

Quartz Plane Update

S. Malace

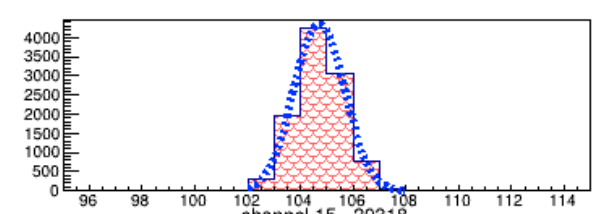
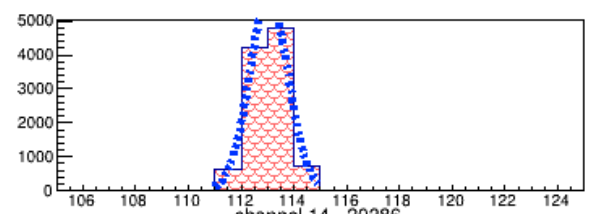
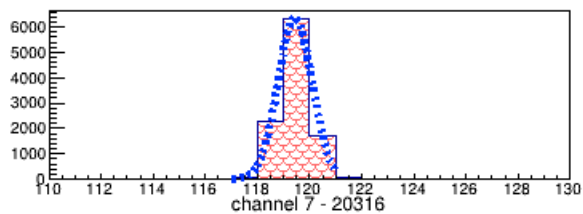
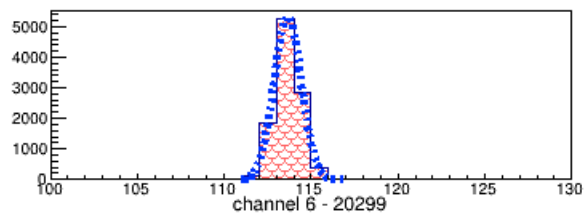
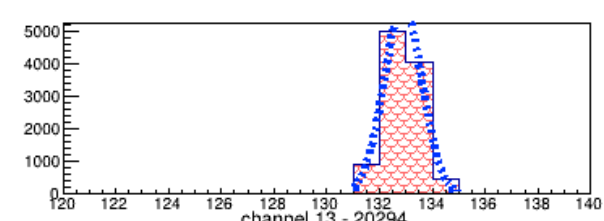
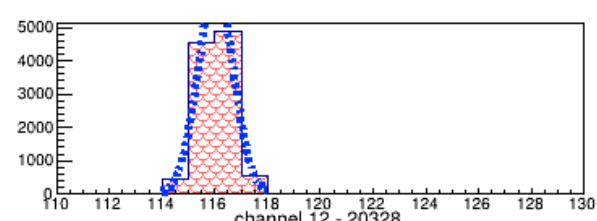
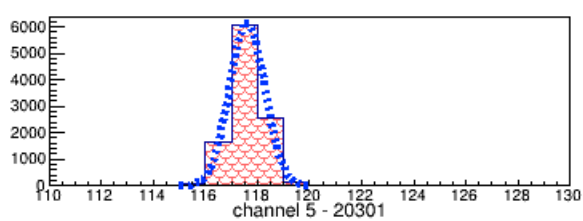
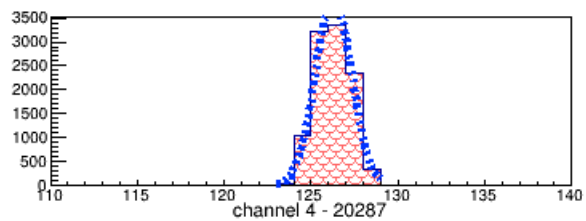
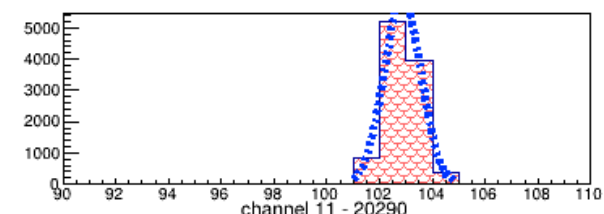
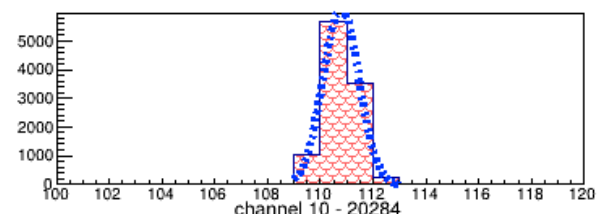
