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Euler systems over imaginary quadratic and biquadratic fields

Let $f \in S_{2k}(\Gamma_0(N))$ be a newform and χ be an anticyclotomic Hecke character of K. Let $V_{f,\chi}$ be the Galois representation attached to f twisted by χ. In this talk, I will describe an (anticyclotomic) Euler system over K for $V_{f,\chi}$ with no restriction on the infinity type of χ (the main innovation here is χ can be an infinite order character). Here, K can represent either an imaginary quadratic field, where this case is a collaboration with F. Castella, or an imaginary biquadratic field.

Arithmetic applications include results towards the Bloch-Kato Conjecture and the (anticyclotomic) Iwasawa Main Conjecture for $V_{f,\chi}$.