

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

MARCH 15–16, 2008

The Fields Institute, 222 College Street, Toronto

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

March 15, 2008

- 9:30am **Matthias Schuett**, Harvard University
***K3* surfaces and modular forms**
- 10:30am **Eddy Lee**, UCLA
A quotient of the Schoen quintic
- 11:30am **Jeng-Daw Yu**, Queen’s University
Notes on Calabi–Yau differential equations of order four
- 12:30pm–2:30pm **Lunch**
- 2:30pm **Mike Roth**, Queen’s University
Cup products for line bundles on complete flag varieties
- 3:30pm **Ethan Cotterill**, Queen’s University
Geometry of curves with exceptional secant planes
- 4:30pm **Hui June Zhu**, SUNY at Buffalo
Constructing analytic families of crystalline representations
- 5:30pm **James Lewis**, University of Alberta
Residues of algebraic cycles
- 7:00m **Workshop Dinner**

March 16, 2008

- 9:30am **Steven Lu**, UQAM, Montreal
The fine structure of varieties of maximal albanese dimension
- 10:30am **Snigdhayan Mahanta**, The Fields Institute/University of Toronto
Noncommutative geometry and stability conditions
- 11:30pm **Noriko Yui**, Queen’s University
Arithmetic of certain *K3*-fibred Calabi–Yau threefolds
- Afternoon **Discussions**