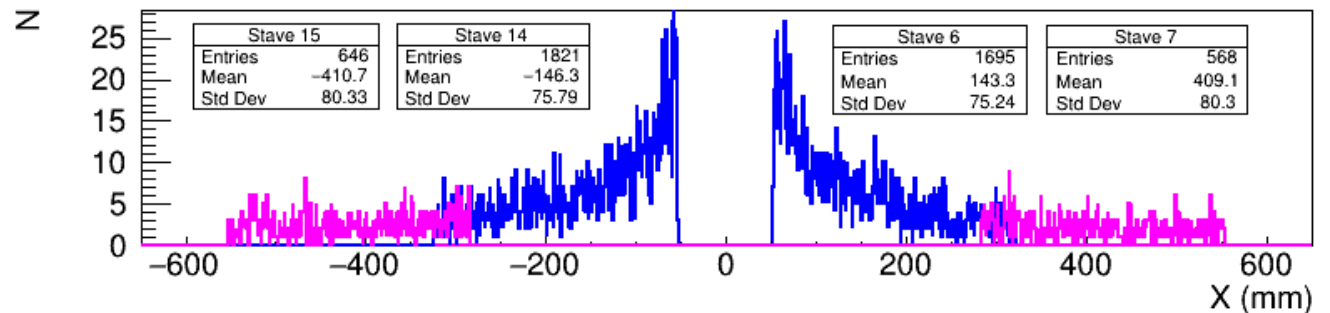
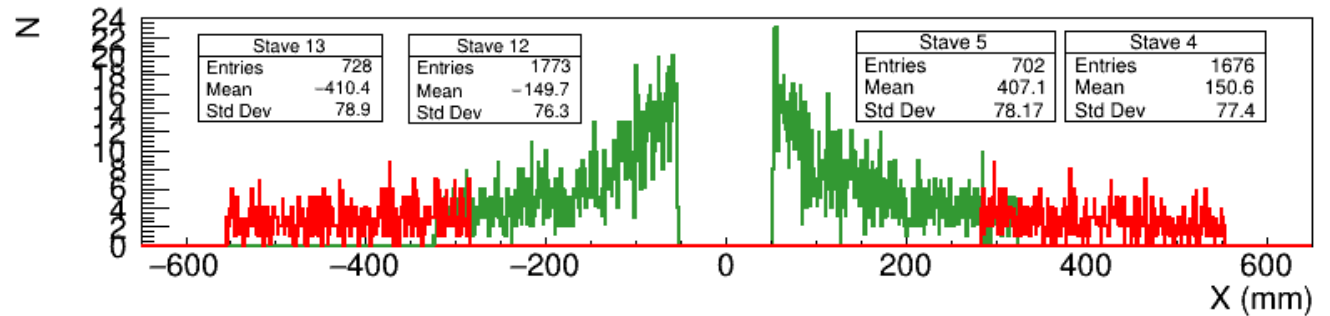
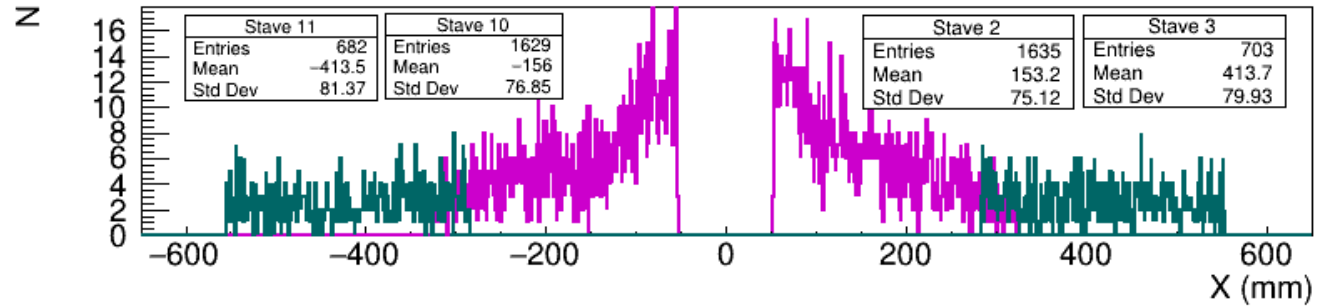
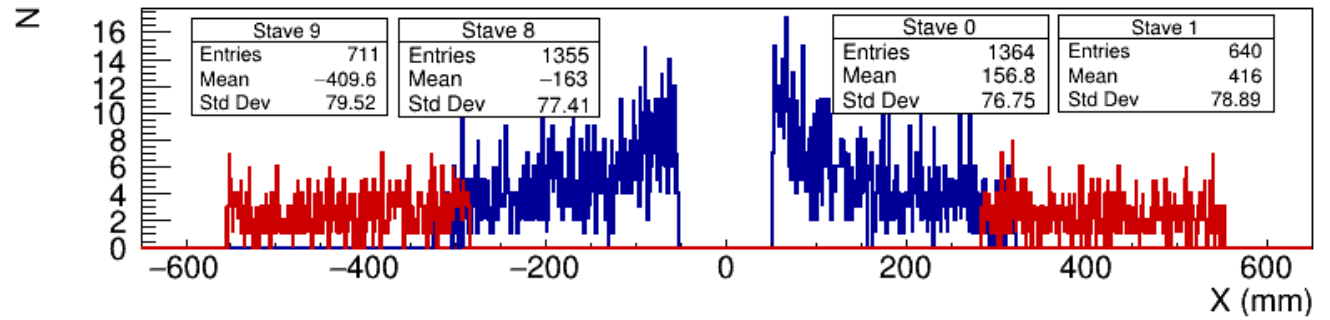


