

LTCC Overview

Hardware:

DSG, D. Anderson, M. Cook, Hall-B techs

Gas:

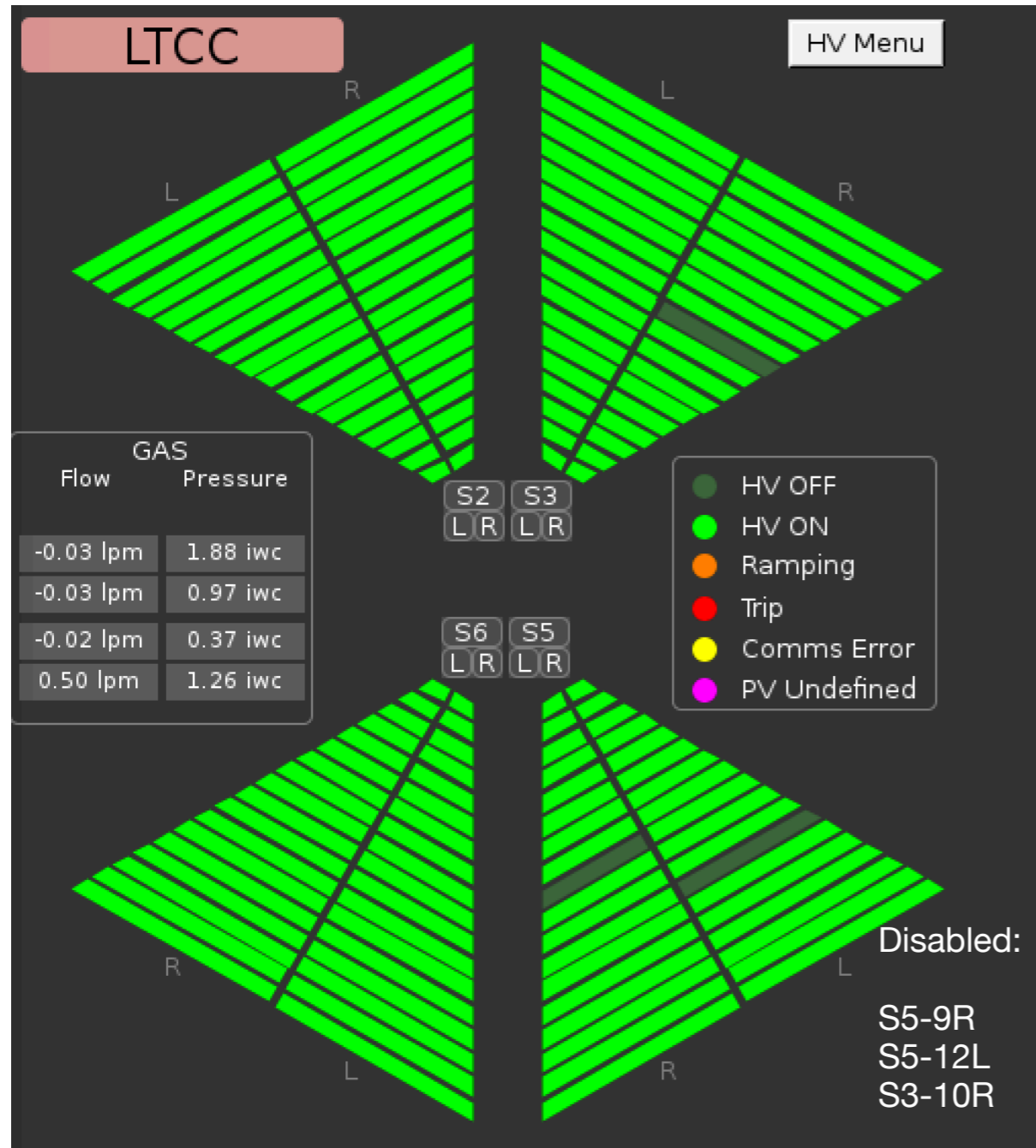
DSG, G. Jacobs

Software, Calibrations:

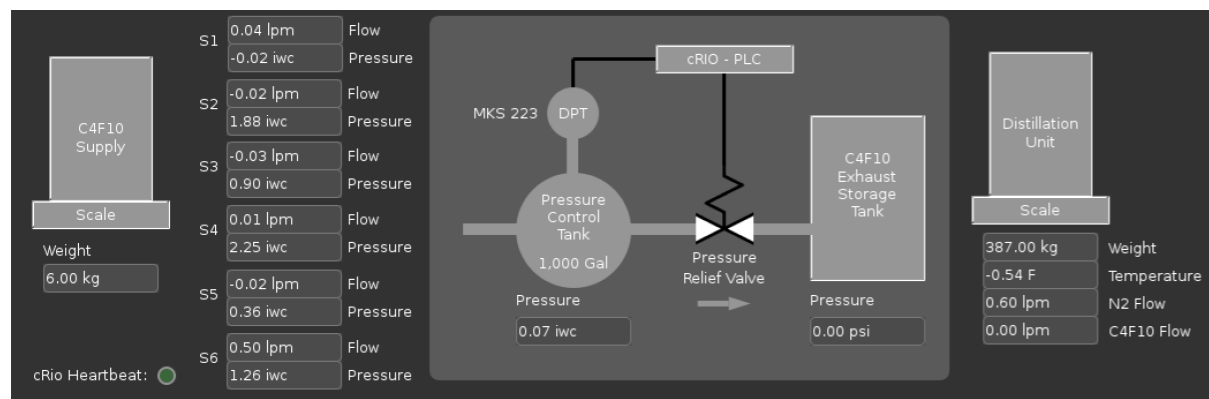
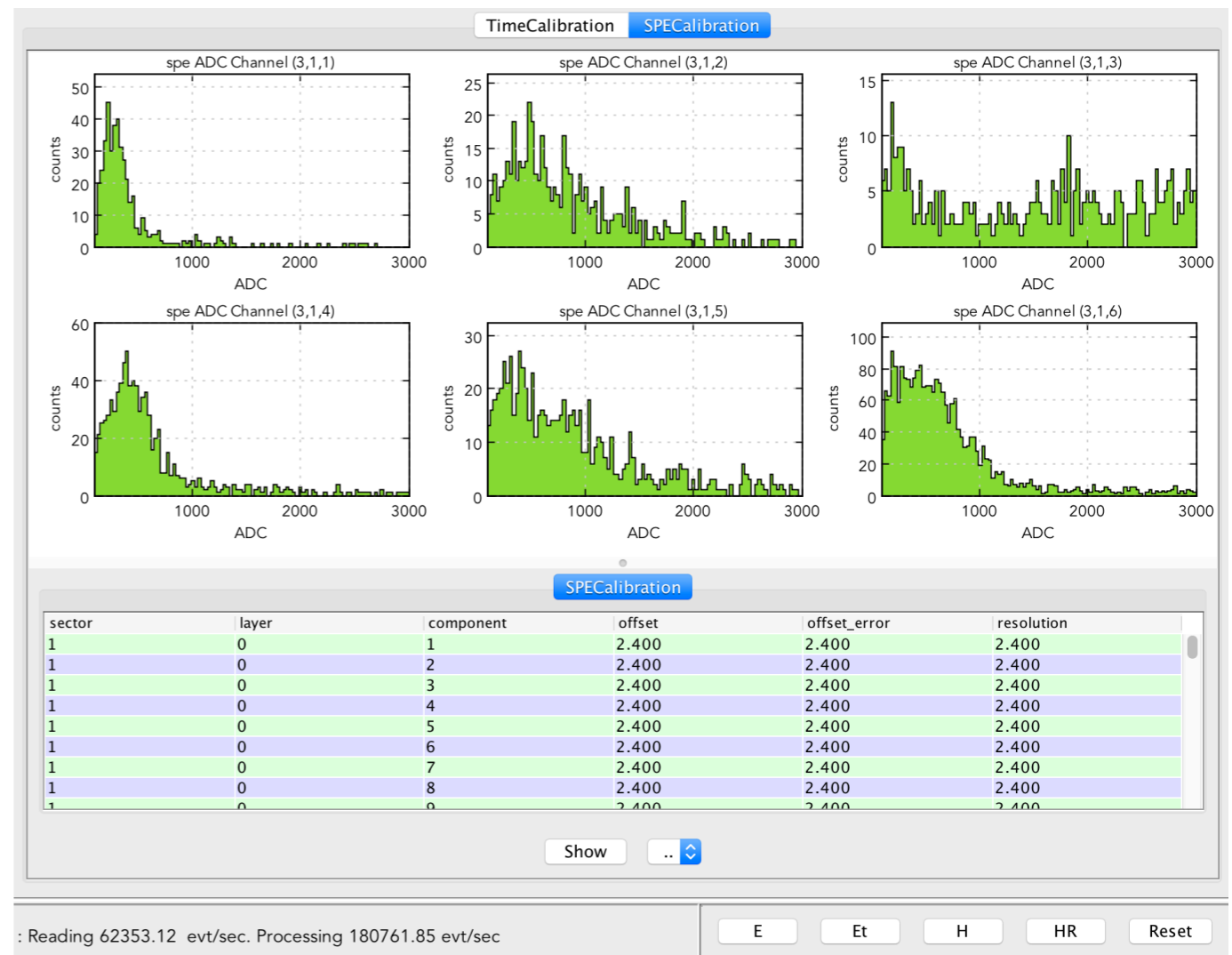
Burcu Duran, Sylvester Joonsten (TEMPLE U)

M. Ungaro

LTCC Overview



- Nitrogen in S2, S3, S6.
- C4F10 in S5 (rg-a)
- Gas Monitor, Alarms: working well.



