

Are T2K's oscillation constraints robust under flavour-texture priors?

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T2K is a long-baseline accelerator neutrino experiment that has delivered world-leading measurements of the atmospheric mixing angle and the magnitude of CP-violation in neutrino oscillations. Here we show that Bayesian analyses using the PDG parameters benefit certain flavour symmetries through their choice of uniform prior, and we consider alternate parameterisations that exhaust choices of symmetry. We conclude that T2K's Bayesian framework MaCh3 produces constraints that are largely invariant under these priors. The usual parameters already yield the most conservative constraint for the amount of CP-violation but the octant of θ_{23} is still dependent on the flavour structure we choose for our prior.

Poster prize

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