Update on Background Simulation

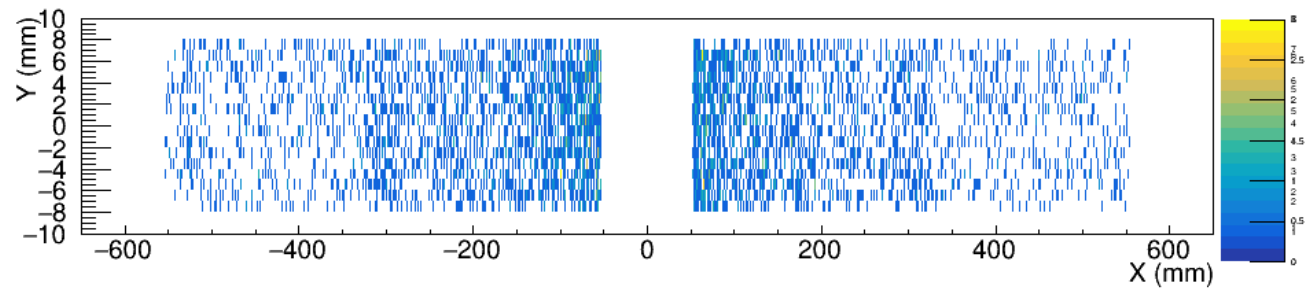
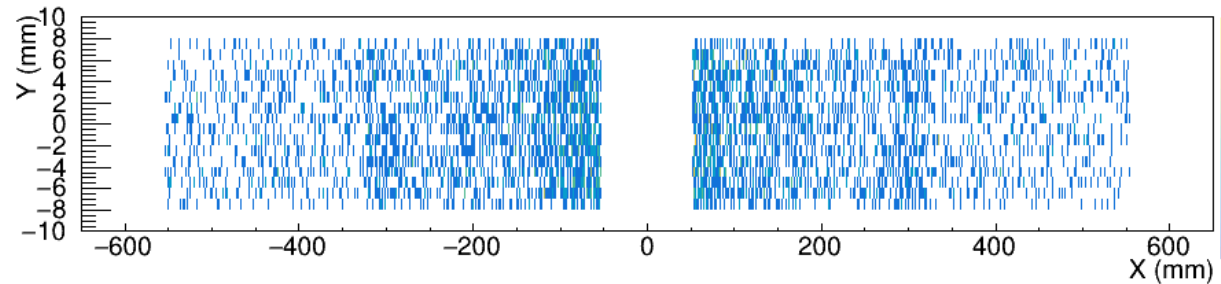
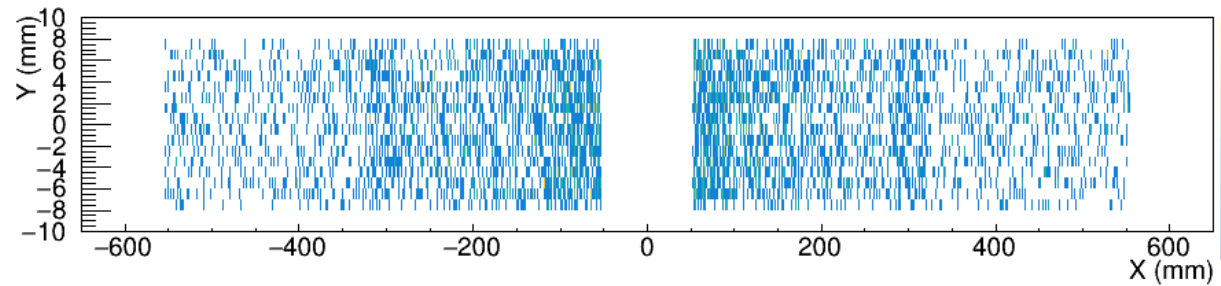
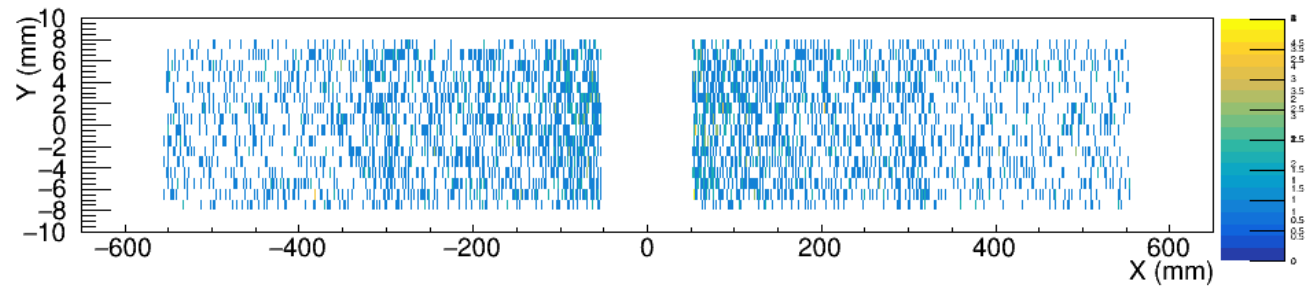
Oleksandr Borysov

