Contribution ID: **530** Type: **Poster**

Purity monitoring for ProtoDUNE

Thursday, 30 July 2020 13:30 (3 minutes)

The next-generation neutrino experiment, DUNE, will utilize a high-intensity neutrino beam produced to measure electron-neutrino appearance and muon-neutrino disappearance with its 40 kilotons (fiducial mass) liquid argon far detector. Liquid argon purity is crucial to use liquid argon time projection chambers (LArTPC) in DUNE's large detectors. A purity monitor is a miniature TPC that measures the lifetime of photoelectrons generated by its UV-illuminated gold photocathode to measure the purity of liquid argon. ProtoDUNEs are full-scale DUNE prototype LArTPCs built at CERN and perform beam tests. This poster will discuss the design, implementation, and results of liquid argon purity monitors deployed in ProtoDUNE.

I read the instructions

Secondary track (number)

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Primary author: DIURBA, Richard (University of Minnesota)

Presenter: DIURBA, Richard (University of Minnesota)

Session Classification: Neutrino Physics - Posters

Track Classification: 02. Neutrino Physics