

FCAL Monitoring Plots

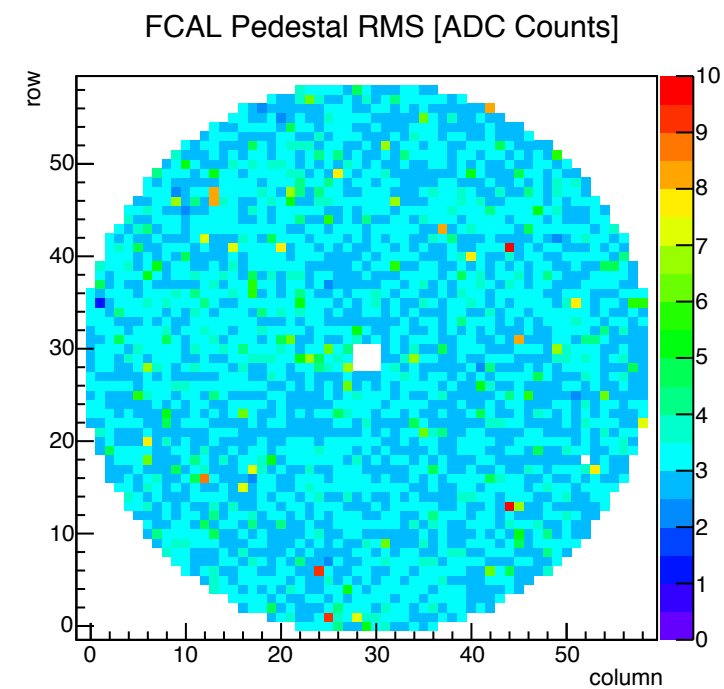
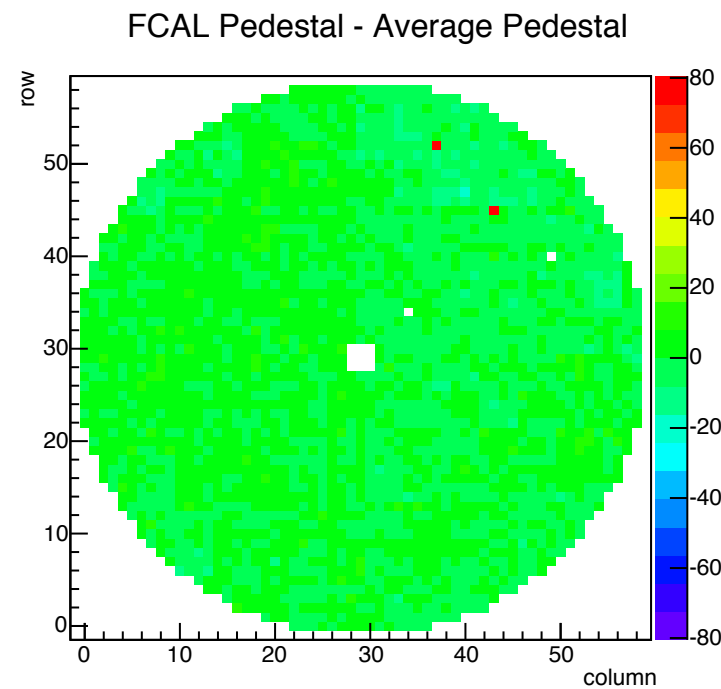
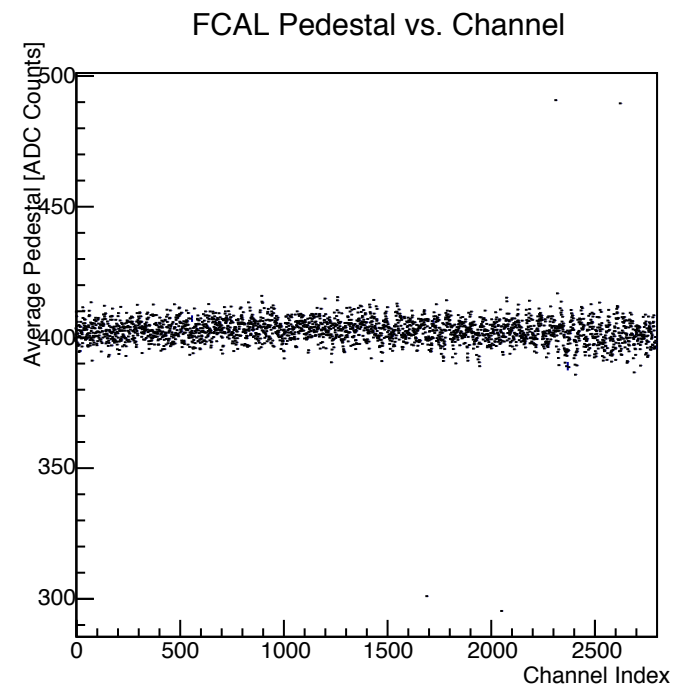
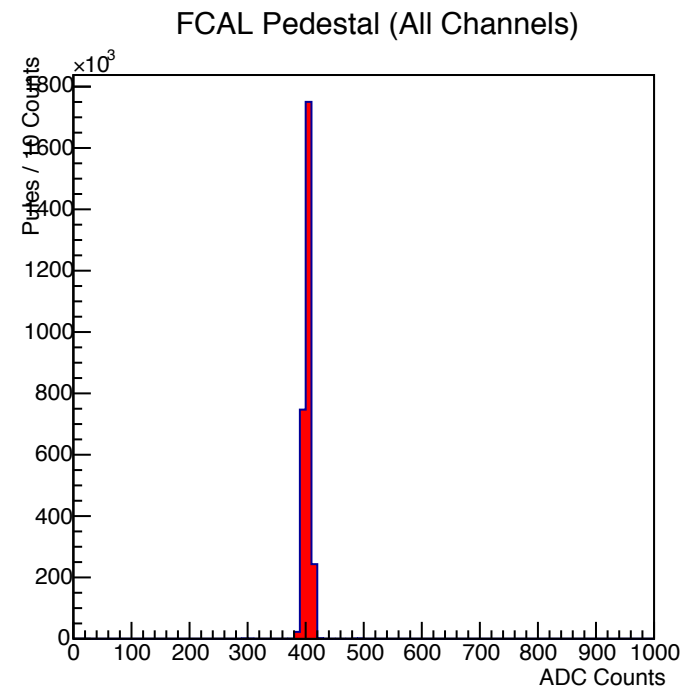
(using data collected with the actual detector with the LED pulsing system running)

Two DAQ/HV Configurations:

1. Raw FADC mode (full buffer) and 150 mV Amplitude HV setting (~ 1500 V)
2. Compressed FADC mode and fixed 1500V HV for all bases

