Muon-Neutrino Charged-Current Inclusive Cross-sections using the NOvA Near Detector

Understanding charged-current neutrino interactions is critical to experiments studying neutrino oscillations. NOvA is one such long-baseline neutrino oscillation experiment, based at Fermilab, consisting of two detectors placed slightly off-axis to the NuMI beamline. Using observations from the NOvA near detector, we measure an inclusive double-differential cross-section for muon-neutrino interactions in terms of lepton kinematics. This poster summarizes the analysis procedure and results of the measurement using a neutrino beam, as well as initial progress on the measurement using an anti-neutrino beam.

Mini-abstract

NOvA measures muon-neutrinos to better understand neutrino interactions

Experiment/Collaboration

NOvA Collaboration

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