Abstract:

The non-vanishing of the central value of automorphic L-functions has been an interesting and important topic in number theory. After a brief review of some of the previous work related to this topic, I will report on my recent joint work with David Ginzburg and Stephen Rallis on the non-vanishing of the central value of Rankin-Selberg L-functions in the theory of automorphic representations, and its connection with the Gross-Prasad conjecture. This is the generalization of the Jacquet conjecture on the relation between the non-vanishing of the central value of the triple product L-functions and the non-vanishing of certain trilinear periods.