

# Gravitational Geometry and Dynamics Group Seminar

Wed., Nov. 29<sup>th</sup>, 2023, at 11h00.

Online, Zoom ID: 989 6252 0928 (Password: [contact graposo@ua.pt](mailto:contact_graposo@ua.pt))

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## Detecting environmental effects

Gravitational-wave observations of extreme mass ratio inspirals (EMRIs) hold incredible potential to probe gravity, astrophysical and exotic environments.

One of the main effects of astrophysical environments – in particular, active galactic nuclei – is the torque exerted by their gaseous disk, which forces EMRIs to “migrate” (mostly) inward like planets.

We will review this effect and present a Bayesian model-independent framework to detect and characterize these environments with LISA.