

BRANDEIS UNIVERSITY

Everytopic Seminar

**Friday, March 26**

in room 226 at 1:40pm

Iwasawa theory of abelian varieties

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Abstract: We give an overview of Mazur's "control theorem". It is the fundamental result in the Iwasawa theory of abelian varieties over number fields, which seeks to understand the growth of their solution sets as one enlarges the base field through a  $\mathbf{Z}_p$ -extension. The proof involves reformulating the problem in terms of Galois cohomology (this will occupy most of the talk), and then applying some standard homological/commutative algebra.