

Horizons and Geodesics of Black Ellipsoids with Anholonomic Conformal Symmetries

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Abstract

The horizon and geodesic structure of static configurations generated by anisotropic conformal transforms of the Schwarzschild metric is analyzed. We construct the maximal analytic extension of such off-diagonal vacuum metrics and conclude that for small deformations there are different classes of vacuum solutions of the Einstein equations describing "black ellipsoid" objects. This is possible because, in general, for off-diagonal metrics with deformed non-spherical symmetries and associated anholonomic frames the conditions of the uniqueness black hole theorems do not hold.