



中国科学技术大学
University of Science and Technology of China

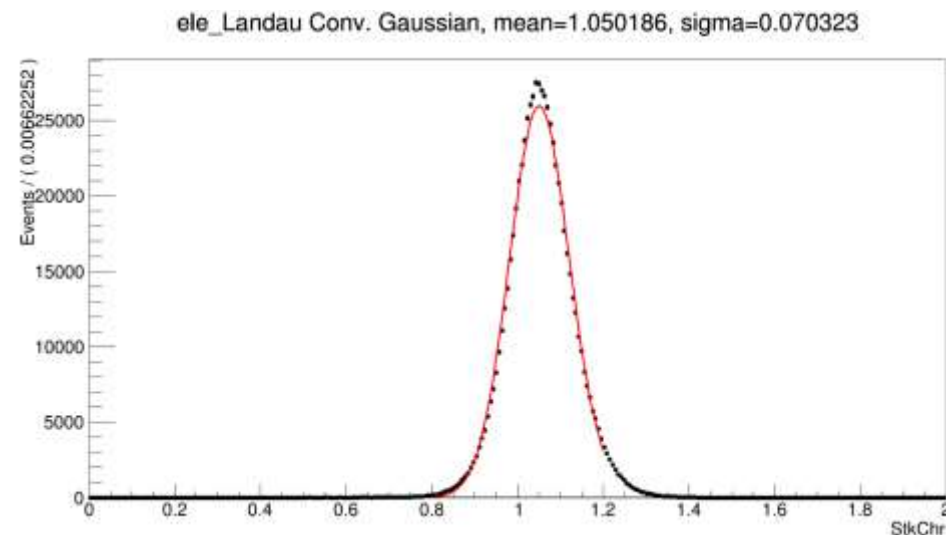
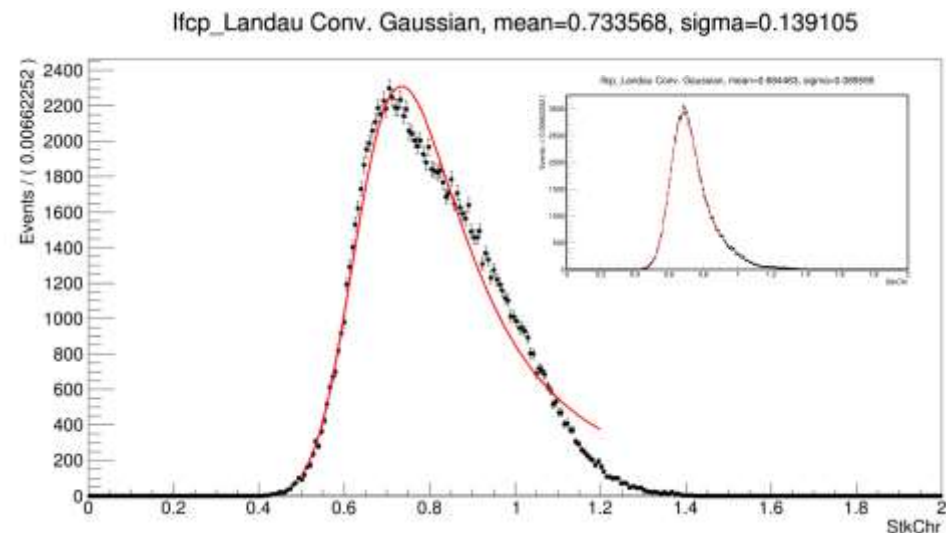
LightFCP

