The London Mathematical Society, EPSRC, and TMR meeting on Stochastic Analysis

The Programme

Wednesday 30th June	08:45 - 09:30		On the theory of stochastic resonance	Mark Freidlin	
	09:40 - 10:25		Spectral asymptotics for fractal domains	Ben Hambly	
			Coffee Break		
	11:10 - 11:55		Skew Brownian motion and Ray- Knight theorems	Krzysztof Burzdy	
	12:05 - 12:50		Integrability for diffusions and diffusions associated with non-linear Schrödinger operators	Torbjörn Kolsrud	
			lunch		
	02:15 - 02:45	A	Heat measures on loop groups	Shizan Fang	
		B	The asymptotic growth and shape of a typed branching diffusion	Simon Harris	
	02:50 - 03:20	A	A Large Deviation Principle for Brownian Motion on Loop Groups	Tusheng Zhang	
		B	Optimal Filtering for Discrete Range Signal/Observation Processes	Dan Crisan	
	03:25 - 03:55	A	Levy Processes in Lie Groups and Manifolds	David Applebaum	
		B	Ray-Knight Theorems Related to a Stochastic Flow	Jonathan Warren	
	04:00 - 04:45		Random Walks and Curved Boundaries	Ron Doney	
	05:00 - 05:45		Aging for Disordered Systems	Gerard Ben Arous	
Thursday 1st July	08:45 - 09:30		Bifurcation Theory for Stochastic Differential Equations	Peter Baxendale	
	09:40 - 10:25		Exponential Ergodicity and Ergodic Control for Stochastic Reaction Diffusion Equations	Bohdan Maslowski	
			Coffee Break		
	11:10 - 11:40	A	Branching Processes Applied to Non-linear Diffusion Equations in 1-D	Francesco Morandin	
		B	Weak Convergence to the Multiple Stratonovich Integral	Maria Jolis	
	11:45 - 12:15	A	A Multiplicative Ergodic Theorem and Non-positively Curved Spaces	Anders Karlsson	
		B	Time-continuous interacting particle approximation of Feynman Kac formulae	Laurent Miclo	
	12:20 - 12:50	A	Stochastic P.D.E.s with Dirichlet White-Noise Boundary Conditions	Elisa Alos	
		B	Kernel Estimation, Entropy And Information	Gordon Blower	
			Lunch		
	02:15 - 02:45	A			
		B	Necessary and Sufficient Conditions for Exponential Stability and Ultimate Boundedness of Systems Governed By Stochastic P.D.E.s	Kay Liu	
	02:50 - 03:20	A	Stochastic integration for fractional Brownian Motion	Laure Countin	
		B	On a local vega index for the Black-Scholes Model	Arturo Kohatu-Higa	
	03:25 - 03:55	A	Exponential functionals of Levy processes	Philippe Carmona	
		B	Large and moderate deviations for random functionals	Iddo Eliazar	
			Tea		
	04:20 - 05:05		Isoperimetry for Gibbs Measures	Boguslaw Zegarlinski	
	05:05 – 06:00		Random Geometric Graphs	Mathew Penrose	

A Lectures in CG93
B Lectures in CM221 (unless informed otherwise)
C Lectures in CM107

Friday 2nd July	08:45 – 09:30		Duality and martingales in finance	Dimitri Kramkrov
	09:40 - 10:25		A study of liquidity effects	Chris Rogers
			Coffee Break	
	11:10 - 11:55		The stochastic heat equation: asymptotics of the density	Marta Sanz-Sole
	12:05 - 12:50		On stochastic reaction-diffusion equations with a singular forcing term	Istvan Gyöngy
			Lunch	
	02:15 - 02:45	A	Derivatives as traded assets	Terry Lyons
		B	Varadhan estimates for a stochastic delay equation	Carles Rovira
	02:50 - 03:20	A	Passport Options, Local Time and Couplings	David Hobson
		B	The stochastic non-linear heat equation	Andrew Carroll
	03:25 - 03:55	A	Shuffling an infinite pack of cards	Saul Jacka
		B	Scaling limits of KPZ equation	Terence Chan
			Tea	
	04:20 - 05:05		Growth and saturation in random media	Gerard Ben Arous
Saturday 3rd July	08:45 - 09:30		Approximating value functions for controlled degenerate diffusion processes by using piecewise constant policies	Nicolai Krylov
	09:40 - 10:25		Stochastic equations in fluid dynamics	Franco Flandoli
			Coffee Break	
	11:10 - 11:55		Numerical approximations to parabolic SPDEs with multiplicative noise	Sandy Davie
	12:05 - 12:50		The rate of convergence of the tree scheme in mathematical finance	John Walsh
			Lunch	
	02:15 - 02:45	A	L^P-Dirichlet operators and the positive maximum principle	Rene Schilling
		B		
	02:50 - 03:20	A	Double stochastic product integrals	Robin Hudson
		B	Dispersion of stochastic flows	Mike Cranston
	03:25 - 03:55	A	Optimal consumption choice with intertemporal substitution	Peter Bank
		B	Stochastic Euler equations and maximal inequality for stochastic convolutions in Banach spaces	Zdzislaw Brzezniak
	04:00 - 04:45		Stochastic behaviour of deterministic dynamical systems close to Hamiltonian systems	Mark Freidlin
	05:00 - 05:45		Stochastic calculus for fractional Brownian motion	David Nualart
Sunday 4th July				