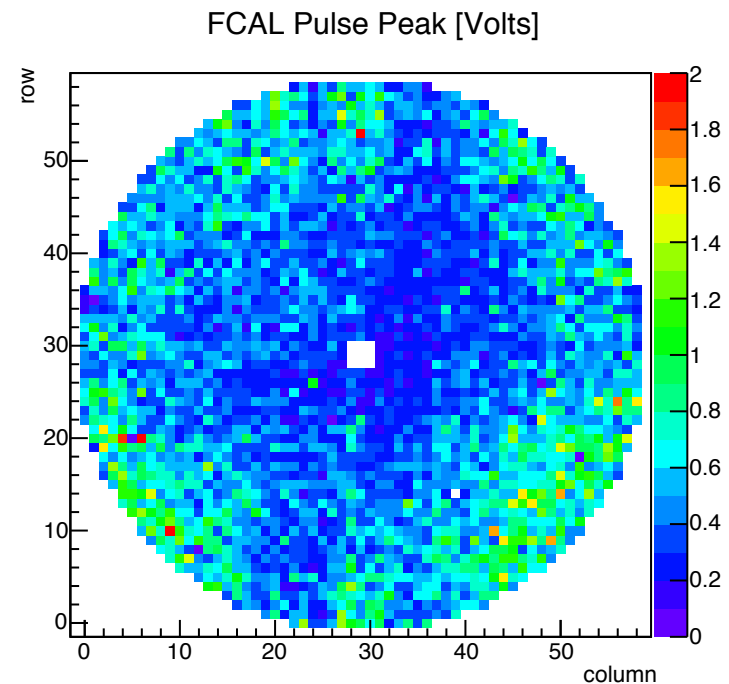
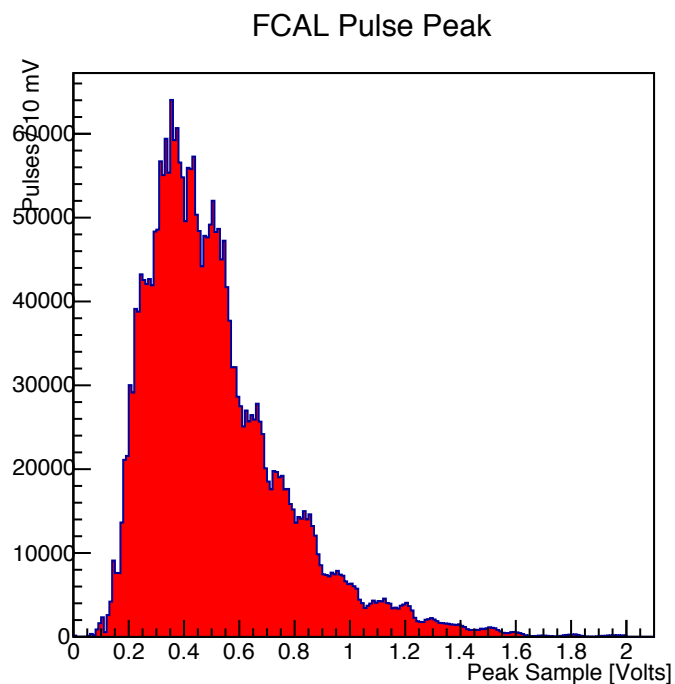
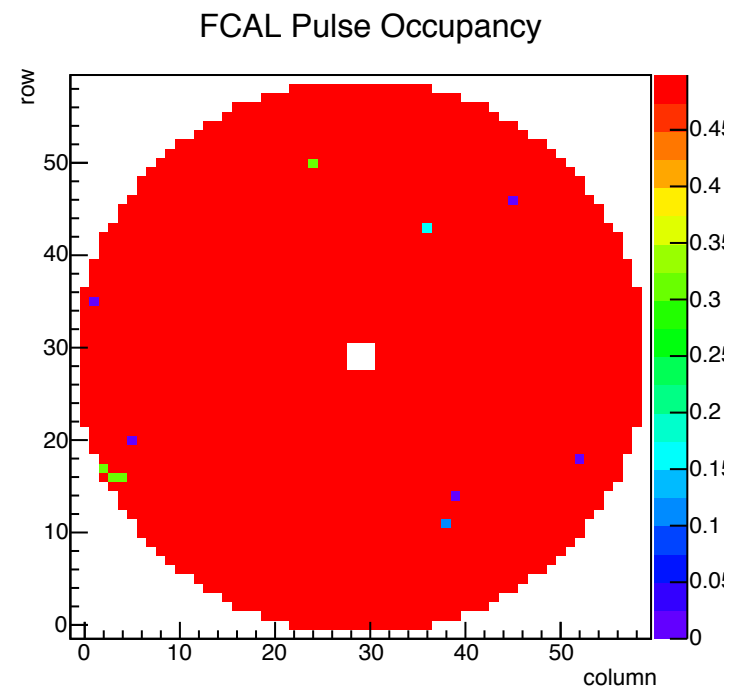
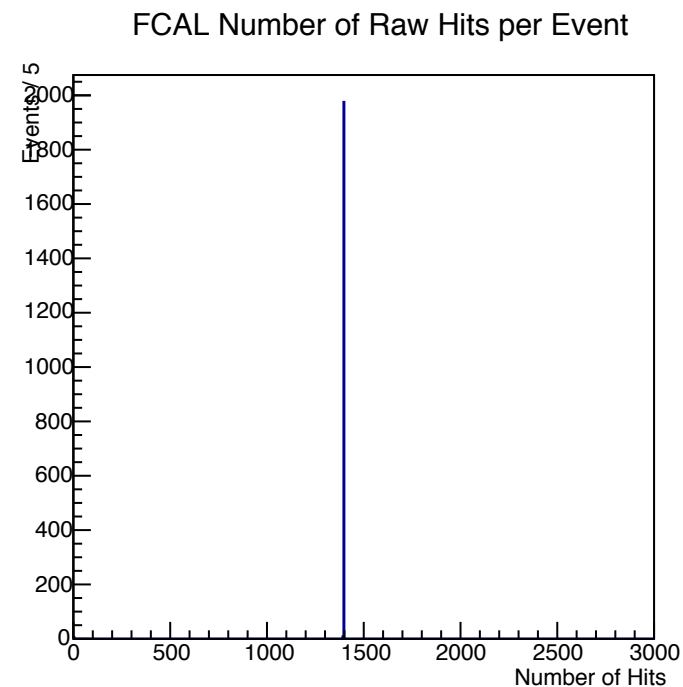
Digital Data: Pedestals

