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Lifshitz Black Holes

Lifshitz black holes are black hole solutions whose asymptotic spacetime structure yields a boundary theory that has been conjectured to be dual to a Lifshitz theory describing critical phenomena in one less dimension. I describe a set of black hole solutions that are expected to be dual to a Lifshitz fixed point geometry and depend on a single parameter that determines both their area (or size) and their charge. Most of the solutions are obtained numerically, but an exact solution is also obtained for a particular value of this parameter. I also discuss the effects that higher-order curvature corrections have on these solutions. The thermodynamic behaviour of large black holes is almost the same regardless of genus, but differs considerably for small black holes.