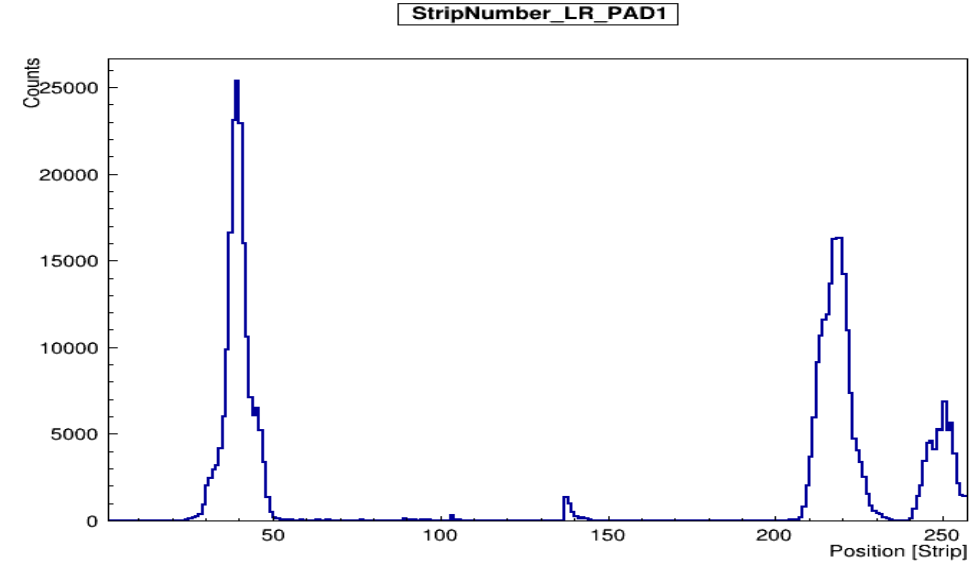
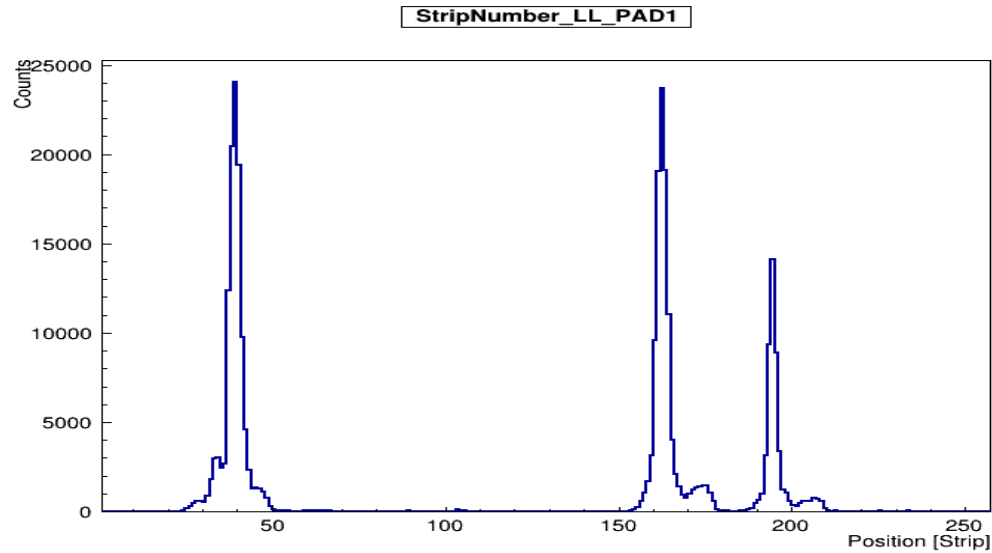
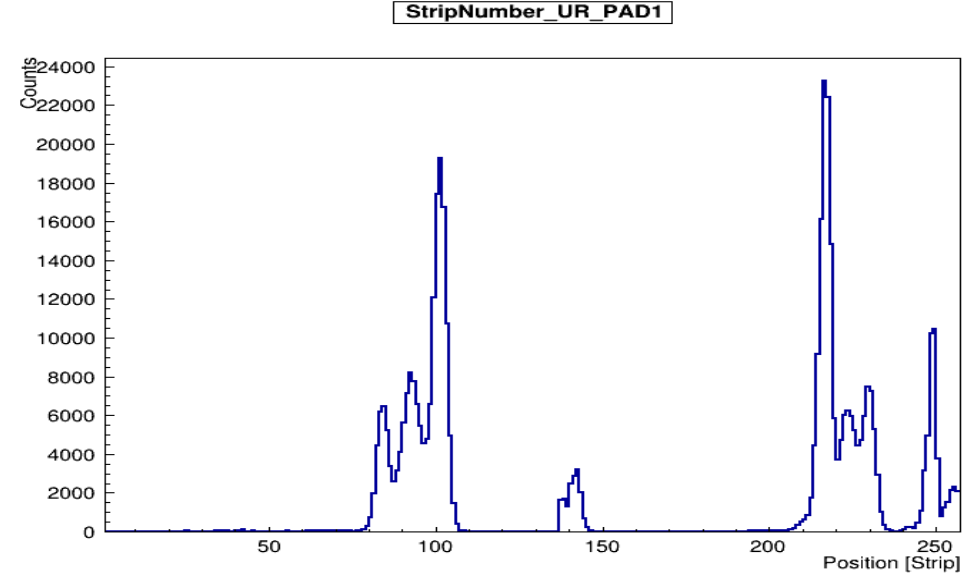
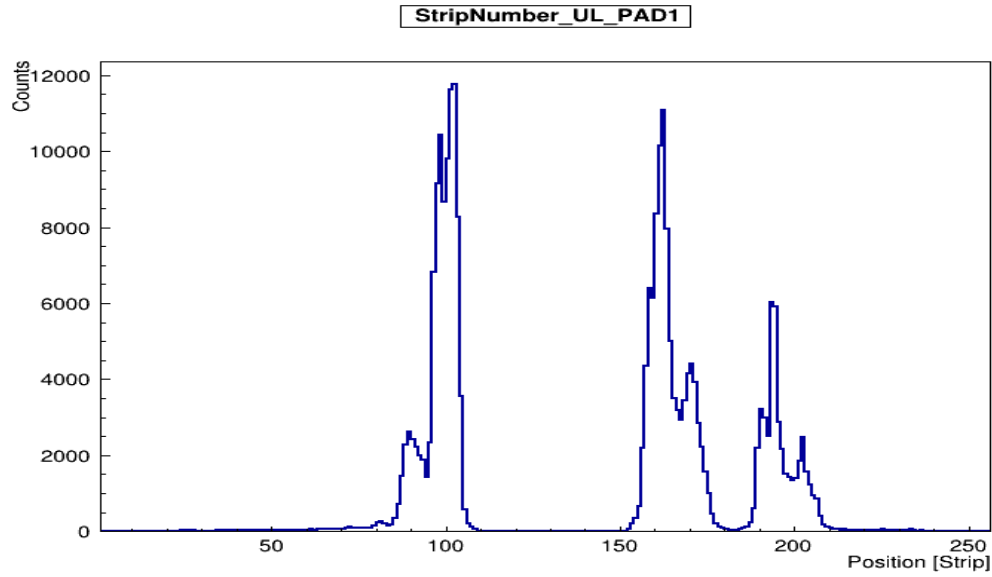
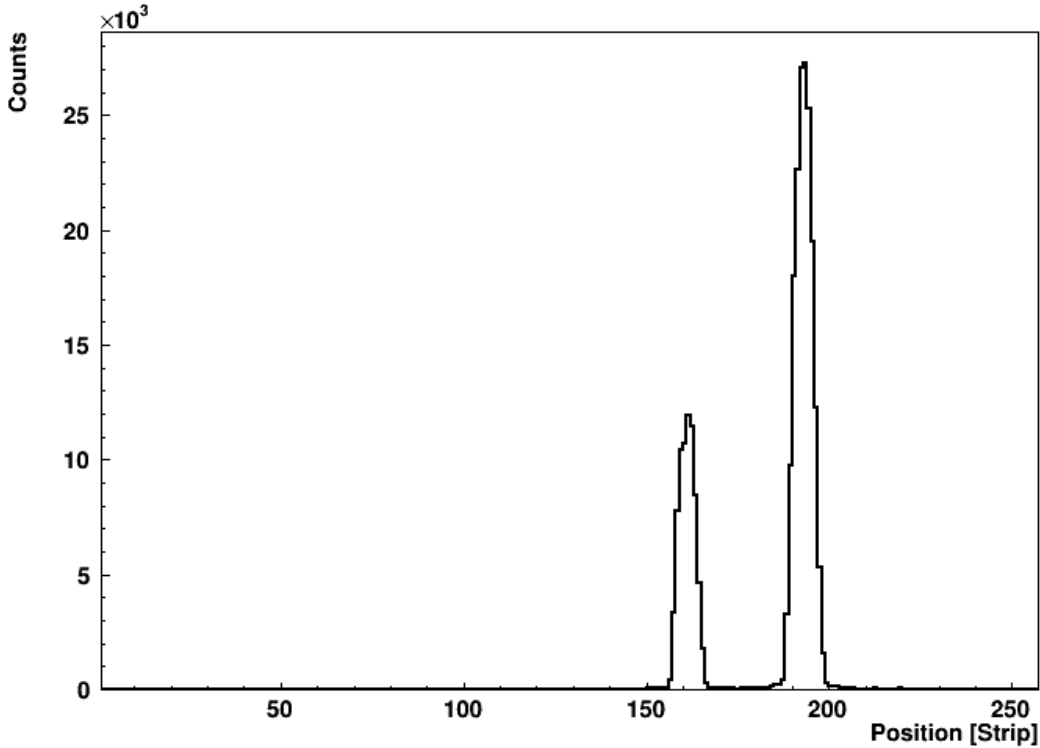


PAD 28.11.2024

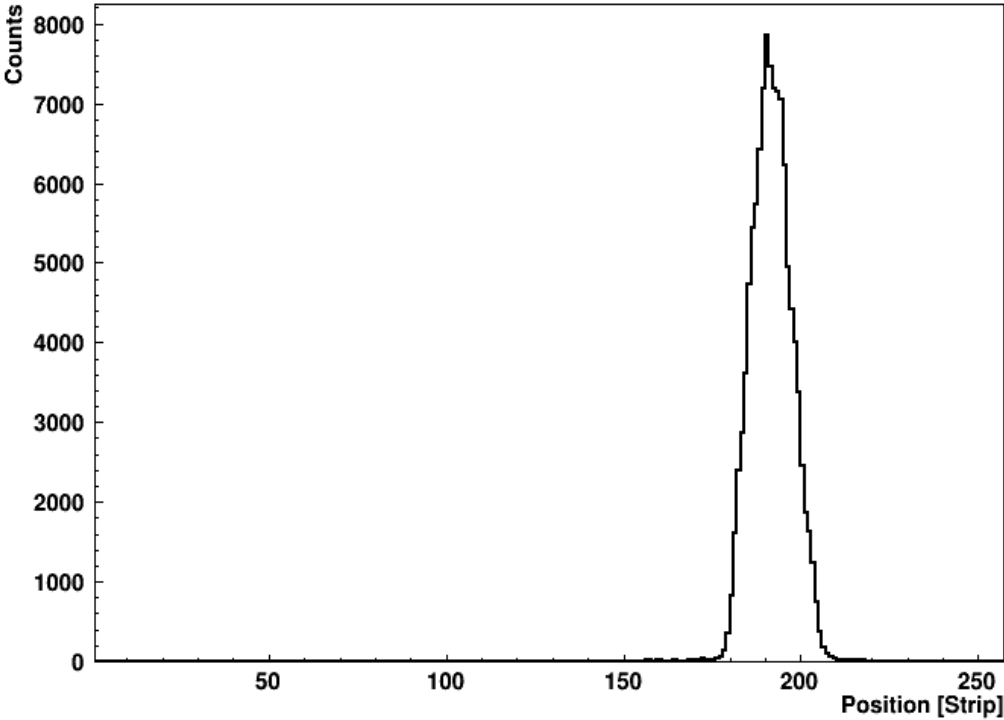
- Issues Faced: (PADH)
 - Noise and grounding issues
 - Strip Like behavior of the detector.



