

Abstract Submitted
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LArIAT: Liquid Argon In A Testbeam RYAN LINEHAN, Boston Univ, LARIAT COLLABORATION¹ — Liquid Argon Time Projection Chambers are quickly becoming one of the main detector technologies in neutrino physics. They offer very good 3D resolution and allow relatively easy construction of large mass detectors, making them a prime candidate for future precision neutrino measurements. Calibration is a necessary step for efficient use of these detectors, but so far, there has been relatively little effort to perform this. The LArIAT (Liquid Argon In A Testbeam) experiment, stationed in the Fermilab Test Beam Facility, aims to fill that gap. Using a beam of charged particles of known momentum, it hopes to measure and refine the LArTPC's particle identification capabilities. Objectives include electron-gamma shower discrimination, a determination of electron recombination parameters, and improved identification of pions and kaons through their interaction modes in liquid argon, amongst others. Experiment status and first data will be shown in this presentation.

¹The Liquid Argon In A Testbeam Collaboration at Fermilab

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