

The MicroBooNE Detector

Thursday, July 5, 2018 5:00 PM (15 minutes)

MicroBooNE is a large 170-ton liquid-argon time projection chamber (LArTPC) neutrino experiment located on the Booster neutrino beamline at Fermilab. The experiment first started collecting neutrino data in October 2015. The detector serves as a next step in a phased program towards the construction of massive kiloton scale LArTPC detectors for future long-baseline neutrino physics (DUNE) and is the first detector in the short-baseline neutrino program at Fermilab. We will present results on the performance of the detector, including measurements of cosmic-ray reconstruction efficiencies, on Michel electron and muon momentum reconstruction, on noise characterisation and filtering, processing of ionisation electron signals, and on the use of advanced analysis techniques for event reconstruction.

Primary authors: SPITZ, Joshua (University of Michigan); CARATELLI, David (Fermilab)

Presenter: CARATELLI, David (Fermilab)

Session Classification: Neutrino Physics

Track Classification: Neutrino Physics