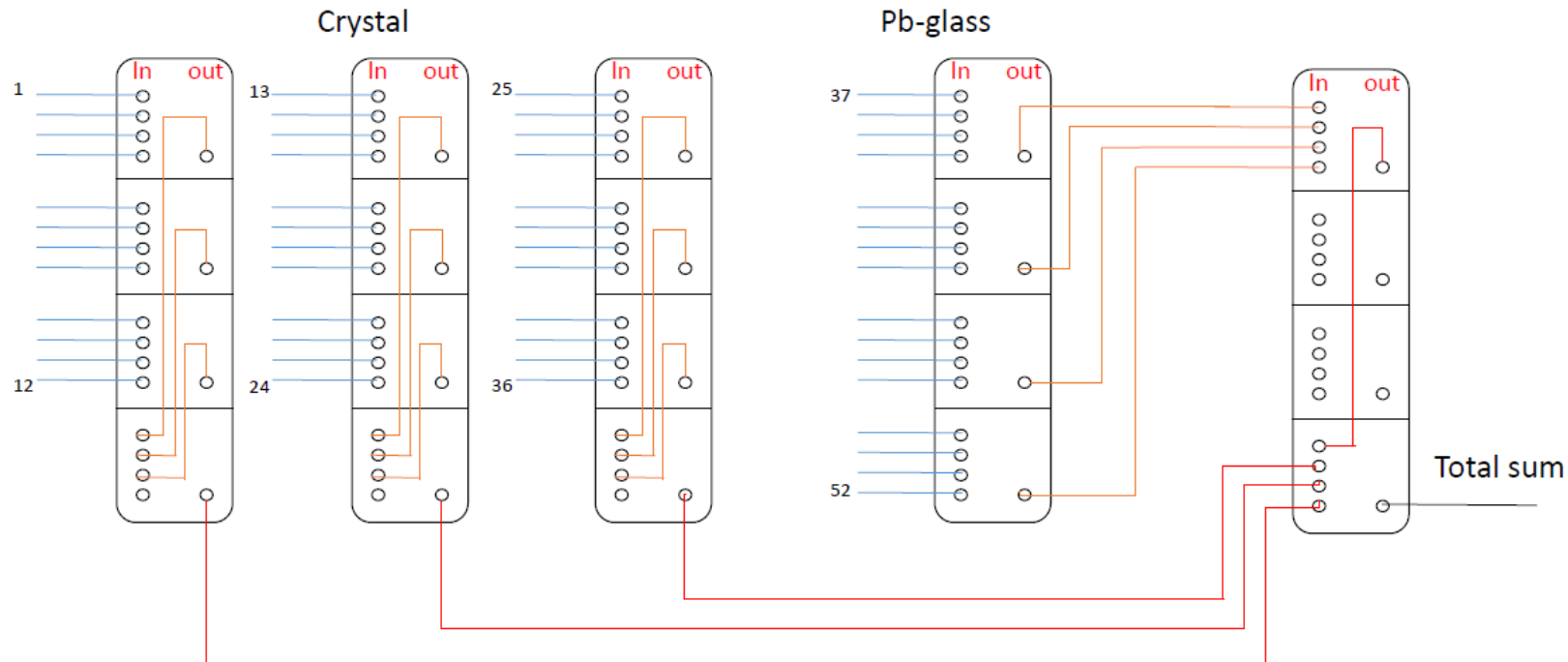


Cosmic Data on HyCal

Chao Peng
Duke University
01/09/2015

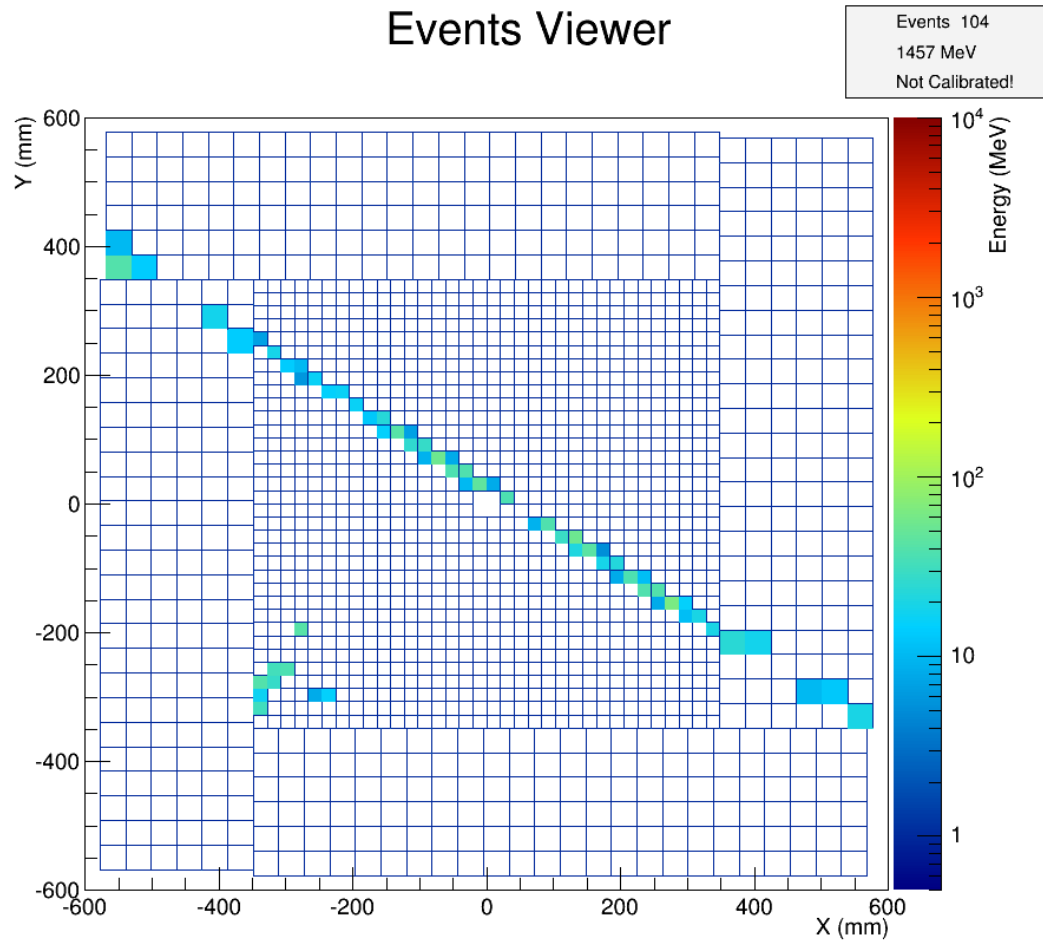
Work on electronics

- Ashot and I checked the electronics for trigger, and found the total sum module is not working well (therefore we did not get good cosmic tracks in previous runs)
- We changed the electronics from 2 UVA 120A and 1 UVA 120 to 5 Philips 740 linear fan-in units

