

Abstract Submitted
for the SES20 Meeting of
The American Physical Society

Charged current pion-less interactions with final state protons at MicroBooNE LIBO JIANG, Virginia Tech, ANDY FURMANSKI, university of minnesota, MIKE KIRBY, Fermi National Lab, STEVE DYTMAN, University of Pittsburgh, MICROBOONE COLLABORATION — MicroBooNE is an 85t active volume liquid argon time projection chamber (LArTPC) in the Booster Neutrino Beam (BNB) at Fermilab. The BNB is a wide band beam, with an energy spectrum distributed primarily between 200 MeV and 1.5 GeV. Due to the high granularity calorimetry available in a LArTPC, the low energy protons produced in neutrino interactions can be measured with high statistics down to lower thresholds. The higher A of the target makes kinematic reconstruction more complicated and more model dependent. Therefore, nuclear effects can be significant in argon experiment. This talk will present a measurement of the CC0piNp channel, that is interactions which do not produce a final state pion but do produce one or more final state protons above a momentum threshold of 300 MeV/c. We use a MicroBooNE data sample corresponding to an exposure of 1.6×10^{20} protons – on – target (POT), to measure single differential cross sections in five variables, each sensitive to different features of the neutrino interaction generators.

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Date submitted: 20 Oct 2020

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