

Abstract

I will review some interesting features regarding the spectrum of near-extremal black holes in gravity and near-BPS black holes in supergravity, which are derived from the Euclidean path integral. For simplicity, I will focus on the case of charged black holes in asymptotically flat space. Then, I will describe the calculation of supersymmetry protected quantities using gravity, focusing on which saddles contribute and their smoothness. Finally, I will use this understanding to analyze how the spectrum is corrected by non-perturbative effects in some simple models. Based on 2011.01953 [hep-th] and 2107.09062 [hep-th].