150 mV Amplitude (HV) with “Raw” FADC Readout



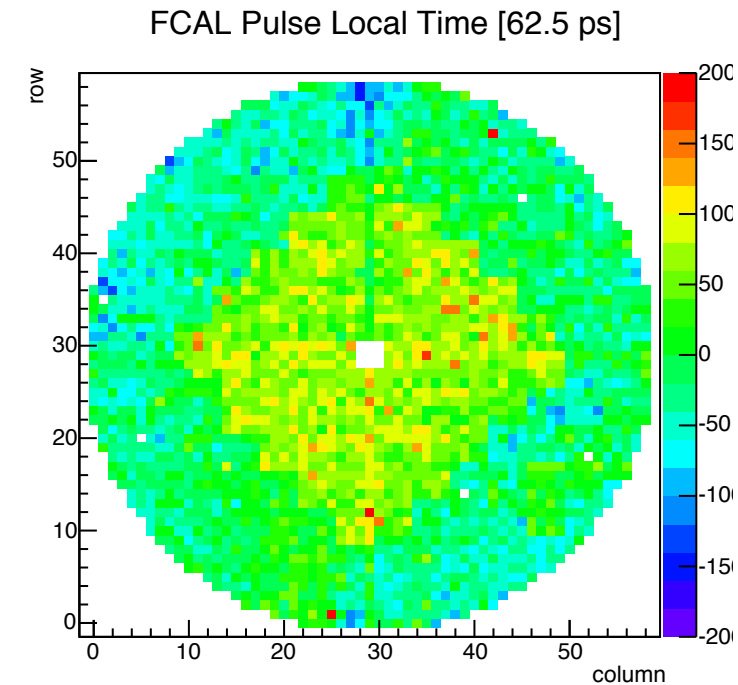
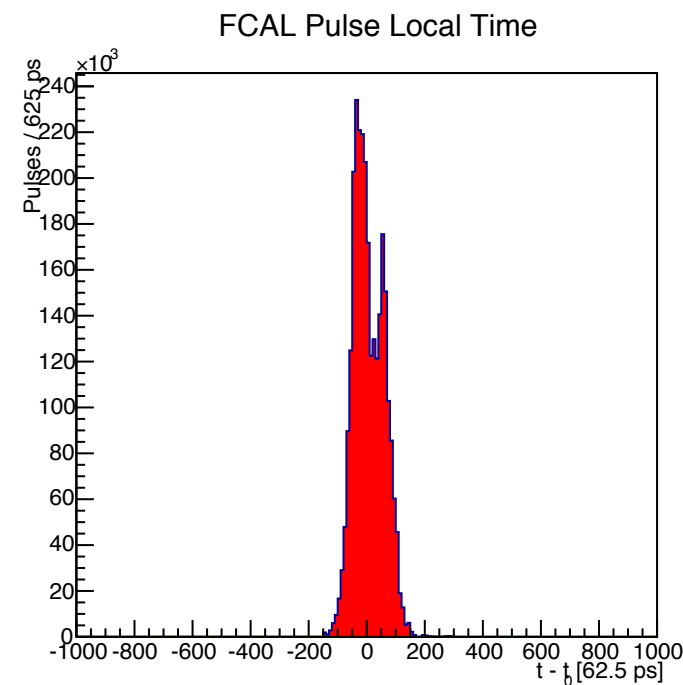
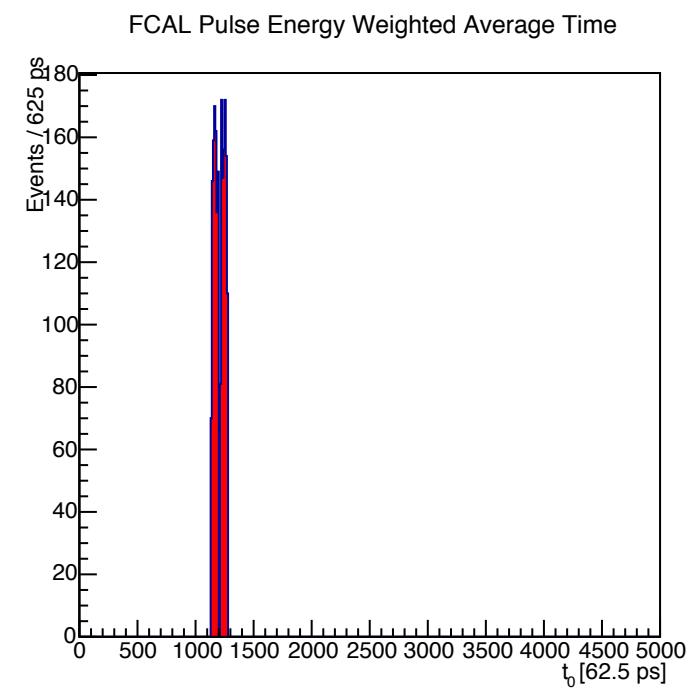
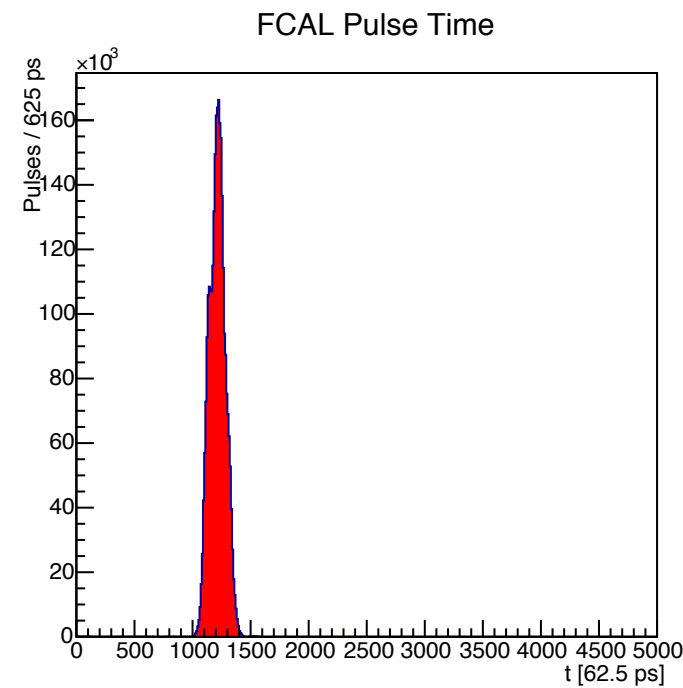
Digital Data: Pulse Occupancy and Amplitudes