Gas Monitor

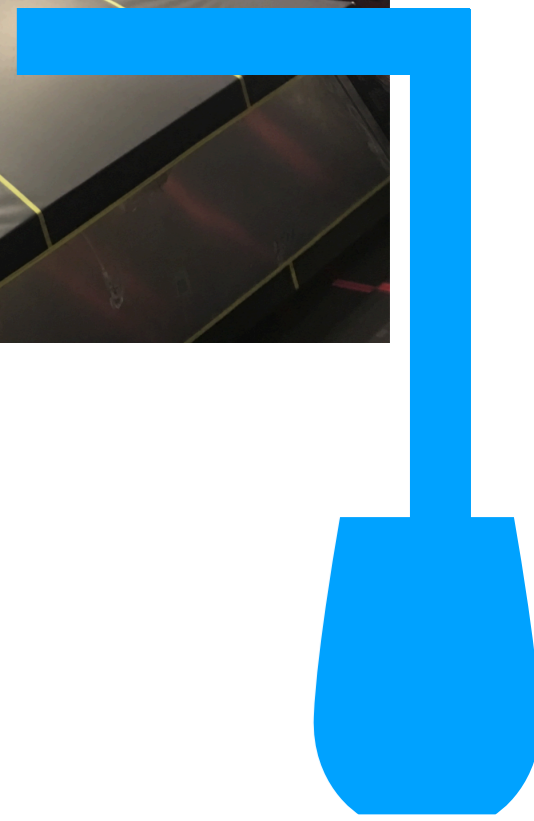
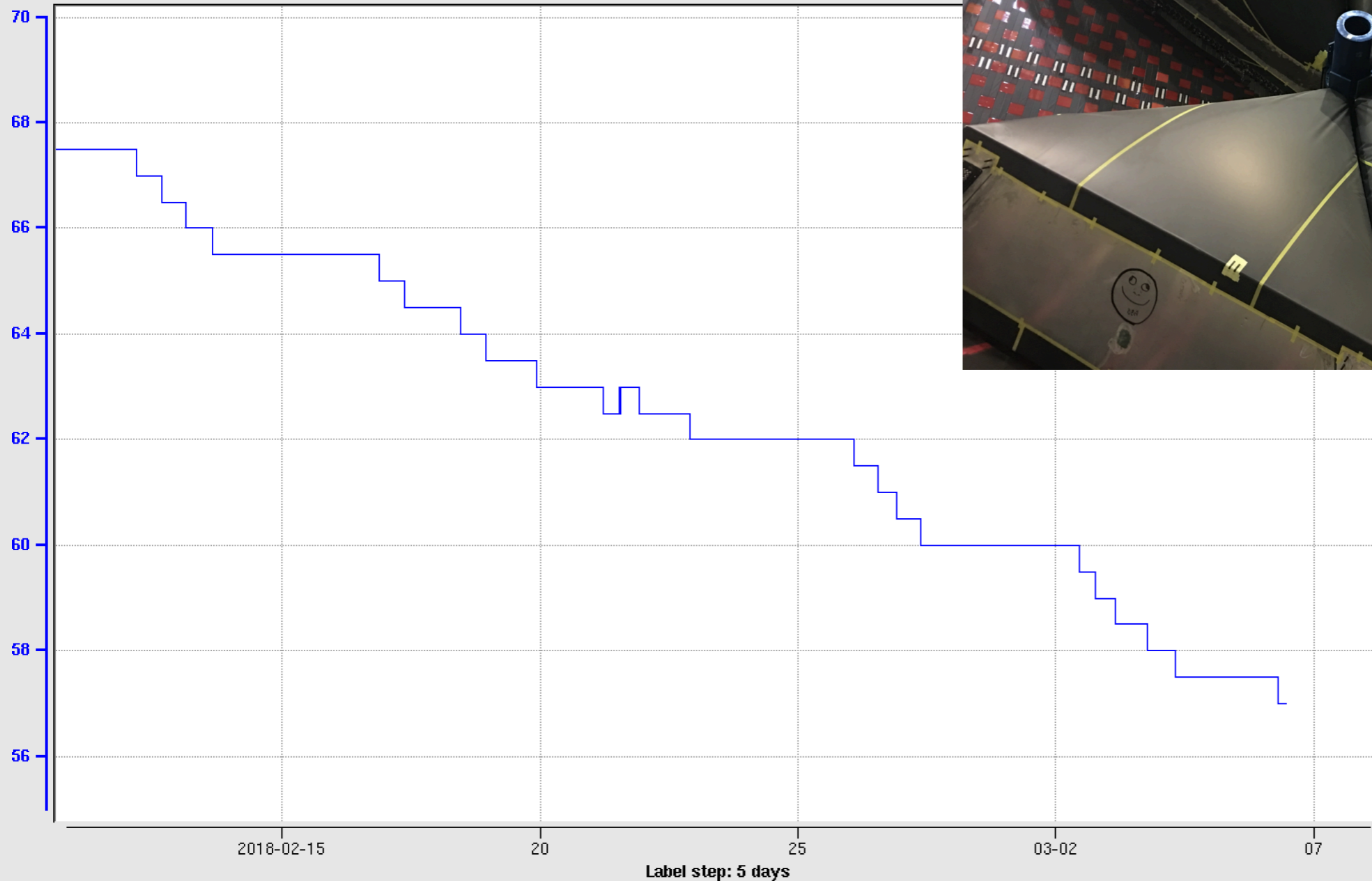
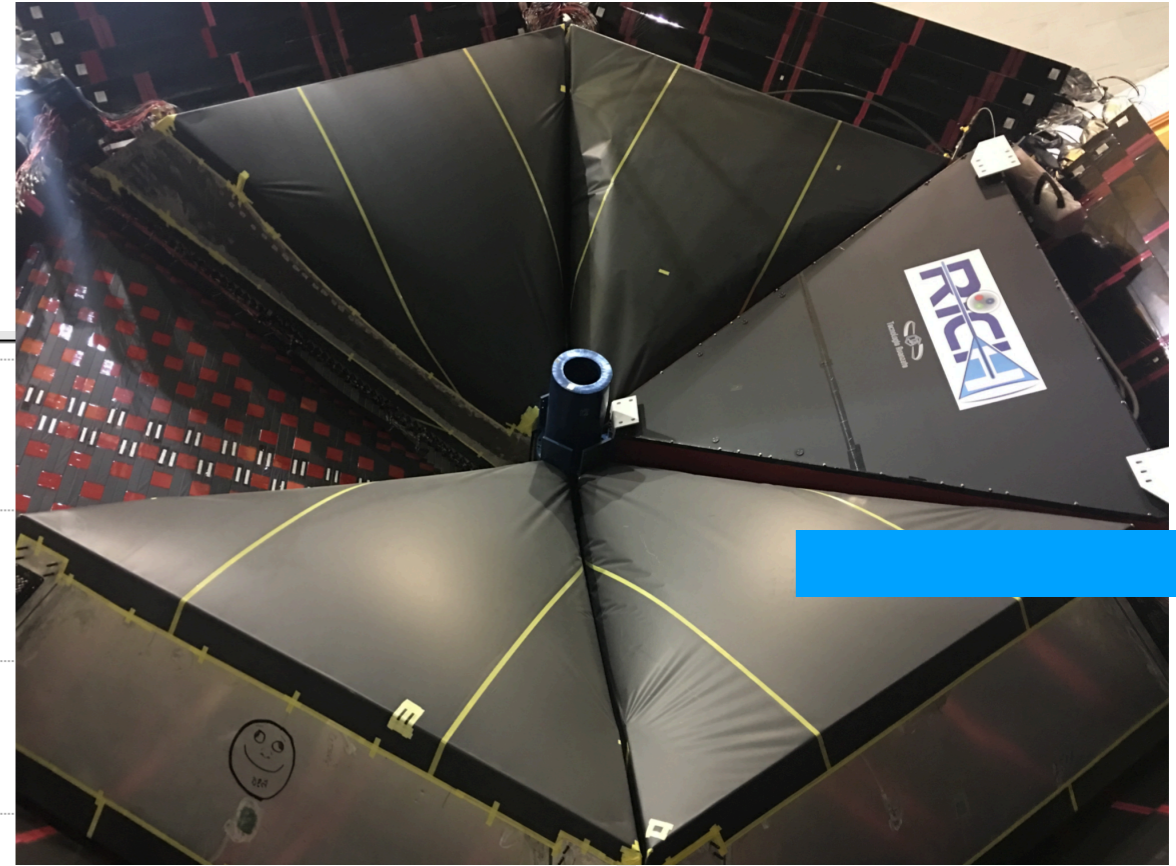
LTCC Gas

10 Kg lost in 25 days

0.4 Kg / day

(predicted: 0.3 Kg / day)

