



Seminar

K-Theory, Quadratic Forms and Number Theory

Title: p -adic hypergeometric series and supercongruences

Speaker: Dermot McCarthy (UCD)

Date: Wed 28th October 2009 at 3:00PM

Location: Mathematical Sciences Seminar Room

Abstract: We discuss recent work in which we generalise Greene's hypergeometric series over finite fields in the p -adic setting. We provide congruences between these p -adic hypergeometric series and truncated ordinary hypergeometric series. We also relate a special value of the p -adic hypergeometric series to the p -th Fourier coefficient of a modular form, thus resolving an outstanding supercongruence conjecture of Rodriguez-Villegas.