

Faculdade de Ciências da Universidade de Lisboa  
cmafci@fc.ul.pt Tel. (+351) 21 750 00 27

# SEMINÁRIO DE GEOMETRIA

Dia 30 Abril (segunda-feira), às 11h, sala 6.2.33

## K-contact and Sasakian manifolds of dimension 5

**Vicente Muñoz Velázquez**  
(Univ. Complutense, Madrid)

**Abstract:** Sasakian manifolds are odd-dimensional counterparts of Kähler manifolds in even dimensions, with K-contact manifolds corresponding to symplectic manifolds. It is an interesting problem to find obstructions for a closed manifold to admit such types of structures and in particular, to construct K-contact manifolds which do not admit Sasakian structures. In this talk, we develop methods to distinguish K-contact manifolds from Sasakian ones in dimension 5. These are associated to the theory of algebraic surfaces and symplectic 4-manifolds (joint work with J. A. Rojo and A. Tralle, arxiv:1601.06136).

*Seminário financiado por Fundos Nacionais através da FCT – Fundação para a Ciência e a Tecnologia no âmbito do projeto UID/MAT/04561/2013*