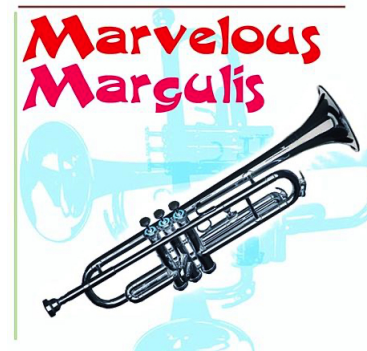


Oberseminar Geometrie
Department of Mathematics
University of Fribourg
Physics 2.52
Wednesday November 18, 2020, 10:20



PATRICK GHANAAT (UNIFR)

Margulis' Lemma

The subject of the talk is a well known result on discrete subgroups Γ of Lie groups G - the Margulis lemma, which in its basic form states that the "small elements" of Γ generate a nilpotent subgroup Γ_δ . We discuss the role (and proof) of this lemma, as well as its extension to discrete groups of isometries of general Riemannian manifolds M , without an ambient Lie group G . In this case, Γ_δ is generated by isometries that nearly fix a given point $p \in M$, and one obtains a description of the action near p in terms of standard actions on infra-nilmanifolds.