

All higher-curvature gravities as Generalized quasi-topological gravities

Friday 17 January 2020 12:30 (15 minutes)

Generalized quasi-topological gravities (GQTGs) are higher-curvature extensions of Einstein gravity characterized by the existence of non-hairy generalizations of the Schwarzschild black hole which satisfy $g_{\{rr\}} = -1$, as well as for having second-order linearized equations around maximally symmetric backgrounds. In this talk I will provide strong evidence that any gravitational effective action involving higher-curvature corrections is equivalent, via metric redefinitions, to some GQTG. This suggests that the physics of generic higher-curvature gravity black holes is captured by their GQTG counterparts, dramatically easier to characterize and universal. The talk is based in the preprint <https://arxiv.org/abs/1906.00987> (already accepted in JHEP).

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Session Classification: short talk