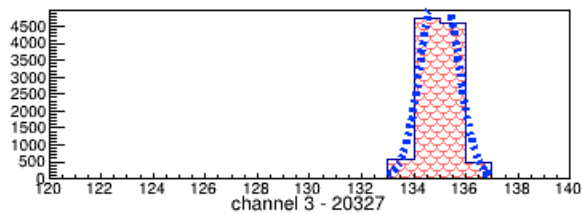
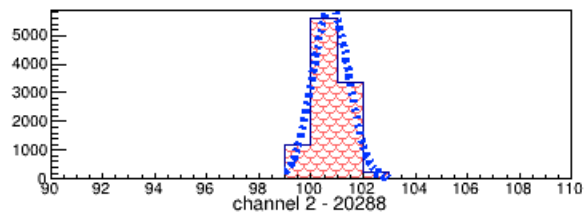
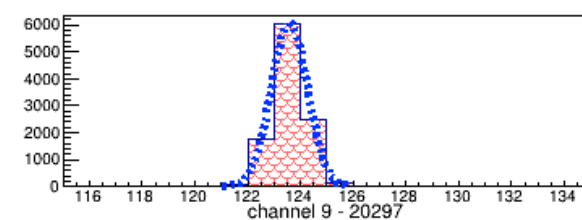
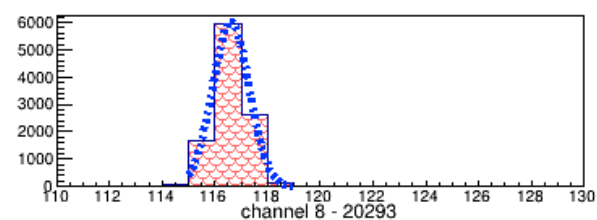
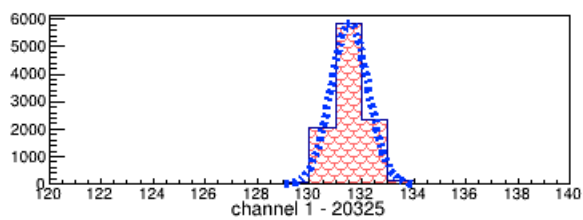
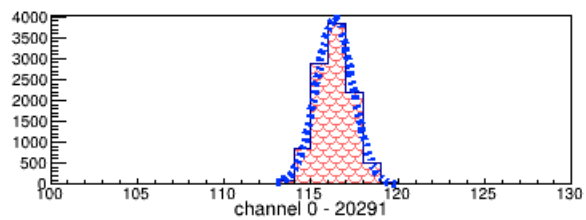
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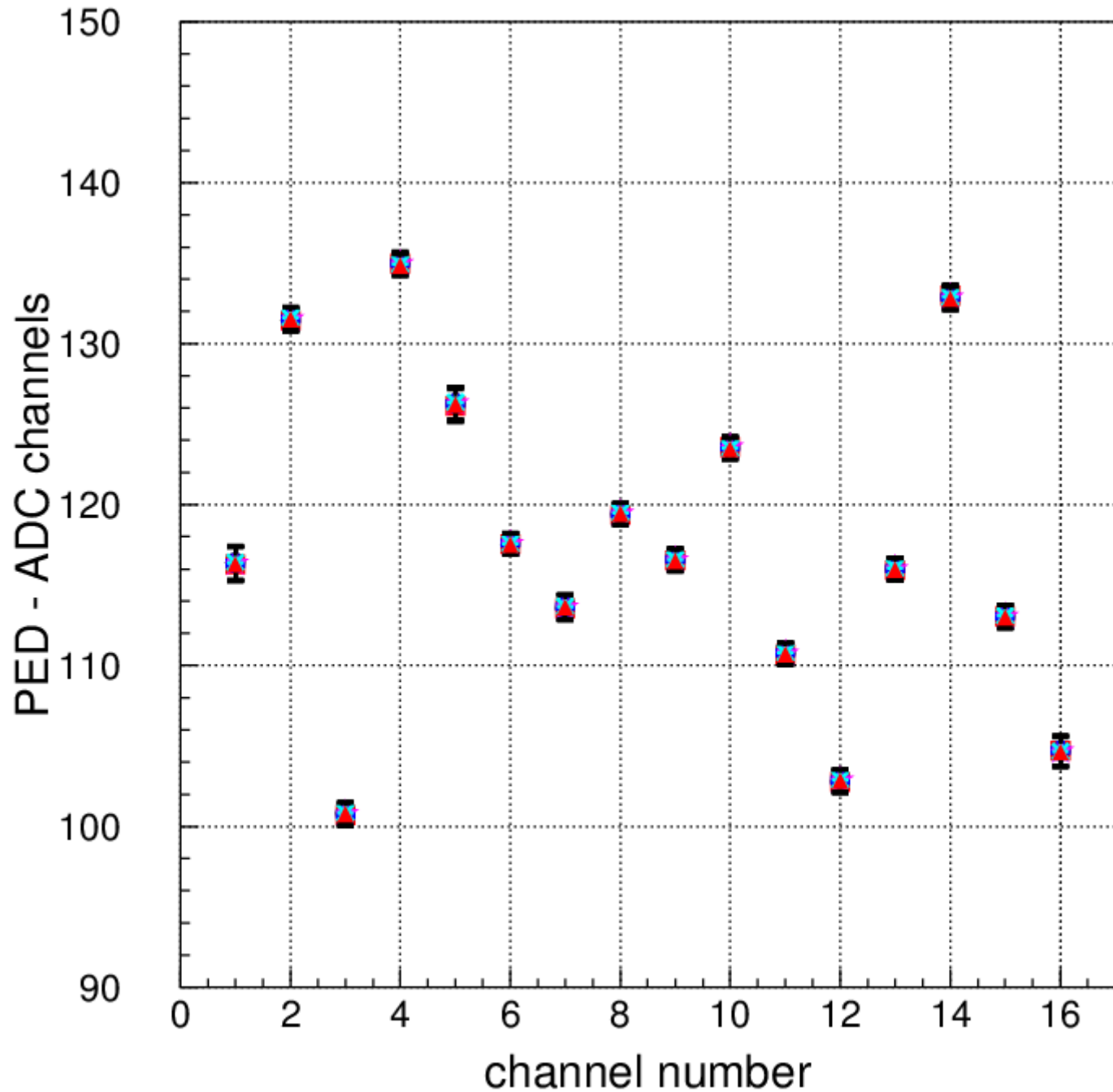
Abel Sun contributed to the work on the SHMS Quartz Plane (CMU student, graduate student on E12-10-002)

