

DNP10-2010-020232

Abstract for an Invited Paper
for the DNP10 Meeting of
the American Physical Society

Accelerator Neutrino Oscillations

CHRISTOPHER M. MAUGER, Los Alamos National Laboratory

The oscillation of atmospheric neutrinos was the first conclusive evidence of physics beyond the standard model. The K2K and MINOS long-baseline neutrino experiments have confirmed and explored atmospheric neutrino oscillations in detail. Near-term experiments are exploiting the knowledge of solar and atmospheric neutrino oscillations to search for the last unmeasured angle in the neutrino-mixing matrix. Future experiments will search for leptonic CP non-conservation and will try to determine the neutrino mass ordering. After briefly discussing the current status of accelerator long-baseline neutrino measurements, I will describe the near-term and future accelerator-based long-baseline neutrino oscillation program.