Steve’s latest preamps

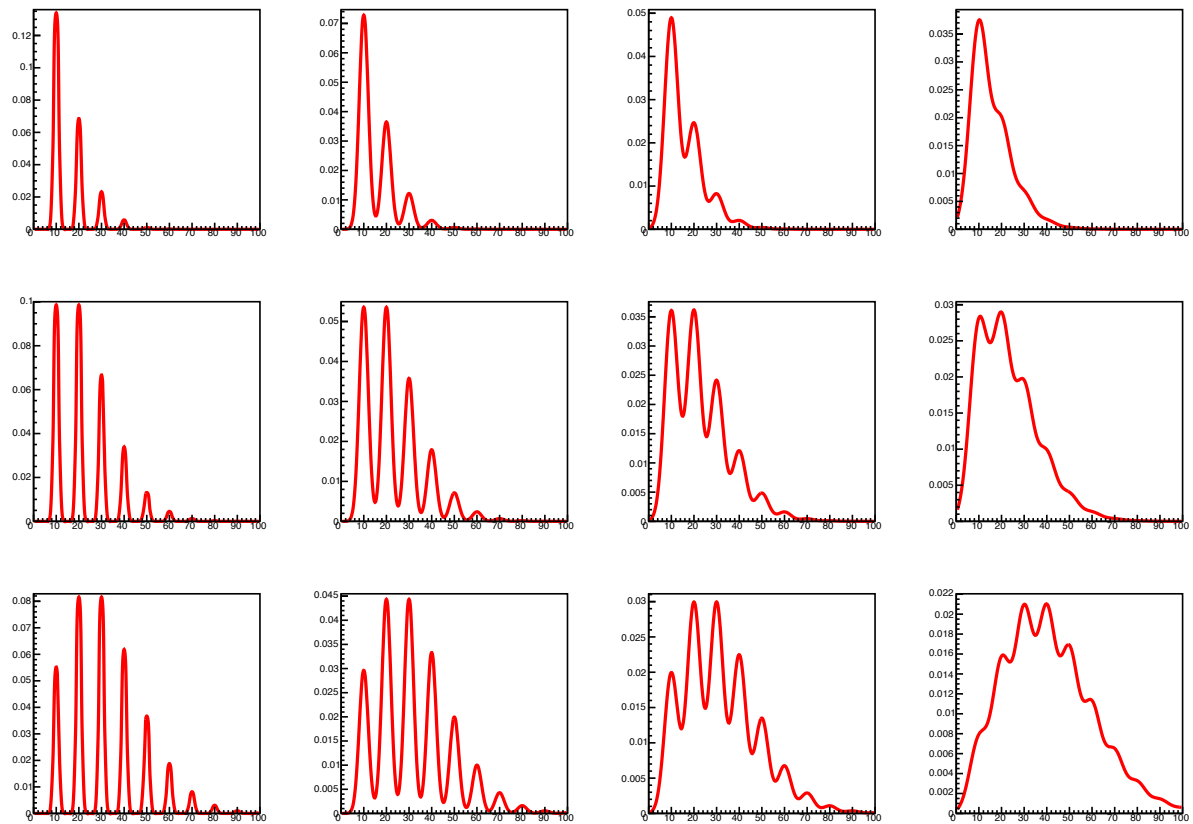
John Haggerty
Brookhaven National Laboratory

PHENIX

What and where

- Edward put one of Steve's "high gain" output from Steve's latest preamps ("Rev B") and Mickey helped us hook them up to the HBD digitizers
- Fired an LED at low light level, triggered on LED
- ACU students are now helping Edward systematically measure light collection with cookies, without cookies, compare with Achim's calculations
- I'll set up an elog/blog/whatever so we can record what's being done

What might you see?



