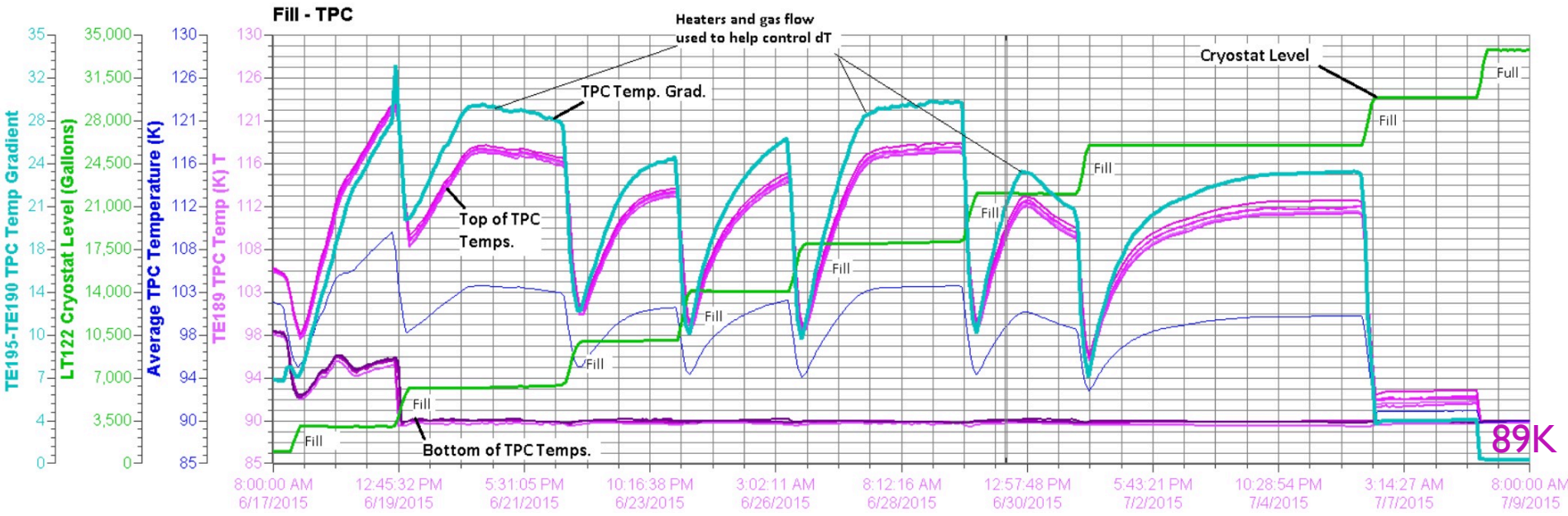

# MicroBooNE Status

*Bruce Baller - Fermilab*

August 3, 2015

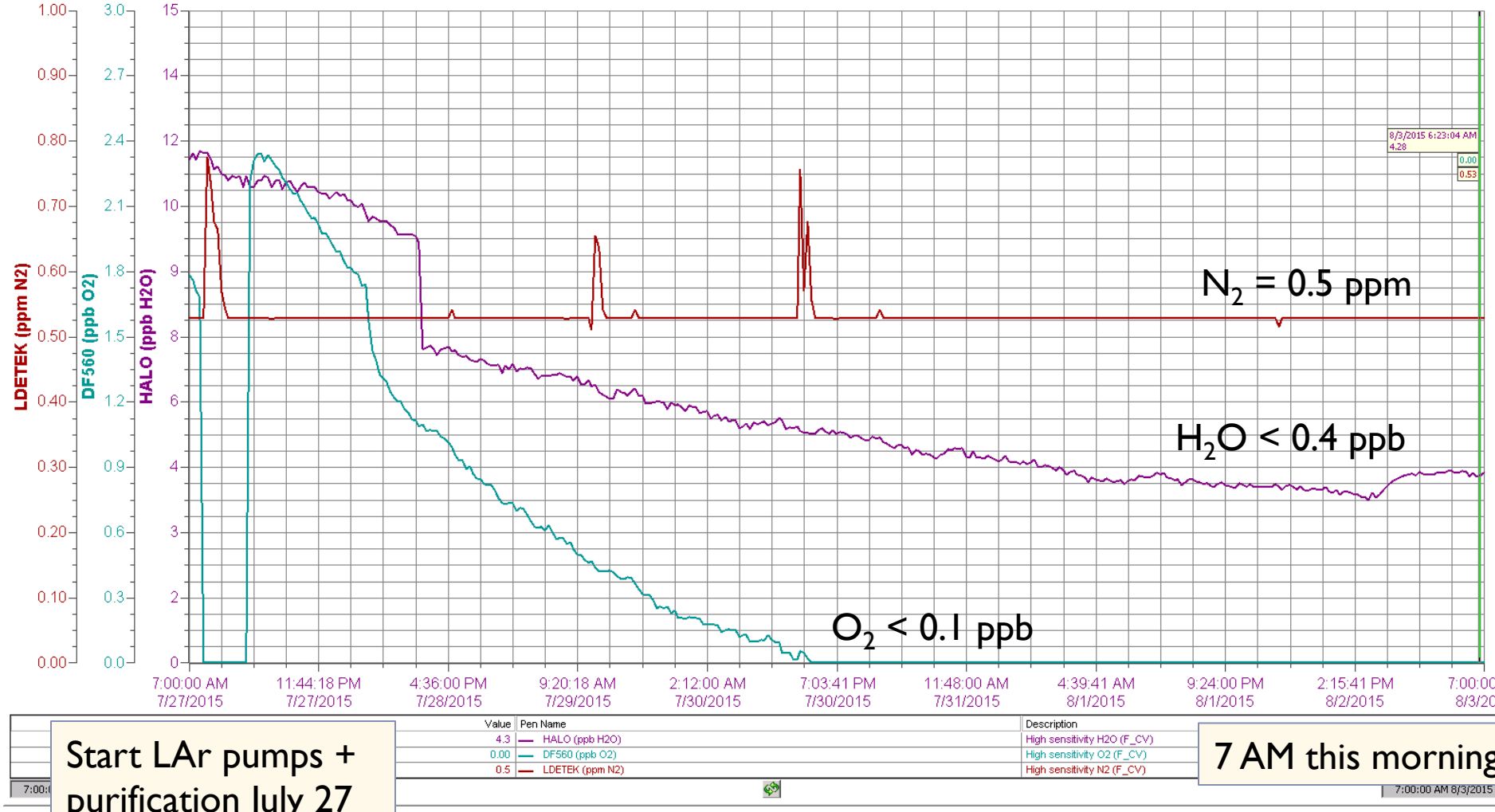
# Cryostat LAr Level & TPC Temperature




June 17

July 8

# LAr Contamination




Start LAr pumps + purification July 27

