"Testing Gravity with Gravitational Waves"

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IV Mesoamerican Workshop on Cosmology and Gravity
November 9-10, 2020

Gravitational waves (GWs) have proved to be an immensely powerful tool for constraining cosmological extensions of General Relativity, which are proposed to explain the accelerating expansion rate of the universe. I'll review some of the latest bounds on modified gravity theories from GWs, which have come from both from data-driven and theoretical perspectives. However, GWs really come into their own when used in combination with complementary electromagnetic data. We'll look at some of the new emerging ideas on how GWs from future experiments like LISA and can be combined with data from upcoming galaxy surveys, to perform even more powerful tests of the modified gravity model space.

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