# Testbeam reconstruction for EC modules

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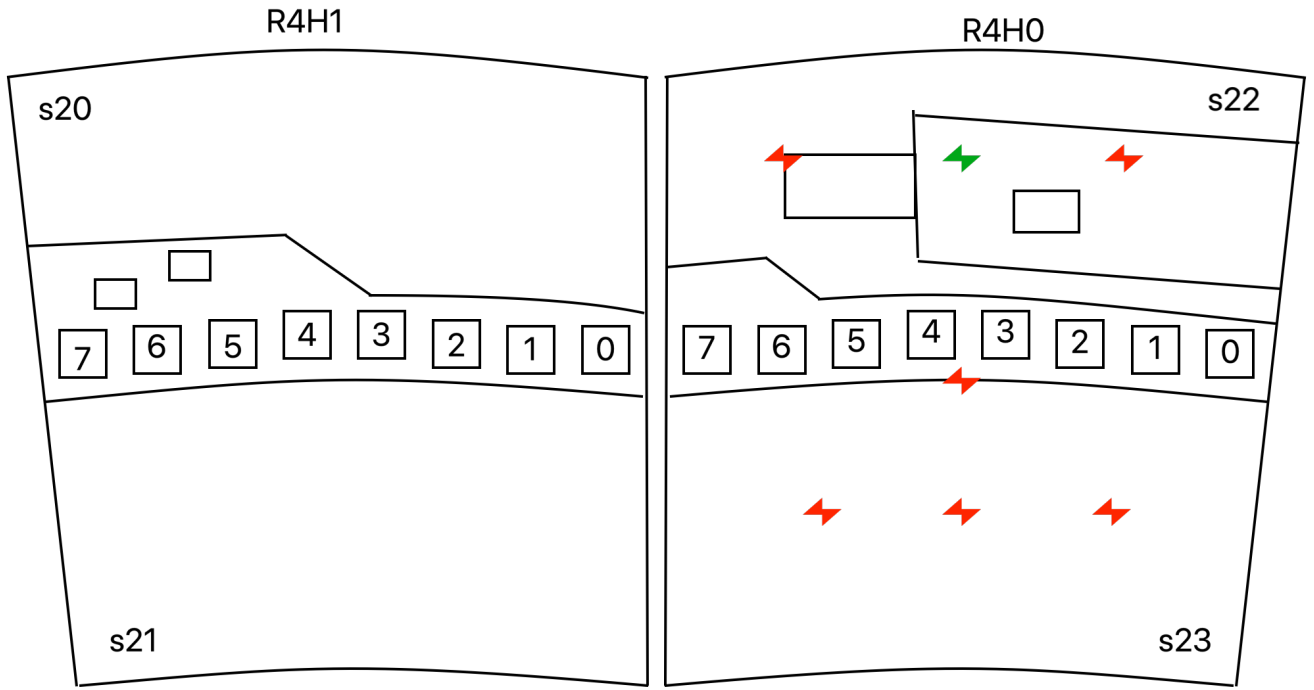
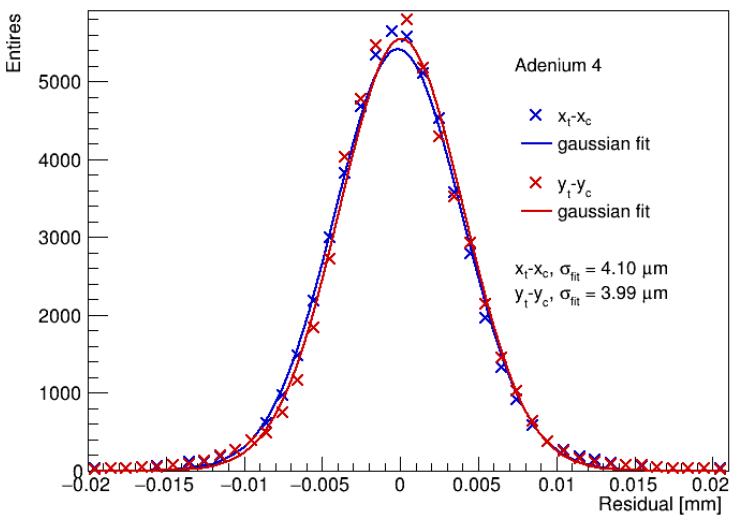
# Overview