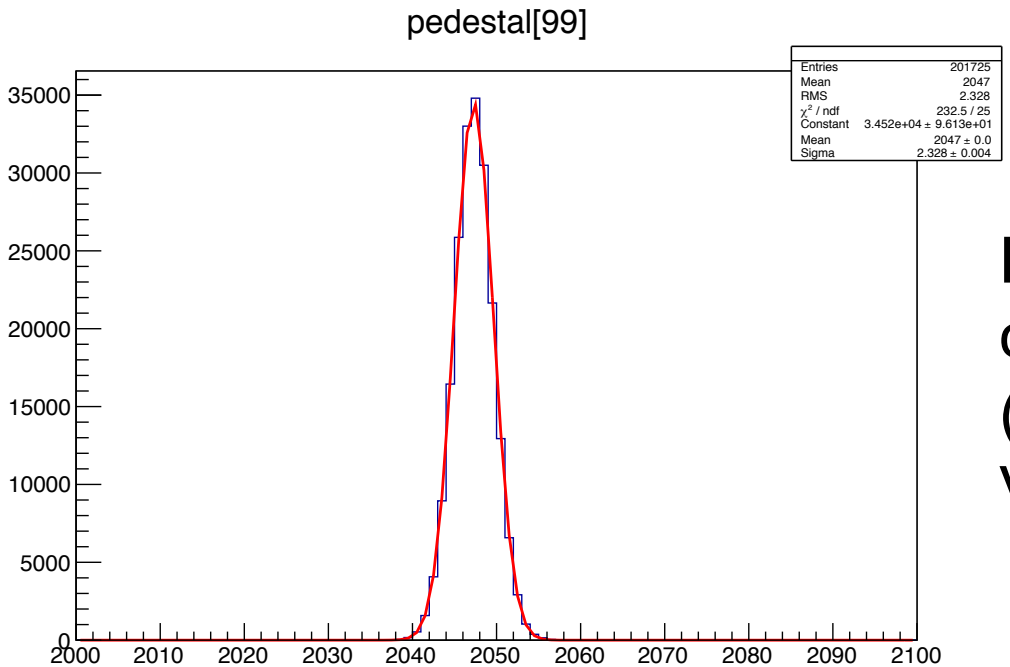
Poisson μ=1

Poisson μ=2

Poisson μ=3

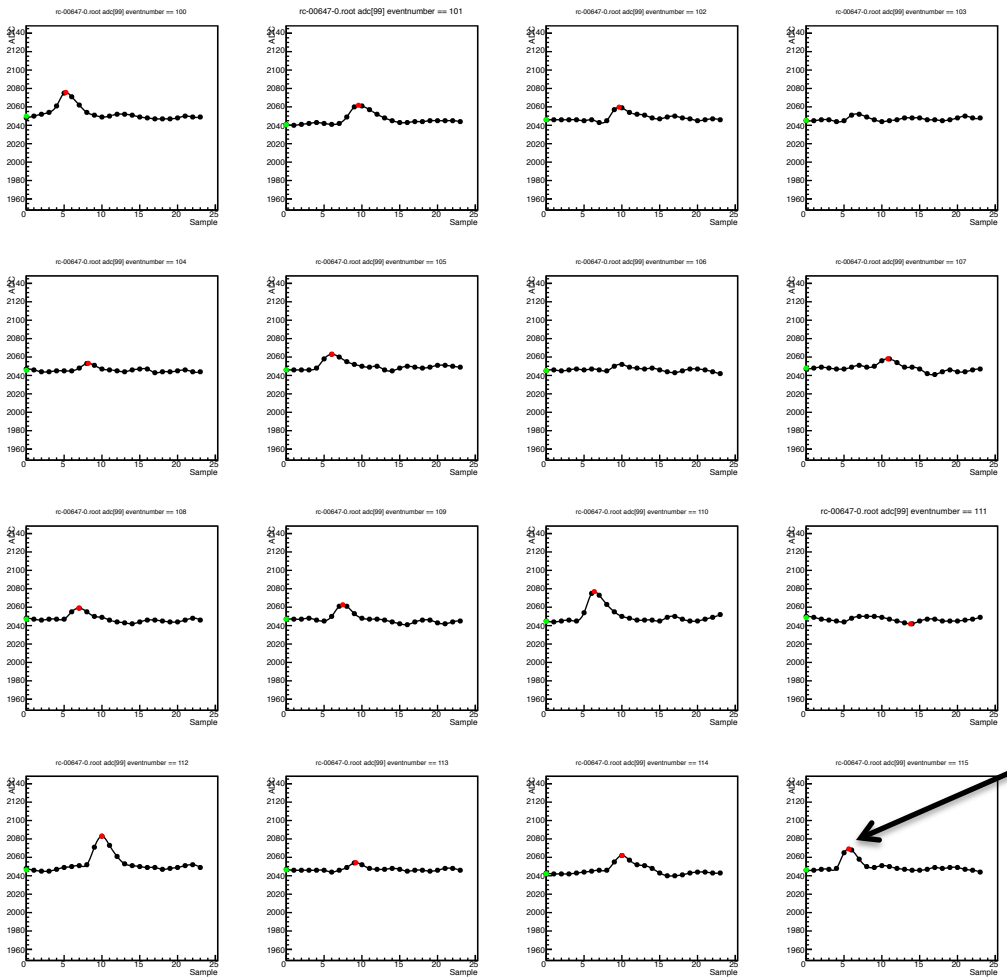
σ=1 σ=2 σ=3 σ=4

Pedestal



Pretty quiet…
σ=2.5 counts
(0.5 mV/count?)
Very close to ground

WD40

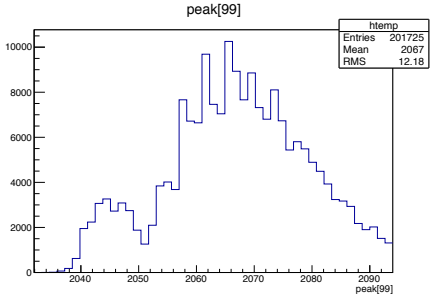