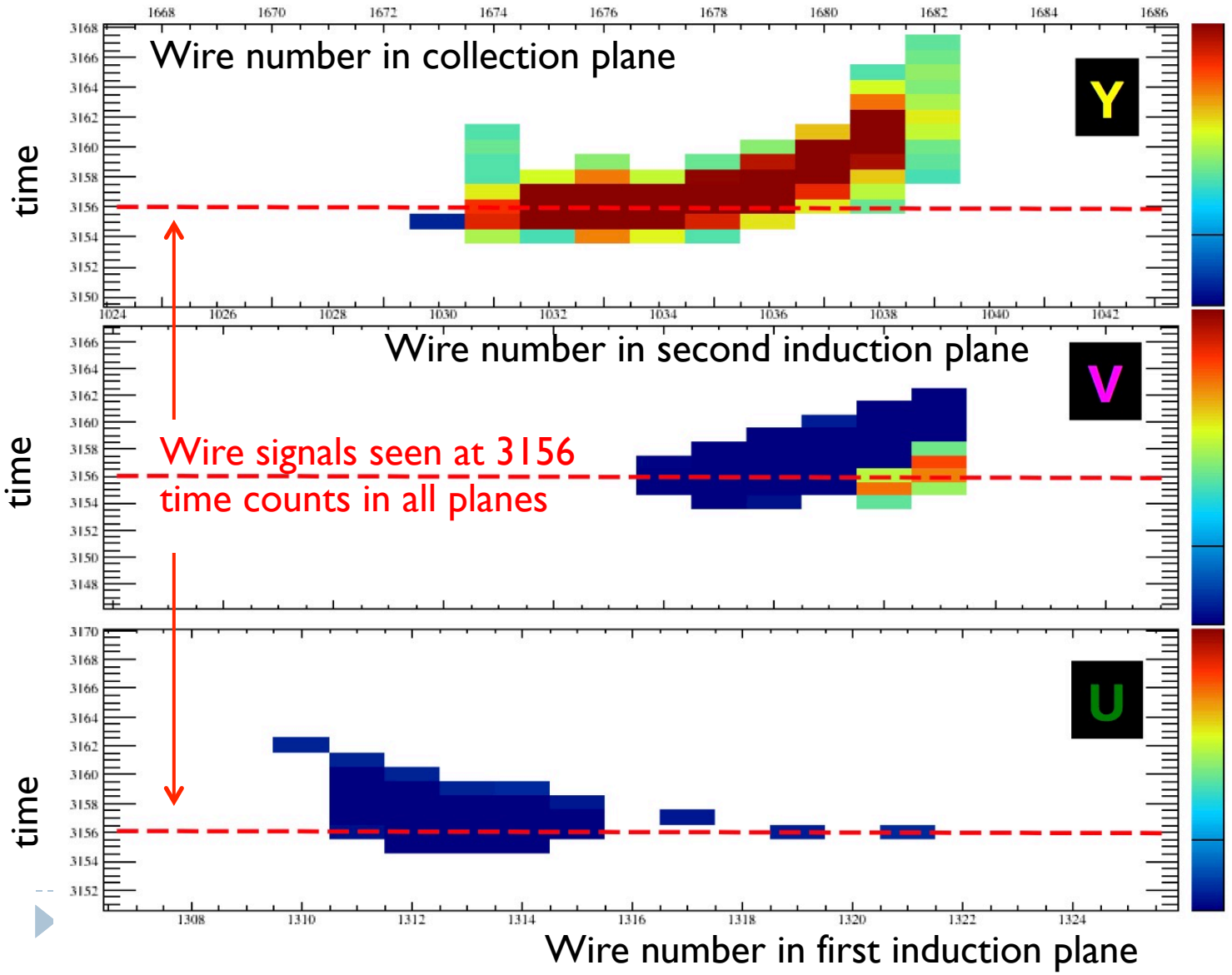
7 AM this morning

# Status

- Drift HV ramped to 10 kV
- Investigating noise in the in-cryostat LAr purity monitors
  - In-line purity monitor commissioning today
- New features on the TPC wire readout
  - Many channels seem to be in the low-gain low-shaping time mode in one feedthrough
  - Noise on a subset of channels on another feedthrough have a lower than expected noise RMS
- Ongoing checkout of the PMT trigger
- DAQ ~frozen for upcoming "dress rehearsal"

