

# Searching for Lorentz violation and spin-gravity couplings in experiments

*Saturday 30 April 2022 09:30 (15 minutes)*

Lorentz violation has been a popular topic in recent years. We studied the linearized limits of the generic Lorentz-violating terms in curved spacetime and applied them to gravitational experiments. Three types of experiments, free-dropping, gravitational interferometer, and gravitational bound-state experiments, are studied. First constraints on certain new coefficients for Lorentz violation and spin-gravity couplings are extracted from them.

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**Session Classification:** Morning Session