150 mV Amplitude (HV) with “Raw” FADC Readout



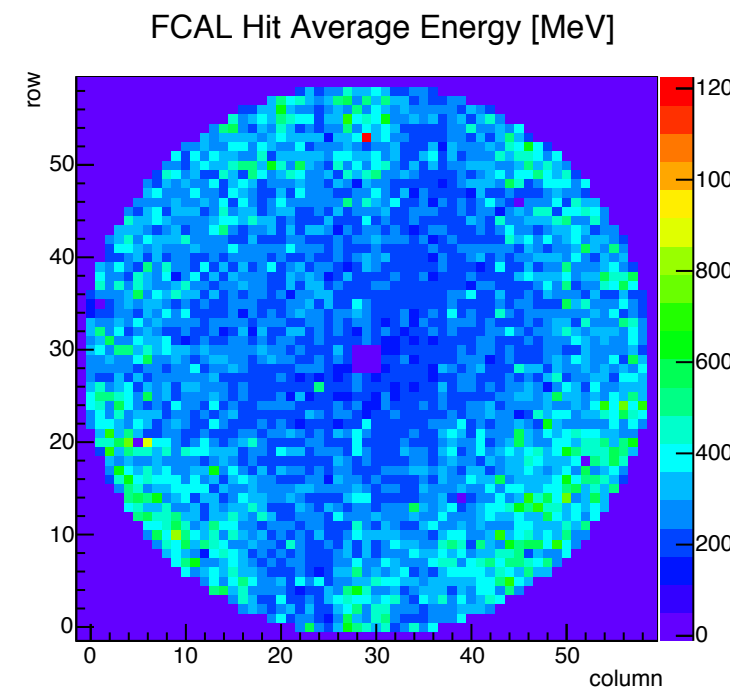
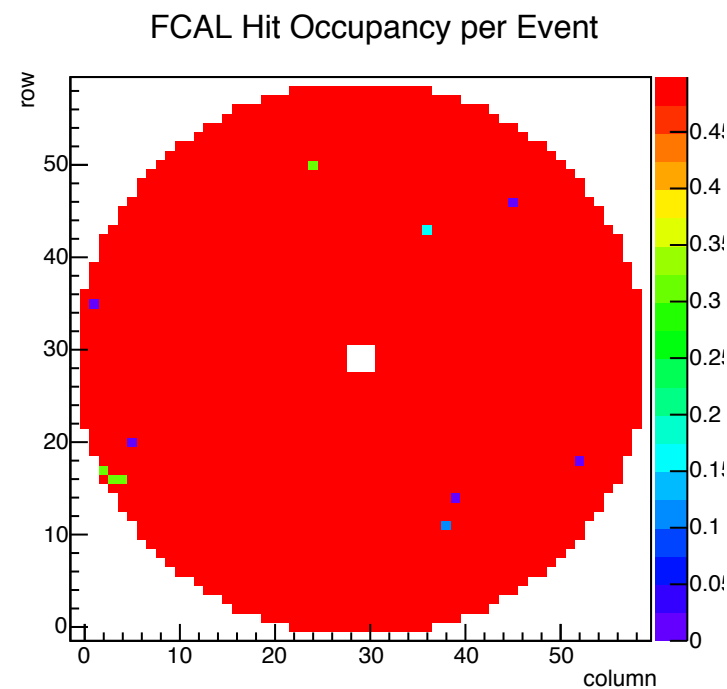
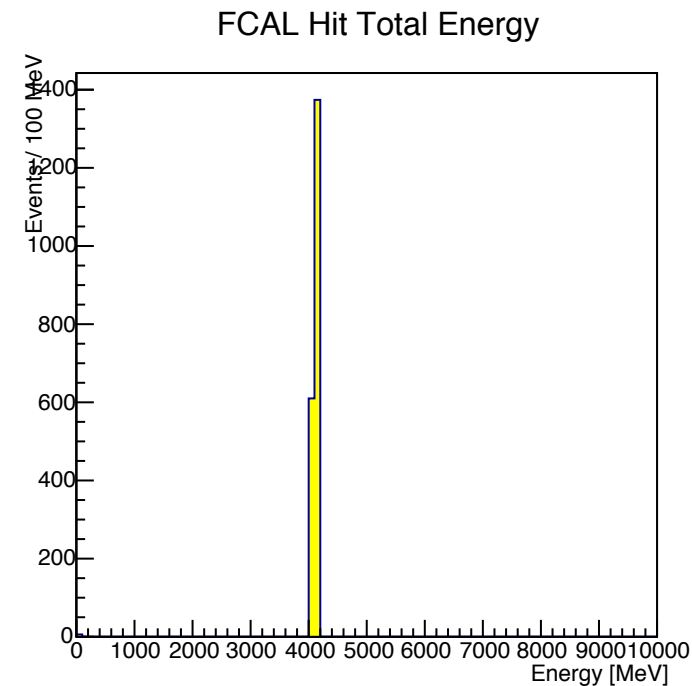
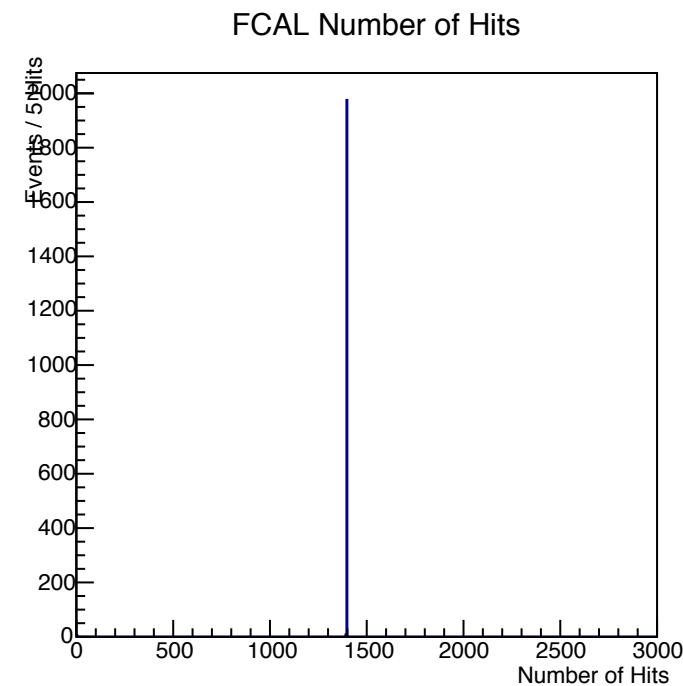
Digital Data: Timing