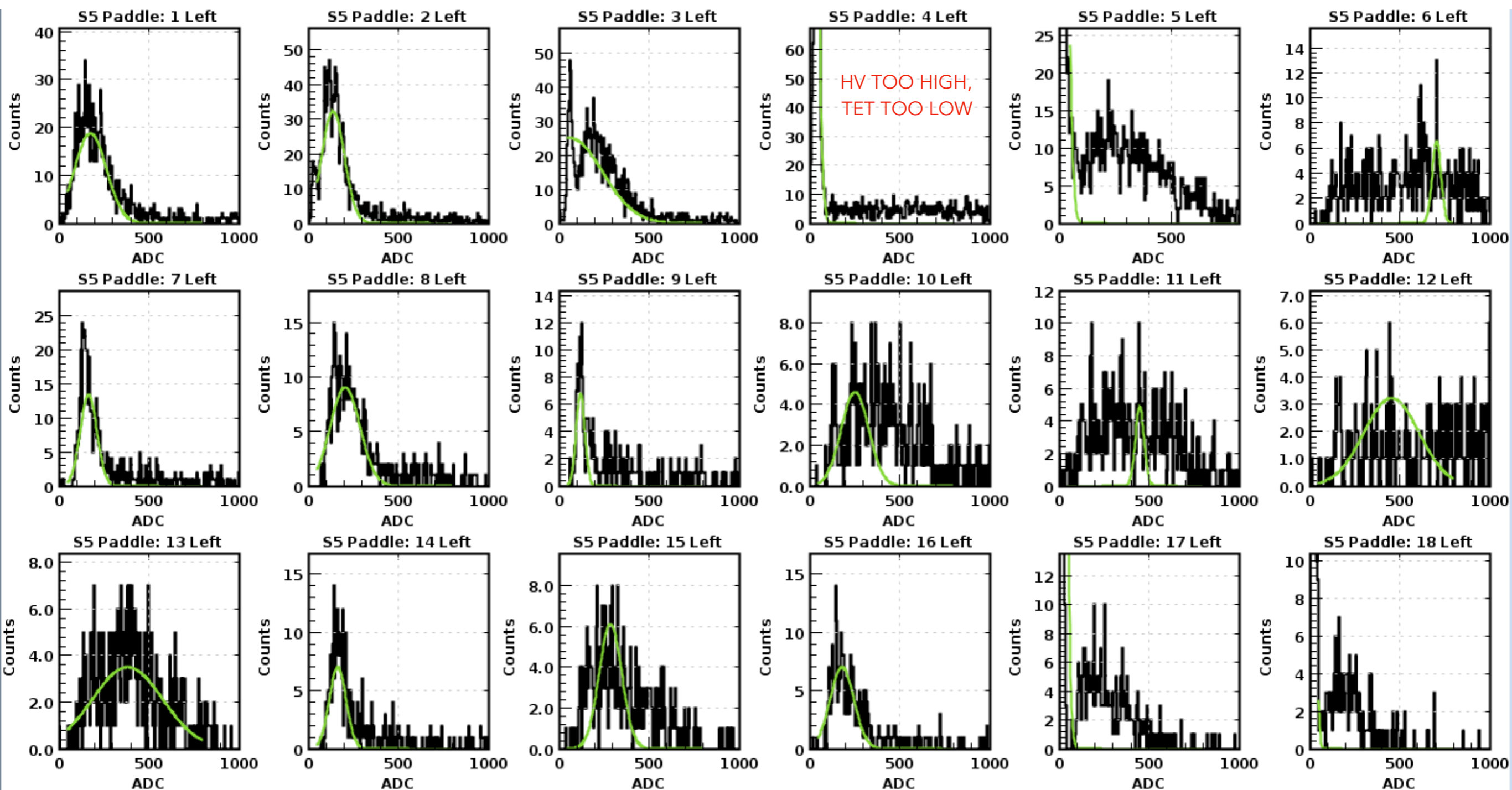
Predicted remaining days: ~140



LTCC S5 Calibration, run 3432-3517

All sectors: Good Gain Matching, improving daily.

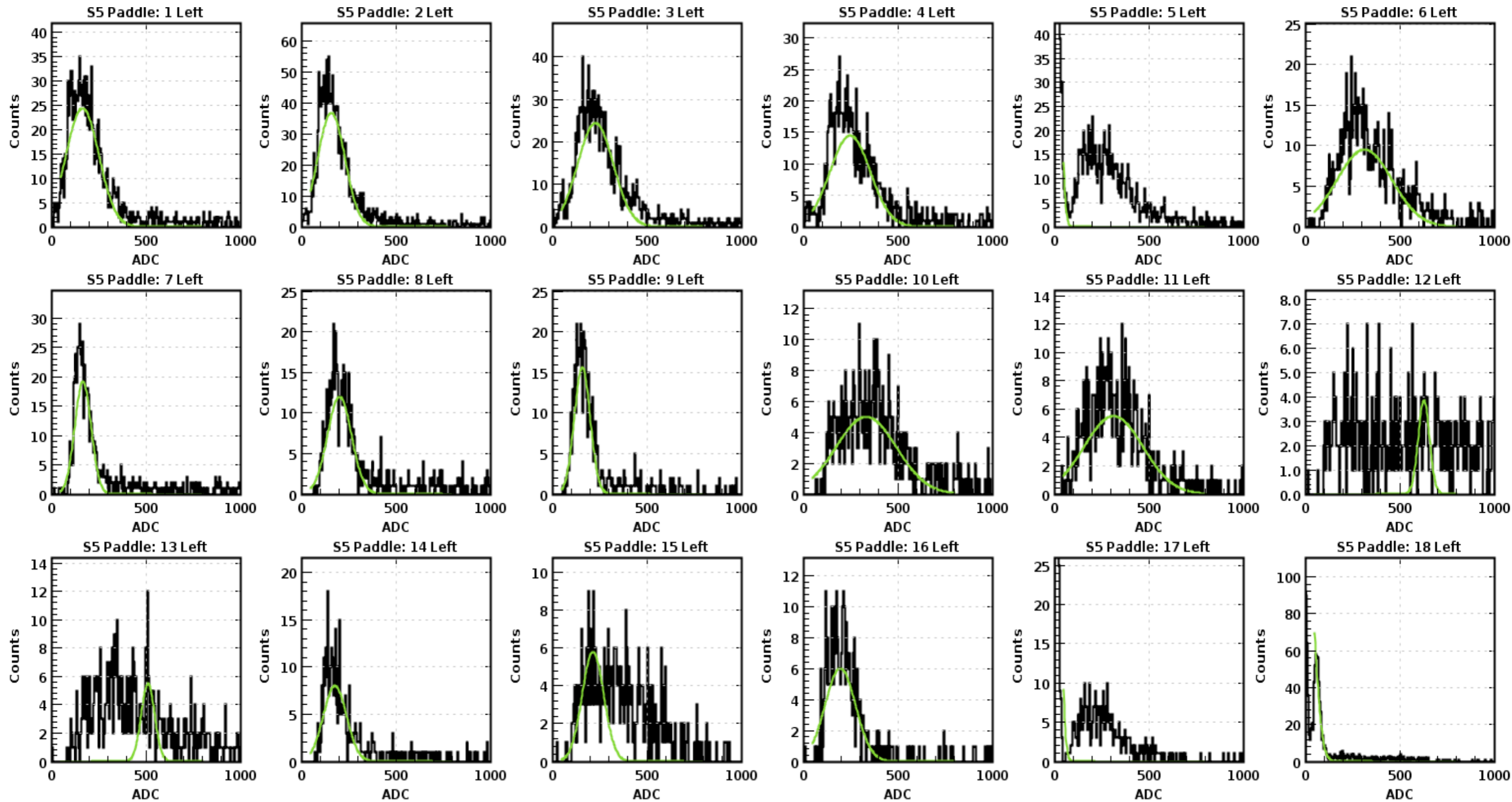
Calibration constants, TET improving as well. Constants are in Database.



