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Muon Neutrino Disappearance at NOvA VLADIMIR BYCHKOV, Univ of Minnesota - Twin Cities — The NuMI Off-axis Electron Neutrino Appearance (NOvA) experiment can detect muon neutrinos and measure their disappearance via oscillation between the Near and Far Detectors. We will present recent results of muon neutrino disappearance analysis on 50% higher statistics then previous published results. Better signal selection algorithm, based on deep neural network inspired by progress in computer vision community, is described. Improved detector simulation and re-tuned cosmic rejection and energy estimation algorithms as well as a new fit in four hadronic energy fraction populations are performed. The data allows us to make the joint world best measurement of δm^2_{23}.

Vladimir Bychkov
Univ of Minnesota - Twin Cities

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