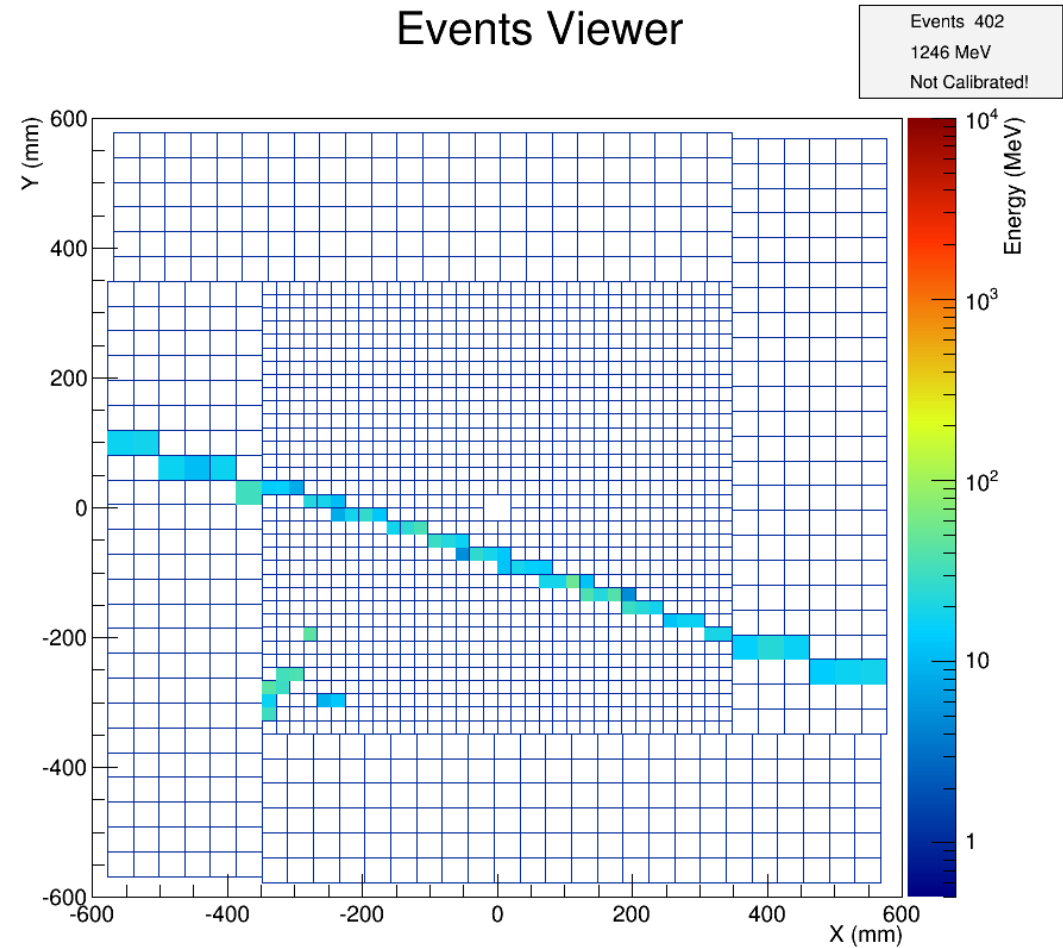


Cosmic data

Events Viewer

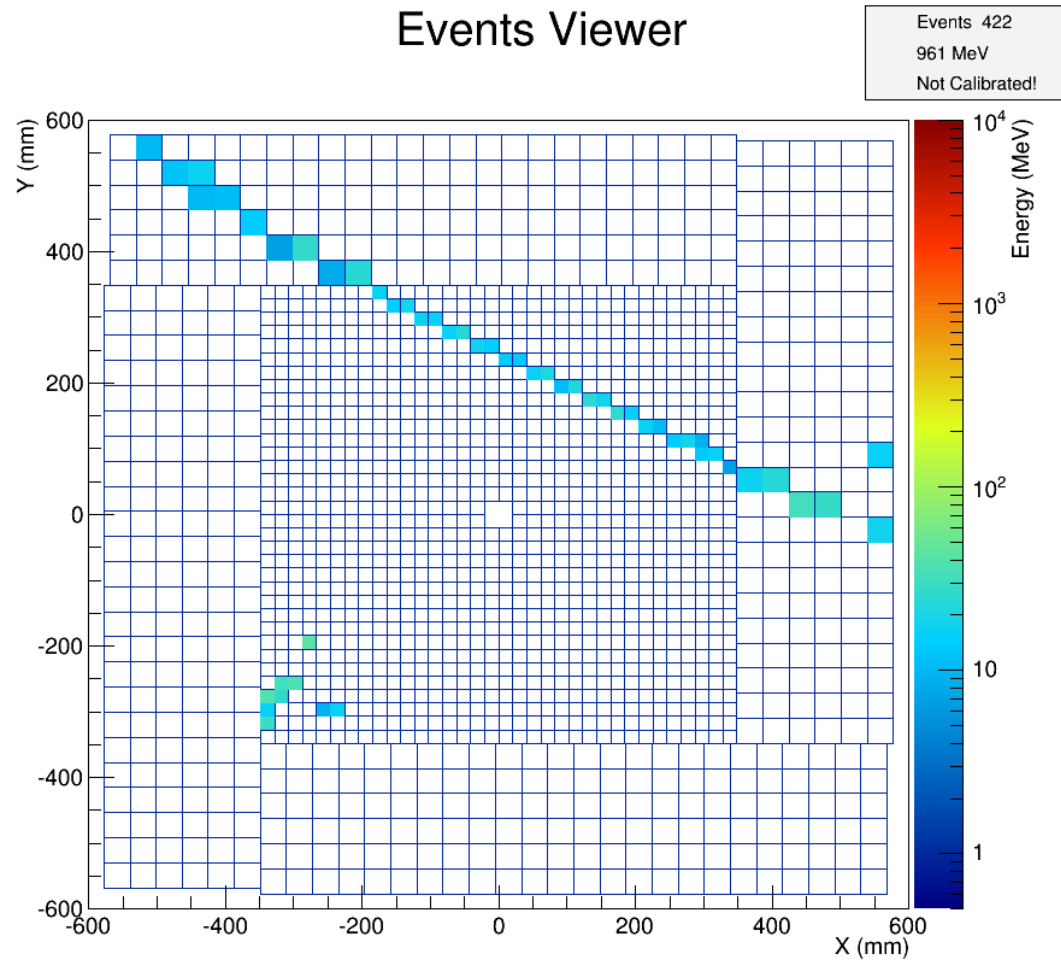


