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SEMINÁRIO DE GEOMETRIA

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

K-contact and Sasakian manifolds of dimension 5

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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).

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