Alternative Gravities and Fundamental Cosmology - ALTECOSMOFUN'21 [VIRTUAL]

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## **Quantum Effects in Higher Order Theories of Gravity**

Tuesday 7 September 2021 17:50 (20 minutes)

Higher order extensions of Einstein gravity play important roles in various areas such as cosmology, the early universe or quantum gravity. In this talk, I will take a look into quantum properties of general higher order extensions of gravity provided that they depend on the Riemann tensor and the inverse metric. Using the functional renormalisation group, a flow equation for such theories is derived and its implications for a UV completion of gravity and gravitational fixed points are discussed.

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