Rong Yi

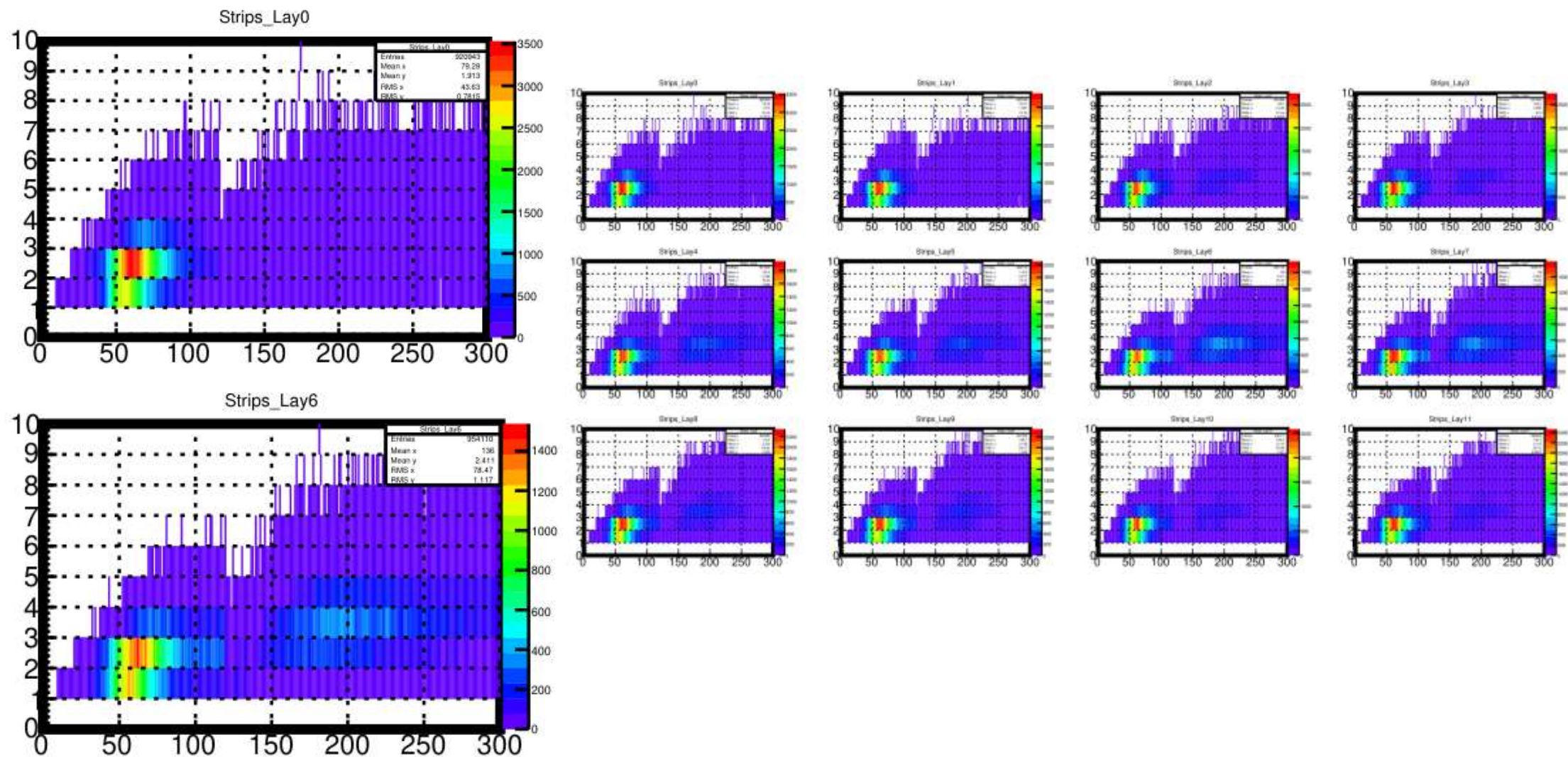
2024/12/9

STK charge. (4 -> 12)

