Speaker: Stephen Miller

Title: Spectral reciprocity and nonvanishing of central L-values for $GL(4) \times GL(2)$

Abstract: The combination of the Kuznetsov and Voronoi formulas has played a powerful role in analytic estimates of automorphic L-functions for $GL(2)$, for example, in the subconvexity problem. The talk will discuss applications of a new combination of formulas for $GL(4)$, which yields an identity equating sums of $GL(4) \times GL(2)$ L-values with other sums of the same type. As an application, we show that for each self-dual cusp form F on $GL(4, \mathbb{Z}) \backslash GL(4, \mathbb{R})$ there exists infinitely many Maass forms f such that $L(1/2, \ F \times f)$ is nonzero.