LUXE Meeting
September 1, 2020

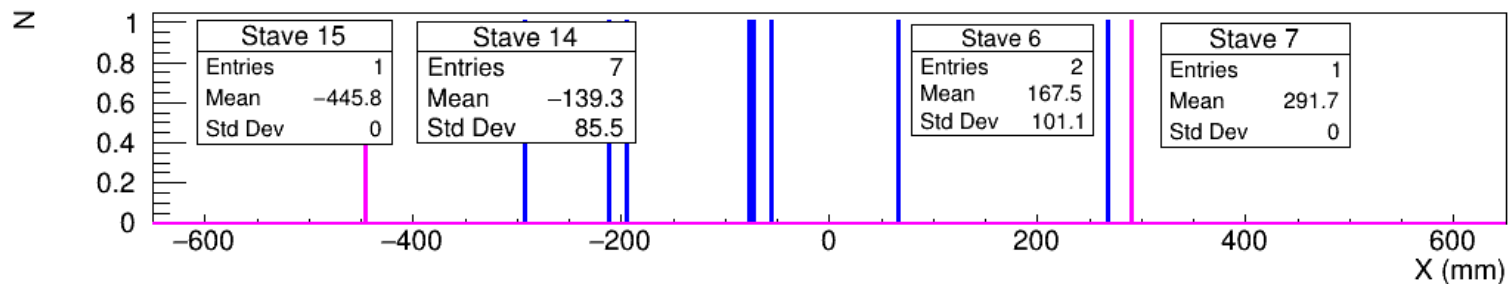
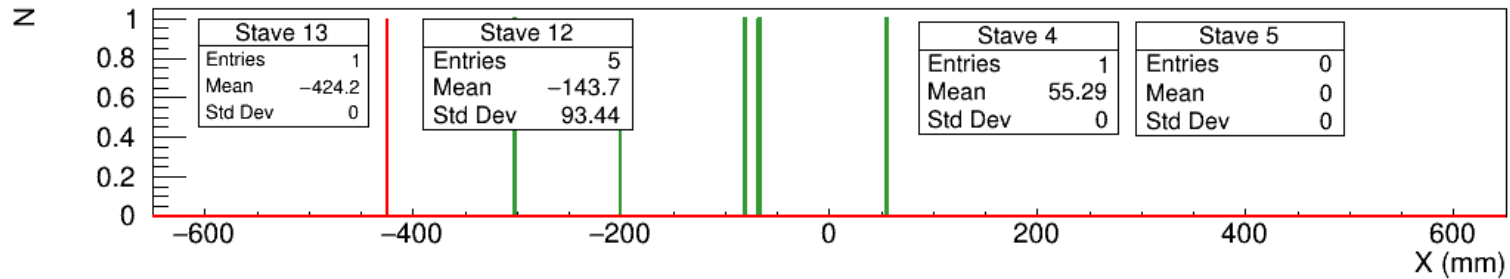
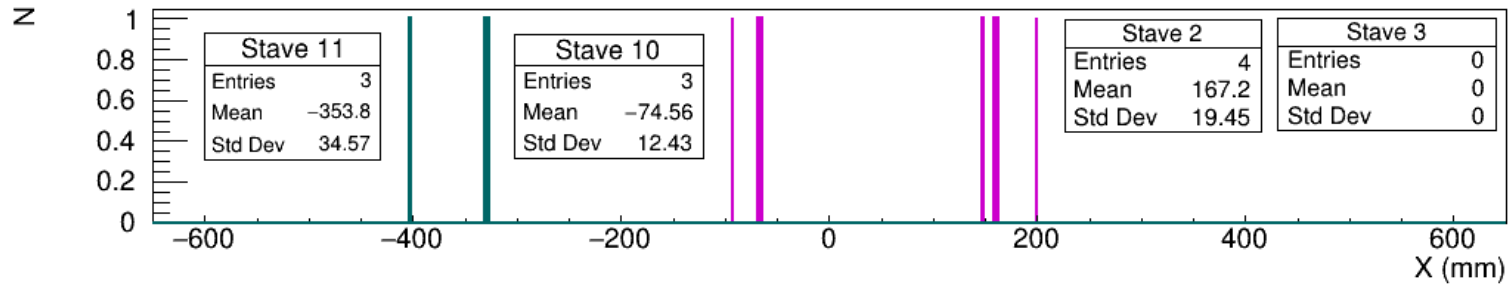
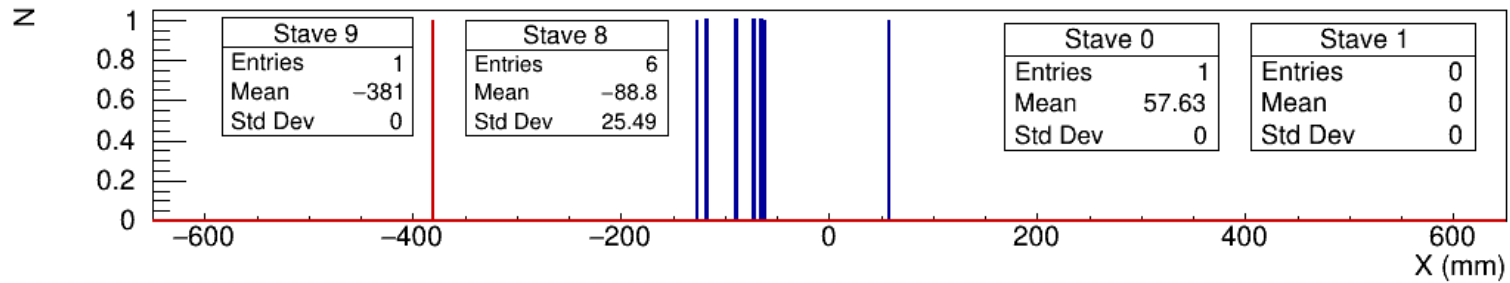
Electrons in tracking planes



