

11. – 13. October 2017 - GRK Workshop Oldenburg

Yves Brihaye (University of Mons, Belgium)
Spinning hairy black holes in five dimensions

Abstract

The 5-dimensional Einstein-Gauss-Bonnet gravity is extended by a four-degree of freedom matter lagrangian. The matter considered is an $O(4)$ linear model or an $O(5)$ non-linear sigma-model. In both cases, it is shown that families of spinning hairy black holes exist. In the limit when their event horizon tends to zero, these black holes approach boson stars.