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The NOvA Experiment - Present and Future

The NOvA experiment is a next generation long-baseline, accelerator-based neutrino oscillation experiment, currently under construction at Fermilab. Using a totally active liquid scintillator detector, positioned off the NuMI neutrino beam axis, NOvA will improve the existing constraints on electron neutrino appearance by more than an order of magnitude. Running a NuMI facility upgraded to 700 kW of beam power in neutrino and anti-neutrino modes, on a 810 km long baseline, NOvA is sensitive to the neutrino mass hierarchy and will pioneer searches for CP violation in the leptonic sector. We present the expected neutrino physics sensitivities of NOvA and report on the ongoing installation of the prototype Near Detector and construction at the Far Detector site, as well as on the future prospects for the experiment.

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