

Recent Progress in LArIAT

Wednesday, July 29, 2020 6:00 PM (15 minutes)

Liquid Argon Time Projection Chambers (LArTPCs) are currently being extensively used for neutrino physics due to their excellent capabilities in performing particle identification, and precise 3D and calorimetric energy reconstruction. The Liquid Argon In A Test Beam (LArIAT) experiment ran from 2015 to 2017 at Fermilab's Test Beam Facility where it was exposed to a known beam of charged particles. The beamline instrumentation provides information about the charged particle species and momenta, giving LArIAT the ability to perform state-of-the-art analyses of the types of charged particles that are produced in neutrino interactions on argon. LArIAT has been an excellent test-bed to perform measurements of interaction of different charged particles on argon as well as performing R&D studies for future large LArTPCs such as the Short-Baseline Near Detector (SBND) and the Deep Underground Neutrino Experiment (DUNE). This talk will give an overview of the LArIAT detector as well as provide a highlight on recent results and on-going analyses.

Secondary track (number)

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