



Seminar

K-Theory, Quadratic Forms and Number Theory

Title: How to extend classical results from the theory of quadratic forms to forms of higher degree

Speaker: Dr Susanne Pumpluen (University of Nottingham)

Date: Fri 22nd June 2007 at 11:00AM

Location: Mathematical Sciences Seminar Room

Abstract: Forms of higher degree are used in many different areas of algebra and thus have been the object of intense research over many years. Recently, there has been a particular interest in trying to extend results from the modern algebraic theory of quadratic forms to forms of higher degree, perhaps partly triggered by the Bloch-Kato conjecture.

A modern uniform algebraic theory for forms of higher degree as it is known for quadratic and bilinear forms (cf. the standard reference books by Scharlau or Lam) only exists to some extent.

We present some recent advances in generalizing results which are by now well-known for quadratic forms. For instance, whether or not there exists something like Scharlau's norm principle for these forms, how to define multiplicative (respectively, Pfister) forms of higher degree, and so on.