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

universidade de aveiro

Gravitational Geometry and Dynamics Group Seminar

Wed., May 6, 2026, at 11h00.

Room: Sala Sousa Pinto and **Teams ID:** 356 187 626 734 676

(*Password: contact jnicoules@ua.pt*)

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Dynamics and perturbations of Geometric Inflation assisted by a scalar field in the early Universe

Geometric Cosmology—and in particular Geometric Inflation (GI)—provides a higher-curvature mechanism capable of producing an accelerated expansion in the early Universe without invoking an inflaton in its minimal realization. However, the minimal GI framework does not, by itself, provide a robust mechanism to transfer the energy driving inflation into standard particles and radiation, i.e., it lacks a well-controlled reheating stage leading to a conventional hot Big Bang era. This motivates extending the theory by incorporating a scalar-field sector and explicit interactions with radiation, and then assessing both the background dynamics and the perturbative viability of the resulting scenario.

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

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