

Séminaire de théorie des nombres Londres-Paris

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Amphithéâtre Darboux, Institut Henri Poincaré

The weight part of Serre's conjecture for Hilbert modular forms

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Abstract : I will explain the statement of a generalization of Serre's conjecture on modulo p Galois representations to the context of Hilbert modular forms. The emphasis will be on the recipe (conjectured by Buzzard, Jarvis and myself) for the set of possible weights, much of which has now been proved by Gee. I will also discuss some features of the set of weights in some special cases :

1) for representations tamely ramified at primes over p , a phenomenon which was interpreted conceptually and generalized to GL_n by Herzig ;

2) for representations that could be called "moins ramifiée" at primes over p , a phenomenon which should be related to properties of the corresponding representations of p -adic groups (via a hypothetical local Langlands modulo p).