



## Seminar

# K-Theory, Quadratic Forms and Number Theory

**Title:** Introduction to noncommutative Iwasawa theory

**Speaker:** Professor Peter Schneider (Universitat Muenster)

**Date:** Fri 2nd February 2007 at 4:00PM

**Location:** Mathematical Sciences Seminar Room

**Abstract:** I will begin by briefly reviewing the  $K$ -theoretic foundation of classical Iwasawa theory. Noncommutative Iwasawa theory deals with the behaviour of arithmetic invariants in infinite Galois extension of number fields whose Galois group is a (typically noncommutative)  $p$ -adic Lie group  $G$ . This leads to a study of the  $K$ -theory of the completed group ring of  $G$ . I will describe the basic problems which one encounters and will discuss some solutions.