Latest Constraints on Mixing Parameters in Three-Flavor Neutrino Oscillations from NOvA NITISH NAYAK, University of California - Irvine, NOVA COLLABORATION — NOvA is a long-baseline neutrino oscillation experiment that is designed to probe the neutrino mass hierarchy and mixing structure. It uses two functionally identical liquid scintillator detectors 14mrad off-axis from the NuMI beamline at Fermilab, allowing a tightly focused neutrino flux peaked at around 2 GeV. The Near Detector is located 100 m underground and is used to characterize the neutrino beam before oscillations. The Far Detector is placed at a distance of 810 km from the beam source and is used to look for neutrino oscillations, primarily in the $\nu_\mu \to \nu_\mu$ and the $\nu_\mu \to \nu_e$ channels. In this talk, I will present an overview of the latest ν_e appearance analysis and the results from the joint fit to the ν_μ-disappearance and ν_e-appearance analyses, utilizing an accumulated exposure of 8.85×10^{20} protons-on-target. A number of improvements to the simulation, including detector and flux modelling have been incorporated and will also be briefly described.

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Date submitted: 10 Jan 2018   Electronic form version 1.4