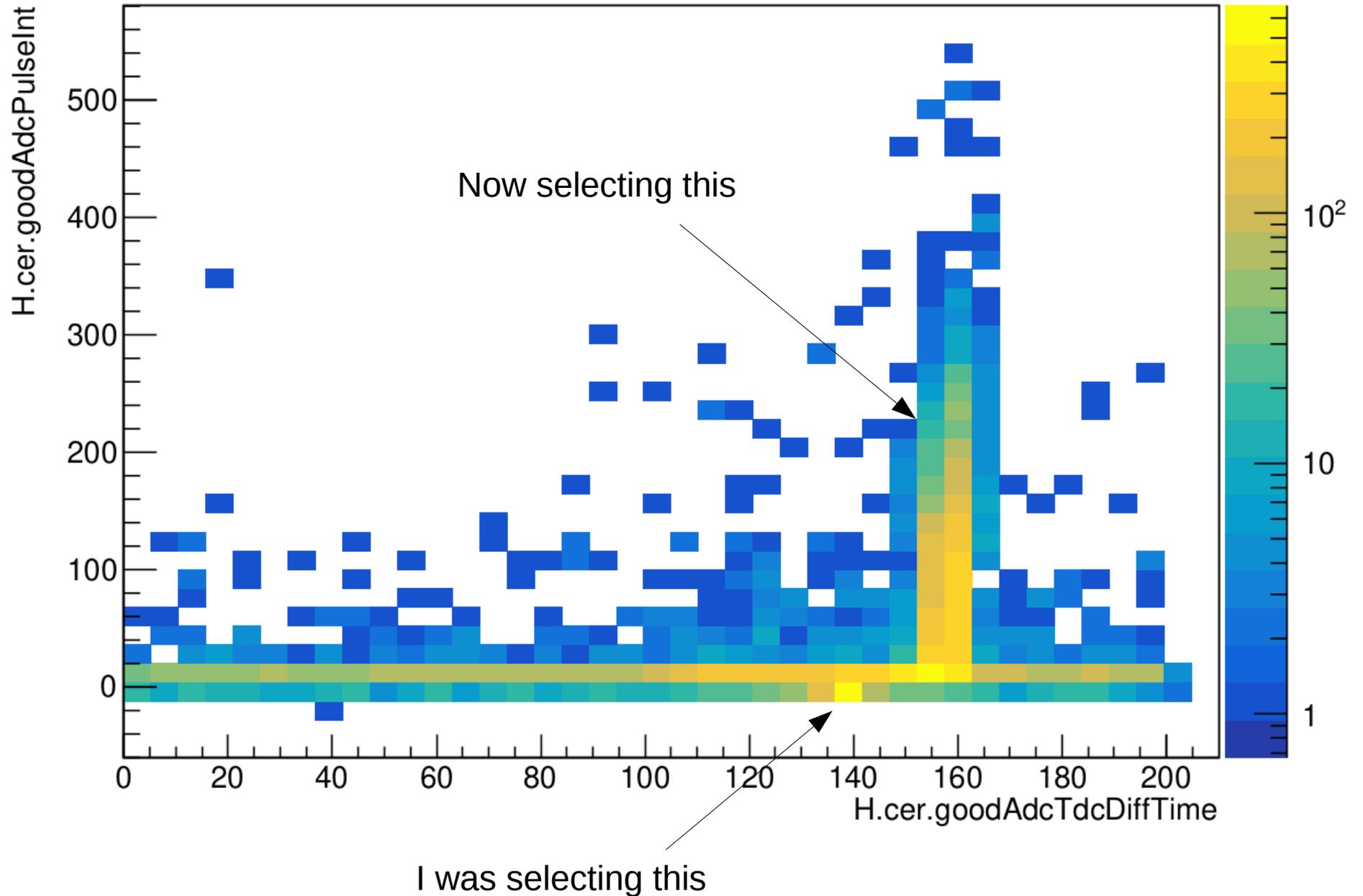


HMS Cer calib update 11/05/2023

Found the issue with my plots from last week. I had been selecting the wrong peak in the ADC-TDC diff time spectrum.

Fixed that and now I have nice fits, should have good parameters

Timing Window



Timing window

- I have updated the Detector time cuts in Hcana to reflect where this peak is.
- This is reasonably stable, and the width of the cut in hcana will contain the correct peak for all pionLT data.

