



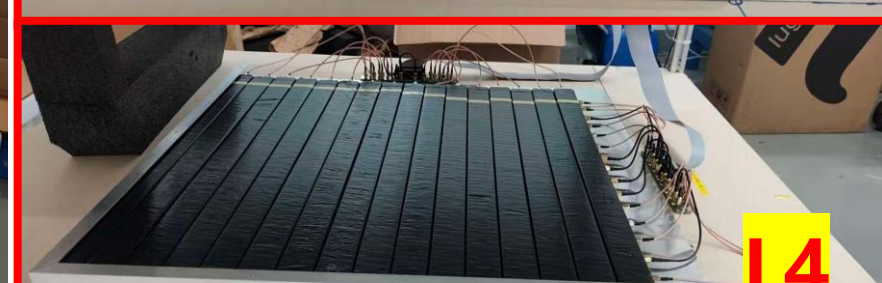
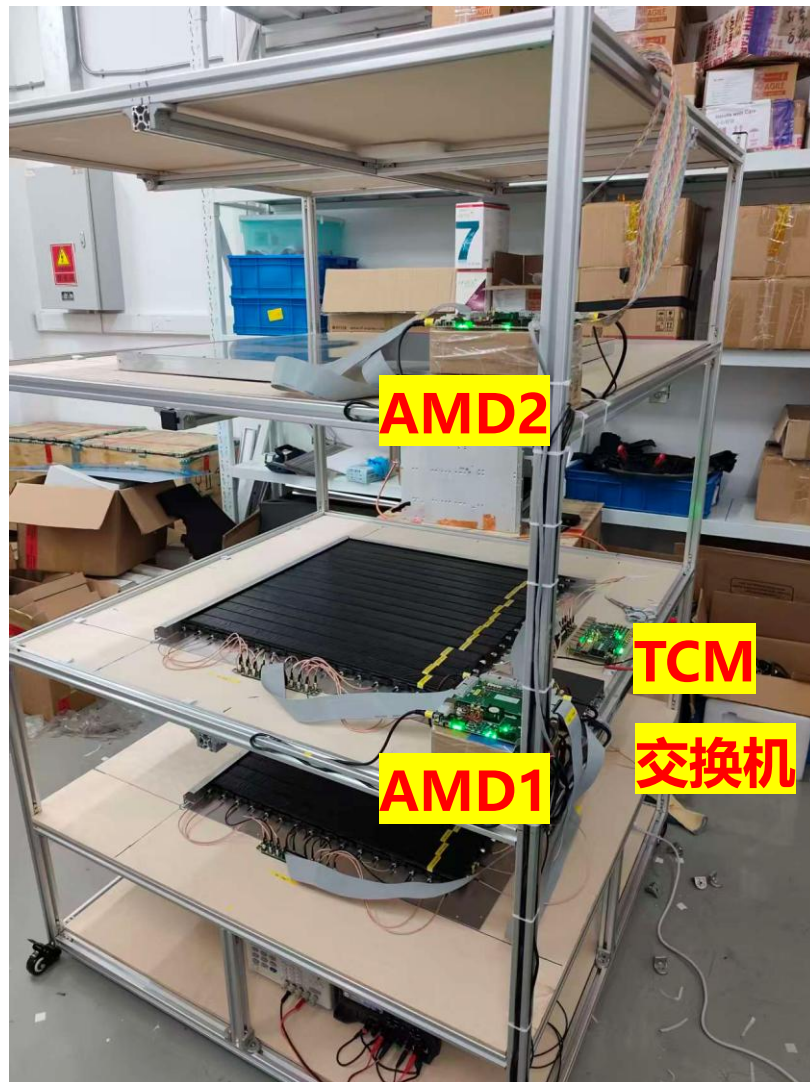
復旦大學
FUDAN UNIVERSITY

