

Scalarized black holes

Wednesday, January 15, 2020 11:30 AM (45 minutes)

Spontaneous scalarization is a very interesting mechanism endowing the compact object with nontrivial scalar field. This mechanism is designed to work only in the strong gravity regime while remaining the weak field regime practically unaltered. While scalarization was discussed mainly for neutrons stars in the last few decades, it was recently discovered that black holes in Gauss-Bonnet gravity can be scalarized as well with the scalar field sourced by the curvature of the spacetime itself that attracted a lot of attention in the field. In the present talk we will review the main achievements related to scalarized black holes starting with the first papers on the subject and paying particular attention to the recent developments in Gauss-Bonnet gravity and beyond.

Primary authors: DONEVA, Daniela (University of Tuebingen); YAZADJIEV, Stoytcho (Sofia University)

Presenter: DONEVA, Daniela (University of Tuebingen)

Session Classification: Morning session