

Recent MicroBooNE cross-section results: inclusive channels and pion production

Friday, August 5, 2022 11:35 AM (20 minutes)

One of the main physics goals of the MicroBooNE experiment at Fermilab is to perform high-statistics measurements of neutrino-argon interaction cross sections. These measurements will be essential for future neutrino oscillation experiments, including the Short-Baseline Neutrino program and the Deep Underground Neutrino Experiment (DUNE), to achieve an unprecedented level of precision. Inclusive cross-section data provide an important overall benchmark for the interaction modeling needed for these future efforts, and exclusive measurements of neutrino-induced pion production provide insight into the dominant reaction mode at the neutrino energies relevant for DUNE. In this talk, we present some of the latest neutrino-argon cross-section measurements in MicroBooNE, including new results for charged-current inclusive neutrino cross sections and pion-containing final states.

Attendance type

In-person presentation

Presenter: GRAMELLINI, Elena (Fermilab)

Session Classification: WG2: Neutrino Scattering Physics

Track Classification: WG2: Neutrino Scattering Physics