

HAW14-2014-000252

Abstract for an Invited Paper
for the HAW14 Meeting of
the American Physical Society

Laboratory Tests of Gravity: an extremely-low-energy frontier of particle physics¹

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Tests of Einstein's equivalence principle (EP) and Newton's inverse-square law (ISL) address basic issues raised by modern attempts to unify gravity with the other fundamental interactions. I will discuss the principles of, the results from, and some implications of torsion-balance tests of the EP and ISL. The high sensitivity of the EP tests provides strong constraints on the "gravitational" properties of anti-matter and dark matter, while the ISL tests limit the possible sizes of extra dimensions and the strengths of new meV-scale physics.

¹Primary support for this work was provided by the NSF.