

**BIRS Summer School on Contemporary Methods for Solving Diophantine Equations**  
June 10 - 17, 2012

**Lecturers**

Michael Bennett (*Mike*) - University of British Columbia  
Nils Bruin (*Nils*) - Simon Fraser University  
Yann Bugeaud (*Yann*) - Université de Strassbourg  
Bjorn Poonen (*Bjorn*) - Massachusetts Institute of Technology  
Samir Siksek (*Samir*) - University of Warwick

**Monday**

9:15 - 9:30 BIRS Introduction  
9:30 - 10:30 *Mike*: Introductory lecture  
10:30 - 11:00 coffee break  
11:00 - 12:00 *Bjorn*: Rational points on varieties, Brauer-Manin obstruction  
12:00 - 13:30 lunch  
13:30 - 14:30 *Nils*: Skolem's method  
14:30 - 17:30 Problem Sessions (break-out in small groups)  
17:30 - 19:30 dinner  
19:30 - 20:30 Evening Meeting (presentation of solutions to problems)

**Tuesday**

9:30 - 10:30 *Nils*: Explicit Descent  
10:30 - 11:00 coffee break  
11:00 - 12:00 *Yann*: Linear Forms in Logarithms, general theory  
12:00 - 13:30 lunch  
13:30 - 14:30 *Bjorn*: The Brauer-Manin obstruction for abelian varieties and curves  
14:30 - 17:30 Problem Sessions (break-out in small groups)  
17:30 - 19:30 dinner  
19:30 - 20:30 Evening Meeting (presentation of solutions to problems)

**Wednesday**

9:30 - 10:30 *Samir*: Modularity, Level Lowering and Frey Curves  
10:30 - 11:00 coffee break  
11:00 - 12:00 *Bjorn*: Torsors and the descent obstruction  
12:00 - 12:10 Group Photo  
12:10 - 13:30 lunch  
13:30 - 14:30 *Yann*: S-Unit and Thue equations  
14:30 - 17:30 Problem Sessions (break-out in small groups)  
17:30 - 19:30 dinner  
19:30 - 20:30 Evening Meeting (presentation of solutions to problems)

**Thursday**

Contributed Presentations  
lunch  
Free Afternoon

**Friday**

- 9:30 - 10:30 *Bjorn*: Insufficiency of the obstructions
- 10:30 - 11:00 coffee break
- 11:00 - 12:00 *Samir*: Fermat's Last Theorem and Variants
- 12:00 - 13:30 lunch
- 13:30 - 14:30 *Yann*: Further applications to Diophantine equations
- 14:30 - 17:30 Problem Sessions (break-out in small groups)
- 17:30 - 19:30 dinner
- 19:30 - 20:30 Evening Meeting (presentation of solutions to problems)

**Saturday**

- 9:30 - 10:30 *Samir*: The Method of Kraus
- 10:30 - 11:00 coffee break
- 11:00 - 12:00 *Mike*: Hypergeometric method
- 12:00 - 13:30 lunch
- 13:30 - 14:30 *Nils*: Chabauty and Mordell-Weil sieving
- 14:30 - 17:30 Problem Sessions (break-out in small groups)
- 17:30 - 19:30 dinner
- 19:30 - 20:30 Evening Meeting (presentation of solutions to problems)

**Sunday**

No events scheduled due to early departures for CNTA XII in Lethbridge. BIRS facilities available in the morning for participants who would like to make use of them.