Abstract Submitted
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MINOS Results from the NuMI beam ZARKO PAVLOVIC, The University of Texas at Austin — MINOS is a long-baseline neutrino experiment designed to study the phenomenon of neutrino oscillations. Fermilab's NuMI beamline is used to produce a muon neutrino beam which is pointed toward the two MINOS detectors. The MINOS Near detector is located at Fermilab, 1 km from the target, and the Far detector is 735km downstream in Soudan mine, Minnesota. The NuMI beam is designed to provide a flux of $1.3 \times 10^{17} \nu/m^2/year$ at the Near detector and $1.7 \times 10^{11} \nu/m^2/year$ at the Far detector. The measurement is made by observing the disappearance of muon type neutrinos at the Far detector. Based on the first year of data, we have measured $|\Delta m^2_{23}| = 2.74^{+0.44}_{-0.26} \times 10^{-3} eV^2/c^4$ and $sin^2(2\theta_{23}) > 0.87$ (at 60% C.L.). The sensitivity of the experiment after further data collection will be discussed.

Zarko Pavlovic
The University of Texas at Austin

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