# Tracks seen in the TPC
## *Wire Bias HV on, Drift HV off*

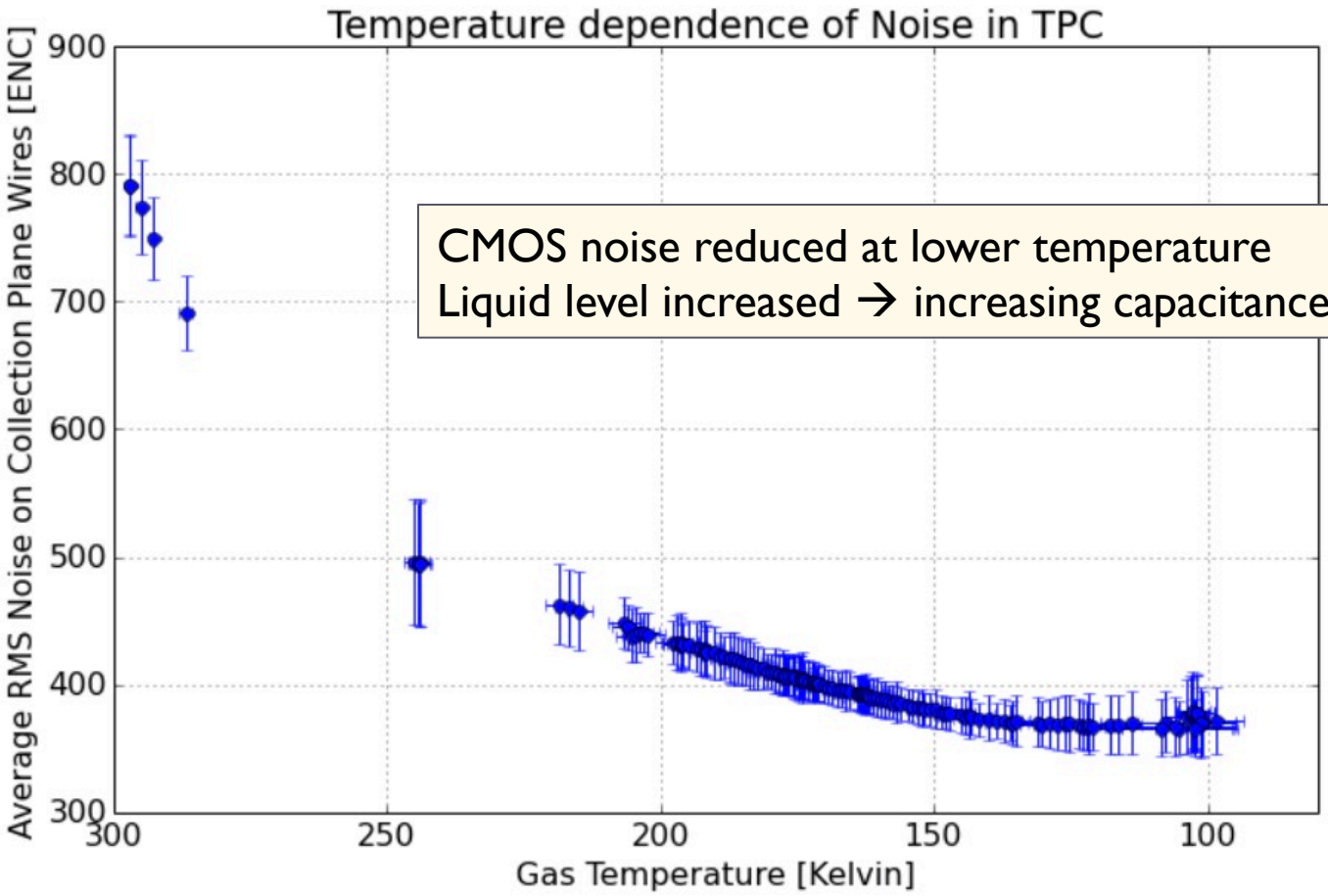
Leon Rochester (SLAC)




Note extreme zoom

# Electronics Noise

David Caratelli (Nevis)




CMOS noise reduced at lower temperature
Liquid level increased → increasing capacitance → increasing noise

ENC ~ 380 $e^-$ on collection plane wires
390 $e^-$ from Spice model

# Plans

- Ramp drift HV to 64 kV later this week
  - Space charge distortion of tracks expected to be significant
- Several days of UV laser commissioning
  - Ends when laser tracks are seen in the detector
  - Study cosmic ray tracks
- Ramp drift HV in steps of 5 kV/day
  - Assess track quality in laser and cosmic ray data runs
  - Continue ramping until track quality is deemed adequate for physics
    - Drift HV > ~90 kV should be sufficient
- Collaboration review of detector performance