

Séminaire de théorie des nombres

Le 3 mars 2008 à 14h

Chabauty for Symmetric Powers of Curves

Exposé de Samir Siksek (University of Warwick)

Résumé : Chabauty is a classical method for computing the rational points of curves of higher genus. In this talk, we explain an adaptation of Chabauty which allows us in many cases to compute all rational points on the d -th symmetric power of a curve provided the rank of the Mordell-Weil group of the Jacobian is at most $g - d$ (where g is the genus). We illustrate this by giving two examples of genus 3, one hyperelliptic and the other plane quartic.