

abstract

Joint IAS/PU Number Theory Seminar
Topic:

Speaker:

Affiliation:

Date:

Time/Room:

In his work of the early 1980s, Shimura observed that expressions of special values of automorphic L-functions in terms of period invariants could be used to obtain relations among the latter. This observation has since been applied in numerous situations by the speaker, among others. Most of these applications involve the theta correspondence. This talk will describe a different approach, based on the Ichino-Ikeda conjecture and heuristics of Rumsfeld, that obtains period relations much more efficiently for coherent cohomological forms on Shimura varieties attached to unitary groups, conditional on strong hypotheses on non-vanishing of central values of L-functions in families of twists by characters of finite order. I will also present recent unconditional joint work with Grobner, relating Whittaker period invariants of cohomological automorphic forms on $GL(n)$ to critical values of adjoint L-functions.