

New Perspectives



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NOvA in 10 minutes

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NOvA, the NuMI Off-Axis ν_e Appearance experiment, uses a predominantly muon neutrino or anti-neutrino beam to study neutrino oscillations. NOvA is composed of two functionally equivalent, liquid scintillator detectors. A 300 ton near detector is located at Fermilab 1 km away from the beam target. A 14 kt far detector is located in Ash River, Minnesota, separated from the near detector by 809 km. By measuring and comparing neutrino and anti-neutrino rates at both detectors, we can measure the mass hierarchy, CP phase, and θ_{23} . Outside the 3-flavor oscillation analyses, NOvA is also able to measure neutrino cross-sections, and search for sterile neutrinos and other signatures of new physics. In this talk I will give an overview of NOvA and discuss some of the most recent results.

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