Events Viewer

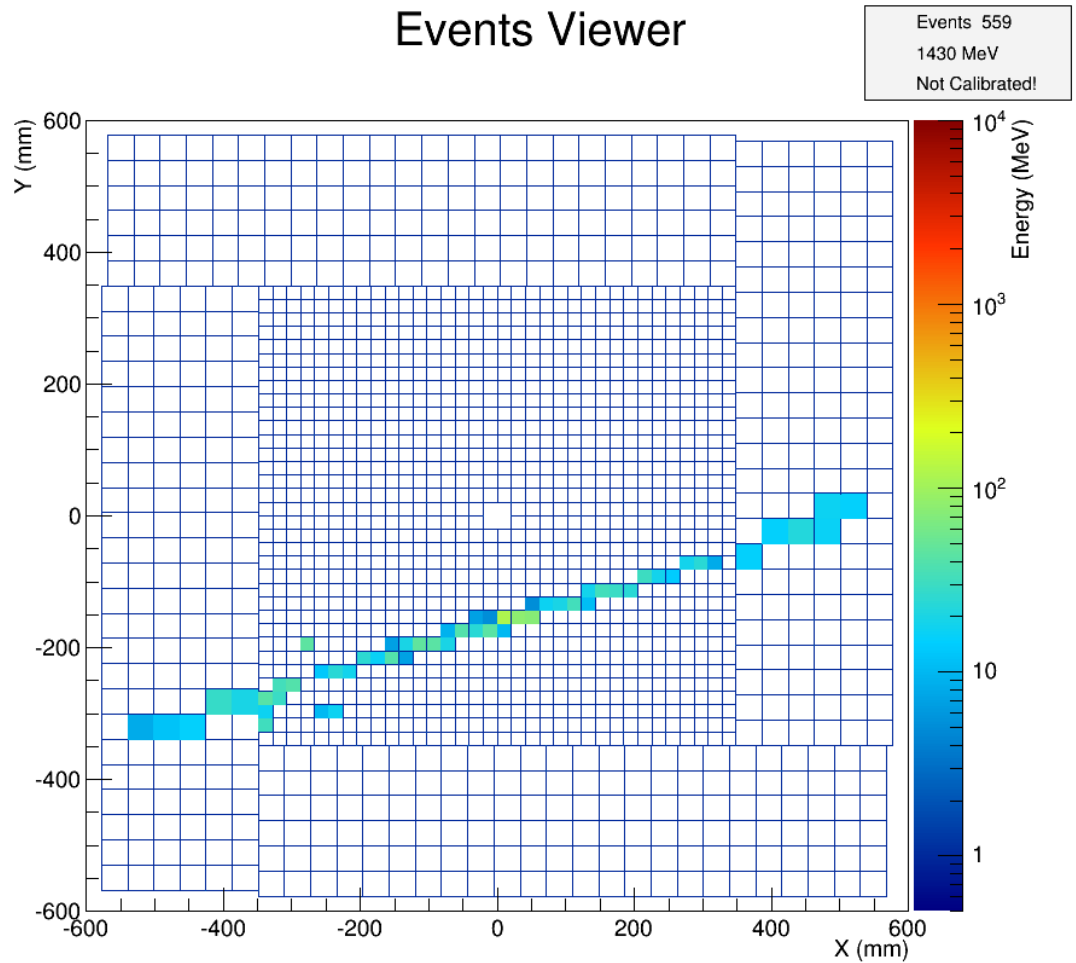


Cosmic data

