International Conference on Stochastic Analysis and Related Fields

April 7--11, 2008
Huazhong University of Science and Technology, Wuhan, China

随机分析及相关领域国际会议

2008年4月7日--11日

华中科技大学，武汉

Program

Cochairmen

Zhi-Ming Ma, Academy of Mathematics and Systems Science, Chinese Academy of Sciences

Michael Röckner, Universität Bielefeld, Germany

Local Organizers

Fuzhou Gong, Academy of Mathematics and Systems Science, CAS
Shunlong Luo, Academy of Mathematics and Systems Science, CAS
Zhiyuan Huang, Huazhong University of Science and Technology
Jinqiao Duan, Huazhong University of Science and Technology
Chengjian Zhang, Huazhong University of Science and Technology
Yishan Xu, Huazhong University of Science and Technology

Sponsors

Huazhong University of Science and Technology
National Natural Science Foundation of China
Bureau of International Cooperation, CAS
Academy of Mathematics and Systems Science, CAS
German Science Foundation (DFG) through the International Graduate College "Stochastics and Real World Models" (Bielefeld)

Venue

Academic Exchange Center, Huazhong University of Science and Technology
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April 7, Invited Talks

Morning

7:00----8:00 Breakfast

(Chairperson, Jiaan Yan, Building No. 8, Conference Hall)
8:00----8:20 Opening ceremony
8:20----8:40 Photo Taking
8:40----9:20 Terry Lyons, Rough paths
9:20---10:00 Nicole El Karoui, Regularization by inf-convolution of risk measures and BSDE's

10:00--10:20 Tea break

(Chairperson, Fuzhou Gong, Building No. 8, Conference Hall)
10:20--11:00 Mufa Chen, Decay rates of Markov processes
11:00--11:40 Shige Peng, Risk measure and control limit theorem under sublinear expectation

Noon 11:50--13:00 Lunch

Afternoon

(Chairperson, Zhi-Ming Ma, Building No. 8, Conference Hall)
13:00--13:40 Michael Röckner, Self-organized criticality via SPDE
13:40--14:20 Luigi Accardi, Infinitely divisible processes, renormalized higher powers of white noise (RHPWN), and the cohomology of the Virasoro-Zamolodchikov *-Lie algebra
14:20--15:00 Zhiyuan Huang, Fractional noises on Gel'fand triples

15:00--15:20 Tea break

(Chairperson, Philippe Blanchard, Building No. 8, Conference Hall)
15:20--16:00 Ludwig Streit, Feynman integrals as generalized functions of white noise: beyond perturbation theory
16:00--16:40 Minping Qian, Markov chains applied to theoretical analysis of enzyme dynamics
16:40--17:20 Yuri G. Kondratiev, Dynamical self-regulation in continuous particle systems
17:20--18:00 Jianming Xia, Risk aversion and portfolio selection

18:10--19:30 Dinner

April 8, Invited Talks

Morning (Chairperson, Michael Röckner, Building No. 8, Conference Hall)

7:00----8:00 Breakfast

8:00----8:40 David Elworthy, Malliavin calculus for paths on spheres
8:40----9:20 Lucian Beznea, Perturbation by measures charging no polar set and Feynman-Kac formula
9:20---10:00 Liming Wu, Transportation inequalities for SDE of pure jumps

10:00--10:20 Tea break

10:20--11:00 Philippe Blanchard, The analysis of complex networks by spectral methods
11:00--11:40 Walter Trockel, On stochastic matchings in general equilibrium theory

Noon 11:50--13:00 Lunch

Afternoon (Chairperson, Zhiyuan Huang, Building No. 8, Conference Hall)

13:00--13:40 Robin Hudson, Capelli processes: some classical stochastic processes constructed using quantum stochastic calculus
13:40--14:20 Huaizhong Zhao, Pathwise stationary solutions of stochastic partial differential equations
14:20--15:00 Zhao Dong, Existence and uniqueness of solutions of linear SPDE with Levy noise

15:00--15:20 Tea break

15:20--16:00 Fuqing Gao, Weak entropy inequalities and entropic convergence
16:00--16:40 Frank Hansen, Quantum information inequalities
16:40--17:20 Paolo Gibilisco, Equivalence of quantum covariances with respect to uncertainty relations
17:20--18:00 Quansheng Liu，Large deviations for a branching random walk in random environment

18:10--20:00 Banquet

April 9, City Tour

7:00----8:00 Breakfast
Hubei Museum (博物馆)， The Yellow Crane Tower (黄鹤楼)， The Yangtze River (江滩）
18:10--19:30 Dinner

April 10, Invited Talks

Morning (Chairperson, Ludwig Streit, Building No. 8, Conference Hall)

7:00----8:00 Breakfast

8:00----8:40 Yeneng Sun, Modeling large societies with uncertainty
8:40----9:20 Yongjin Wang, From super-Brownian motion to some SPDEs with space-time noises
9:20---10:00 Zonggeng Su, The central limit theorems for random matrices and random partitions

10:00--10:20 Tea break

10:20--11:00 Jinqiao Duan, Invariant manifolds for stochastic dynamical systems
11:00--11:40 Yingqiu Li, On the integrability of the limit of a supercritical branching process with random environment

Noon 11:50--13:00 Lunch

Afternoon (Chairperson, Shige Peng, Building No. 8, Conference Hall)