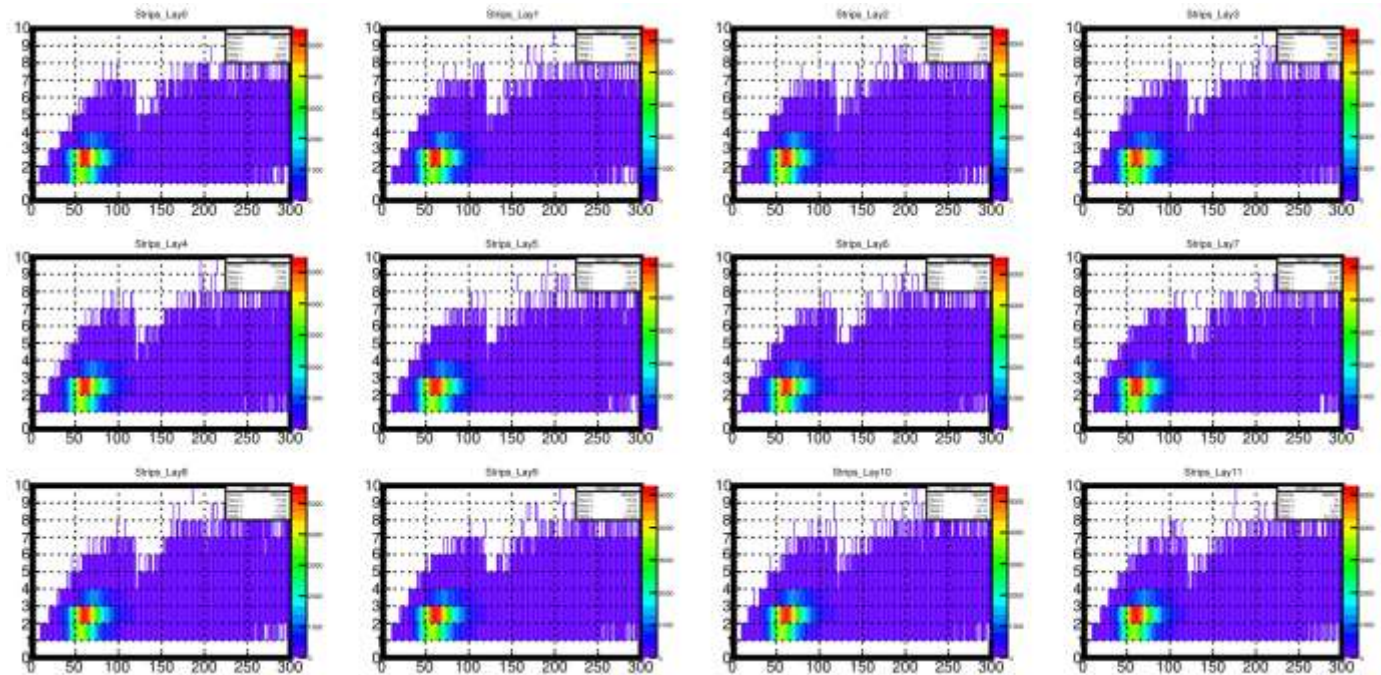
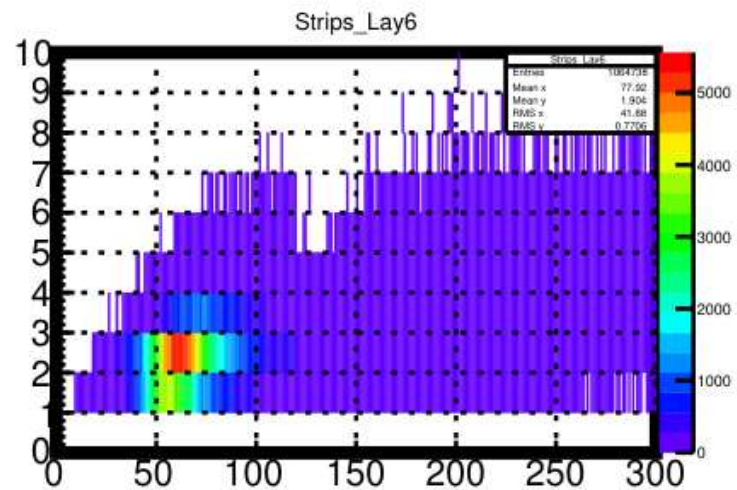
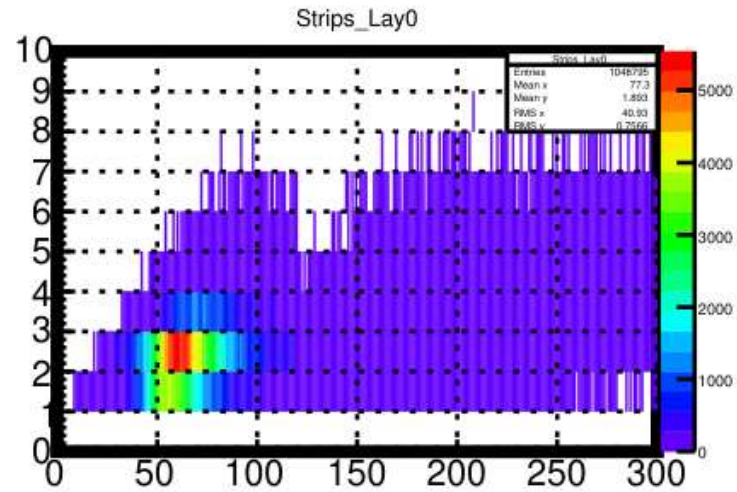
- $STK\ Charge = \frac{\sum_{i=1}^{12} layercharge(i)}{12}$
- 激活多条 strips 的 cluster 不参与平均。
- 改为 12 层后, LFCP 电荷谱会出现另一个 peak, 而且分辨率有所下降。



