

Gravitational Geometry and Dynamics Group Seminar

Thu., May 21, 2026, at 11h00.

Room: Sala Sousa Pinto and Teams ID: 312 698 594 956 489

(Password: contact jnicoules@ua.pt)

Charged boson stars: properties and stability

Charged boson stars serve as models for exploring how self-interaction and electromagnetic charge influence the stability and evolution of compact objects. In this seminar, I will present results from numerical relativity simulations identifying a critical charge that serves as a threshold for stable configurations. I will discuss how, in subcritical regimes, the maximum mass configuration separates stable and unstable branches, while supercritical configurations are shown to be inherently unstable. Finally, I will describe how perturbations trigger migration toward stability or collapse into black holes that---in supercritical cases---leave behind long-lived scalar remnants.

Carlos Joaquin

UNAM

Institute of Nuclear Sciences

More about *Gr@v*
at: gravitation.web.ua.pt