13:00--13:40 Zengjing Chen, Central limit theorem and its applications
13:40--14:20 Zhen Wu, Dynamic programming principle for one kind of stochastic recursive optimal control problem and Hamilton-Jacobi-Bellman equation
14:20--15:00 Jianglun Wu, Solving a non-linear stochastic pseudo-differential equation of Burges type

15:00--15:20 Tea break

15:20--16:00 Oleksandr Kutovyi, Individual based model with competition in spatial ecology
16:00--16:40 Chengjian Zhang, Time-delay systems and the stability of Milstein method
16:40--17:20 Caishi Wang, Infinitely divisible distributions on Gel'fand triple: white noise approach
17:20--18:00 Guoxin Liu, On the measures of severity of ruin: martingale approach

18:10—19:30 Dinner

April 11, Morning, Invited Talks

Morning (Chairperson, Mufa Chen, Building No. 8，Conference Hall)

7:00----8:00 Breakfast

8:00----8:40 Friedrich Götze，Asymptotic expansions in the central limit theorem in free probability

8:40----9:20 Szymon Peszat, Heat equations with white noise Dirichlet boundary conditions

9:20---9:40 Tea break

9:40--10:20 Xianping Guo, Zero-sum games for continuous-time jump Markov processes with discounted payoffs

10:20--11:00 Hanjun Zhang, QSDs and domain of attraction problem

Noon 11:50--13:00 Lunch

April 11, Afternoon, Contributed Talks (3 sessions in parallel）

Session 1 (Chairperson, Jianming Xia, Building No. 8，Conference Room, 1st floor)

13:00--13:20 Dewen Xiong, The mean-variance hedging in an inomplete market with general jumps

13:20--13:40 Mingyu Xu, Numerical algorithms for reflected backward stochastic differential equations with one or two barriers

13:40--14:00 Ping Chen, Markowitz's mean-variance asset-liability management with regimes switching

14:00--14:20 Yongsheng Song, Risk measures with comonotonic subadditivity and respecting stochastic orders

14:20--14:40 Yunfen Bai，Modelling for attenuating counterparty risk and the valuation of CDS

14:40--15:00 Zechun Hu, Formulae of Beurling-Deny, LeJan and Levy-Khintchine type for non-symmetric Dirichlet forms

15:00--15:20 Tea break

15:20--15:40 Peng Jin, Construction of Glauber dynamics under discontinuous potentials

15:40--16:00 Weiying Fei, Solutions to BSDEs driven by both standard and fractional Brownian motions

16:00--16:20 Wei Gu，A weak stochastic approximation method to forward-backward stochastic differential equations

16:20--16:40 Zhiyong Yu, Linear-quadratic non zero-sum differential game of backward stochastic system

16:40--17:00 **Zhidong Wang**, Backward stochastic Volterra integral equations with non-Lipschitz coefficients

17:00--17:20 **Yufeng Shi**, Calculation of backward doubly stochastic differential equations and SPDEs

17:30--19:00 Dinner

Session 2 (Chairperson, Fuqing Gao， Building No. 1，Room 211)

13:00--13:20 **Sven Struckmeier**, Continuous contact model with jumps

13:20--13:40 **Nazim Tekmen**, Gibbs measures on infinite graphs

13:40--14:00 **Felipe Torres**, Renewal processes and large deviations for the LCS problem in an independent blocks setting

14:00--14:20 **Jungang Li**, Set-valued Lebesgue integral and equation

14:20--14:40 **Fuke Wu**，Numerial solutions of neutral stochastic functional differential quations

14:40--15:00 **Mingshang Hu**, Function spaces and capacity related to a sublinear expectation: application to G-Brownian motion pathes

15:00--15:20 Tea break

15:20--15:40 **Xianmin Geng**, A Markov graph model of complex networks

15:40--16:00 **Xianyuan Wu**, On the degree sequence and its critical phenomenon for a scale-free random graph process

16:00--16:20 **Huijie Qiao**, Homeomorphism flows for stochastic differential equations

16:20--16:40 **Yuquan Xie**, The initial study on tri-point transition probability

16:40--17:00 **Tongjun He**, Maximal operators of tree martingale transforms and their maximal operator inequalities

17:30--19:00 Dinner

Session 3 (Chairperson, Zhen Wu, Building No. 1，Room 311)

13:00--13:20 **Wei Liu**, Large deviations for stochastic evolution equations

13:20--13:40 **Jiaowan Luo**，Exponential asymptotic stability of linear Ito-Volterra evolution equations with damped stochastic perturbations

13:40--14:00 **Shunxiang Ouyang**, Harnack inequality for Ornstein-Uhlenbeck type process in infinite dimensional space with Levy noise

14:00--14:20 **Lan Zhang**, Dynamical analysis of a class of chaotic systems with perturbed white noise

14:20--14:40 **Yangli Hu**, Uniform convergence of martingale in branching random walk with random environment

14:40--15:00 **Guangqiang Lan**, Pathwise uniqueness and nonexplosion for SDEs with non-Lipschitz coefficients

15:00--15:20 Tea break

15:20--15:40 Bin Xie, An SPDE with the distributions of Levy processes as its invariant measures

15:40--16:00 Fubao Xi, Jump-diffusions with state-dependent switching

16:00--16:20 Zhiyong Wang, Explicit Runge-Kutta methods for stochastic differential equations of Ito type

16:20--16:40 Li Ma, Asymptotic properties of the additive functional

16:40--17:00 Junxiang Lu, Stability of stochastic Cohen-Grossberg neural networks with mixed time delays and Markovian parameters

17:30--19:00 Dinner

Closing