- Corryvreckan: `master`
- Reconstruction: `git repo`
- TB June 2023, R4 + Alpide telescope
- Preliminary results show in the slides for stream 22, ASIC 3&4

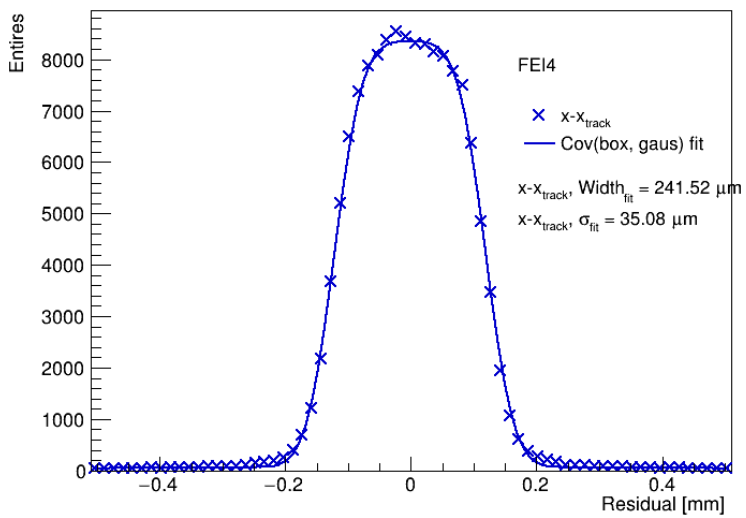


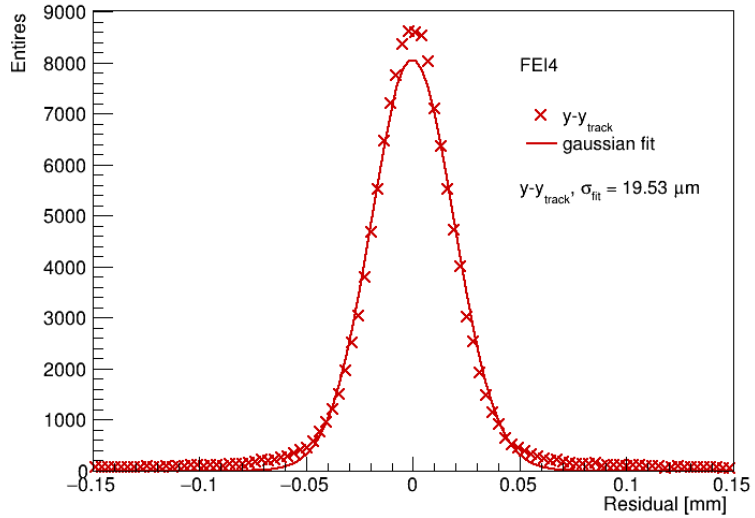
