

Miami Physics Conference 2024

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Exploring Exotic Neutrino Oscillations with the NOvA Experiment

Abstract

NOvA is a long-baseline neutrino oscillation experiment with a beam and near detector at Fermilab and a far detector 810 km away in northern Minnesota. NOvA can measure the parameters of the PMNS matrix which describe the known 3-flavor oscillations as well as constrain potential new physics which impacts neutrino oscillations. This invited talk will present an update on NOvA's exotic neutrino oscillation searches, namely for sterile neutrinos and non-standard interactions with matter.