

Event selection for the $\nu_{\mu e}$ analysis in the NOvA experiment

NOvA is an accelerator experiment at FNAL (USA) devoted to studying neutrino oscillations (electron neutrino appearance and muon neutrino disappearance in both neutrino and antineutrino modes). This is one of off-axis new generation experiments with two detectors sited at 14 mrad off the NuMI beam axis and separated by 810 km of the Earth crust. The main goals of this experiment are the search of CP violation in lepton sector, measurement of neutrino mass hierarchy and some oscillation parameters with better precision.

The last results based on the $9e20$ POT statistics with neutrino beam were obtained at the end of 2017. This talk is devoted to the signal event selection in the $\nu_{\mu e}$ appearance mode. The changes in this procedure caused the significant enhancement in statistics for 2017 analysis in comparison with previous year.

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