宇宙线成像装置搭建进展

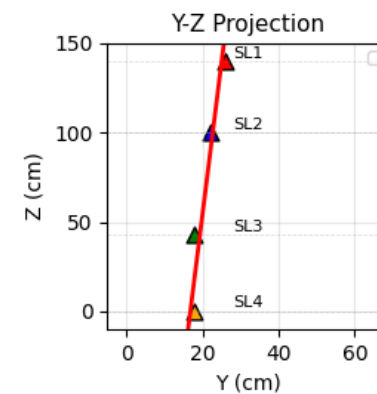
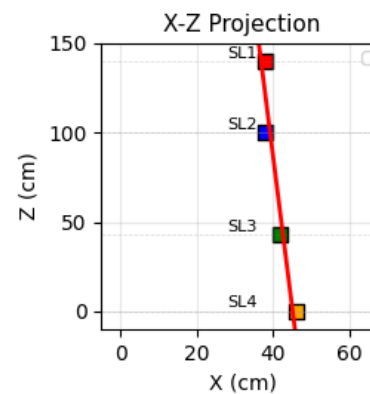
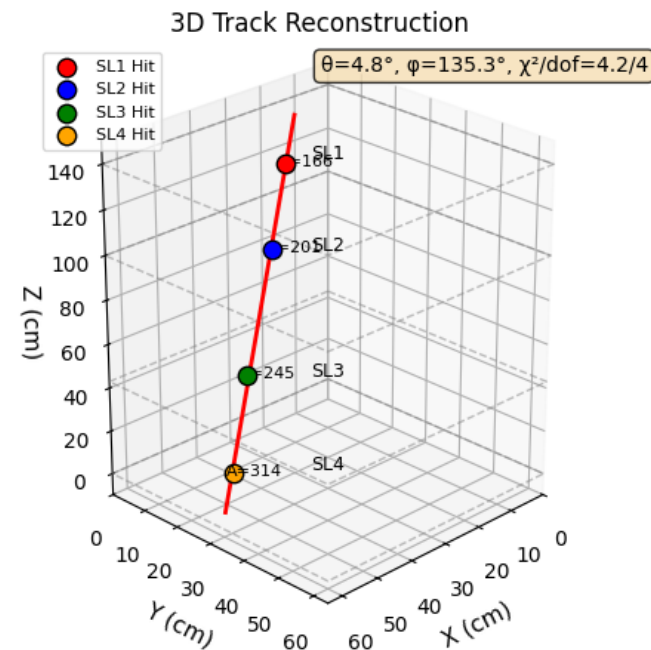
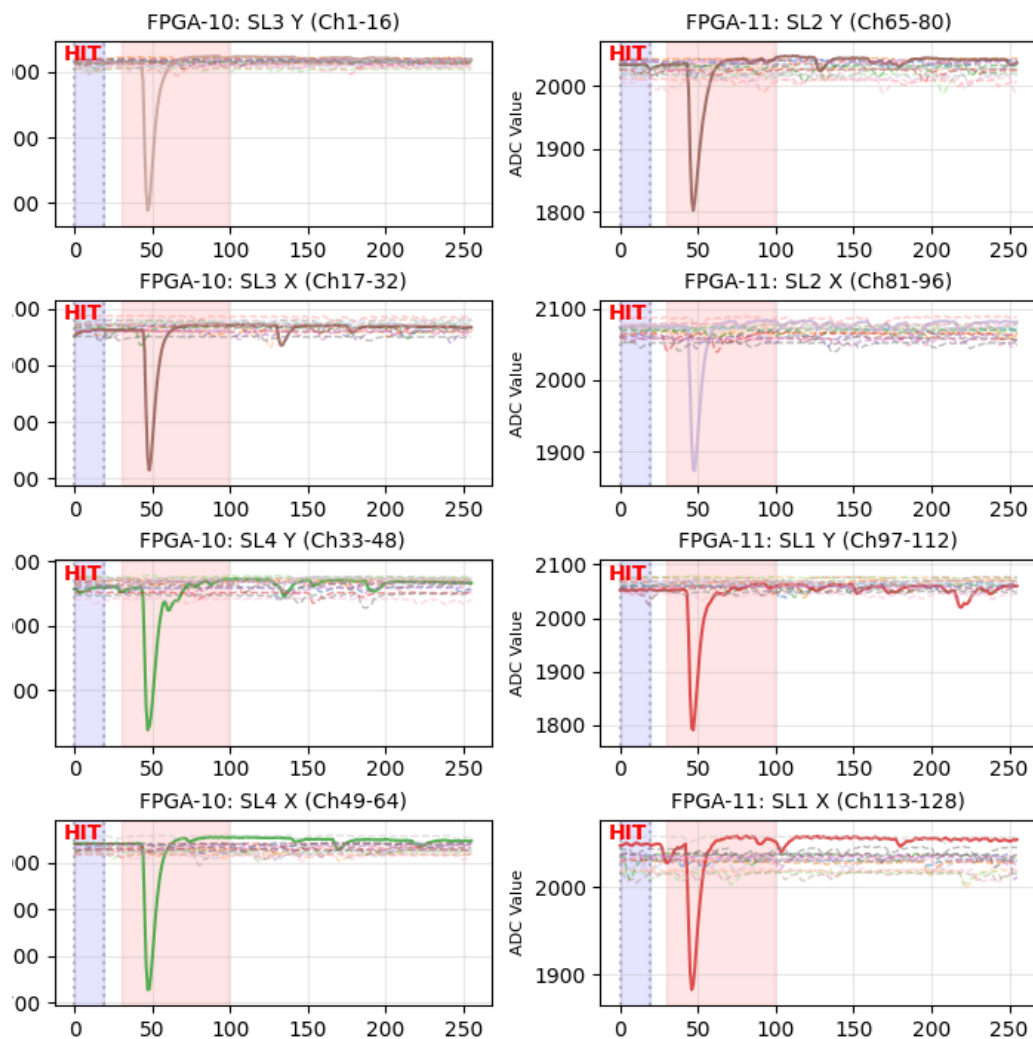
王曦阳

