2019 Meeting of the Division of Particles & Fields of the American Physical Society



Contribution ID: 216 Type: Oral Presentation

Detector Physics with MicroBooNE

Wednesday 31 July 2019 16:36 (18 minutes)

With many current and future neutrino experiments relying on Liquid Argon Time Projection Chamber (LArTPC) technology, characterizing the performance of these detectors is critical. The MicroBooNE experiment is capable of performing numerous measurements to better understand the technology. These include identification and filtering of excess TPC noise, signal calibration, recombination, and measurements of drift electron attenuation. MicroBooNE, residing on the surface, can also provide important information about cosmic ray induced space charge in the TPC volume and the resulting deformations to the electric field. This talk will provide a detailed overview of the subtleties of understanding LArTPC technology and developing calibration techniques towards extracting physics measurements.

Author: Prof. SPITZ, Joshua (University of Michigan)

Presenters: CASTILLO, Raquel (IFAE); CASTILLO FERNANDEZ, Raquel (FNAL)

Session Classification: Particle Detectors

Track Classification: Particle Detectors