- Signal Copy on the Slave APV

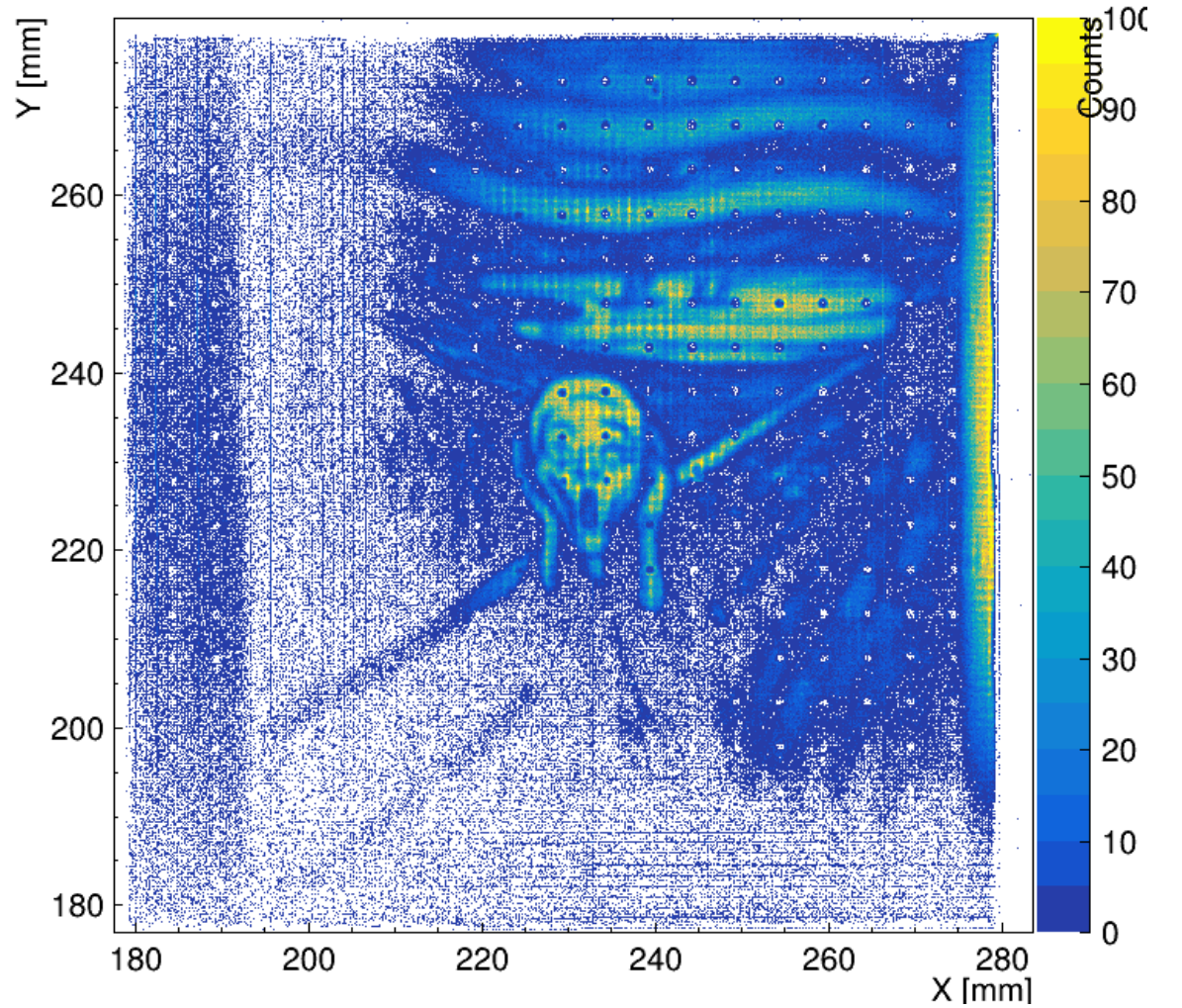
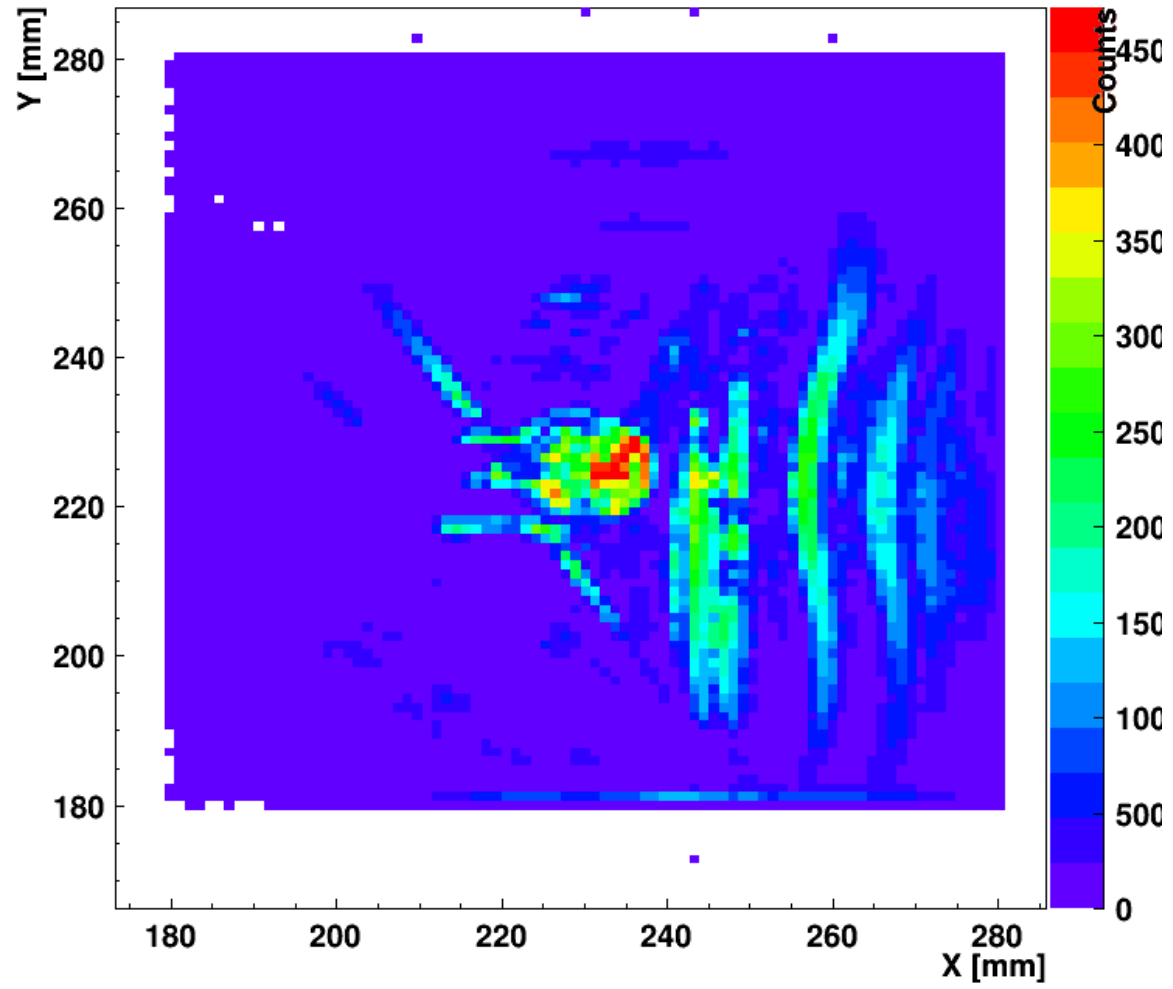


Strip Number_Y with Master Slave Configuration



Strip Number_Y with Master Master Configuration

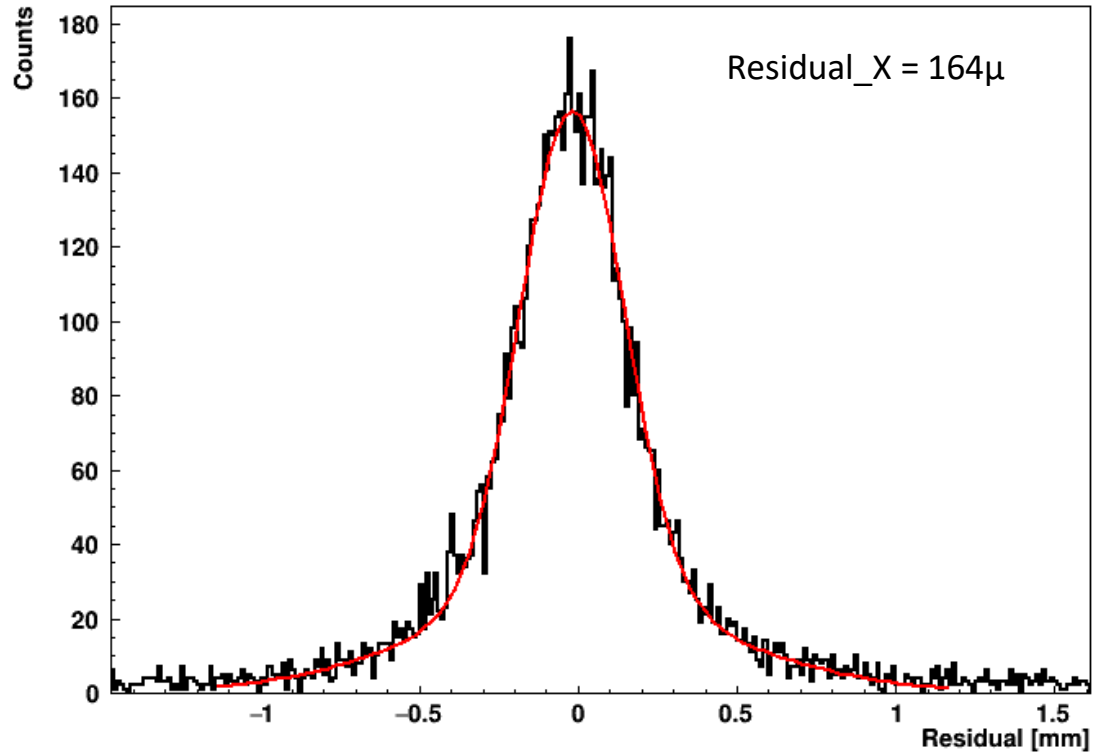
- Testing PADH
 - Position Reconstruction



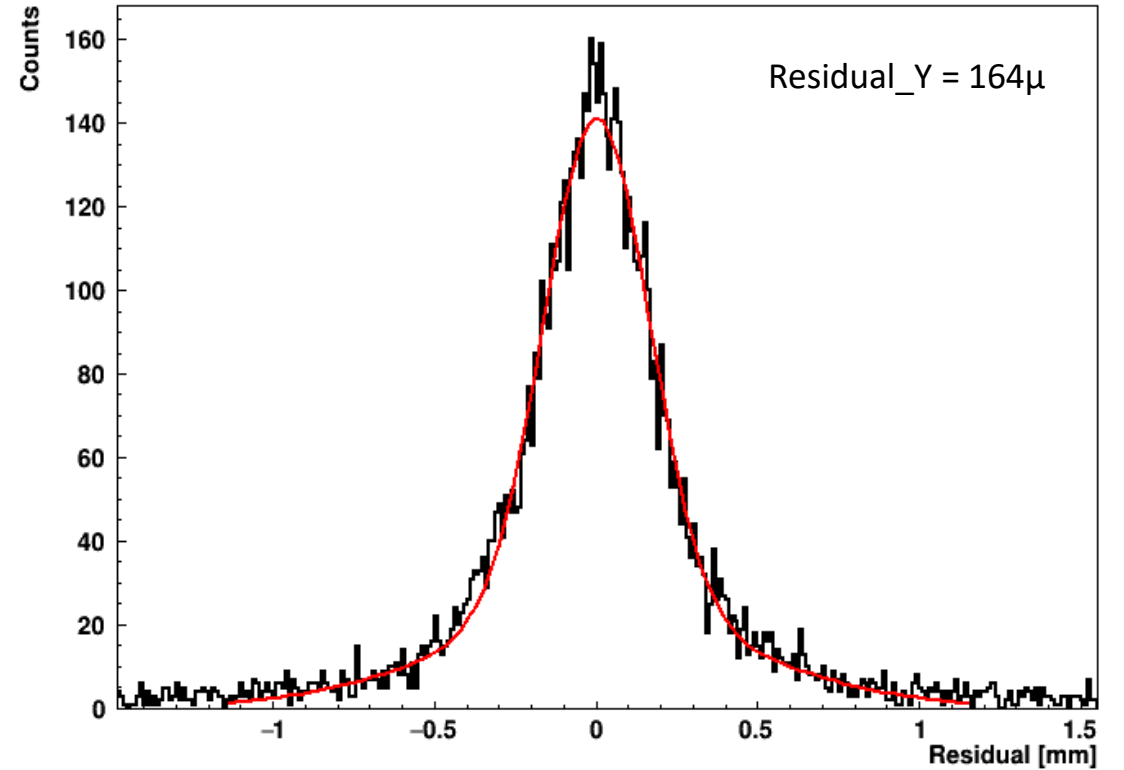
The Screen after increasing the bin size

