



Seminar

K-Theory, Quadratic Forms and Number Theory

Title: Combinatorial aspects of K-theory of projective toric schemes

Speaker: Thomas Hüttemann (Queen's University Belfast)

Date: Wed 2nd March 2011 at 3:00PM

Location: Mathematical Sciences Seminar Room

Abstract: A projective toric scheme X is completely specified by a (commutative) ring R , and a polytope P with integral vertex coordinates. I will explain how to give a rather combinatorial description of "bundles of modules over X " (that is, I will demonstrate how to describe the category of quasi-coherent sheaves as a kind of diagram category), and then use this approach to prove a splitting result in K-theory. I will treat the rather involved K-theory machinery as a black box, discussing instead how the combinatorial setup allows to use descent to cover the cases of a ring R that is non-commutative but noetherian, or else commutative.