PASCOS 2016: 22nd International Symposium on Particles, Strings and Cosmology



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Results from the NOvA Experiment

Wednesday 13 July 2016 11:00 (20 minutes)

NOvA is a long-baseline accelerator-based neutrino oscillation experiment that is optimized for $\nu_{\mu} - \nu_{e}$ measurements. It uses the upgraded NuMI beam from Fermilab and measures ν_{e} appearance and ν_{μ} disappearance at its Far Detector in Ash River, Minnesota. The ν_{e} appearance analysis at NOvA aims to resolve the neutrino mass hierarchy problem and to constrain the CP-violating phase. The first data set of 2.74 x 10^{20} protons on target equivalent exposure taken by was analyzed in 2015 and provided evidence of $\nu_{\mu} - \nu_{e}$ oscillation. At PASCOS we plan to update the community with new analyses using approximately twice the beam exposure.

Summary

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Track Classification: Neutrino Physics