

Status of the Measurement of Neutrinos Elastically Scattering Off Electrons in the NOvA Near Detector

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Neutrinos elastically scattering off atomic electrons is a purely leptonic process whose cross section can be precisely calculated in the standard model. A measurement of this process can provide an *in-situ* constraint to the absolute neutrino flux in an accelerator-based ν_μ beam. NOvA is a long-baseline neutrino experiment optimized to observe the oscillation of ν_μ to ν_e . It consists of a near detector located 1 km downstream of the neutrino production target at Fermilab and a far detector located 810 km away in Ash River, Minnesota. This talk presents the status of the neutrino-electron elastic scattering measurement using the NOvA near detector, including strategies for selecting the signal, as well as the prospect of reducing the flux uncertainty.

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