

Séminaire de théorie des nombres

Le 30 novembre 2009 à 14h

Non-commutative modular symbol on a Hilbert modular surface

Exposé d'Ivan Horozov (University of Tuebingen)

Résumé : Several years ago Manin defined a non-commutative modular symbol for subgroups of finite index of $SL(2, \mathbb{Z})$, using Chen's iterated integrals of modular forms. I will explain its meaning. I will present a modification of Chen's iterated integrals, which can define a generalization of non-commutative modular symbol on Hilbert modular surface. I will explain what is a Hilbert modular surface and what is the relation of the defined symbol to the classical modular symbol over such a surface. As an application, I construct geometric compositions of different non-commutative modular symbols.