Leibniz Universität Hannover

# Oberseminar
## Zahlentheorie und Arithmetische Geometrie


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## "Kulikov models of Kummer surfaces"


**Let K be a complete discrete valuation field with algebraically closed residue field k. Let X be a K3 surface over K (i.e., a smooth, projective, and geometrically integral algebraic surface over K with trivial canonical sheaf and trivial $H^1(X, O_X)$).**

**In general, it is an open question whether we can find a finite extension of K such that there exists a semistable model of X over the ring of integers of that finite extension, even if we allow the model to be an algebraic space rather than a scheme. I shall explain how the question can be answered affirmatively if X is the Kummer surface associated with some Abelian surface over K. In fact, we can even show that the models we construct are schemes, and that their relative canonical sheaf vanishes (i.e., the models we construct are so-called Kulikov models). Time permitting, I shall say a few words about the general theory of Kulikov models.**


**Donnerstag, 25.10.2018**
**ab 12:00 Uhr, g117**
**Hauptgebäude der Leibniz Universität Hannover**

**Alle Interessierten sind herzlich eingeladen.**


**Institut für Algebra, Zahlentheorie**
**und Diskrete Mathematik**