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Congruences involving non-parallel weight Hilbert modular forms

When newforms are congruent, the modulus appears in a near-central adjoint L-value. When those newforms are complex conjugates, it actually appears in the other critical values too. The Bloch-Kato conjecture then demands non-zero elements of that order in the associated Selmer groups. These are provided by conjectural congruences involving non-parallel weight Hilbert modular forms. An experimental example of such a congruence showed up following computations of algebraic modular forms for a definite orthogonal group, for the genus of even unimodular lattices of rank 12 over the golden ring.