

## Search for Sterile Neutrino Mixing in the MINOS Experiment

In this poster, we present a search for disappearance of active neutrinos over a baseline of 735 km using the NuMI neutrino beam and the MINOS detectors. The data analyzed correspond to an exposure of  $7.1 \times 10^{20}$  protons-on-target. MINOS utilizes the most powerful neutrino beam currently in operation measured in two locations: a Near detector at Fermilab, 1 km downstream of beam production, and a Far detector, 734 km further away, in Northern Minnesota. By comparing the neutral-current selected spectrum at the Far detector with the expectation derived from the Near detector measurement, the hypothesis that neutrino oscillations occur between active and sterile neutrino flavours can be tested. The poster characterizes the MINOS ability to measure neutral-current neutrino interactions, outlines the event selection methods employed and describes results obtained for three-flavour and four-flavour neutrino oscillation models.

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