

ARITHMETIC AND GEOMETRY OF ALGEBRAIC VARIETIES  
WITH SPECIAL EMPHASIS ON  
CALABI–YAU VARIETIES AND MIRROR SYMMETRY

OCTOBER 21–22, 2006

The Fields Institute, 222 College Street, Toronto

Organized by James D. Lewis (Alberta) and Noriko Yui (Queen's)

OCTOBER 21, 2006

- 9:30am **Matthias Schuett**, Harvard University  
*CM*-modular forms and Calabi–Yau varieties
- 10:30am **Cheol Hyun Cho**, University of Toronto  
On the counting of *J*-holomorphic discs
- 11:30am **Shuang Cai**, University of Alberta  
A simple definition of algebraic connective *K*-theory
- 12:30pm–2:30pm **Lunch**
- 2:30pm **Kentaro Hori**, University of Toronto  
Phases of  $N = 2$  theories in  $1 + 1$  dimensions with boundary
- 3:30pm **Shengda Hu**, University of Montreal  
*T*-duality and *H*-flux from generalized Kähler geometry
- 4:30pm **Vincent Bouchard**, Perimeter Institute, Waterloo  
Orbifold Gromov–Witten invariants from mirror symmetry
- 5:30pm **Nam-Hoon Lee**, KIAS and Queen's University  
Some attempts at constructing infinitely many families of Calabi–Yau manifolds
- 7:00m **Workshop Dinner**

OCTOBER 22, 2006

- 9:30am **Jeng-Daw Yu**, Queen's University  
Special liftings of ordinary *K3* surfaces and applications
- 10:30am **Alina Cojocaru**, The Fields Institute and University of Illinois at Chicago  
Frobenius fields for elliptic curves
- 11:30pm **Reinier Broker**, The Fields Institute  
*p*-adic class invariants
- 12:30pm **Noriko Yui**, Queen's University  
Quasimodular forms and mirror symmetry for elliptic curves
- Afternoon **Discussions**