

Departmental Colloquium

Integral points on elliptic curves

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Abstract: Elliptic curves are fundamental and well-studied objects in arithmetic geometry. However, much is still not known about many basic properties, such as the number of rational points on a "random" elliptic curve. We will discuss some conjectures and theorems about this "arithmetic statistics" problem, and then show how they can be applied to answer a related question about the number of integral points on elliptic curves over \mathbb{Q} . In particular, we show that the second moment (and the average) for the number of integral points on elliptic curves over \mathbb{Q} is bounded (joint work with Levent Alpoge).

Following the talk, there will be tea in SEO 300.

Friday, September 27 at 3:00 PM in 636 SEO
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