On the little Weyl group of a real spherical space (joint with Eitan Sayag)

Abstract:

Let G be a connected reductive group defined over a field k of characteristic 0. Recently Knop and Krältz showed that one can attach a Weyl group to any algebraic homogeneous G-variety defined over k. This Weyl group is called the little Weyl group. In this talk I will discuss a geometric construction of the little Weyl group for a real spherical space G/H. Our technique is based on a fine analysis of limits of conjugates of the subalgebra Lie(H) along one-parameter subgroups in the Grassmannian of subspaces of Lie(G).