

**TSUDA COLLEGE MINI-WORKSHOP ON  
NUMBER THEORY AND PHYSICS AT THE CROSSROADS**

**AUGUST 4–6, 2008**

**TSUDA COLLEGE, AV CENTER ROOM 5206**

**Organized by Noriko Yui (Queen's University)**

**PROGRAMME**

**AUGUST 4, 2008**

- 10:00am **Shinobu Hosono**, University of Tokyo  
*An overview of holomorphic anomaly equation II*
- 11:00am **Yifan Yang**, National Chiao Tung University, Taiwan  
 *$Sp_4$  modularity of Picard–Fuchs differential equations*
- 12:00 noon **Tsunekazu Saito**, Kyushu University  
*The dimension of spaces of modular forms and actions of the Hecke algebra*
- 1:00pm **Lunch**
- 2:30pm **Yukinobu Toda**, University of Tokyo  
*Limit stable objects on Calabi–Yau threefolds*
- 3:30pm **Yasuhiro Goto**, Hokkaido University of Education at Hakodate  
*Zeta-functions and  $L$ -series of some Calabi–Yau threefolds*
- 4:30pm **Masao Jinzenji**, Hokkaido University  
*Virtual structure constants as intersection numbers of moduli space of polynomial maps with two marked points*
- 6:30pm **Workshop Dinner**

**AUGUST 5, 2008**

- 10:00am **Bill Hoffman**, Louisiana State University  
 *$L$ -functions and  $\ell$ -adic representations for noncongruence subgroups*
- 11:00am **Masato Kuwata**, Chuo University  
*Twists of elliptic  $L$ -functions and rational points on generalized Kummer varieties*
- 12:noon **Kazuki Utsumi**, Hiroshima University  
*On the structure of certain  $K3$  surfaces*
- 1:00pm **Lunch**
- 2:30pm **Shoetsu Ogata**, Tohoku University  
*On multiplication of ample and nef divisors on toric surfaces*
- 3:30pm **Masumi Kawasaki**, Kaijo High School  
*Weierstrass points and gap sequences on certain cyclic branched coverings of the projective plane*
- 4:30pm **Fumio Sakai**, Saitama University  
*Weierstrass points and  $S_4$  geometry on Picard curves*

**AUGUST 6, 2008**

- 10:00am **Kenichiro Kimura**, Tsukuba University  
*On mixed elliptic motives*
- 11:00am **Yasuo Ohno**, Kinki University  
*Two-one formula for zeta-star values*
- 12:00 noon **Masahiko Yoshinaga**, Kobe University  
*Periods and computational complexity of real numbers*
- 1:00pm **Lunch**
- 2:30pm **Noriko Yui**, Queen's University  
*Number theory and physics at the crossroads*