

Abstract Submitted
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Muon - Charged Current Neutrino Event Selection From The NOvA Prototype Detector's Data¹ ENRIQUE ARRIETA DIAZ, Michigan State University, NOVA COLLABORATION² — NOvA is a long - base neutrino experiment that will measure both electron neutrino appearance and muon neutrino disappearance. The collaboration built a Near Detector On the Surface, NDOS, to be used as prototype to test the different components of the experiment currently under construction. NDOS is at Fermilab at 110 mrad from the NuMI beam axis, and it collected neutrino and antineutrino data as part of its duties. The neutrino data is under analysis, and the aim is to use it to measure the inclusive charged current cross section of muon neutrinos, with energies larger than 1.5 GeV, coming from the decay of kaons from the NuMI beam. The present work shows the event selection criteria used to separate muon signal events from neutral current background.

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²The present work will be presented on behalf of the NOvA Collaboration

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