Philadelphia Area Number Theory Seminar

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Divisibility questions for genus one curves

Abstract: Genus one curves with a fixed Jacobian can be viewed as elements of the Weil–Châtelet group. We will discuss divisibility questions within this group. This leads us to analyzing the divisibility properties of the Tate–Shafarevich group. There are two related questions:

1. Are the elements of the Tate–Shafarevich group divisible within the Weil–Châtelet group? (Cassels' question.)

2. How does the Tate–Shafarevich group intersect the maximal divisible subgroup of the Weil–Châtelet group? (Bashmakov's question.)

We will discuss our answers to these questions. This is joint work with Jakob Stix.

Wednesday, November 9, 2016
3:10–4:30PM

Bryn Mawr College
Department of Mathematics
Park Science Center **328**

Tea and refreshments at 2:50PM in Park 355