

Sensitivity of the DUNE Experiment to CP Violation

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The Deep Underground Neutrino Experiment (DUNE) is a long-baseline neutrino oscillation experiment with primary physics goals of determining the neutrino mass hierarchy and measuring δ_{CP} with sufficient sensitivity to discover CP violation in neutrino oscillation. CP violation sensitivity in DUNE requires careful understanding of systematic uncertainty, with contributions expected from uncertainties in the neutrino flux, neutrino interactions, and detector effects. In this presentation, we will describe the expected sensitivity of DUNE to long-baseline neutrino oscillation parameters, how various aspects of the experimental design contribute to that sensitivity, and the planned strategy for constraining systematic uncertainty in these measurements.

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