

The NOvA Detectors

NOvA is an off-axis long-baseline neutrino experiment, looking for ν_e appearance in an upgraded NuMI beam of ν_μ to search for θ_{13} acting in subdominant $\nu_\mu \rightarrow \nu_e$ transitions. To maximize sensitivity to the resulting \sim GeV electromagnetic showers, the 15~kton Far Detector is “totally active”, comprised of liquid scintillator contained in 15.7~m long extruded PVC cells, with the scintillation light piped out in wavelength shifting fibers then digitized by avalanche photodiodes. Civil construction at the far detector site is underway, and the smaller near detector is being assembled at Fermilab. This poster summarizes the current detector design and construction status.

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