Abstract:

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Currently, studying the mixing of the neutrino flavors is a "hot" topic in the High Energy Physics. The neutrino oscillations were first discovered during the observations of the solar neutrinos. Since then, studies using atmospheric neutrinos and Long-Baseline Experiments (LBE) using artificially created neutrino beams, were conducted. The main results of these studies as of today are from the Super-Kamiokande (SK) detector. This talk will go over SK description, different runs and data collected and analyzed, as well as current LBE (usually reffered to as K2K) with results and the in-project LBE (T2K) will be covered. Few other neutrino experiments will be mentioned briefly as well.