SES21-2021-000188

Abstract for an Invited Paper for the SES21 Meeting of the American Physical Society

Latest Oscillation Results from NOvA

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NOvA is a long-baseline neutrino oscillation experiment. Its large tracking calorimeters can detect and identify muon and electron neutrino interactions with high efficiency. Neutrinos produced by the NuMI beam are detected by a near detector, located at Fermilab, and a much larger far detector, located 810 km away in Ash River, Minnesota. NOvA can measure the electron neutrino and antineutrino appearance rates, as well as the muon neutrino and antineutrino disappearance rates, in order to constrain neutrino oscillations parameters, including the large mixing angle θ_{23} , the neutrino mass hierarchy, and the CP-violating phase δ_{CP} . This talk will present NOvA's latest results combining both neutrino data (13.6 × 10²⁰ POT) and antineutrino data (12.5 × 10²⁰ POT).

¹on behalf of the NOvA collaboration