

The p -adic Stark conjecture and applications

Andreas Nickel (Bielefeld)

Let L/K be a Galois extension of totally real fields and let p be a prime. The p -adic Stark conjecture relates the leading terms at $s = 1$ of p -adic Artin L -functions to those of the complex Artin L -functions attached to L/K . When $L = K$ this is equivalent to Leopoldt's conjecture for L at p and the ' p -adic class number formula' of Colmez. In this talk we discuss the p -adic Stark conjecture and new applications to the equivariant Tamagawa number conjecture. This is work in progress joint with Henri Johnston.