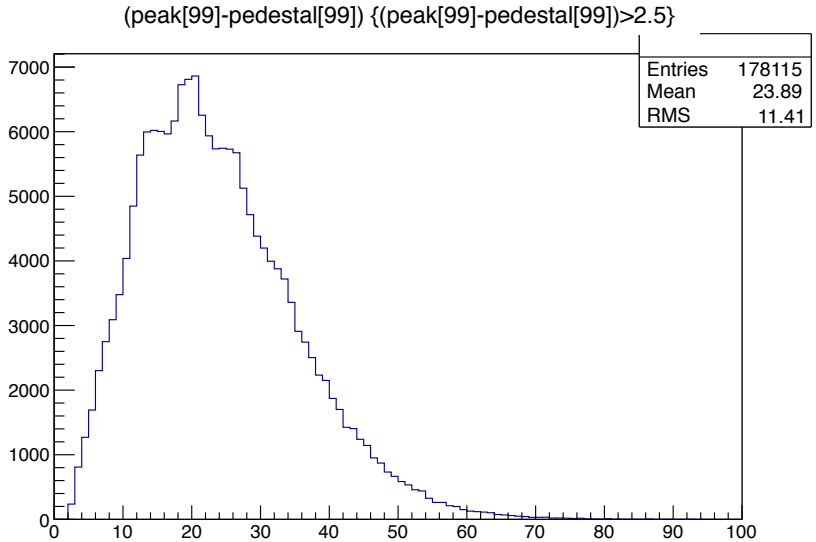
WD for Waveform Digitizer 40 because it's slick

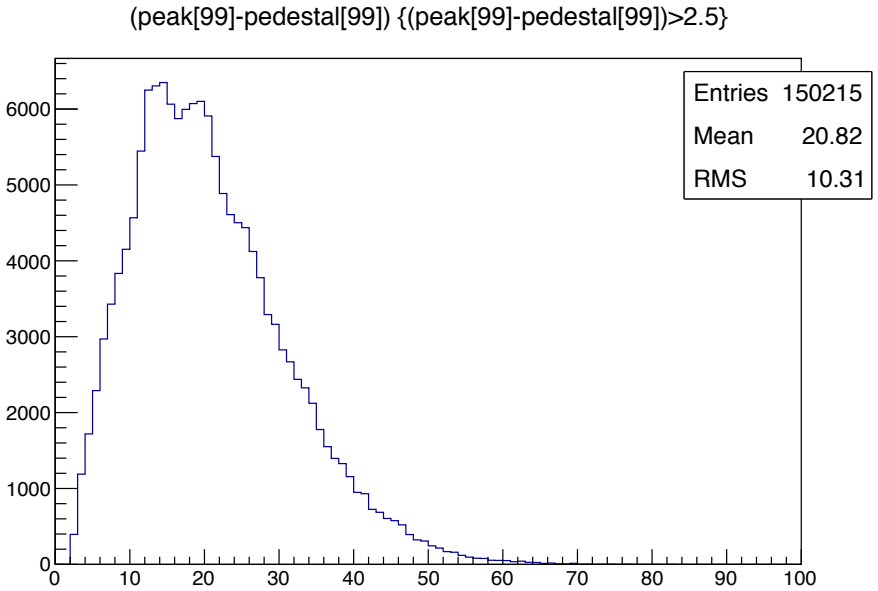
24 16 ns samples

Cubic spline finds "peak"

Data


peak[99]
htemp
Entries 201725
Mean 2067
RMS 12.18
peak[99]