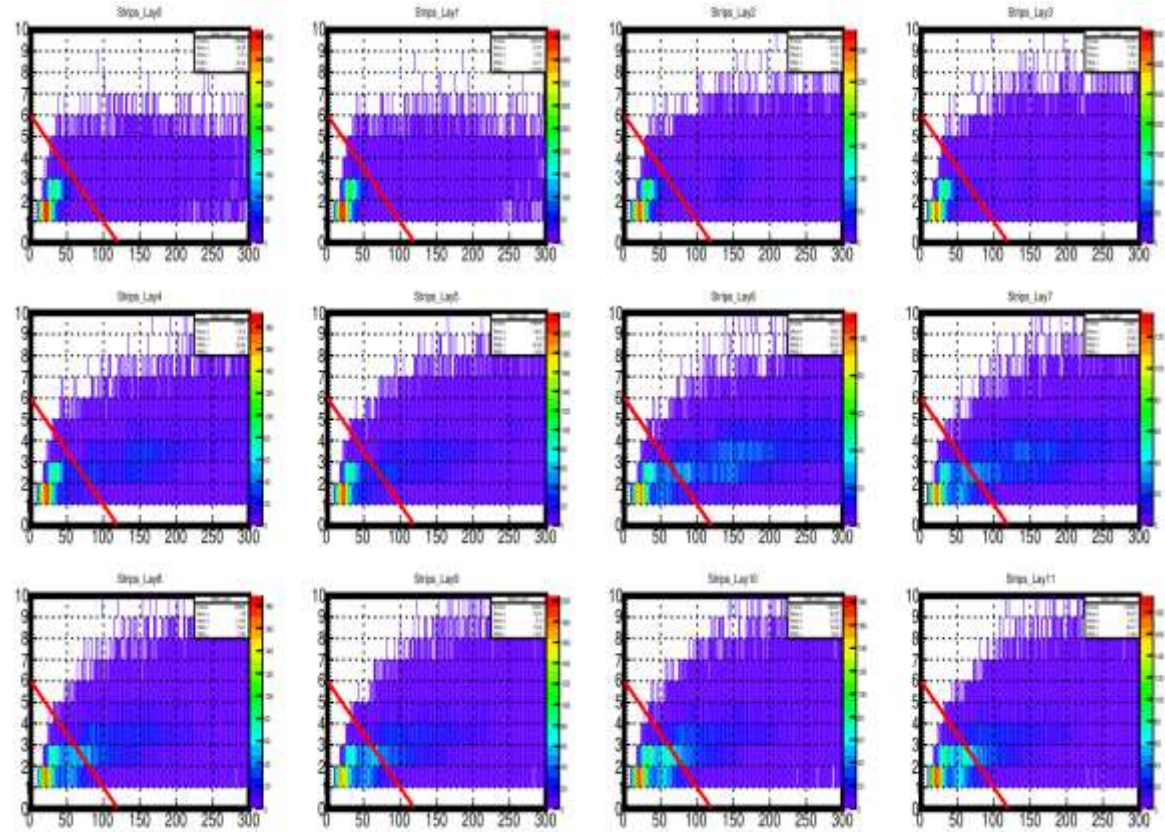
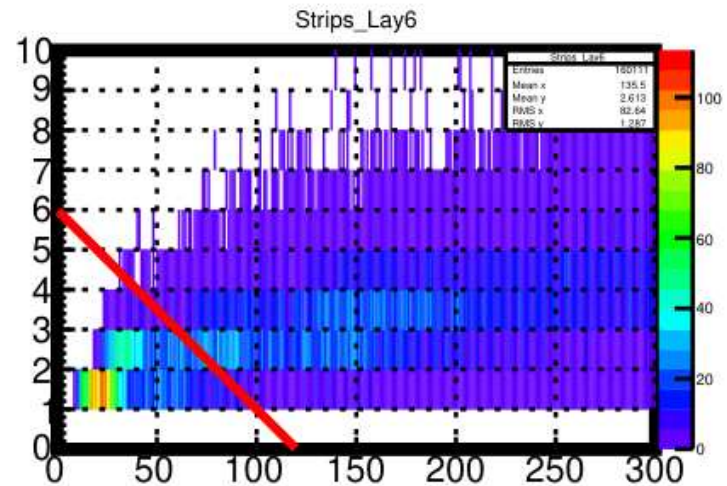
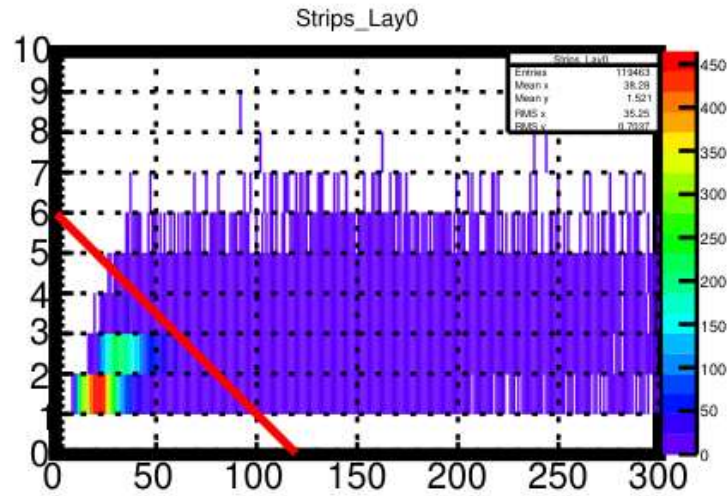
Strips correction (ele)



