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Tests of Lorentz Symmetry with Gravitationally Coupled Atoms
JAY D. TASSON, V. ALAN KOSTELECKY, Indiana University — Violations of Lorentz symmetry provide a potential signal for new physics at the Planck scale. At presently accessible energies, these violations are described by the Standard-Model Extension (SME). In this talk I will outline the gravitationally coupled fermion sector of the SME and discuss a new sensitivity to Lorentz violation attainable in atom- interferometer experiments.

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