

RIMS camp-style seminar
New Trends in Stochastic Analysis

Date: 6 July, 2015 (Mon.) – 10 July, 2015 (Fri.)

Venue: International Institute for Advanced Studies
(Kizugawa city, Kyoto, Japan)

Program

6 July (Mon.)

- 13:30–14:10 Fabrice Baudoin (Purdue Univ.)
Curvature dimension inequalities for hypoelliptic diffusions
- 14:30–15:10 Seiichiro Kusuoka (Tohoku Univ.)
Continuity and bounds of the transition density functions of the solutions to path-dependent stochastic differential equations
- 15:50–16:30 Yu Ito (Osaka Univ.)
A fractional calculus approach to rough path theory
- 16:50–17:30 Yuzuru Inahama (Nagoya Univ.)
Large deviations for rough path lifts of Donsker-Watanabe's delta functions
- 18:00– Banquet

7 July (Tue.)

- 9:20–10:00 Ionel Popescu (Georgia Inst. Tech.)
From Girsanov to Gradient Estimates
- 10:20–11:00 Hiroshi Kawabi (Okayama Univ.)
Long time asymptotics of non-symmetric random walks on crystal lattices
- 11:20–12:00 Yuichi Shiozawa (Okayama Univ.)
Quantification of sample path properties of symmetric Markov processes
- 13:30–14:10 Makoto Nakashima (Univ. Tsukuba)
Critical points on directed polymers in random environment

- 14:30–15:10 Naoki Kubota (Nihon Univ.)
Large deviations for the travel cost of the simple random walk in random potentials
- 15:50–16:30 Kazuki Okamura (RIMS)
Range of random walk on graphs
- 16:50–17:30 Free discussion

8 July (Wed.)

- 9:20–10:00 Jian Ding (Univ. Chicago)
Random geometry of log-correlated Gaussian field
- 10:20–11:00 Naotaka Kajino (Kobe Univ.)
Analysis of Liouville Brownian motion: heat kernel and averaged spectral asymptotics
- 11:20–12:00 Hubert Lacoin (IMPA)
Description of the phase diagram of Gaussian Multiplicative Chaos
- 13:30– Excursion

9 July (Thu.)

- 9:20–10:00 Masato Takei (Yokohama Nat. Univ.)
Percolation in the Ising model on planar lattices
- 10:20–11:00 Matthias Erbar (Univ. Bonn)
Curvature bounds for configuration spaces
- 11:20–12:00 Syota Esaki (Tokyo Inst. Tech.)
Interacting particle systems of long range jumps with long range interactions on graphs
- 13:30–14:10 Stefan Adams (Univ. Warwick)
Random field of gradients and elasticity
- 14:30–15:10 Makiko Sasada (Univ. Tokyo)
Recent topics on hydrodynamic limits
- 15:50–16:30 Ryoki Fukushima (RIMS)
Homogenization of the Anderson model

16:50–17:30 Free discussion

10 July (Fri.)

9:20–10:00 Masaaki Fukasawa (Osaka Univ.)
Homogenization in hedging under transaction costs

10:20–11:00 Stefano De Marco (Ecole Polytech.)
On robust bounds for options on the VIX volatility index: a constrained
Martingale Optimal Transport problem

11:20–12:00 Kazumasa Kuwada (Tokyo Inst. Tech.)
On estimates of transportation costs for heat distributions

Organizers: Kazumasa Kuwada (Tokyo Institute of Technology)
Ryoki Fukushima (Kyoto University)

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