Strips correction (proton)



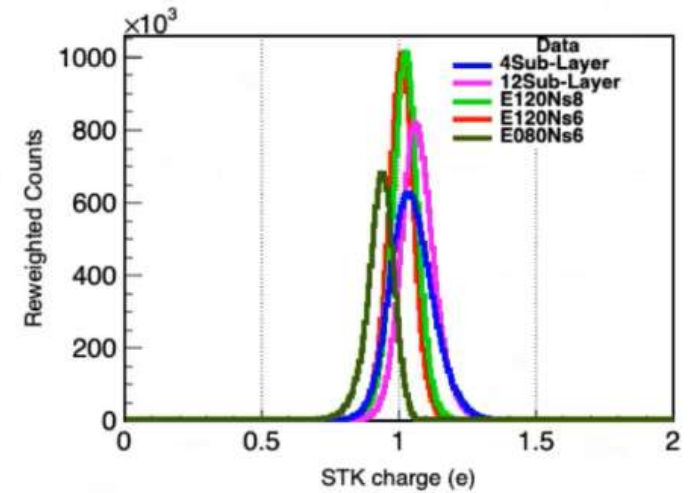
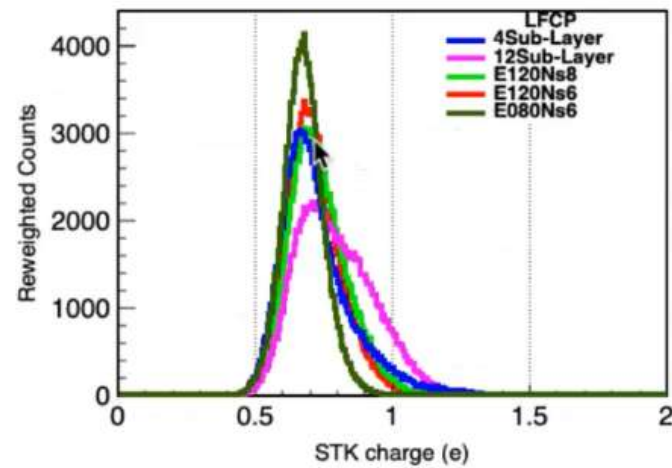
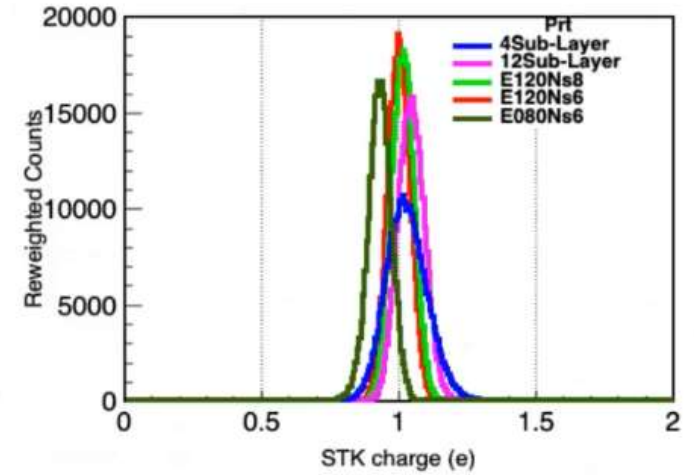
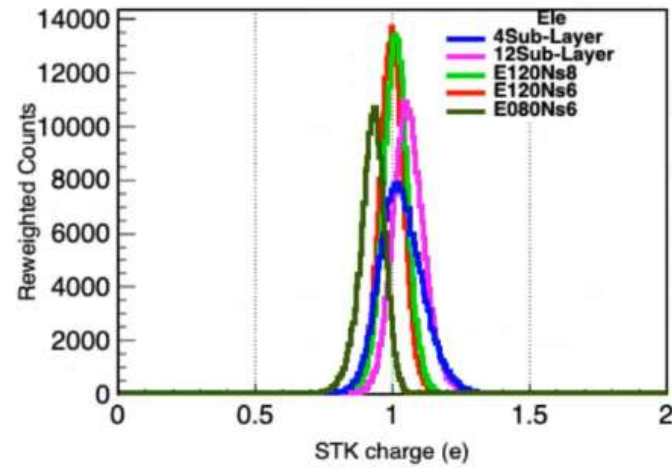
Strips correction (Ifcp)



