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Lorentz- and CPT-violating signals in Penning traps YUNHUA DING, ALAN KOSTELECKÝ, Indiana University-Bloomington — CPT and Lorentz symmetries are fundamental properties of the Standard Model. However, violation of these symmetries is possible in an underlying unified theory such as strings. This talk will focus on possible experimental effects for Lorentz and CPT violations. In particular, observable signals in measurements of anomaly and cyclotron frequencies of particles and antiparticles in a Penning trap will be discussed. New constraints from existing data will be presented and prospective sensitivities in future experiments will be outlined.

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