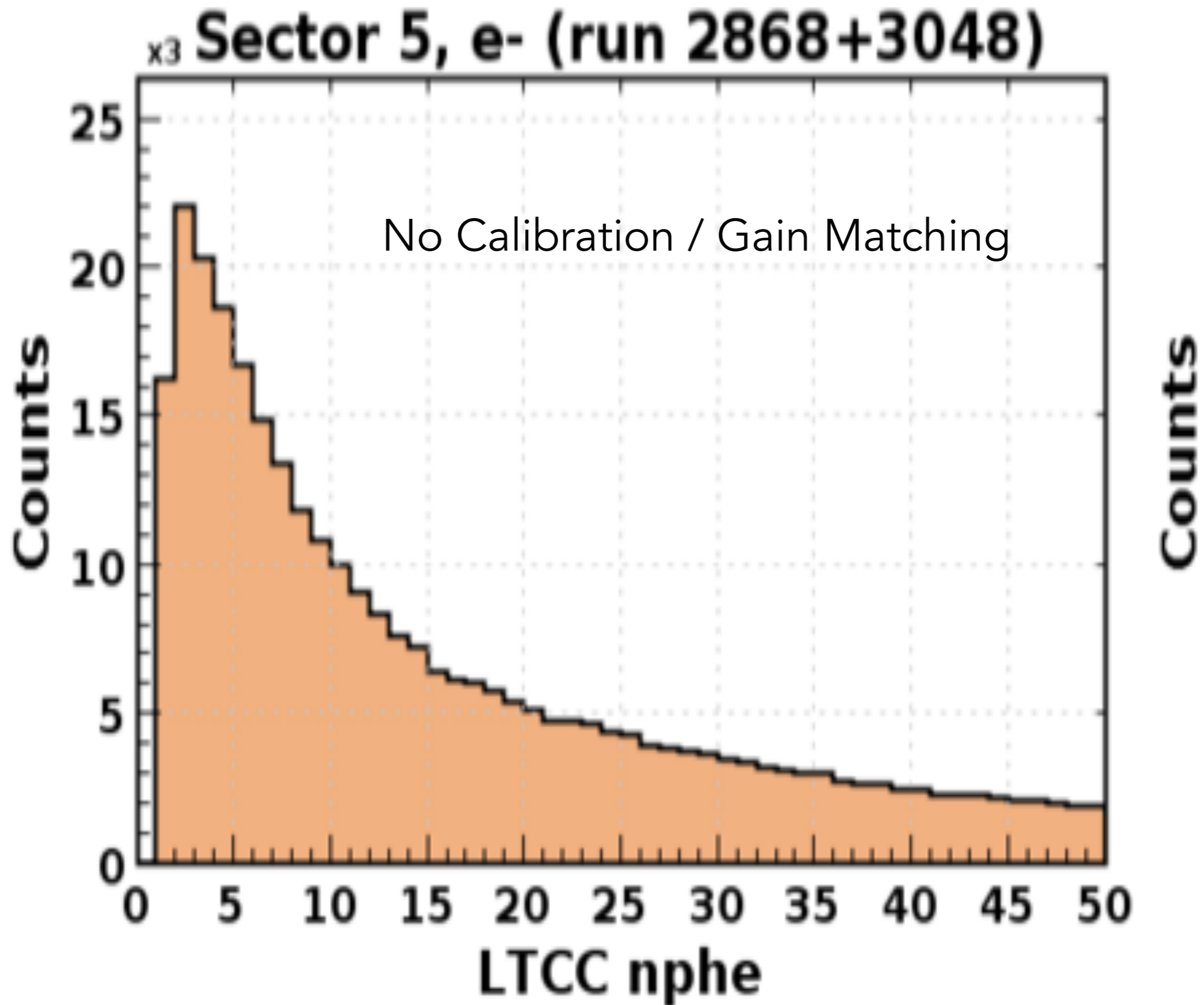
LTCC S5 Calibration, run 3432-3517

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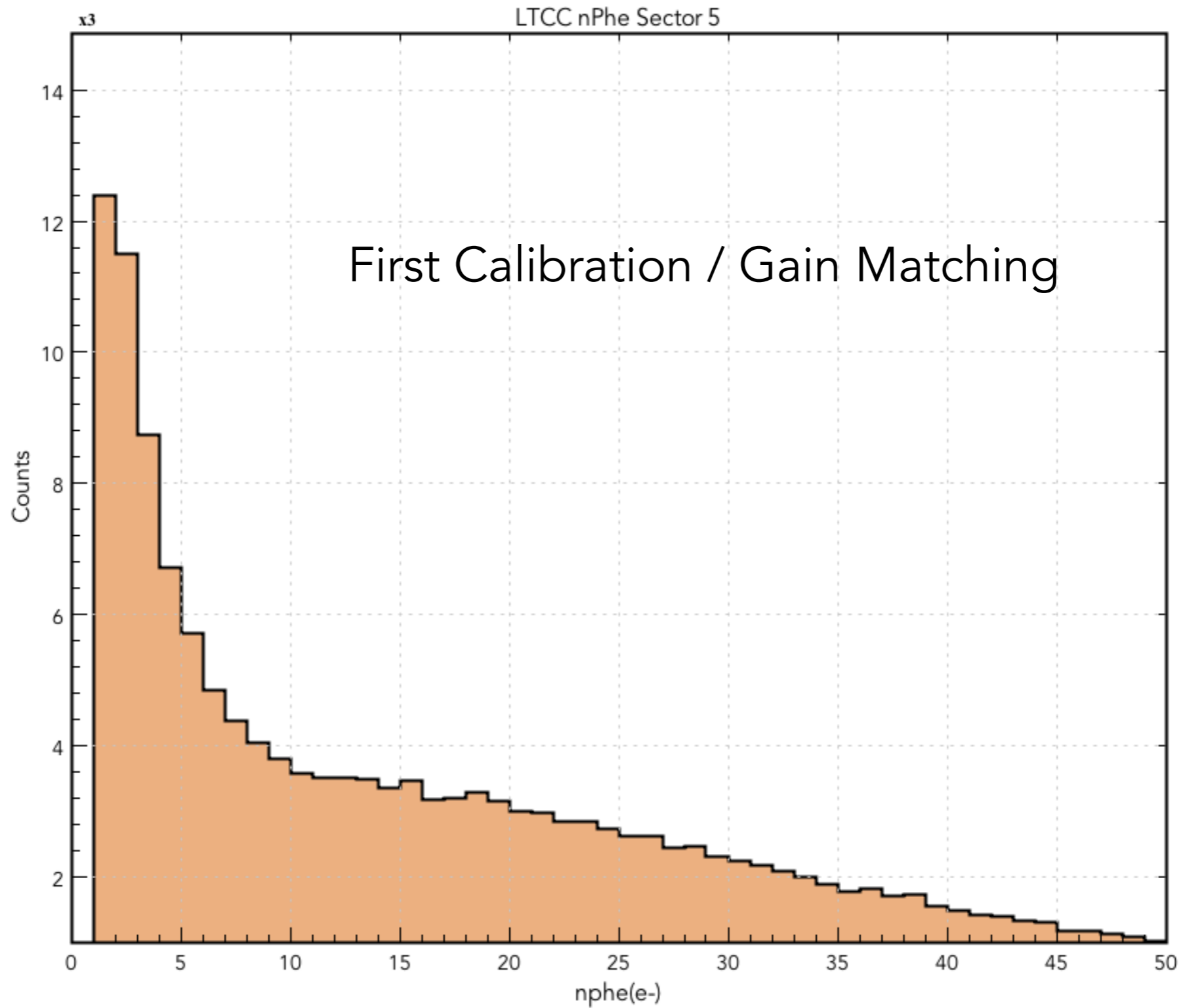
Calibration constants, TET improving as well. Constants are in Database.



LTCC S5 Calibration



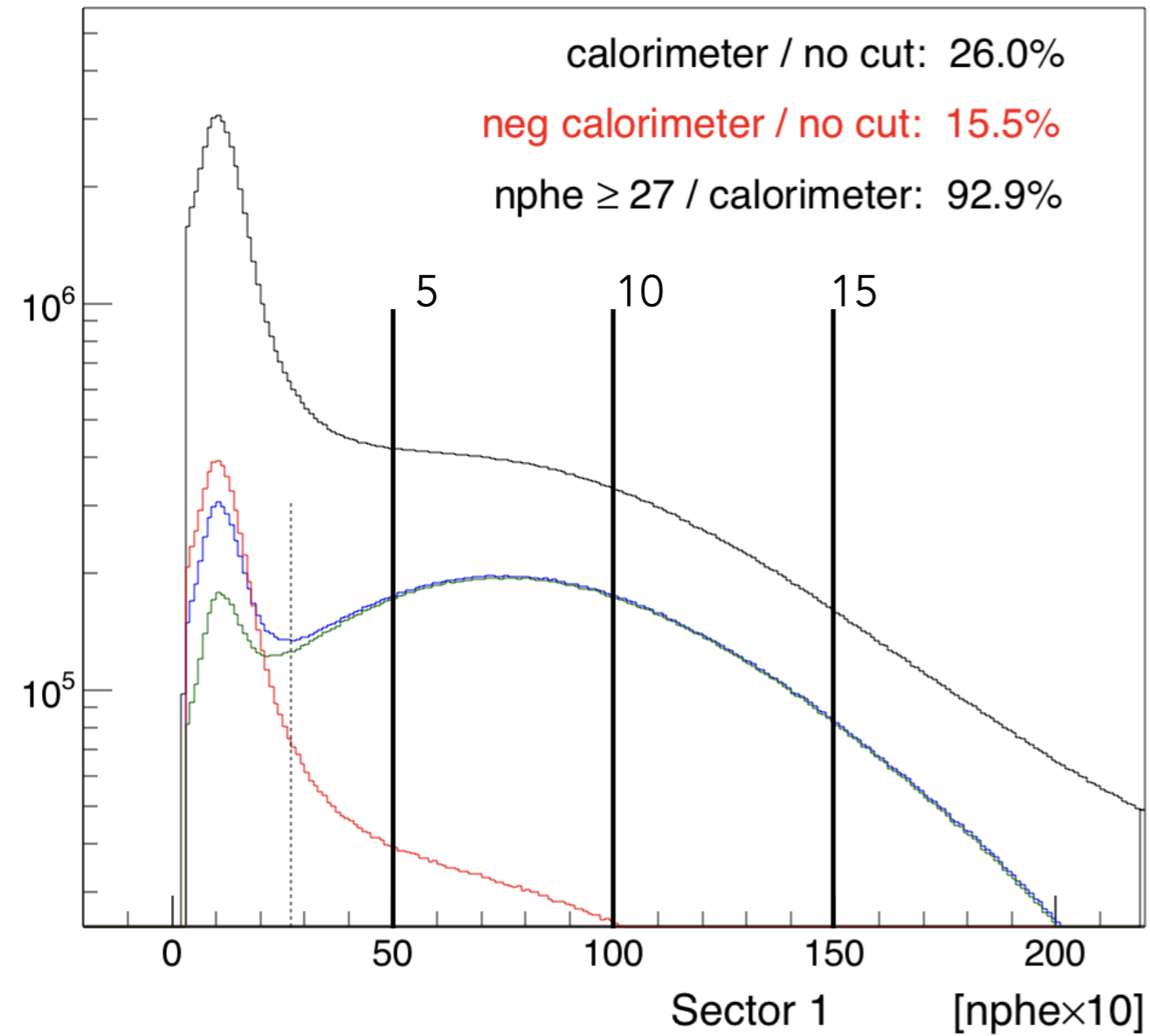
LTCC S5 Calibration



Run 3432 (not latest and greatest, but much better)