Events Viewer



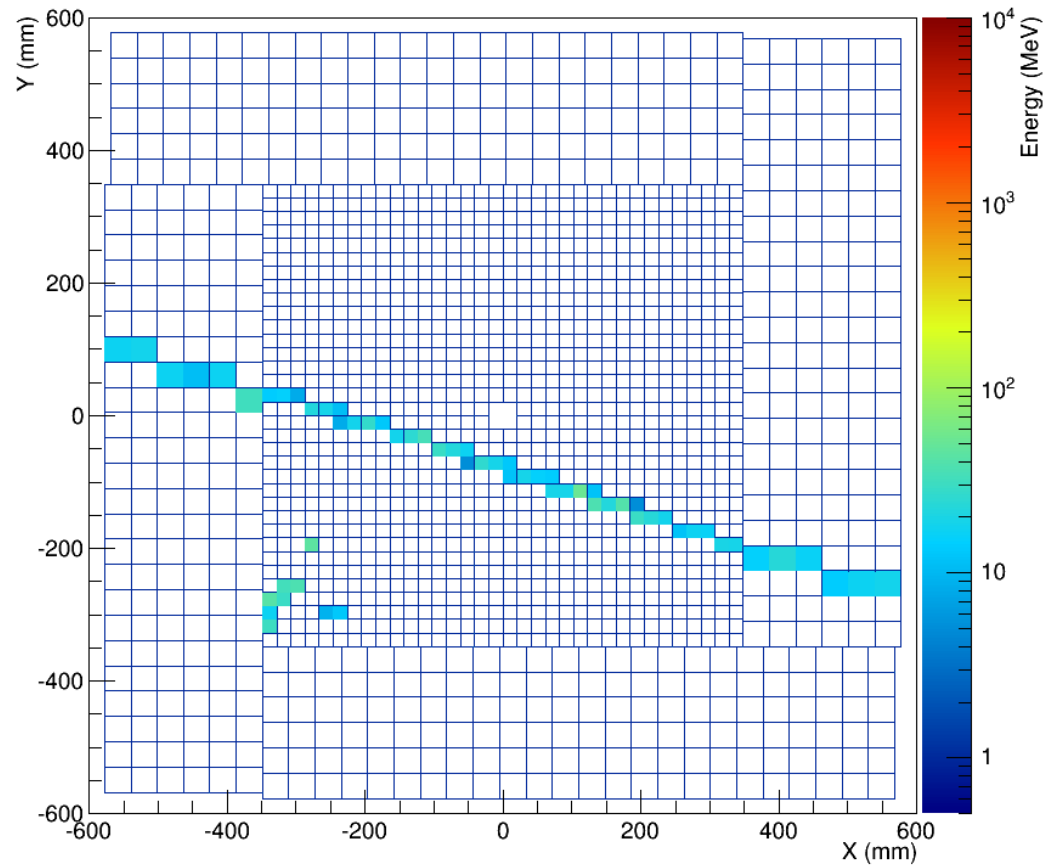
Events Viewer



Cosmic data

