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Summary of the US long Baseline Neutrino Experiment Study
MILIND DIWAN, Brookhaven National Laboratory — In this paper we will discuss the effort of the US long baseline neutrino experiment study, which was a joint effort from FNAL and BNL over the past year. This study focussed on evolving an ambitious US national program to study CP violation in neutrino physics using very large detectors and conventional neutrino beams. The two possibilities discussed in this effort were 1) placing a very large detector at a new Deep Underground Science and Engineering Laboratory with a new super neutrino beam from FNAL, or 2) placing very large detectors on the surface in the existing NuMI beamline at FNAL. The cost and feasiblity of the detectors, the event rates, and possible scenarios of accelerator and beam upgrades were part of the study. The large body of information including sensitivity to oscillation parameters is summarized in a draft report from this study group.

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