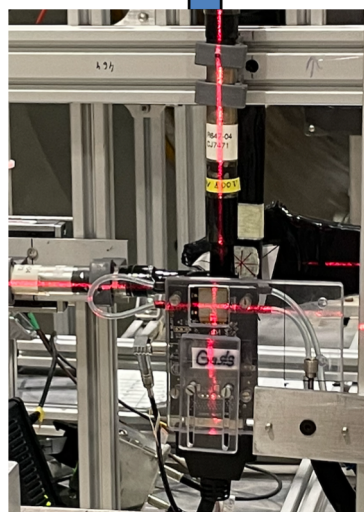
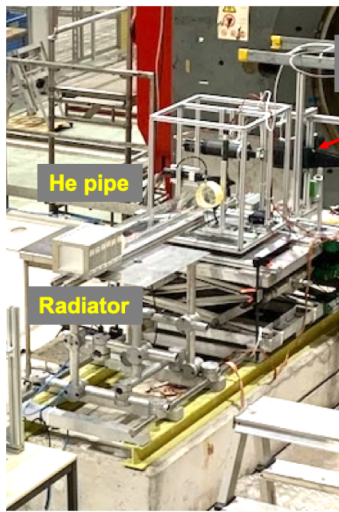
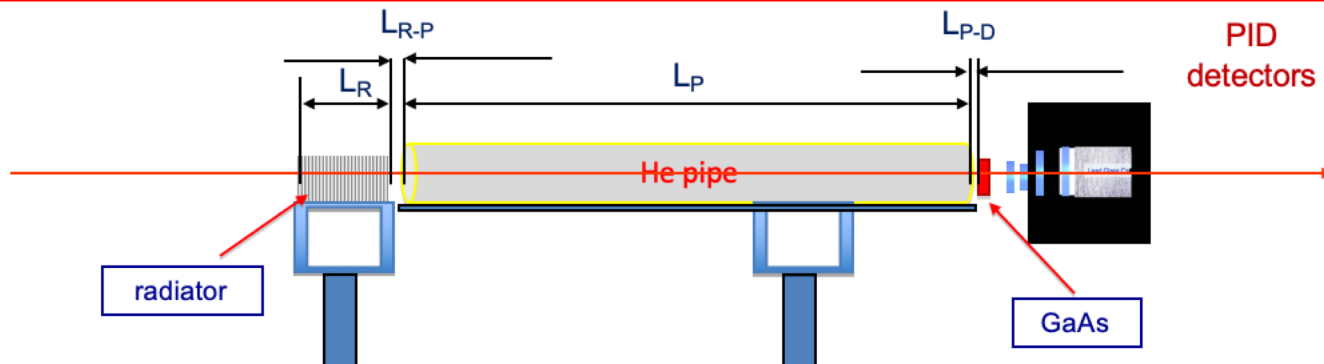


TRT Test beam on the H8 beam line

July 24th - August 1st

Goal:

Study of a particle identification and tracking properties of the pixel detector based on GaAs sensor attached to a Timepix3 chip.



PID:

