

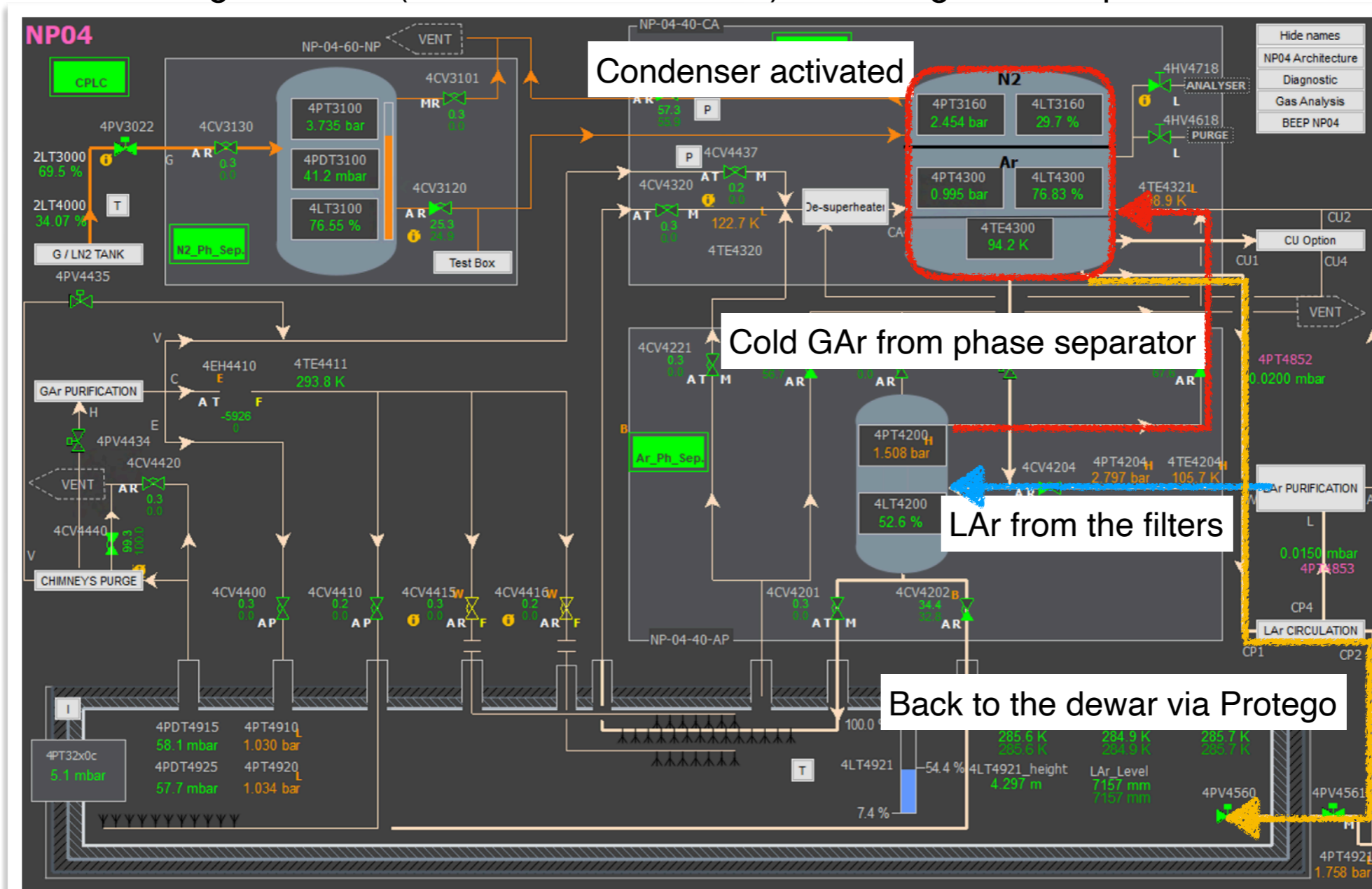


Status of NP04

