K-Theory, Quadratic Forms and Number Theory
Seminar

Title: More on Nahm's conjecture

Speaker: Dr. Sander Zwegers (UCD)

Date: Wed 26th January 2011 at 3:00PM

Location: Mathematical Sciences Seminar Room

Abstract: We consider certain q–series depending on parameters (A,B,C), where A is a positive definite r times r matrix, B is a r–vector and C is a scalar, and ask when these q–series are modular forms. Werner Nahm (DIAS) has formulated a partial answer to this question: he conjectured a criterion for which A's can occur, in terms of torsion in the Bloch group. For the case r=1, the conjecture has been show to hold by Don Zagier (MPIM and CdF). For r=2, Masha Vlasenko (MPIM) has found a counterexample. In this talk we'll discuss further counterexamples and other aspects of Nahm's conjecture.