

Abstract Submitted
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Signals for Lorentz Violation in Gravitational Experiments

QUENTIN BAILEY, Embry-Riddle Aeronautical University — In recent years there has been growing interest in high-precision tests of Lorentz symmetry. This is motivated primarily by the possibility of uncovering experimental glimpses of a fundamental theory. The Standard-Model Extension (SME) offers a comprehensive theoretical framework describing general Lorentz violation while incorporating known physics. In this talk, results from the gravitational sector of the SME are discussed. The application of these results to a variety of modern gravity experiments shows promising sensitivity to gravitational coefficients for Lorentz violation.

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