Residuals :

Amplification voltage	Residual_X	Residual_Y
515V	177 μ	183 μ
520V	170 μ	180 μ
525V	164 μ	164 μ



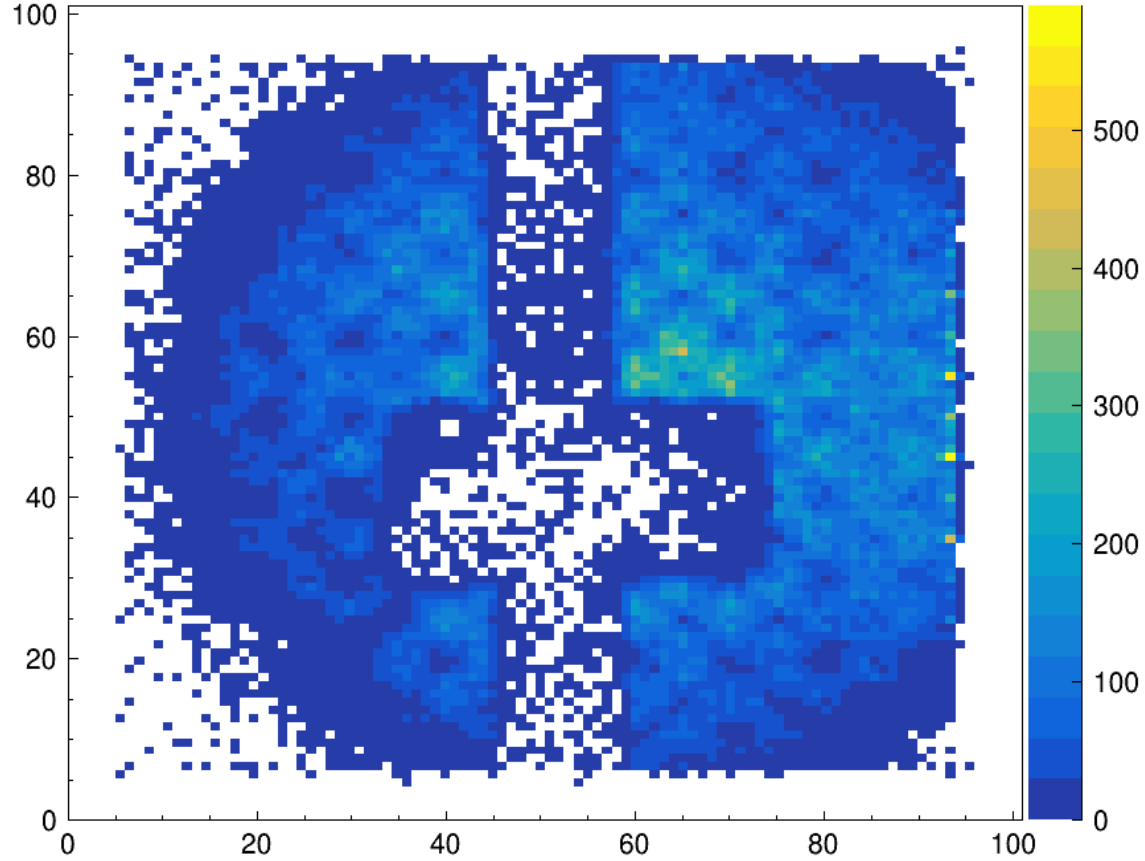
Residual_X @ 525V



Residual_Y @ 525V

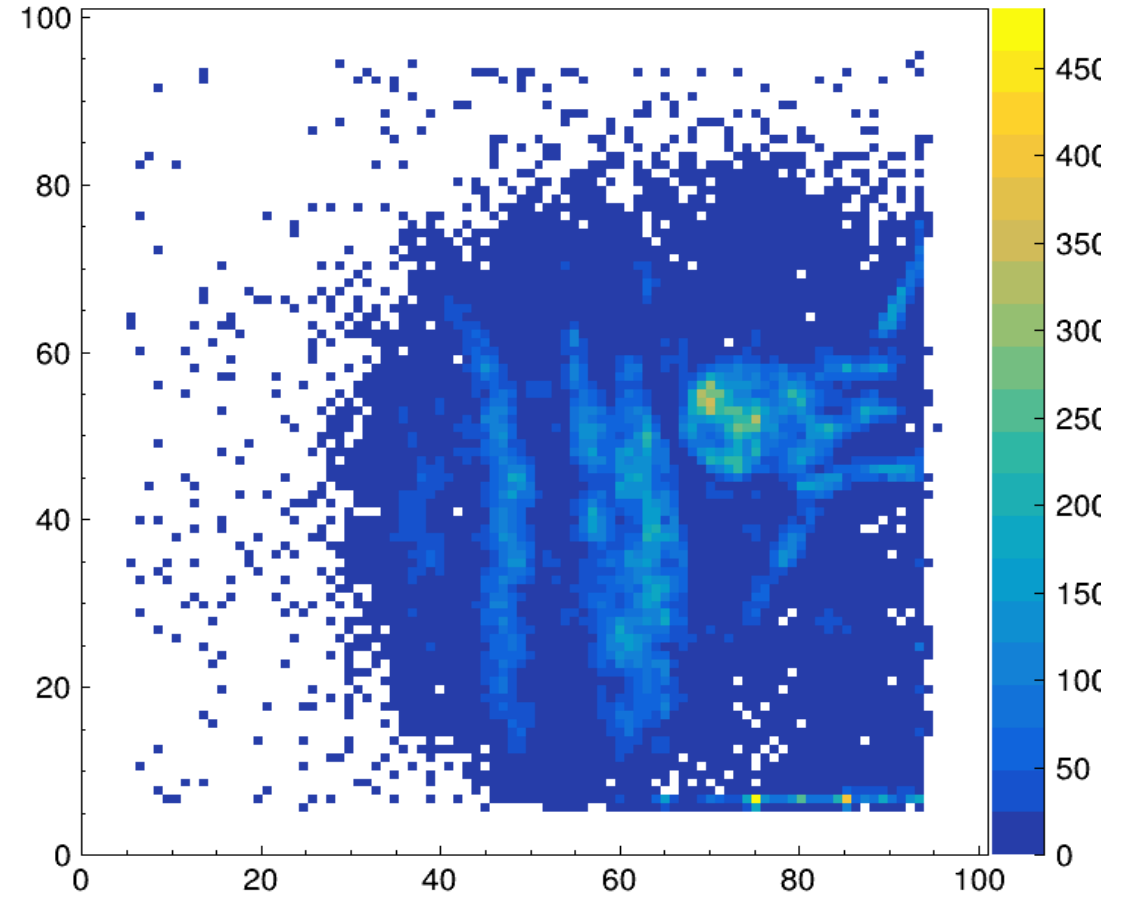
OLD PAD:

