

abstract

SHIMURA VARIETIES AND TRACE FORMULA SEMINAR

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

We will introduce the twisted relative trace formula and prove a relative fundamental lemma in this setting using an analogue of Kottwitz's argument in the base change situation.

Applications to the study of distinction on unitary groups will be given, including the following:

Let π be a cuspidal automorphic representation of the quasi-split unitary group $U(2n)$ satisfying appropriate local conditions. Assume that π admits a weak base change Π to $GL(2n)$ that is cuspidal. If $L(s, \wedge^2 \Pi)$ has a pole at $s=1$ and $L(1/2, \Pi) \neq 0$, then some π' equivalent to π at almost all split places is $U(n) \times U(n)$ distinguished. If π' also admits a weak base change to $GL(2n)$, then π and π' are nearly equivalent.

Time and interest permitting, open problems will be discussed.