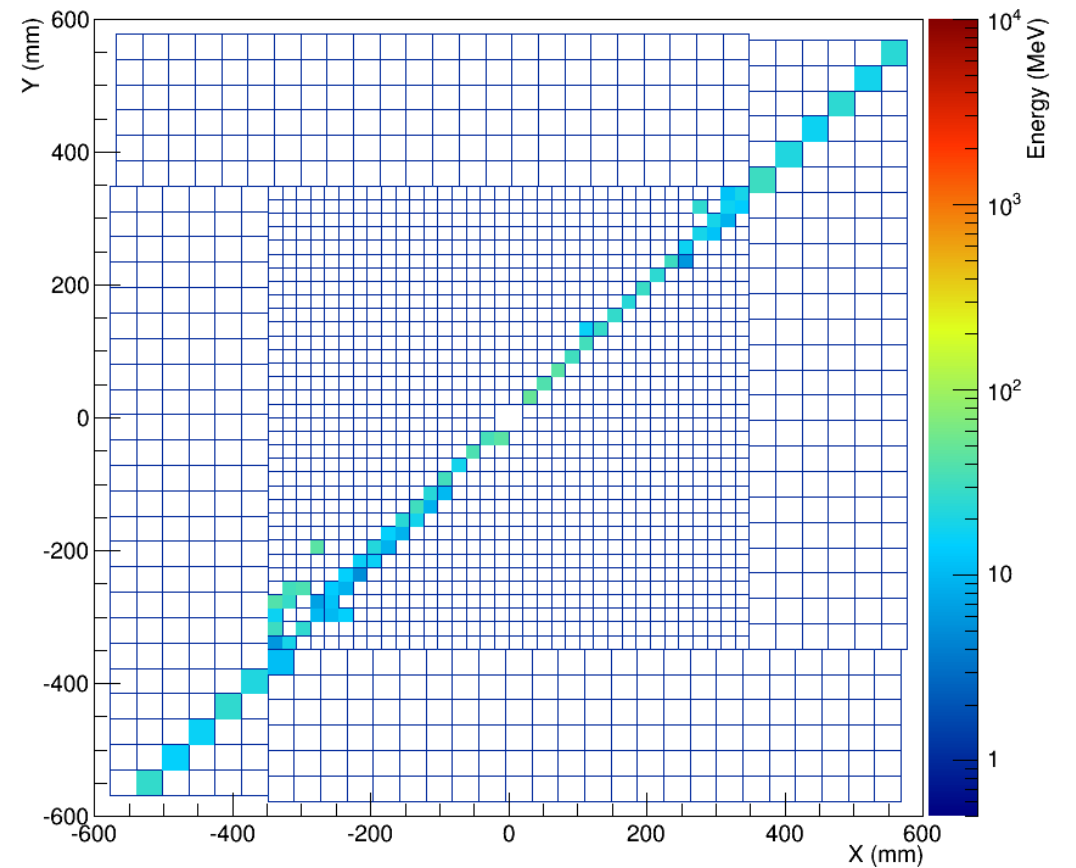
Events Viewer

Events 402
1246 MeV
Not Calibrated!



