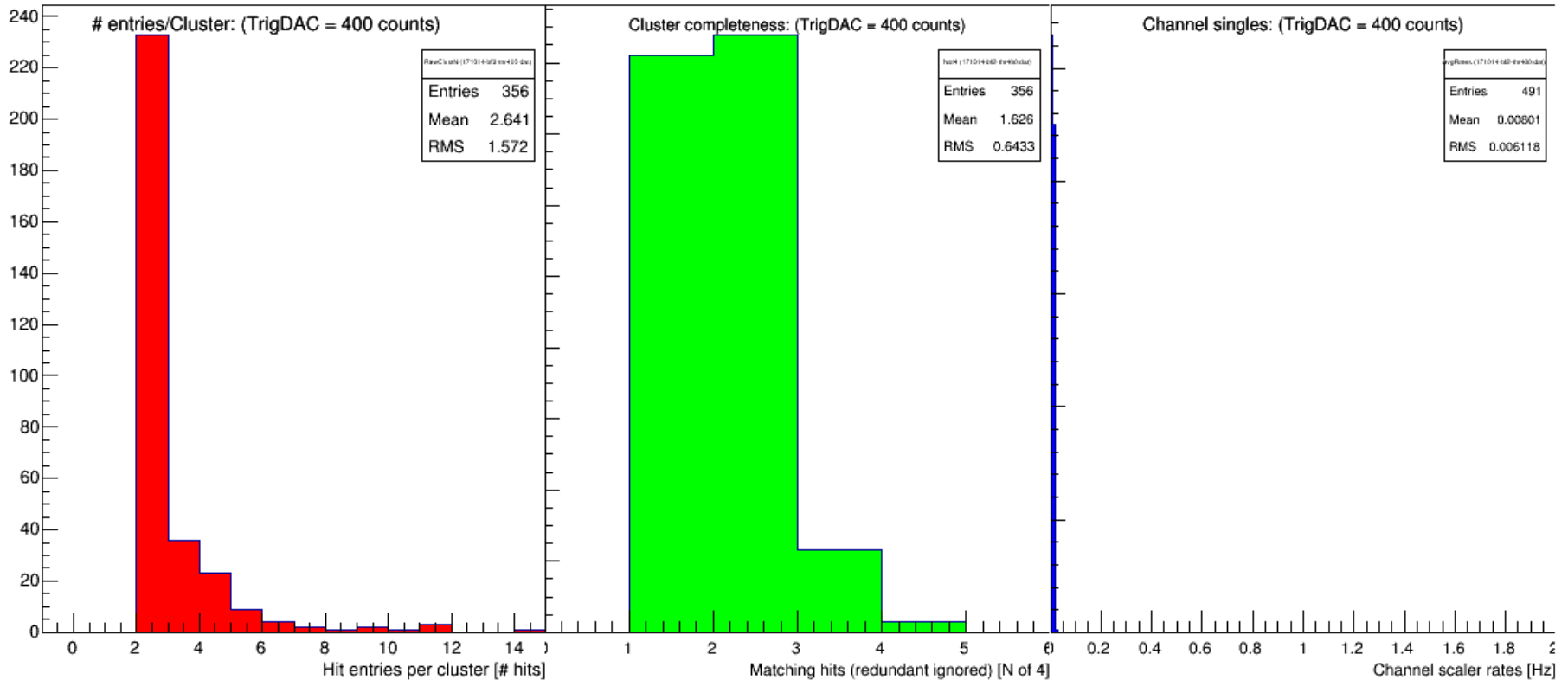


Scint Trigger Efficiency

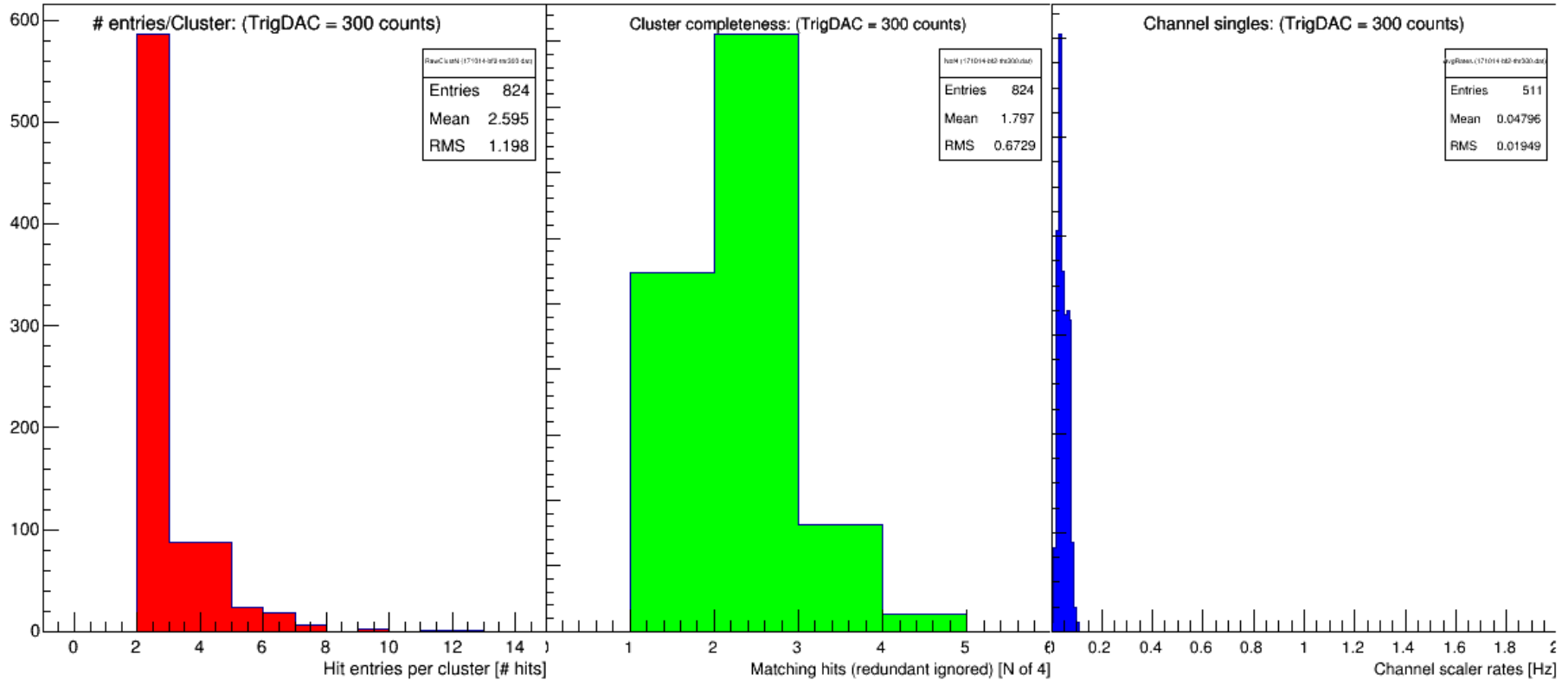


G. S. Varner
23-OCT-2017

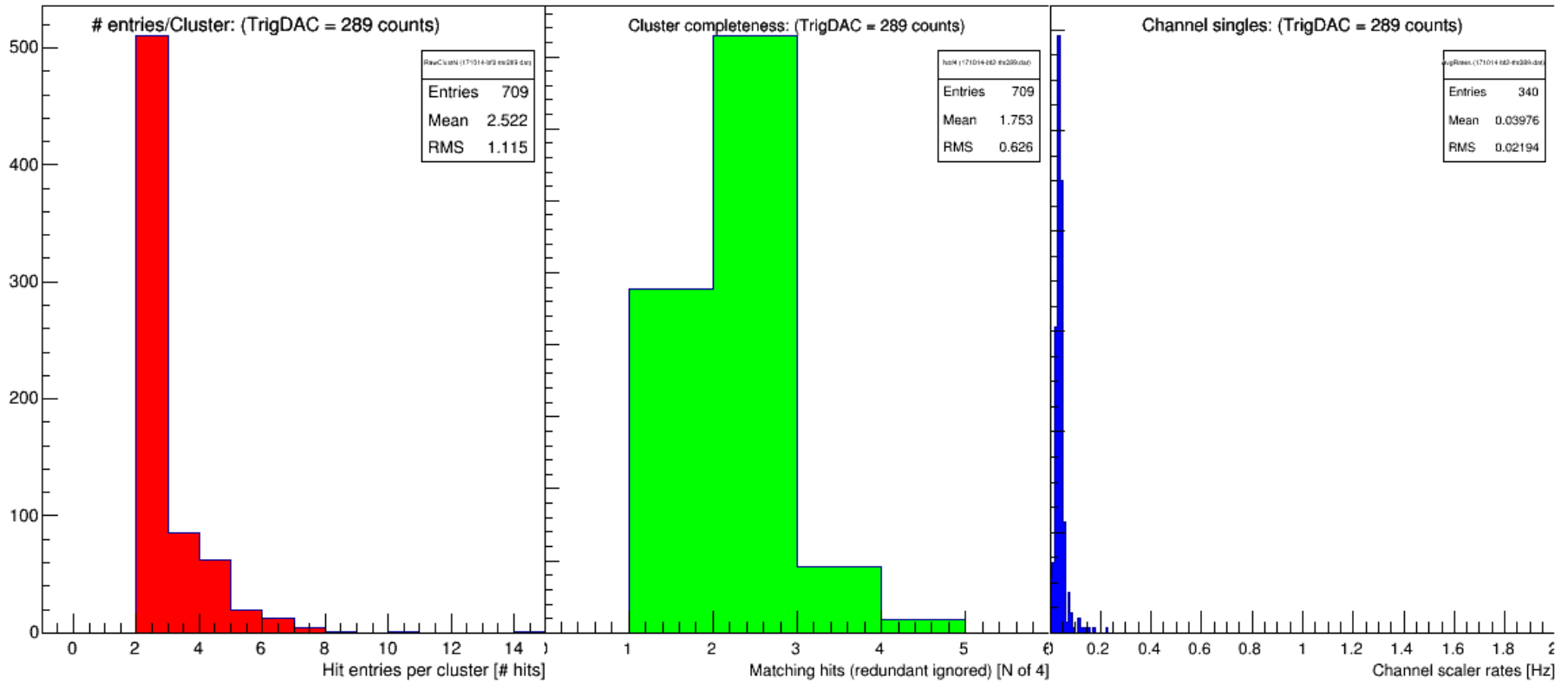
Highest TrigDAC threshold = 400



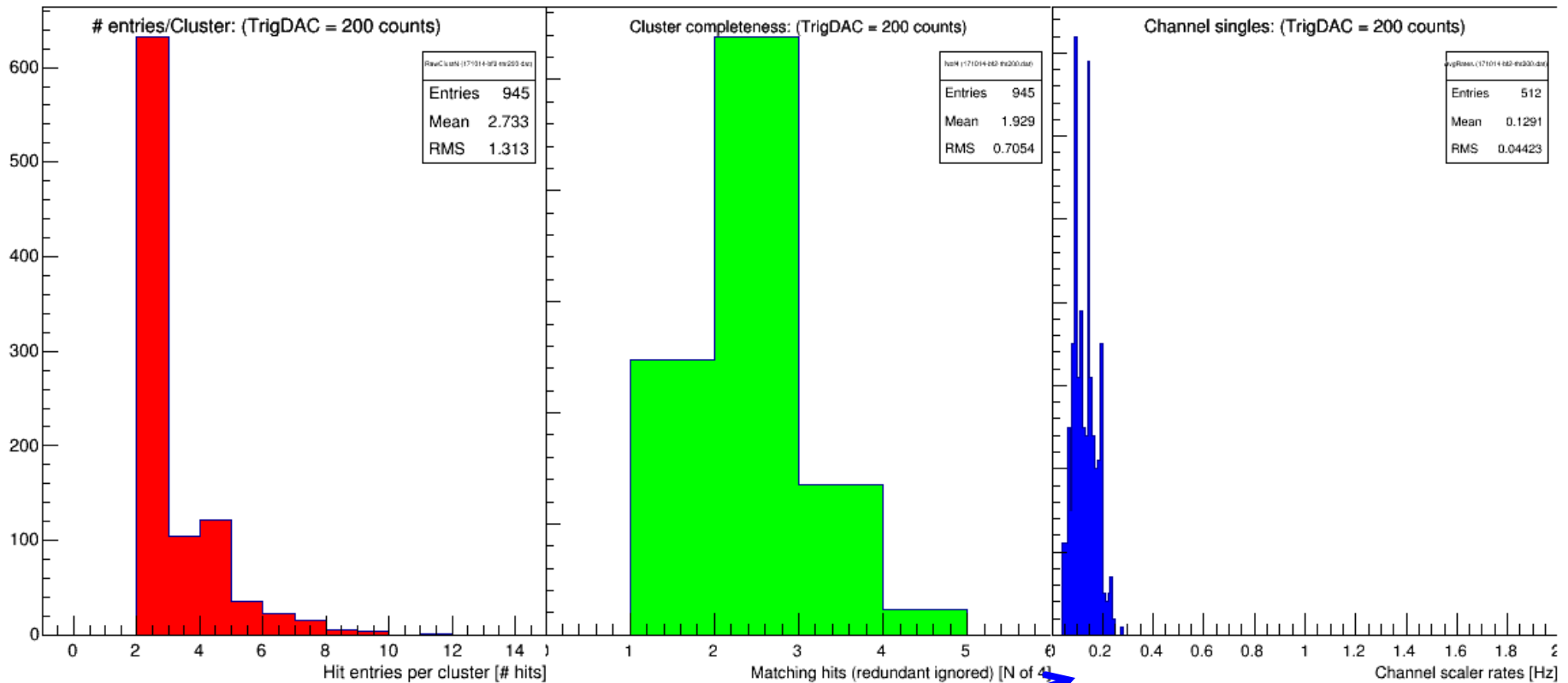
High TrigDAC threshold = 300



Slightly lower TrigDAC threshold = 289



Lowest (but still too high) TrigDAC threshold = 200



Can tolerate $\sim 1\text{Hz}$ and still have relatively low accidental coincidence rate

Summary

- Didn't get a chance to make plots of statistics of missing hits
 - Initial observations seemed random (queuing?)
 - Will try to get to later in the week
 - Suggest running per below
- Generally the trigger thresholds are too high
 - Take runs with thresholds 50-100 DAC counts
 - May need to lower gain to achieve this (rate too high)
 - (current estimate for 10^6 gain is ~ 1 M hits/second from current draw)
- One cross check for runs with subsequent data taken via COPPER is to try and match Trigger and Feature Extracted hits (need run sync)