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Neutrino Induced Charged-Current Coherent Pion Production at MicroBooNE ZACHARY WILLIAMS, University of Texas at Arlington, MICROBOONE COLLABORATION — Neutrino induced charged-current coherent (CC-Coh) pion production is a rare neutrino-nucleus interaction channel with a controversial history. The interaction channel has been studied extensively at 7GeV and higher neutrino energies, and is well modeled at these neutrino energies by the Rein-Sehgal model. Recent experiments (SciBooNE and K2K) both attempted to measure this interaction channels cross section at lower neutrino energies (2.5GeV and below), but did not observe the channel and set upper limits. Recently, the T2K collaboration successfully measured the CC-Coh pion production cross section at comparable low neutrino energies, but found that the Rein-Sehgal model is not satisfactory at these lower neutrino energies. The Micro Booster Neutrino Experiment (MicroBooNE) is a Liquid Argon Time Projection Chamber (LArTPC) that is located in the Booster Neutrino Beamline (BNB) at Fermilab. MicroBooNE is in the unique position to measure the CC-Coh pion production cross section at comparable neutrino energies to the SciBooNE experiment with the largest data sample of neutrino-nucleus interactions on argon in the world. This talk will show progress towards the highest-statistics cross section measurement of CC-Coh pion production on argon at 1GeV neutrino energies.

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