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**Charged-Current Electron-Neutrino Low Energy Excess Search with Wire-Cell reconstruction paradigm in MicroBooNE** JAY HYUN JO, Yale University, MICROBOONE COLLABORATION — The single-phase liquid argon time projection chamber (LArTPC) provides a large amount of detailed information in the form of fine-grained ionization electron signals from particle traces. The MicroBooNE detector has 85 tons of liquid argon active mass and is located along the Booster Neutrino Beam (BNB) at Fermilab. MicroBooNE was built to primarily investigate the low energy excess (LEE) of electron neutrino and antineutrino charged current quasi-elastic events observed in the MiniBooNE experiment. Wire-Cell is a novel tomographic event reconstruction paradigm for LArTPCs, which reconstructs topology-agnostic 3D space points based on multiple 2D projected views of the TPC activity by reducing ambiguity from anode wire readout. In this talk, a sensitivity study of LEE search with the Wire-Cell reconstruction will be presented. A cross-check of the Wire-Cell LEE analysis using artificially-generated pseudo-datasets will also be discussed.

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