

Lorentz and CPT violation in the Standard-Model Extension

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Lorentz and CPT invariance are among the symmetries that can be investigated with ultrahigh precision in subatomic physics. Being spacetime symmetries, Lorentz and CPT invariance can be violated by minuscule amounts in many theoretical approaches to underlying physics that involve novel spacetime concepts, such as quantized versions of gravity. Regardless of the underlying mechanism, the low-energy effects of such violations are expected to be governed by effective field theory. This talk provides a survey of this idea and includes an overview of experimental effort in the field.

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