Institut Henri Poincaré

11 rue Pierre et Marie Curie, 75231 Paris cedex 05

String Theory in Greater Paris

Rencontres Théoriciennes

“Supergravité, théorie des cordes et théorie M”

Jeudi 20 Octobre 2022, 10:00

Roberto Emparan

Holographic duals of black hole evaporation

I will discuss how the dynamical evaporation of a black hole through quantum Hawking emission admits a dual description in terms of classical gravitational evolution in Anti-de Sitter space. The idea was first proposed two decades ago, but it remained underdeveloped and poorly understood due to conceptual subtleties and technical difficulties. Recently, in collaboration with Luna, Suzuki, Tomasevic and Way (work to appear), we have applied novel methods to solve the dynamics of the holographic dual of black hole evaporation in a variety of interesting setups. The physical picture we obtain presents both satisfying and intriguing features.

Institut Henri Poincaré, salle 314, 3ème étage