

**Recent Developments on Elliptic Curves**  
**September 26 – 30, 2016**

**Schedule - L1**

**Monday, September 26**

- 9:00-9:30 Registration  
9:30-10:30 Manjul Bhargava, *Average ranks and sizes of Selmer groups*  
10:30-11:00 Coffee  
11:00-12:00 Andrew Wiles, *Birch Swinnerton-Dyer in the 1970's; the CM case*  
12:00-14:00 Lunch  
14:00-15:00 Dick Gross, *Heegner points*  
15:00-15:30 Coffee  
15:30-16:30 Christopher Skinner, *Iwasawa theory and the arithmetic of elliptic curves*  
16:45-17:45 Henri Darmon, *Special elements and the Birch and Swinnerton-Dyer conjecture*

**Tuesday, September 27**

- 9:30-10:30 Arul Shankar, *The average rank of elliptic curves is less than 1*  
10:30-11:00 Coffee  
11:00-12:00 Ellen Eischen, *p-adic L-functions and Eisenstein series*  
12:00-14:00 Lunch  
14:00-15:00 Ye Tian, *Heegner points and congruent numbers*  
15:00-15:45 Coffee  
15:45-16:45 Victor Rotger, *Beilinson-Kato, Beilinson-Flach and diagonal cycles: applications to BSD*  
17:00-18:00 Antonio Lei, *Beilinson-Flach elements and finiteness of sha*

**Wednesday, September 28 - Clay Research Conference**

- 10:00-11:00 David Ben-Zvi, *Representation Theory as Gauge Theory*  
11:00-11:30 Coffee  
11:30-12:30 Bill Minicozzi, *The mean curvature flow*  
12:30-14:00 Lunch  
14:00-15:00 János Kollár, *Celestial surfaces and quadratic forms*  
15:00-15:30 Coffee  
15:30-16:30 Manjul Bhargava, *What is the Birch and Swinnerton-Dyer Conjecture, and what is known about it*  
16:30-17:30 Presentation of the 2016 Clay Research Awards  
17:30-19:00 Reception in the Mathematical Institute

**Thursday, September 29**

- 9:30-10:30 Wei Ho, *Selmer averages for families of elliptic curves*  
10:30-11:00 Coffee  
11:00-12:00 Xin Wan, *Eisenstein congruences and Iwasawa main conjecture*  
12:00-14:00 Lunch  
14:00-15:00 Eric Urban, *On the rank of Selmer groups over  $\mathbf{Q}$  of rational elliptic curves*  
15:00-15:30 Coffee  
15:30-16:30 Kartik Prasanna, *Cycles for Rankin-Selberg products and p-adic L-functions*  
16:45-17:45 Chao Li, *Congruences between Heegner points and Goldfeld's conjecture*

## Friday, September 30

- 9:30-10:30 Jerry Wang, *A positive proportion of hyperelliptic curves over  $\mathbf{Q}$  have no point over any odd degree extension*
- 10:30-11:00 Coffee
- 11:00-12:00 Rodolfo Venerucci, *The anticyclotomic main conjectures for elliptic curves*
- 12:00-14:00 Lunch
- 14:00-15:00 Mirela Ciperiani, *Divisibility questions for genus one curves*
- 15:00-15:30 Coffee
- 15:30-16:30 Shou-wu Zhang, *Gross—Zagier formula: extensions and applications*