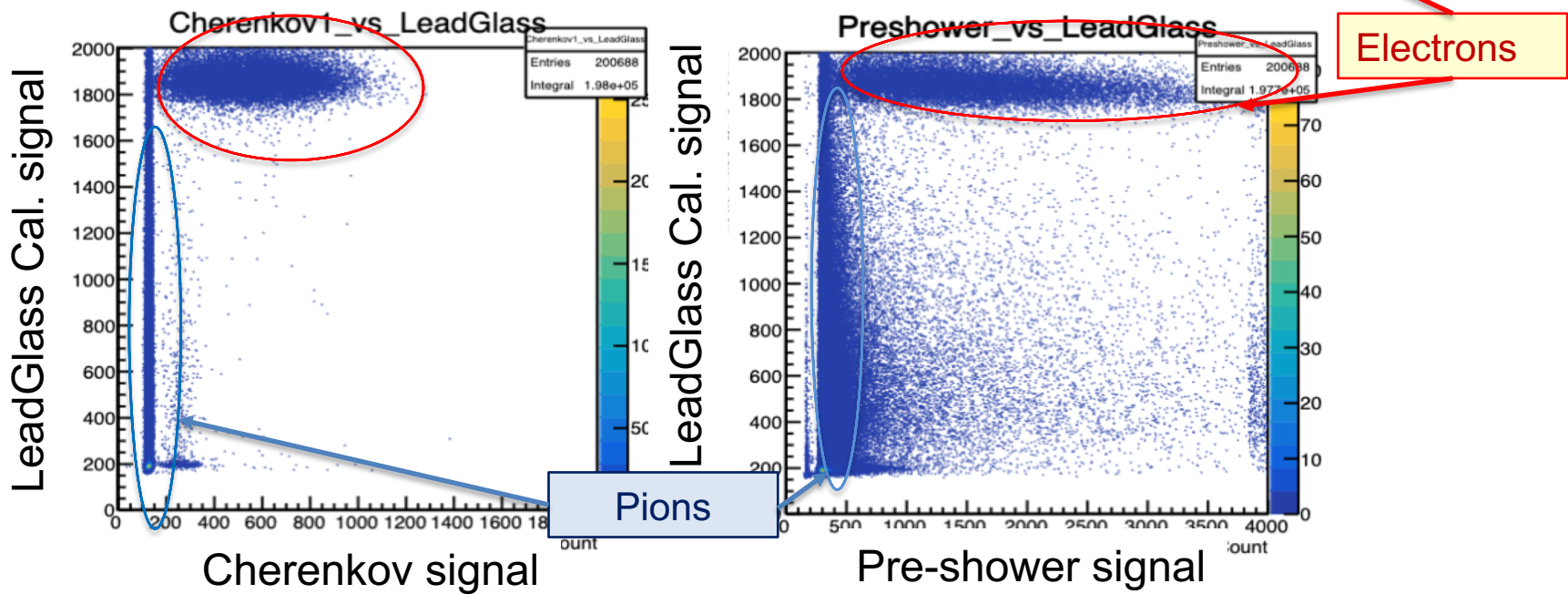
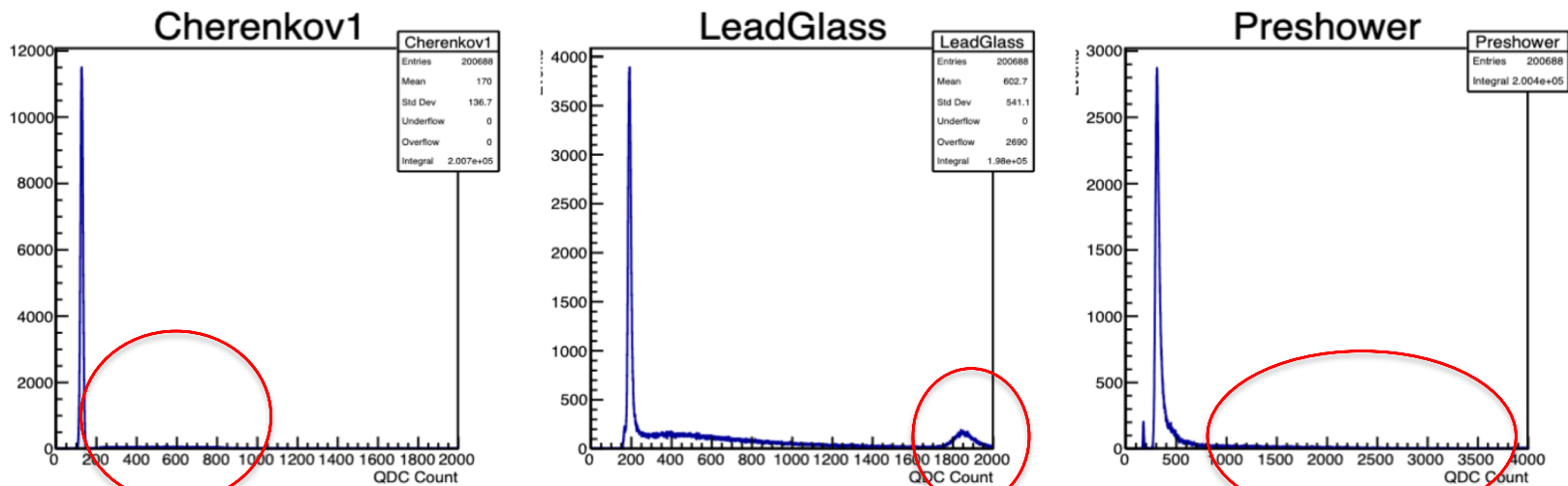
- multiplicity counter,
- pre-shower,
- LeadGlass calorimeter

