



Seminar

## K-Theory, Quadratic Forms and Number Theory

**Title:** Mock modular forms and infinite products

**Speaker:** Professor Jan Bruinier (TU Darmstadt)

**Date:** Wed 28th April 2010 at 4:00PM

**Location:** Mathematical Sciences Seminar Room

**Abstract:** In this talk we consider Heegner divisors on modular curves. The regularized theta lifting of weakly holomorphic modular forms provides many relations among Heegner divisors given by Borcherds products. We explain that there are further relations of different types. There are "exotic" Borcherds type products given by liftings of mock theta functions. Moreover, there are relations corresponding to vanishing central derivatives of L-functions, which can be obtained as liftings of more general mock modular forms.