

Model-independent test of T violation in neutrino oscillations

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We propose a method to establish time reversal symmetry violation at future neutrino oscillation experiments in a largely model-independent way. We introduce a general parametrization of flavour transition probabilities which holds under weak assumptions and covers a large class of new-physics scenarios. This can be used to search for the presence of T-odd components in the transition probabilities by comparing data at different baselines but at the same neutrino energies. We show that this test can be performed already with experiments at three different baselines and might be feasible with experiments under preparation/consideration.

Reference to paper (DOI or arXiv)

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