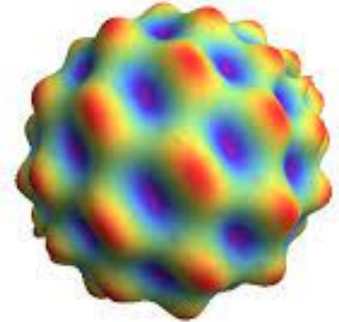


Oberseminar Geometrie
Department of Mathematics
University of Fribourg
Physics 2.52
Wednesday October 20, 2021, 10:20



LEONARDO CAVENAGHI (UNIFR)

The equivariant realization of exotic spheres and a dictionary to their geometry

In this talk we shall describe a general procedure to obtain an exotic sphere from its classical counterpart, seeking the better understanding of its geometry in the sense of producing metrics with positive curvatures. Recall that an exotic sphere is a manifold homeomorphic to the classical sphere but not diffeomorphic to it. Such a procedure was firstly introduced by Durán and Rigas in the 2000 and promptly generalized by Sperançand myself in 2018. We shall describe many of such realizations and discuss the advantage of such a procedure to obtain metrics of positive curvatures on these manifolds.