

# Group actions and $K$ -theory

Day : March 12, 2012 – March 15

Place : Department of Mathematics, Kyoto University

Room 110

<http://www.math.kyoto-u.ac.jp/%7Etomo/g-and-k.shtml>

## Program

|               | 12(Mon.)        | 13(Tue.)            | 14(Wed)             | 15(Thu.)               |
|---------------|-----------------|---------------------|---------------------|------------------------|
| 9:30 ~ 10:30  |                 | Makoto Yamashita    | Qinggang Ren?       | Catherine Oikonomides? |
| 11:00 ~ 12:00 | Shin-ichi Oguni | Hang Wang           | Hokuto Morishima    | Atsushi Yamashita      |
| 13:30 ~ 14:00 | Fukaya Tomohiro | Masayoshi Matsumura | Takumi Yokota       | Sako Hiroki            |
| 14:30 ~ 15:30 | Otgonbayar Uuye | Jeremie Brieussel   | Mamoru Tanaka?      | Takefumi Kondo         |
| 16:00 ~ 17:30 | Yoshitaka Kida  | Yuriko Umemoto?     | Hirokazu Maruhashi? |                        |

## Organizing Committee

Tsuyoshi Kato (Kyoto University)

Tomohiro Fukaya (Kyoto University) Shin-ichi Oguni (Ehime university)

### March 11 (Mon)

- 9:30 ~ 11:00 Okamoto Hisashi (RIMS)  
**The Navier-Stokes equations and related paradoxes.**
- 11:30 ~ 13:00 Li Xiangdong (Fudan university)  
**On the  $L^p$ -estimates and existence theorems for the De Rham operator and the Cauchy-Riemann operator**
- 13:00 ~ 14:30 Lunch
- 14:30 ~ 15:00 Ren Qinggang (Fudan university)  
**3-manifold group and finite decomposition complexity**
- 15:00 ~ 15:30 Fukaya Tomohiro (Kyoto university)  
**Coarse Geometry, Higson corona and fixed point theorem**
- 15:30 ~ 16:00 Tea time
- 16:00 ~ 16:30 Fu Benyin (Fudan university)  
**Noncommutative Fejer theorem**
- 16:30 ~ 17:00 Hasebe Takahiro (Kyoto university)  
**Cumulants in noncommutative probability theory**
- 17:00 ~ 17:30 Tea time
- 17:30 ~ 18:00 Wu Yan (Fudan university)  
**Reducing Subspaces of Toeplitz Operators on  $N^*$ -type Quotient Modules on the Torus**
- 18:00 ~ 18:30 Hatakenaka Eri (Tokyo University of Agriculture and Technology)  
**Invariants of 3-manifolds derived from covering presentations**

### March 12 (Tue)

- 9:30 ~ 11:00 Ito Tetsushi (Kyoto university)  
**Introduction to modular forms and non-abelian class field theory**
- 11:30 ~ 13:00 Chen Xiaoman (Fudan university)  
**Operator Norm Localization and Finite Decomposition Complexity Property**
- 13:00 ~ 14:30 Lunch
- 14:30 ~ 15:00 Nakashima Makoto (Kyoto university)  
**On the behavior of the population density for branching random walks**
- 15:00 ~ 15:30 Wang Xinyi (Fudan university)  
**Some Greeks formulas for hypoelliptic Brownian motion on Lie group**
- 15:30 ~ 16:00 Tea time
- 16:00 ~ 16:30 Shiraishi Daisuke (Kyoto university)  
**Exact value of the resistance exponent for four dimensional random walk trac**

- 16:30 ~ 17:00 Takemura Tomoko (Nara Women university)  
**Feller property of skew product diffusion**
- 17:00 ~ 17:30 Tea time
- 17:30 ~ 18:00 Qu Aifang (Fudan university)  
**Reflection of rarefaction waves in a convex duct**
- 18:00 ~ 18:30 Zhao Wenjing (Fudan university)  
**Local well-posedness of lower regularity solutions for the incompressible viscoelastic fluid system**

**March 13 (Wed)**

Excursion.

**March 14 (Thu)**

- 9:30 ~ 11:00 Kumagai Takashi (Kyoto university)  
**Analysis on fractals and random media**
- 11:30 ~ 13:00 Yu Guoliang (Vanderbilt university)  
**Geometric complexity and topological rigidity**
- 13:00 ~ 14:30 Lunch
- 14:30 ~ 15:00 Liu Liyu (Fudan university)  
**Homological properties of quantum homogeneous spaces**
- 15:00 ~ 15:30 Mori Shingo (Kyoto university)  
**TBA**
- 15:30 ~ 16:00 Tea time
- 16:00 ~ 16:30 Cui Aoxiang (Fudan university)  
**Boundedness Theorem for Canonically Fibered Gorenstein Minimal 3-Folds of General Type**
- 16:30 ~ 17:00 Mitsui Kentaro (Kyoto university)  
**Classification of rigid analytic surfaces**
- 17:00 ~ 17:30 Tea time
- 17:30 ~ 18:00 Wang Shengqiang (Fudan university)  
**On the double Ore extension of Koszul algebras**
- 18:00 ~ 18:30 Minamoto Hiroyuki (Kyoto university)  
**Ampleness of two-sided tilting complexes**

**March 15 (Fri)**

- 9:30 ~ 11:00 Tsukamoto Masaki (Kyoto university)  
**An introduction to Gromov's mean dimension theory**
- 11:30 ~ 13:00 Zheng Xinghua (Hong Kong University of Science and Technology)  
**Spatial epidemics: occupation statistics, scaling limits and a phase transition**
- 13:00 ~ 14:30 Lunch

- 14:30 ~ 15:00 Liu Jianli (Fudan university)  
**The study of timelike extremal surface in Minkowski space**
- 15:00 ~ 15:30 Qu Peng (Fudan university)  
**The mechanism of the formation of the singularity for quasilinear hyperbolic systems.**
- 15:30 ~ 16:00 Tea time
- 16:00 ~ 16:30 Yang Wei (Fudan university)  
**Global results for an SIRS model with vaccination and isolation**
- 16:30 ~ 17:00 Tanaka Ryokichi (RIKEN, Kyoto university)  
**Toward a network theory of the biological system.**
- 17:00 ~ 17:30 Tea time
- 17:30 ~ 18:00 Zhu Can (Fudan university)  
**On the skew group algebra of Calabi-Yau algebras**
- 18:00 ~ 18:30 Kimura Yoshiyuki (Kyoto university)  
**Affine quiver and the crystal  $B(\infty)$**