$$-StkCorEng \times \frac{8}{120} + 8$$

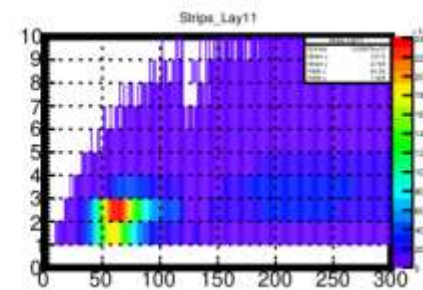
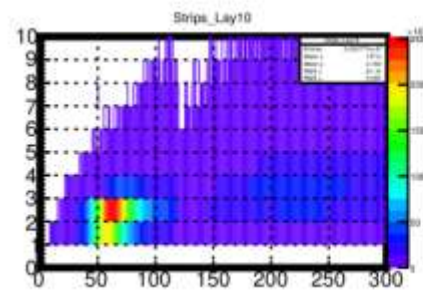
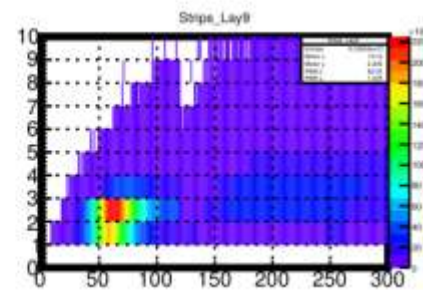
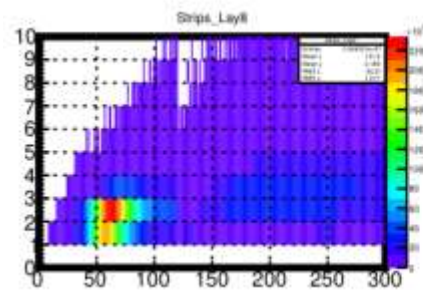
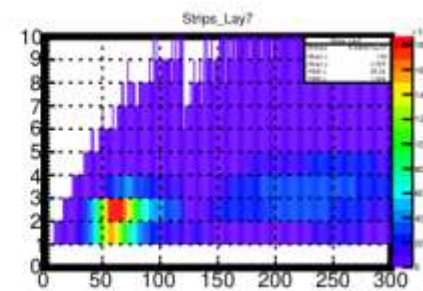
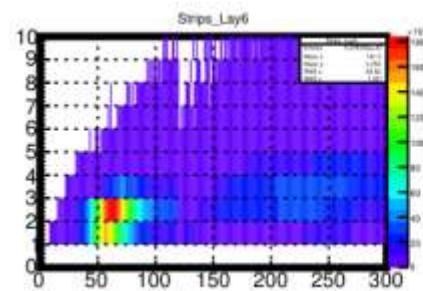
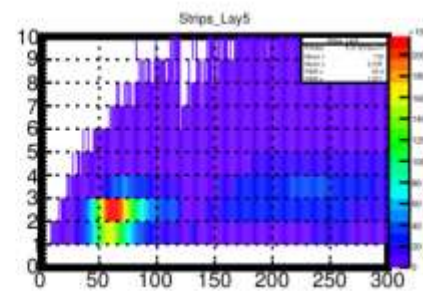
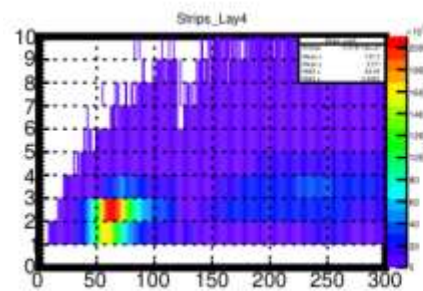
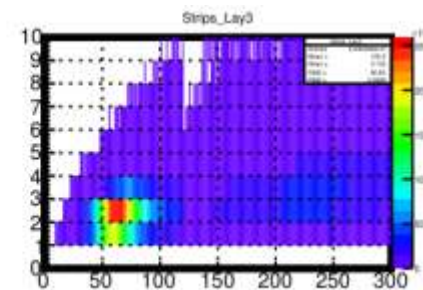
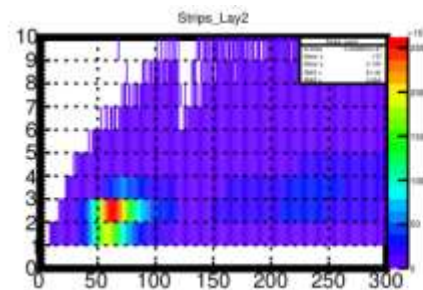
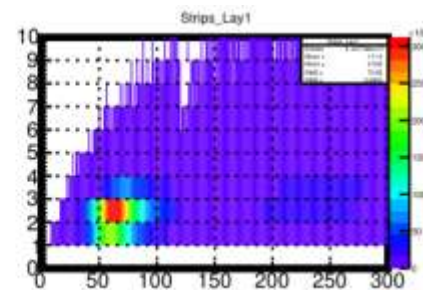
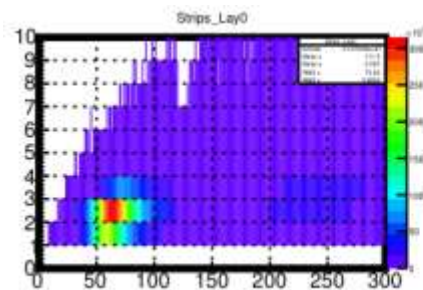
$$-StkCorEng \times \frac{6}{120} + 6$$

