



Contribution ID: 8

Type: **Presentation**

Photon detection system for ProtoDUNE dual phase

Saturday, 23 September 2017 10:30 (15 minutes)

The Deep Underground Neutrino Experiment (DUNE) is a 40-kton underground liquid argon (LAr) time-projection-chamber (TPC) detector, for long-baseline neutrino oscillation studies and for neutrino astrophysics and nucleon decay searches. Photon detector systems embedded within the LAr TPC add precise timing capabilities for non-beam events. The ProtoDUNE dual phase detector will consist of a 6x6x6 m³ LAr TPC placed at CERN and the light readout will be formed by 8-inch cryogenic photomultipliers from Hamamatsu. The characterization of the 36 photomultipliers, the readout electronics, and the light calibration system will be described. In addition, preliminary results from a 3x1x1 m³ LAr double phase detector operating at CERN will be presented.

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Session Classification: Saturday Morning 1

Track Classification: Light/charge readout (PMTs, SiPM, WLS, electronics, etc.)