



Leibniz  
Universität  
Hannover

## Oberseminar Institut für Algebraische Geometrie

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### **Regular but non-smooth curves of genus 3**

Regular but non-smooth curves are a unique feature of geometry in positive characteristic, that results from the fact that over an imperfect field the notion of regularity is weaker than the notion of smoothness. In the setting of algebraic geometry over an algebraically closed field, these curves correspond to fibrations by singular curves, i.e., fibrations of relative dimension 1 whose fibers are singular. The most famous examples are arguably the so-called quasi-elliptic curves and quasi-elliptic fibrations, which played a key role in the Bombieri-Mumford classification of algebraic surfaces in characteristics 2 and 3. In this talk I will discuss the case of genus 3 in characteristic 2, with an eye towards the classification of regular plane projective quartic curves that become rational after base change.

**Donnerstag, 16.05.2024, 16:30 - 17:30, F142.**

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**Alle Interessierten sind herzlich eingeladen.**