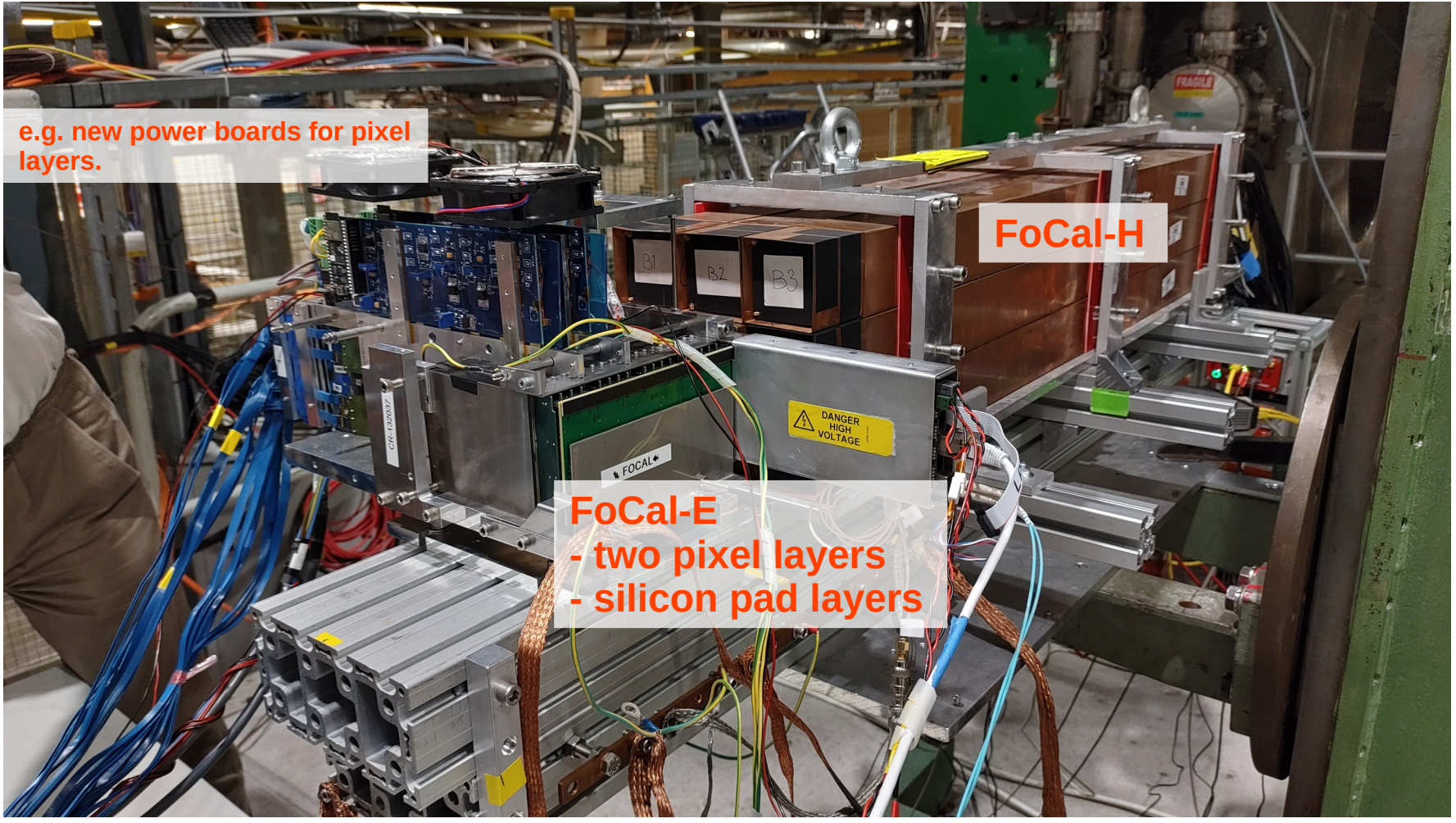
# ALICE FoCal at SPS H2

**Max Rauch, Tommaso Isidori, for ALICE FoCal**

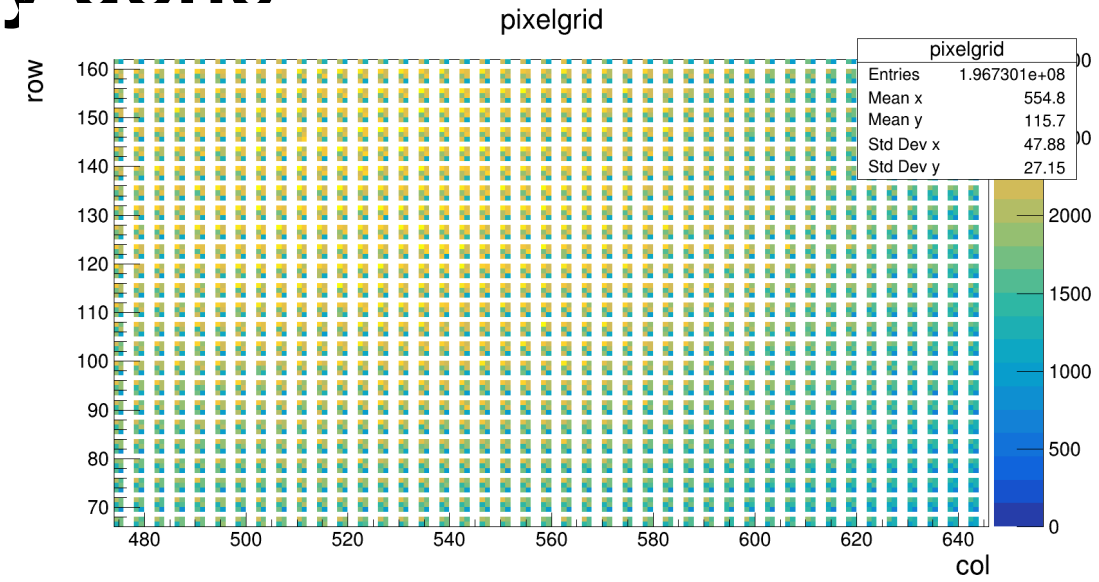
**SPS Users Meeting 25th May 2023**

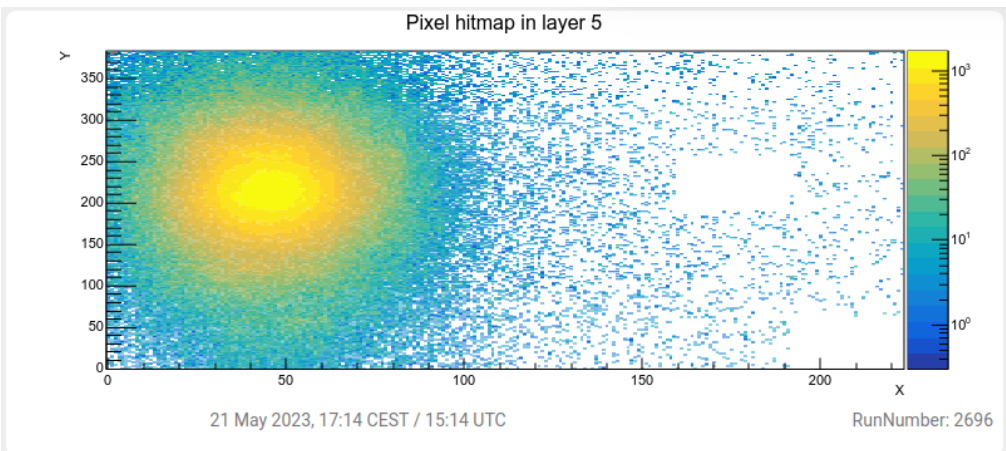
# ALICE FoCal Installed at H2

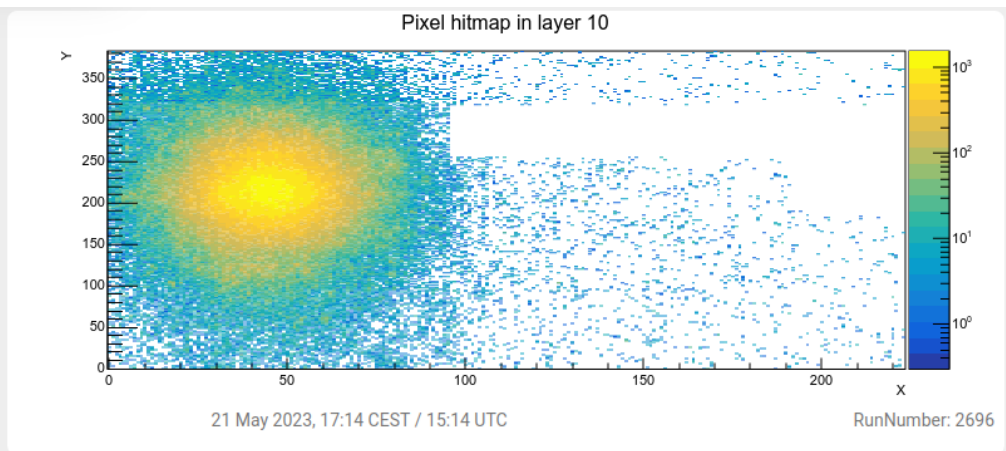