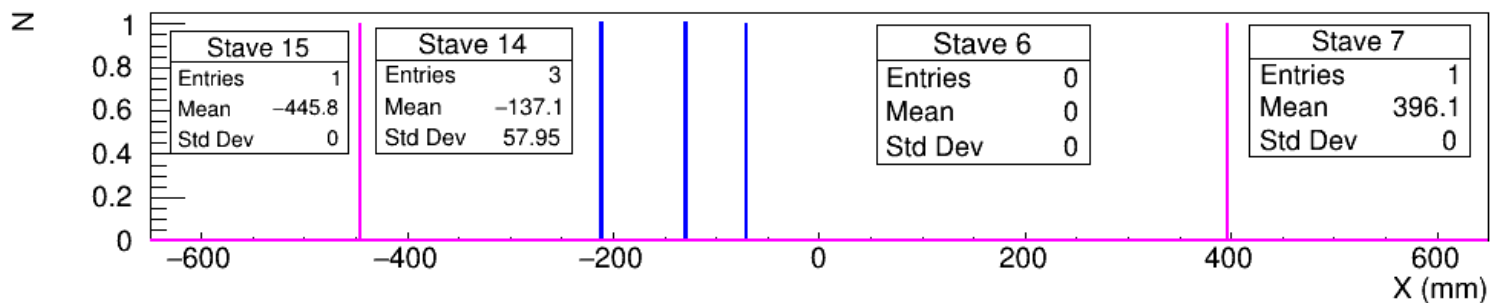
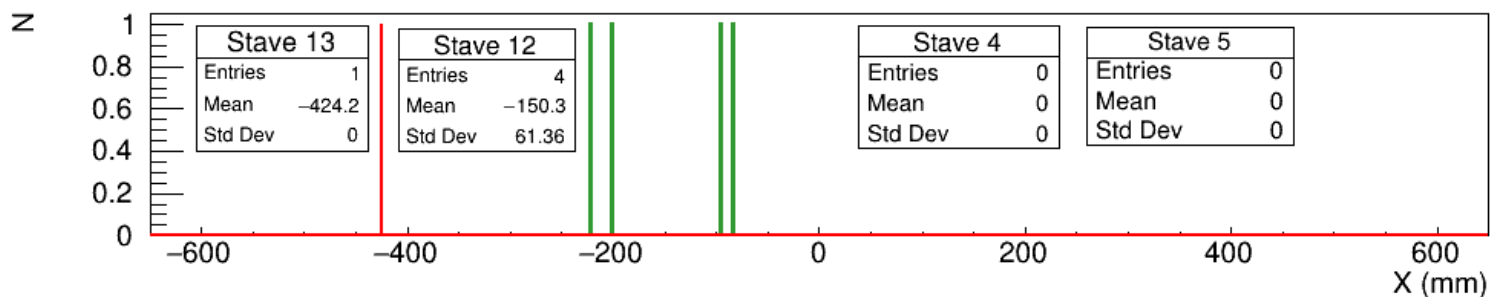
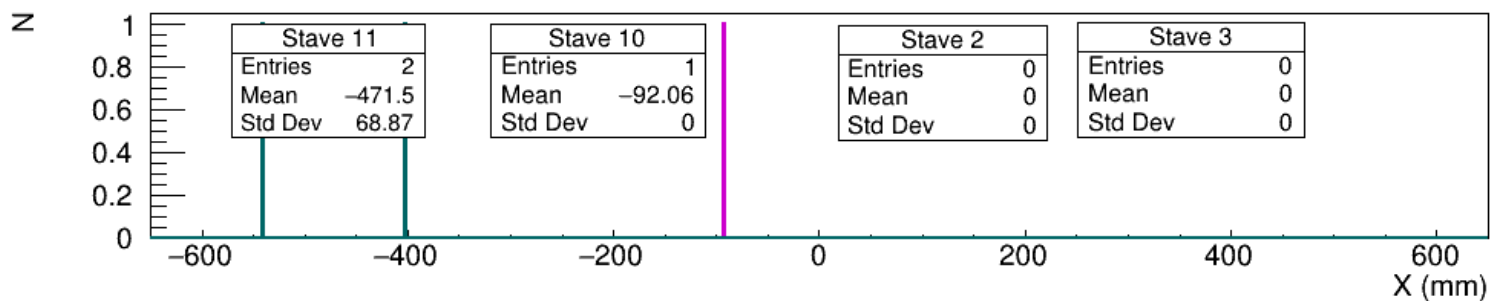
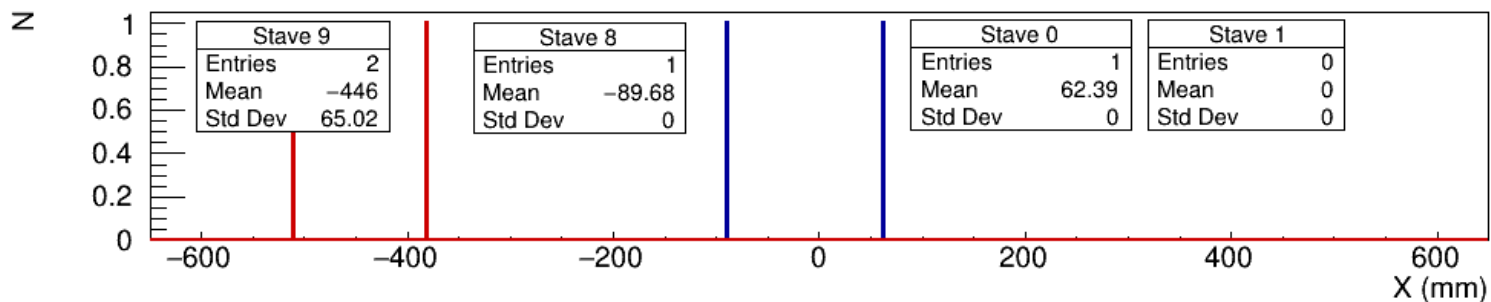
Tracking planes, all particles



