MRT Tests;
A Talk Put Together in <5 Minutes
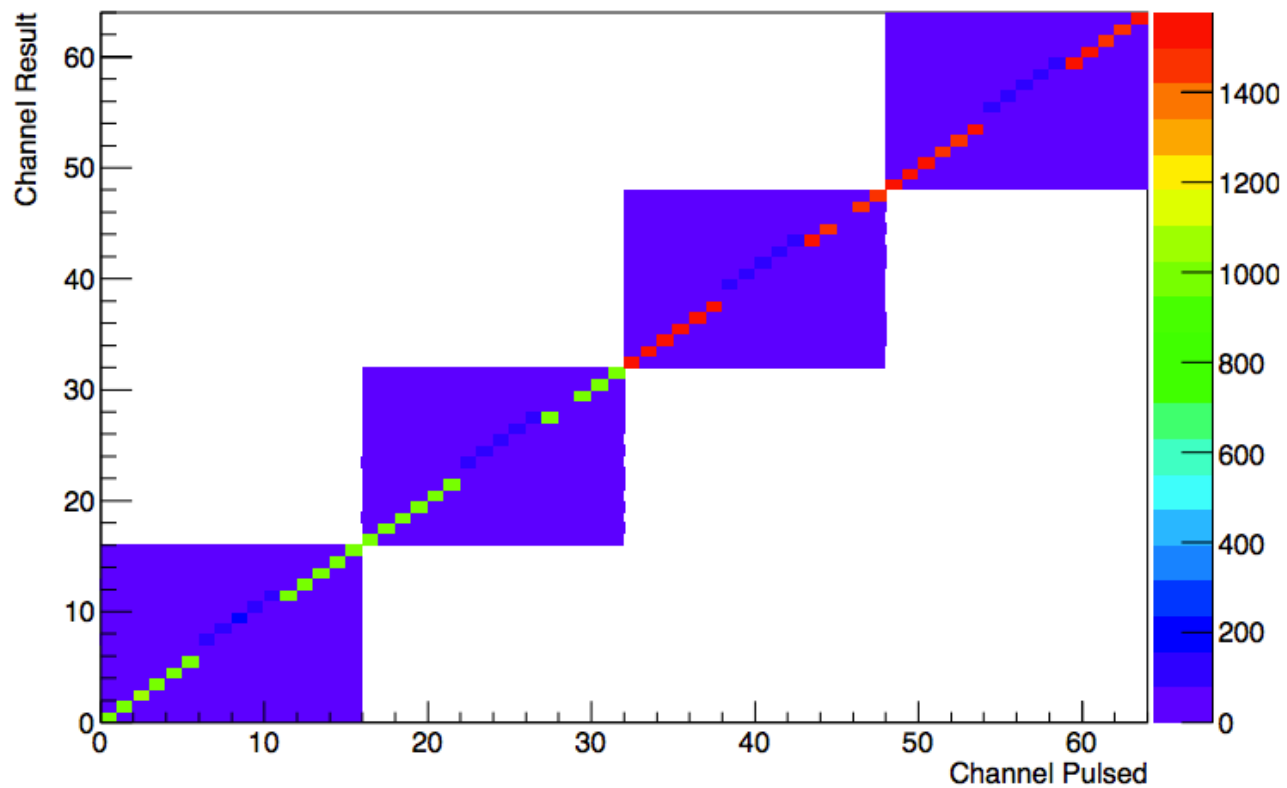
David Kaleko

What MRT Tests Are

- "MicroBooNE Receiving Tests"

- Getting electronics made by BNL and testing them

- Electronics: ASICS + cold cables (connection between the physical TPC wires and readout electronics)