# Pixel studies sucessfully done

- All pixel modules functional
  - Needed to mask some outliers outside the tungsten block
- Noisy pixels masked
- Masked pixel matrix in a grid-like structure in order to reduce occupancy
- Tests with continuous readout @100kHz and 50 kHz done

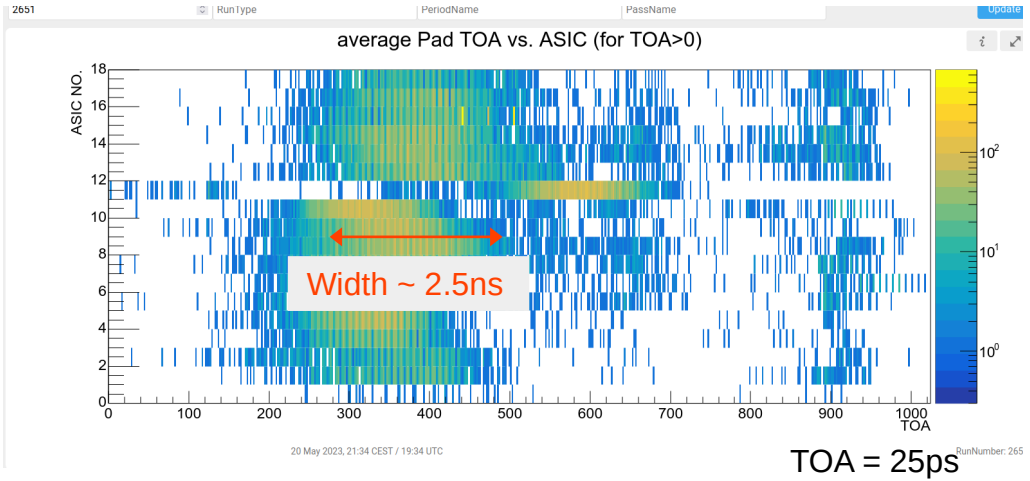


