Bernoullis Tafelrunde

Math Students and PhDs Seminar

Thursday, 12.03.2026, 12:15-13:00
Seminarraum 05.001, Spiegelgasse 5

Alessio Cangini

Universität Basel

A lower bound for the canonical height in cyclotomic extensions

Abstract

Arithmetic Dynamics studies number-theoretic properties of algebraic numbers under iteration of a polynomial or rational function. The ideas and techniques in this field draw from both complex dynamics and number theory. Central to this theory are the notions of local and global canonical heights, which are functions that measure the arithmetic complexity of orbits.

In this talk, we will first introduce the necessary background from complex dynamics. Then we will discuss the key properties of canonical heights. Finally, we will present ongoing work on establishing lower bounds for the global canonical height in cyclotomic extensions.

Scan before 11.03.2026 at 18:00 to register for lunch