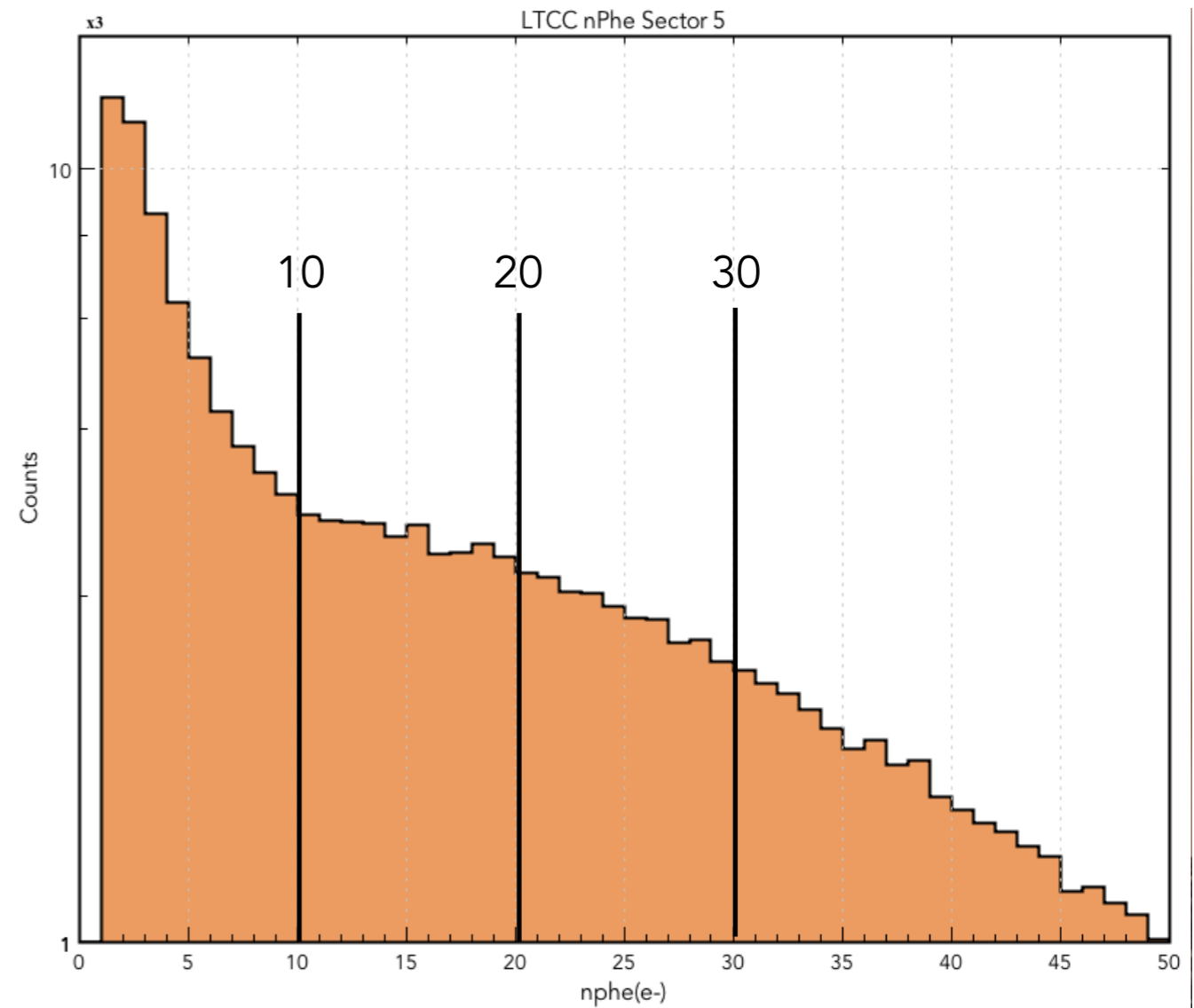
LTCC S5, run 3432

→ no cuts
→ calorimeter cuts
→ calorimeter negative cuts
→ all cuts applied



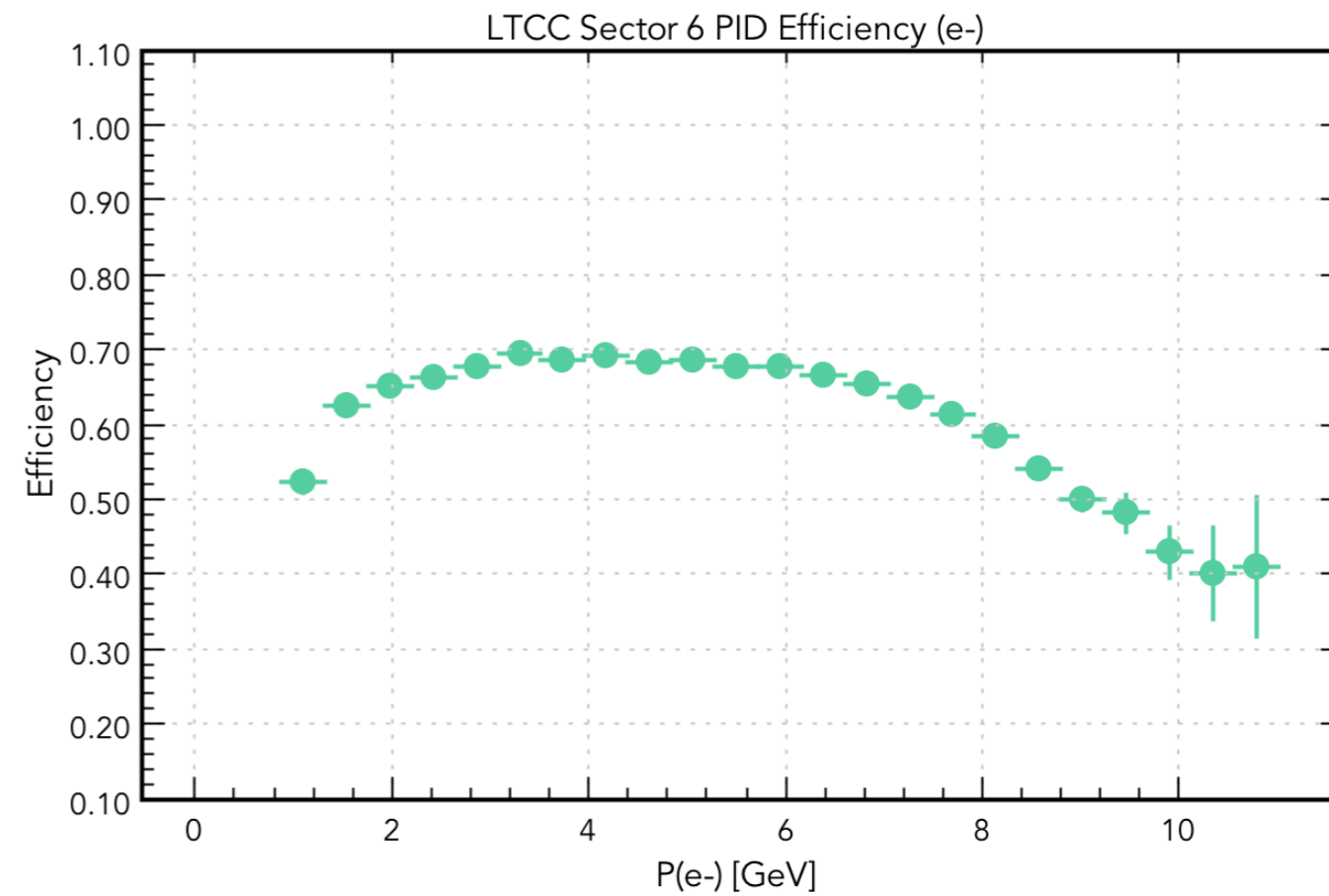
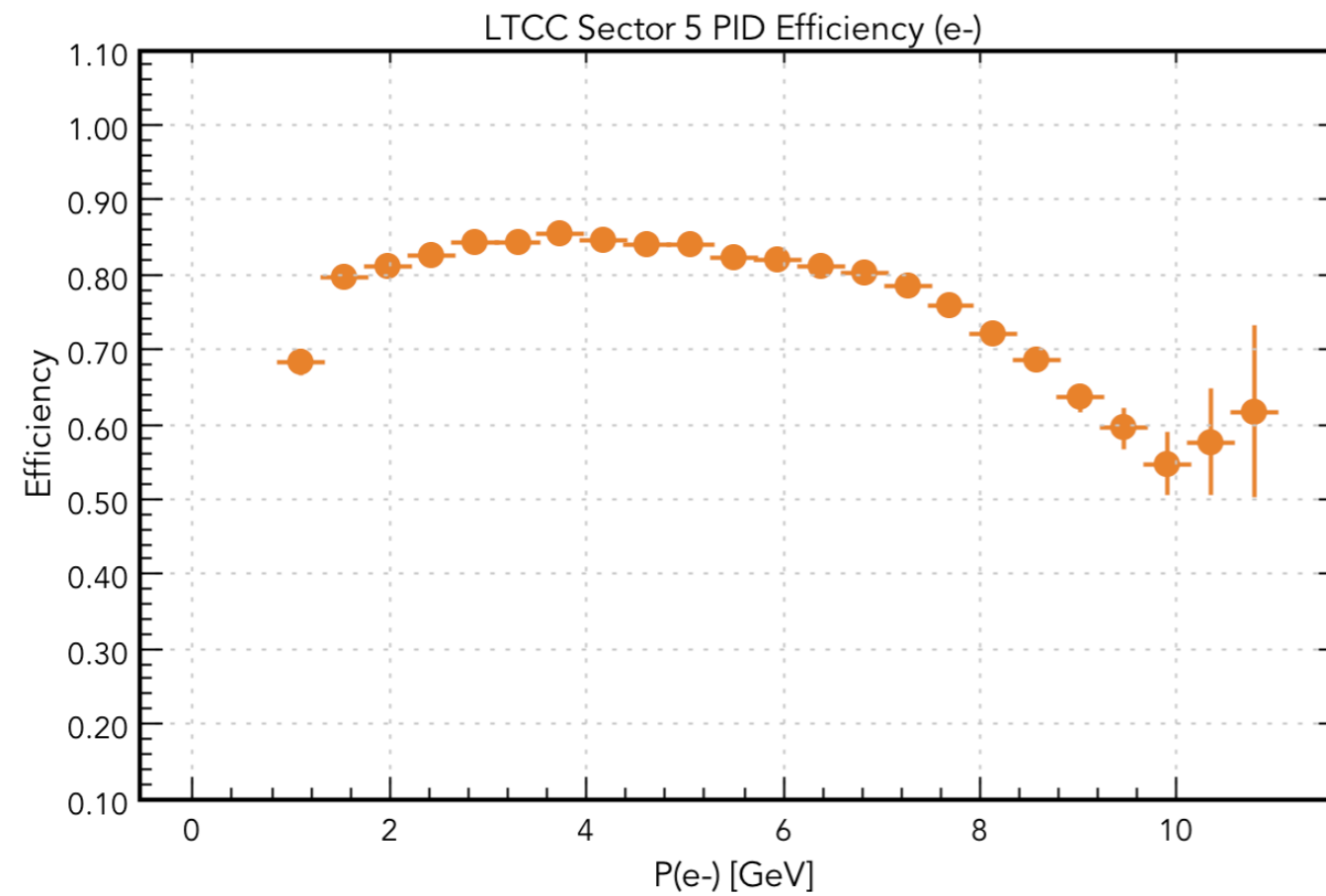
CLAS6, e1-6 data