2025.12.26

宇宙线成像装置进展

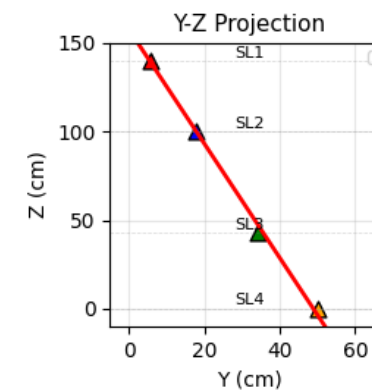
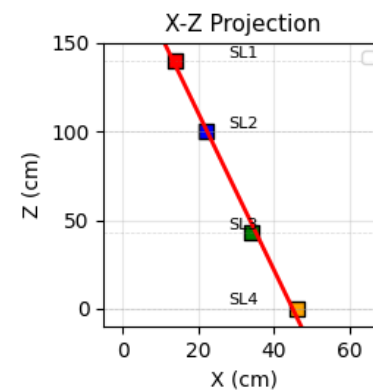
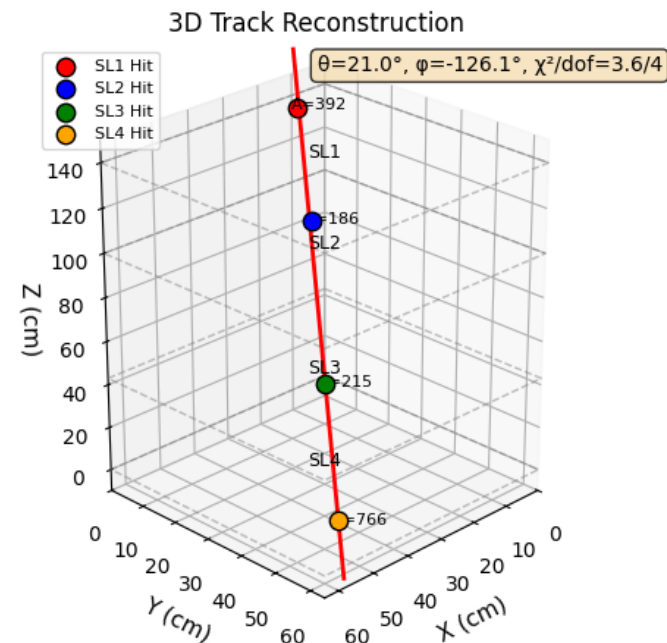
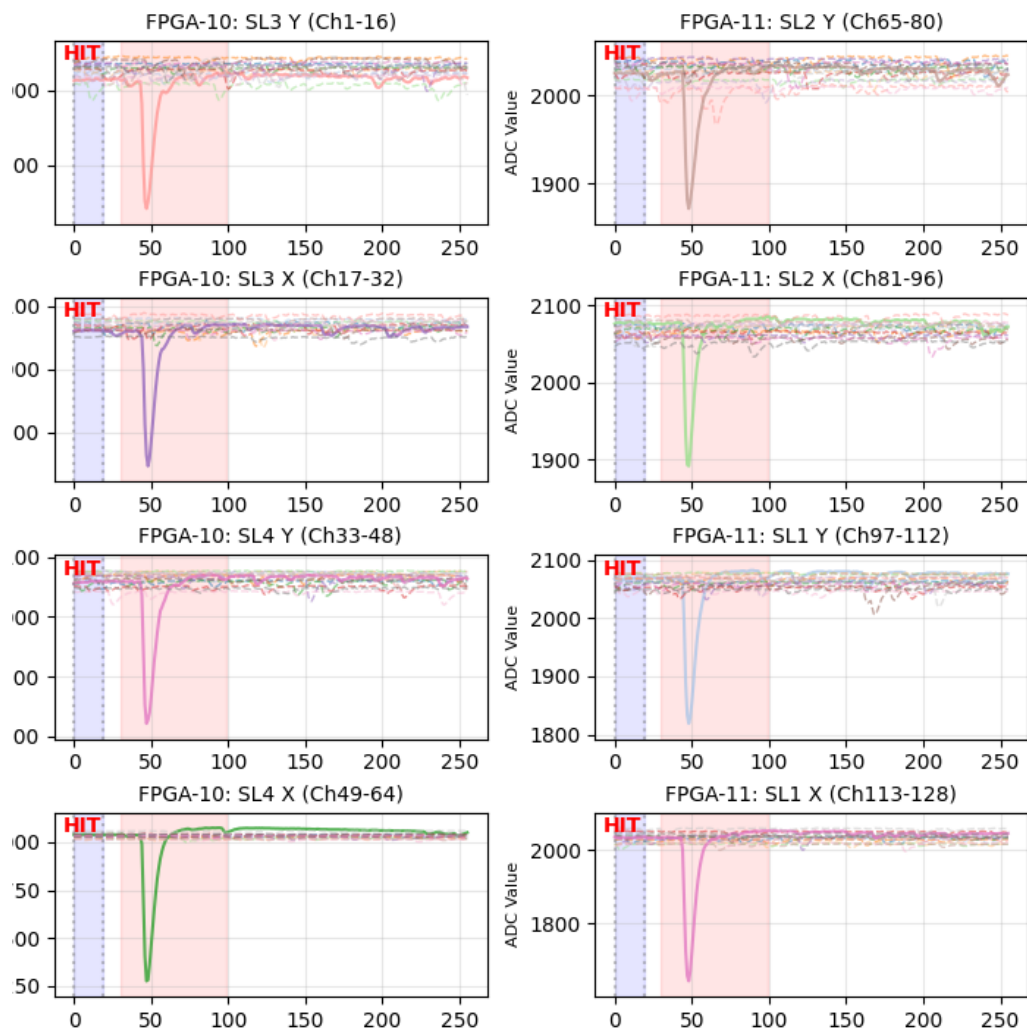