h_pixelCluster2DPosition_CuBlock_PAD2

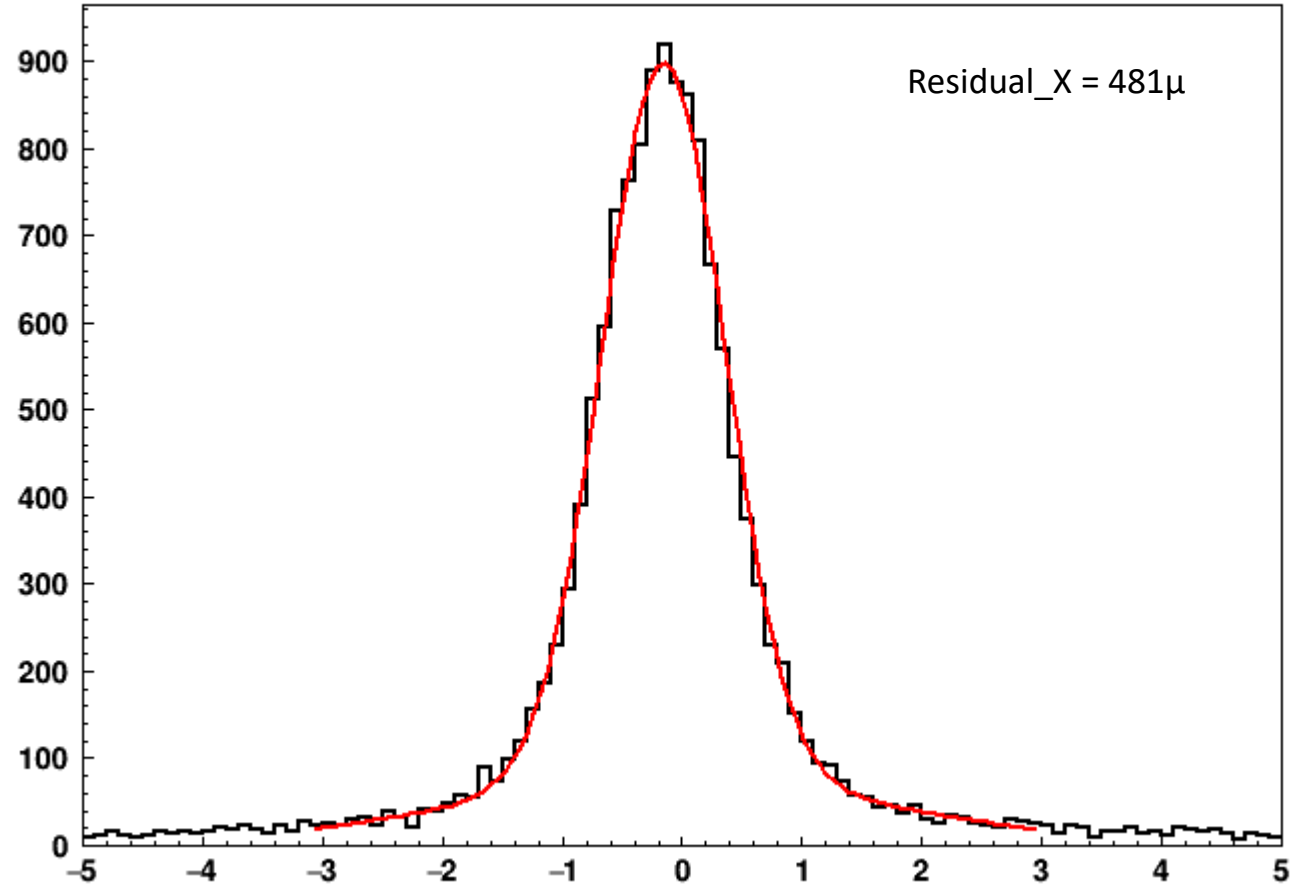


Old 5 Layer Pad

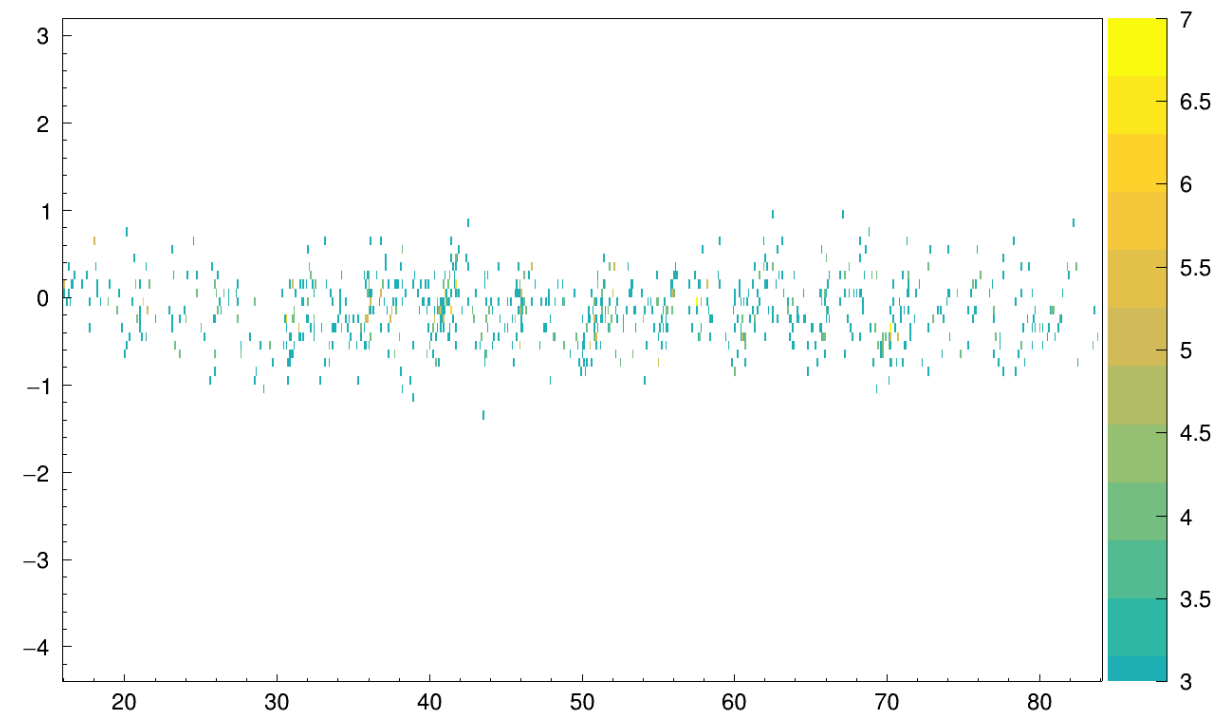
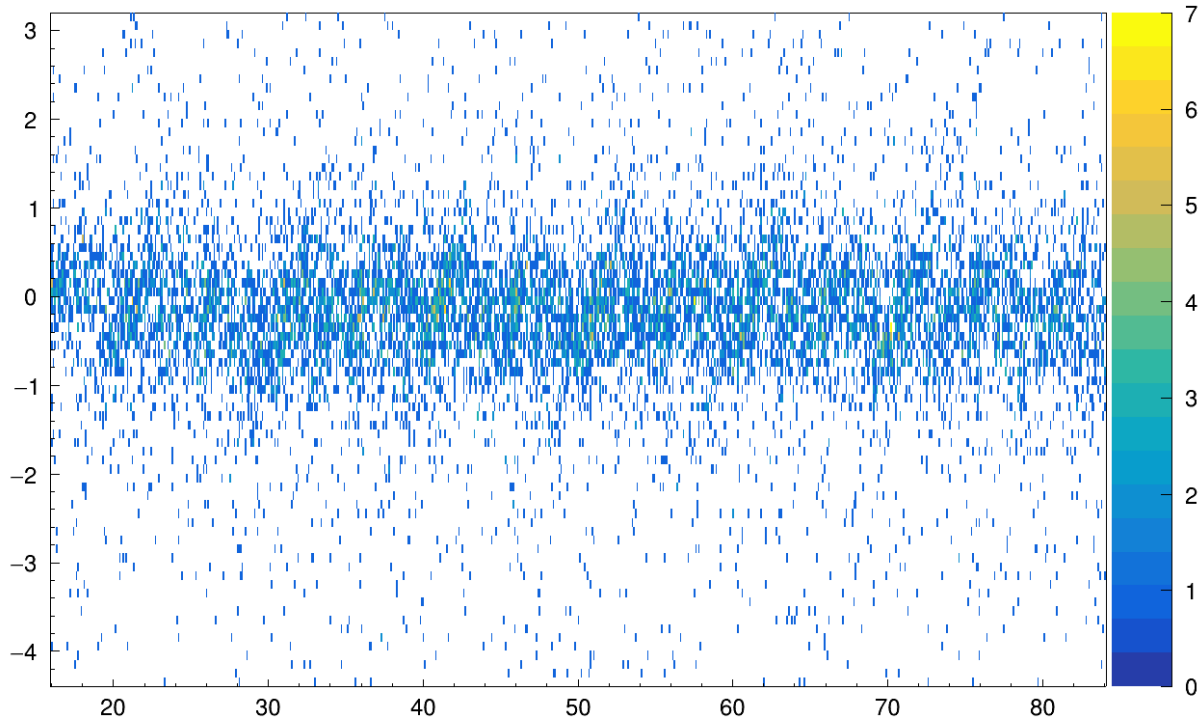
h_pixelCluster2DPosition_Scream_PAD2



- Analyzing PAD with cosmic muons:
 - Residuals.

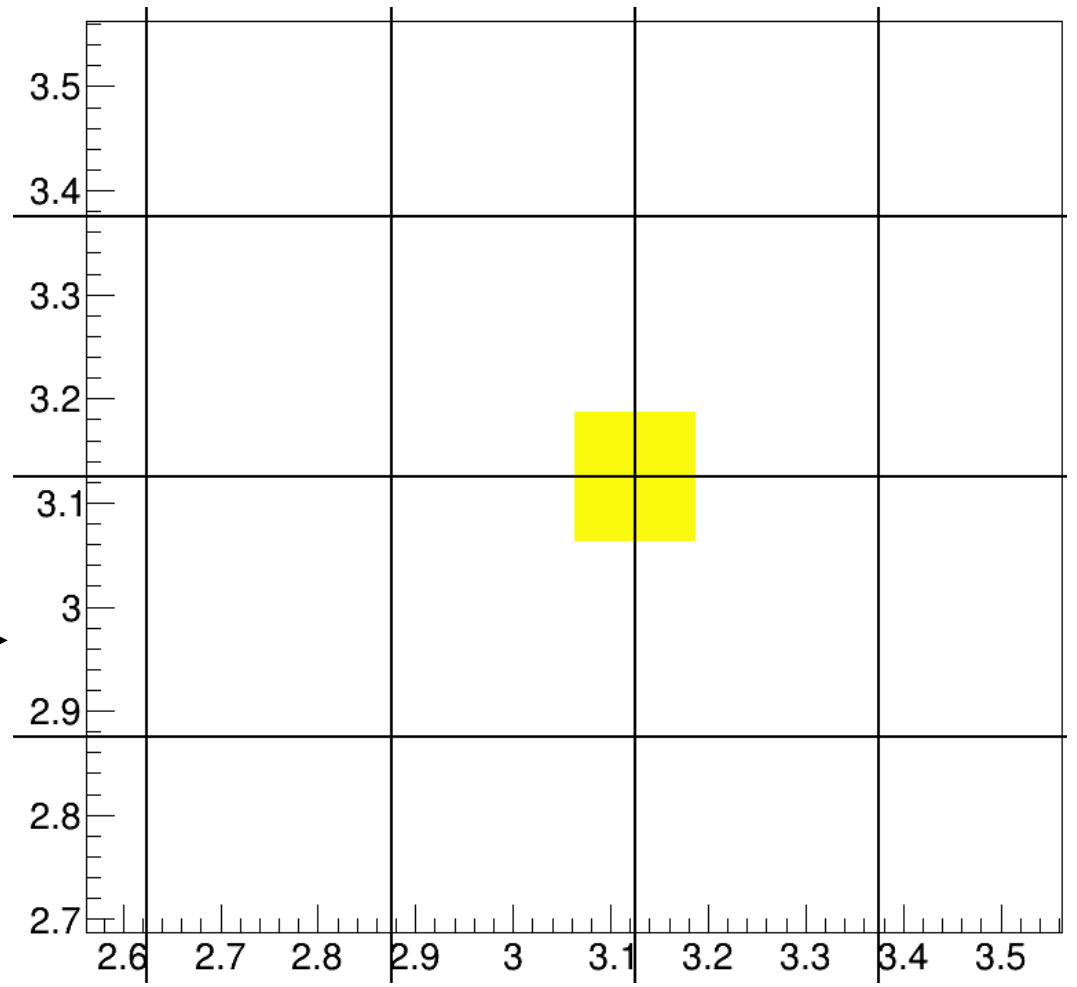
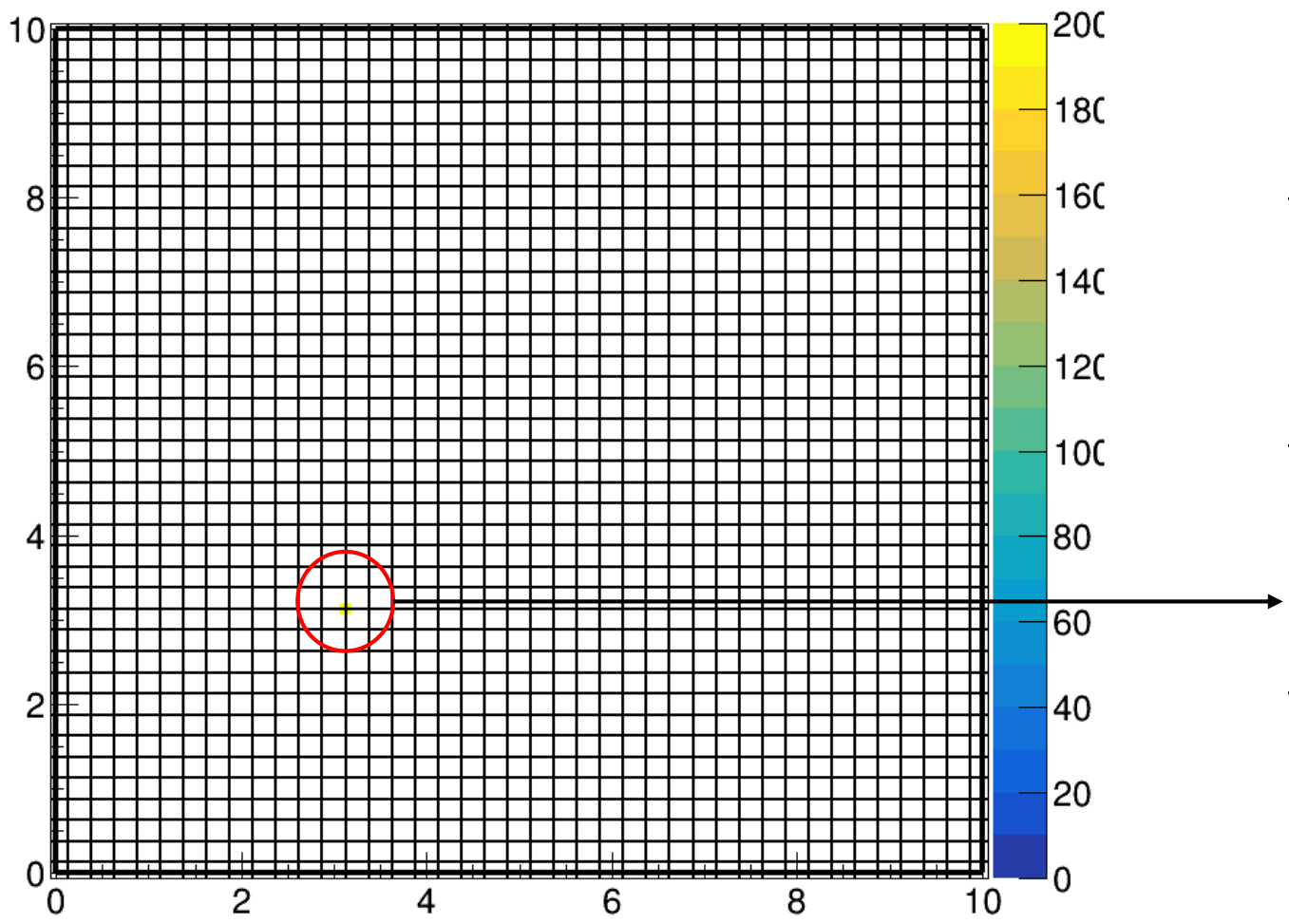


- The sub structures that are seen.

