

19. - 20. February 2018 – Spring Workshop

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Tests of Gravity with Gravitational Waves and Cosmology

Abstract

I'll describe how EFT-style parameterisations can be used to test for deviations from GR on cosmological scales. These provide a powerful, agnostic way to test the gravity model space, and now encompass vector-tensor and tensor-tensor theories as well as scalar-tensor ones.

This theoretical framework can be linked directly to recent constraints on gravity from GW170817 and its electromagnetic counterparts. I'll explain the dramatic consequences of these observations for the current landscape of gravity theories.