(peak[99]-pedestal[99]) {(peak[99]-pedestal[99])>2.5}
Entries 178115
Mean 23.89
RMS 11.41

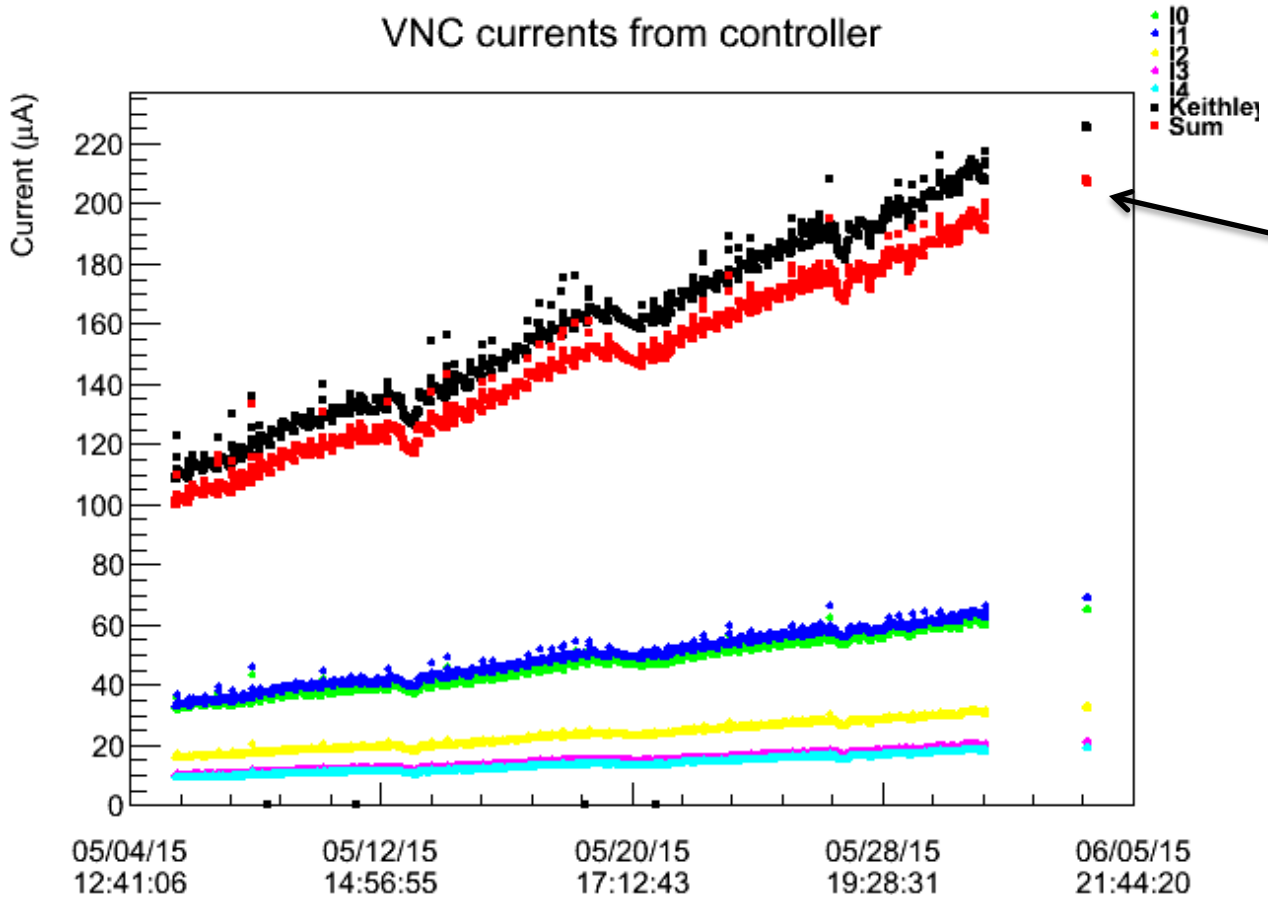

(peak[99]-pedestal[99]) {(peak[99]-pedestal[99])>2.5}
Entries 150215
Mean 20.82
RMS 10.31

Run 653

CAN currents

- The “HCAL controller” for the CAN SiPM’s hung about an hour before the 4:41am abort kicker prefire (no, it isn’t EDT/EST)
- Sean and I reset it step by step following Steve’s suggestion
  - Interface board—no joy
  - Controller—no joy
  - Terminal server—joy
- Didn’t miss much….

CAN controller and Keithley leakage currents



back on track