XXIV Workshop on Weak Interactions and Neutrinos - WIN'13

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Results from MINOS Full Data Set & Plans for MINOS+

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Neutrino oscillation is studied in the MINOS experiment with the NuMI beam line by measuring neutrino and anti-neutrino interactions with magnetized near and far detectors. We report on results obtained with our complete beam exposure of 1.56 x 10^21 POT from 2005 to 2012, and also 37.88 kton-years of atmospheric neutrinos. Presented are the most precise measurements to date of mass splittings for muon neutrinos and anti-neutrinos, the first joint analysis of atmospheric and accelerator neutrinos in the same experiment, and results for both electron neutrino and anti-neutrino appearance in muon neutrino and anti-neutrino beams. We also discuss plans for MINOS+ which should accumulate more than 10,000 muon neutrino events in the 4-10 GeV energy range over the next three years.

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