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P3.068 Michel electron reconstruction with the MicroBooNE LArTPC

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on behalf of MicroBooNE collaboration

MicroBooNE is a Liquid Argon Time Projection Chamber (LArTPC) neutrino detector located in the Booster Neutrino Beamline at Fermilab which began collecting neutrino data in October 2015. MicroBooNE aims to explore the low-energy excess in the $\nu_e$spectrum reported by MiniBooNE as well as perform ν-Ar cross-section measurements. In this talk, we present the current status of reconstructing Michel electrons from cosmic ray muons in the MicroBooNE detector. These Michel electrons are distributed uniformly inside the detector, and serve as a natural and powerful sample to study the detector's response for low energy (10s of MeV) interactions as a function of position. We have developed a reconstruction software tool to successfully identify such Michel electrons which could be of benefit to LArTPC experiments generically.