

#### UCD School of Mathematics and Statistics

University College Dublin

Belfield, Dublin 4, Ireland

Tel

Fax

Scoil na Matamaitice agus na Staitisticí UCD

An Coláiste Ollscoile, Baile Átha Cliath Belfield, Baile Átha Cliath 4, Éire

+353 1 716 2580 +353 1 716 1196 Email semir Web ma

seminars@maths.ucd.ie maths.ucd.ie/seminars

## K-Theory, Quadratic Forms and Number Theory Seminar

# Dr. Sander Zwegers (UCD)

will speak on

### Appell-Lerch sums and their modular transformation properties

#### Wed 5th December 2007 at 4:00PM

#### Location: Mathematical Sciences Seminar Room

In this talk, we'll discuss the so called Appell functions. These functions and their elliptic and modular transformation properties have been studied by Appell (1884), Lerch (1892), Mordell (1920), and others, and more recently by Polishchuk (2001) and Semikhatov-Taormina-Tipunin (2004). Also, they show up in the theory of mock theta functions (Watson, 1936 and Ono-Bringmann, 2006). We'll discuss the elliptic and modular transformation properties of these functions in detail and give some general results. As an example, we get a generalization of a result by Ono-Bringmann, concerning the rank generating function.

This talk is part of the K-Theory, Quadratic Forms and Number Theory series. For more, see https://maths.ucd.ie/seminars