

abstract

JOINT IAS/PU NUMBER THEORY SEMINAR

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

Motivated by the relative trace formula of Jacquet and experience on period integrals of automorphic forms, we take the first steps towards formulating a "relative" Langlands program, i.e. a set of conjectures on H -distinguished representations of a reductive group G (both locally and globally), where H is a spherical subgroup of G . We prove several results in this direction. Locally, the spectrum of $H \backslash G$ is described with the help of the dual group associated to any spherical variety by Gaitsgory and Nadler. Globally, period integrals are conjectured to be Euler products of explicit local functionals, which we compute at unramified places and show that they are equal to quotients of L -values. If time permits, I will also discuss an approach which shows that different integral techniques for representing L -functions (e.g. Tate integrals, Rankin-Selberg integrals, period integrals) are, in fact, the same. This is in part joint work with Akshay Venkatesh.