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Results from the T2K long baseline neutrino experiment

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Recent measurements of a non-zero θ_{13} are very exciting, since the results provide an opportunity to study CP violation with neutrinos. One of these results comes from the Tokai-to-Kamioka (T2K) long-baseline neutrino-oscillation experiment. The experiment is designed to search for ν_e appearance (θ_{13}) and to precisely measure ν_μ disappearance (Δm^2_{23}, θ_{23}) by sampling an off-axis, high purity, muon neutrino beam. The neutrinos are detected 295km from production by the Super Kamiokande (SK) detector. A near detector 280m from the production target measures the unoscillated beam to improve the precision of the oscillation measurements. In this talk I will present up to date physics results from T2K, focusing on the ν_e appearance and ν_μ disappearance measurements.

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