

Centro de Investigação em Matemática e Aplicações
Departamento de Matemática
Programa de Doutoramento em Matemática

Seminário / Seminar

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Zoom address: <https://videoconf-colibri.zoom.us/j/5664652821?pwd=WXJBSWUxL25vR3hJUWRhWHpoWENSdz09>

Riemannian submersions and Kaluza-Klein models

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Abstract: In this talk I will describe the relation between Riemannian submersions and Kaluza-Klein models on higher-dimensional spacetimes $M_4 \times K$. The setting will be slightly more general than usual, as we consider submersions whose fibres need not be totally geodesic. In these conditions, the higher-dimensional metric encodes both massless and massive 4D gauge fields, as well as a non-trivial Higgs sector. I will discuss some of the new features that appear in these models.

Keywords: spacetime geometry, gauge fields.

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