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Neutrino-argon interactions in MicroBooNE (10' + 2')

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MicroBooNE is a short-baseline neutrino oscillation experiment located in the Booster Neutrino Beamline at Fermilab at a distance of 470 m from the target. The detector is a 89 t active volume liquid-argon time projection chamber (LArTPC). The technology of LArTPCs introduced bubble chamber-like image quality with a fully automated triggering, readout and calorimetric information to the field of neutrino detection. With this data quality, detailed studies of the neutrino interaction and final state particles are possible. MicroBooNE successfully started data taking in fall 2015 and is since collecting unprecedented statistics of neutrino-argon interactions. Besides the investigation of short-baseline oscillations, MicroBooNE is carrying out an extensive cross section physics program, that will help to probe current theories on neutrino-nucleon interactions and nuclear effects.

This talk will summarize the latest results of MicroBooNE's cross section analyses in various channels.

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Session Classification: Neutrino Physics

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