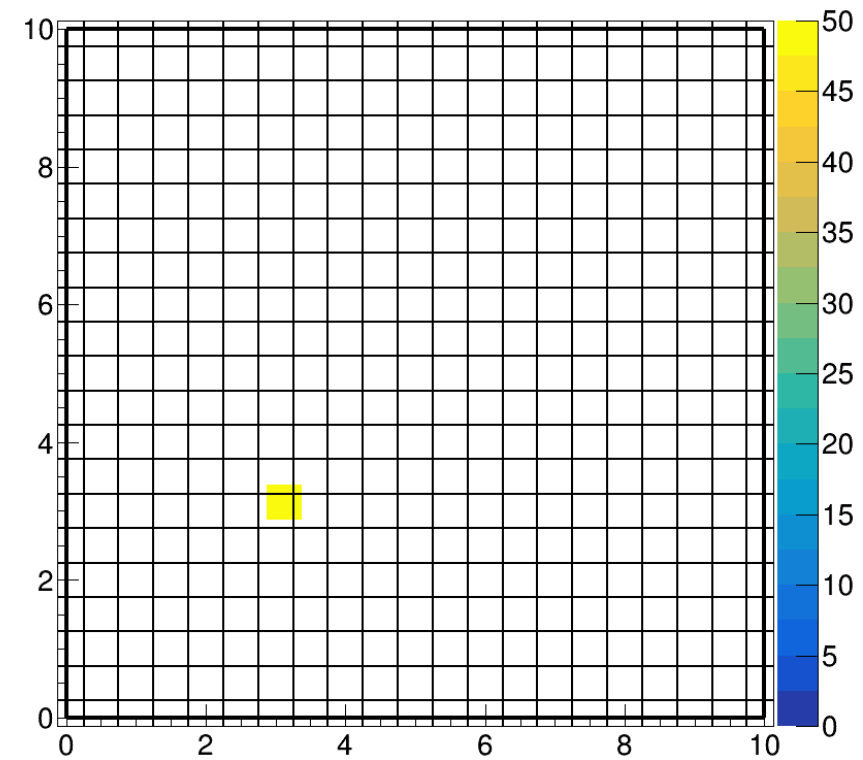


Residual_X vs position PAD

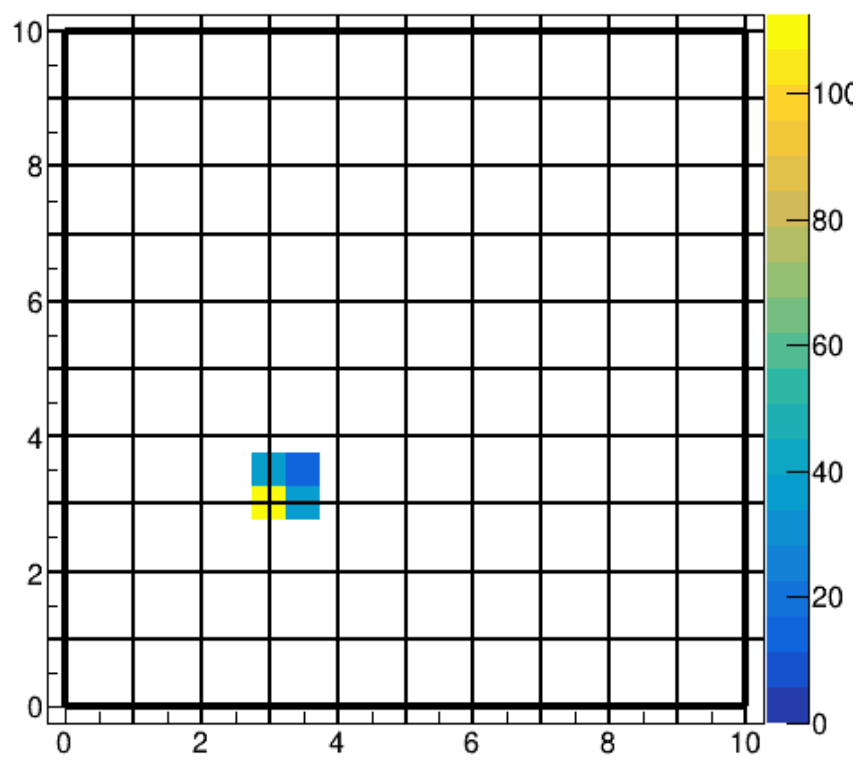
Concerning Simulation:



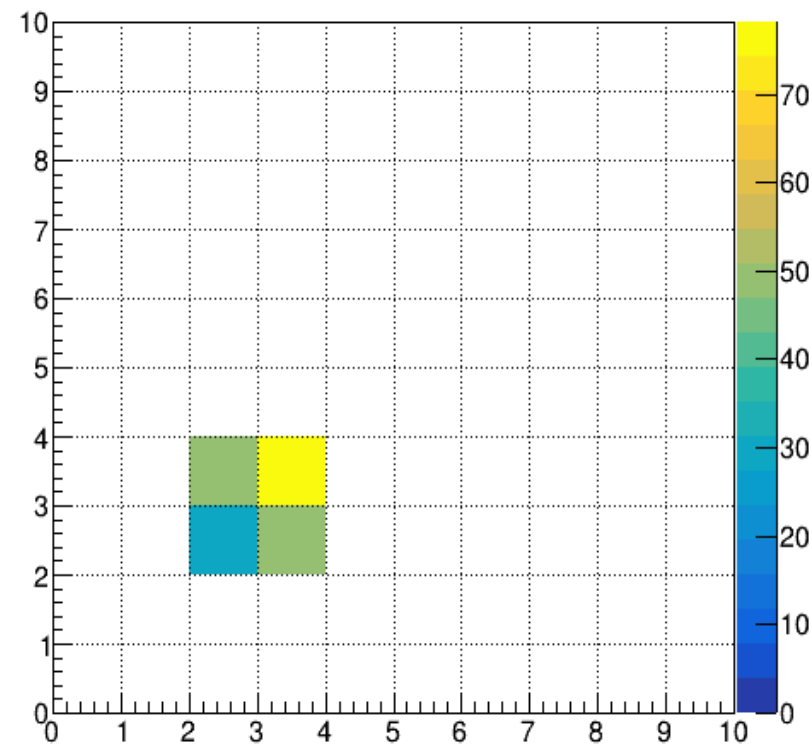
Layer 3



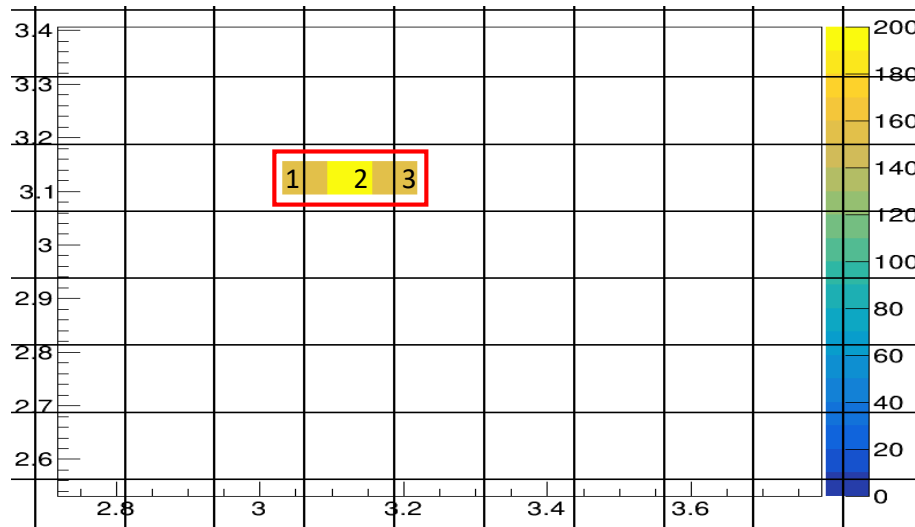
Layer 2



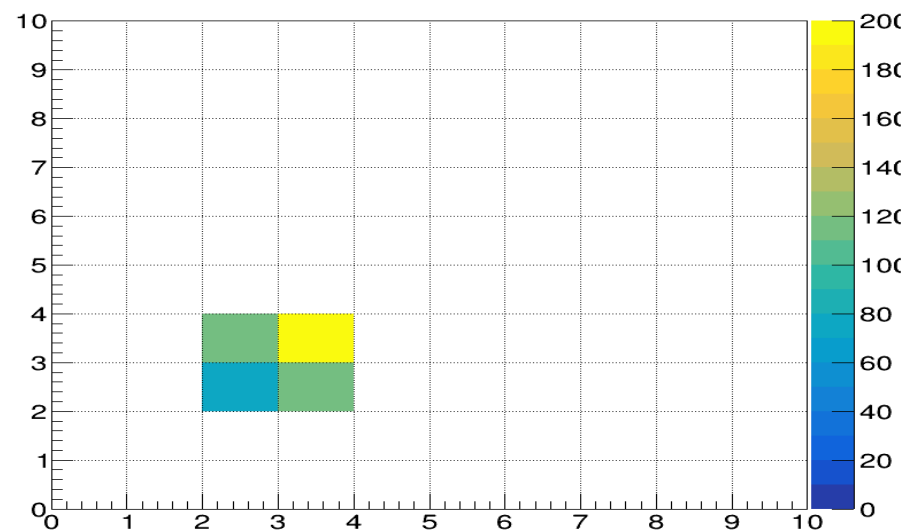
Layer 1



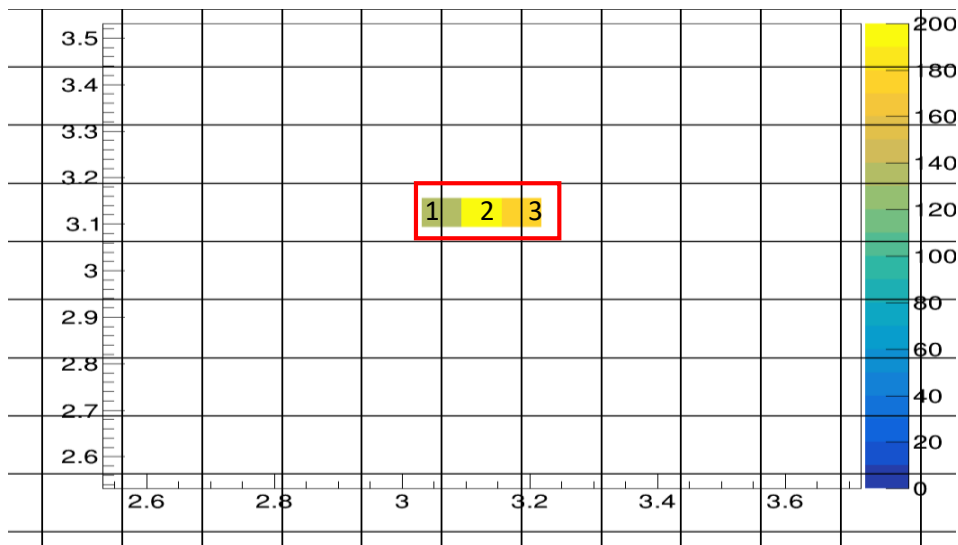
Layer 0



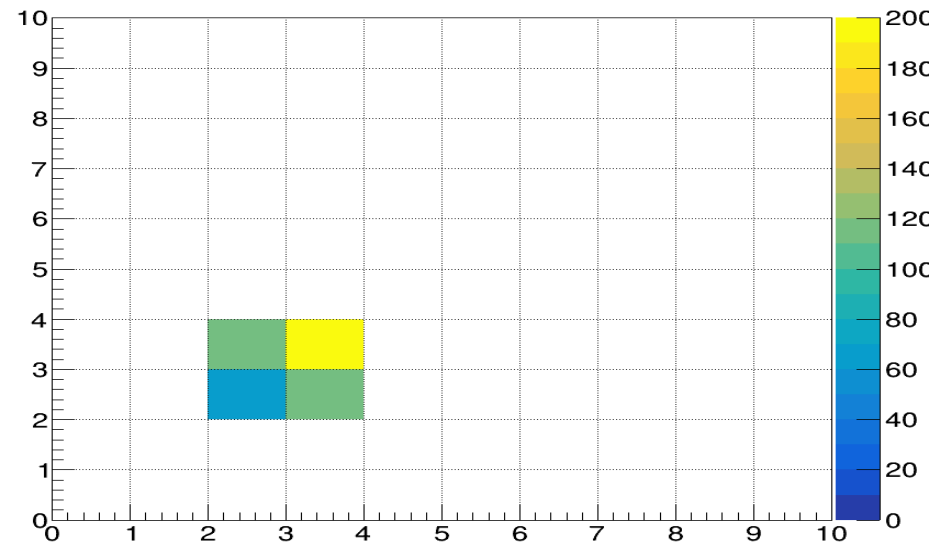
Charge 1 = 150 Charge 2 = 200 Charge 3 = 150



