



universität  
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Fakultät für Mathematik

## Mathematisches Kolloquium

Mittwoch, 19. März 2025

Sky Lounge

### EINLADUNG

**Philipp Habegger**

(University of Basel)

„On the Number of Rational Points on an Algebraic Curve of Higher Genus“

## „On the Number of Rational Points on an Algebraic Curve of Higher Genus“

### **Abstract:**

*Mordell's Conjecture from 1922 states that certain Diophantine equations in two unknowns admit at most finitely many rational solutions. These equations represent Riemann surfaces, or equivalently, smooth projective curves of genus at least two. Faltings proved the Mordell Conjecture in 1983, followed by an alternative proof by Vojta in 1990. More recently, Lawrence and Venkatesh provided yet another approach. In this talk, I will give a brief overview of Diophantine equations, with a focus on Mordell's Conjecture. I will then discuss more recent results on the number of solutions obtained by Dimitrov, Gao, and myself, as well as some open problems.*

**14.45 Uhr: Kaffeejause**

**15.15 Uhr: Vortrag**

**vinum cum pane im Anschluss**

Matthias Aschenbrenner  
Radu Ioan Boț