Contact Information	Project team TOSCA INRIA Sophia Antipolis 2004, route des Lucioles - B.P. 93 F-06902 Sophia Antipolis Cedex France	<i>Tel:</i> +33 (0) 6 65 72 6 <i>E-mail :</i> james.inglis@ <i>E-mail :</i> inglis.jd@gm	52 23 Dinria.fr ail.com	
Research Interests	Stochastic models in finance and neuroscience, interacting particle systems, propagation of chaos, McKean-Vlasov equations, functional inequalities for Markov generators, spectral inequalities, sub-Remannian spaces, Monte-Carlo methods			
Academic Experience	INRIA Sophia-Antipolis, Sophia-Antipolis, France			
	Young Researcher Chair Oct 2012 - Present Recruited to one of 8 national 6-year positions for young researchers in France in order to pursue a self-prescribed research program in probability and stochastic analysis. Work jointly across ToSCA and NeuroMathComp teams.			
	Post-doctoral researcher, TOSCA t Under the direction of Prof. D. Ta	lay	Oct 2011 - Oct 2012	
	Imperial College London, Department of Mathematics			
	Research Assistant		Jun 2010 - Oct 2010	
	 Ph.D. Student Under the direction of Prof. B. Zeg Thesis subject was the validity of t in sub-Riemannian spaces (such as generators are degenerate. Results dimensional settings. Teaching Assistant Assisted in the teaching of a variet Analysis, Algebra, Probability and Cold Spring Harbour Laborate Summer Research Intern Used Perl to process and analyse laboration 	garliński he logarithmic Sobolev the Heisenberg group) s were obtained in both ty of courses at underg Statistics, Metric Spac Dry , New York, USA arge amounts of genetic	Oct 2006 - May 2010 and related inequalities , where natural Markov h finite and and infinite Oct 2006 - May 2010 graduate level, including tes and Topology Jul 2005 - Sep 2005 e data	
Professional Experience	 BAE Systems Detica, London, I Data consultant Carried out high-level statistical mo and commercial clients. Notable pr Delivering a successful credit ris Delivering a sophisticated new personal line insurer in the UK 	UK odelling and data minin, ojects included: sk model to a Tier 1 U insurance policy pricin	Sep 2010 - Oct 2011 g for various government K bank ng model to the biggest	

Education	Imperial College London, London, UK		
	Ph.D. in Mathematics with Prof. B. Zegarliński, 2006-2010		
	 Thesis title: 'Coercive Inequalities for Generators of Hörmander Type' Examined by Prof. D. Bakry and Prof. A. Laptev 		
	University of Oxford, St. Hugh's College, Oxford, UK		
	 MMath, Mathematics, 2002-2006 Finals: Placed 12th in the year; high first class results achieved in every course taken 		
	• Moderations: Placed 6 th in the year		
	Hills Road Sixth Form College, Cambridge, UK		
	4 A-levels: Maths (A), Further Maths (A), Physics (A), Chemistry (A) 1 AS-level: Biology (A)		
PUBLICATIONS	'A general framework for stochastic traveling waves and patterns, with application to neural field equations', J. Inglis, J. Maclaurin, submitted (2015).		
