abstract

Joint IAS/PU Number Theory Seminar
Topic:

Speaker:

Affiliation:

Date:

Time/Room:

We consider Galois cohomology groups over function fields F of curves that are defined over a complete discretely valued field.

Motivated by work of Kato and others for n=3, we show that local-global principles hold for H^n(F, Z/mZ(n-1)) for all n>1.

In the case n=1, a local-global principle need not hold. Instead, we will see that the obstruction to a local-global principle for H^1(F,G), a Tate-Shafarevich set, can be described explicitly for many (not necessarily abelian) linear algebraic groups G.

Concrete applications of the results include central simple algebras and Albert algebras.