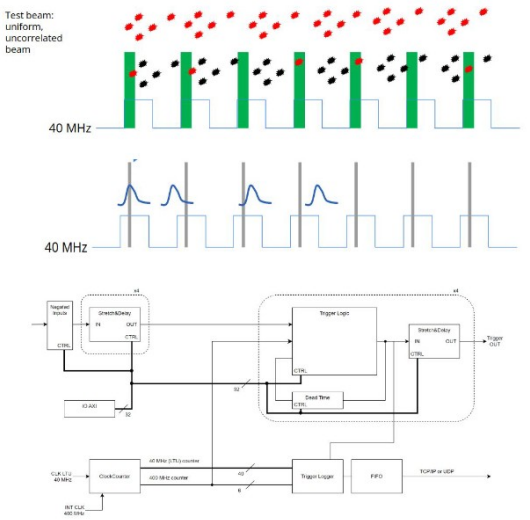
# FoCal-E Pad Timing

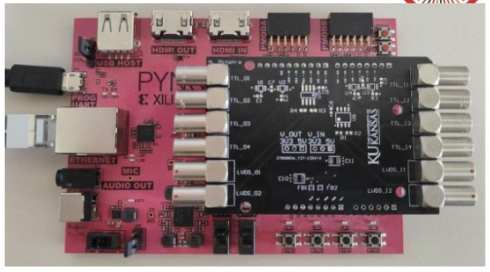
- Test beam trigger board worked as expected
- Important timing information for FoCal-E Pads!
- Some layers out of timing not avoidable → we gained a lot of understanding of the detector




