



Seminar

K-Theory, Quadratic Forms and Number Theory

Title: Determination of modular forms by Fourier coefficients

Speaker: Dr. Abhishek Saha (ETH Zurich)

Date: Thu 22nd March 2012 at 4:00PM

Location: Mathematical Sciences Seminar Room (Ag 1.01)

Abstract: It is an interesting question when a natural subset of the Fourier coefficients are sufficient to uniquely determine a modular form. I will describe recent work that investigates this question for classical holomorphic cusp forms of half-integral weight, and Siegel cusp forms of genus 2. These two apparently very different scenarios turn out to be closely related, and have important consequences for the L-functions and Bessel models related to Siegel cusp forms. In particular, an application to the case of Yoshida lifts leads to a simultaneous non-vanishing theorem for two Rankin-Selberg L-functions. Part of this is joint work with Ralf Schmidt.