

BERNOULLIS TAFELRUNDE

GRADUATE STUDENT SEMINAR

Thursday, 19 November, 12:15-13:00
Seminarraum 00.003, Spiegelgasse 1

LINDA FREY

Universität Basel

Heights and elliptic curves

ABSTRACT

After shortly introducing heights and elliptic curves we will look at the torsion points E_{tor} of an elliptic curve E over \mathbb{Q} and adjoin their coordinates to \mathbb{Q} . What we get is $\mathbb{Q}(E_{\text{tor}})$ which is a Bogomolov field. In a Bogomolov field, the height of a nonzero number which is not a root of unity is bounded from below by a positive constant. We will compute this constant explicitly and give an overview of the proof.