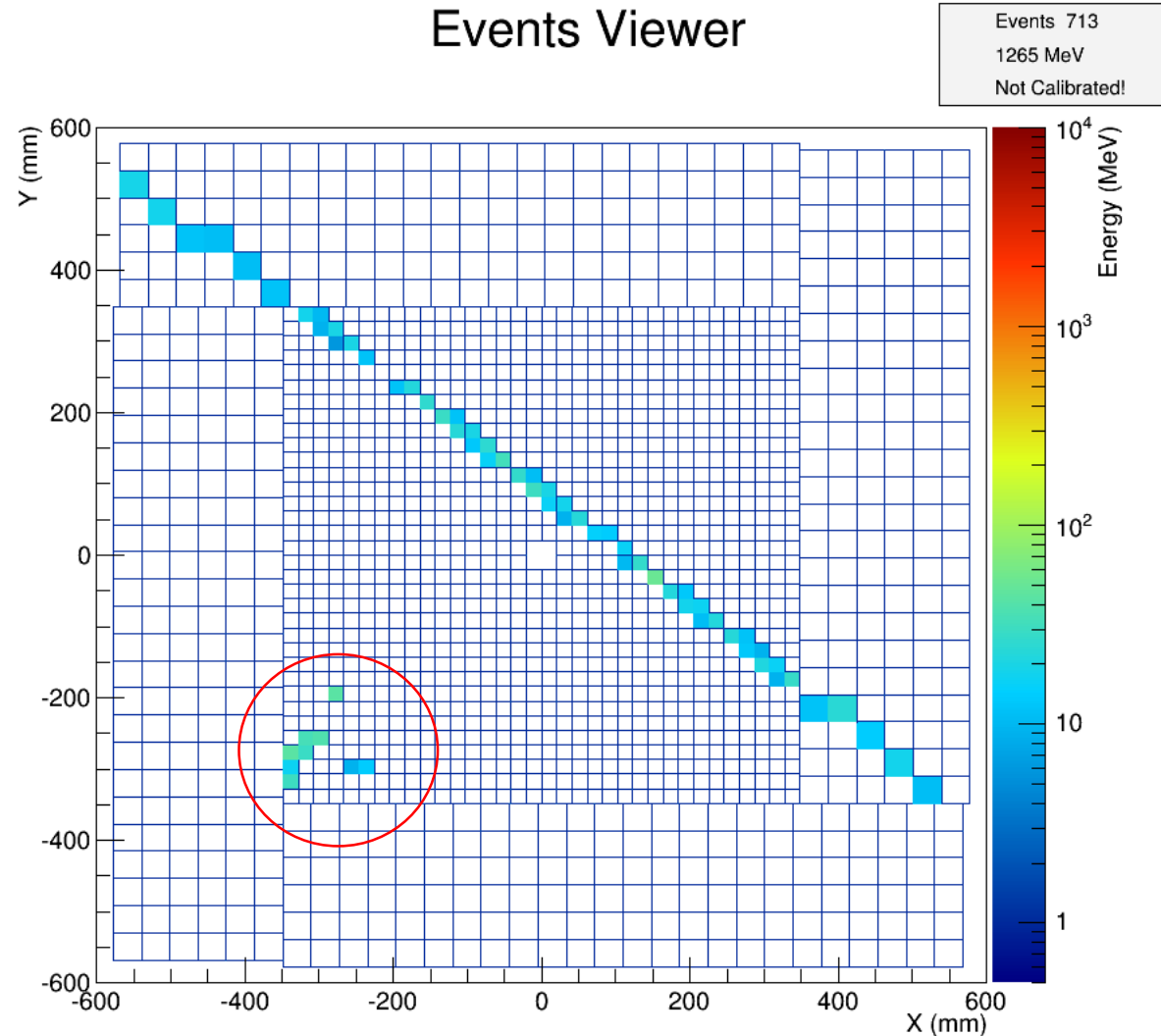
Events Viewer

Events 680
1533 MeV
Not Calibrated!



Some problem

- There are 12 modules have a pedestal sigma within 5 to 12, which are much larger than the others (<3 , typically $0.8 \sim 1.5$)
- There is a group of modules constantly fired during the cosmic run, reason is unknown



Some problem

- This part of modules is always fired during the cosmic run
- It looks like there is a constant charge increase between the cosmic run and pedestal run
- The plots show the ADC values of one of these constantly fired modules

