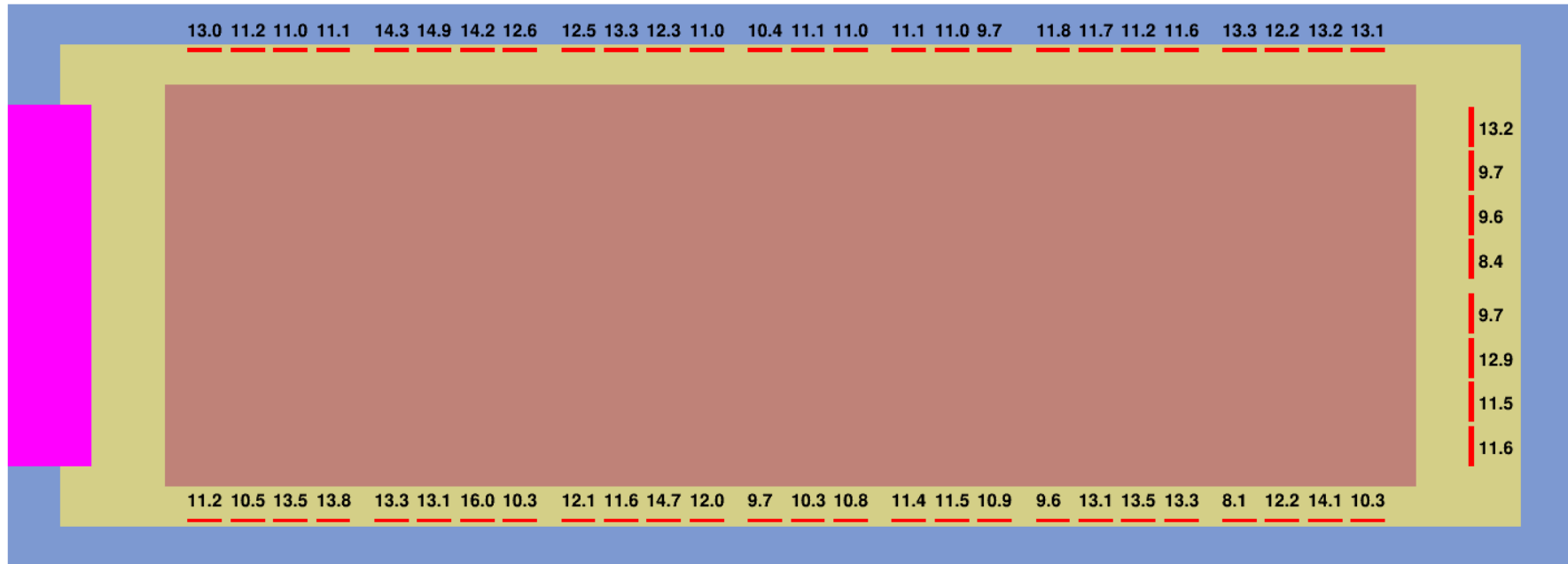


Module 3

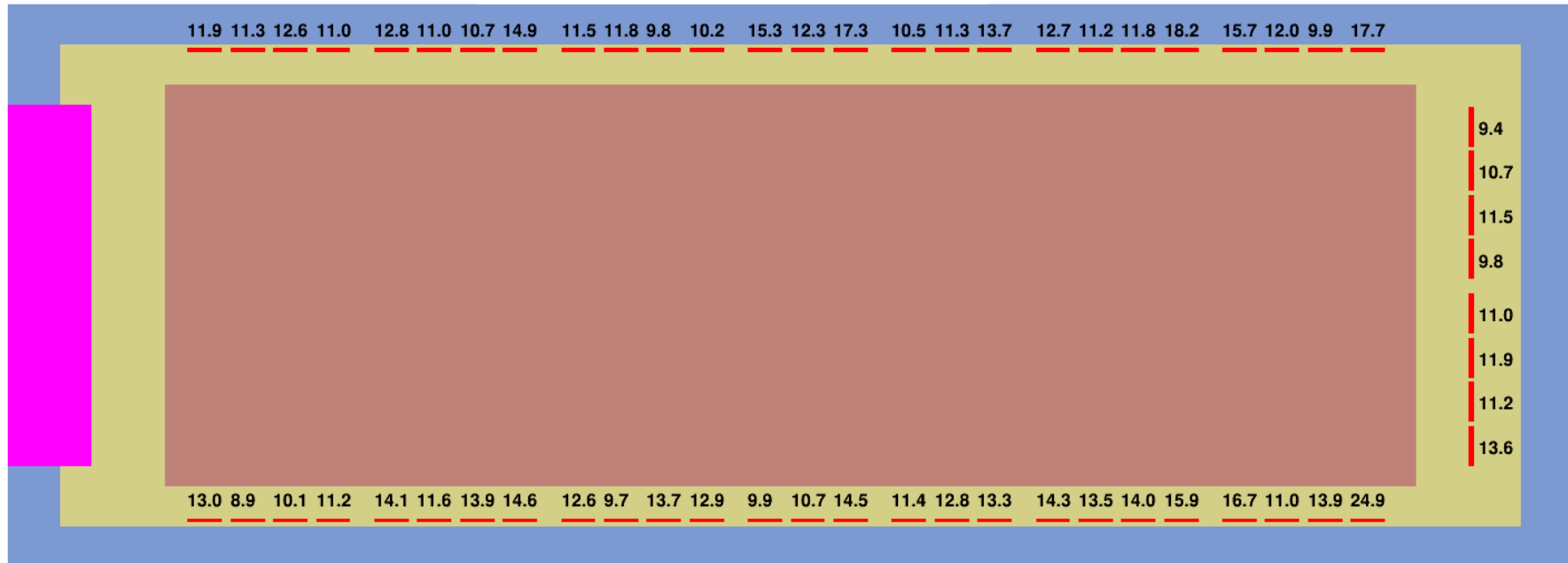


# Common Mode Fluctuations

## UV Module 3



## UV Module 4



# Cosmic Trigger

- HV test was stable for all UVa GEMs.
- There is no good trigger, so we have to settle for the shower and pre-shower.
- Cosmic data will be taken every day now until start of experiment.

