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Vanishing anticyclotomic μ -invariants for non-ordinary modular forms

Let E/\mathbb{Q} be an elliptic curve and p a prime such that $E[p]$ is irreducible as a $G_{\mathbb{Q}}$ -module. A fundamental conjecture (due to Greenberg and Perrin-Riou) states that the Iwasawa μ -invariant(s) associated to E over the cyclotomic \mathbb{Z}_p -extension of \mathbb{Q} must vanish. Despite many focused efforts, this conjecture is still wide open. One may extend this conjecture to more general modular forms and more general \mathbb{Z}_p -extensions of number fields. In this talk, we discuss work (joint with Antonio Lei) which establishes some cases of this conjecture over anticyclotomic \mathbb{Z}_p -extensions of imaginary quadratic fields.