

Abstract Submitted
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Energy Estimation for the NOvA Electron Neutrino Appearance

Analysis FERNANDA PSIHAS, Indiana University — The NOvA experiment measures long baseline $\nu_\mu \rightarrow \nu_e$ oscillations in Fermilab's NuMI beam. Measurement of this oscillation probability enables determination of the neutrino mass ordering and opens a window to observation of charge-parity violation in the neutrino sector. NOvA started taking data in 2014 and has already observed ν_e appearance at the 3.3σ level with the first 7% of the total projected dataset last year. Future analyses will exploit the expected energy dependence of oscillation to improve sensitivity. A new method to estimate energy for ν_e events and its impact on the next analysis will be discussed.

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