

Measurement of Muon Neutrino Quasi-Elastic-Like Scattering on MINERvA at $E_{\nu} \sim 6$ GeV

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The MINERvA Experiment (Main Injector Experiment ν -A interaction) is a highly segmented detector of neutrinos, able to record events with high precision using the NuMI Beam (Neutrino Main Injector) at the Fermi National Accelerator Laboratory. In this poster, we present the development in the measurement of the charged current quasi-elastic-like interaction on polystyrene scintillator (CH) in the MINERvA detector at neutrino energies around 6 GeV. The analysis presented here uses the muon kinematics to reconstruct the event and has potential to reduce cross section systematics for oscillation experiments as well as shed a light into different nuclear models. The recent changes in the beamline provide this analysis with substantial statistics opening, opening a range of possible studies.

Primary author: CARNEIRO, Mateus (CBPF)

Presenter: CARNEIRO, Mateus (CBPF)

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