ON EXTRA-ZEROS OF p-ADIC L-FUNCTIONS
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We discuss extra-zeros of motives having good reduction at p. An archetypical example is provided by the Kubota–Leopoldt L-function associated to a character χ such that $\chi(p) = 1$ and the theorem of Ferrero and Greenberg. Other interesting examples arise from some modular forms of odd weight. In this situation, the special value of the p-adic L-function can be expressed in terms of an $\mathscr{L}$-invariant defined using p-adic Hodge theory.

In this talk, we are mainly interested in the non-critical case. The basic example we have in mind is provided by the Rankin–Selberg convolution of two modular forms of the same weight (joint work with S. Horte).