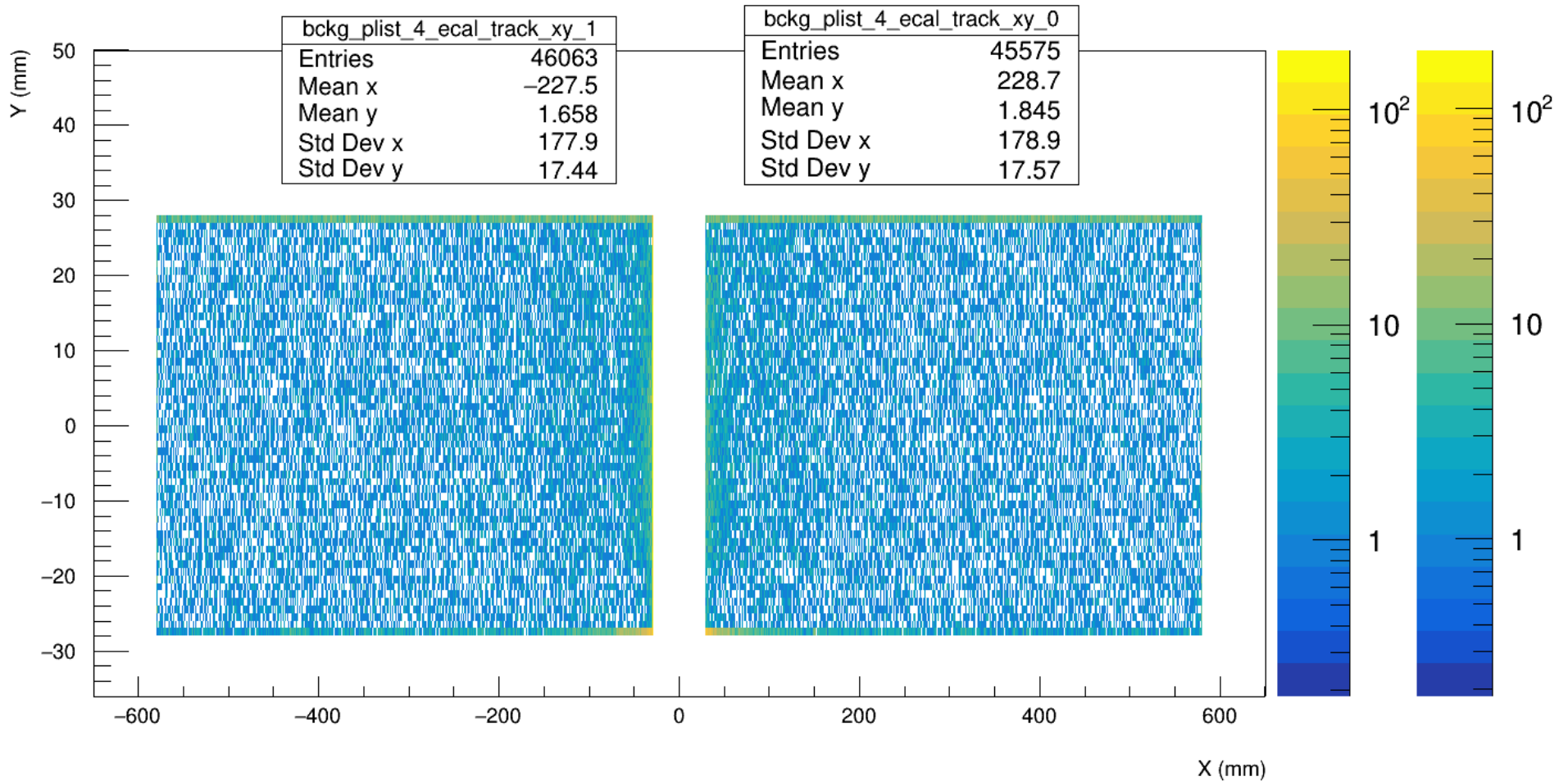
Electrons with momentum pointing to the magnet aperture



