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Rotating black holes in Einstein-Maxwell-dilaton theory

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The charged, rotating black holes (BHs) in Einstein-Maxwell-dilaton theory are known in closed form for two particular values of the dilaton coupling constant γ , while the solution with arbitrary γ is known in the limit of slow rotation, only. The spinning, charged BHs in this work are found by solving non-perturbatively the field equations, numerically. We present an overview of the parameter space of the solutions for several values of γ together with a study of their basic geometric and some phenomenological properties.

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