

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

MARCH 19–20, 2011

The Fields Institute, 222 College Street, Toronto

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

MARCH 19, 2011

- 9:30am **Xi Chen**, University of Alberta  
**Picard-Fuchs Ideals and Normal Functions**
- 10:30am **Greg Pearlstein**, Michigan State University  
**Normal functions and the Hodge conjecture**
- 11:30am **Hector Pasten**, Queen's University  
**Polynomials of degree  $n$  representing  $n$ -th powers**
- 12:30pm–2:30pm **Lunch**
- 2:30pm **Sheldon Joyner**, University of Western Ontario  
**The modular group and the Grothendieck-Teichmuller group**
- 3:30pm **Doug Haessig**, University of Rochester  
**On some results of Chevalley-Waring type**
- 4:30pm **Dermot McCarthy**, Texas A & M University  
**Hypergeometric Functions and the Number of Points on Algebraic Varieties over Finite Fields**
- 6:00pm **Workshop Dinner**

MARCH 20, 2011

- 9:30am **Yasuhiro Goto**, Hokkaido University of Education at Hakodate  
**Arithmetic of Calabi-Yau threefolds of Voisin and Borcea**
- 10:30am **Andrew Harder**, Queen's University  
**Period spaces of abelian surfaces and period spaces of K3 surfaces**
- 11:30pm **James Lewis**, University of Alberta  
**Arithmetic Normal Functions and Filtrations on Chow Groups**
- 12:30pm **Adam Sierakowski**, The Fields Institute  
**Purely infinite  $C^*$ -algebras arising from crossed products**
- Afternoon **Informal Discussions**