



Seminar

## K-Theory, Quadratic Forms and Number Theory

**Title:** Automorphic properties of combinatorial generating functions

**Speaker:** Robert Osburn (UCD)

**Date:** Wed 6th April 2011 at 3:00PM

**Location:** Mathematical Sciences Seminar Room

**Abstract:** An intriguing and almost completely unsolved problem is to understand the overlap between classes of  $q$ -hypergeometric series and automorphic forms. For example, we now know that each of Ramanujan's mock theta functions is the holomorphic part of a weak Maass form. In this talk, we provide a framework which generalizes recent work of Andrews and discuss automorphic properties of the associated  $q$ -hypergeometric series. This is joint work with Kathrin Bringmann and Jeremy Lovejoy.