



Poster session 1 - Monday 4 July

P1.029 NOvA results on muon neutrino disappearance

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The NuMI Off-axis ν_e Appearance (NOvA) experiment is a two-detector, long-baseline neutrino oscillation experiment which addresses some of the main open questions in the neutrino sector through precision measurements of neutrino and antineutrino oscillations.

NOvA uses the upgraded NuMI neutrino beam at the Fermi National Accelerator Laboratory and a highly active, finely segmented 14-kton far detector at Ash River, Minnesota. This highly active design provides an outstanding event identification capacity, which allows for precision measurements of the oscillation parameters in both the appearance and disappearance of neutrinos and antineutrinos. In particular, NOvA will provide constraints on θ_{13} , θ_{23} , $|\Delta m_{\text{atm}}^2|$, the neutrino mass hierarchy and the CP-violation phase.

We will report NOvA's latest muon neutrino disappearance results. In particular, we will discuss the near to far detector extrapolation, the main systematic uncertainties associated with the disappearance analysis and a comparison of the far detector data with the oscillated prediction. Finally, we will show the interpretation of this comparison in terms of confidence regions for the oscillation parameters