

# Cold Readout Electronics for Liquid Argon TPCs in the DUNE experiment

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As the leading-edge international experiment for neutrino science and proton decay studies, Deep Underground Neutrino Experiment (DUNE) is based on the LArTPC technology. The first 10-kton DUNE far detector module will employ wired-based anode planes with cold readout electronics (CE) installed inside the cryostat. The CE developed for cryogenic temperatures (77K-89K) operation is an optimal solution that achieves excellent noise performance and decouples the electrode and cryostat design from the readout design. This presentation will review the experience of ProtoDUNE single-phase detector located at the CERN neutrino platform and give an overview of the progress of the CE development activities, including recent results from system integration activities involving the characterization of new versions of the cryogenic ASICs and front-end motherboards mounted on small scale anode planes immersed in cryogenic liquids.

## **TIPP2020 abstract resubmission?**

No, this is an entirely new submission.

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