

The latest T2K neutrino oscillation results

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T2K is a long-baseline neutrino oscillation experiment taking data since 2010. A neutrino beam is produced at the J-PARC accelerator in Japan and is sampled at a Near Detector complex 280 m from the neutrino production point and at the far detector, Super-Kamiokande. Beams predominantly composed of muon neutrinos or muon anti-neutrinos have been produced by changing the currents in the magnetic focusing horns. The additional neutrino-mode data collected with T2K in 2017 have doubled the statistics relative to previous analysis releases. This presentation will show the most recent T2K oscillation results obtained from a combined analysis of the entire available data set in the muon neutrino and muon anti-neutrino disappearance channels, and in the electron neutrino and electron anti-neutrino appearance channels. Using these data, we measure four oscillations parameters: $\sin\theta_{23}$, $\sin\theta_{13}$, $|\Delta m_{232}|$ and δCP , as well as the mass ordering.

Primary author: LU, Xianguo (University of Oxford)

Presenter: LU, Xianguo (University of Oxford)

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