Felix Klein Seminar

UNIVERSITY OF NOTRE DAME
Department of Mathematics

Speaker: Claudio Gorodski
University of Sao Paolo

Thursday, September 18, 2014
2:00 PM
125 Hayes-Healy Hall

Title: Isometric actions on spheres with orbifold quotients

Abstract:

A Riemannian orbifold is a metric space locally modelled on quotients of Riemannian manifolds by finite groups of isometries.

The orbit space of an isometric action of a compact Lie group on a Riemannian manifold has a natural structure of metric space, simply by declaring the distance between two points in the orbit space to be the distance between the corresponding orbits in the manifold.

In this talk, we will discuss the geometry of the examples obtained in our recent classification of representations of compact connected Lie groups whose induced action on the unit sphere has an orbit space isometric to a Riemannian orbifold. This work is part of the larger program of investigating how much of a representation can be recovered from the metric structure of the orbit space.
(Joint work with A. Lytchak (Cologne).)