QE and Non-QE muon neutrino events in the NOνA prototype detector

ENRIQUE ARRIETA DIAZ1, Michigan State University, NOVA COLLABORATION — The NOνA long–baseline neutrino experiment will search for oscillations of muon neutrinos to electron neutrinos. In order to test the various systems of the experiment, the collaboration built a prototype Near Detector On the Surface (NDOS), at Fermilab, 6° off the NuMI beam axis. NDOS collected data that are being analyzed in order to get a better understanding on the production of muon neutrinos coming from Kaon decays, by studying the charged current interaction events. As part of this analysis two sets of events where identified: QE and Non–QE events. I will present the selection criteria for these sets, as well as sample events for each set, in order to show the detection capabilities of the detector for charged current interactions.

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Enrique Arrieta Diaz
Michigan State University

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