Lie Group and Representation Theory Seminar

Date: March 18 (Fri), 18:00–19:00
Place: RIMS Room **402**
Speaker: Dan Barbasch (Cornell University)
Title: Relevant and petite K-types for real and p-adic groups.

Abstract:

The unitary dual of a reductive group over a local field plays an important role in noncommutative harmonic analysis. Its structure is also relevant for many problems in analysis, mathematical physics and automorphic forms.

In this talk I will survey progress on the determination of the unitary dual. In particular, relevant W-types are a set of representations of the Weyl group which give necessary and sufficient conditions for determining the spherical unitary dual of a split p-adic group. Petite K-types are represntations of the maximal compact subgroup of a real group which are closely related to the relevant W-types. They provide a means to transfer results about the unitary dual of p-adic groups to the case of various series of representations of real groups.