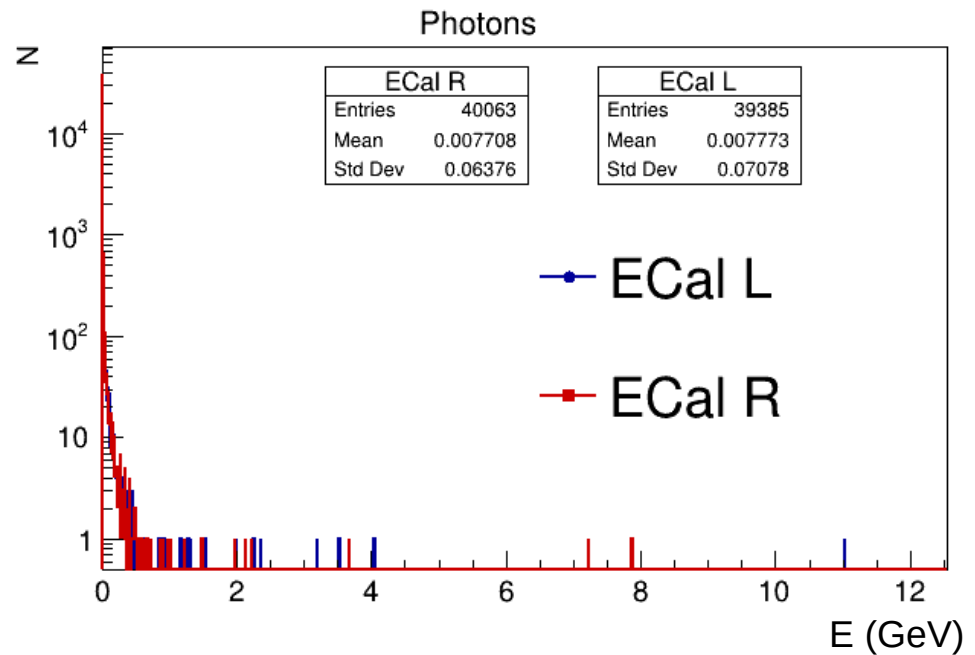
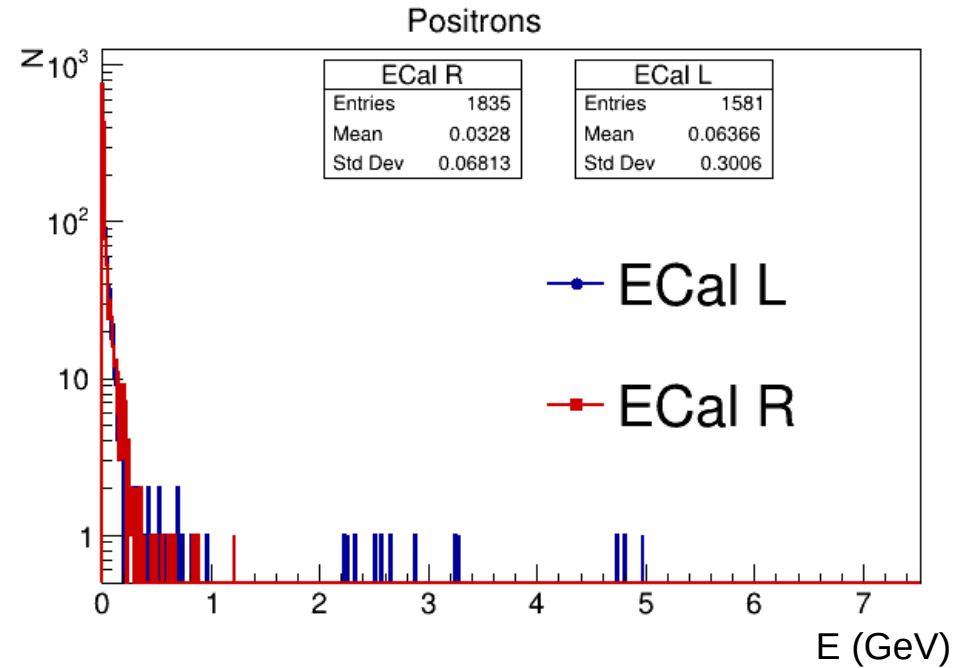
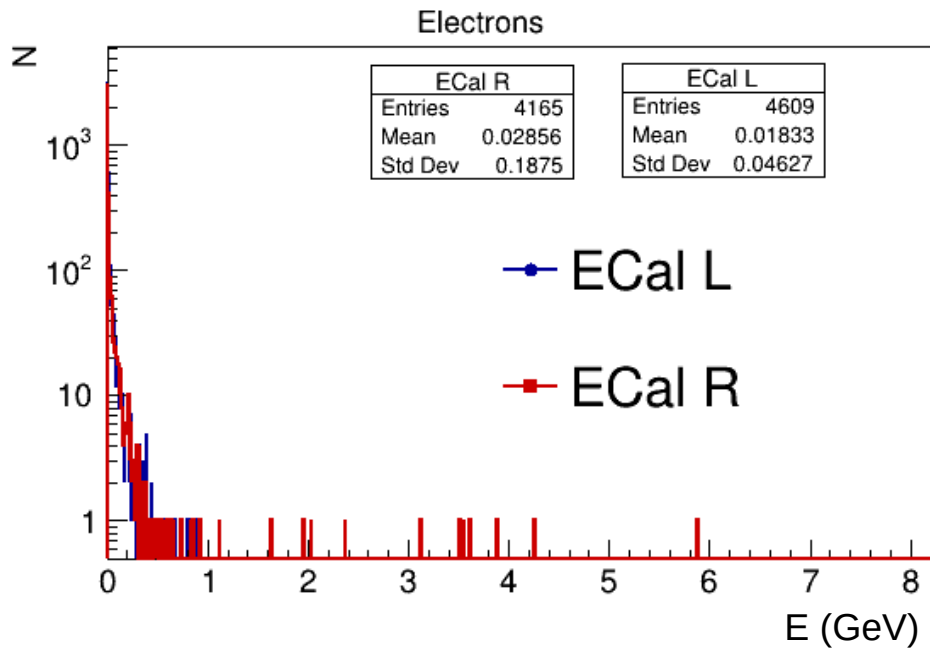
Electrons with the vertex position “inside” the magnet



