



Seminar

K-Theory, Quadratic Forms and Number Theory

Title: Cohomological Invariant Theory

Speaker: Professor Wilberd van der Kallen (Universiteit Utrecht)

Date: Wed 22nd October 2008 at 3:00PM

Location: Mathematical Sciences Seminar Room

Abstract: The “first fundamental theorem” of invariant theory goes back to the 19th century. Nowadays one says that if a reductive algebraic group acts algebraically on a finitely generated commutative k -algebra, then the ring of invariants $H^0(G, A)$ is also a finitely generated algebra. Here k is the ground field. We have conjectured that more generally for any geometrically reductive S and G over S , $H^0(G, A)$ is finitely generated for any A in the category of G -modules over S . This was proved by Suslin (1997). This summer the conjecture was proved by Antoine Touze, just before his thesis defence..