TOA = 25ps

## FoCal Test Beam Trigger Board TB$^2$

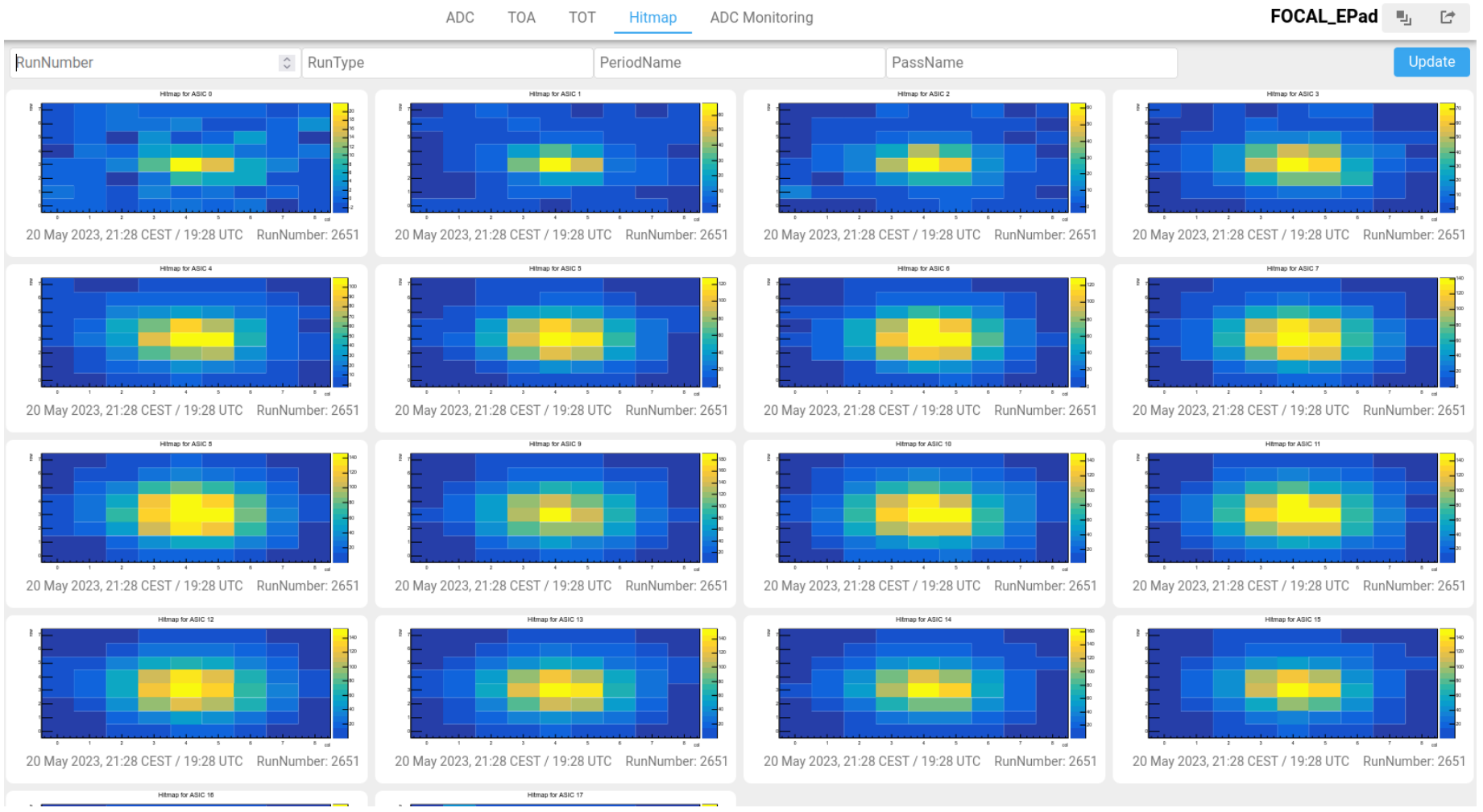


### Why do we need a trigger board?

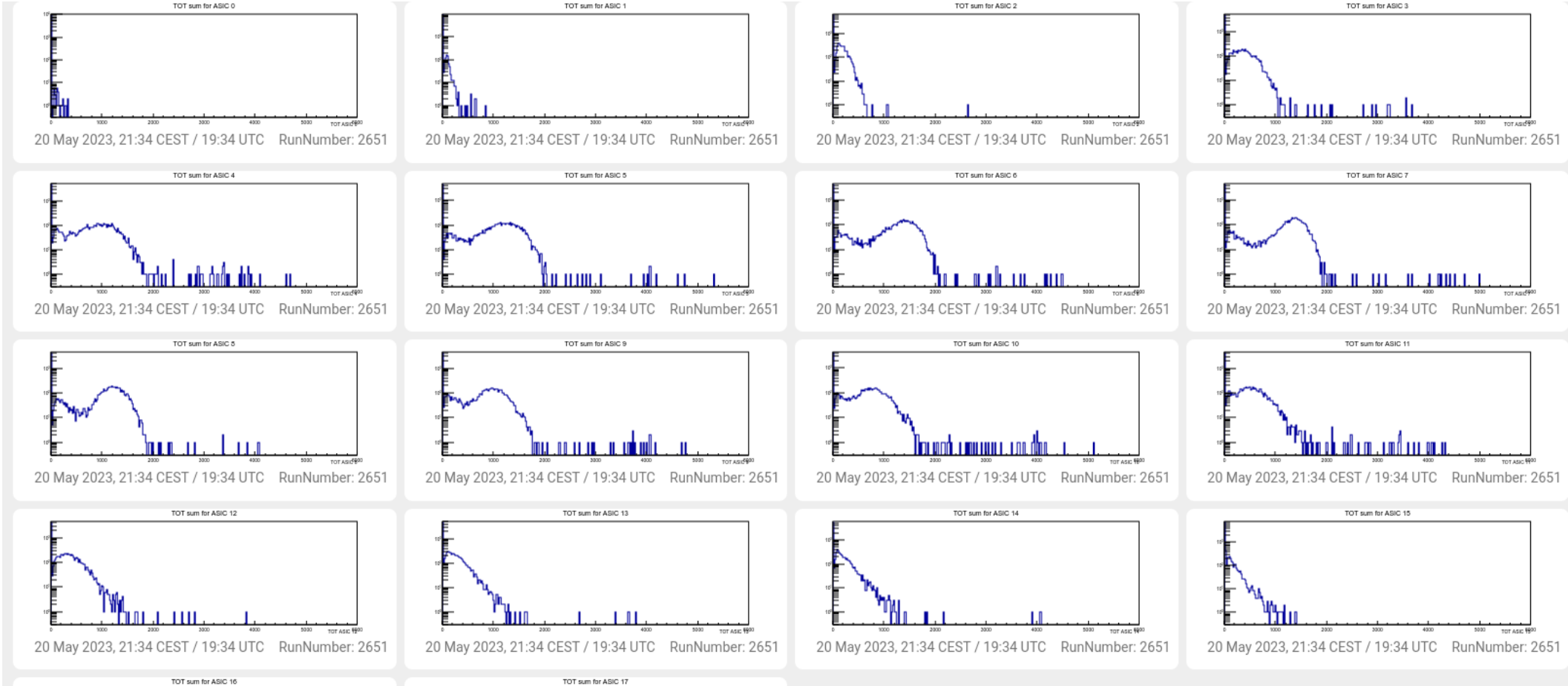
- Easy(er) interface with all subsystems
- Easy(er) control of trigger rate and dead times
- Control and monitor of trigger and busy signals
- Phase locking of the triggers

