Graduate Number Theory Seminar

Galois representations & odd order reductions

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Abstract: Given an elliptic curve over Q and a rational point P on E, Rafe Jones and Jeremy Rouse (and others) have considered the problem of determining the density of primes p such that the order of P modulo p is odd. The main tool for studying such a question is the arboreal Galois representation. We'll discuss Galois representations of elliptic curves generally and how they relate to solving the odd order reduction problem, as well as an extension for abelian surfaces.

Zoom link: https://uic.zoom.us/j/82357749325?pwd=L1JoRm9rUjZJbDNZeUJvdDljWGdhUT09

Wednesday, March 29 at 4:00 PM in Zoom