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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. 28th June '23 On Campus at 11h00

Juan Carlos Degollado

Universidad Nacional Autónoma
de México

Zoom meeting ID 962 2413 8340

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

Dynamical l-boson stars

In this talk I will review some properties of solutions to the static, spherically symmetric Einstein-Klein-Gordon system for a collection of an arbitrary odd number N of complex scalar fields with an internal $U(N)$ symmetry and no self-interactions known as l-boson stars. These solutions are compact, globally regular, configurations of self-gravitating boson fields characterized, besides the mass of the field, by an angular momentum number l . I will describe some of their properties in the large l limit and show that by using the semiclassical gravity approximation and a single real scalar field in a spherically symmetric spacetime, it is possible to get a more general set of solutions representing boson stars.

[https://videoconferenci.colibri.zoom.us/j/96224138340?](https://videoconferenci.colibri.zoom.us/j/96224138340?pwd=YkZUMGILb0dqVjcxOVpXMTFVMTBXQT09)

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