Contribution ID: **269** Type: **Poster accelerator**

Towards Automated Neutrino Selection at MicroBooNE Using Tomographic Event Reconstruction

MicroBooNE is an approximately 90 metric ton single-phase liquid argon time projection chamber (LArTPC) and the first of a trio of LArTPCs in the Short Baseline Neutrino (SBN) program which will search for a light sterile neutrino and measure neutrino-argon interaction cross sections. Located in the Booster neutrino beam at Fermi National Accelerator Laboratory, MicroBooNE has taken neutrino data since October 2015. The near-surface operation of a LArTPC presents challenges in discriminating neutrino events from cosmic backgrounds. In this poster, we will describe the status of various technical components for selecting and analyzing neutrino-candidate events using Wire-Cell tomographic event reconstruction. In particular, we emphasize the interplay between scintillation light and ionization charge signals in identifying beam-spill coincident neutrino-candidate activity. Latest results will be shown.

Authorship annotation

for the MicroBooNE collaboration

Session and Location

Wednesday Session, Poster Wall #67 (Auditorium Gallery Right)

Poster included in proceedings:

yes

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Track Classification: Poster (participating in poster prize competition)