Lie Group and Representation Theory Seminar

Date: October 4 (Tue) , 2005, 16:30–17:30
Place: RIMS Room 402
Speaker: Troels Johansen (University of Paderborn)
Title: Geometry of Orbits and the Plancherel Decomposition

Abstract: For a class of affine symmetric spaces G/H, we construct a tube domain whose Silov boundary S allows for a G-equivariant identification of the associated L^2-spaces. The adjoint orbits of H in the tangent space of G/H are realized as open orbits in the abelian group S, and we associate natural unitary representations to these orbits. In the rank one case we thus obtain the Plancherel decomposition. Furthermore the orthogonal projection onto 'the most continuous part' may be described by the (un-normalized) orbital integral associated to the Cartan subspace with noncompact centralizer group in H.