CLAS12 Run 3432 (not latest and greatest)



LTCC Electron Efficiency, run 3432

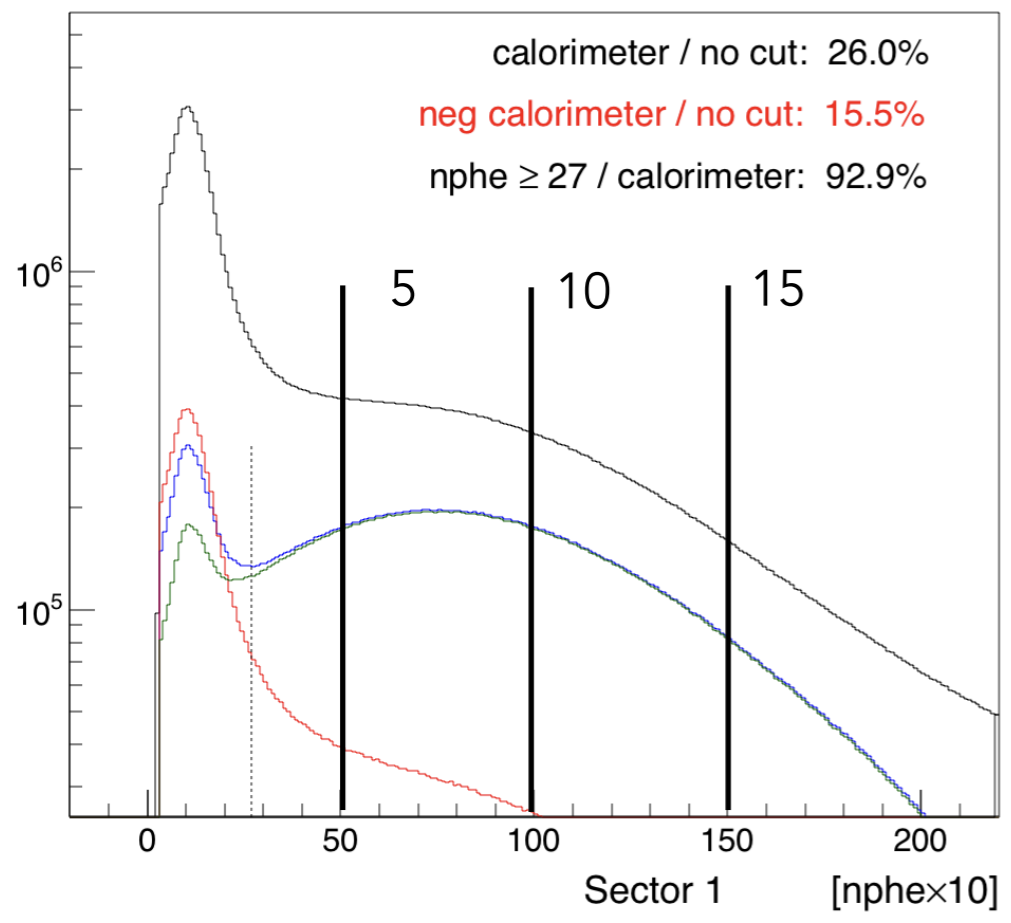
Preliminary: rough LTCC cluster to track matching
Still working on reconstruction algorithms
Calibration / Gain Matching is improved since 3432



