

# Algebraic Geometry in Characteristic $p$ and Related Topics

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## Dates

February 16 — February 19, 2010

## Place

Graduate School of Mathematical Sciences, The University of Tokyo

## Organizers

F. Kato (Kyoto Univ.), T. Katsura (Hosei Univ.), S. Kondo (Nagoya Univ.), T. Shioda (Rikkyo Univ.)

## Program

### February 16

10:00-11:00 K. Oguiso (Osaka Univ.): The bounded derived category of any simple manifold is not saturated

11:20-12:20 J. Keum (KIAS) : Automorphisms of K3 surfaces in positive characteristic

14:30-15:30 Ronald van Luijk (Leiden Univ.): K3 surfaces with Picard number one and infinitely many rational points

15:50-16:50 T. Katsura (Hosei Univ.) : On the structure of cohomology groups of K3 surfaces in positive characteristic

### February 17

10:00-11:00 Francois Loeser (ENS): Berkovich spaces as pro-definable spaces

11:20-12:20 T. Shioda (Rikkyo Univ.): Some new features of K3 surfaces in characteristic  $p$

14:30-15:30 Matthias Schuett (Univ. Hannover): Non-liftable Calabi-Yau spaces

15:50-16:50 Y. Miyaoka (Univ. Tokyo) : Remarks on Higgs bundles

### February 18

10:00-11:00 Stefan Schroeer (Univ. Duesseldorf) : The Neron model over the Igusa curves

11:20-12:20 H. Ito (Hiroshima Univ.) : Elliptic K3 surfaces with  $p^n$  torsion in characteristic  $p$

14:30-15:30 H. Kawanoue (RIMS): Toward resolution of singularities in positive characteristic

15:50-16:50 S. Takagi (Kyushu Univ.) : Multiplicities and jumping numbers

## February 19

10:00-11:00 K. Mitsui (Kyoto Univ.) : Classification of rigid analytic surfaces

11:20-12:20 H. Ohashi (RIMS) : The Mordell-Weil lattice of some elliptic K3 surface via the binary Golay code

14:30-15:30 T. Yasuda (Kagoshima Univ.) : Frobenius morphisms and noncommutative resolutions

15:50-16:50 I. Shimada (Hiroshima Univ.) : Lattices of algebraic cycles on varieties of Fermat type