Algebra and Number Theory Seminar

Local-global principles for torsors over arithmetic curves

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Abstract: This talk, on joint work with Julia Hartmann and Daniel Krashen, concerns local-global principles over function fields of curves that are defined over a complete discretely valued field. Classically, one studies such principles over number fields, or over function fields of curves defined over a finite field. In that situation, if G is an algebraic group, one can ask whether a G-torsor (principal homogeneous space for G) over the field must be trivial whenever it is locally trivial. This does not always hold, but the obstruction is always finite if G is a linear algebraic group. This talk will study the analogous question in our situation. Applications include results about quadratic forms and central simple algebras.

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Mathematics and Science Center: W304

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