Cluster Position = 26.25, 26.25



Charge 1 = 130 Charge 2 = 200 Charge 3 = 170



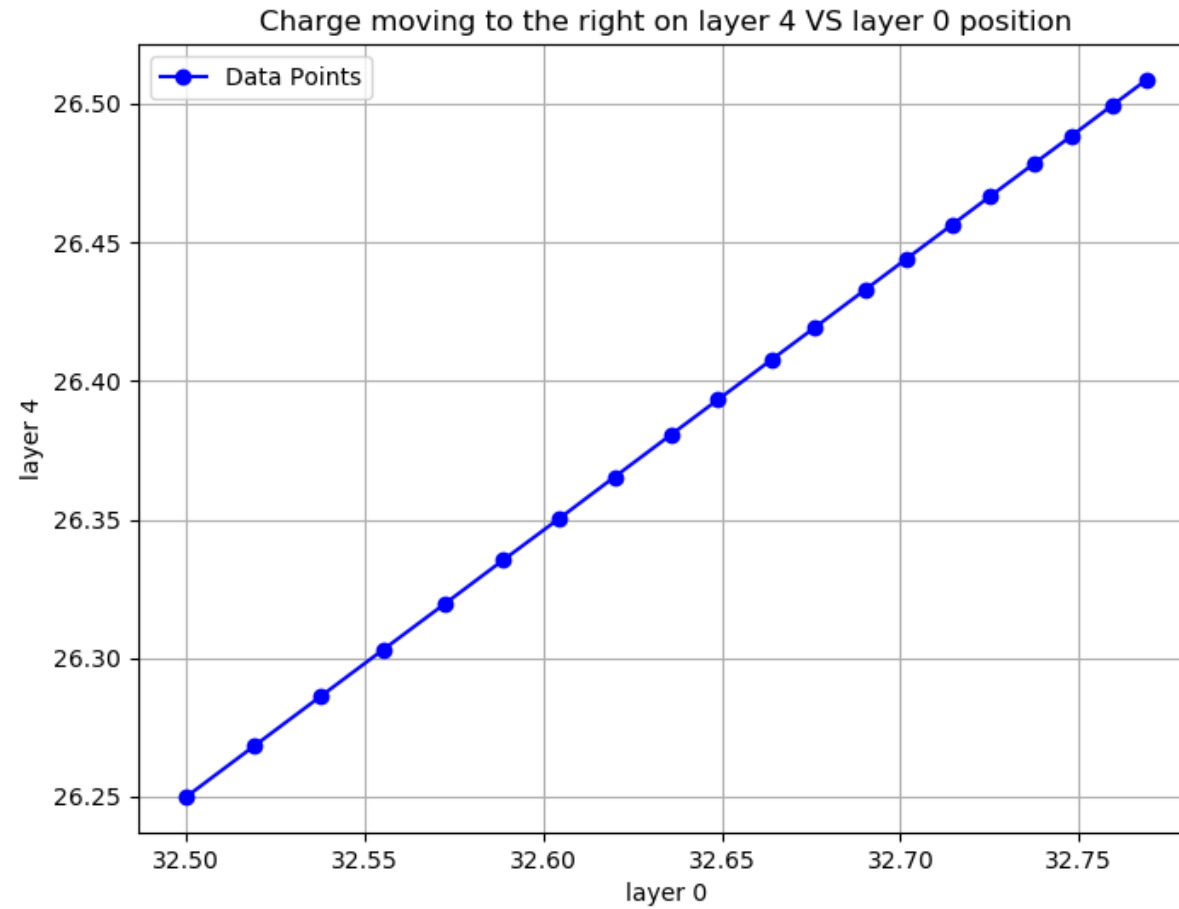
Cluster Position = 26.3, 26.25

Charge Frac

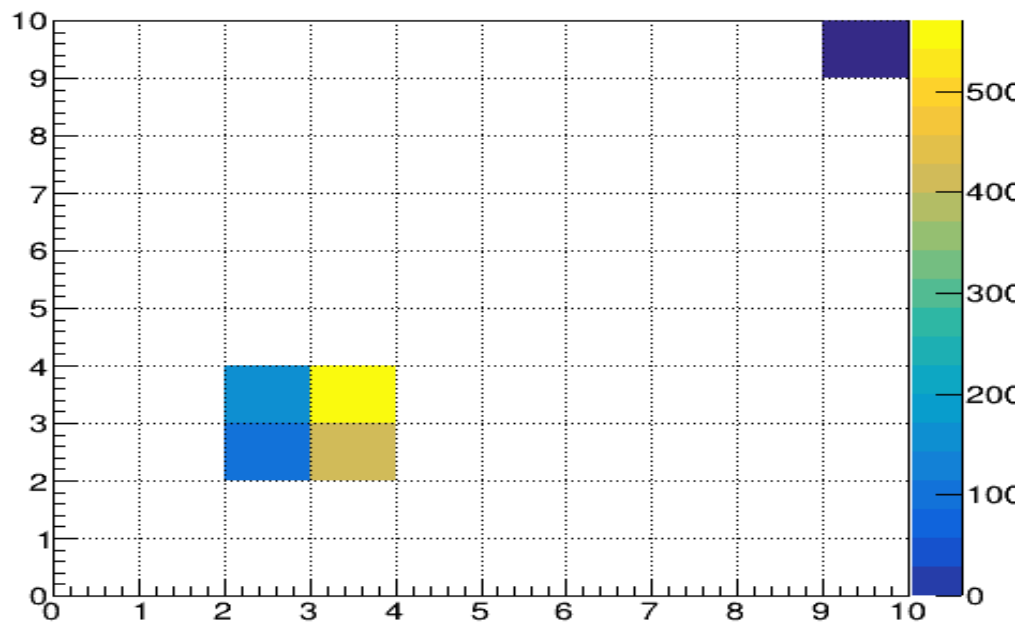
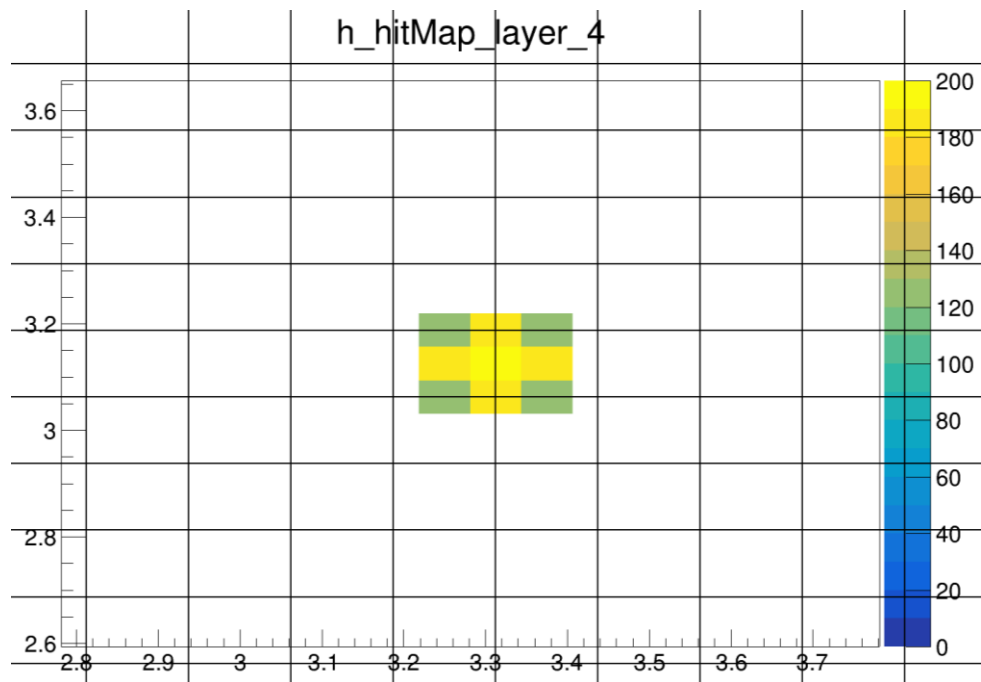
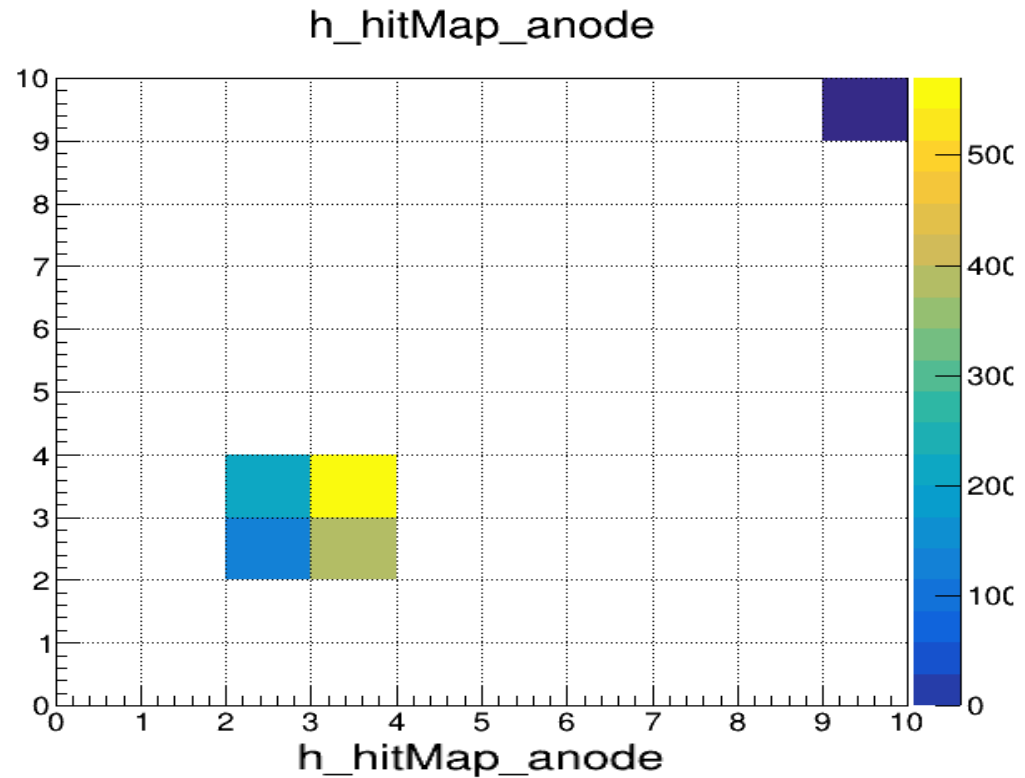
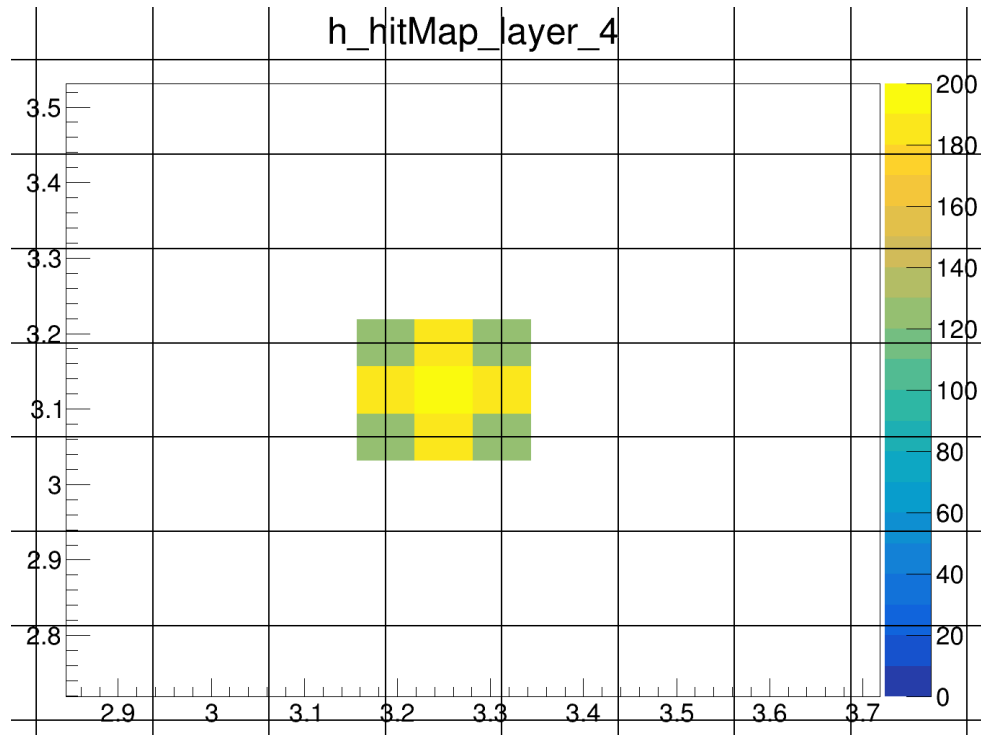
Q1(1-n)

Q2(1+n)

