Abstract

The charged black hole thermodynamics has been corrected in terms of the Loop Quantum Gravity. The Generalised Uncertainty Principle has been revised to suit the requirements of background independence at the Planck scale. In this paper, this avenue has been explored where LQG effects are observed on the minimal length, minimal and maximal momentum in the GUP type I and II established effects on TeV scale black holes. The discussion is further stretched to include the ADD extra dimension model and LQG methods are applied to look for Dark Matter candidature.