Event Analysis - Timestamp: 3102090006



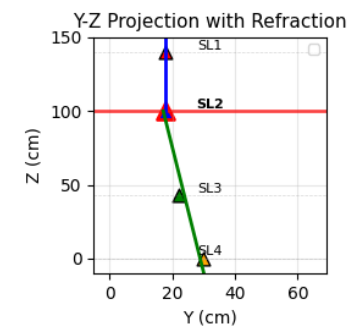
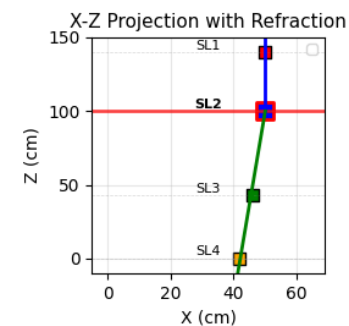
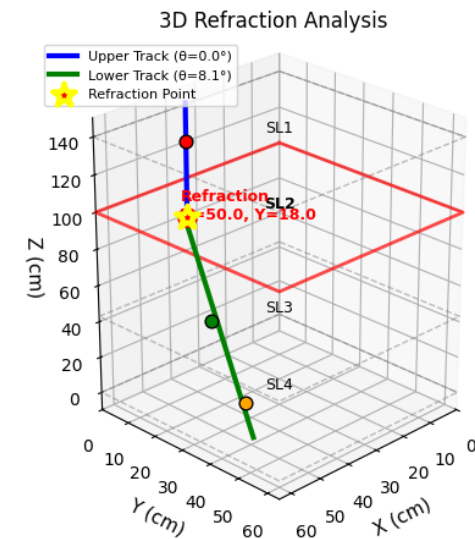
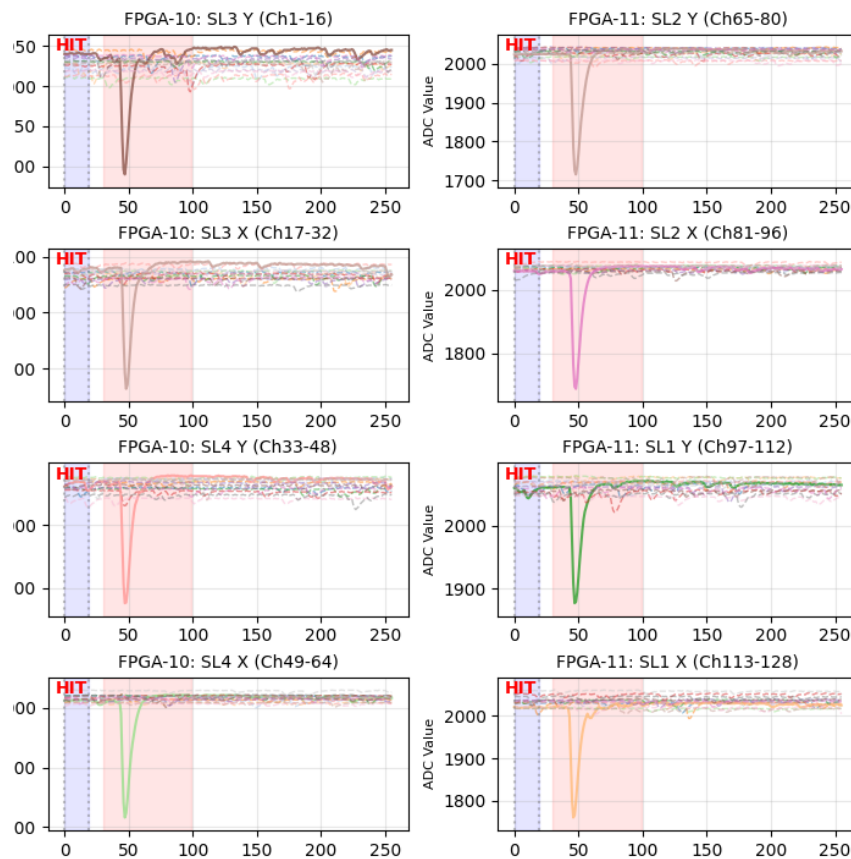
Hit Summary (Threshold=100 ADC): SL1(1X,1Y) | SL2(1X,1Y) | SL3(1X,1Y) | SL4(1X,1Y) [Using max amplitude per strip]