# Monitoring and Run Control through ALICE QC and ECS



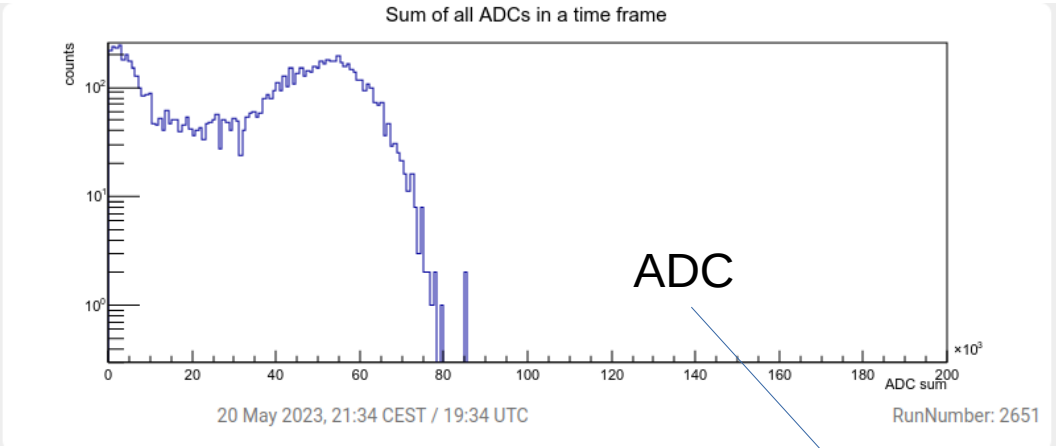
# Monitoring and Run Control through ALICE QC and ECS

