

Neutrino scattering in the NOvA Near Detector

Friday 25 August 2023 12:00 (20 minutes)

NOvA is a long-baseline accelerator-based neutrino experiment based in the USA. NOvA uses an intense neutrino beam produced at Fermilab's accelerator complex to make physics measurements of neutrino oscillations, neutrino cross sections, and much more. For its physics goals, NOvA uses two functionally-identical detectors. The Near Detector (ND) is situated at Fermilab, 1 km from the neutrino target and the Far Detector (FD) is located at Ash River, MN, a distance of 810 km from the neutrino source. The ND receives a high statistics neutrino flux which gives a unique opportunity for high-precision neutrino cross-section measurements and is used as a control for the oscillation analyses.

In this talk/poster, I will give an overview of the NOvA experiment. I will also talk about the current and future status of the NOvA's cross-section physics program.

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