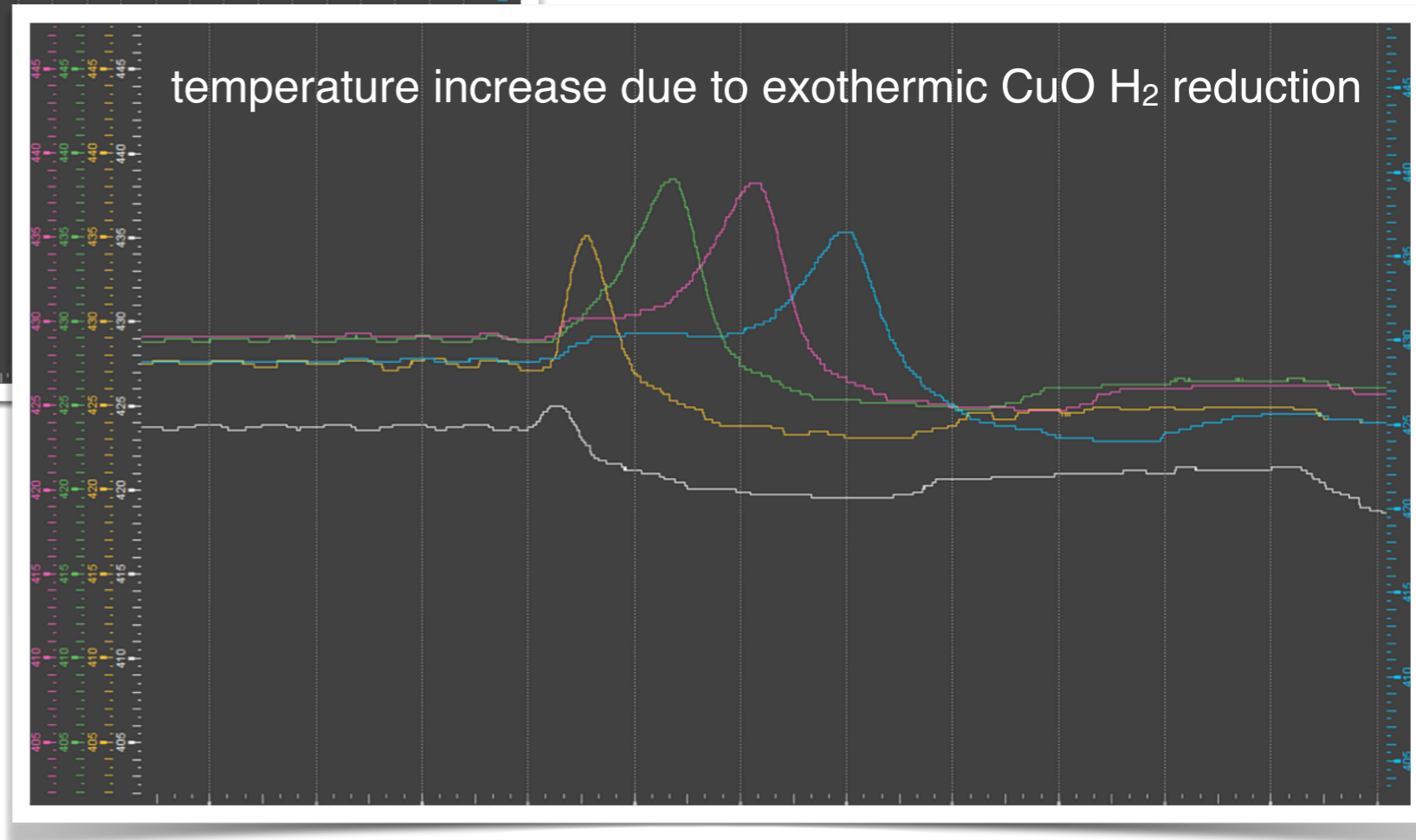
