

PASCOS 2016: 22nd International Symposium on Particles, Strings and Cosmology



Contribution ID: 163

Type: **not specified**

Recent neutrino oscillation results from T2K

Tuesday 12 July 2016 12:45 (20 minutes)

T2K (Tokai to Kamioka) is the world's first off-axis designed long-baseline experiment that was built for precision measurement of neutrino oscillations. The T2K experiment uses a high intensity, highly pure beam of muon (anti)neutrinos produced at J-PARC in Tokai, Japan. A Near Detector complex, 280 m downstream of the target, is operated to monitor and characterize the (anti)neutrino beam before the neutrinos oscillate. Neutrino oscillation patterns are observed at the Super-Kamiokande detector, which is located 295 km away from the neutrino production point at an angular offset of 2.5 degrees from the average beam direction. T2K has been collecting data with a muon antineutrino beam since 2014 and reported the first results with an exposure of 4.01×10^{20} protons on target in 2015. In this talk, T2K latest results of antineutrino oscillations, including measurements of $\bar{\nu}_\mu \rightarrow \bar{\nu}_\mu$ disappearance and $\bar{\nu}_\mu \rightarrow \bar{\nu}_e$ appearance, with an additional 85% data will be reported.

Summary

T2K latest results of antineutrino oscillations, including measurements of $\bar{\nu}_\mu \rightarrow \bar{\nu}_\mu$ disappearance and $\bar{\nu}_\mu \rightarrow \bar{\nu}_e$ appearance, will be reported.

Primary author: Dr V CAO, Son (Kyoto University)

Presenter: Dr V CAO, Son (Kyoto University)

Session Classification: Parallel I

Track Classification: Neutrino Physics