Abstract Submitted
for the APR13 Meeting of
The American Physical Society

A search for non-standard neutrino interactions in MINOS
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— MINOS searches for neutrino and antineutrino oscillations using the disappearance of muon neutrinos from the NuMI beam between two detectors, over a baseline of 735 km. We have previously reported measurements of oscillations from separate and combined muon neutrino and antineutrino samples. We use the apparent difference in neutrino and antineutrino disappearance to search for non-standard interactions (NSI) with matter which could occur during propagation through the Earth's crust to the Far Detector, and present new constraints obtained by analyzing a combined set of ν_μ and $\overline{\nu}_\mu$ data. Finally, we discuss potential significant improvements to these constraints during MINOS+ running.

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Date submitted: 11 Jan 2013 Electronic form version 1.4