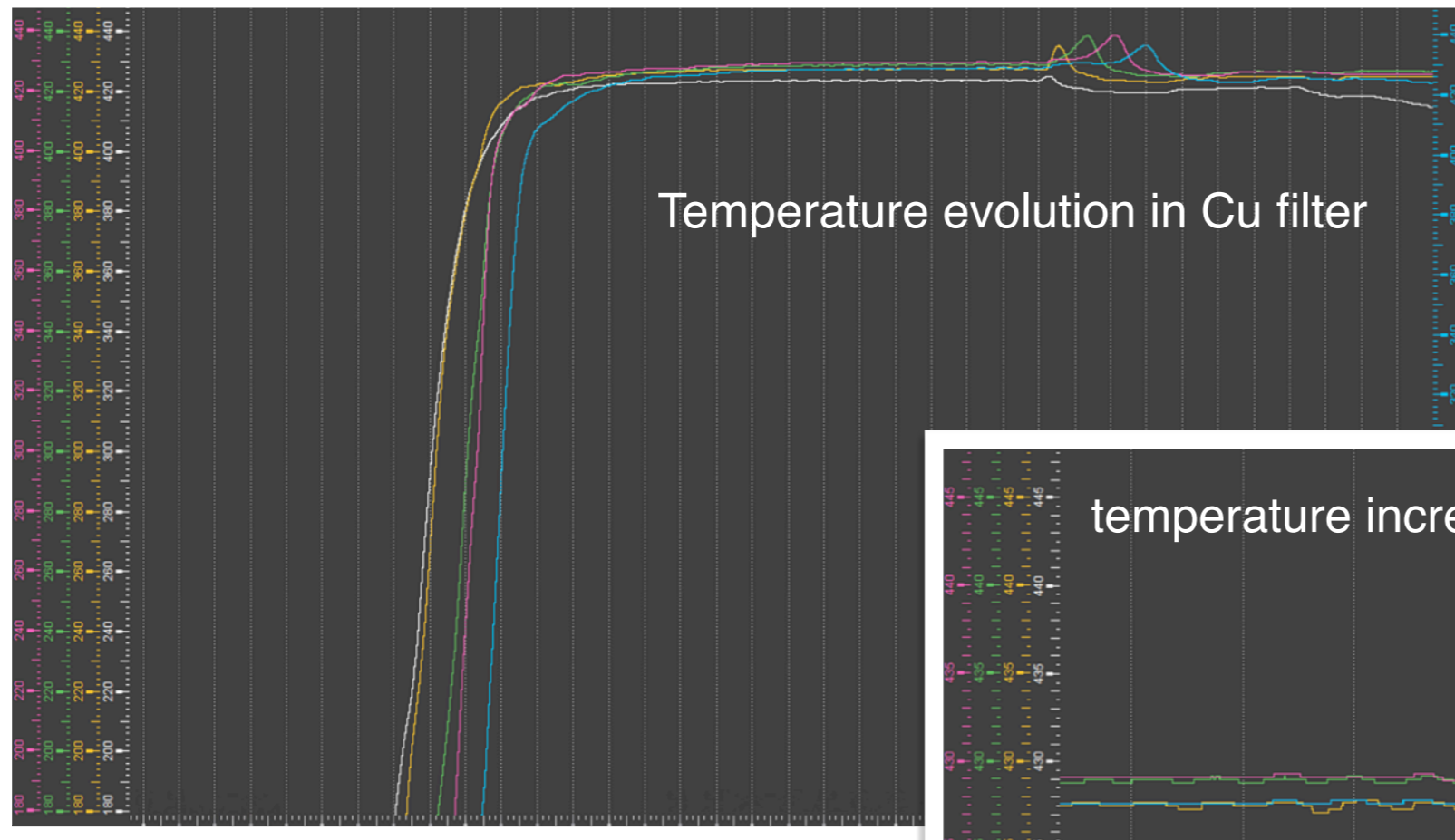
Filippo Resnati (CERN)

