Lecture Notes in Physics 2015 vol.892, pages 161-180

Hairy black holes in theories with massive gravitons

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Abstract

© Springer International Publishing Switzerland 2015. This is a brief survey of the known black hole solutions in the theories of ghost-free bigravity and massive gravity. Various black holes exist in these theories, in particular those supporting a massive graviton hair. However, it seems that solutions which could be astrophysically relevant are the same as in General Relativity, or very close to them. Therefore, the no-hair conjecture essentially applies, and so it would be hard to detect the graviton mass by observing black holes.