

Abstract Submitted
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Gravitationally Coupled Atoms as a Probe of Lorentz Symmetry JAY D. TASSON, V. ALAN KOSTELECKY, Indiana University — A feasible means of searching for new physics at the Planck scale is provided by possible violations of Lorentz symmetry. At our present low energies, effects of such violations are described by the Standard-Model Extension (SME). In this talk, I will discuss new sensitivities to Lorentz violation stemming from gravitational couplings in the fermion sector of the SME. Such sensitivities are attainable in several experiments, including atom interferometer and Equivalence Principle tests.

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