

Gravitational Geometry and Dynamics Group Seminar

Wed., March 11, 2026, at 11h00.

Room: Sala Sousa Pinto and Teams ID: 364 917 850 876 29

(Password: contact jnicoules@ua.pt)

The evolution of black hole interiors in classical and semiclassical gravity

In this talk I will present some results regarding the evolution of black holes which possess inner horizons. I will begin by giving an overview of the dynamical formation of such black holes, and the characteristics of their evolution, in contrast to maximally extended solutions. I will particularly discuss the onset of the mass inflation instability, and the analogous semiclassical instability of the inner black hole region. I will present an overview of the possible outcomes of the evolution resulting from these effects, supported by analytical and numerical evidence, for a variety of black hole backgrounds in GR and beyond.

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