Status of the filling

- ~685 tons of LAr delivered to CERN
- 430 ton (~4.3 m) in NP04
- Level almost at the beam plug (still under -good $O(10^{-6}$ mbar)- vacuum)
- 20 ton in outside tank
- Argon also used to fill NP02 cold box and cooldown filters after regeneration
- Activated from Monday the condensation of boil-off from phase separator
- Filter regeneration (Cu and and mol sieve) both for gas and liquid



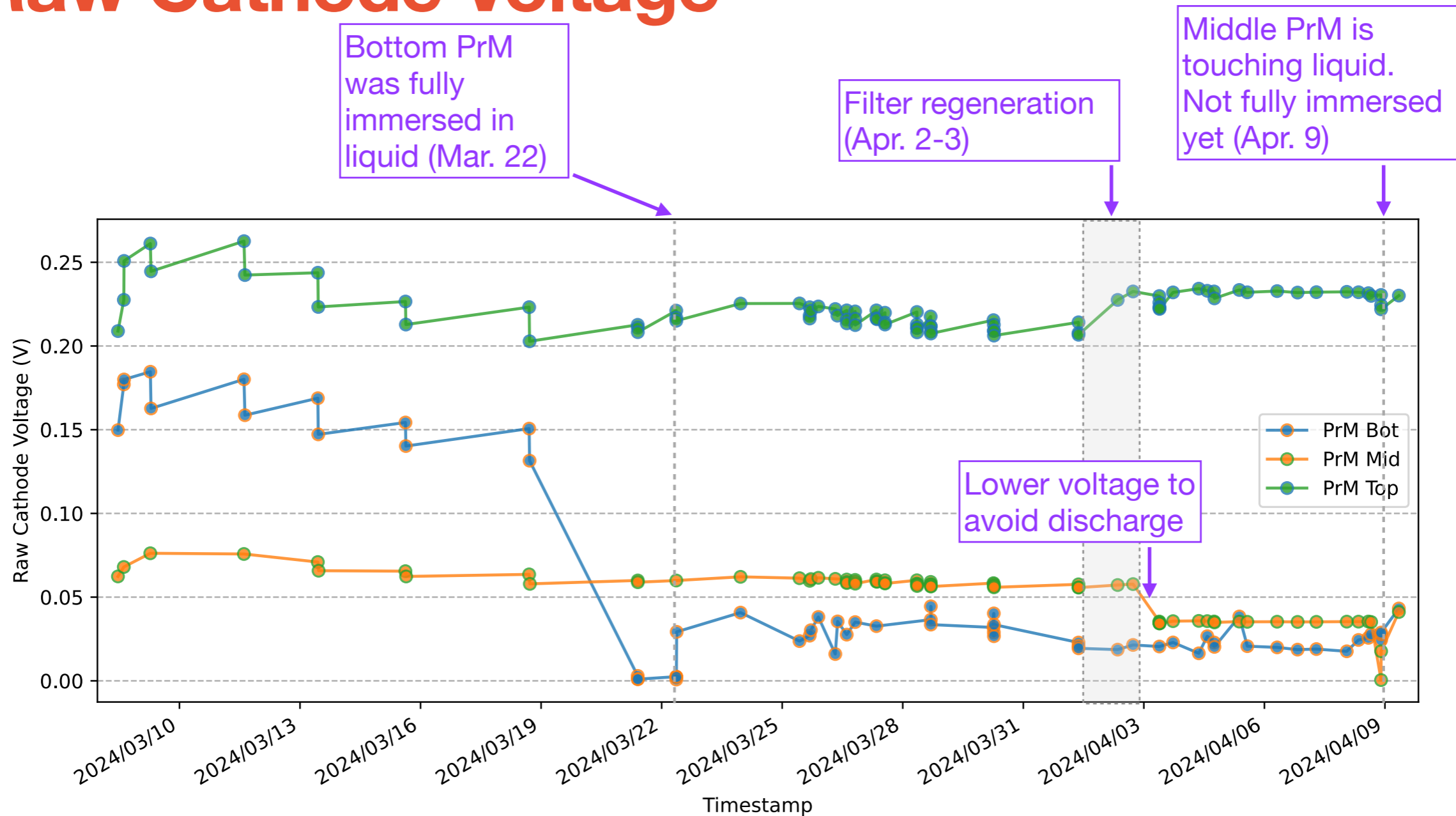
Filters regeneration



Purity

Slides from Wenjie Wu

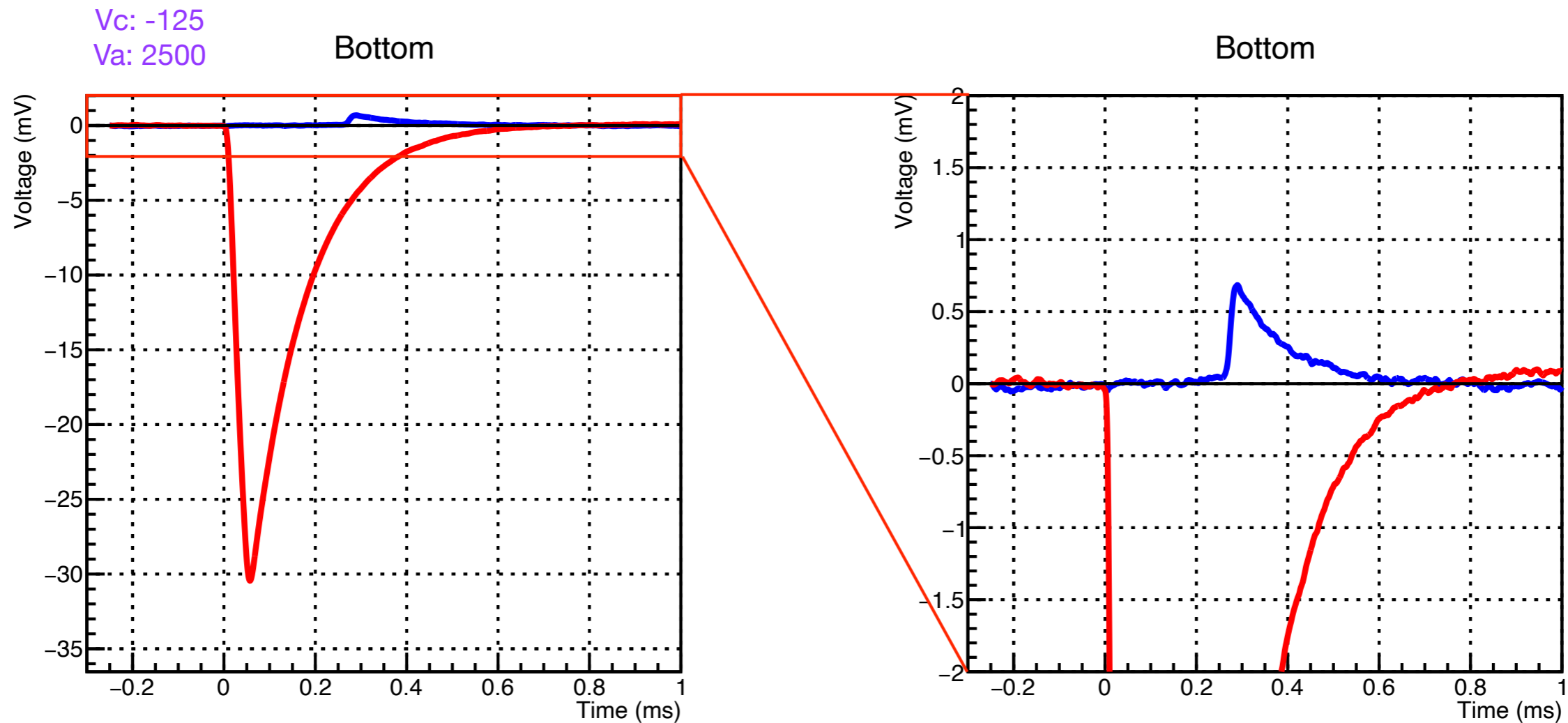
Raw Cathode Voltage



Purity

Slides from Wenjie Wu

First look in liquid argon (Bottom PrM, Mar. 22)

