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Testing Lorentz invariance in beta decays

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Lorentz symmetry is a cornerstone of modern physics. As the spacetime symmetry of special relativity, Lorentz invariance is a basic component of the standard model of particle physics and general relativity, which to date constitute our most successful descriptions of nature. Deviations from exact symmetry would radically change our view of the universe and current experiments allow us to test the validity of this assumption. In this talk, I will describe how we can use current and future beta-decay experiments to search for some key signals of the violation of Lorentz invariance.

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