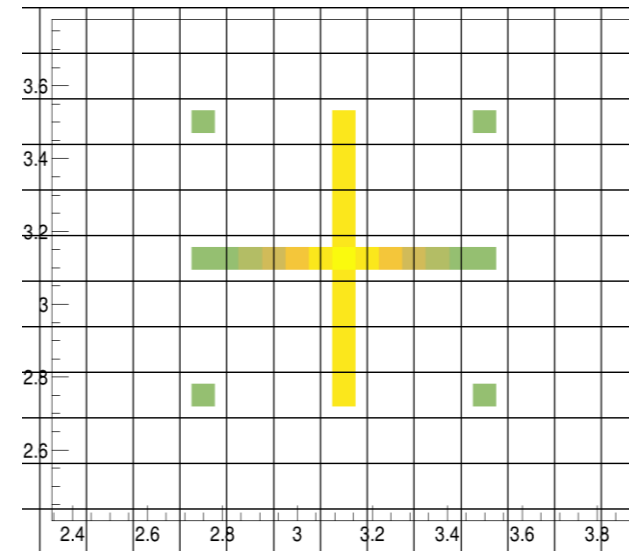
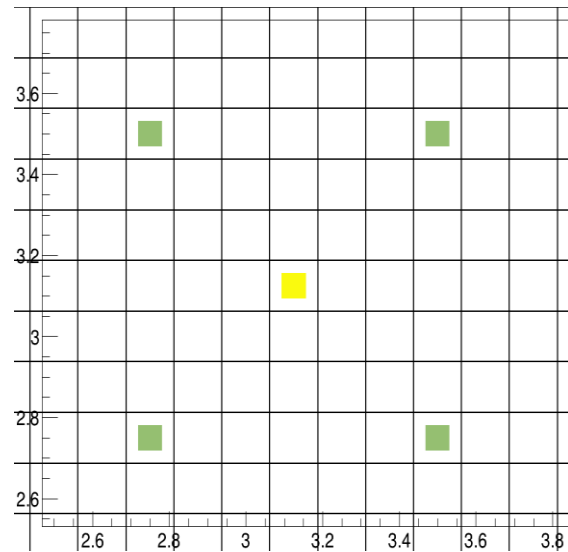
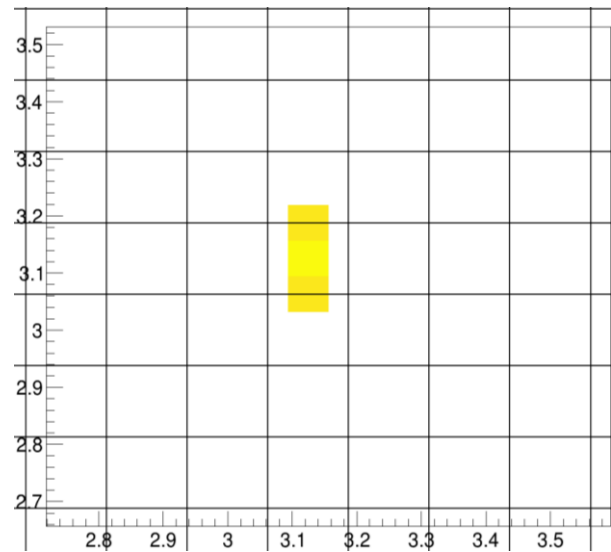
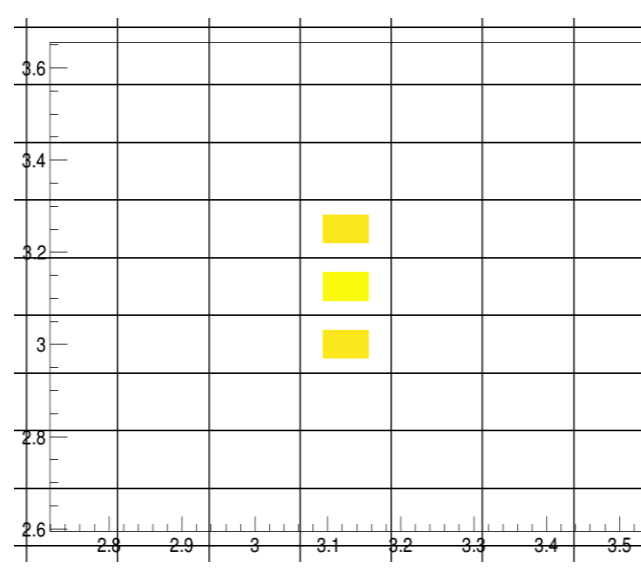
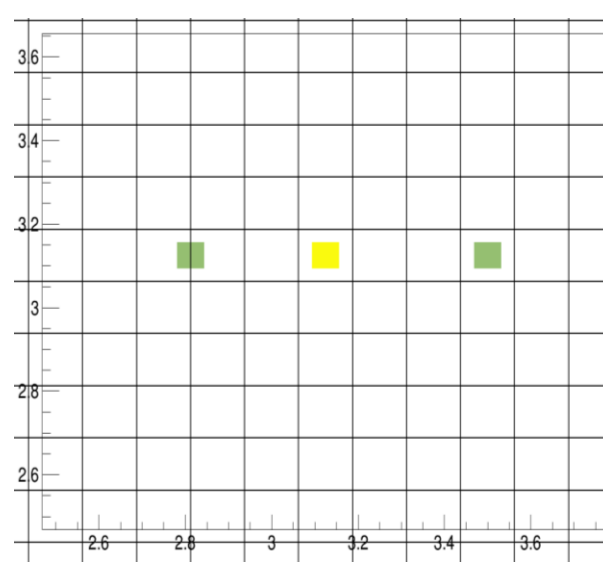
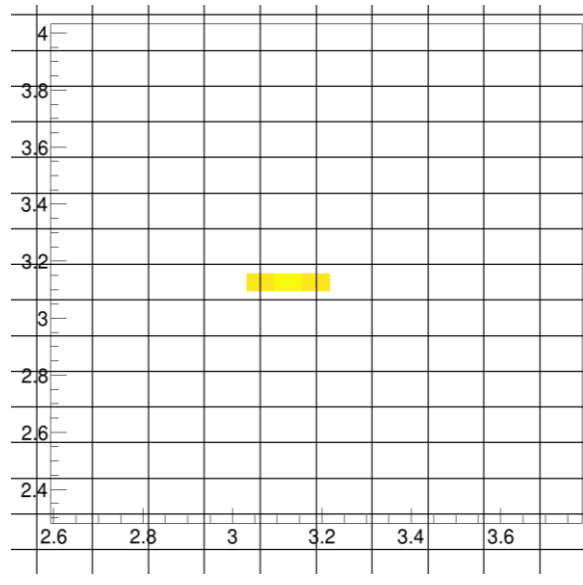
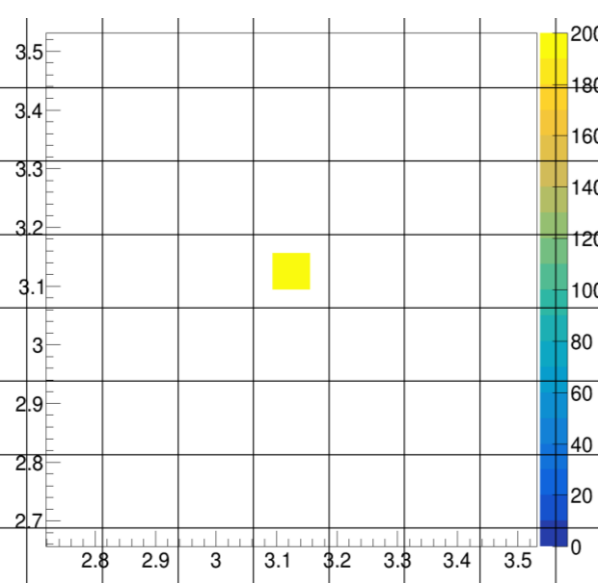
Q3(1+n)



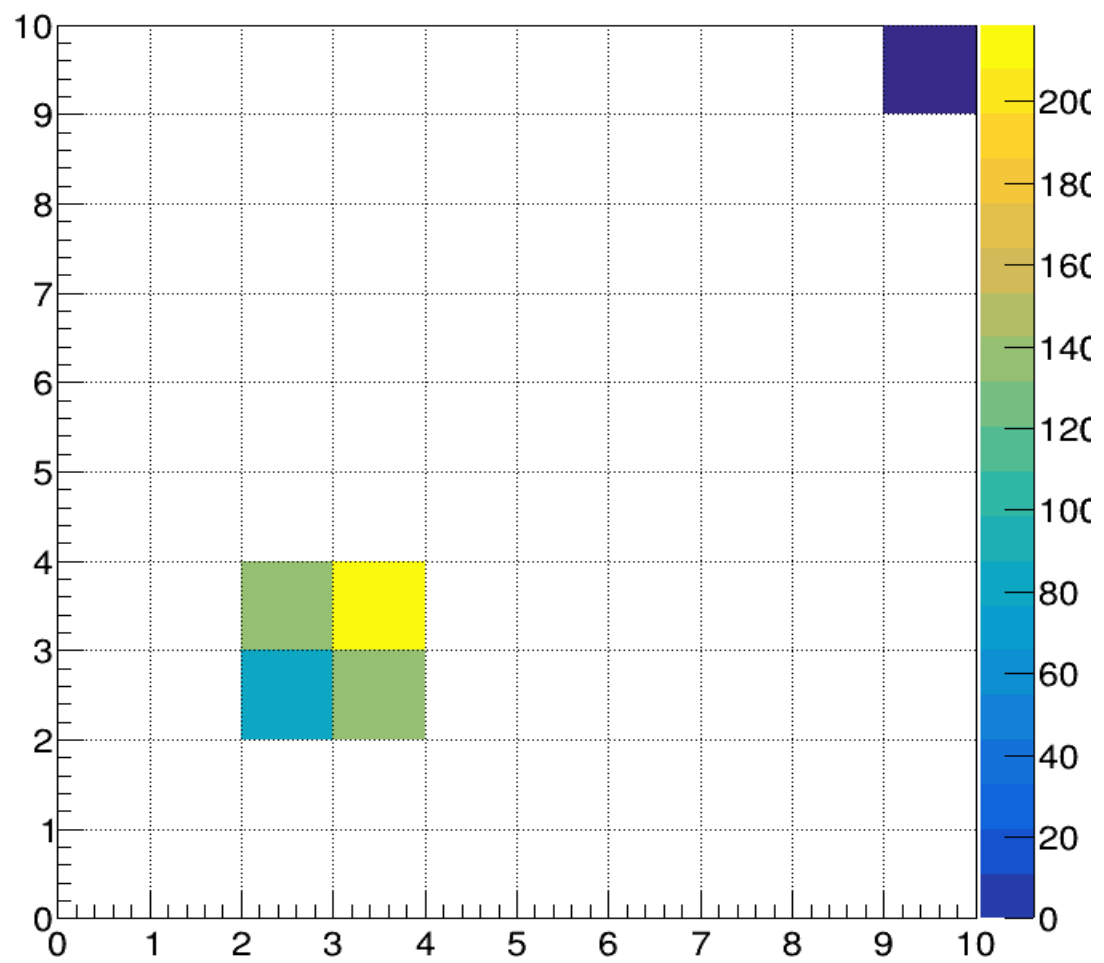
Charge not constant



- Duplicity in Layer 0 for **multiple layer 4** configurations.



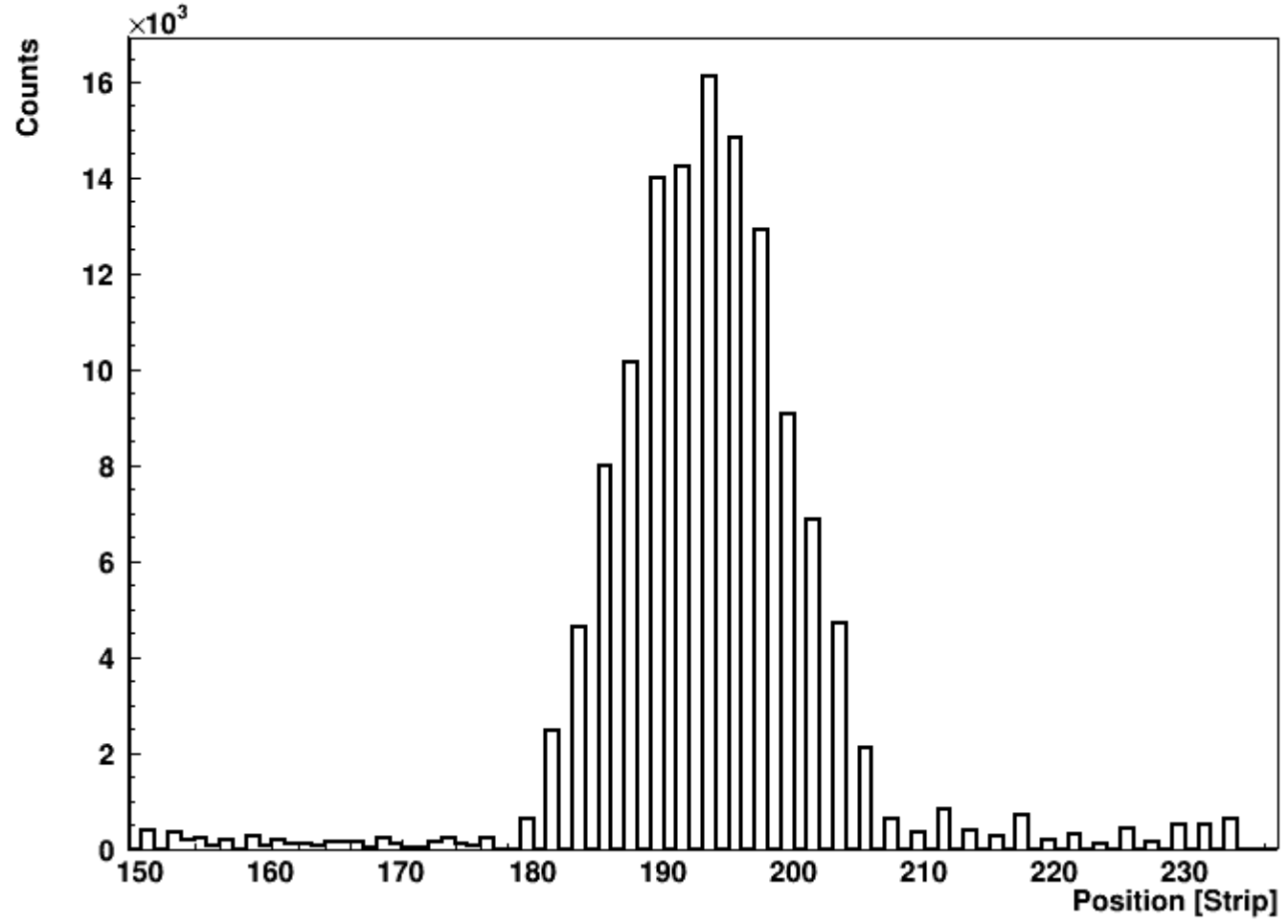
Layer 4



Layer 0

- What Next??
 - Investigating Inclined tracks.
 - Gas studies.
 - Simulations to understand the concept of charge sharing better.

