ProtoDUNE-SP operation updates

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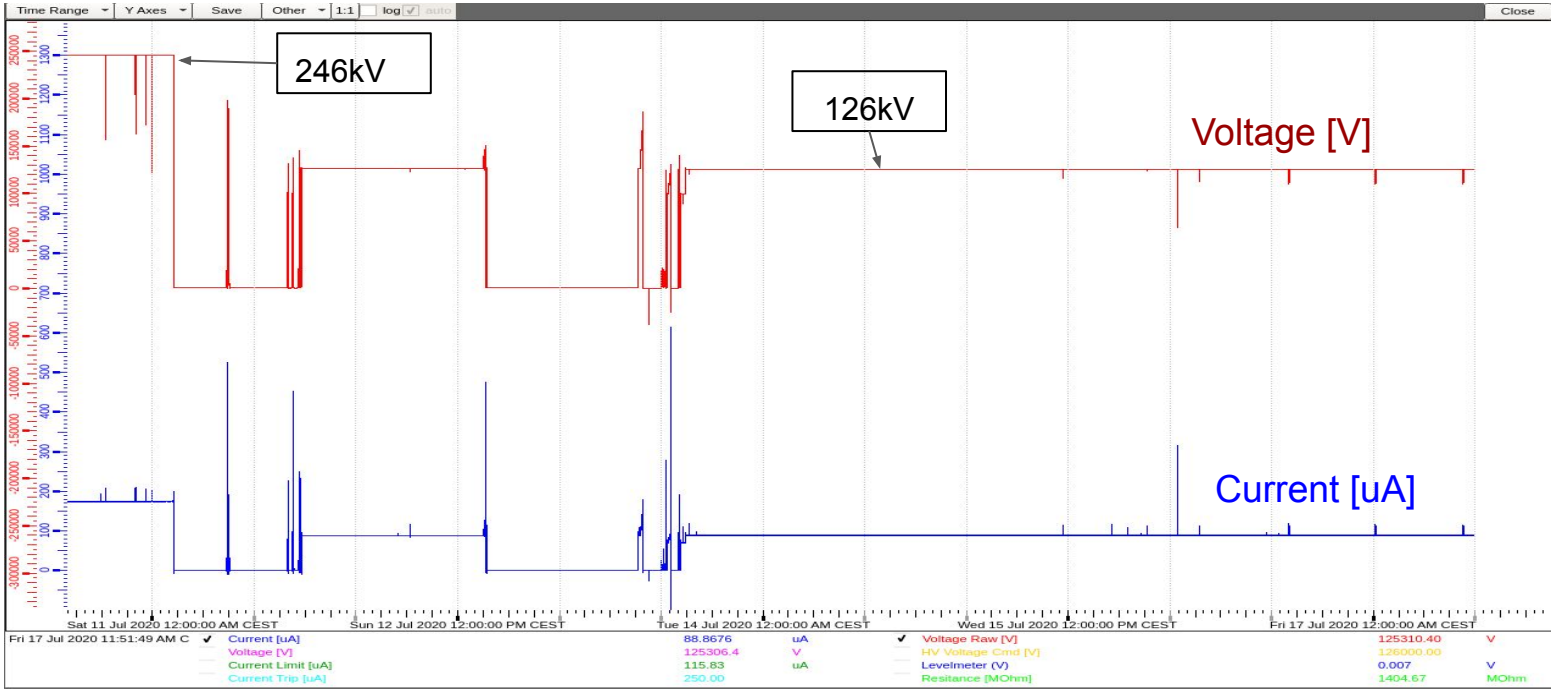
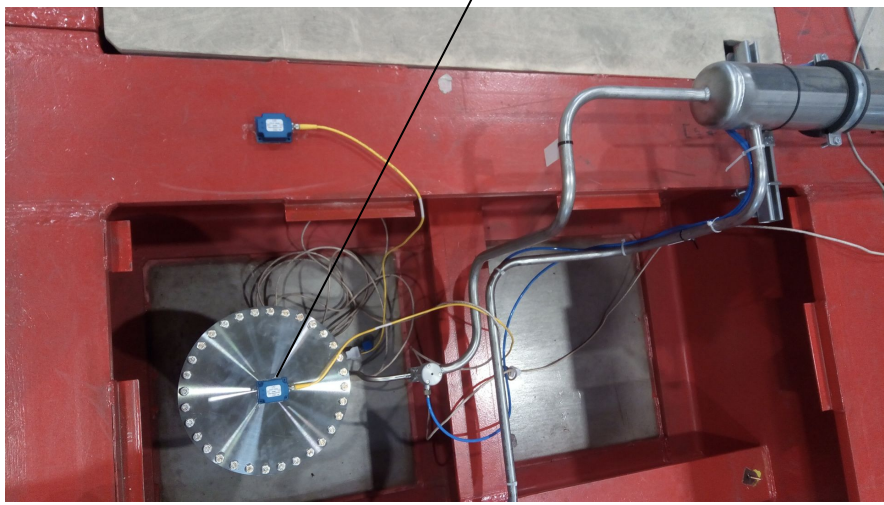
This week - HV operations

- Last week we were stable at 650V/cm from Wednesday to Saturday early in the morning
- On July 11th, early in the morning we tripped
  - Attempts to ramp up to the hv back to 180kV was not successful
  - Quick inspection on the system showed broken resistors.
  - Fixing the resistor and noise filter did not solve the problem and we were able to ramp up ~126kV
- On Monday, July 13th, moved back to the previous ProtoDUNE-SP hv setup
  - 200kV PS, inline noise filter
  - Ramping up to 180 kV failed
    - No visible problem with the filter, cable and PS
    - Problem with HVFT, cable that goes into the cable?
- **Running at 126 kV since Monday afternoon**



This week - other activities

- Operations
  - Installed inclinometers to the top of the cryostat → details in Mattia's talk today
- Data taking
  - Cosmic runs at 350V/cm
  - Neutron runs with generator on/off
    - Almost in continuous mode with crt+random trigger
    - Data taking with neutron generator trigger only
  - Special runs with APA5 and APA1 for the neutron studies → Phil's talk today
- DAQ tests and developments
  - FELIX hitfinding and firmware tests
  - Longer-than-normal readout window tests to understand if we could take 1-second TPC&PDS data
  - Michel trigger with SSPs



This weekend and next week

- This weekend:
  - Friday evening and night → system is available DAQ tests and developments
  - SSP/CE data at 0 field with generator on
  - Continue to take cosmic data with the neutron generator on/off
  - Attempt to ramp up the HV to 180kV on the cathode

- Next week:
  - Start emptying the cryostat
  - Whenever we have green light from the cryogenic group
    - Install new camera/s into the cryostat to monitor CPA defermotion
      - Extract HVFT and use its flange for one of the cameras
    - Extract X-Arapuca's from the cryostat
  - A set of pulse injection runs for APA bias at low frequencies for ripple/filter requirement studies
  - There will be a cooling water intervention on next Tuesday and therefore, most of the DAQ components will be turned off
  - While emptying the cryostat, it is possible to keep the CEs on. They will be available for testing and development beyond next week