Contribution ID: 14 Type: not specified

NOvA Electron Neutrino Appearance Measurement

One of the main goals of the NOvA experiment is measuring the appearance of electron (anti)neutrinos in a muon (anti)neutrino beam. The Daya Bay and RENO experiments have recently provided significant constraints on this oscillation parameter, measuring it to be non-zero in excess of 5σ with a global average of $\sin 22\theta 13 = 0.092$ +/- 0.012. In light of these results this poster will show NOvA's projected sensitivity to measuring electron neutrino appearance in the current run plan. Through this oscillation channel NOvA has some reach in determining the mass hierarchy and the cp violating phase factor. The experiment's sensitivity to these parameters will also be shown.

Primary author: NINER, Evan (Indiana University)

Presenter: NINER, Evan (Indiana University)