

Logic Seminar

Intersections of isogeny classes and varieties

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Abstract: Take $\alpha \in \mathrm{GL}_2$ and a complex number a . There are at most 36^7 complex numbers b such that the elliptic curves E_a and E_b are isogenous and $E_{\alpha(a)}$ and $E_{\alpha(b)}$ are isogenous. Proving this fact along with an effective form of a special case of the Zilber-Pink conjecture uses input from model theory, differential algebra, and diophantine geometry. We will describe the proof and partial generalizations to various moduli spaces of abelian varieties.

Thursday, October 16 at 1:00 PM in SEO 636