150 mV Amplitude (HV) with “Raw” FADC Readout



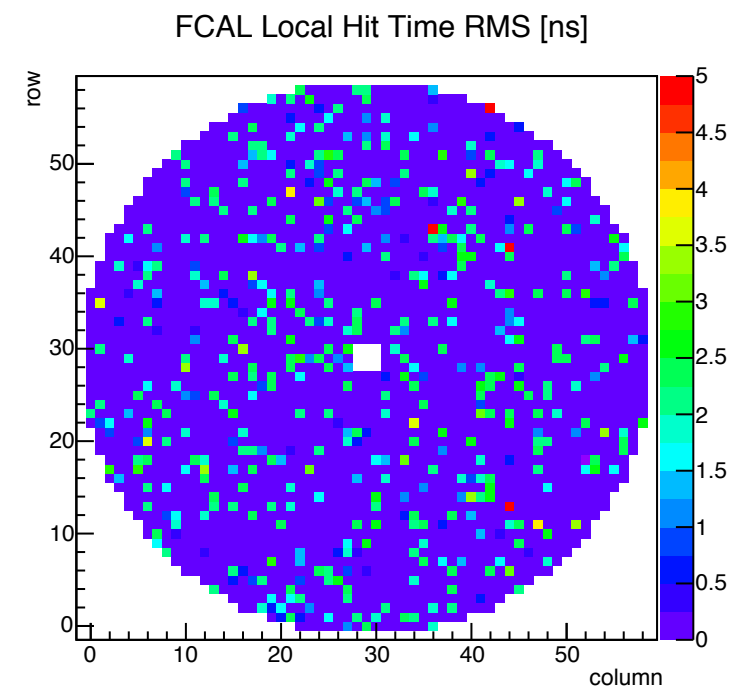
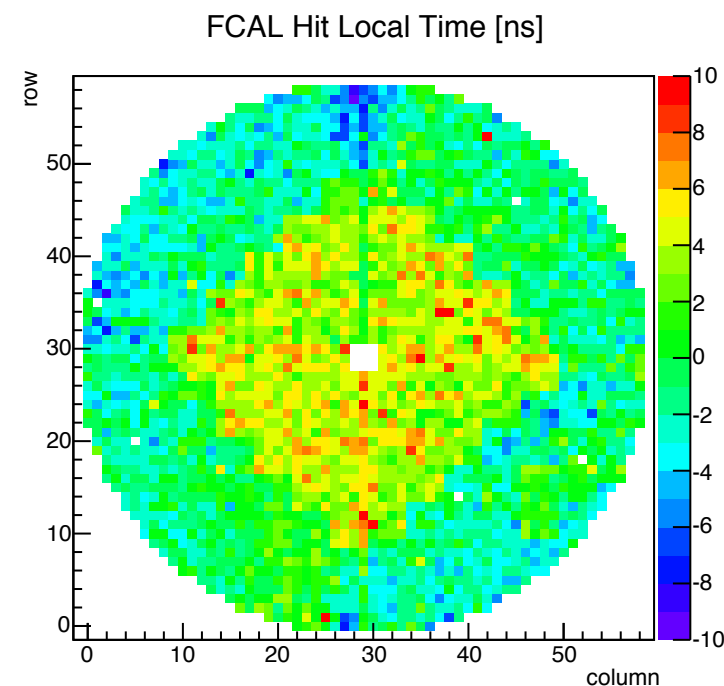
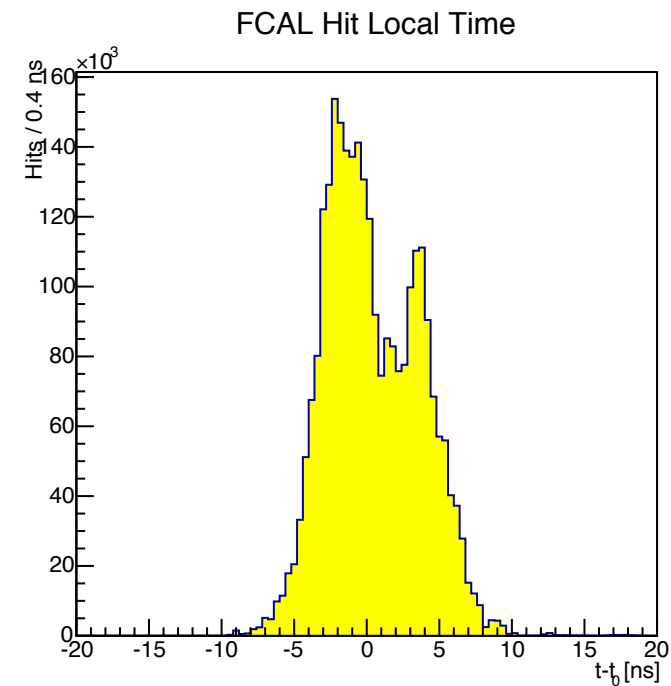
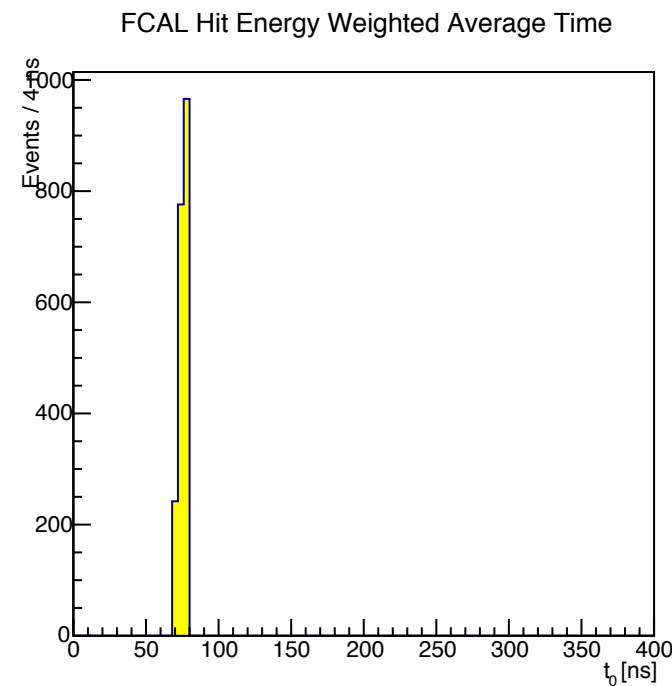
Calibrated Hits: Energy