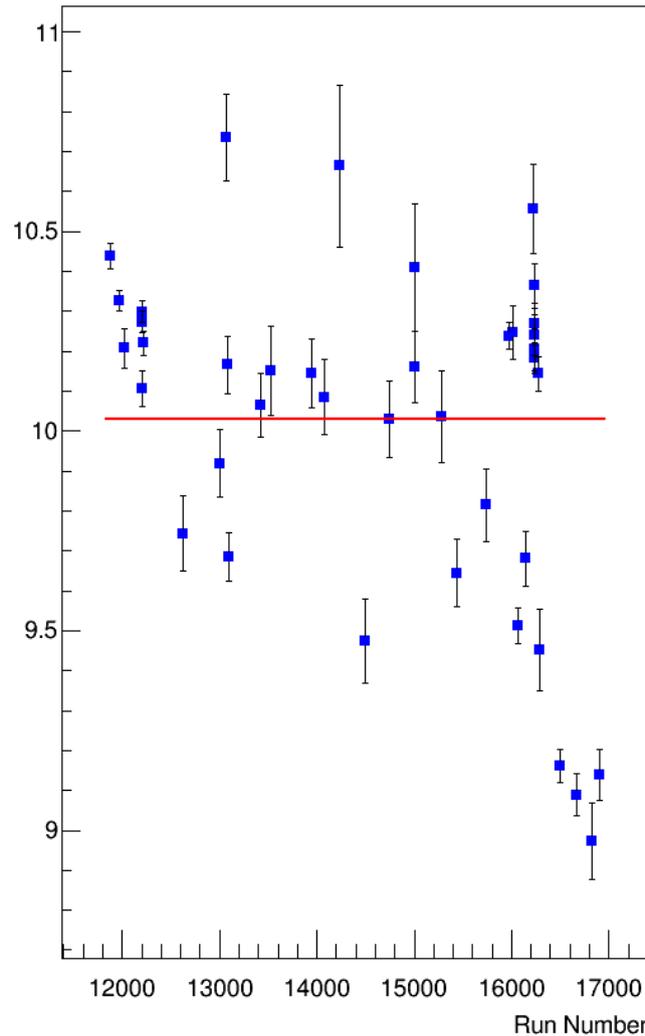
Calib params

Used same set of runs as I did for aerogel calib.

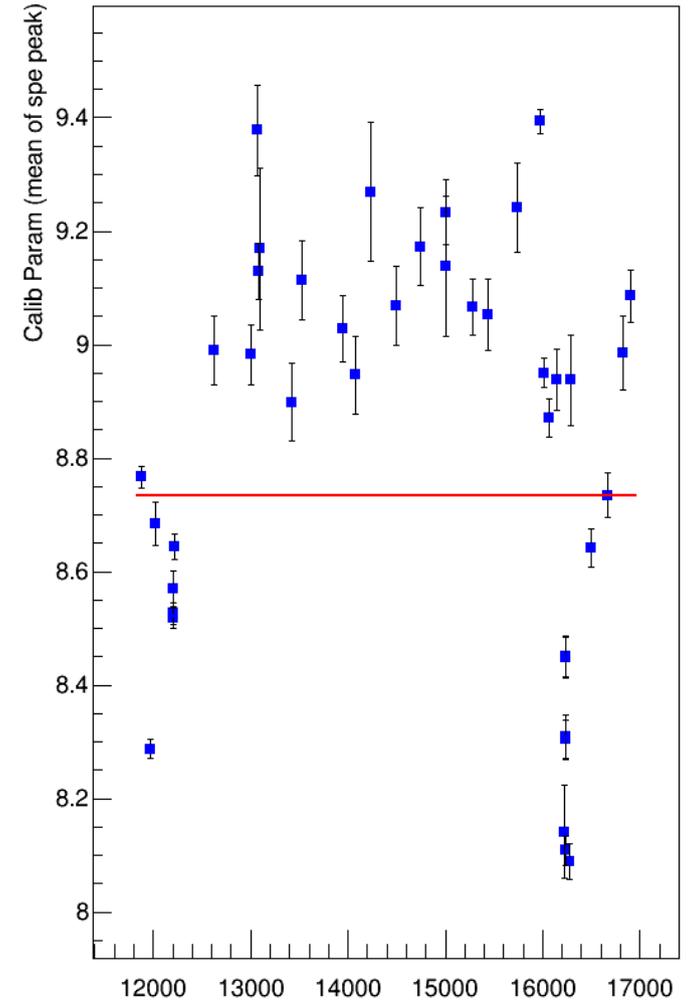
Taking the error weight mean as the final parameter

I've looked into the outlier runs, there is no discernible difference, seems to be random.

