
BYOUNG-DU KIM, Northwestern University, 2033 Sheridan Road, Evanston, Illinois, USA

Iwasawa theory for supersingular primes and the parity conjecture

In the study of elliptic curves and modular forms, non-ordinary primes often add extra difficulties. Thanks to Kobayashi–Perrin–Riou construction of the plus/minus universal norms, we have a reasonable Iwasawa theoretical tool to study the Selmer groups of elliptic curves for supersingular primes.

We will discuss the proof of the parity conjecture of elliptic curves for supersingular primes using this new tool, and continue to discuss possible developments for modular forms of higher weights.