Séminaire de théorie des nombres

Le 23 mars 2015 à 14h (Jussieu)

Computation and some new instances of Darmon points

Exposé de Xevi Guitart (Barcelone)

Résumé : Darmon points (also known as Stark-Heegner points) are a collection of conjectural generalizations of Heegner points on modular elliptic curves. Algorithms for their explicit calculation are useful in providing numerical evidence supporting their conjectured rationality, and can be used in practice as an efficient method for computing algebraic points. In this talk I will recall Greenberg's construction of Darmon points for curves over totally real number fields, and present some (co)homological methods that allow for their effective computation. I will also report on some new constructions for curves defined over number fields of arbitrary signature. This is joint work with Marc Masdeu and Haluk Sengun.