

## **abstract**

GALOIS REPRESENTATIONS AND AUTOMORPHIC FORMS SEMINAR

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

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Periods of automorphic forms over spherical subgroups tend to: (1) distinguish images of functorial lifts and (2) give information about L-functions.

This raises the following questions, given a spherical variety  $X=H\backslash G$ : Locally, which irreducible representations admit a non-zero  $H$ -invariant functional or, equivalently, appear in the space of functions on  $X$ ? Globally, can the period over  $H$  of an automorphic form on  $G$  be related to some  $L$ -value?

The conjectural answer involves a "dual group" associated to  $X$  and can be seen as a generalization of part of the Langlands conjectures for the case  $X=a$  group under left and right multiplication by itself. I will describe the dual group and discuss evidence suggesting that the relative trace formula of Jacquet is the correct framework for a more precise formulation of the conjectures.