# Residuals- telescope and FEI4

Adenium
pixel_pitch = 29.24um, 26.88um




FEI4
pixel_pitch = 250um,50um

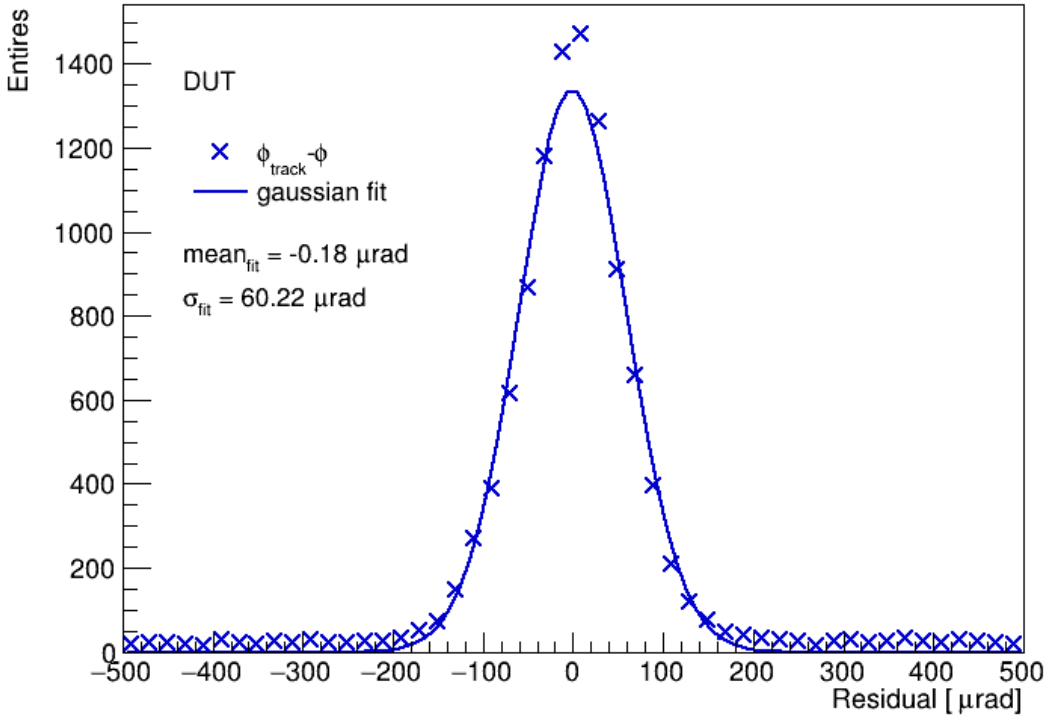


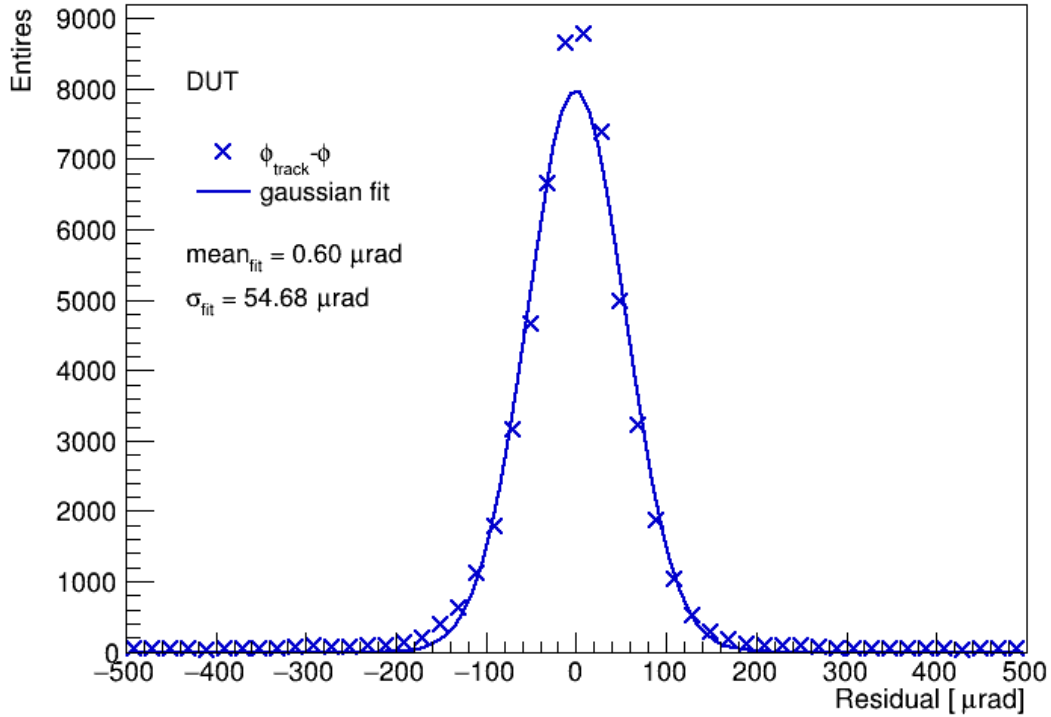
# Residuals - DUT

```
angular_pitch = 96.18urad
```

