

Joint IAS/PU Number Theory Seminar

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Local Global Principles for Galois Cohomology

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Date & Time: Thu, 12/13/2012 - 16:30 - 17:30

Location: S-101

Video Link:

<http://video.ias.edu/1213/members/1213-JuliaHartmann>

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 $H^n(F, \mathbb{Z}/m\mathbb{Z}(n-1))$ 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.

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Fri, 10/05/2012 - 13:31

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terms:

- [School of Mathematics](#)