Calorimeter, all particles

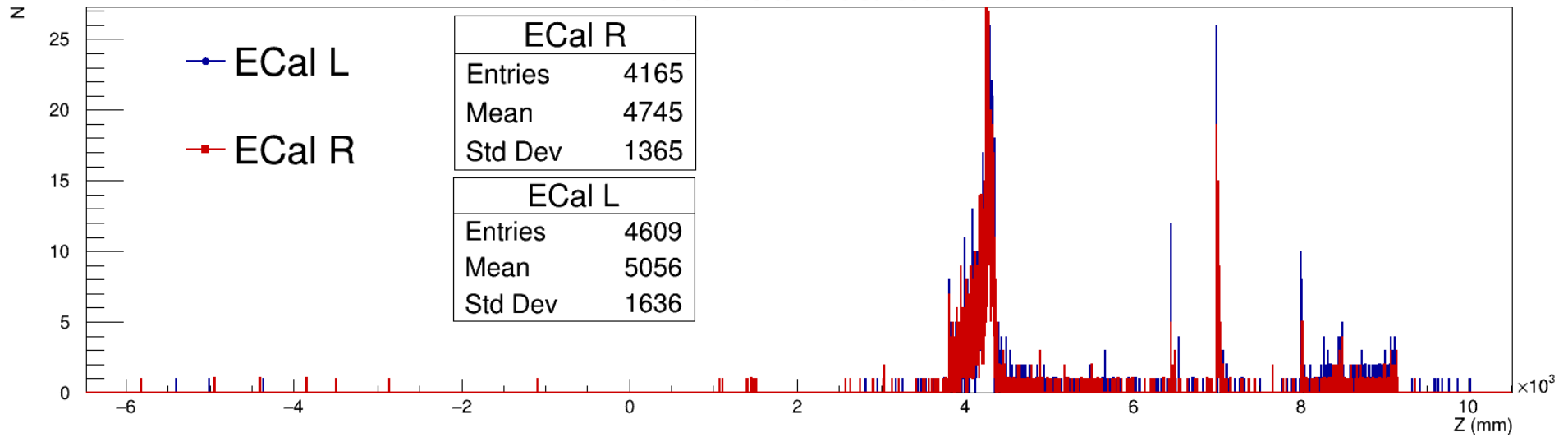


Spectra of particles crossing calorimeters volumes



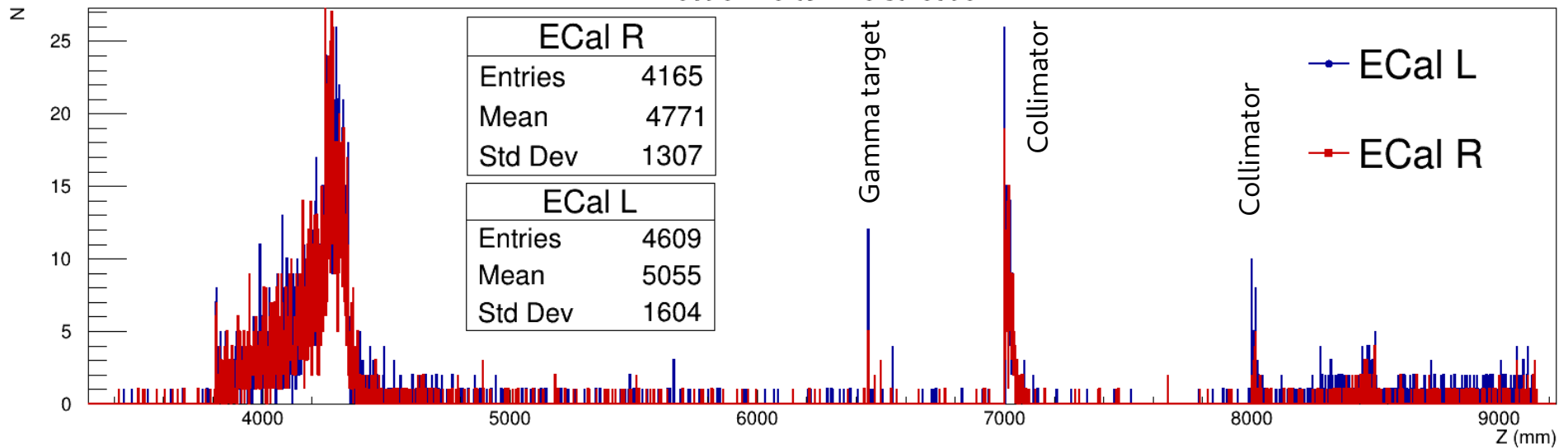
Vertex distribution of electrons hitting calorimeter

