

abstract

ANALYTIC AND GEOMETRIC NUMBER THEORY SEMINAR

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

A result of Kim-Sarnak (2003) gives the best known bounds towards the Ramanujan conjecture for Maass forms. The technique employed has not, until now, been made to apply to general GL₂ cusp forms over number fields whose unit group is infinite. In this talk we will show how one can slightly modify the method of Kim-Sarnak, using infinite order Hecke characters, to extend their numerical bound to an arbitrary number field. The proof naturally allows one to obtain new non-vanishing results for L-functions twisted by a wide class of Hecke characters, at points near the edge of the critical strip. These results have been obtained in collaboration with Valentin Blomer.