FRANCESC CASTELLA, University of California, Santa Barbara

Iwasawa theory for $\operatorname{GL}_2 \times \operatorname{GL}_2$ and diagonal cycles

In this talk I will explain the construction, in joint work with Raul Alonso Rodriguez and Oscar Rivero, of an anticyclotomic Euler system for the tensor product of the Galois representations attached to two modular forms arising from generalized Gross–Kudla–Schoen diagonal cycles and their variation in *p*-adic families. As applications of this construction, we prove new cases of the Bloch–Kato conjecture in analytic rank zero and a divisibility towards an Iwasawa main conjecture.