PMT1

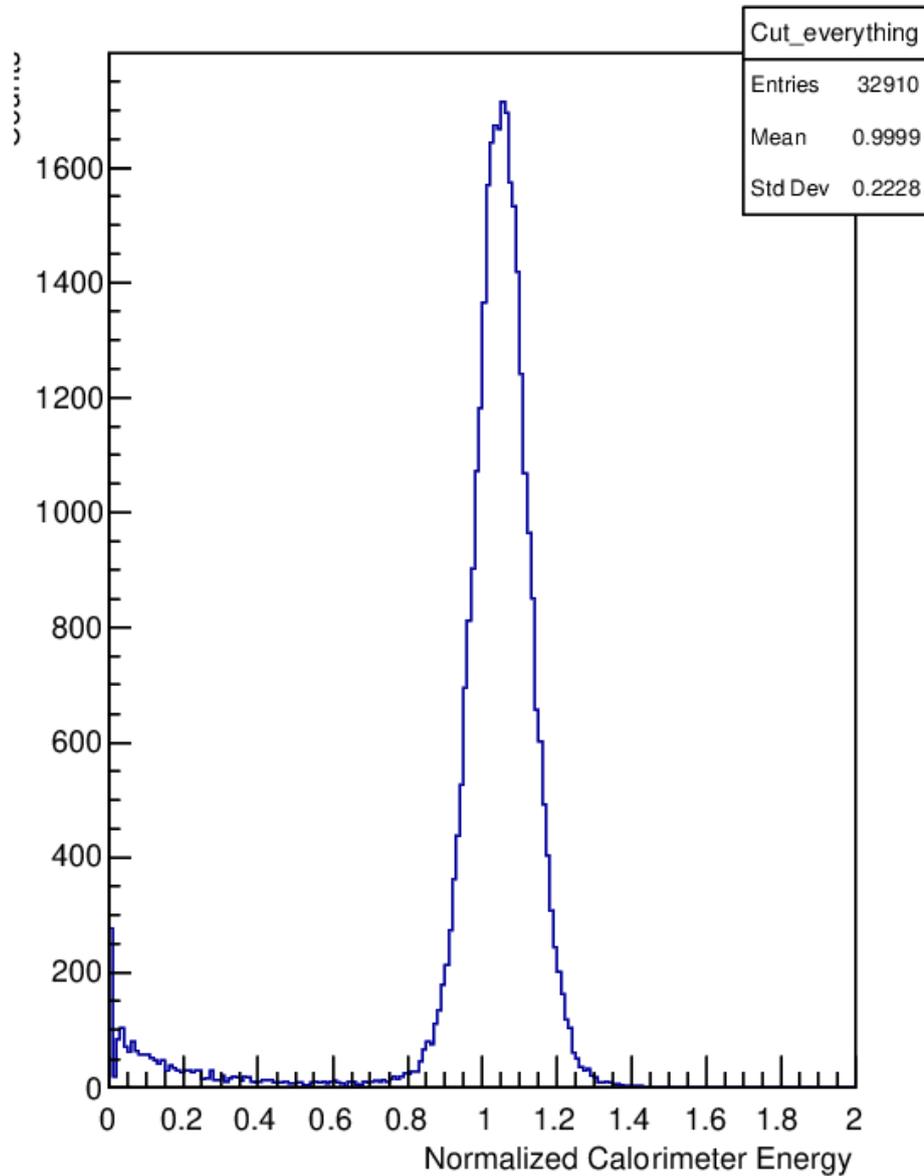


PMT2

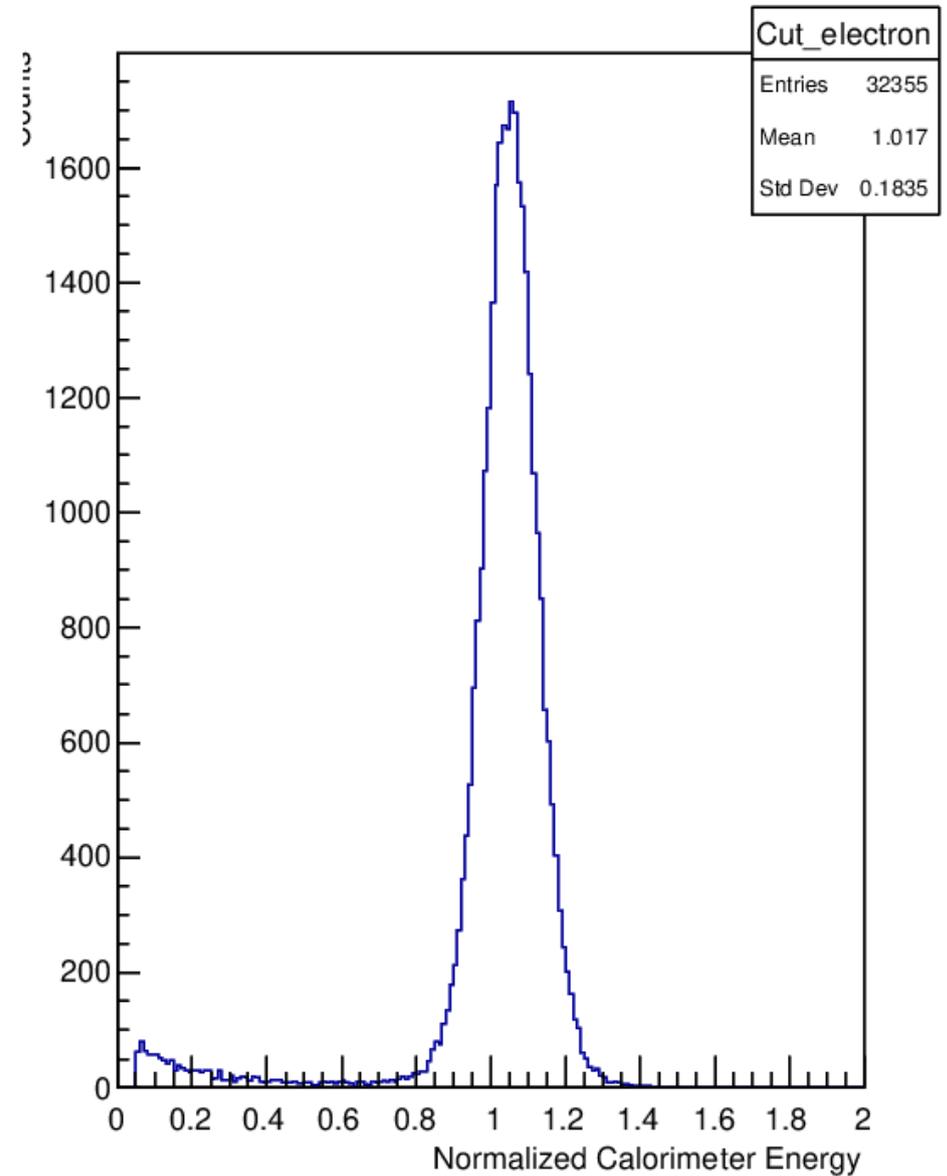


Example Cal Cut (14744)