150 mV Amplitude (HV) with “Raw” FADC Readout



Calibrated Hits: Timing

150 mV Amplitude (HV) with “Raw” FADC Readout

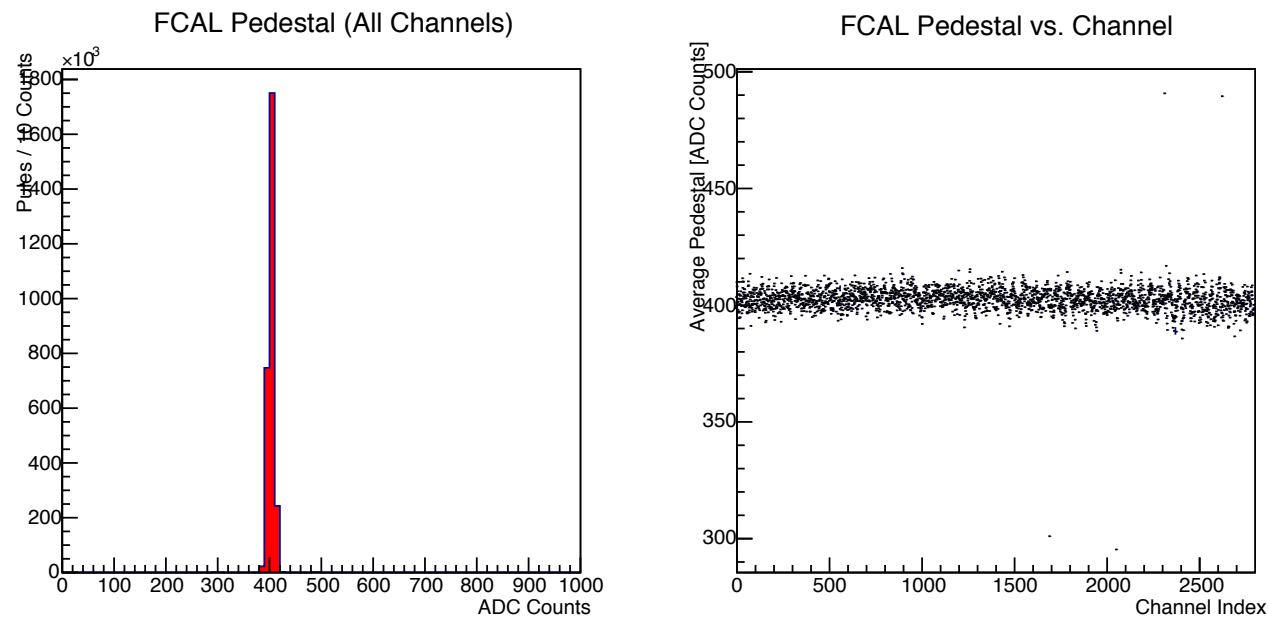


Need to introduce an additive calibration constant to remove this variation

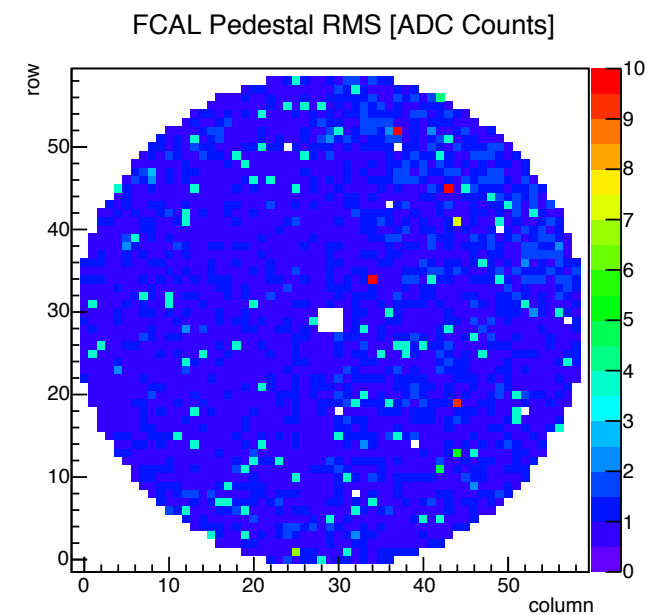
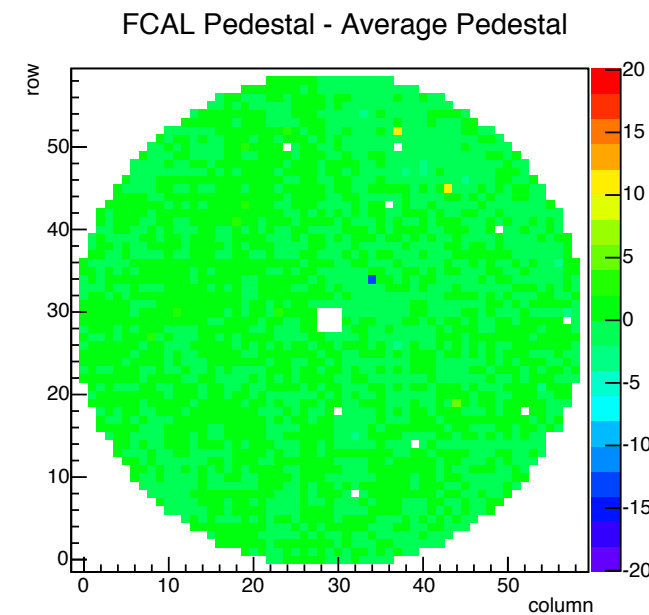
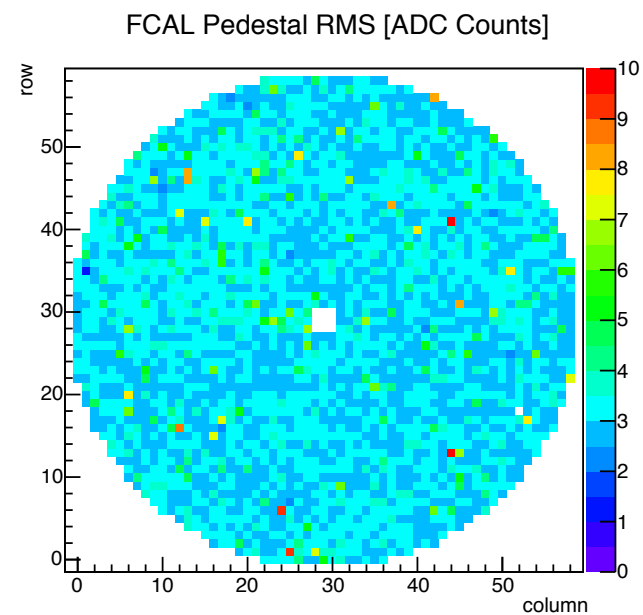
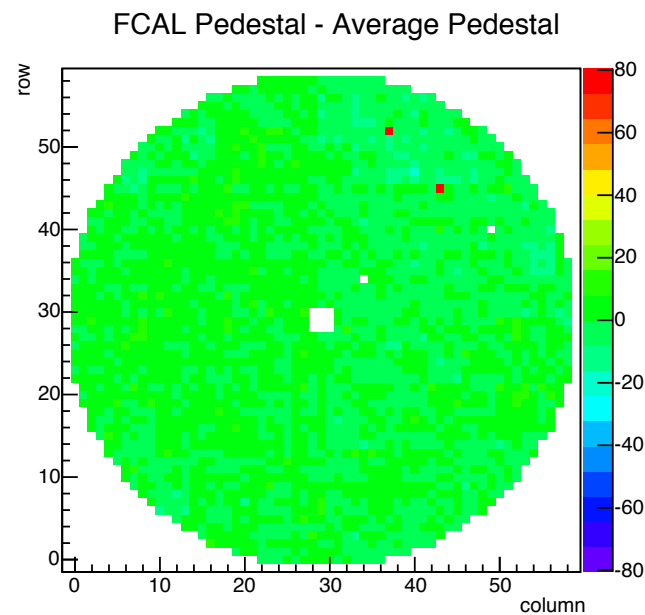
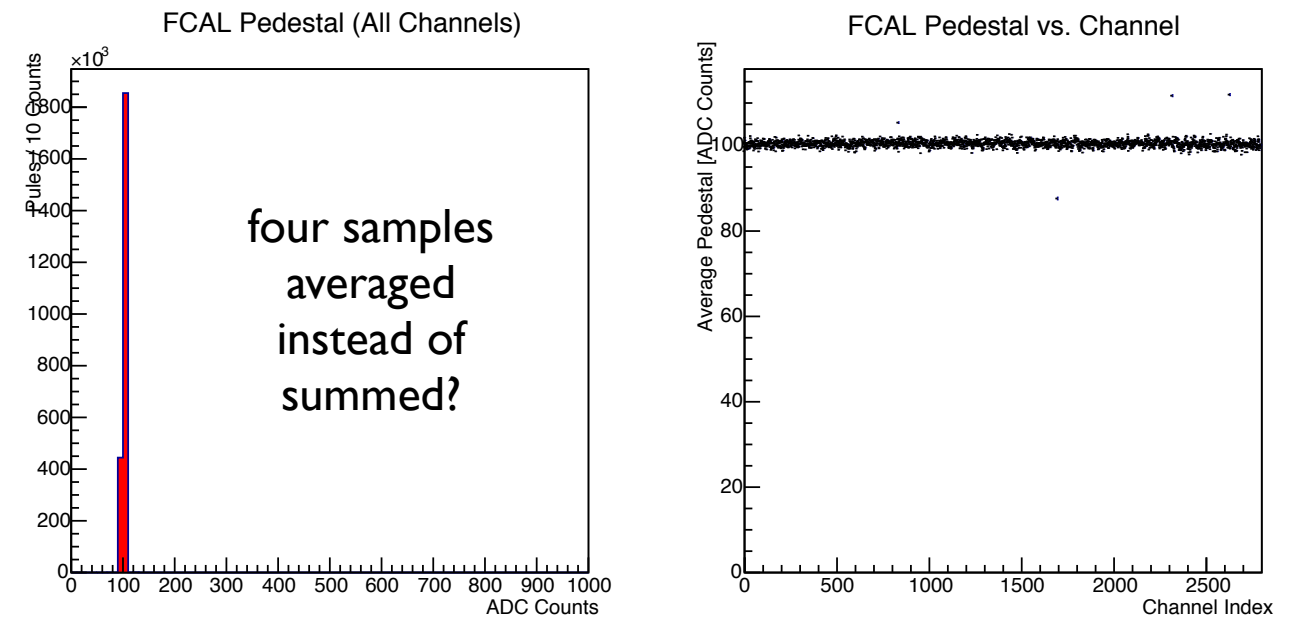
Compare Raw FADC mode with Compressed FADC Mode

