

Abstract Submitted
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Prospects for the neutral current single π^0 cross section with the MicroBooNE detector¹ RYAN GROSSO, University of Cincinnati — MicroBooNE is an 89 ton active volume liquid argon TPC that has been collecting neutrino data in the Booster Neutrino Beamline at Fermilab since October 2015. The experiment is designed to study the low energy excess of electromagnetic events observed by MiniBooNE and to measure a large suite of cross sections in argon with an average neutrino energy of about 800 MeV. A measurement of the neutral current single π^0 cross section in argon is particularly valuable as it forms an important background for ν_e appearance searches at MicroBooNE and other liquid argon based experiments. This talk will present some of the challenges associated with identifying and reconstructing neutral current π^0 interactions in MicroBooNE and discuss prospects for upcoming cross section measurements of this channel.

¹DOE

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