Visualization of no cuts

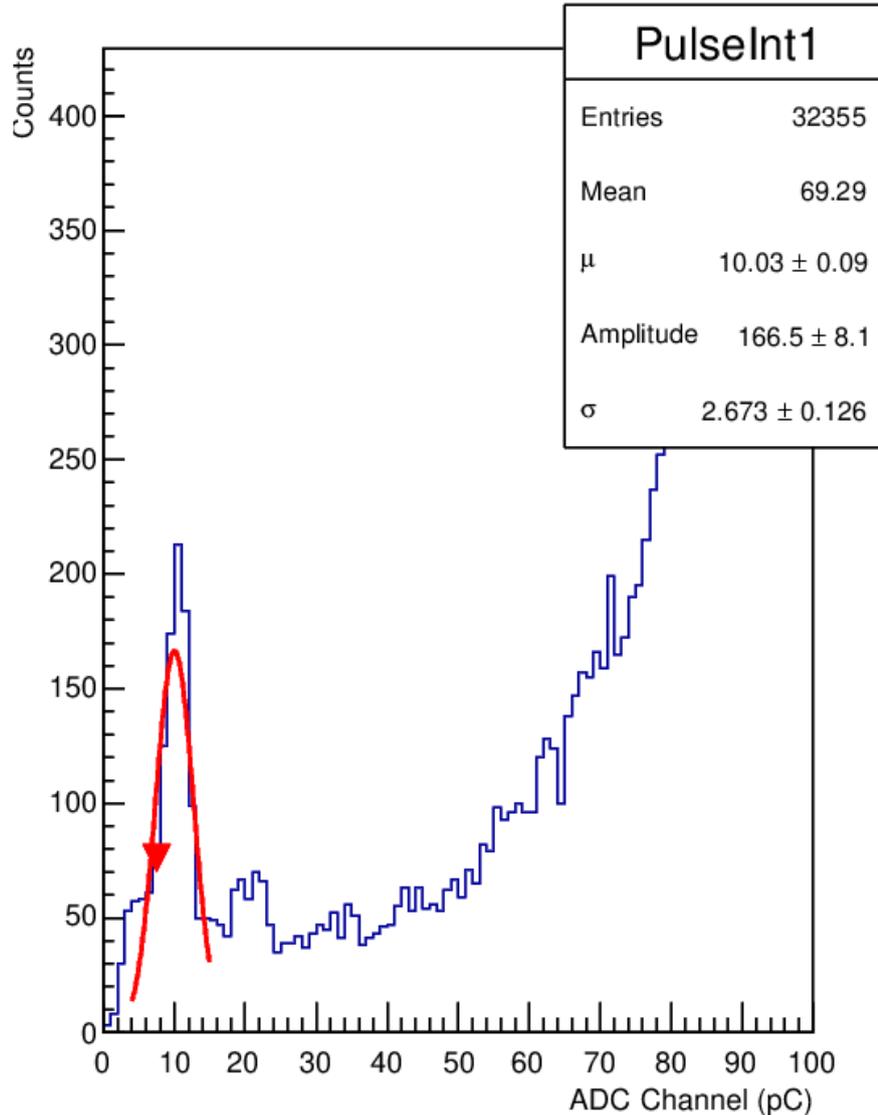


Visualization of pion cut

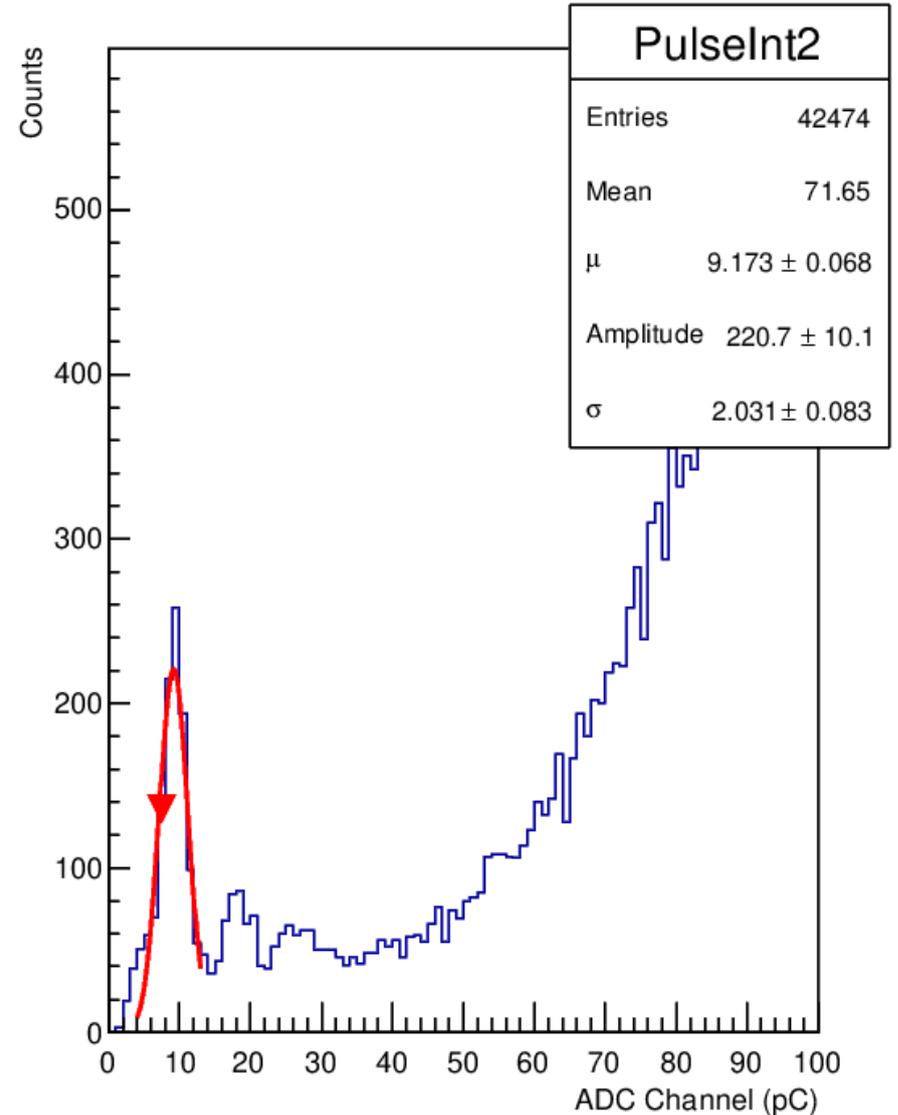


Fit 14744

