Speaker: Valentin Blomer

Title: Bounds for eigenfunctions on arithmetic manifolds

Abstract: Given a Riemannian manifold, it is a classical problem in analysis to establish pointwise bounds for eigenfunctions of the Laplace operator. Number theory enters the picture when the space admits some arithmetic structure such as a family of Hecke operators. In this talk, I will present methods from number theory, Lie groups and automorphic forms to obtain information on the mass distribution of cusp forms on various arithmetic spaces, and discuss some applications.