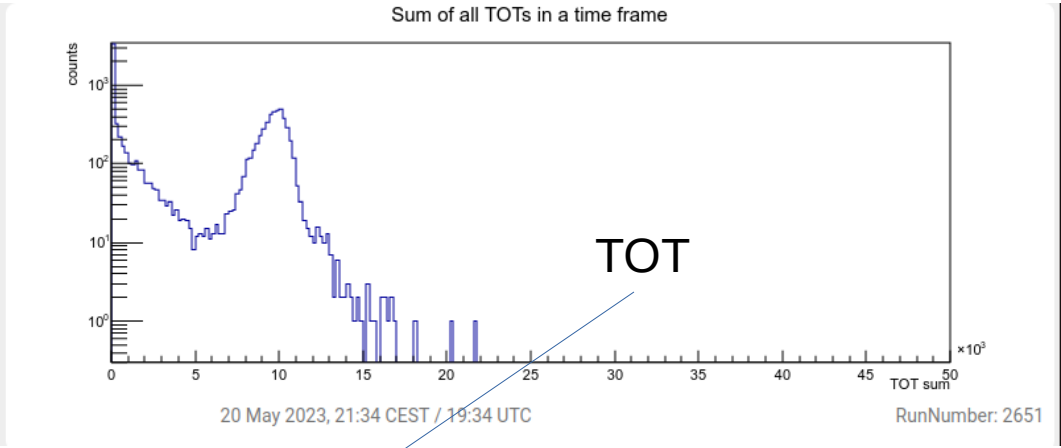
e.g.: Layer-wise TOT monitoring



150 GeV electron beam

# FoCal-E pad signal




ADC

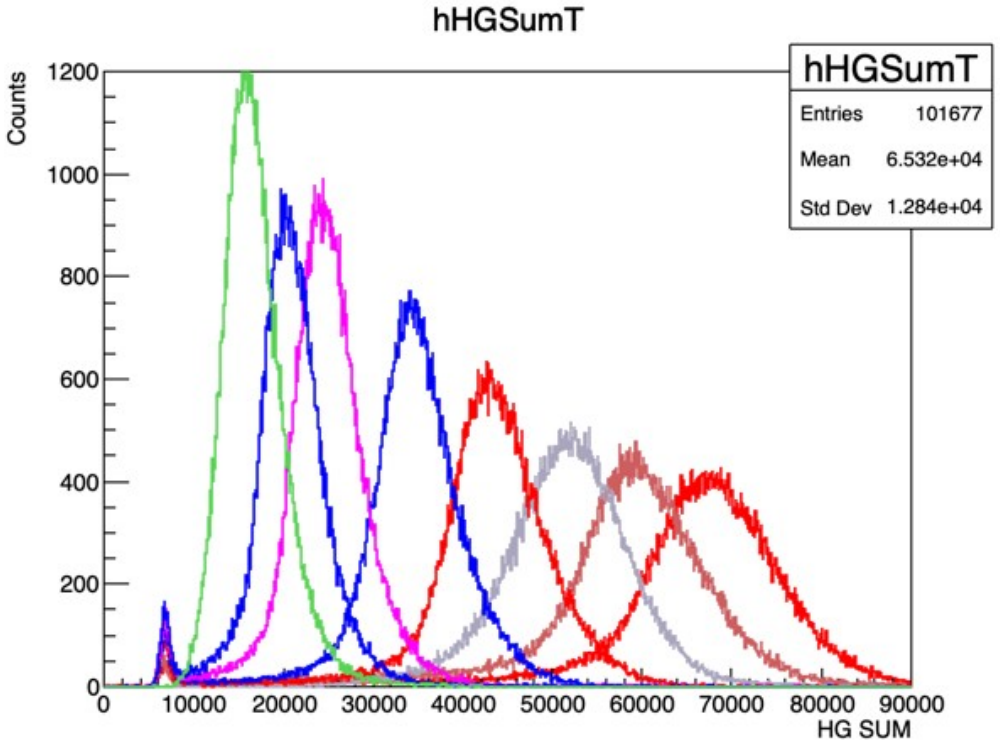
TOT

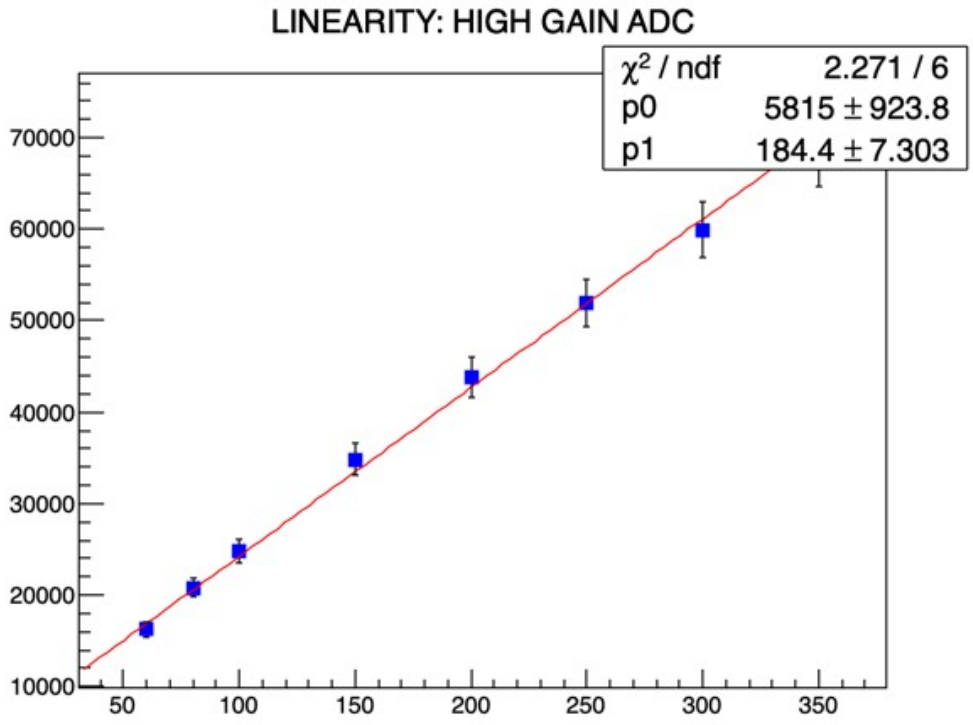
Combination gives signal

- Pre-amplifier settings + thresholds optimized during testbeam
- Need to calibrate in lab for combination

# FoCal-H without FoCal-E in front

- FoCal-E removed from Monday noon till Tuesday noon
- Hadron data not polluted by FoCal-E



# Final Remarks

The coffee area next to the control room was not available.

Big thanks. In particular to Nikolaos.