Pulse integral PMT 1

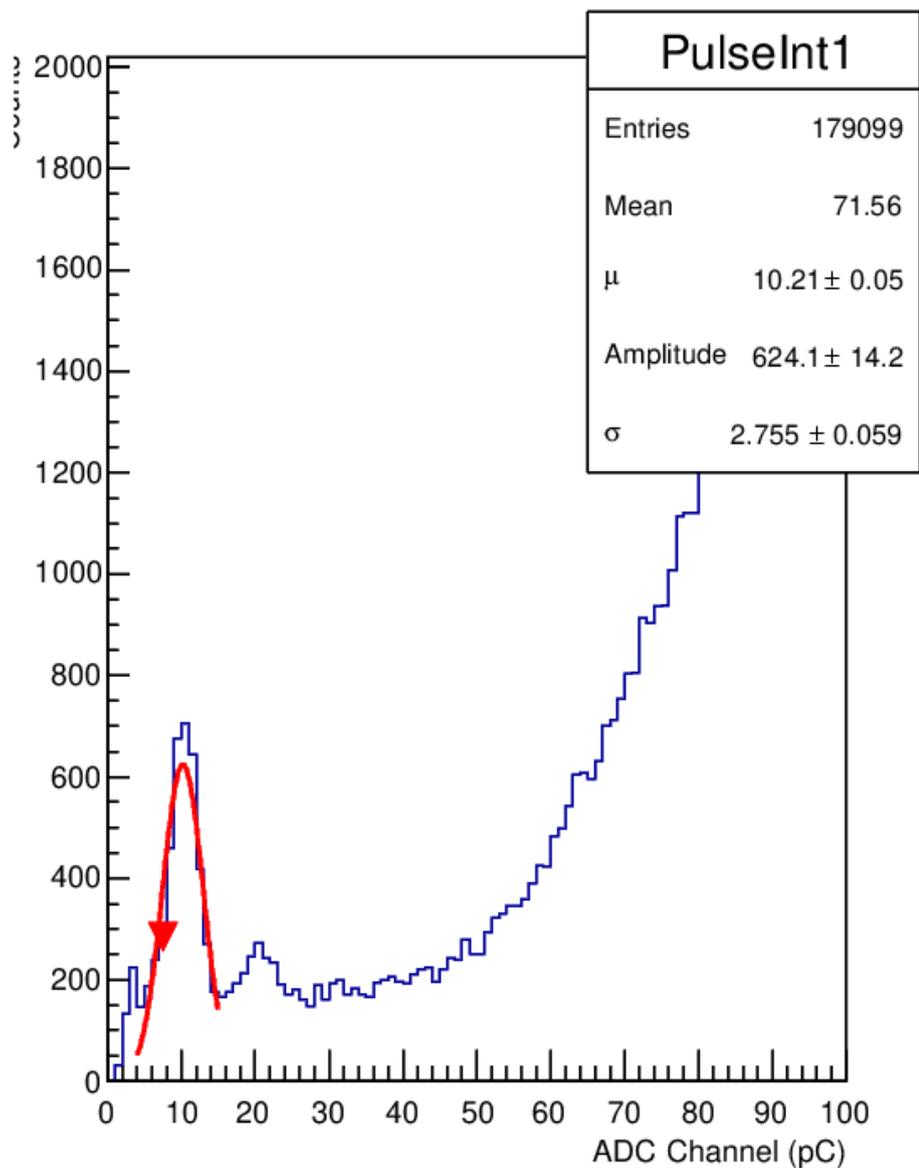


Pulse integral PMT 2

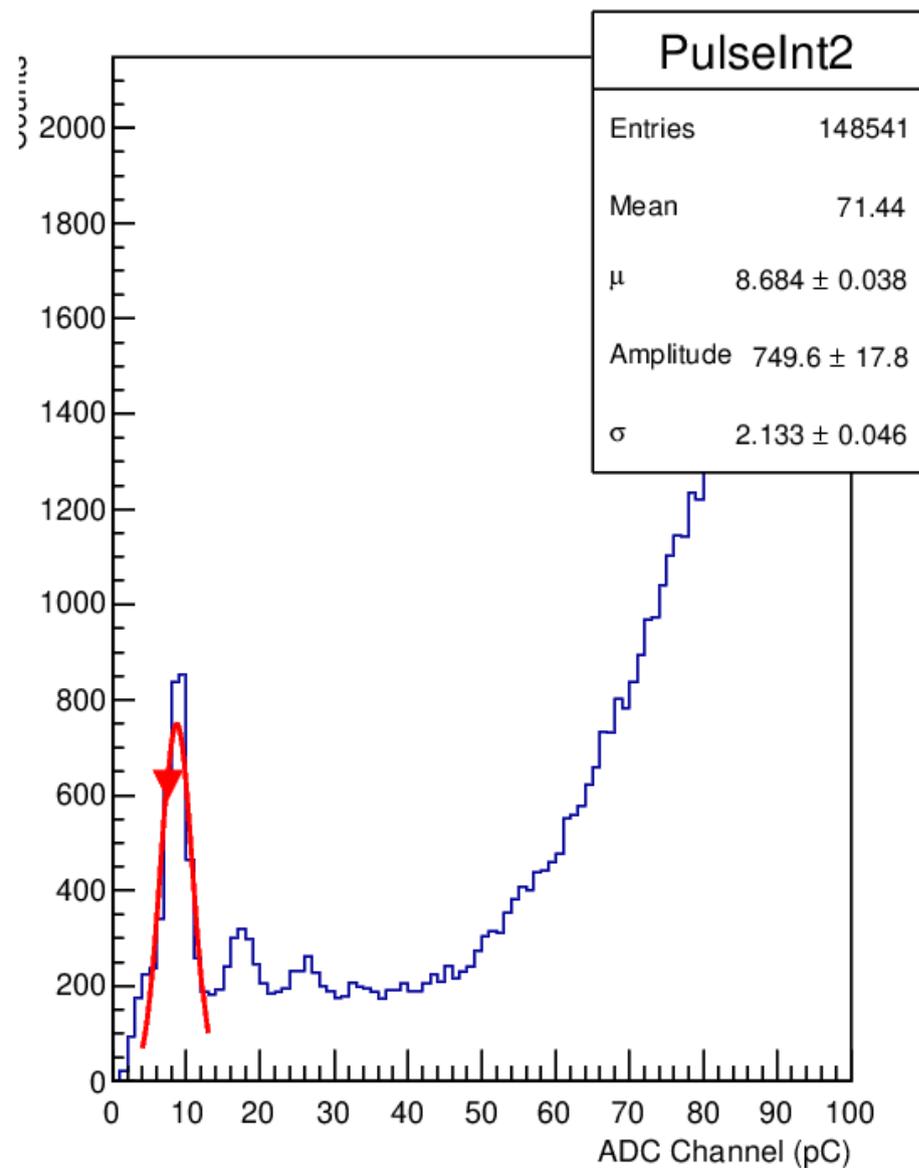


Fit 12022

Pulse integral PMT 1

