

ALGEBRA  
SEMINAR

*Field invariants via refinements to patching*

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**Abstract:** We consider fraction fields of complete two-dimensional domains, and obtain their u-invariant and period-index bound. This work, which is joint with Julia Hartmann and Daniel Krashen, builds on the method of patching, and introduces a new notion of refinement. Using that, we obtain local-global principles for quadratic forms and central simple algebras over the fields we consider, and also our results on numerical invariants of fields.

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MATHEMATICS AND COMPUTER SCIENCE  
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