

Longitudinal electron diffusion measurement at MicroBooNE

Thursday, 8 June 2017 18:00 (2 hours)

MicroBooNE is a Liquid Argon Time Projection Chamber (LArTPC) which has been running in the Booster Neutrino Beam since October 2015. As one of the first large scale LArTPCs, one of the primary goals of MicroBooNE is to understand the performance of the LArTPC technology towards the development of future detectors such as the Deep Underground Neutrino Experiment (DUNE). In particular, understanding the diffusion of ionization electrons as they traverse the detector is important in order to help determine the spatial and timing resolution of both MicroBooNE and upcoming LArTPC experiments. This poster will outline the Monte Carlo based studies aimed at extracting a longitudinal diffusion measurement in MicroBooNE.

Primary author: LISTER, Adam (Lancaster University)

Presenter: LISTER, Adam (Lancaster University)

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