Pedestal Comparison

FADC Raw Mode



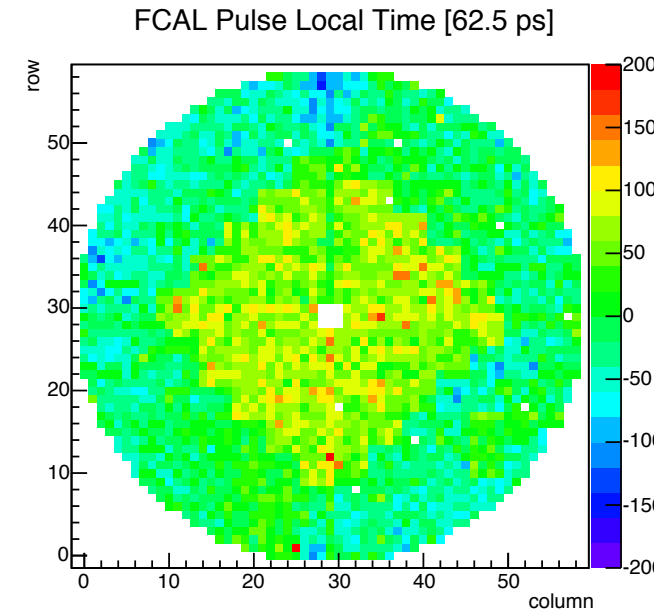
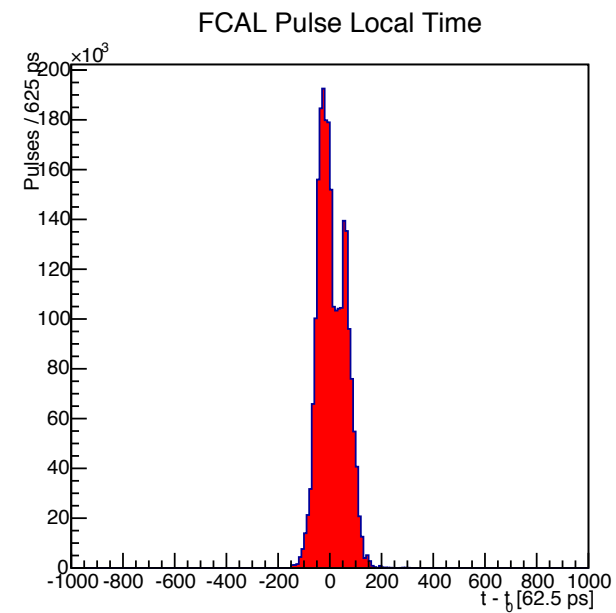
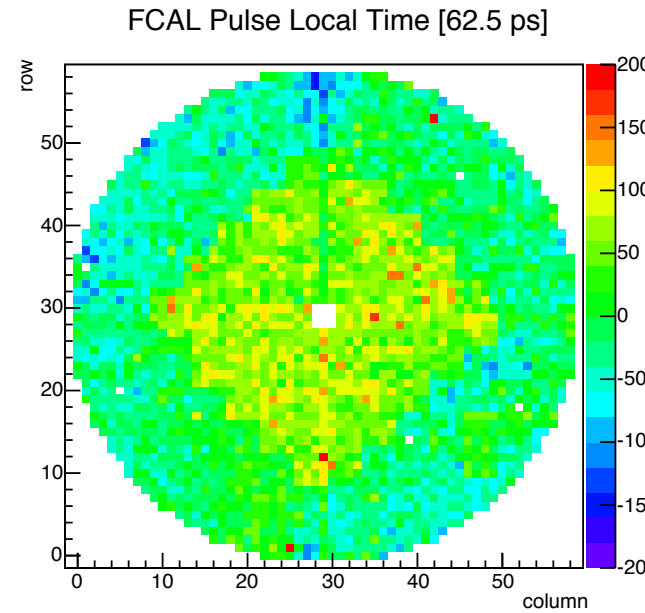
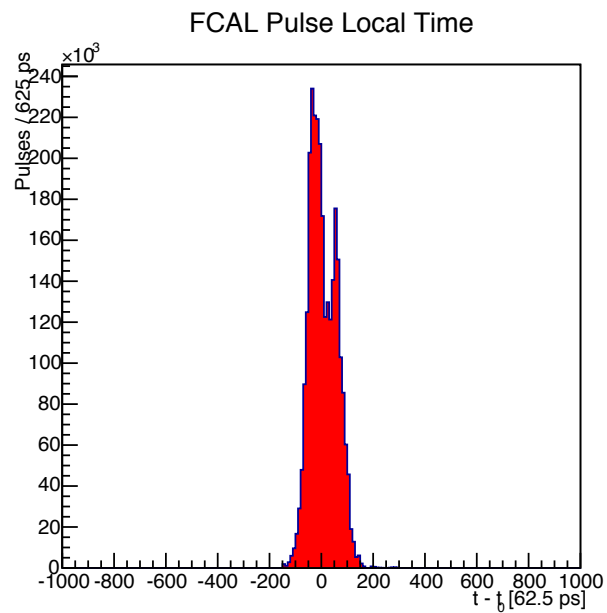
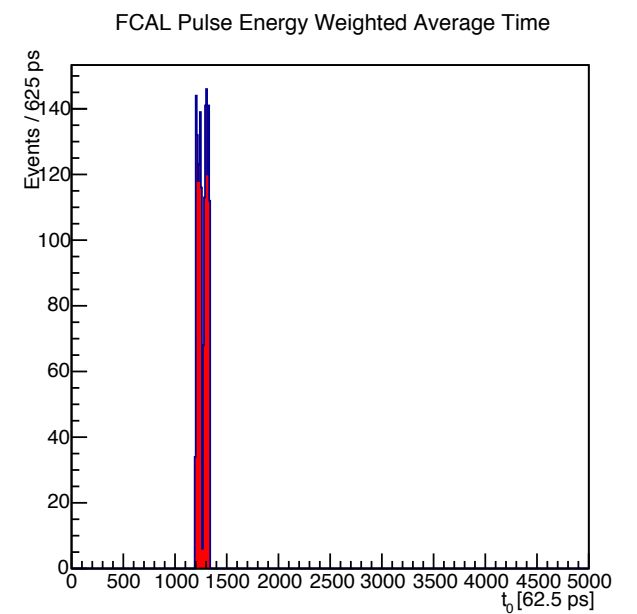
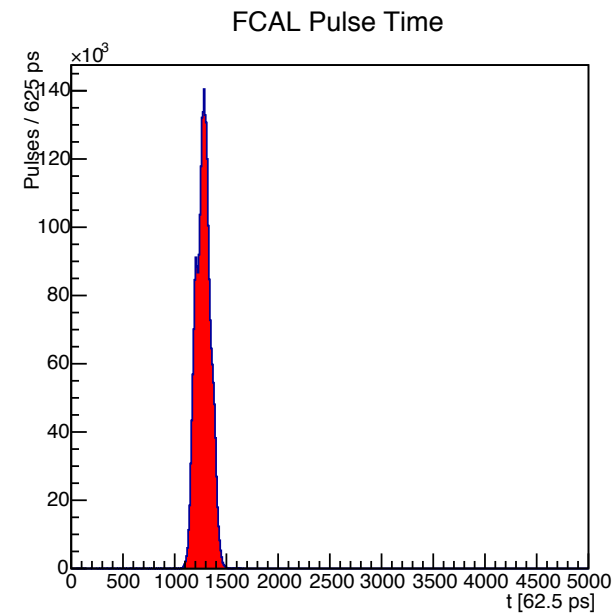
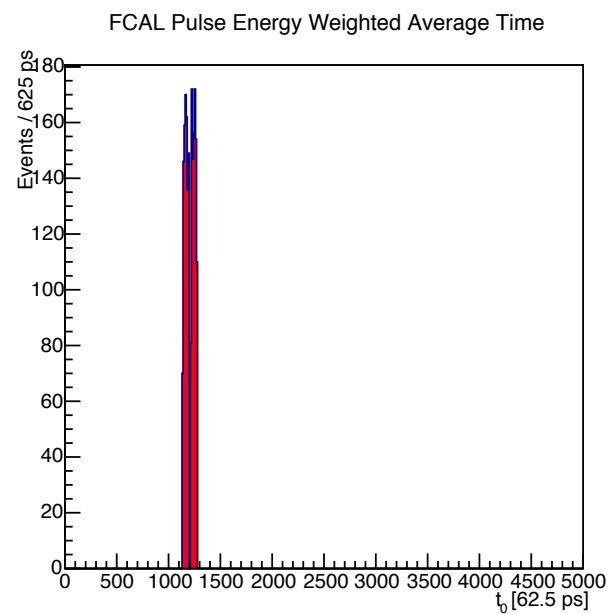
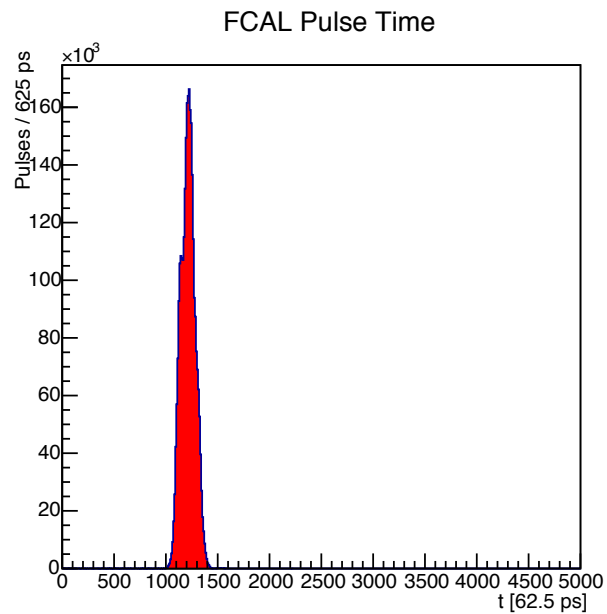
FADC Compressed Mode