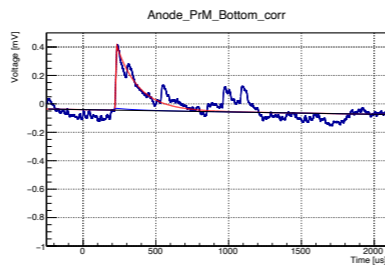
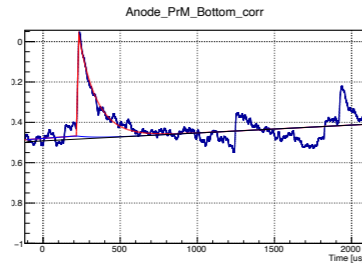
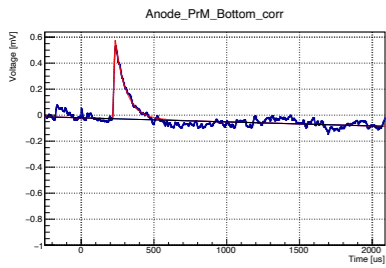
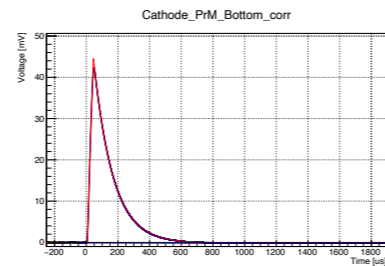
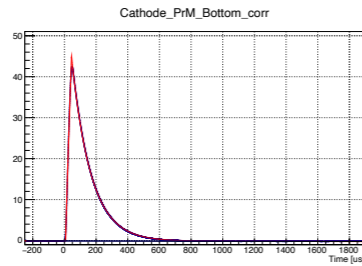
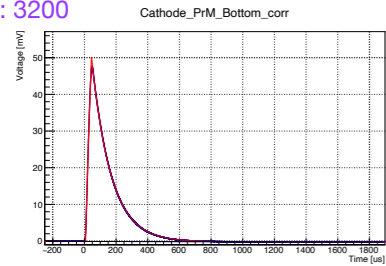


