

## New Perspectives 2016



Contribution ID: 72

Type: **not specified**

# Flash Track Matching Development in MicroBooNE

*Monday, 13 June 2016 14:30 (15 minutes)*

MicroBooNE is a 170-ton neutrino experiment that utilizes a liquid-argon time projection chamber (TPC), which sits in the Booster Neutrino Beamline at Fermilab. MicroBooNE is the first operational detector of the SBN program and started taking beam data in October 2015. The experiment aims to unambiguously probe the nature of the low-energy excess of events observed by MiniBooNE and measure neutrino-argon cross sections. MicroBooNE is capable of precisely extracting the time of interactions ( $t_0$ ) by matching tracks in the liquid-argon TPC and flashes observed by an array of photomultiplier tubes. We present our efforts towards building a flash-track matching algorithm and its first results on a dataset that uses information from an external muon tagger system.

**Primary author:** Mr AN, Rui (Illinois Institute of Technology)

**Presenter:** Mr AN, Rui (Illinois Institute of Technology)

**Session Classification:** Session 3