K-Theory, Quadratic Forms and Number Theory Seminar

Title: Duality involving the mock theta function f(q) and analytic properties of Kloosterman-Selberg zeta functions

Speaker: Dr. Amanda Folsom (University of Wisconsin)

Date: Wed 20th February 2008 at 4:00PM

Location: Mathematical Sciences Seminar Room

Abstract: We show that the coefficients of Ramanujan's mock theta function f(q) are the first nontrivial coefficients of a canonical sequence of modular forms. This fact follows from a duality which equates coefficients of the holomorphic projections of certain weight 1/2 Maass forms with coefficients of certain weight 3/2 modular forms. This work depends on the theory of Poincare series, and a modification of an argument of Goldfeld and Sarnak on Kloosterman-Selberg zeta functions.