## 53rd Rencontres de Moriond - EW 2018



ID de Contribution: 160 Type: Ordinary

## Latest results from T2K

jeudi 15 mars 2018 08:30 (15 minutes)

Thank to the stable operation of the J-PARC proton accelerator at the power of 470-475kW, T2K neutrino data was almost doubled in one year and a total exposure of  $2.65 \times 10^{21}$  POT has been collected by the end of 2017. Along with this achievement, T2K has improved substantially the oscillation analyses by introducing a new selection, adding a new signal sample and understanding better the neutrino-nucleus interactions. All of these efforts result in more precise measurement of neutrino oscillation parameters and T2K firstly excludes the CP-conserving values of at  $2\sigma$ . To intensively explore CP violation in the lepton sector and continue to produce high-impact results, T2K proposes a program extension, T2K-II, to collect  $20 \times 10^{21}$  POT and ND280 upgrade is also planned to resolve uncertainties from neutrino-nucleus interaction modeling. Physics prospects of T2K-II and ND280 upgrade are sensational and T2K welcomes new collaborators for these developments.

## **Summary**

Auteur principal: Dr CAO, Son (IPNS, KEK)

Orateur: Dr CAO, Son (IPNS, KEK)

Classification de Session: Thursday morning: Neutrinos