

# Lorentz and CPT violation: An overview

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## Abstract content

### Summary

Lorentz symmetry is a fundamental ingredient of current physics, including the Standard Model and General Relativity. It is also extremely well tested in Nature. However, many candidate fundamental theories of quantum gravity at least allow for Lorentz breaking in certain regimes. The first part of this talk focuses on a few classes of models in which Lorentz violation takes place. The second part describes on how Lorentz violating effects can turn up in low-energy physics, and how they can be parametrized. The relation with CPT violation is discussed. We end with a short review of different experimental setups that have been developed recently to detect (or bound) Lorentz/CPT violation.

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