

## WAG 07-08 Workshop

### Rational Points on Curves and Higher Dimensional Varieties

Monday 16 – Friday 20 June 2008

Organisers: Jean-Louis Colliot-Thélène, Samir Siksek, Alexei Skorobogatov, Michael Stoll

## Programme

All talks and the presentations of solutions will be in Lecture Room MS.01 in the Zeeman Building

### Monday 16 June 2008

- 8:30-9:20 **Registration** in B1.37 and **Coffee** in the Mathematics Institute Common Room  
9:20-10:20 **Ronald van Luijk** (Warwick) *Density of rational points on diagonal quartic surfaces*  
10:20-11:00 Coffee in the Mathematics Institute Common Room  
11:00-12:00 **Tony Varilly** (Berkeley) *Weak approximation on del Pezzos of degree 1*  
12:10-13:10 **Roger Heath-Brown** (Oxford) *Sums and differences of 3 k-th powers*  
13:10-15:00 Lunch  
15:00-16:00 Tea in the Mathematics Institute Common Room  
16:00-17:00 **Tim Browning** (Bristol) *Manin's conjecture for a non-singular quartic del Pezzo surface*  
17:10-17:40 **Evis Ieronymou** (Imperial) *Transcendental elements of the Brauer group of diagonal quartic surfaces*  
18:00 Buffet Dinner in Mathematics Common Room

### Tuesday 17 June 2008

- 9:20-10:20 **Bjorn Poonen** (Berkeley) *Insufficiency of the Brauer-Manin obstruction applied to étale covers*  
10:20-11:00 Coffee in the Mathematics Institute Common Room  
11:00-12:00 **Cyril Demarche** (Orsay) *Descent obstruction and Brauer-Manin obstruction*  
12:10-13:10 **Olivier Wittenberg** (Strasbourg) *Fundamental groups and the elementary obstruction*  
13:10-15:00 Lunch  
15:00-16:00 Tea in the Mathematics Institute Common Room  
16:00-17:00 **David Harari** (Orsay) *The defect of strong approximation on commutative algebraic groups*

### Wednesday 18 June 2008

- 9:20-10:20 **Minhyong Kim** (UCL) *A non-abelian principle of Birch and Swinnerton-Dyer*  
10:20-11:00 Coffee in the Mathematics Institute Common Room  
11:00-12:00 **Ambrus Pal** (Imperial) *Constructing rational points on genus one curves over function fields*  
12:10-13:10 **Christian Wuthrich** (Nottingham) *Computations about the Tate-Shafarevich group using Iwasawa theory*  
Afternoon Off

### Thursday 19 June 2008

- 9:20-10:20 **Damiano Testa** (Bremen) *The Rational Box Problem*  
10:20-11:00 Coffee in the Mathematics Institute Common Room  
11:00-12:00 **Victor Flynn** (Oxford) *Sha and degree 4 del Pezzo surfaces*  
12:10-13:10 **Alexei Skorobogatov** (Imperial) *On the equations of universal torsors over del Pezzo surfaces*  
13:10-15:00 Lunch  
15:00-16:00 Tea in the Mathematics Institute Common Room  
16:00-17:00 **Noam Elkies** (Harvard) *How many points can a genus-2 curve have?*  
17:10-17:40 **Jan Steffen Mueller** (Bremen) *Explicit Kummer surface theory in arbitrary characteristic*  
17:40 Drinks and snacks in the Common Room

### Friday 20 June 2008

- 9:20-10:20 **Tim Dokchitser** (Cambridge) *The parity of ranks of elliptic curves*  
10:20-11:00 Coffee in the Mathematics Institute Common Room  
11:00-12:00 **Tom Fisher** (Cambridge) *Minimal models for genus one curves*  
12:10-13:10 **Emmanuel Peyre** (Grenoble) *Very free rational points*  
13:10-15:00 Lunch  
15:00-16:00 Tea in the Mathematics Institute Common Room  
16:00-17:00 Mathematics Colloquium **Nils Bruin** (Simon Fraser) *Deciding existence of rational points on curves*  
17:00 Drinks and snacks in the Common Room

*If you have any questions during the Workshop please see either  
Hazel Higgins or Yvonne Collins in Room B1.37 which is opposite the Common Room*