How we Test Them

- "Mock Feedthrough"
- Python script to take data
- Many "subruns" in each feedthrough's test
- Each subrun configures things slightly differently to look for different possible effects
  - Miswiring
  - Bad channels
  - Channel-to-channel crosstalk
  - Asic-to-asic crosstalk
  - Motherboard-to-motherboard crosstalk
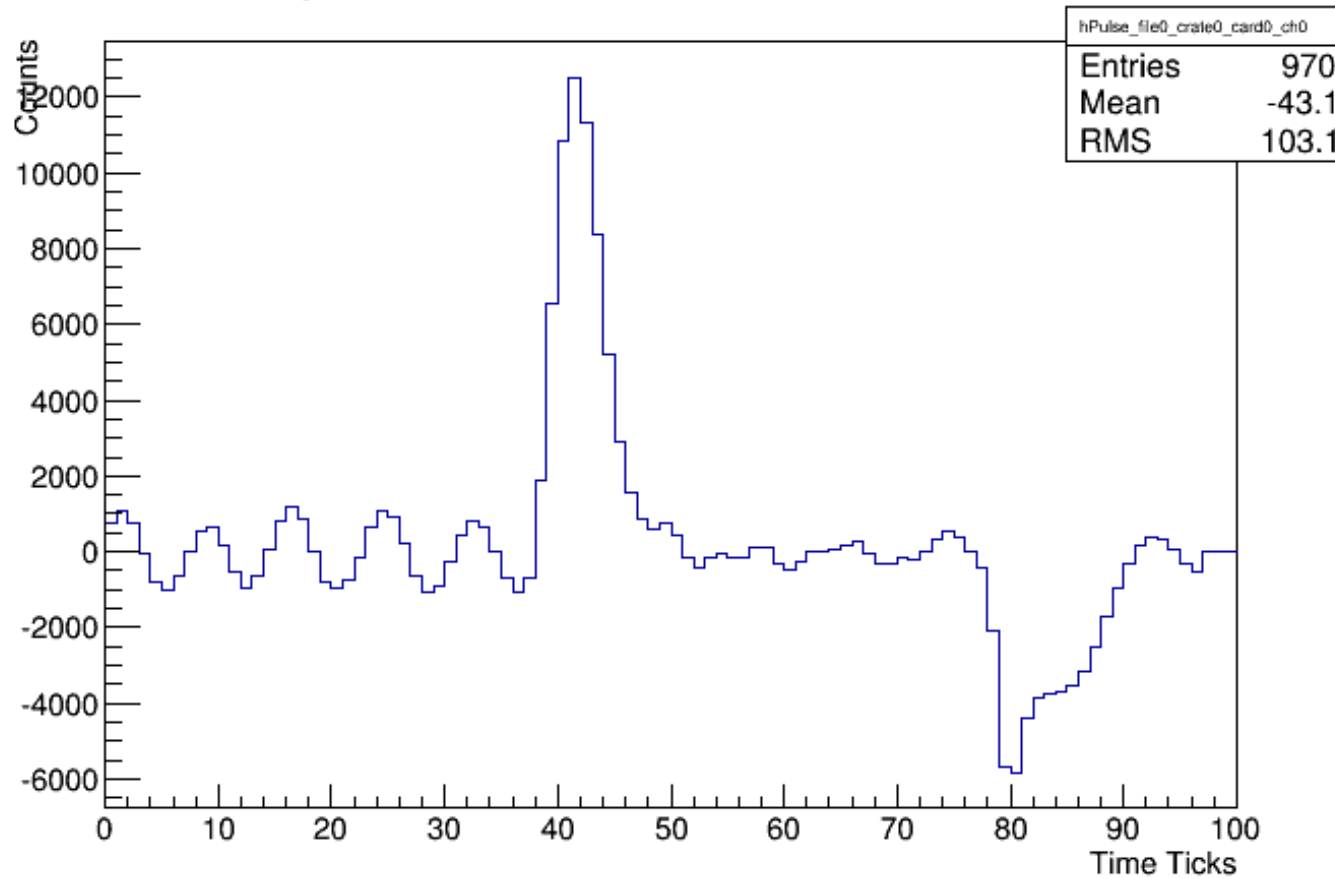 - Shaping time problems