Event Analysis - Timestamp: 3214357068



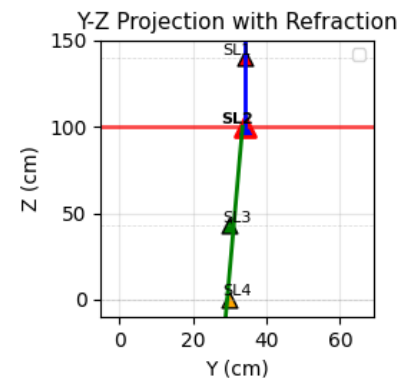
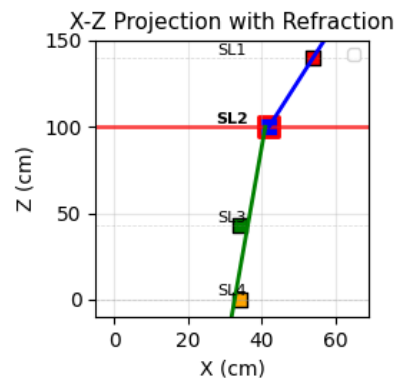
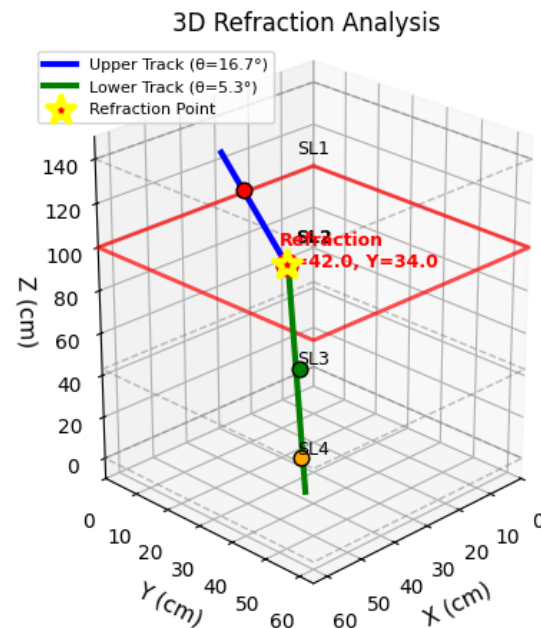
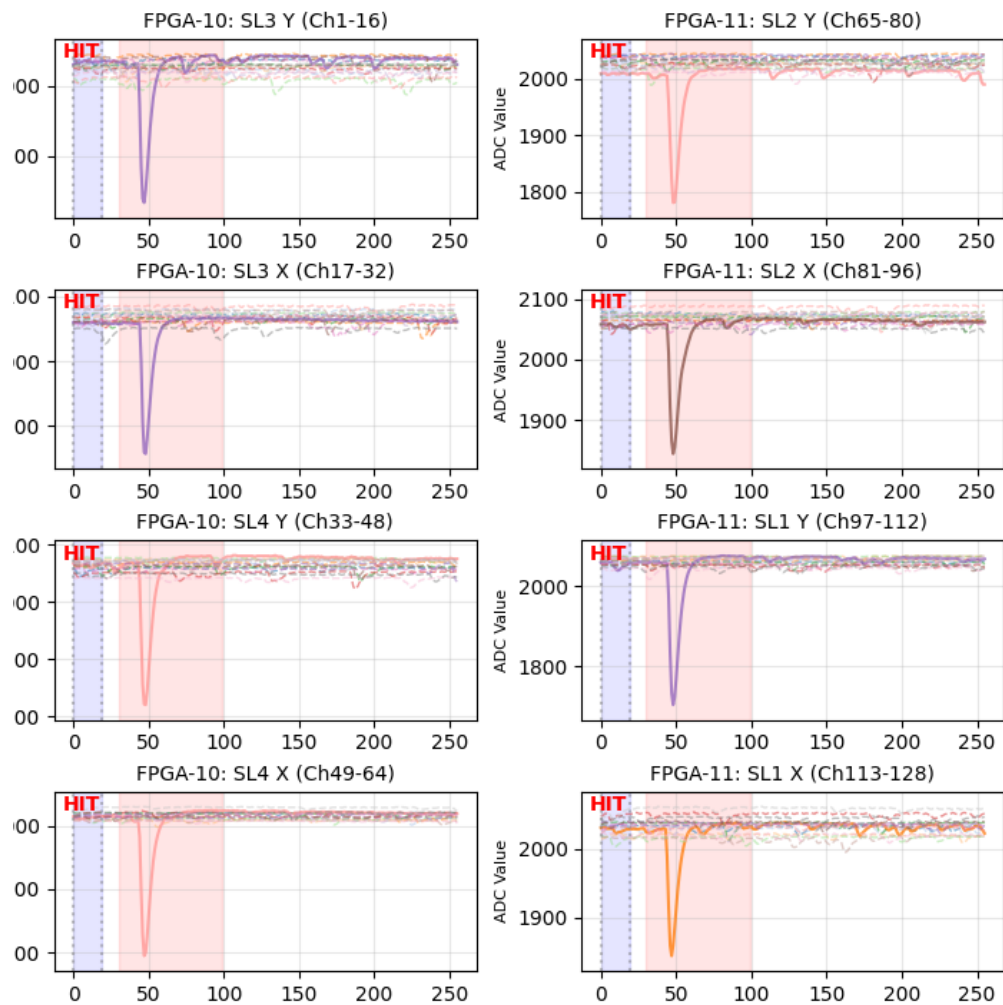
Hit Summary (Threshold=100 ADC): SL1(1X,1Y) | SL2(1X,1Y) | SL3(1X,1Y) | SL4(1X,1Y) [Using max amplitude per strip]

