Contribution ID: 48 Type: Presentation

Alternate presentations of neutrino oscillation results from T2K for the precision era

Thursday 4 September 2025 13:45 (25 minutes)

Current neutrino experiments are making world-leading measurements of the PMNS parameters and will continue to collect data and improve their analyses to push towards the precision era, which will be fully realised with the next generation of oscillation experiments. These next-generation experiments will not only be able to make precision measurements of the PMNS parameters but will also be able to test the assumption of unitarity itself. To achieve this goal, the experiments constraints should be presented in a new way that can directly show non-unitarity or allow theorists and global fitters to make combinations without assuming unitarity. Some of such possible presentations will be discussed.

Many of these alternative presentations can already be implemented as reparameterisations of existing 3-flavour fit results. Starting to incorporate these presentations in such a way already now, although not a test of unitarity itself, will move the community to get accustomed to these new ways of presenting oscillation results. This talk will show such reparameterisations of the official T2K 3-flavour result.

Author: PFAFF, Marvin (Imperial College (GB))

Presenter: PFAFF, Marvin (Imperial College (GB))

Session Classification: WG1+WG5

Track Classification: NuFACT 2025: WG1 - Neutrino Oscillations