Séminaire de théorie des nombres

Le 9 décembre 2002 à 14h15

On the bad reduction of Hirzebruch-Zagier curves

Exposé de Andreas Langer

Résumé : We consider the Tate-conjecture for divisors in finite characteristic for a certain class of Hilbert modular surfaces where all Hilbert modular forms are lifts of elliptic modular forms. If p splits in the underlying real quadratic field the Conjecture is shown by considering components in the reduction of a non-compact Hirzebruch-Zagier curve(the image of a modular curve). If p is inert the whole cusidal cohomology is supposed to be covered by cycle classes in char. p. We construct –for each isotypic component under the action of the Hecke-algebra– a new cycle class by considering a Shimura curve having bad reduction at p, the components in the reduction ly in the supersingular locus of the surface and give rise to new cycle classes.