



Contribution ID: 63

Type: **Oral presentation**

Black Holes in Einstein-Scalar-Gauss-Bonnet Theories

Thursday 19 June 2025 09:00 (40 minutes)

Black holes represent an ideal laboratory to test Einstein's theory of general relativity and alternative theories of gravity. Among the latter, Einstein-Scalar-Gauss-Bonnet Theories have received much attention in recent years. In this talk some properties of their black holes are recalled, which depend significantly on the coupling function of the scalar field. Linear mode stability of the black holes is addressed for some of the coupling functions. It is shown that the inclusion of an additional coupling to the curvature scalar leads to quadrupole and hexadecupole instabilities of the radially stable static black holes.

Author: Prof. KUNZ, Jutta (University of Oldenburg)

Presenter: Prof. KUNZ, Jutta (University of Oldenburg)