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CENTRO DE I&D EM MATEMÁTICA E APLICAÇÕES  
CENTER FOR R&D IN MATHEMATICS AND  
APPLICATIONS

# Gravitational Geometry and Dynamics Group Seminar

Wed. 9<sup>th</sup> November '22 Online at 11h30

## Roberto Emparan

ICREA and Universitat de Barcelona

**Zoom meeting ID 962 2413 8340**

*passcode: ask to annulli@ua.pt - herdeiro@ua.pt*

## Holographic duals of evaporating black holes

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.

[https://videoconfcolibri.zoom.us/j/96224138340?](https://videoconfcolibri.zoom.us/j/96224138340?pwd=YkZUMGILb0dqVjcxOVpXMTFVMTBxQT09)

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*about us gravitation.web.ua.pt*

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