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

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**Dr. Sinead Keegan (DIAS)**

will speak on

**Coset models and Nahm's conjecture**

Wed 24th November 2010 at 3:00PM

Location: Mathematical Sciences Seminar Room

Nahm's conjecture deals with the question of when a certain  $r$ -fold  $q$ -hypergeometric series  $f_{A,B,C}$  is modular. In particular it predicts which values of  $A$  may occur. In the case where  $A$  is chosen such that  $f_{A,B,C}$  is modular there is no known method for calculating suitable values of  $B$  (without resorting to a computer search!). In this talk we look at Nahm's conjecture from the point of view of conformal field theory by considering coset models of the form  $\hat{su}(2)_k/\hat{u}(1)$ . By calculating the characters of these cosets and relating them to the functions  $f_{A,B,C}$  it can be seen that the  $B$ -values satisfy a nice pattern that is closely related to the matrix  $A$ .

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