On the equivariant Tamagawa number conjecture for Tate motives

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Abstract. The "Equivariant Tamagawa number conjecture" is a natural refinement and generalization of the seminal "Tamagawa number conjecture" which was originally formulated by Bloch and Kato, and then subsequently extended and reworked by Fontaine and Perrin-Riou and (independently) by Kato. We shall describe the basic formulation of this conjecture for the special case of Tate motives over finite (not necessarily abelian) Galois extensions of number fields. We shall then give a survey of recent results which support the conjecture in this case and also discuss several striking consequences of these results for a number of other (well known) conjectures of a more explicit nature.