

# Invariants in Algebraic Geometry

Date: November 9 (Mon) — 13 (Fri), 2009  
Place: Graduate School of Mathematical Science,  
The University of Tokyo.  
Address: 3-8-1 Komaba, Meguro-ku Tokyo, 153-8914, Japan

## PROGRAM

### November 9 (Monday)

- 10:00 – 10:50  
Y. Kawamata (Univ. of Tokyo) Variations of semipositivity theorems.
- 11:00 – 11:50  
S. Mukai (R.I.M.S.) Enriques surfaces associated with Richelot isogenies.
- 14:00 – 14:50  
O. Fujino (Kyoto Univ.) Vanishing theorems for algebraic varieties.
- 15:10 – 16:00  
M. Kawakita (R.I.M.S.) On minimal log discrepancies.
- 16:10 – 17:00  
S. Mori (R.I.M.S.)  $\mathbb{Q}$ -conic bundles and Threefold extremal contractions of type IA.

### November 10 (Tuesday)

- 10:00 – 10:50  
S.-T. Yau  
(Chinese Univ. of Hong Kong,  
Harvard Univ.) TBA
- 11:00 – 11:50  
C. Voisin  
(Inst. de Math de Jussieu, IHÉS) Coniveau 2 complete intersections and effective cones.
- 14:00 – 14:50  
T. Mabuchi (Osaka Univ.)  $K$ -stability and asymptotic Chow stability.
- 15:10 – 16:00  
M. Reid (Univ. of Warwick) What are the invariants of a canonical  $n$ -fold? — a sketch cosmology of varieties.
- 16:10 – 17:00  
Y. Miyaoka (Univ. of Tokyo) Bogomolov inequality and Miyaoka-Yau inequality — various versions and their applications.

**November 11 (Wednesday)**

10:00 – 10:50

F. Catanese (Univ. Bayreuth)

Surfaces with  $p_g = 0$  and their invariants: a first love and its rebirth.

11:00 – 11:50

K. Konno (Osaka Univ.)

Koyama singularities of fundamental genus two.

**November 12 (Thursday)**

10:00 – 10:50

N. Shepherd-Barron  
(Univ. Cambridge)Exceptional loci in  $A_g$ .

11:00 – 11:50

A. Moriawaki (Kyoto Univ.)

Birational Arakelov geometry.

14:00 – 14:50

E. Rousseau  
(Inst. de Recherche Math. Avancée)

Effective algebraic degeneracy.

15:10 – 16:00

S. Lu (Univ. de Montréal)

TBA

16:10 – 17:00

M. McQuillan  
(Univ. of Glasgow, IHÉS)

TBA

**November 13 (Friday)**

10:00 – 10:50

H. Tsuji (Sophia Univ.)

Variations of canonical measures on KLT and LC pairs.

11:00 – 11:50

F. Campana  
(Univ. Henri Poincaré Nancy 1)

Orbifold rational curves and birational classification.

14:00 – 14:50

T. Peternell (Univ. Bayreuth)

Differential forms and log-terminal singularities.

15:10 – 16:00

S. Ishii (Tokyo Tech.)

Isomorphism problem on jet schemes.

16:10 – 17:00

F. Bogomolov (Courant Institute)

Galois groups and algebraic geometry.