K-Theory, Quadratic Forms and Number Theory Seminar

Title: Parity of Fourier coefficients of modular forms

Speaker: Professor Scott Ahlgren (University of Illinois at Urbana-Champaign)

Date: Wed 14th November 2007 at 4:00PM

Location: Mathematical Sciences Seminar Room

Abstract: Let f(z) be a modular form (with possible poles at the cusps) whose Fourier coefficients are algebraic integers. We consider the problem of finding lower bounds for the number of odd Fourier coefficients of f. Our result has consequences for a variety of generating functions of number-theoretic and combinatorial interest. In particular, we obtain lower bounds for the number of odd values of the usual partition function p(n).