Higher-Curvature Gravity, Black Holes, and Holography

Saturday, 1 June 2019 09:00 (30 minutes)

Quantum gravitational effects are expected to produce higher-curvature modifications to general relativity, but the complete structure of these modifications is unknown. Nonetheless, the study of generic higher-curvature gravities has proven useful, providing valuable insights into the nature of black hole thermodynamics and helping to uncover universal properties for field theories via AdS/CFT. In this talk I will introduce a class of higher-curvature theories –generalized quasi-topological gravities –and discuss their applications as useful higher-curvature toy models. I will discuss the properties of these theories, their black hole solutions, and some applications in context of squashed-sphere holography.

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