+ Cherenkov counter

PID setup also was used for MPGD TRD.
TRT was running in a parasitic mode

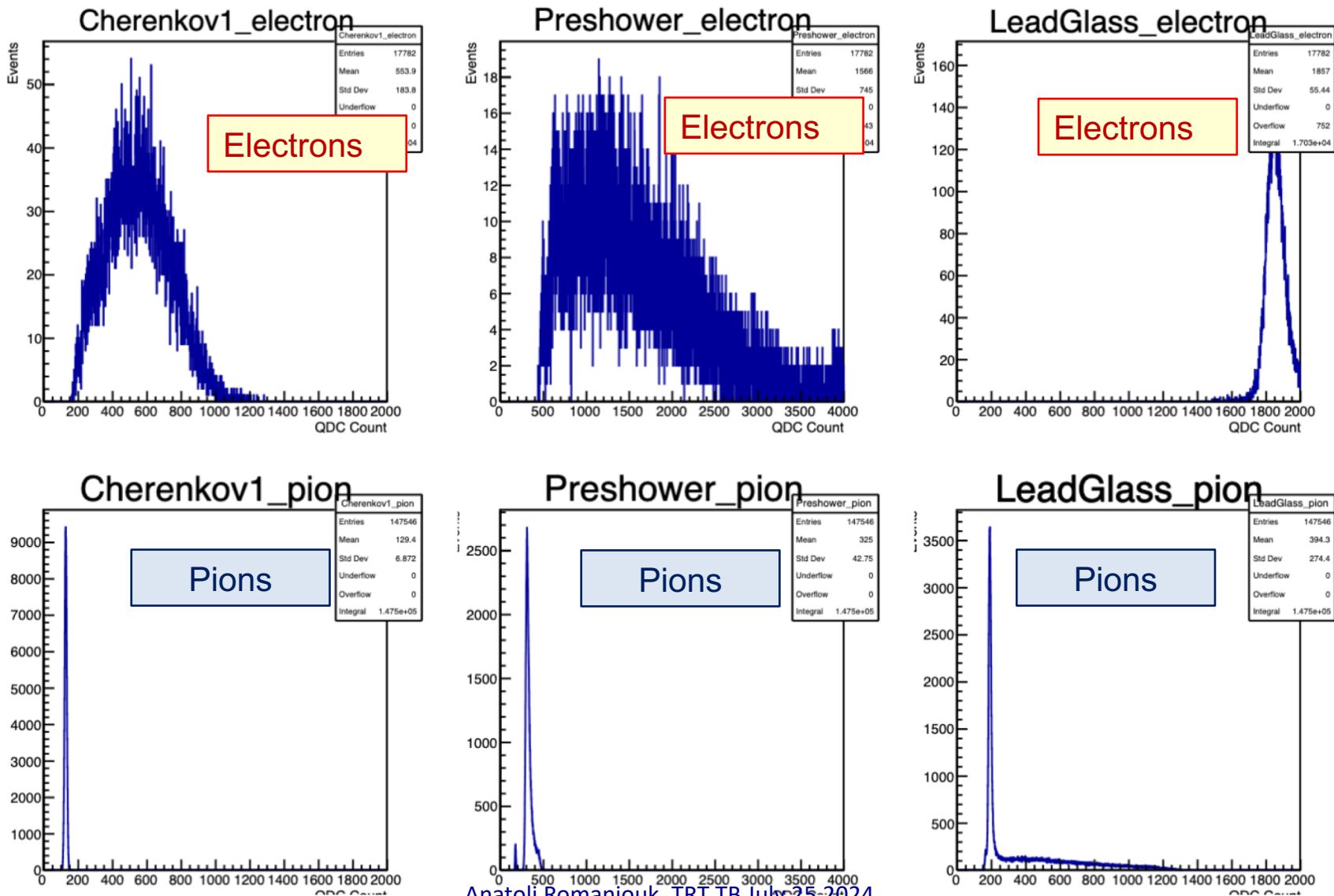
Mixed electron/pion 20 GeV beam

Very few electrons: ~400 pions and 50 electrons on 1x1 cm 2 counter per spill!

