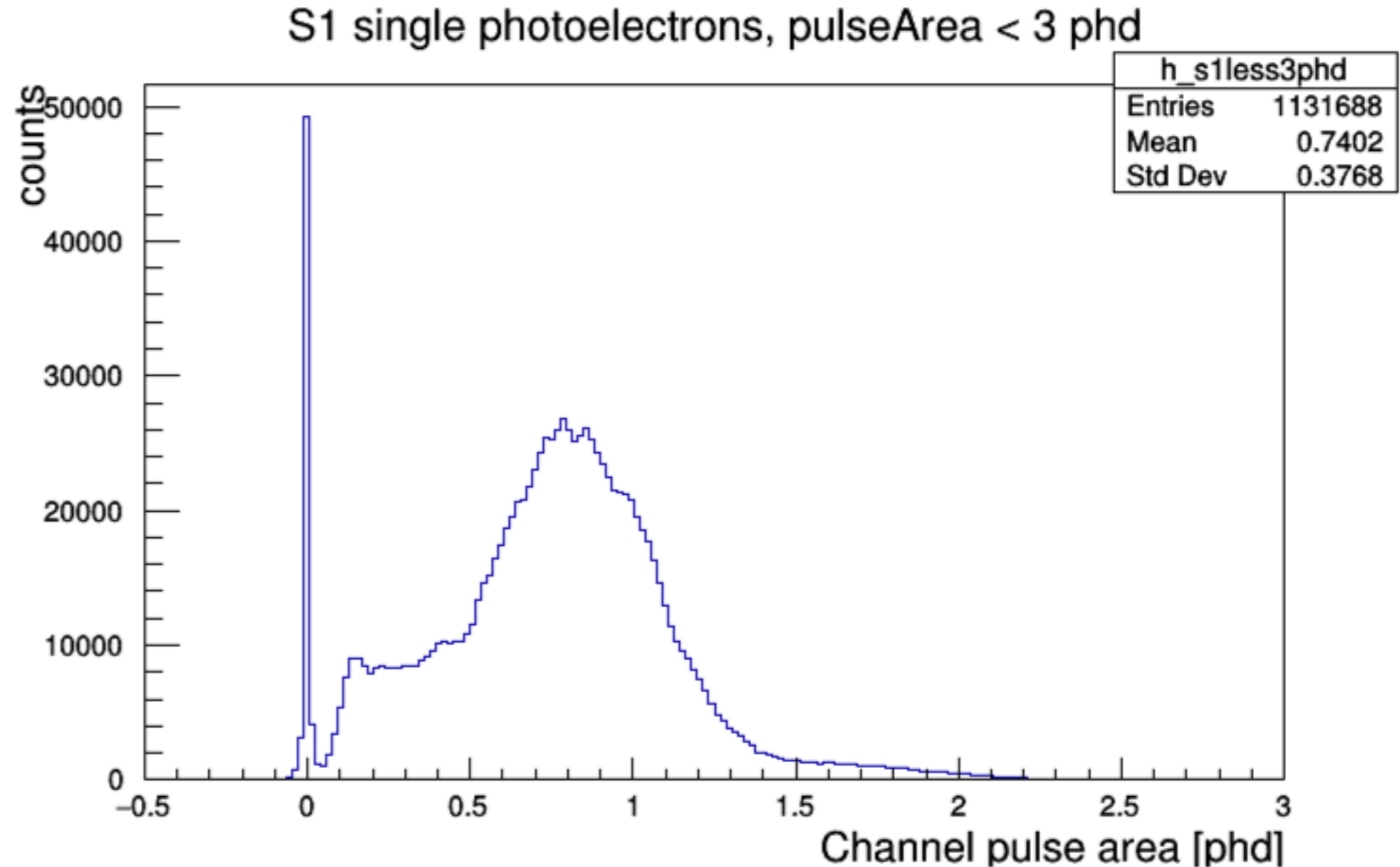


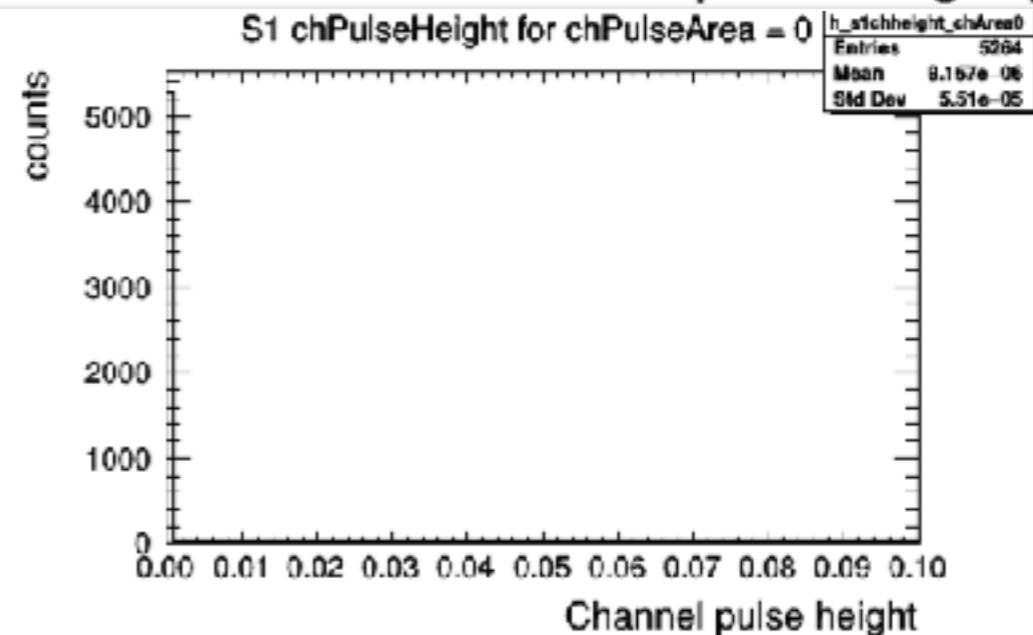
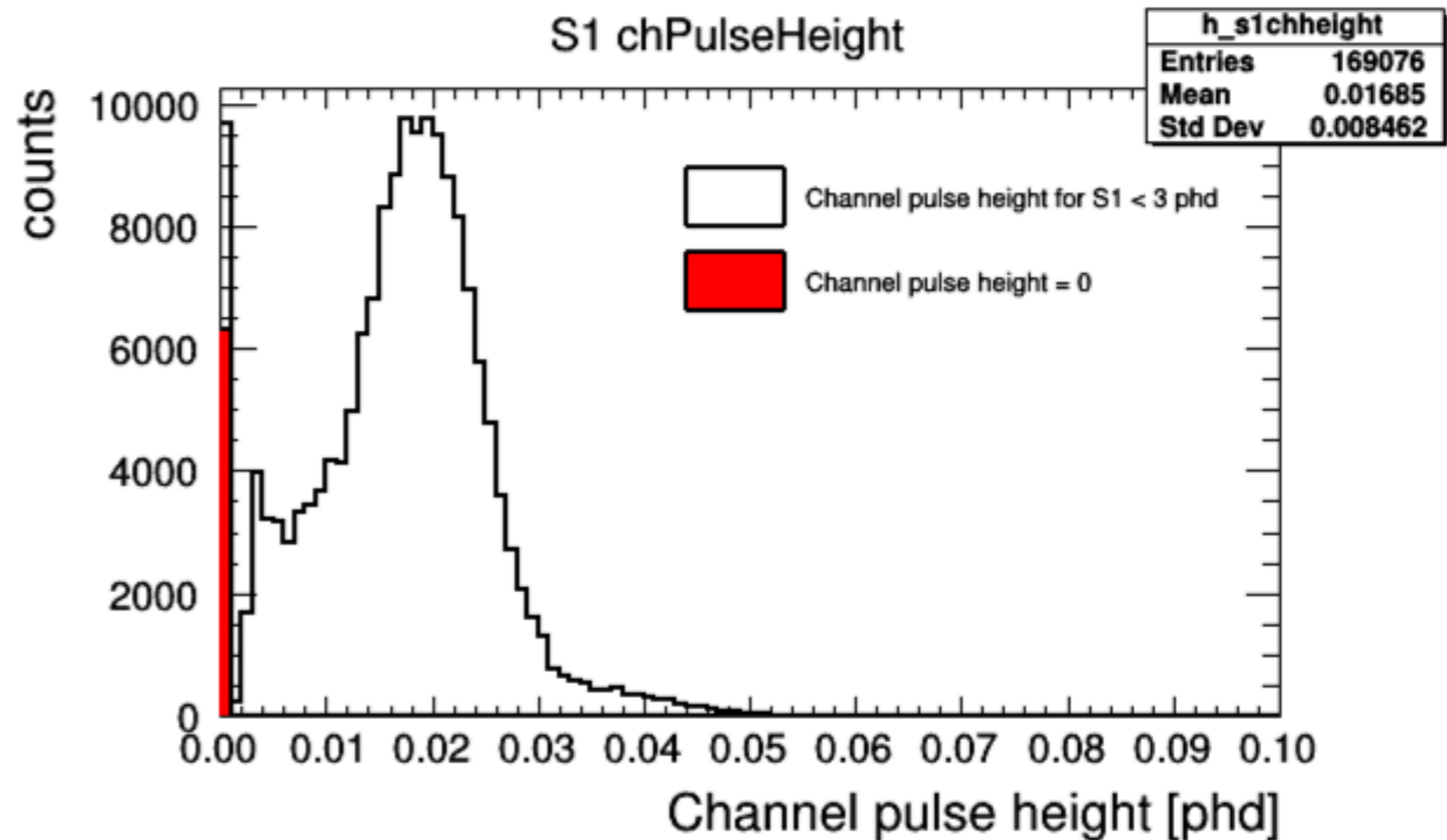
Small S1 sizes

- Size of sphe can be approximated by looking at small S1 pulses.
- Large population near 0 phd in channel pulse area.
 - Artifact of rounding some fractional signal?



