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CPT invariance and neutrinos

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CPT symmetry, the combination of Charge Conjugation, Parity and Time reversal, is a cornerstone of our model building strategy and therefore the repercussions of its potential violation will severely threaten the most extended tool we currently use to describe physics, i.e. local relativistic quantum fields. However, limits on its conservation from the Kaon system look indeed imposing. In this talk I will show that neutrino oscillation experiments can improve this limit by several orders of magnitude and therefore are an ideal tool to explore the foundations of our approach to Nature.

Scientific topic

Symmetries

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