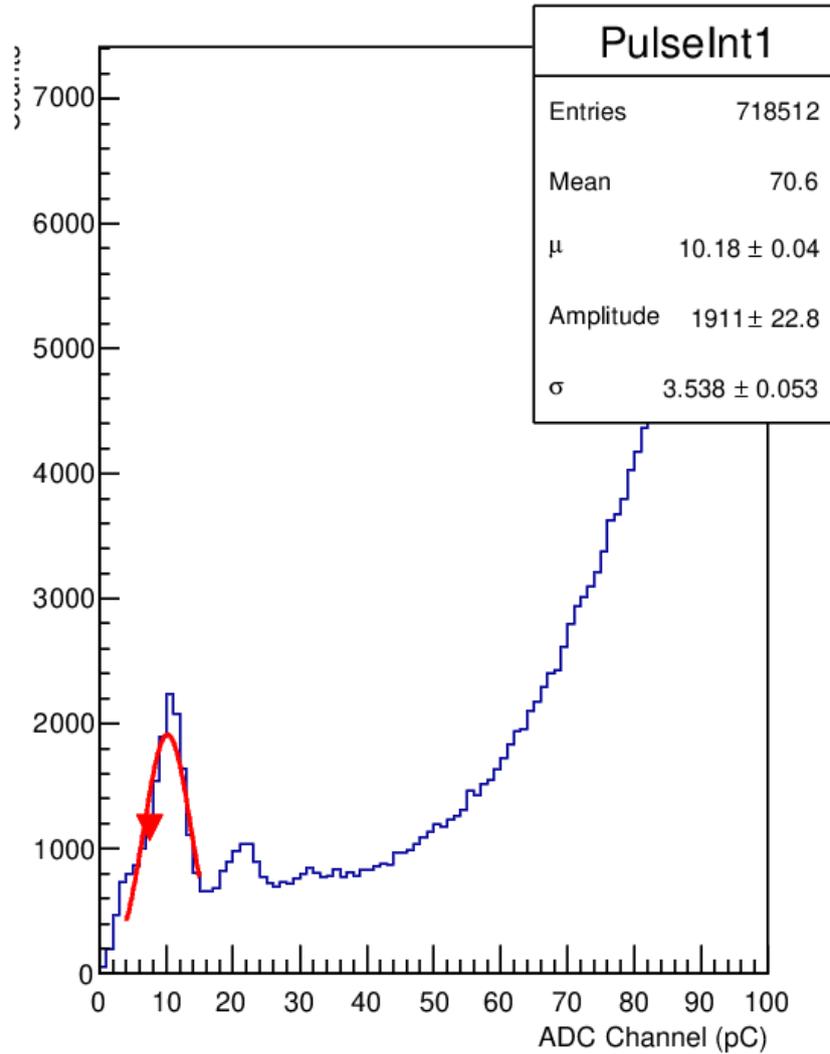


Pulse integral PMT 2

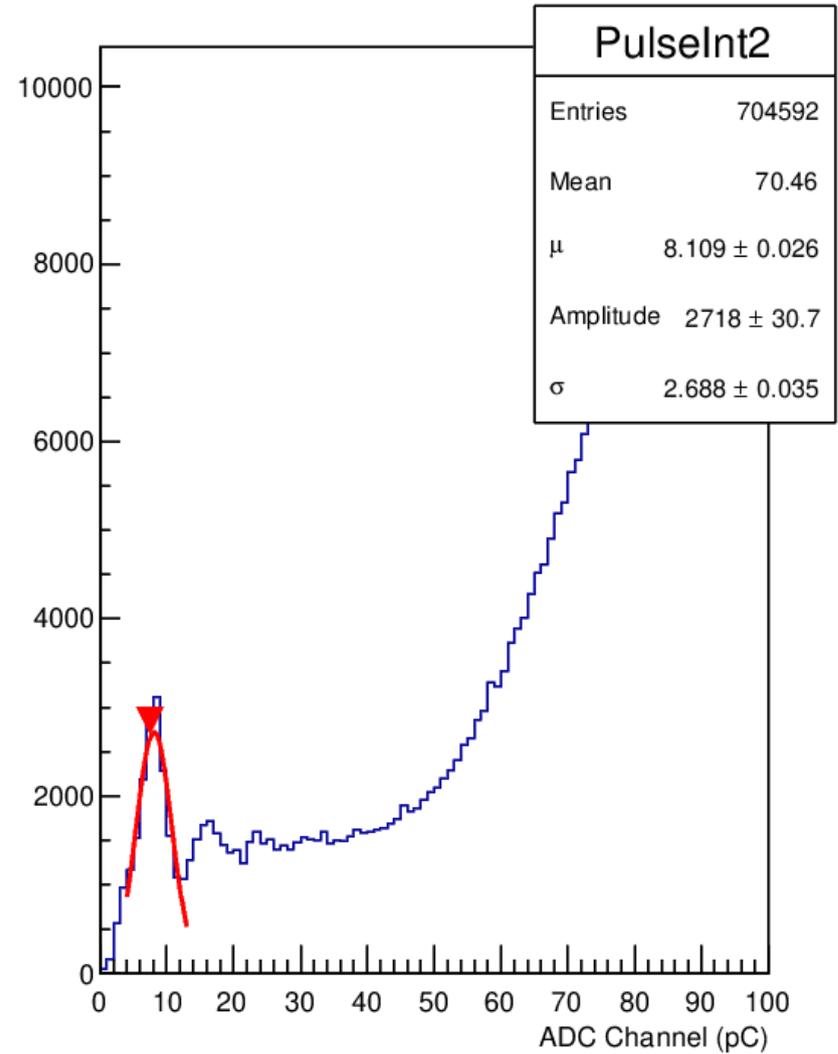


Fit 16232

Pulse integral PMT 1