Small S1 pulse heights

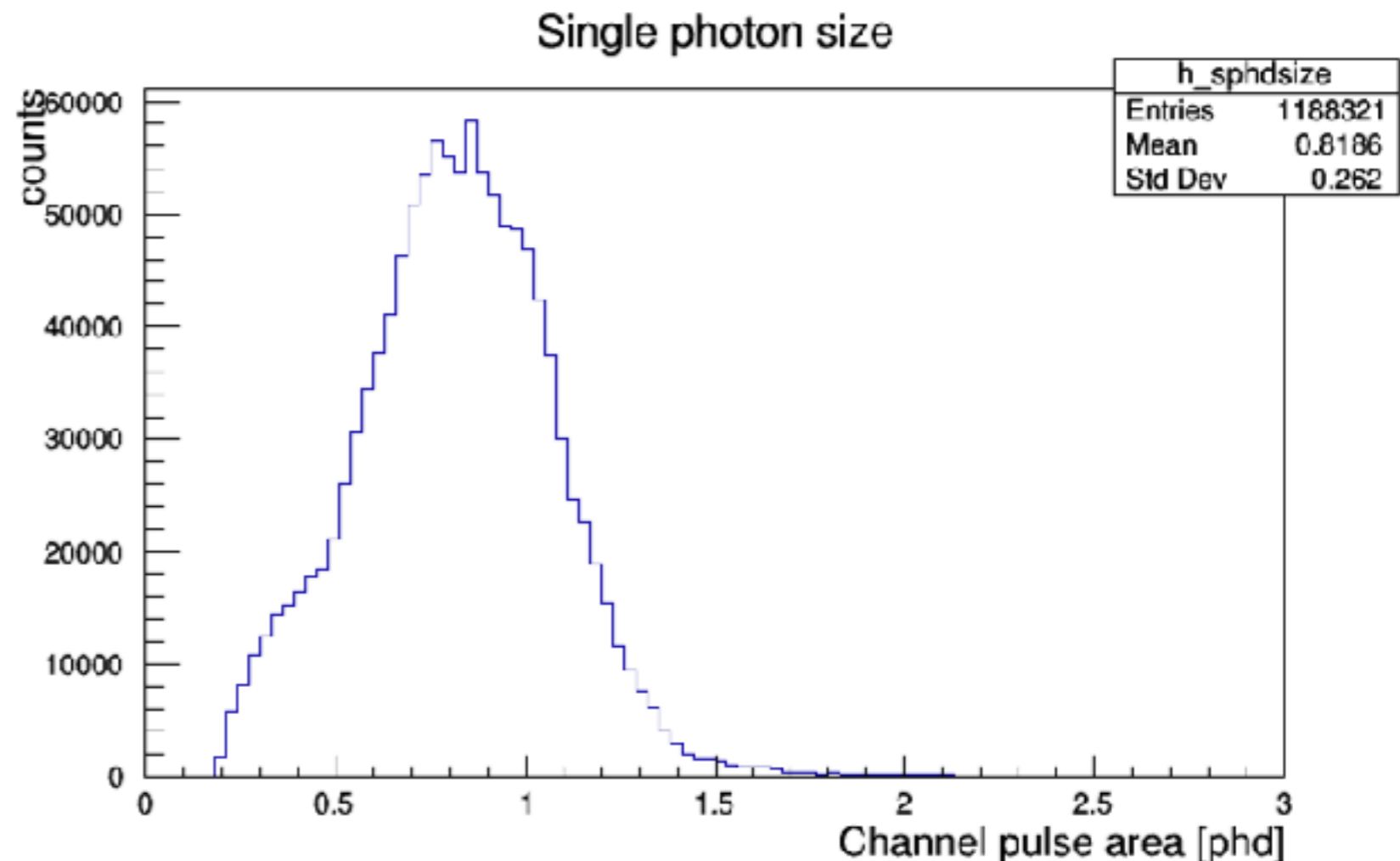
- A few days of data were processed to keep the channel pulse heights.
- (*top right*) Histogram the channel pulse heights
 - (*red*) Some channel pulse heights = 0!
This histogram is superimposed.
- (*bottom right*) Histogram the channel pulse heights for channel pulse areas = 0 phd. There are 5264 entries here.



25 July 2017

Single PE size

- LZ recently released simulated data for its 1st Mock Data Challenge (MDC1).
- Working on looking at the sizes of single photoelectrons (PE) found by the analysis chain which approximates the dark current.
- The single PE detected by PMT can produce 1 photon or 2 photons (~20% of the time).
- Expect the single PE to have an average near 1 phd (“photon detected”).



(above) Pulse area detected for pulses identified as single PE where only 1 PMT triggered for the pulse. The data is from the MDC1 July 20-23, 2017 datasets.