

# Recent Long-Baseline Neutrino Mixing Results from NOvA

*Wednesday, 30 May 2018 16:10 (30 minutes)*

Neutrinos are elusive fundamental particles only directly detectable through weak interactions, and they may be the key to understanding supernovae, the matter-antimatter asymmetry in the universe, and more. Neutrinos oscillate, where they change flavor as they travel due to being in a quantum superposition of states with different masses, which has already forced us to amend the Standard Model. The details of neutrino oscillations are still being unraveled, and the US program of long-baseline neutrino oscillation experiments centered around the Fermi National Accelerator Laboratory is at the forefront of measuring such fundamental neutrino properties. In this talk I'll focus on the latest results from the NOvA experiment, where muon neutrinos are shot 810 km to a 14 kton liquid scintillator detector deep in the Minnesota forest.

## E-mail

bays@caltech.edu

## Collaboration name

NOvA Collaboration

**Primary author:** BAYS, Kirk (California Institute of Technology)

**Presenter:** BAYS, Kirk (California Institute of Technology)

**Session Classification:** Neutrino Masses and Neutrino Mixing

**Track Classification:** NMNM