Brief Summary of Activities

- All 16 bars are ready – PMTs have been installed, taping has been done to ensure there would be no light leaks (2 hours per bar for taping!!!)
- 8 bars have been tested with cosmics for 12 days (results follow)
- The remaining 8 bars have been cabled last night (PMTs gain matched - 9 mv SPE through a ~ 400 ns cable) and are now under testing – will be done on Nov. 19
- The frame came out of the SHMS detector stack yesterday: we test fitted 3 bars, looks OK
- We will be putting the quartz plane back in the stack on Nov. 21

Pedestals :First 8 bars





Pedestals over Time :First 8 bars

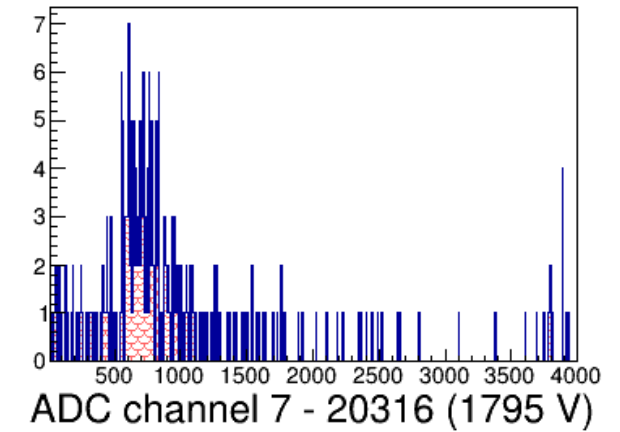
