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**Homogeneous 8-manifolds admitting  
invariant Spin(7)-structures**

**30. April 2019 – 16.15 Uhr**

**Seminarraum IGT, Raum 7.530, Pfaffenwaldring 57**

Abstract: In this talk we discuss invariant Spin(7)-structures on 8-dimensional compact homogeneous spaces. In particular, we describe the classification of simply connected compact homogeneous spaces  $M=G/K$  of a compact almost effective Lie group  $G$ , which admit a  $G$ -invariant Spin(7)-structure. We shall also describe the corresponding type in terms of Fernández's classification and in some cases we analyse the associated Spin(7)-connection with torsion (Ivanovconnection). This talk is based on a joint work with D. Alekseevsky, A. Fino and A. Raffero.

