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New Tests of Relativity JAY D. TASSON, ALAN KOSTELECKY, Indiana University — New ways of using gravitational experiments to test relativity have been revealed by recent studies. Experimental results based on lunar laser ranging, torsion pendula, and high- sensitivity gravimetry have already been obtained. Many more tests have been proposed, including qualitatively new searches based on tests of weak equivalence. In some cases, the proposed tests would constitute the first searches for certain types of relativity violation. This presentation will provide an outline of the modern theoretical framework for testing relativity, the gravitational Standard-Model Extension, and a summary of recent experimental results and proposals.

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