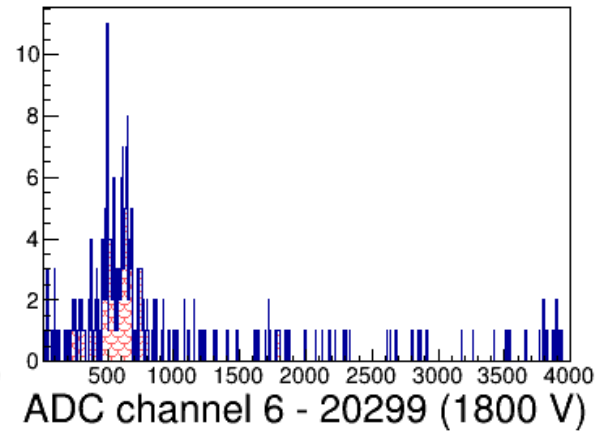
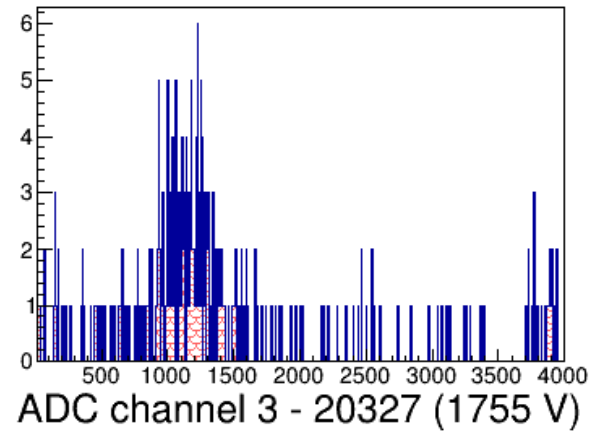
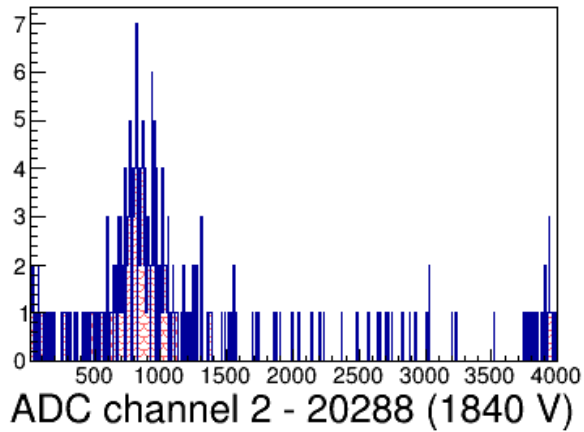
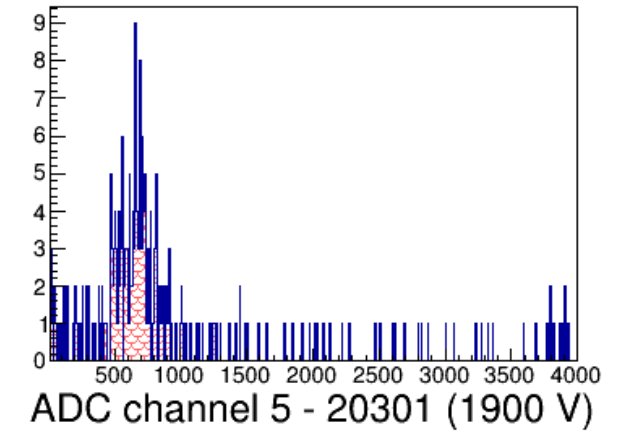
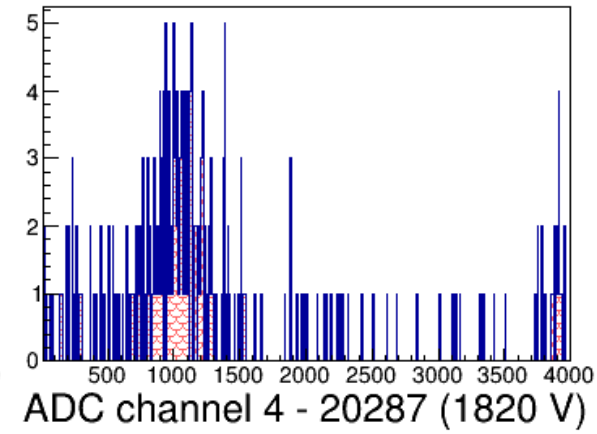
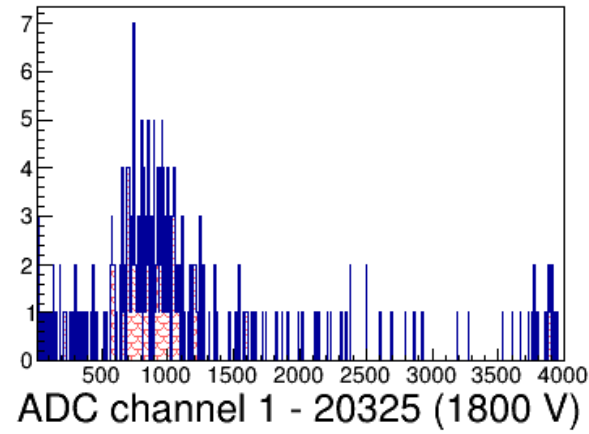
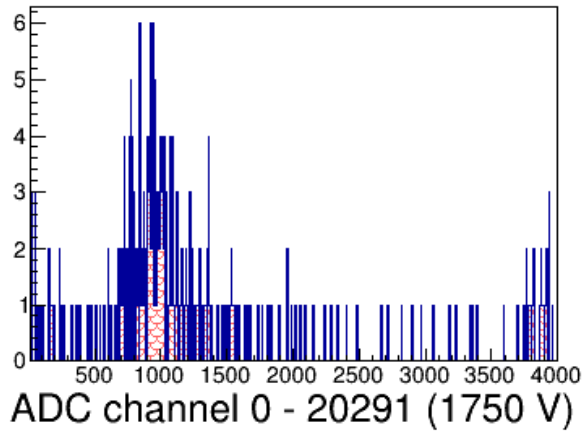
→ Checked peds every couple of days, the plot shows the mean with sigma as error bar, different colors representing runs taken at different times

→ Conclusion: peds were stable

→ I am subtracting the ped event by event from the ADC distribution of each PMT

Test with Cosmics: First 8 bars

6.2 V792 ADC channels per bin; ped subtracted



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