Timing Comparison

FADC Raw Mode

FADC Compressed Mode

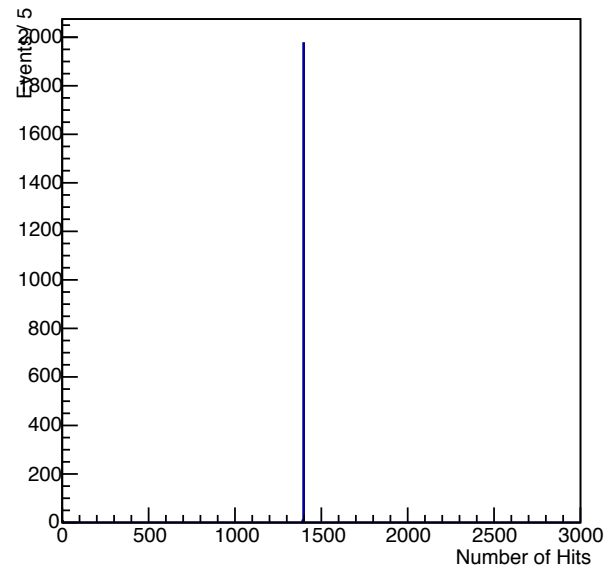


Occupancy/Peak Comparison

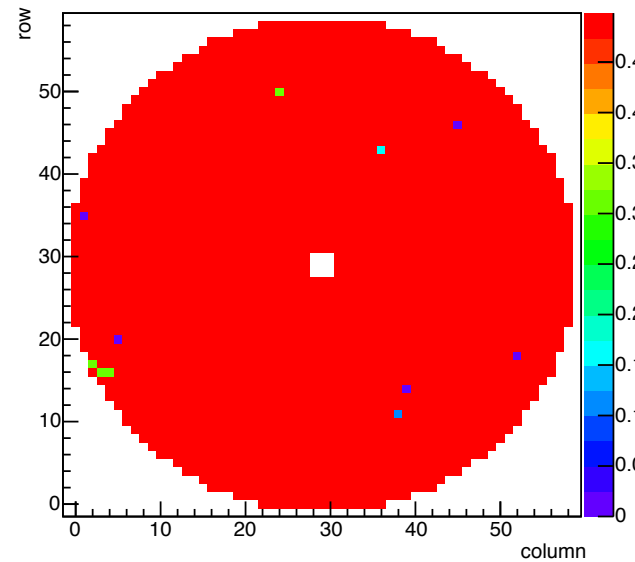
FADC Raw Mode

FADC Compressed Mode

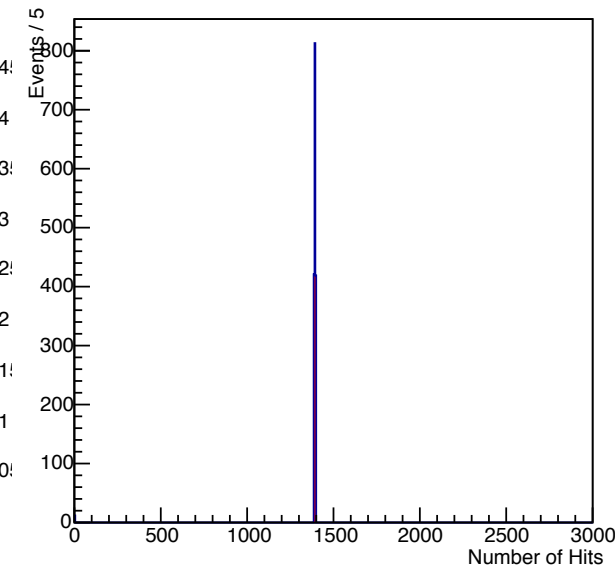
FCAL Number of Raw Hits per Event



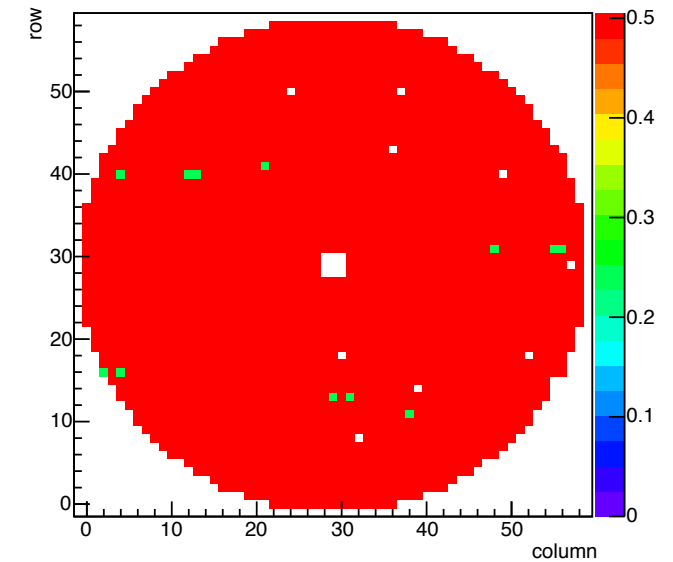
FCAL Pulse Occupancy



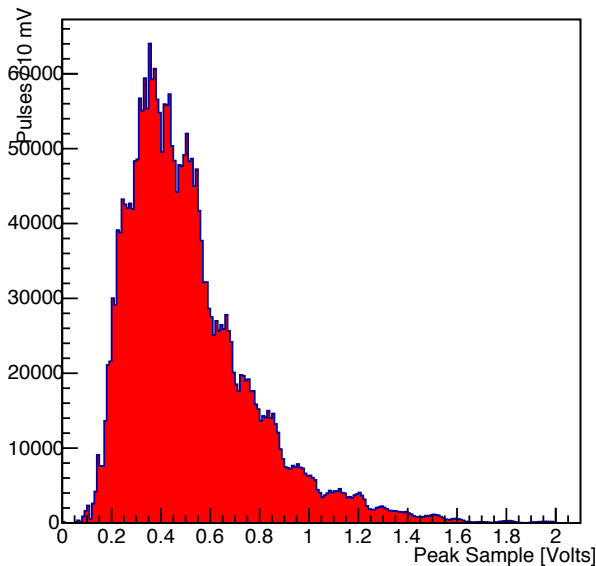
FCAL Number of Raw Hits per Event



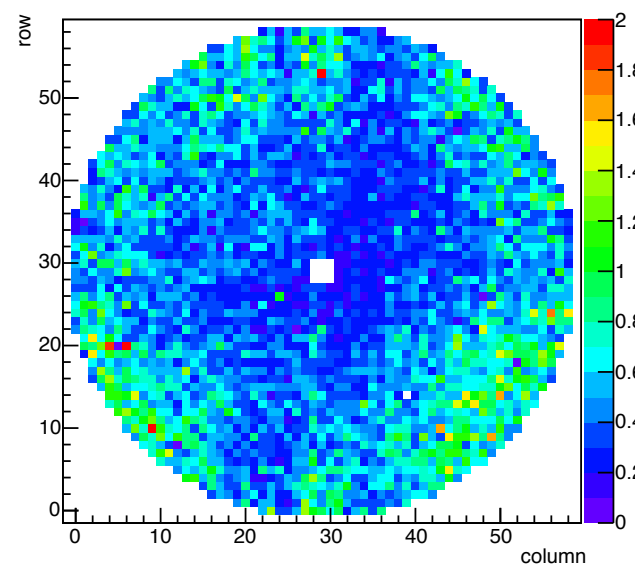
FCAL Pulse Occupancy



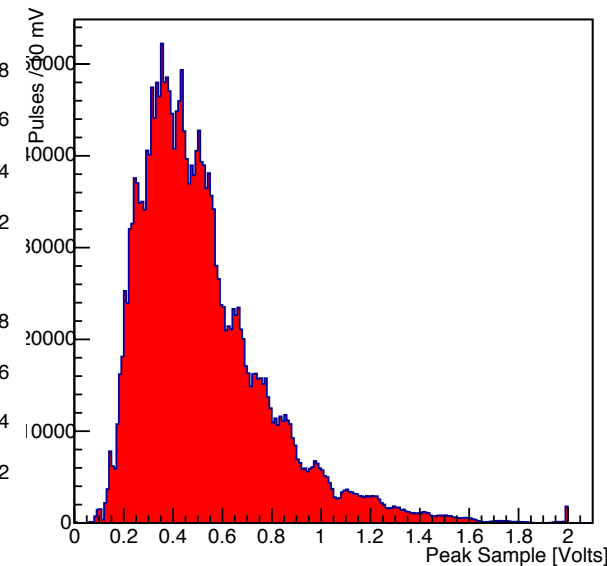
FCAL Pulse Peak



FCAL Pulse Peak [Volts]



FCAL Pulse Peak



FCAL Pulse Peak [Volts]

