

Triple Differential NumuBar Charged-Current Inclusive Cross-Section Measurement using Data Collected by the NOvA Near Detector

NOvA is a long-baseline neutrino experiment aiming to measure the neutrino oscillation parameters, especially the lepton violating phase δ_{CP} . The high flux received at the NOvA near detector makes the perfect environment for precision measurements of neutrino interactions. In this talk, we present our measurement and predictions of muon anti-neutrino inclusive cross section as a triple differential in terms of the antimuon kinetic energy, the cosine of the scattering angle of the outgoing antimuon with respect to the beam direction, and available energy in the event. In addition, we present single differential cross sections in terms of neutrino energy and the square of the four-momentum transfer.

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