

Contributed Talk

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Title: Quasinormal modes of NUT-charged black branes in AdS/CFT

Abstract: Quasinormal modes (QNM) of black holes in Anti-de Sitter space correspond, according to AdS/CFT, to poles of thermal correlators in the dual theory. Using the powerful results of 4d black hole perturbation theory — namely the Newman-Penrose formalism, Teukolsky's equations and Hertz's reconstruction map, I will derive master equations and holographic boundary conditions for gravitational perturbations. This leads, for the first time, to the QNM frequency spectrum of a NUT-charged space. The results provide definite holographic predictions regarding the hydrodynamic behaviour of the dual plasma. I will conclude by discussing stability against scalar and gravitational perturbations.