

On the non-commutative main conjecture for totally real number fields

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Let F be a totally real number field. Fix an odd prime p . Let F_∞ be a totally real, Galois extension of F containing F^{cyc} , the cyclotomic \mathbb{Z}_p -extension of F , and such that only finitely many primes of F ramify in F_∞ . In this talk we will recall a formulation of the main conjecture for the trivial motive and the extension F_∞/F . We will propose a strategy for proving the main conjecture. Using this strategy we will present a proof of the main conjecture with some conditions on $Gal(F_\infty/F)$.