

The NOvA Experiment: Status and Prospects

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NOvA is a next generation long baseline neutrino experiment. It has been designed to study electron neutrino appearance in a muon neutrino beam using a totally active, segmented, liquid scintillator detector located off the Fermilab NuMI beam axis. Construction of a prototype Near detector will commence this year and will be placed in the existing NuMI beam during 2010. The Far Detector will begin construction shortly thereafter and will be completed in 2014. The project will upgrade the NuMI facility from 400 kW to 700 kW. NOvA will push the search for electron neutrino appearance beyond the current limits by more than an order of magnitude. It will also have sensitivity to the neutrino mass hierarchy and by running both neutrinos and anti-neutrinos NOvA will begin the search for CP violation in the lepton sector.

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