P3.070 The reconstruction of neutral pions in MicroBooNE

M Toups¹, M Weber² and A Hackenburg³

¹Fermi National Accelerator Laboratory, USA, ²Laboratorium fuer Hochenergiephysik - Universitaet Bern, Switzerland, ³Yale University, USA

On behalf of MicroBooNE collaboration

MicroBooNE is a new liquid argon time projection chamber (LArTPC) which started collecting neutrino data at Fermilab in October 2015. One of the main challenges associated with LArTPCs is the reconstruction of track- and shower-like objects. The MicroBooNE collaboration has made significant progress in the effort to efficiently reconstruct these objects. The flagship analysis of MicroBooNE is to search for an excess of electromagnetic events observed by MiniBooNE, which relies on our ability to reconstruct and identify showers. A major background to this analysis comes from neutral pions decaying into a pair of photons. This poster will show the results of an effort to isolate and reconstruct neutral pions in data. This demonstrates the progress being made towards the reconstruction of the main topology of interest to MicroBooNE.