Contribution ID: **480** Type: **Poster accelerator**

The VALOR Neutrino Oscillation Analysis

VALOR is a neutrino oscillation software fitting package, originally designed for the T2K experiment. It is a powerful, flexible, well-validated, and optimised analysis and framework which is now used on several other experiments.
It has been used for evaluation of DUNE physics goals as well as in preparations for the physics exploitation of the Fermilab SBN programme.
VALOR is capable of performing simultanous fits to many event samples from multiple beams and detectors, giving it strong potential applicability to future combined experiment fits.
Several physics hypotheses are supported, allowing analysis of standard PMNS three-flavour oscillations, sterile neutrino discovery or more esoteric physics scenarios such as non-standard matter interactions or neutrino decoherence.
This analysis has been used for important published results, including the ground-breaking discovery of electron neutrino appearance at T2K.

Authorship annotation

for the VALOR group

Session and Location

Wednesday Session, Poster Wall #90 (Auditorium Gallery Left)

Poster included in proceedings:

yes

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Co-author: Dr DENNIS, Steve (University of Liverpool)

Presenters: Mr BENCH, Francis (University of Liverpool); Dr DENNIS, Steve (University of Liverpool)

Track Classification: Poster (participating in poster prize competition)