Seminar/Talk

2-descent and additive combinatorics

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Host: Tim Browning

I will explain two recent joint works with Peter Koymans, where we introduced a new method to construct curves with positive but constrained rank over general number fields. In the former (in 2024) we used this to settle Hilbert 10th problem for any finitely generated infinite ring. In the latter (in 2025) we used these ideas to show that every number field has an elliptic curve of rank exactly equal to 1. I will explain the proofs, present some open questions, and, if time allows, discuss some further application of the second result to the definability of arithmetic structures.

Thursday, June 12, 2025 01:00pm - 03:00pm
Raiffeisen Lecture Hall, Central Building

This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station. Please find a schedule of the ISTA Shuttle on our webpage: https://ista.ac.at/en/campus/how-to-get-here/ The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.