

Abstract Submitted
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Double Chooz and the first test of Lorentz violation with a reactor-based antineutrino experiment JOSHUA SPITZ, MIT, DOUBLE CHOOZ COLLABORATION — The Double Chooz neutrino oscillation experiment's search for Lorentz violation will be presented. The violation of Lorentz invariance has been probed by studying the sidereal time dependence of a sample of 8249 electron antineutrino candidate events. With no observed dependence and working within the Standard-Model Extension framework, we set the first limits on 14 Lorentz violating coefficients associated with transitions between electron and tau flavor. This analysis represents the first test of Lorentz violation using reactor antineutrinos.

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None

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