

Hairy black holes and the dark sector influence

Saturday 26 September 2020 18:45 (15 minutes)

In this short talk I will briefly discuss the hairy black hole solutions obtained within Einstein-Maxwell-Scalar theory with so called box boundary conditions and the influence of dark sector fields on the modelled system. The phase diagram of the theory will be presented with the explanation of the influence of the hidden sector on the thermodynamics of particular phases (hairy black holes, boson stars, RN-like black holes). Finally I will show that dark matter in the presented model can significantly decrease the chance of the emergence of a hairy solution.

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