Electron vertex Z distribution

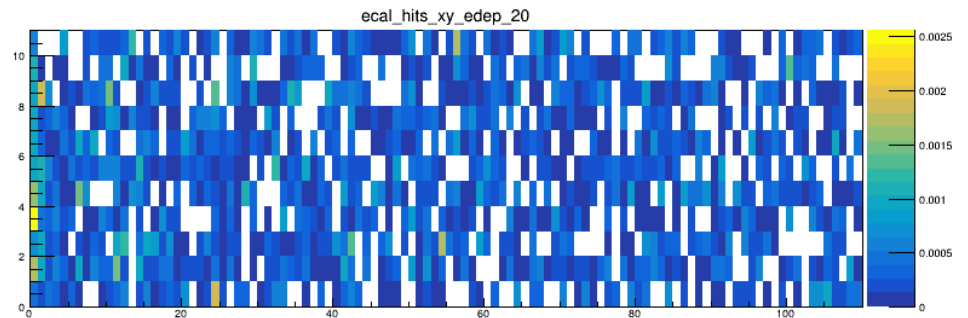
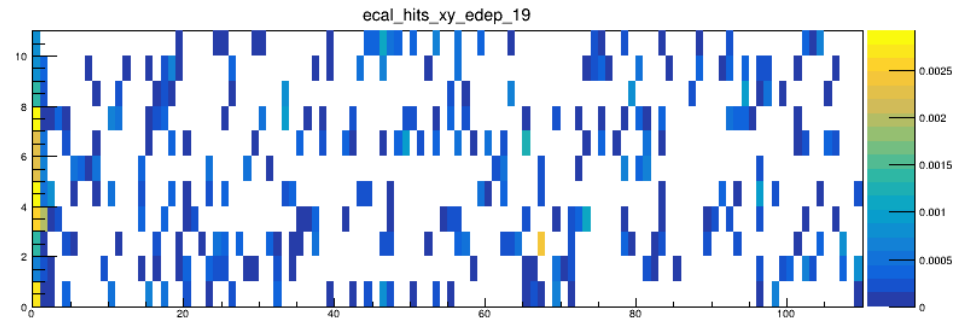
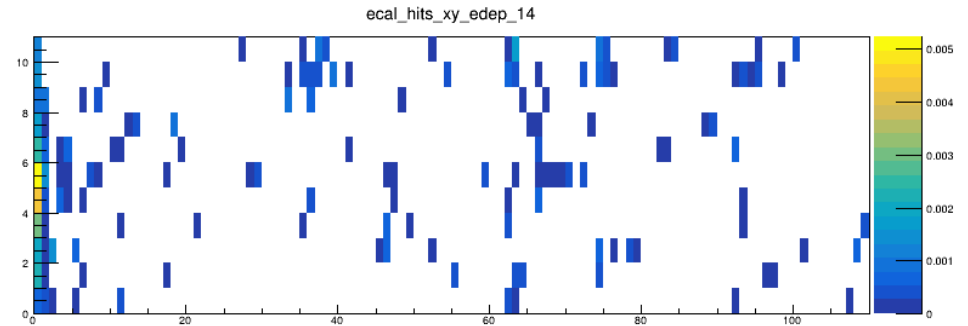
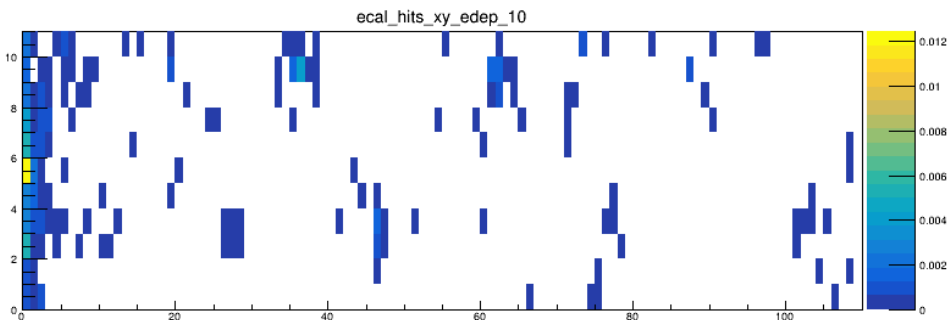
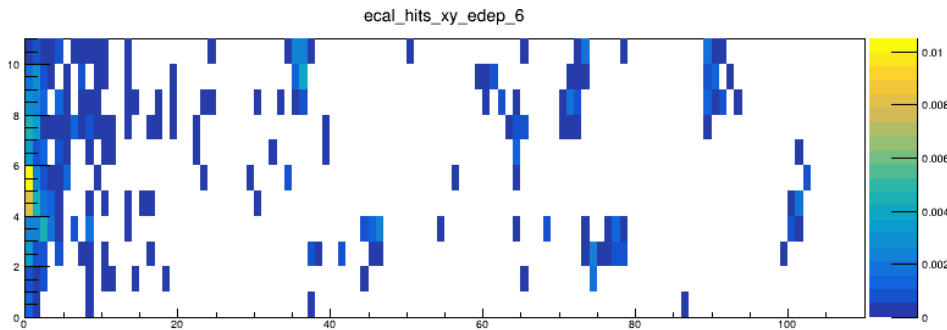
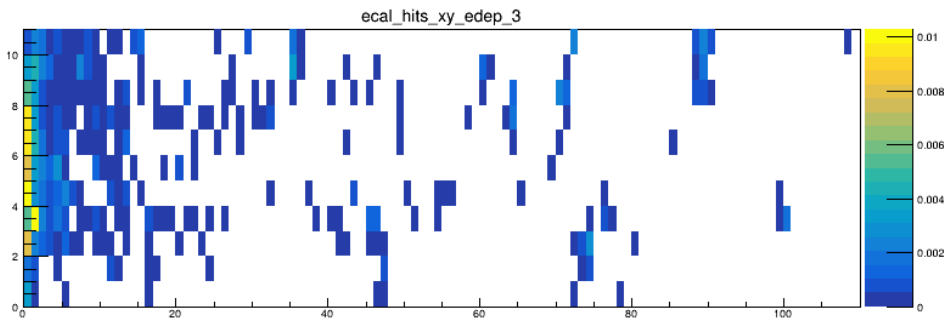
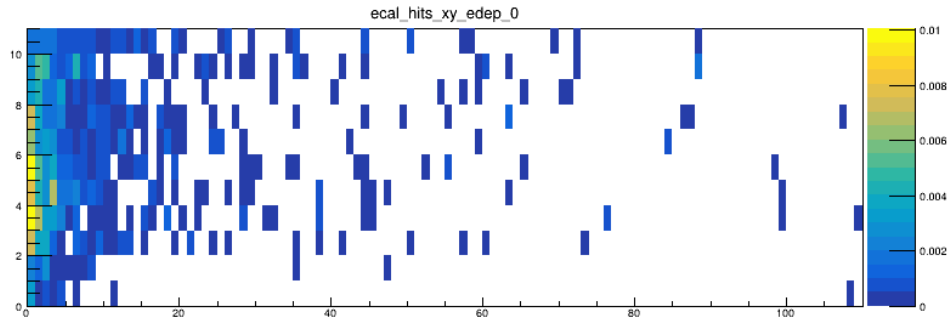


Calorimeter
4.25 – 4.35 (m)

Electron vertex Z distribution



Energy deposit in calorimeter layers



Summary

- About 3 BX are available for background analysis.
- Tracking planes could perform reasonably well.
- Calorimeter might need some shielding to reduce tracks entering its volume from backside, top (and bottom).