

Abstract Submitted  
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**Neutrino Interactions in the MINOS Near Detector** MICHAEL KORDOSKY, University College London, MINOS COLLABORATION — The Main Injector Neutrino Oscillation Search (MINOS) is a long baseline neutrino oscillation experiment that uses a muon-neutrino beam produced by the Neutrinos at the Main Injector (NuMI) facility at Fermi National Accelerator Laboratory (FNAL). The experiment is conducted with a pair of functionally identical detectors, located at two sites, the Near Detector at FNAL and the Far Detector in the Soudan Underground Laboratory in Minnesota. The high intensity NuMI beam provides a large neutrino event sample in the Near Detector which can be used to characterise neutrino-nucleus interactions. I will describe the experimental procedure for deducing the neutrino flux and follow with prospects for measuring the energy dependence of the inclusive muon neutrino and anti-neutrino charged-current cross-section. I will close with a discussion of the experiment's ability to measure the  $Q^2$  dependence of the quasi-elastic scattering cross-section as well as the structure functions  $F_2$  and  $xF_3$  at low  $Q^2$  and high  $x$ .

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