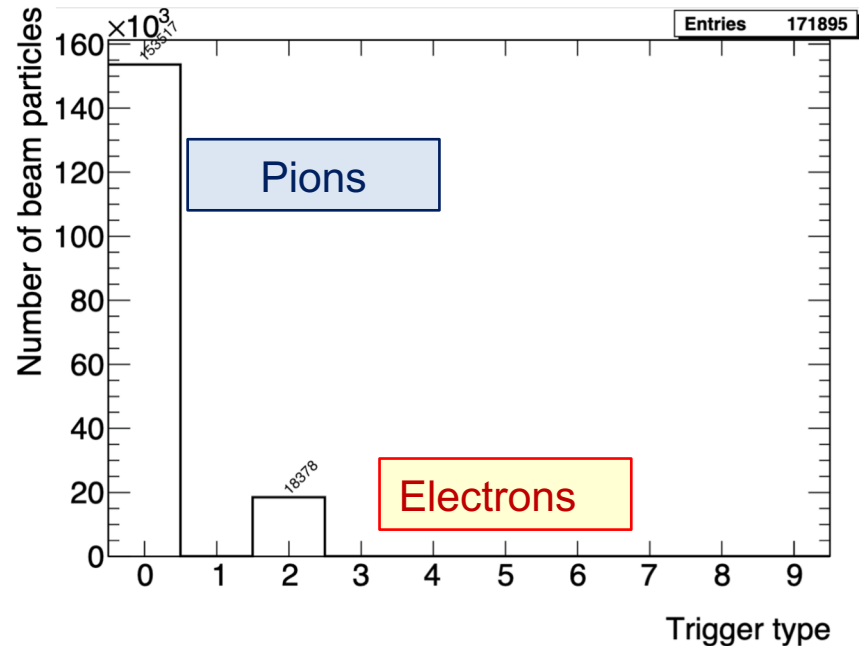
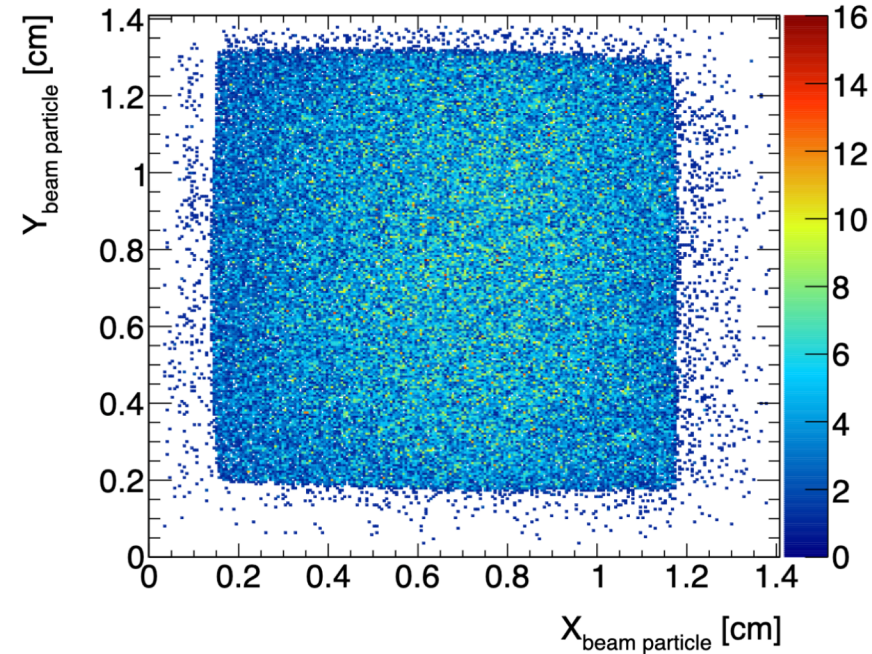


Very few electrons: ~400 pions and 50 electrons on 1x1 cm 2 counter per spill!

After HW PID trigger selection



Some preliminary results



Beam well focused and aligned.