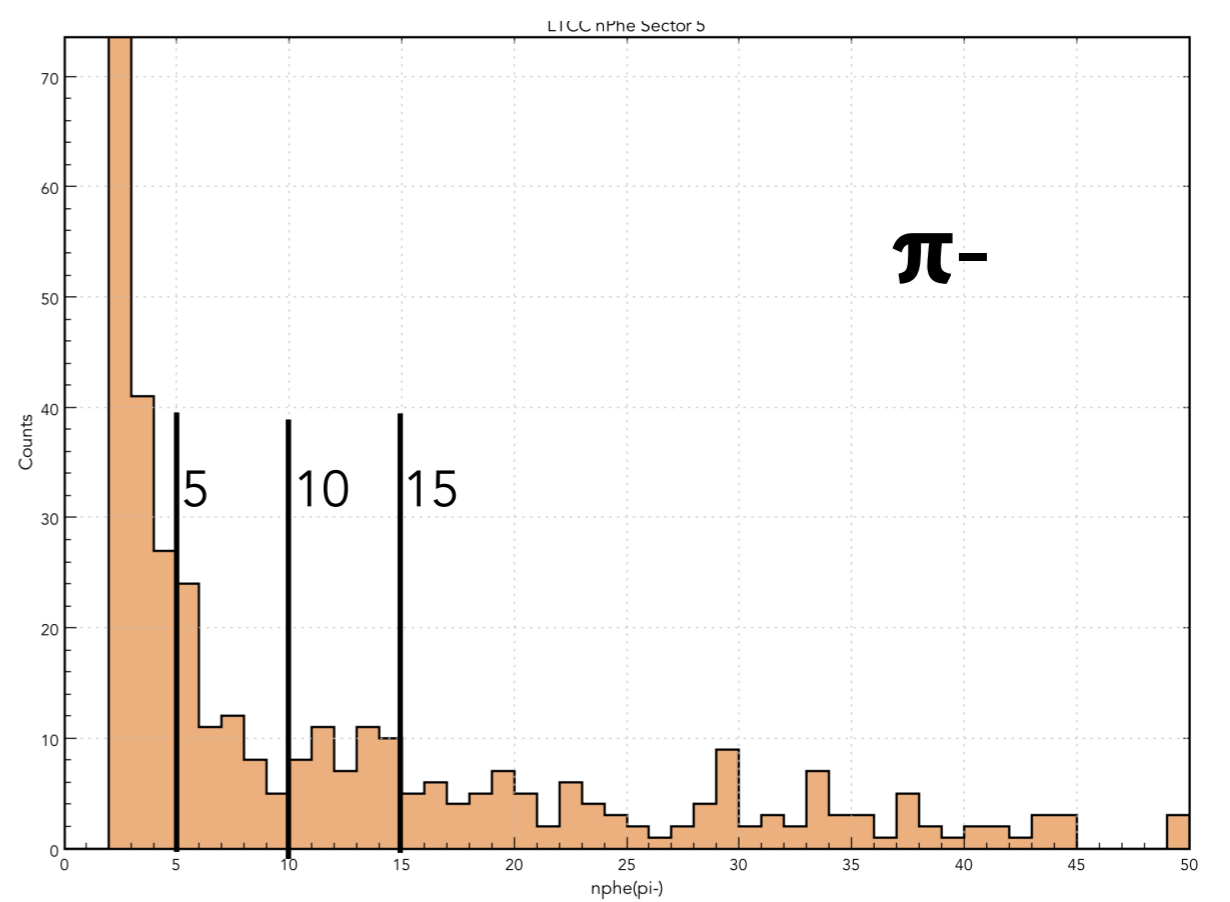
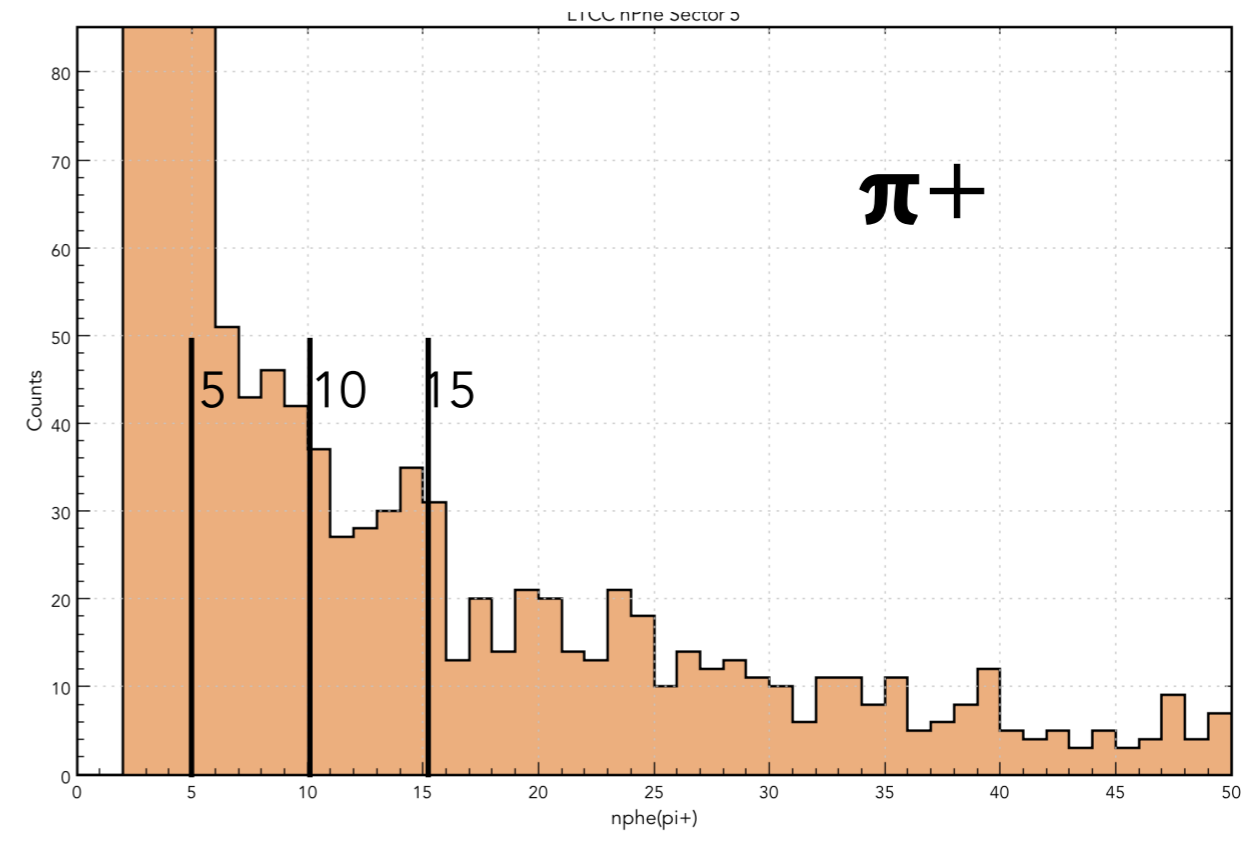
pions, run 3432