Refraction Analysis - Event 15/32 - Timestamp: 21086410822 - REFRACTED ($\Delta\theta=8.1^\circ$)



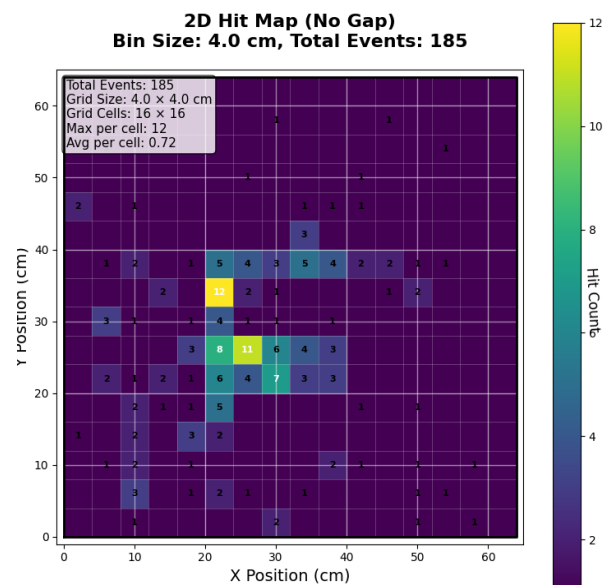
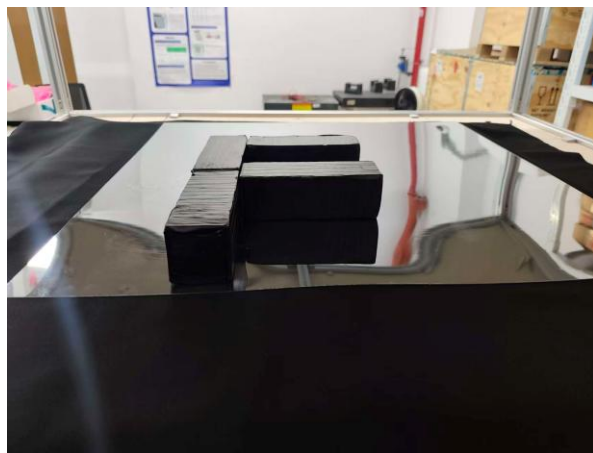
Event Summary - Threshold: 100.0 ADC - SL1(1X,1Y) SL2(1X,1Y) SL3(1X,1Y) SL4(1X,1Y) - Fit Quality: Upper $R^2=1.000$, Lower $R^2=0.961$ (GOOD)

Refraction Analysis - Event 7/119 - Timestamp: 44090051443 - REFRACTED ($\Delta\theta=12.2^\circ$)

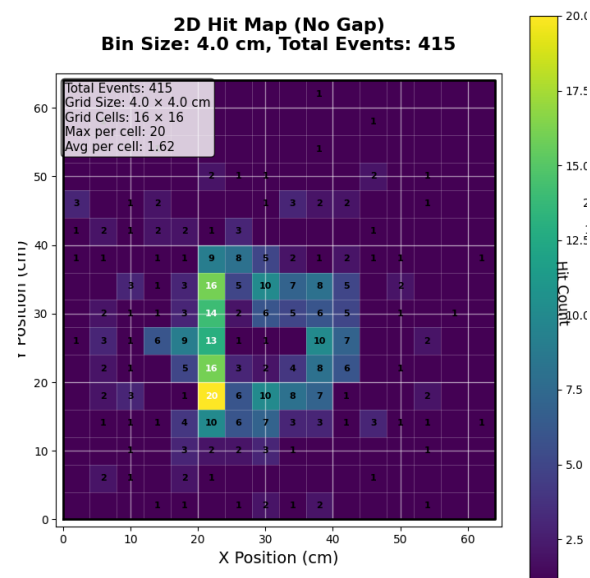


Event Summary - Threshold: 100.0 ADC - SL1(1X,1Y) SL2(1X,1Y) SL3(1X,1Y) SL4(1X,1Y) - Fit Quality: Upper $R^2=1.000$, Lower $R^2=0.816$ (GOOD)

