K-Theory, Quadratic Forms and Number Theory Seminar

Title: Congruences for smallest parts functions

Speaker: Professor Jeremy Lovejoy (Paris 7)

Date: Thu 13th October 2011 at 4:00PM

Location: Mathematical Sciences Seminar Room (Ag 1.01)

Abstract: Let spt(n) denote the number of smallest parts in the partitions of n. The generating function for spt(n), after the addition of some quasimodular forms, is a weight 3/2 mock modular form. We will discuss how this fact can be used to give explicit congruences for spt(n) modulo powers of arbitrary primes. We will compare these congruences with those for the ordinary partition function p(n).