→ no cuts
→ calorimeter cuts
→ calorimeter negative cuts
→ all cuts applied

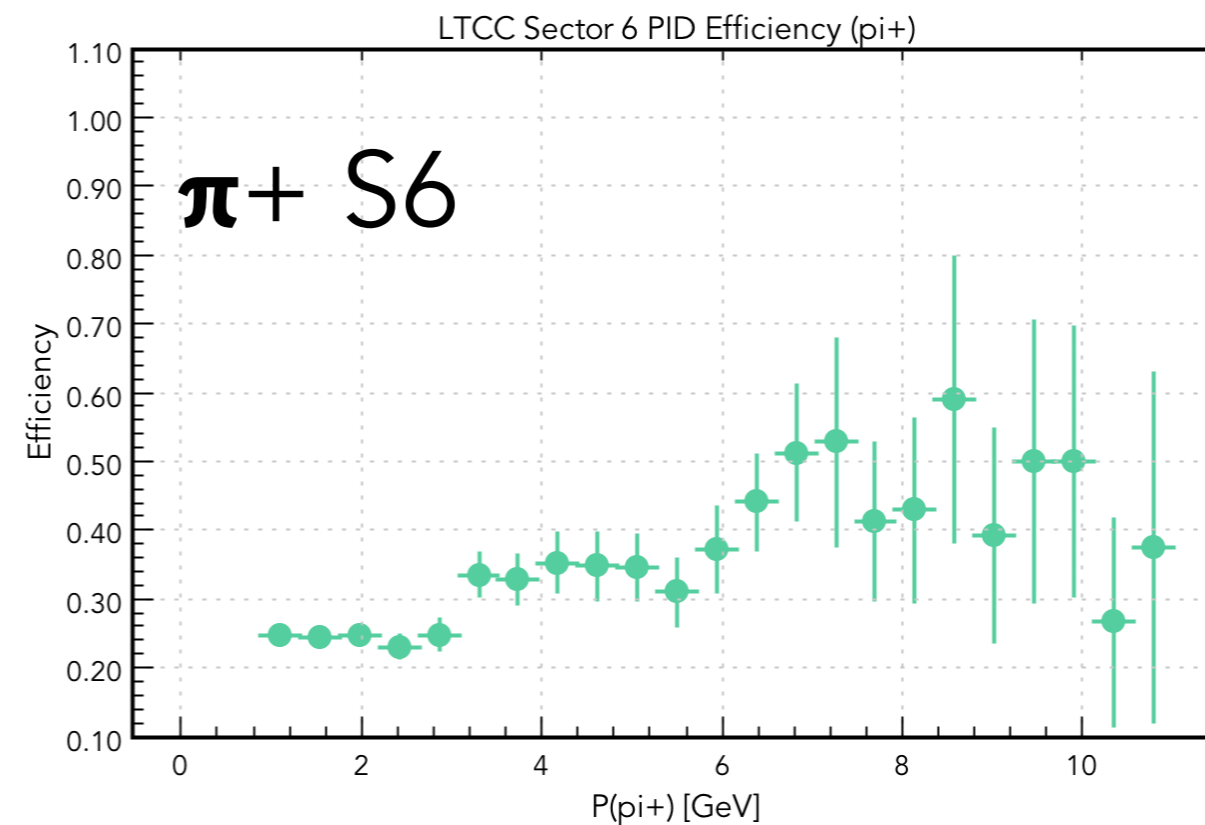
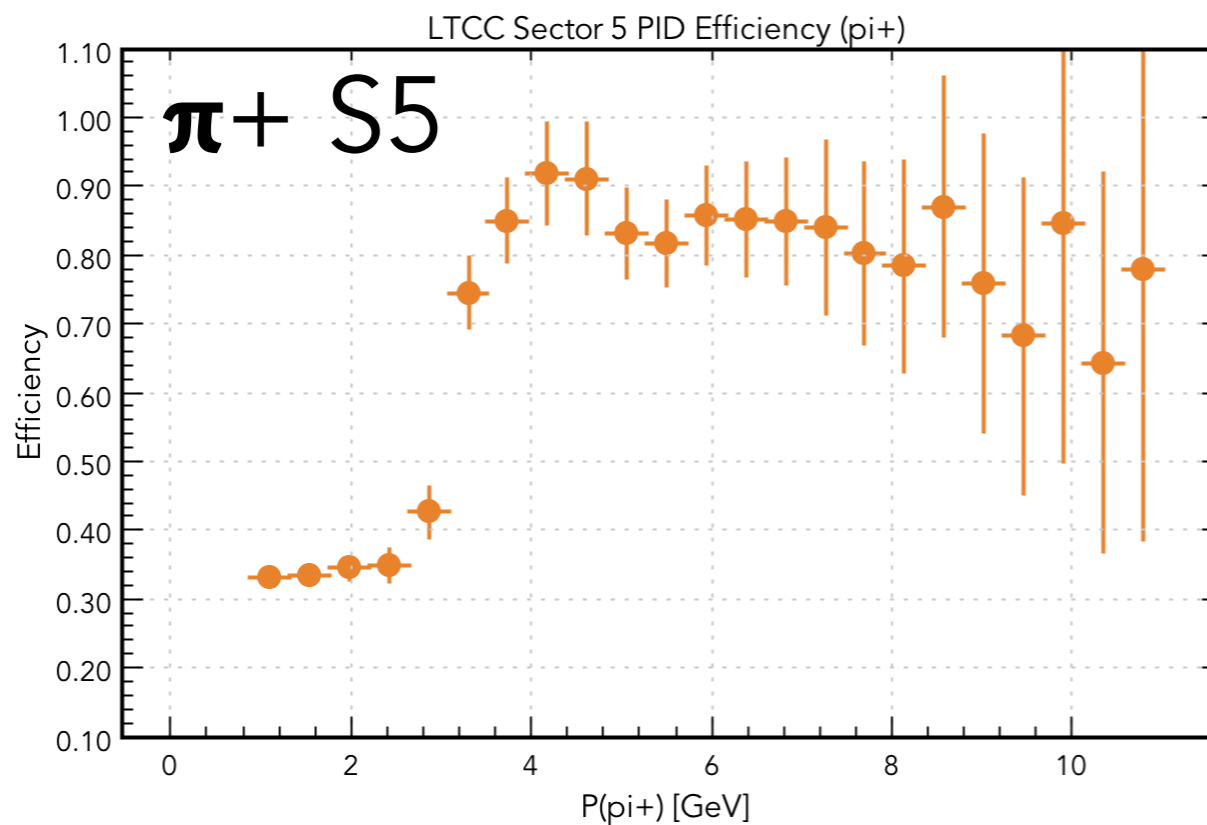
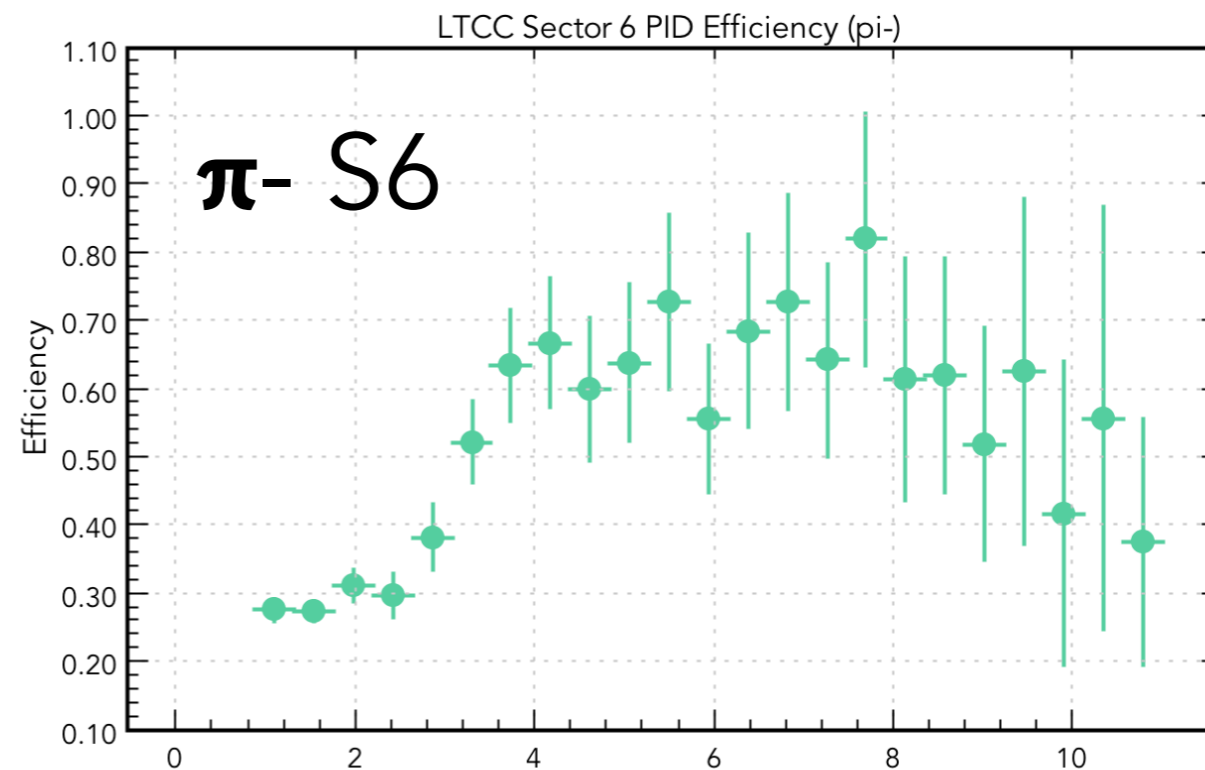
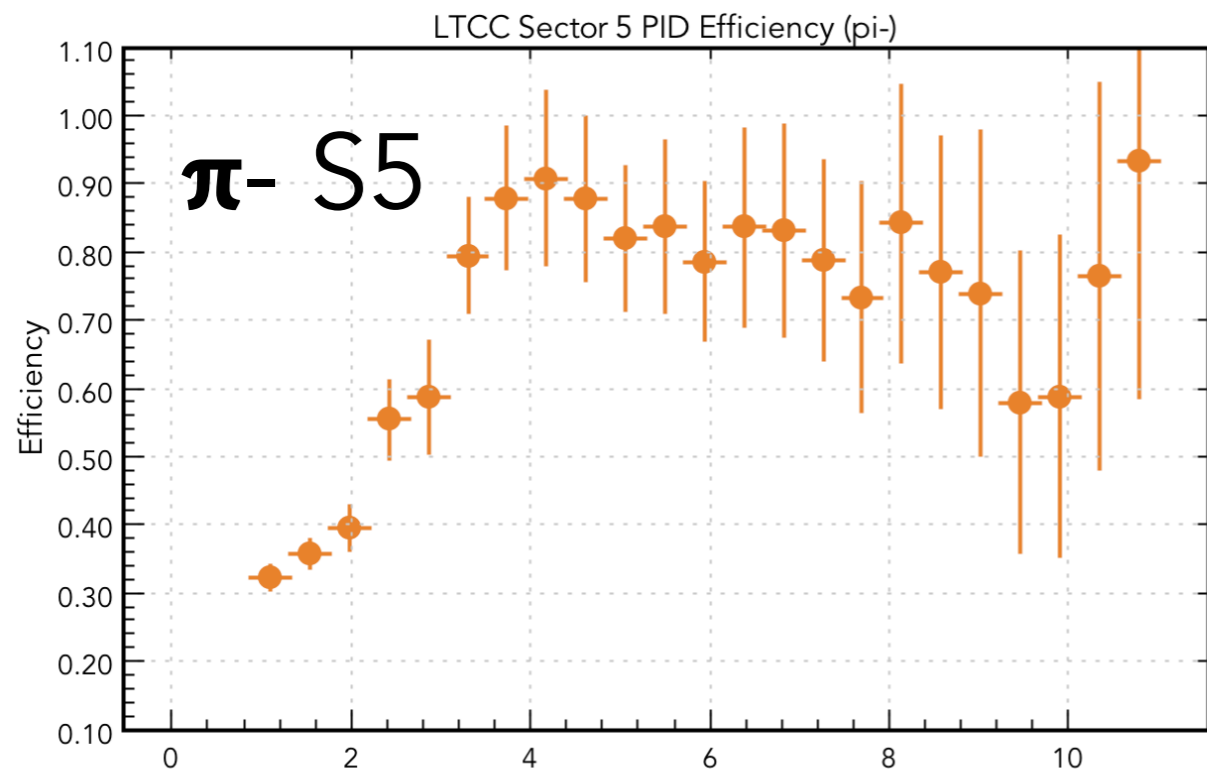
calorimeter / no cut: 26.0%
neg calorimeter / no cut: 15.5%
nphe ≥ 27 / calorimeter: 92.9%



CLAS6, e1-6 data



Pions efficiency, run 3432



Threshold in C4F10: 2.6 GeV
Expected signal starting at 3.5 GeV

Threshold in Nitrogen: 5 GeV

Outlook

Preliminary Results: LTCC pion identification performing as expected.

SPE Calibration improving daily.

Software TODOs:

- Timing calibration.
- Improve Cluster Matching to track

Gas TODOs:

- Purchase C4F10
- Design Authority approval for a new (or refurbished) C4F10 recovery system