

2014

代数幾何学シンポジウム

記録

平成 26 年度科学研究費補助金 基盤研究 (S)
(課題番号 22224001、 代表 金銅 誠之)

於 城崎国際アートセンター
(2014 年 10 月 21 日～10 月 24 日)



Index

Program	1
吉岡康太 (Kota Yoshioka, Kobe University) Examples of movable divisors on a generalized Kummer variety and an application	3
Baohua Fu (Chinese Academy of Sciences) On special birational transformations	12
川谷康太郎 (Kotaro Kawatani, Nagoya University) Stability conditions and Fourier-Mukai transformations on $K3$ surfaces with $\rho = 1$	18
Malte Wandel (Kyoto University, RIMS) Automorphisms of O'Grady's six-dimensional example acting trivially on cohomology	28
橋本健治 (Kenji Hashimoto, KIAS) Classification of Calabi-Yau threefolds of type K	32
Meng Chen (Fudan University) An inequality of Noether type for algebraic 3-folds	39
佐野太郎 (Taro Sano, Max Planck Institute) Deforming elephants of \mathbb{Q} -Fano 3-folds	43
江辰 (Chen Jiang, University of Tokyo) On the anti-canonical geometry of \mathbb{Q} -Fano 3-folds	53
Christian Liedtke (Technische Universität) Supersingular $K3$ surfaces are unirational	68
松本雄也 (Yuya Matsumoto, University of Tokyo) Good reduction criterion for $K3$ surfaces	80
生駒英晃 (Hideaki Ikoma, University of Tokyo) On the concavity of the arithmetic volumes	88
伊藤敦 (Atsushi Ito, Kyoto University) On Gauss maps in positive characteristics	99

植田一石 (Kazushi Ueda, Osaka University) Moduli of relations of quivers	107
吉永正彦 (Masahiko Yoshinaga, Hokkaido University) Minimal stratification for line arrangements and Milnor fibers	114
Poster Session	
Giovanni Mongardi (Universita degli studi di Milano) Induced automorphisms on hyperkaehler manifolds	122
岩見智宏 (Tomohiro Iwami, Kyushu Sangyo University) Sakai-Sugimoto model in QCD, five-dimensional Yang-Mills theory, and the Chern character appearing in the associated chiral anomaly	123
光明新 (Arata Komyo, Kobe University) An explicit description of the relative $SL(4, \mathbb{C})$ -character variety of the projective line	124
三浦真人 (Masato Miura, University Tokyo) Linear section Calabi-Yau threefolds in Hibi toric varieties	125
柴田康介 (Kosuke Shibata, University of Tokyo) Multiplicity and invariants in birational geometry	126
Speeches on the 40th anniversary of Kinosaki conference	
小田忠雄 (Tadao Oda) 40 years of Kinosaki symposia	127
宮西正宜 (Masayoshi Miyanishi, Kwansai Gakuin University) The 40th Anniversary of Kinosaki Symposium	135
塩田徹治 (Tetsuji Shioda) On Kinosaki Algebraic Geometry Symposium	140
Record of 40 years 城崎シンポジウム記録	148

Kinosaki symposium on algebraic geometry 2014

Date : Oct. 20, 2014 (Mon.) — Oct. 24, 2014 (Fri.)
Venue : Kinosaki conference hall
: (Yushima 1062, Kinosaki, Toyo-oka, Hyogo 669-6101)
Phone : +81-796-32-3888 (Tsutaya-Seirantei : +81-796-32-2511)

Program

Oct. 21 (Tue.)

- 9:30 ~ 10:30 Kota Yoshioka (Kobe university)
Examples of movable divisors on a generalized Kummer variety
and an application
- 11:00 ~ 12:00 Baohua Fu (Chinese Academy of Sciences)
On special birational transformations
- 14:00 ~ 15:00 Kotaro Kawatani (Nagoya university)
Stability conditions and Fourier-Mukai transformations
on $K3$ surfaces with $\rho = 1$
- 15:15 ~ 16:15 Malte Wandel (Kyoto university, RIMS)
Automorphisms of O'Grady's six-dimensional example acting
trivially on cohomology
- 16:30 ~ 17:30 Kenji Hashimoto (KIAS)
Classification of Calabi-Yau threefolds of type K
- 17:45 ~ 18:15 Poster Session – Introduction of presentators

Oct. 22 (Wed)

- 9:30 ~ 10:30 Meng Chen (Fudan University)
An inequality of Noether type for algebraic 3-folds
- 11:00 ~ 12:00 Taro Sano (Max Planck Institute)
Deforming elephants of \mathbb{Q} -Fano 3-folds
- 14:30 ~ 15:30 Jiang Chen (University of Tokyo)
On the anti-canonical geometry of \mathbb{Q} -Fano 3-folds

- 15:45 ~ 16:45 Hosung Kim (KIAS)
Cartan-Fubini rigidity of certain double covering morphisms
- 17:00 ~ 18:00 Tadao Oda—Masayoshi Miyanishi—Tetsuji Shioda
Speeches on the 40th anniversary of Kinosaki conference
- 19:00 ~ Reception

Oct. 23 (Thu)

- 9:30 ~ 10:30 Christian Liedtke (Technische Universität)
Supersingular $K3$ surfaces are unirational
- 11:00 ~ 12:00 Yuya Matsumoto (University of Tokyo)
Good reduction criterion for $K3$ surfaces
- 14:30 ~ 15:30 Hideaki Ikoma (University of Tokyo)
On the concavity of the arithmetic volumes
- 15:45 ~ 16:45 Atsushi Ito (University of Tokyo)
On Gauss maps in positive characteristics
- 17:00 ~ 18:00 Kazushi Ueda (Osaka university)
Moduli of relations of quivers

Oct. 24 (Fri.)

- 9:00 ~ 10:00 Alexsei Bondal (Steklov Mathematical Institute – IPMU)
TBA
- 10:15 ~ 11:15 Masahiko Yoshinaga (Hokkaido university)
Minimal stratification for line arrangements and Milnor fibers

The nearest station is Kinosaki-Onsen of JR San-in main line. In order to have dinner together on the first day 20 (Mon), please arrive at the station by 6:00 pm. We are looking forward to seeing you in Kinosaki.

The Kinosaki symposium 2014 is partially supported by Grant-in-Aid for Scientific Research (S) 22224001. We are grateful to the support.

Organizers: K. Oguiso (Osaka), H. Ohashi (TUS), K. Mitsui (Kobe)