*On the multiplicity of isometry-invariant geodesics.*

Abstract: The problem of isometry-invariant geodesics, introduced by K. Grove in the 70s, is a generalization of the closed geodesics one: given an isometry of a closed Riemannian manifold, one looks for geodesics on which the isometry acts as a non-trivian translation. In this talk, after recalling the framework of the problem, we present a few new multiplicity results on certain classes of Riemannian manifolds. We will also discuss a contact-geometric generalization: the existence problem for Reeb orbits that are invariant under a strict contactomorphism. Part of the talk is based on a joint work with Leonardo Macarini.