Séminaire de théorie des nombres

Le 13 décembre à 11h

On a conjecture of Bloch and Kato on local motivic ℓ-adic representations

Exposé de Uwe Jannsen

Résumé : In their seminal paper on the Tamagawa number conjecture, Bloch and Kato proposed a certain conjecture on the ℓ-adic realizations of motives over number fields. It just concerns the action of the local Galois group G_v at a place v and is only a question if the reduction at v is bad. The conjecture is that the adelic representation contains a $\hat{\mathbb{Z}}$-lattice T such that the torsion of T_{G_v} is finite. In joint work with Petra Seidel, this is be proved for (the tensor category generated by) curves, abelian varieties and surfaces. In fact, we are led to a finer conjecture, in terms of the monodromy filtration, which has better functorial properties for the tensor product, and are able to prove this stronger conjecture in the mentioned cases.