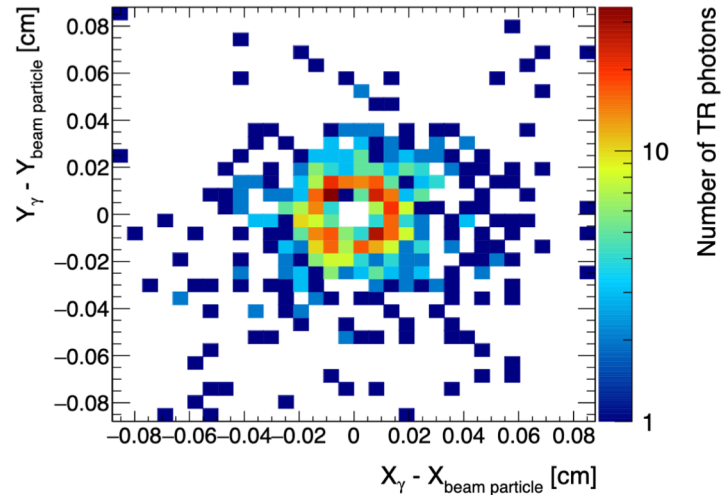
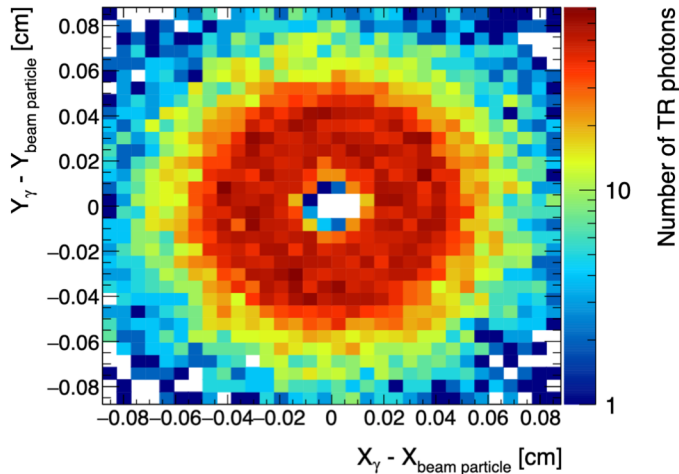
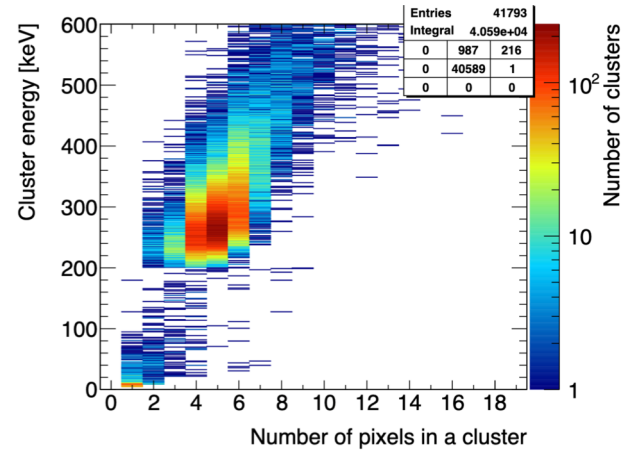
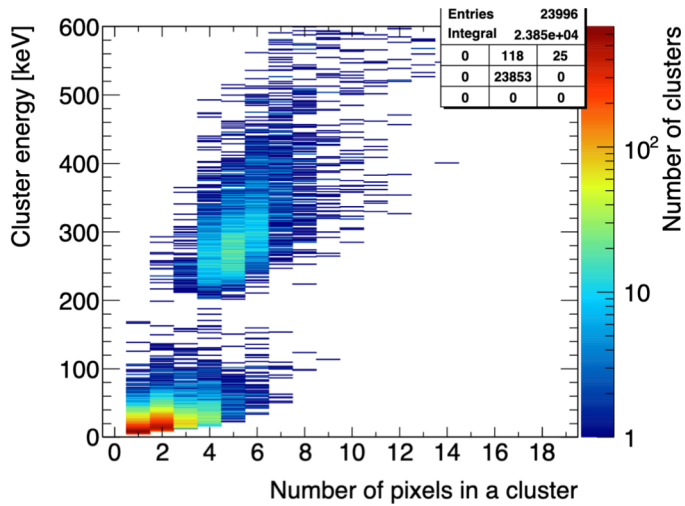
- 200 k preliminary triggers
After particle sort selection:
- 150 k pions
- 18 k electrons

A bit (factor of 2) less electrons than desired!