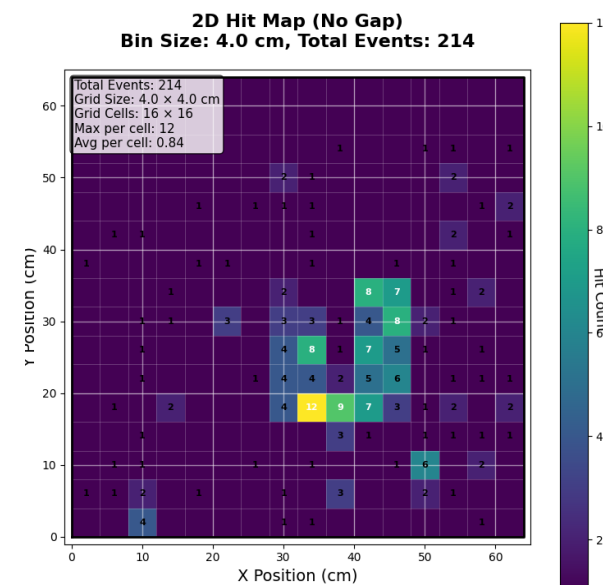
散射成像结果——铅块成像



成像5小时
探测到宇宙线事件: 30030



成像10小时
有效折射事件: 415

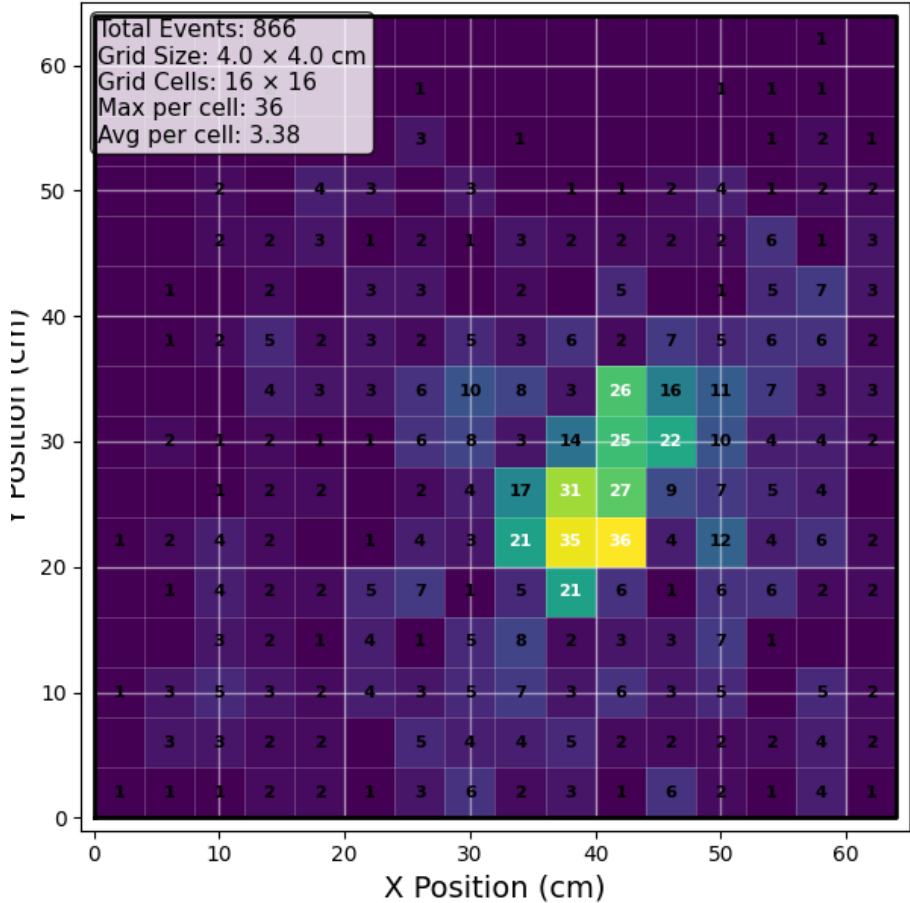


成像6小时
比值: 0.014



限制折射夹角 > 10°

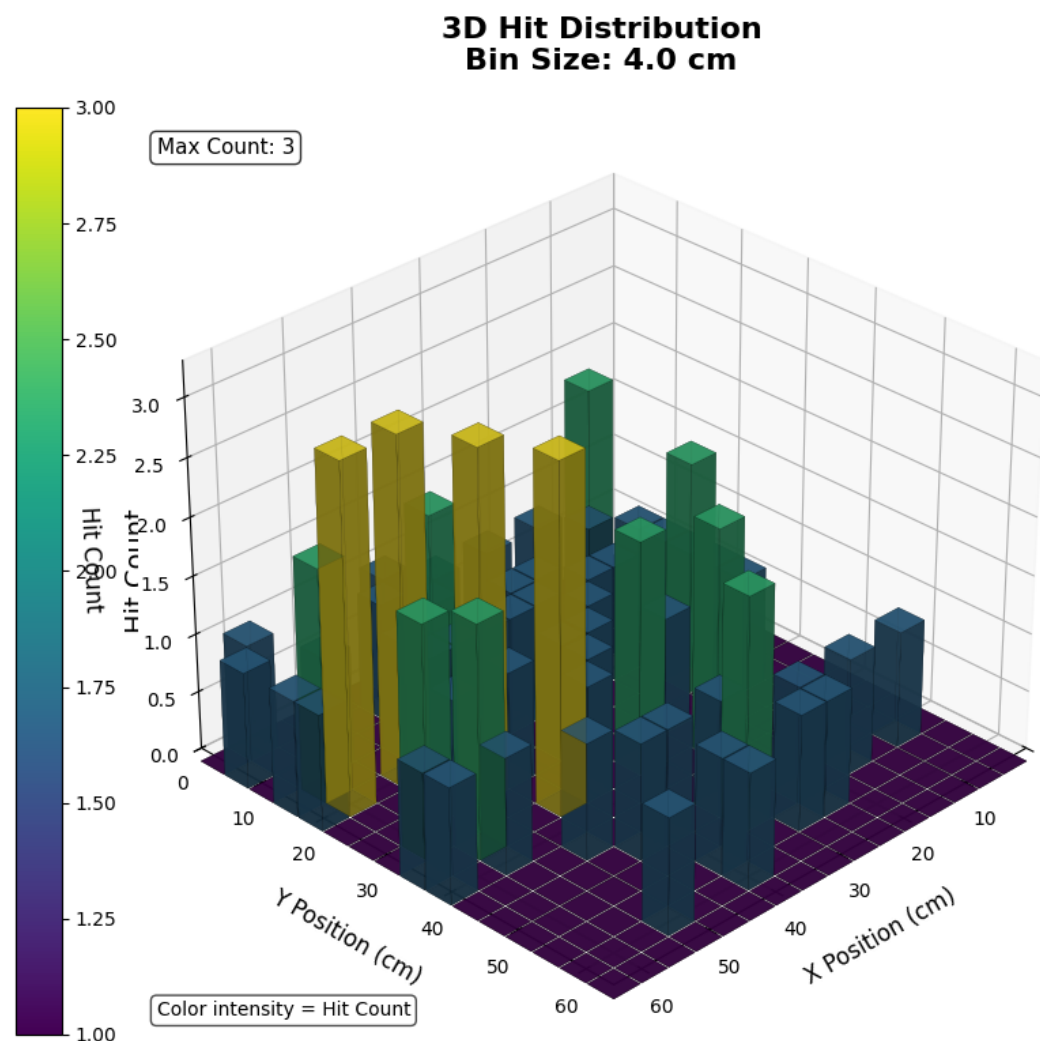