Purity

Bottom PrM signals

Mar. 26 9am

Vc: -150
Va: 3200



Qa/Qc ~ 0.0115
tau ~ 42 us
~ 7.1 ppb

Qa/Qc ~ 0.0103
tau ~ 41 us
~ 7.3 ppb

Qa/Qc ~ 0.0088
tau ~ 40 us
~ 7.5 ppb

Wenjie Wu, UC Irvine

Purity Monitors

6

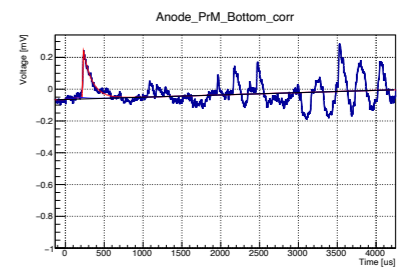
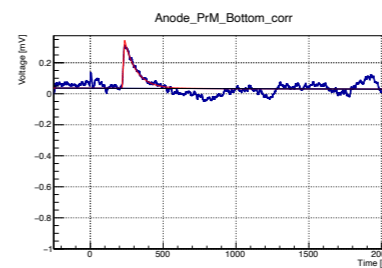
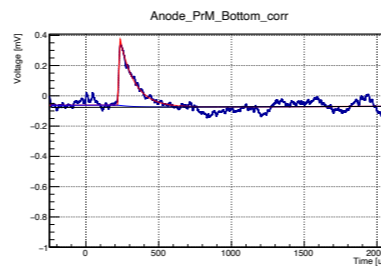
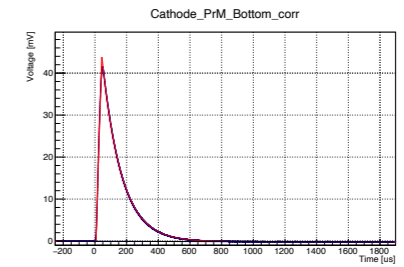
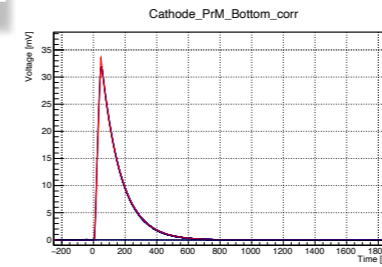
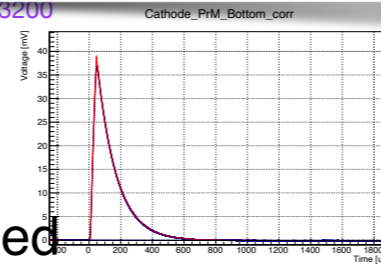
Slides from Wenjie Wu

Signals

Mar. 27 1:30pm

Mar. 28 8:30am

Va: 3200



Qa/Qc ~ 0.0105
tau ~ 41.6 us
~ 7.2 ppb

Qa/Qc ~ 0.00877
tau ~ 39.8 us
~ 7.54 ppb

Qa/Qc ~ 0.00624
tau ~ 37.1 us
~ 8.08 ppb

Wenjie Wu, UC Irvine

Purity Monitors

7

Filters regeneration were already planned
Expecting

Purity

Cathode signal started to increase. Not clear it is related to filter regeneration

Slides from Wenjie Wu

Bottom PrM signals

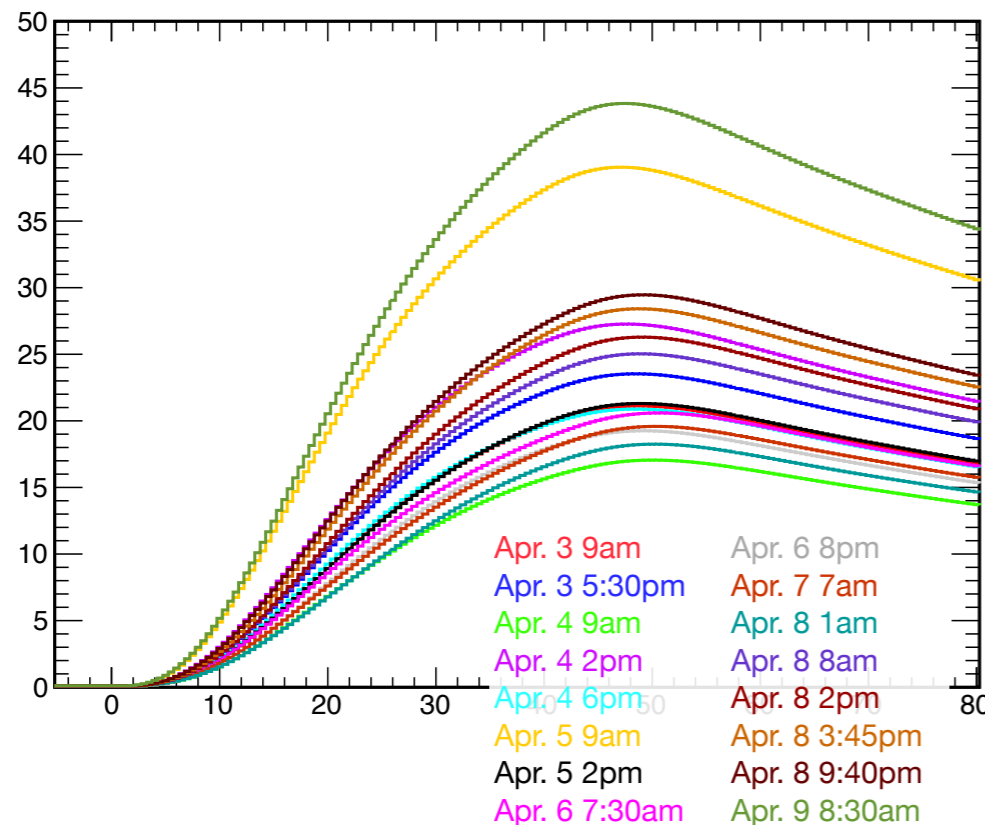
- The purity was getting worse gradually
- Started to see discharges, had to lower the electric field
- Keep monitoring the cathode signal