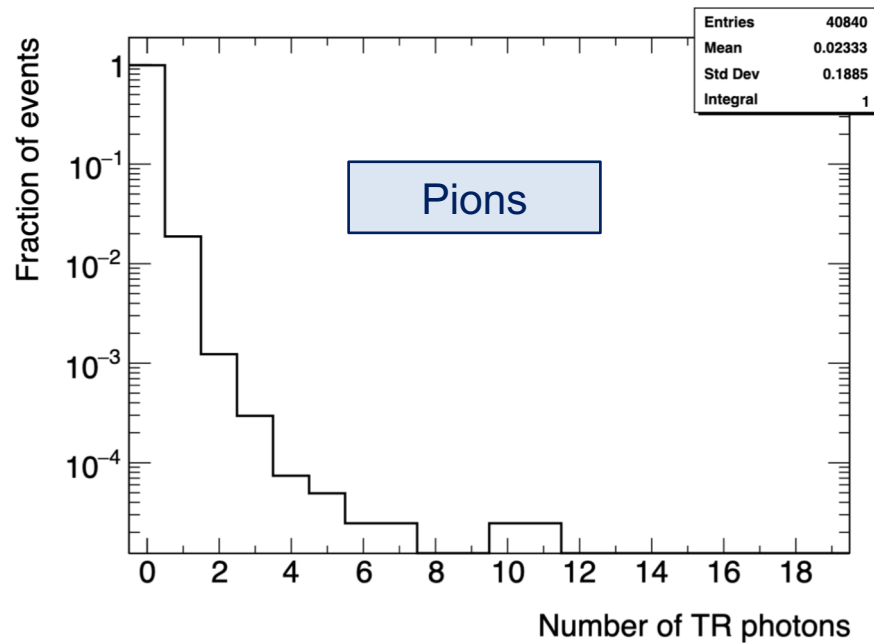
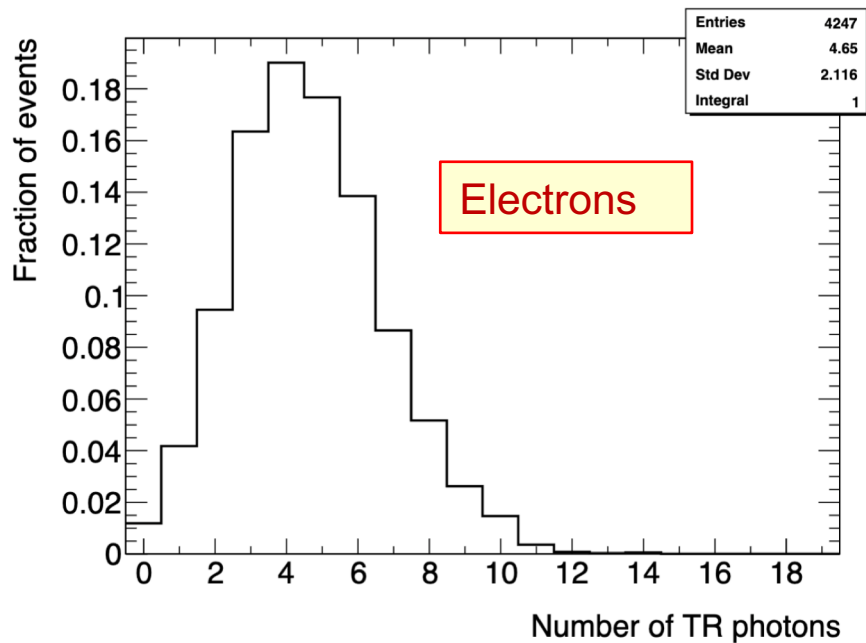
Need good beam to get a good electron statistics for each configuration (~60 radiator-detector configurations).

~400 pions and 50 electrons on 1x1 cm² counter per spill!

Test beam set up is similar to that used in 2021



Number of TR clusters per particle



Main time started yesterday.
We are one day short.
Big program ahead but the beam is unfortunately weak.

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We are one day short.
Big program ahead but the beam is unfortunately weak.