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Title: Geometrical Features of Black Holes in EsGB Theories

Abstract: In the past few years a lot of attention has been drawn towards Einstein-scalar-Gauss-Bonnet theories - defined by their coupling functions and parameter values - specially concerning compact objects such as neutron stars, black holes, wormholes and solitons. Even in the absence of matter, these theories feature an effective energy momentum tensor that violates some or even (locally) all energy conditions. In this talk we shall explore the impact this has on the metric potentials of black hole solutions and consequently on particle dynamics, which in turn plays a central role in astrophysical phenomenology and observation.