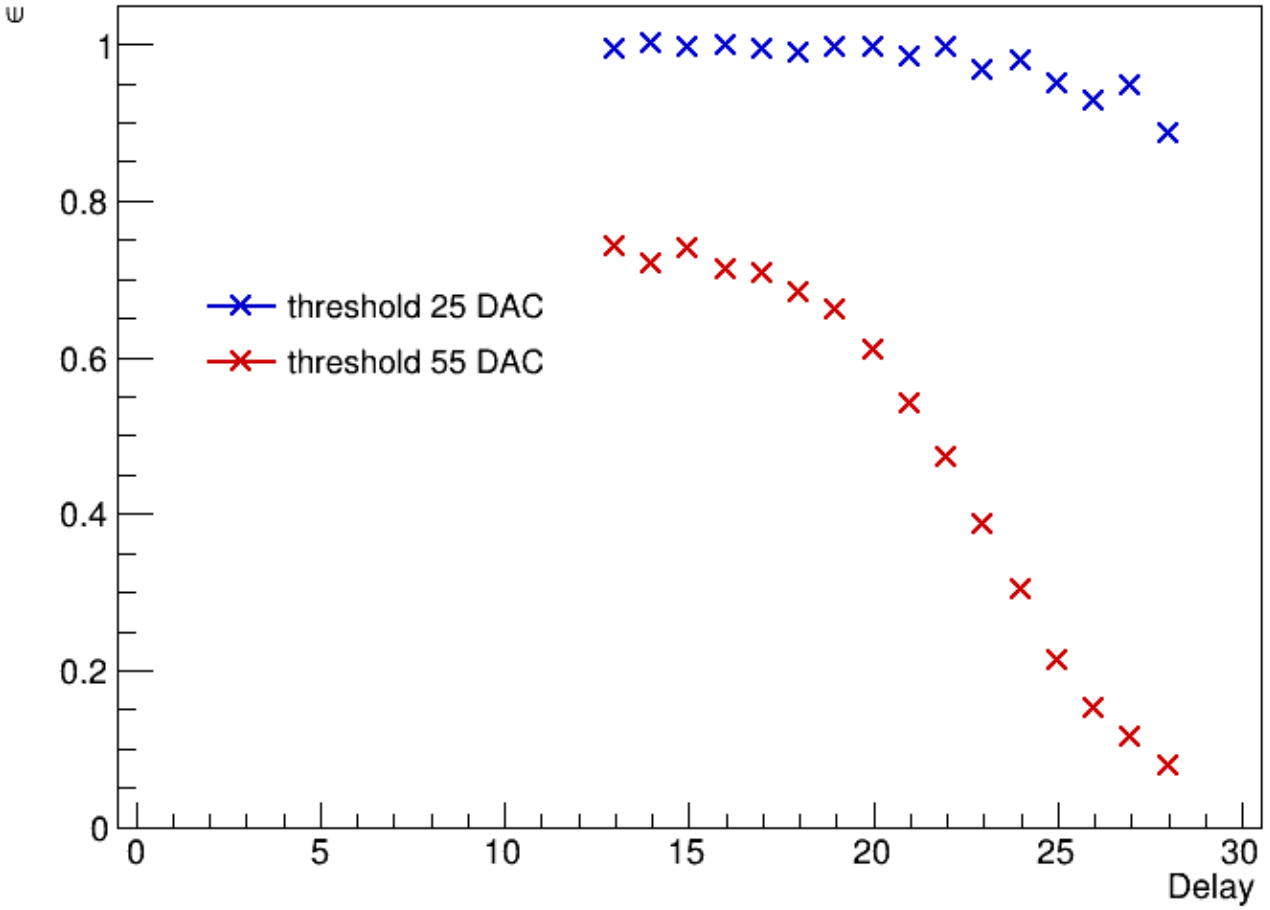
Run 8653, threshold 25 DAC




Run 8665, threshold 55 DAC

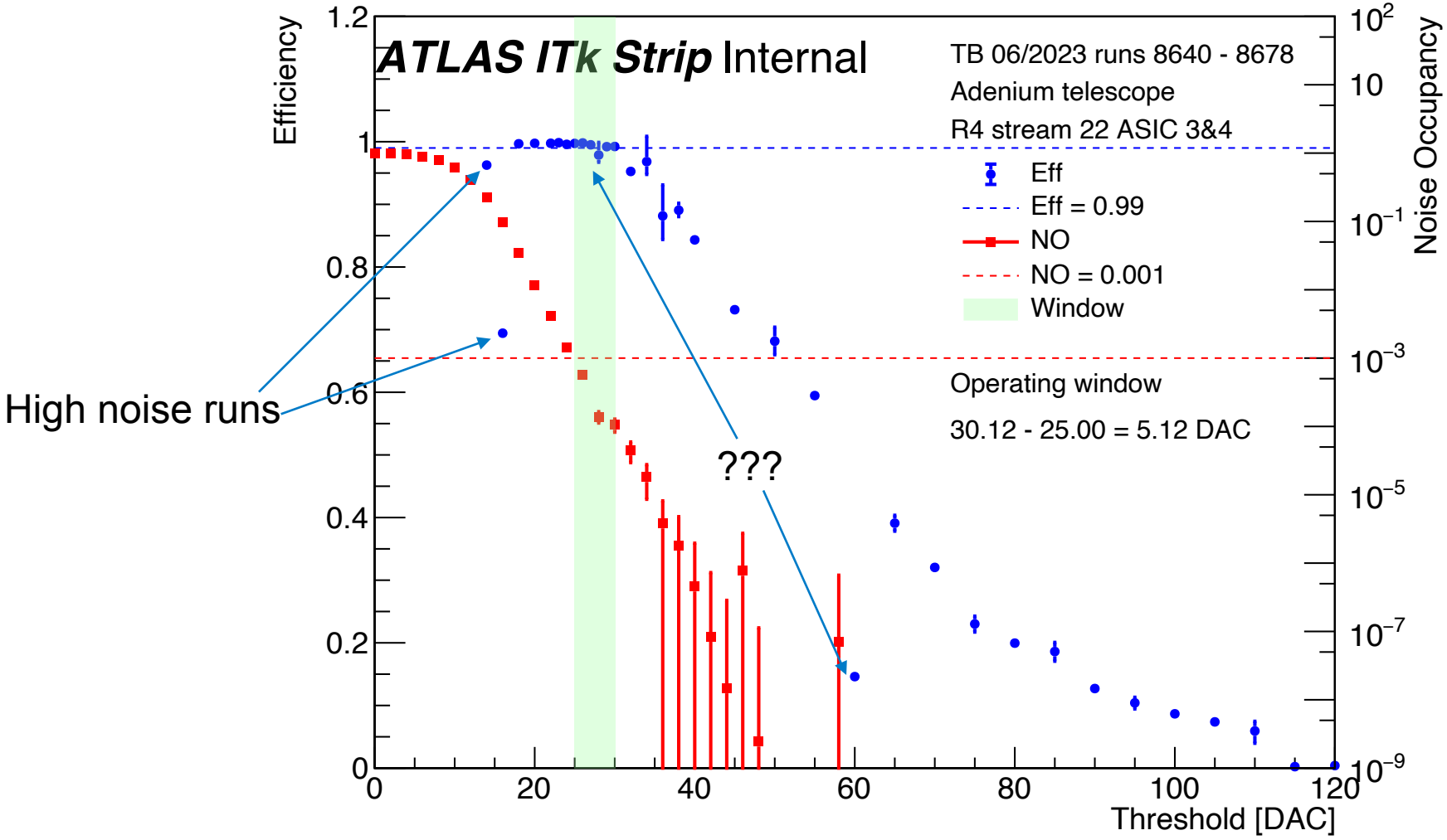


# DUT timing efficiency

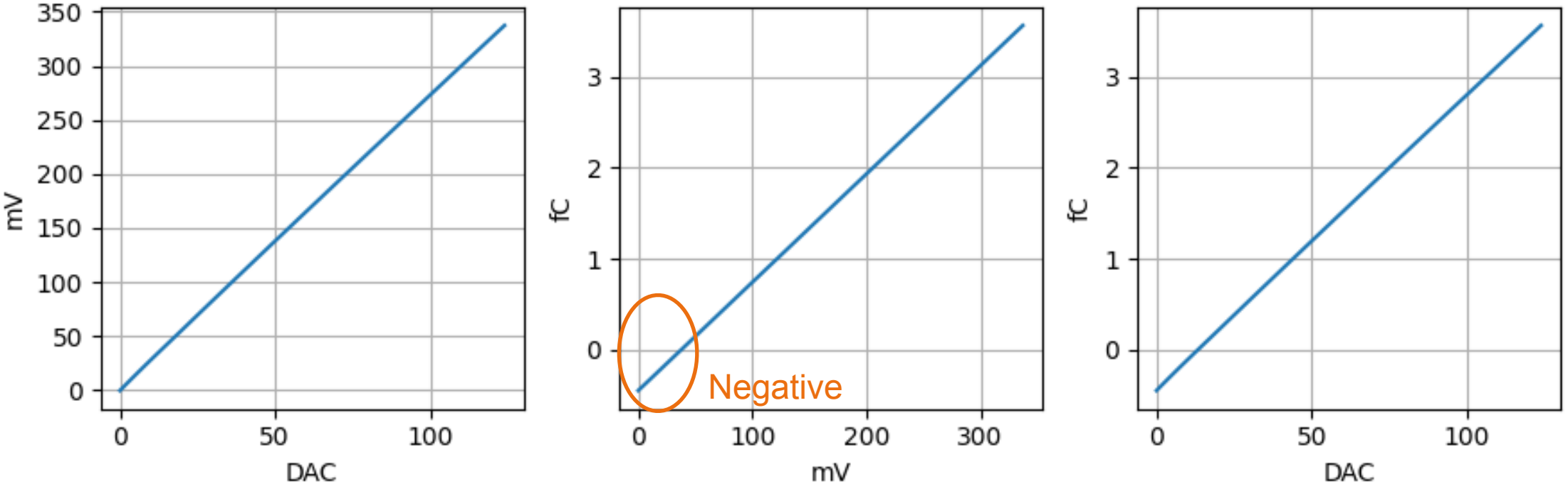



- Delay cut: [13,16]
- Global efficiency:
  - 25 DAC: 99.58(+/-0.23)%
  - 55 DAC: 73.19(+/-0.47)%

# Operating window



# DAC to fC




- Operation window: 5.12 DAC → 0.17fC (OW with mimosas is 0.16fC.)

# Status and next steps

- Reconstruction flow with alpide telescope.
- Operating window comparable to the one got with mimosa telescope.

- Figure out the inefficient runs.
- Look into in/inter-pixel efficiency.

# Backup