$$-StkCorEng \times \frac{6}{80} + 6$$



附录

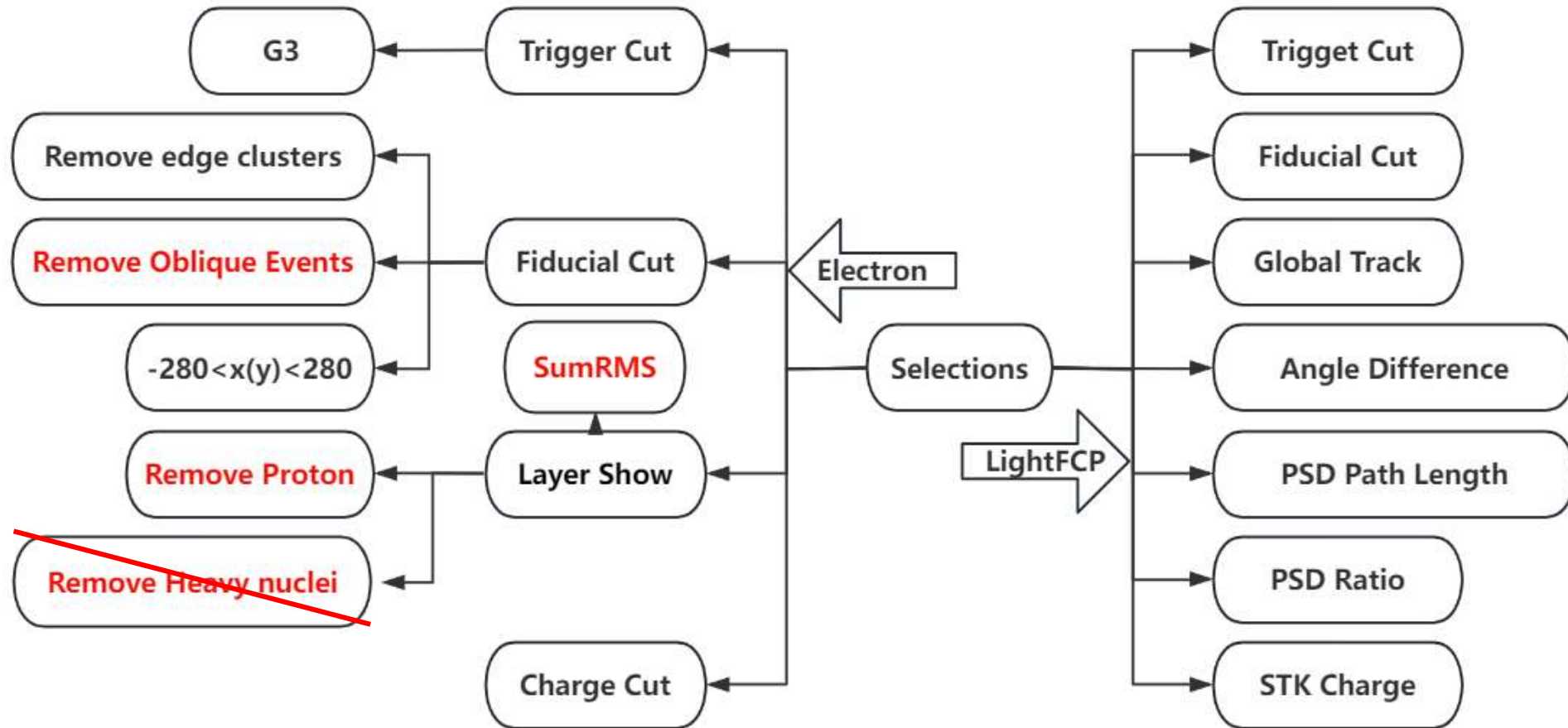
- Selections
- Construction of Dampe



Selections

- Pre-Selections
 - Trigger: G0, G3, G4.
 - Fiducial.
 - Global Track.
 - Angle difference between BGO track and STK track. ($<4^\circ$)
- PSD Cuts
 - PSD charge. ($\neq 0$)
 - PSD path length. (10mm)
 - PSD two end ratio.
- STK Cuts
 - STK energy < 120 ADC.
 - Remove ladder's edge cluster.
 - More than 2 layers remain.

Selections



Unit: mm