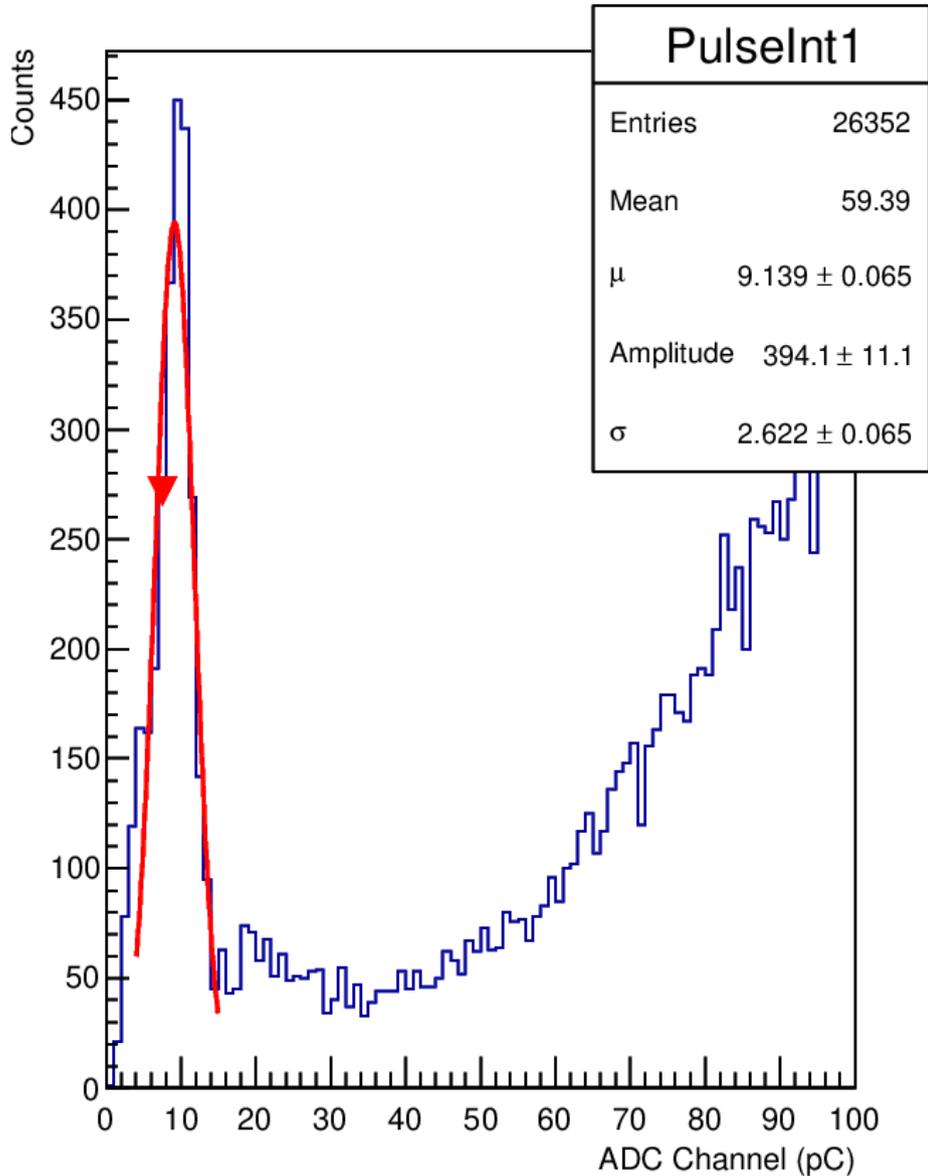


Pulse integral PMT 2

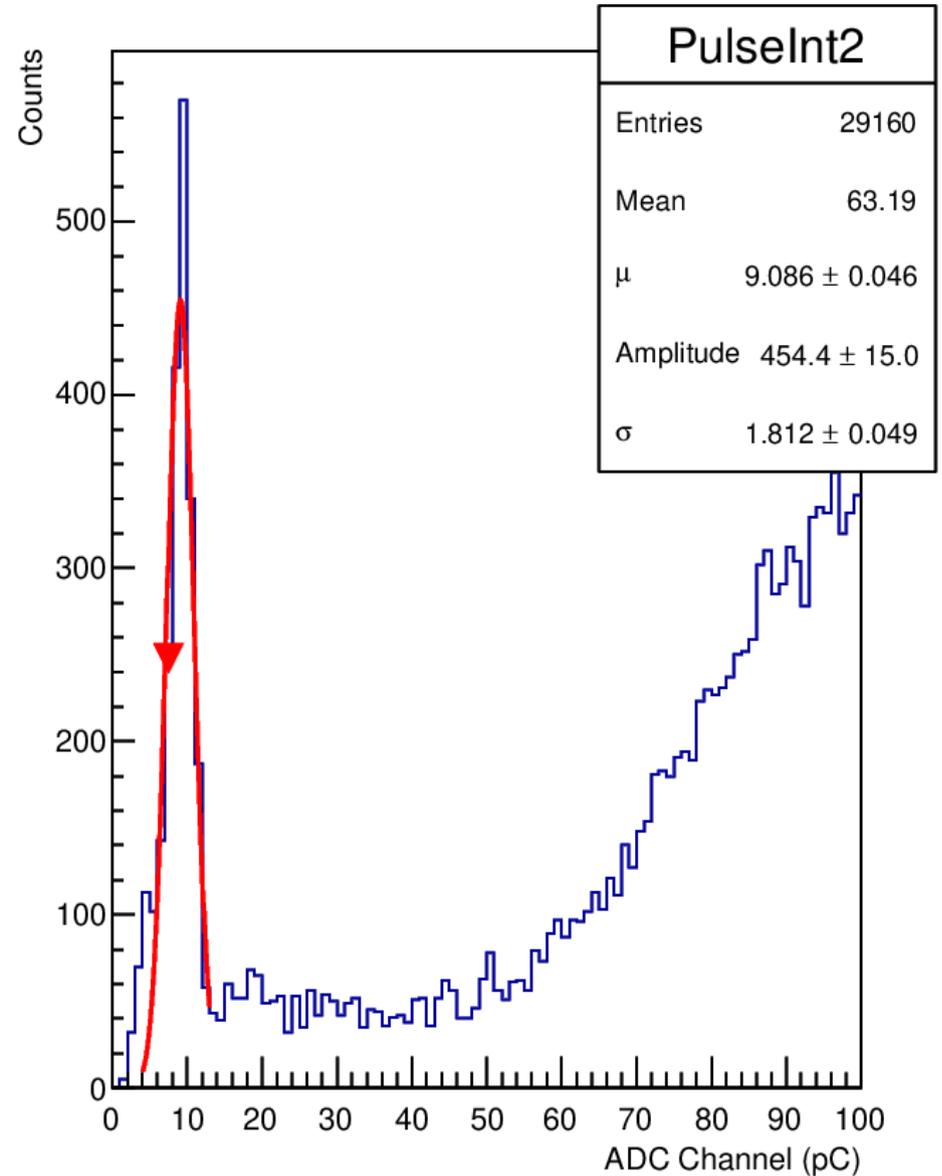


Fit 16900

Pulse integral PMT 1



Pulse integral PMT 2



Conclusion

- I think one param for 2021 and 2022 is good enough.
- Presently running online analysis script to get a look at change to PID plots