Channel-to-Channel Crosstalk

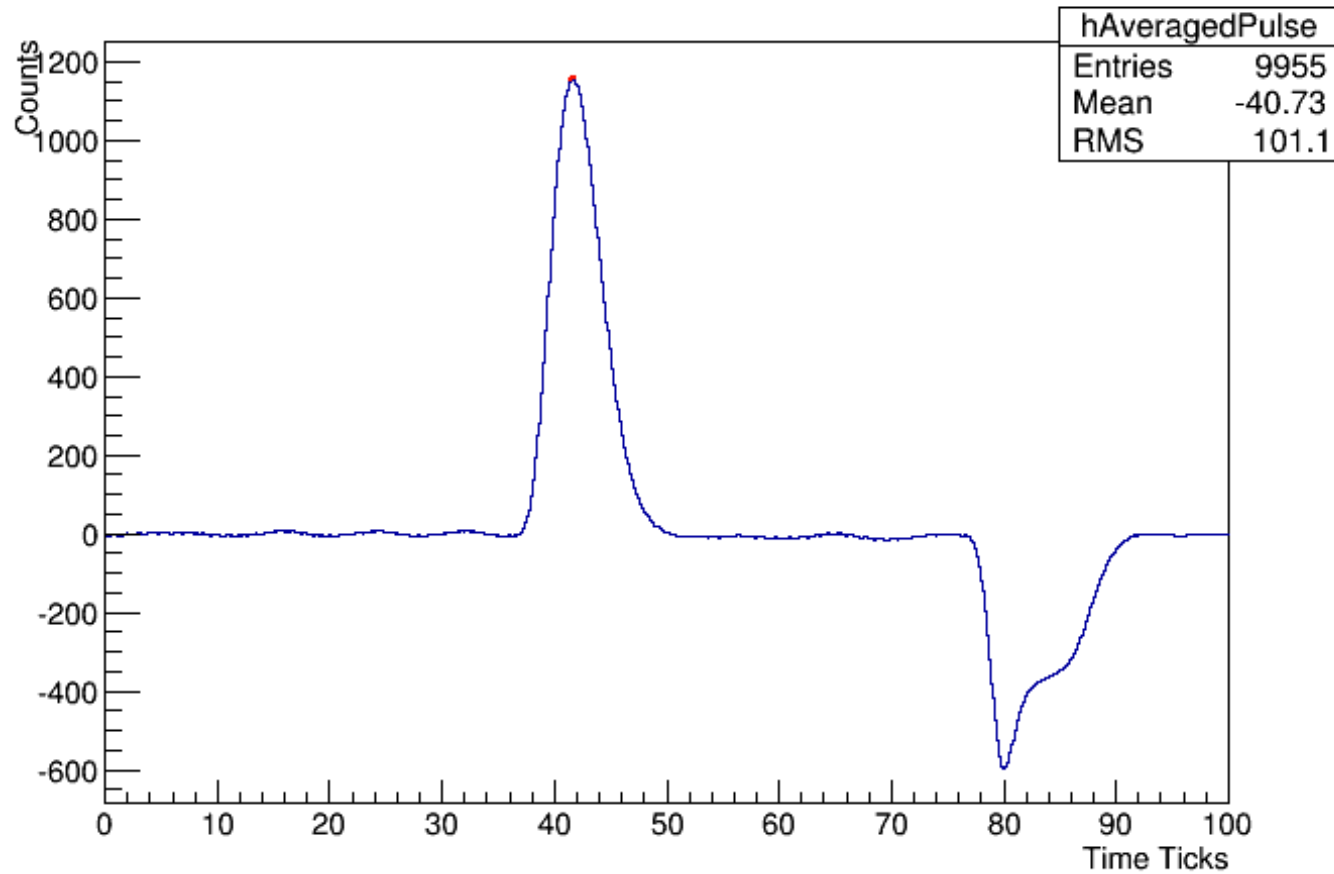Intra-ASIC Crosstalk Check from Crate 0, FEM 0

Measuring Shaping Time

Delayed Pulses from Crate 0, FEM 0, Channel 0

Measuring Shaping Time (cont)

Measuring Shaping Time (cont)

Average of Delayed Pulses from Crate 0, FEM 0, Channel 0

hAveragedPulse

Entries	9955
Mean	41.75
RMS	0.1412