THE UNIVERSITY   OF HONG KONG

Institute of Mathematical Research
Department of Mathematics

Geometry Seminar

Limits of discrete series for affine Hecke algebras

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Date: June 24, 2014 (Tuesday)

Time: 3:00 – 4:00pm

Venue: Room 210, Run Run Shaw Bldg., HKU

Abstract

Affine Hecke algebras play an important role in the representation theory of reductive groups and integrable models. The harmonic analysis on an abstract affine Hecke algebra was studied in detail by Opdam with his collaborators and others. Using the tools of Plancherel measures and R-groups developed by Opdam, I shall discuss how to interpret a family of tempered representations of affine Hecke algebras as an analogue of limits of discrete series for real reductive groups. Such interpretation is closely related to nilpotent orbits with a solvable centralizer in a related Lie algebra. I shall also discuss how those limits of discrete series of affine Hekce algebras and real reductive groups behave similarly.

All are welcome