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Tests of Relativity with Gravitational Experiments JAY TASSON, ALAN KOSTELECKY, Indiana University — New ways to test relativity using gravitational experiments have been revealed by recent studies. Experimental results have already been obtained based on lunar laser ranging, torsion pendula, and high-sensitivity gravimetry. Many more tests have been proposed, some of which would constitute the first searches for certain types of relativity violation. In this presentation, an outline of the modern theoretical framework for testing relativity, the gravitational Standard- Model Extension, will be provided, and recent results and proposals will be summarized.

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