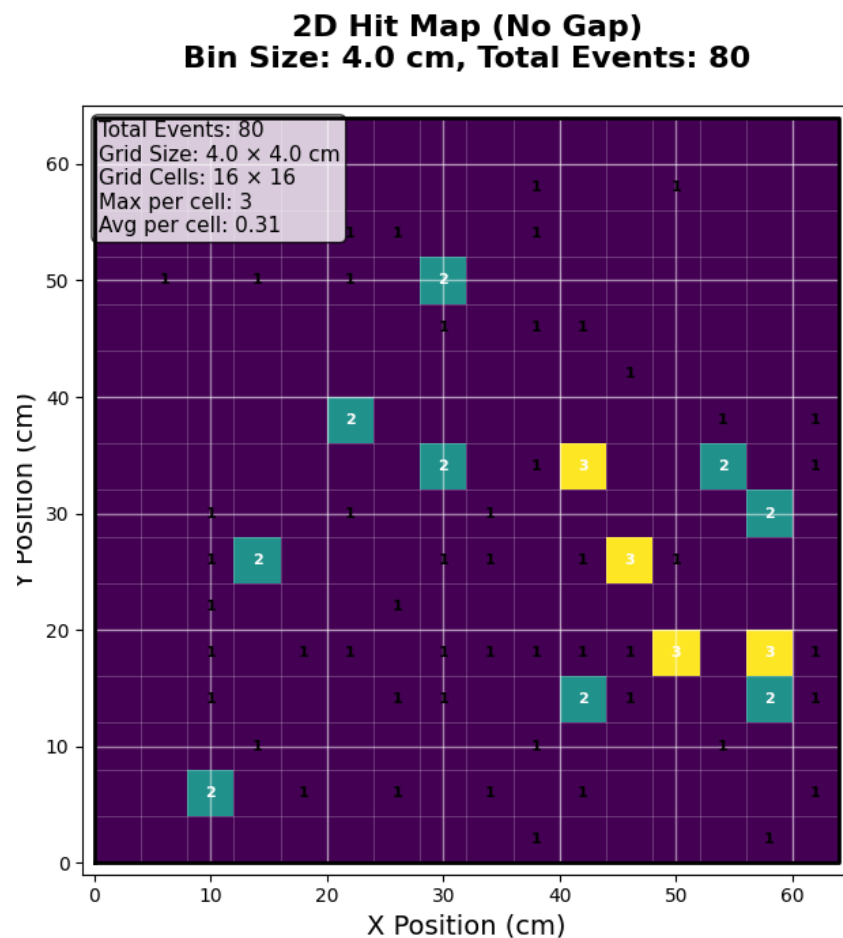
2D Hit Map (No Gap)
Bin Size: 4.0 cm, Total Events: 866



探测到宇宙线事件: 120193

有效折射事件: 866

比值: 0.007



探测到宇宙线事件: 18193

有效折射事件: 80

比值: 0.004