

ALGEBRA  
SEMINAR

*Patching central simple algebras and quadratic forms*

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**Abstract:** Recently, David Harbater and Julia Hartmann have developed a technique called “field patching,” which provides a new set of tools to study and construct algebraic objects of various types over function fields of curves defined over complete discretely valued fields. In this talk, I will describe these techniques, and give a survey of applications to central simple algebras and quadratic forms, including results on the period-index problem, the  $u$ -invariant, and admissibility of finite groups over these fields.

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