Cathode signal is gradually getting larger these two days

Will try to tune the voltages and see if we can see anode signal

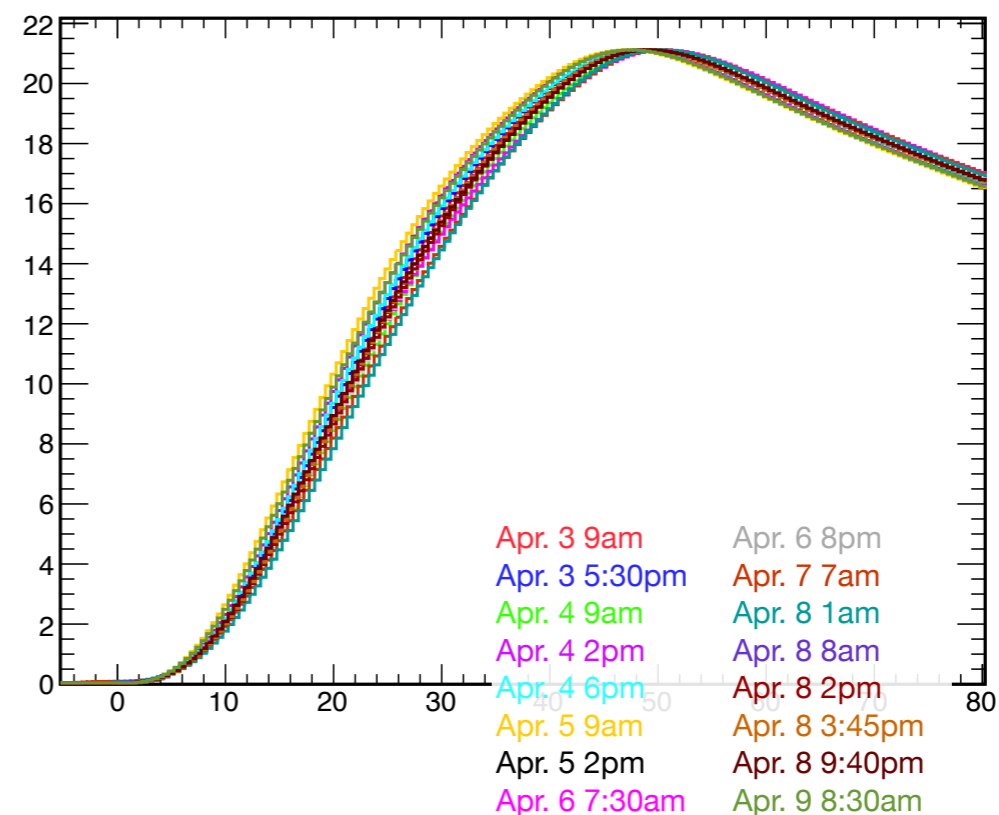
Vc: -150
Va: 1500

Cathode_PrM_Bottom_corr



Normalize amplitude

Cathode_PrM_Bottom_corr



PS-SPS schedule

Beam commissioning and beam instrumentation commissioning finished yesterday.
Successful two weeks long period to revamp equipment used last time more than 5 years ago.
Confirmation that rates are little influenced by polarity of beam on target: decouple from beam in H2.

