

**TSUDA COLLEGE MINI-WORKSHOP ON
CALABI-YAU VARIETIES: ARITHMETIC, GEOMETRY AND PHYSICS
AUGUST 5-7, 2015
TSUDA COLLEGE, ROOM 5206**

Organized by Noriko Yui (Queen's University)

PROGRAM

AUGUST 5, 2015

- 10:00am **Nakayashiki, Atsushi** (Tsuda College)
On a combinatorial structure of some D -modules on Abelian varieties
- 11:15am **Terasoma, Tomohide** (University of Tokyo)
A construction of an algebraic surface with a big higher Chow group
- 12:15pm **Lunch**
- 2:30pm **Kimura Kenichiro** (University of Tsukuba)
Semi-algebraic chains and the Hodge realization of mixed Tate motives
- 3:45pm **Kawahigashi, Yasuyuki** (University of Tokyo)
From vertex operator algebras to operator algebras and back
- 5:00pm **Ito, Hiroyuki** (Tokyo University of Science, Noda)
Are rational double points quotient singularities even in positive characteristic ?
- 7:00pm **Informal Workshop Dinner**

AUGUST 6, 2015

- 10:00am **Yu, Jeng-Daw** (National Taiwan University, Taiwan)
Irregular Hodge filtrations: properties
- 11:15am **Milanov, Todor** (Kavli IPMU)
LG/CY mirror symmetry for Fermat type orbifold hypersurfaces
- 12:15pm **Lunch**
- 2:30pm **Inoue, Daisuke** (University of Tokyo)
On Calabi-Yau 3-folds and homogeneous vector bundles over Grassmannians
- 3:45pm **Koike, Kenji** (Yamanashi University)
Hypergeometric periods for a family of cyclic 7-gonal curves
- 5:00pm **Ma, Shouhei** (Tokyo Institute of Technology)
Modular forms of weight $3m$ and the elliptic modular surface
- 7:00pm **Workshop Dinner**

AUGUST 7, 2015

- 10:00am **Yang, Yifan** (National Chiao-Tung University)
Quaternionic loci in Siegel's modular threefold
- 11:15am **Shimada, Ichiro** (Hiroshima University)
Automorphisms of supersingular K3 surfaces and Salem polynomials
- 12:15pm **Lunch**
- 2:30pm **Oda, Takayuki** (Okinawa Institute of Science and Technology)
Some simple examples of relative invariant of ternary homogeneous forms of low degree
- 3:45pm **Goto, Yasuhiro** (Hokkaido University of Education)
Formal groups of various Calabi–Yau varieties
- 5:00pm **Yui, Noriko** (Queen's University)
Enumerative geometry and modular forms

NB: The lecture hall is equipped with white boards as well as electronic equipments (e.g., document camera, OHP, beamer presentation)