London-Paris Number Theory Seminar Monday, November 12, 2007 Amphithéâtre Hermite, Institut Henri Poincaré

10:30-11h Welcoming coffee and tea 11h-12h Ambrus Pal (Imperial College London) Diophantine applications of modular curves

Abstract : Modular curves have several applications in Diophantine Geometry. For example we may deduce uniform bounds on torsion points of elliptic curves by studying rational points on them. On the other hand they parameterize elliptic curves hence they can be used to study the conjecture of Birch and Swinnerton-Dyer. I will talk about another application which recently became the focus of research.

- 12h-2h Lunch : Please confirm your participation to Monique Douchez (douchez@math.jussieu.fr)
- 2h-3h **Régis de la Bretèche (IMJ)** Rational points on del Pezzo surfaces of degree 4
- 3h-3:30 Coffee break
- 3:30-4:30 Minhyong Kim (University College London) The principle of Birch and Swinnerton-Dyer for certain hyperbolic curves

Abstract : We will discuss some examples of hyperbolic curves for which the non-vanishing of L-values accounts for the finiteness of integral points.

Organizers :

Michael Harris (harris@math.jussieu.fr) Guy Henniart (guy.henniart@math.u-psud.fr) Marc Hindry (hindry@math.jussieu.fr) Ariane Mezard (mezard@math.uvsq.fr) Jacques Tilouine (tilouine@math.univ-paris13.fr)