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Monday 5th July	08:45 - 09:30		Large deviations for 3D supercritical percolation	Raphael Cerf	
	09:40 - 10:25		Random Walk Representation for Effective Interface Models	Jean-Dominique Deuschel	
			Coffee Break		
	11:10 - 11:55		Random Schrödinger operators with a mixed spectrum	Stanislav Molchanov	
	12:05 - 12:50				
			Lunch		
			PLEASE NOTE SECTION B ROOM TO BE ANNOUNCED		
	02:15 - 02:45	A	On semi-linear and non-linear stochastic wave equations in the plane	Annie Millet	
		B	The infinite dimensional delta method	Nick Bingham	
	02:50 - 03:20	A	A Class of Pseudo-differential Operators	Walter Hoh	
		B	Algebraic reflections on stochastic calculus	Wilfrid Kendall	
	03:25 - 03:55	A	LDP for the giant component in a sparse random graph	Neil O'Connell (?)	
		B	On shuffling an infinite pack of cards	Saul Jacka	
			Tea		
	04:20 - 05:05		Strong Solutions of non-Lipschitz S.D.E. : coalescent and kernel solutions	Olivier Raimond	
	05:15 - 06:00		Law of Large Numbers and Slowdown for Random Walks in Random Environment	Alan Sznitman	
Tuesday 6th July	08:45 - 09:30		Strong hypercontractivity and relative subharmonicity	Leonard Gross	
	09:40 - 10:25		Irreducibility of the Dirichlet Forms on a Subset in Wiener Spaces	Shigeki Aida	
			Coffee Break		
	11:10 - 11:55		Littlewood-Paley inequality for a diffusion satisfying the logarithmic Sobolev inequality	Ishiro Shigekawa	
	12:05 - 12:50		Non linear constructions of probability measure in infinite dimension	Paul Malliavin	
			Lunch		

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Wednesday 7th July	08:45 - 09:30		Cell-dynamo in Random Media	Stanislav Molchanov	
	09:40 - 10:25		Numerical Simulations for Stochastic Flows	Rene Carmona	
			Coffee Break		
	11:10 - 11:55		On the Wulff Crystal in the Ising Model	Raphael Cerf	
	12:05 - 12:50		Fractional white noise calculus and applications to finance	Bernt Oksendal	
			Lunch		
	02:15 - 02:45	A			
		B			
		C	Non-linear filtering (Baxendale and Crisan) *For enthusiasts*		
	02:50 - 03:20	A	Multi dimensional continued fractions	Yuri Suhov	
		B	Small ball and support properties for Lévy processes	Thomas Simon	
		C	Non-linear filtering (Baxendale and Crisan) *For enthusiasts*		
	03:25 - 03:55	A	The log-Soboler inequality for unbounded spin systems on the lattice	Nobuo Yoshida	
		B	The heat semi group in configuration space analysis	Yevgen Lytvynov	
			Tea		
	04:20 - 05:05		Transport in Quasi-Periodic media and related problems	Yakov Sinai	
	05:15 - 06:00		Harnack Inequality on the Infinite Dimensional Torus	Laurent Saloff-Coste	

Thursday 8th July	08:45 - 09:30		The Liouville Property and a Conjecture of De Giorgi	Martin Barlow	
	09:40 - 10:25		Existence of density of canonical stochastic differential equation with jumps	Hiroshi Kunita	
			Coffee Break		
	11:10 - 11:55		When does coagulation lead to gelation?	James Norris	
	12:05 - 12:50		Filtrations and Noises Generated by Diffusions	Shinzo Watanabe	
			Lunch		
			Tea		
	04:20 – 05:05		Integration by parts for differential forms on path spaces	David Elworthy	
	05:15 – 06:00		On the relationship between pinned Wiener measures and heat kernel measures on loop groups	Bruce Driver	

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