Stochastic Analysis and Applications

German–Japanese bilateral research project, 2012–2013

Organizers:

Shigeki Aida (Tohoku Univ.)	Ryoki Fukushima (Kyoto Univ.)
Tadahisa Funaki (The Univ. of Tokyo)	Masanori Hino (Kyoto Univ.)
Hiroshi Kawabi (Okayama Univ.)	Takashi Kumagai (Kyoto Univ.)
Kazumasa Kuwada (Ochanomizu Univ.)	Kazuhiro Kuwae (Kumamoto Univ.)
Hirofumi Osada (Kyushu Univ.)	Ichiro Shigekawa (Kyoto Univ.)
Yuichi Shiozawa (Okayama Univ.)	Masayoshi Takeda (Tohoku Univ.)

Local organizers: Hiroshi Kawabi (Okayama Univ.), Yuichi Shiozawa (Okayama Univ.)

Date: Sep. 24–Sep. 28, 2012

Place: Okayama University, Tsushima East Campus, Building for General Education A, Room A41

Program

Sep. 24 (Mon.)

10:20–11:10 Jean-Dominique Deuschel (TU Berlin)
Marginal density expansions for diffusions and stochastic volatility

11:25–12:15 Shigeki Aida (Tohoku University)
Tunneling for spatially cut-off $P(\phi)_2$-Hamiltonians

14:00–14:50 Stefan Adams (The University of Warwick)
Random field of gradients

15:10–16:00 Takao Nishikawa (Nihon University)
Hydrodynamic limit for the Ginzburg-Landau $\nabla\phi$ interface model with both a conservation law and the Dirichlet boundary condition

16:20–17:10 Seiichiro Kusuoka (Kyoto University)
Exponential convergence of Markovian semigroups and their spectra on L^p-spaces

Sep. 25 (Tue.)

9:20–10:10 Noriyoshi Sakuma (Aichi University of Education)
On the law of free subordinators

10:25–11:15 Moritz Kassmann (Bielefeld University)
Regularity theory for parabolic nonlocal operators

11:30–12:20 Matthias Keller (University of Jena)
Essential spectra and volume growth of regular Dirichlet forms

14:00–14:50 Hirofumi Osada (Kyushu University)
Infinitely dimensional stochastic equations related to Airy random point fields

15:10–16:00 Xueping Huang (Bielefeld University)
Stochastic completeness of jump processes and random walks

16:20–17:10 Masaki Wada (Tohoku University)
Perturbation of Dirichlet forms and stability of fundamental solutions

Sep. 26 (Wed.)

9:20–10:10 Harald Oberhauser (TU Berlin)
Free boundary problems, viscosity solutions and applications in finance

10:25–11:15 Masatoshi Fukushima (Osaka University)
Brownian motion with darning applied to KL and BF equations for planar slit domains

11:30–12:00 Yu Ito (Kyoto University)
Integrals along rough paths via fractional calculus

Sep. 27 (Thu.)

9:20–10:10 Ryoki Fukushima (Kyoto University)
Annealed Brownian motion in a heavy tailed Poissonian potentials

10:25–11:15 Kazumasa Kuwada (Ochanomizu University)
Wasserstein contractions associated with the curvature-dimension condition

11:30–12:20 Marcel Schmidt (University of Jena)
Global properties of Dirichlet forms in terms of Green's formula

14:00–14:50 Tomoko Takemura (Nara Women's University)
Lévy measure density corresponding to inverse local time

15:10–16:00 Michael Röckner (Bielefeld University)
Stochastic variational inequalities and applications to the total variation flow perturbed by linear multiplicative noise

16:20–17:10 Kazuhiro Kuwae (Kumamoto University)
On spectral bounds for symmetric Markov chains with coarse Ricci curvatures

Sep. 28 (Fri.)

9:20–10:10 Masanori Hino (Kyoto University)
Geodesic distances and intrinsic distances on some fractal sets

10:25–11:15 Wei Liu (Bielefeld University)
Well-posedness of SPDE with local monotonicity and generalized coercivity conditions

11:30–12:20 Makoto Nakashima (University of Tsukuba)
Super-Brownian motion in random environment and heat equation with noise

14:00–14:50 Takashi Kumagai (Kyoto University)
Quenched invariance principle for random walks and random divergence forms in random media on cones

15:05–15:55 René L. Schilling (TU Dresden)
Some path properties of Lévy-type processes

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