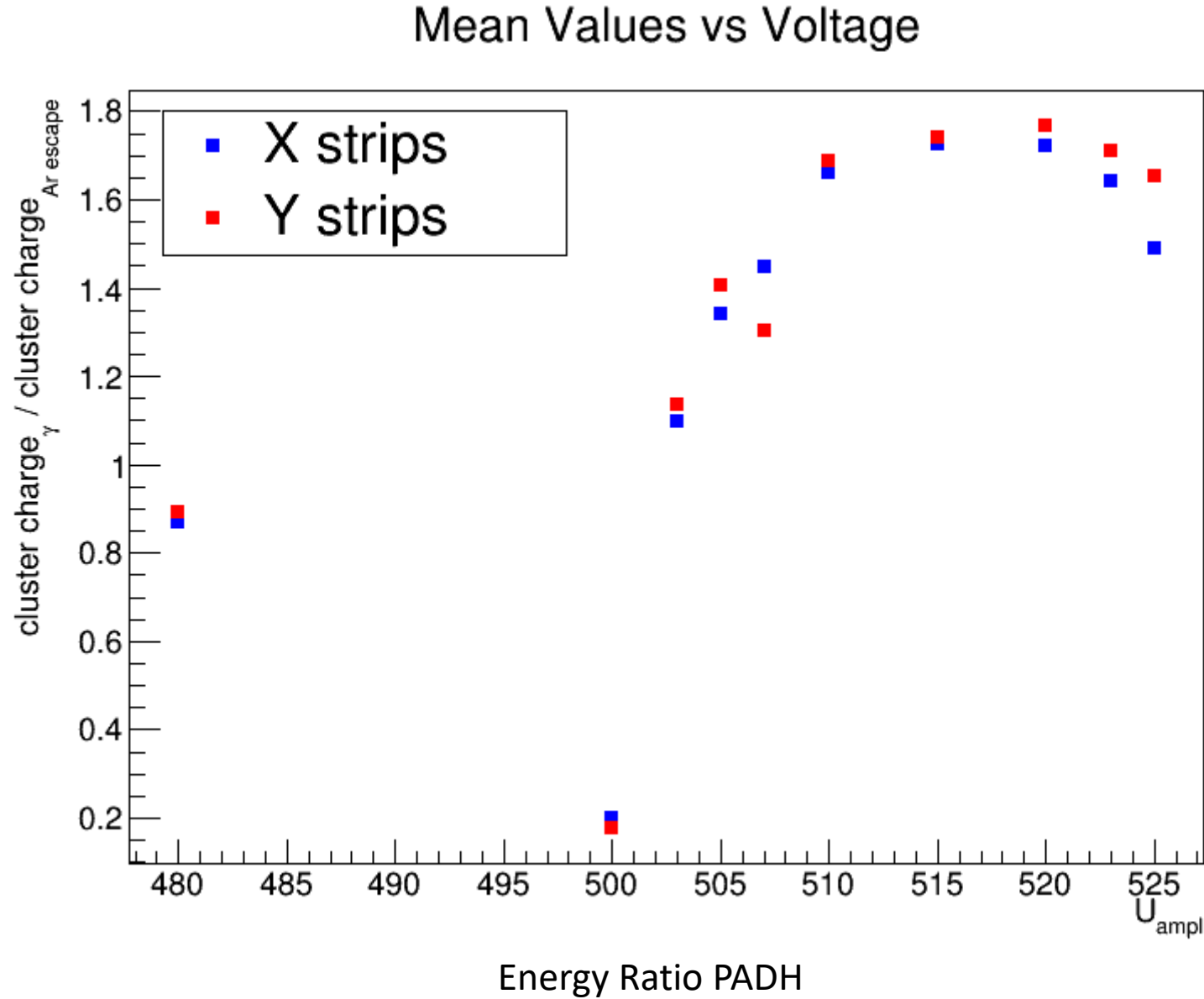
- Broken APV:



Strip Number along Y

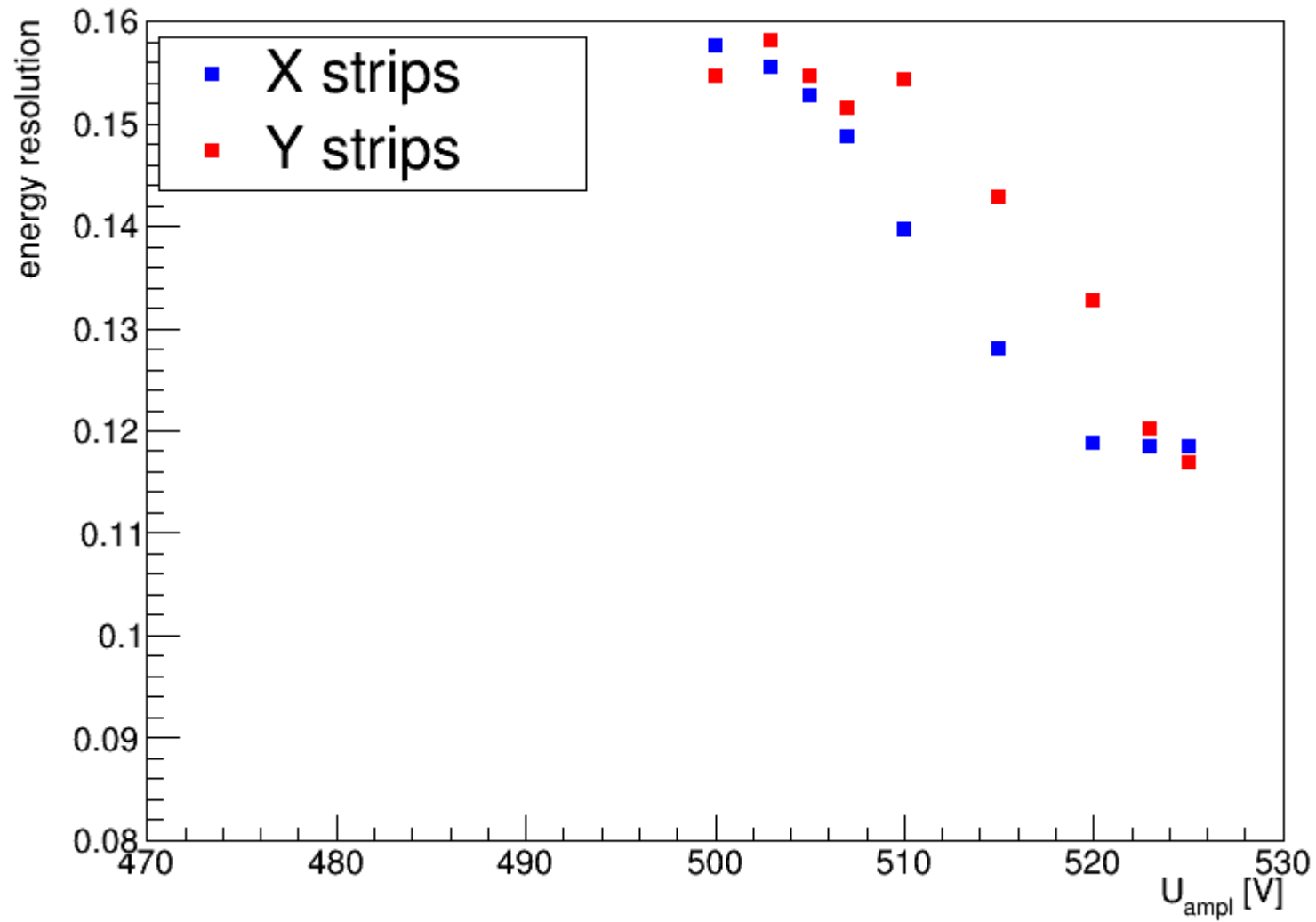
- Studies on PADH

- Reading at 523V is at 520V



- Studies on PADH

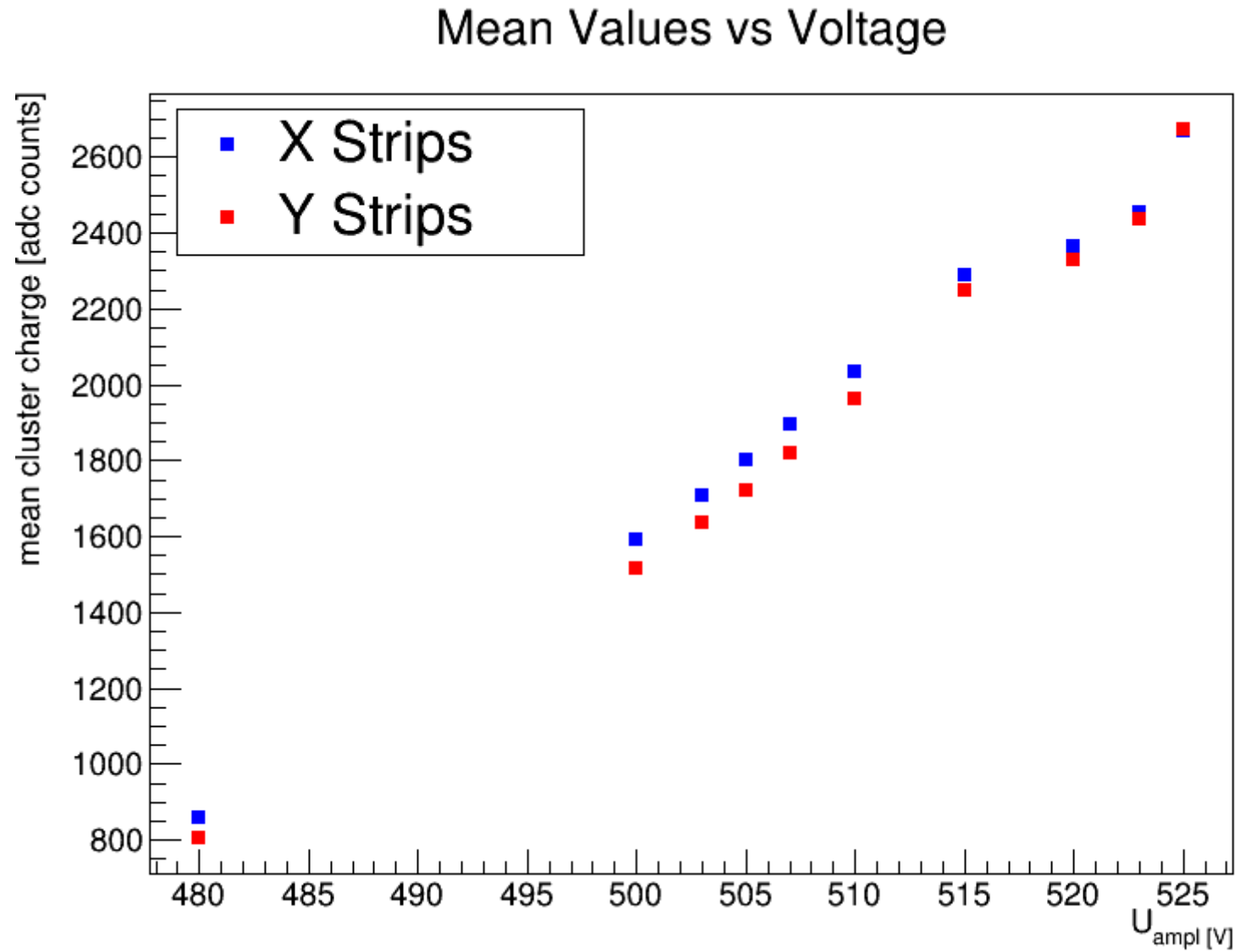
• Reading at 523V is at 520V



Energy Resolution PADH

- Studies on PADH

• Reading at 523V is at 520V



Mean Cluster Charge PADH