

Speaker: Kiril Hristov

Title: On the thermodynamics of 4d Kerr-Newman black holes

Abstract: We present some new approaches towards the description of the thermodynamics of asymptotically flat black holes in 4d Einstein-Maxwell theory. In particular we discuss the difference between the BPS and the extremal limits, as well as the independent validity of the laws of thermodynamics defined separately on each of the two event horizons. We then rewrite the free energies on the inner and outer horizons in terms of left- and right-moving variables, finding a remarkable simplification.