	'Mean-field limit of a stochastic particle system smoothly interacting through thresh- old hitting-times and applications to neural networks with dendritic component', J. Inglis, D. Talay, to appear in SIAM J. Math. Anal (2015)		
	 'Particle systems with a singular mean-field self-excitation. Application to neuronal networks., F. Delarue, J. Inglis, S. Rubenthaler, E. Tanré, Stochastic Process. Appl. 125 (2015) pp. 2451–2492 		
	'Global solvability of a networked integrate-and-fire model of McKean-Vlasov type, F. Delarue, J. Inglis, S. Rubenthaler, E. Tanré, Ann. Appl. Probab., 25 (2015) pp. 2096–2133		
	'Stochastic neural field equations: A rigorous footing', O. Faugeras, J. Inglis, J. Math. Biol. Open Access (2014)		
	'Spectral inequalities for operators on H-type groups', J. Inglis, J. Spectr. Theory 2, 1, (2012) pp. 79–105		
	'Ergodicity for infinite particle systems with locally conserved quantities', J.Inglis, M. Neklyudov and B. Zegarliński, Infin. Dimens. Anal. Quantum Probab. Relat. Top. 15, 1 (2012)		
	'From U-bounds to isoperimetry with applications to H-type groups', J. Inglis, V. Kontis and B. Zegarliński, J. Funct. Anal. 260 (2011), pp. 76–116		
	'Logarithmic Sobolev inequalities for infinite dimensional Hörmander type genera- tors on the Heisenberg group', J. Inglis and I. Papageorgiou, J. Pot. Anal. 31, 1 (2009), pp. 79–102		
	'Liggett inequalities and interacting particle systems', J. Inglis, M. Neklyudov and B. Zegarliński, Progress in analysis and its applications, World Sci. Publ. (2010) pp. 498–504		
	'Operators on H-type groups with empty essential spectra', J. Inglis, Progress in analysis and its applications, World Sci. Publ. (2010) pp. 491–497		
Notes	'First hitting times for general non-homogeneous 1d diffusion processes: density estimates in small time', F. Delarue, J. Inglis, S. Rubenthaler, E. Tanr (2013).		
	<i>Evolution Equations and Boundary Problems with Application to the Navier- Stokes Equations'</i> , lecture notes (lectures given by Z. Qian), Mathematical Notebooks		

	Vol.3, Matrix Press, 2011	
	'Invariant Measures for Stochastic Differential Equations', lecture notes (lectures given by S. Peszat), Mathematical Notebooks Vol.2, Matrix Press, 2008	
	'Introduction to Analysis on Lie Groups', lecture notes (lectures given by W. Hebisch), Mathematical Notebooks Vol.1, Matrix Press, 2008	
Awards and Scholarships	Scholarship from the Polish Academy of Sciences, Krakow, Poland for 2-week research visit, 2008	
	Scholarship from the Hausdorff Research Institute for Mathematical Sciences, Bonn, Germany for a 6-week research visit, 2007	
	4-year EPSRC grant covering fees, maintenance and travel to study infinite dimensional dissipative systems with Prof. B. Zegarliński at Imperial College London, 2006	
	Won Katherine Lawrence Memorial Prize for results achieved in first year exams and gained a 3-year scholarship from St. Hugh's College, Oxford, 2003	
	Won Mayne Prize for Mathematics from Hills Road Sixth Form College, 2002	
Selected Talks and Visits	Contributed talk (joint with J. MacLaurin), 1st International Congress on Mathematical and Computational Neuroscience, Antibes, France, 2015	
	Technische Universität Berlin; visiting W. Stannat, 2015	
	Speaker at the Oxford Man Institute for Quantitative Finance Seminar, Oxford, 2014	
	Invited speaker at the "Probability and its Applications" workshop, University of Oxford 2014	
	Speaker at the ALEA seminar, École polytechnique, Paris, 2014	
	Speaker at the Mathemacs workshop, Max Planck Institute, Leipzig, 2013	
	Speaker at the University of Rennes probability seminar, Rennes, 2013	
	Speaker at the Imperial College analysis seminar, Imperial College, London, 2013	
	Contributed talk, $7^{\rm th}$ ISAAC Congress, "Coercivity and functional inequalities" session, Imperial College London, 2009	
	Mathematics Department, UCSD, San Diego, USA; visiting Prof. B. Driver, 2009	
	Speaker at the Cornell Analysis Seminar, Cornell University, Ithaca, New York, USA; visiting Prof. L. Saloff-Coste, 2009	
	Université Paul Sabatier, Toulouse, France; visiting Prof. D. Bakry, 2008	
	Speaker at the Theoretical Physics Group seminar, University of Wroclaw, Poland, 2008	
	Institute of Mathematics, Polish Academy of Sciences, Krakow, Poland; visiting Assoc. Prof. S. Peszat, 2008	
	Contributed talk, "Phenomena in High Dimensions" conference, Lancaster, UK, 2008	
	Contributed talk, "Stochastik" Doktoranenkonferenz, TU Berlin, Germany, 2008	
	Contributed talk, "Isoperimetry, Poincaré Inequalities and SDEs" workshop, Imperial College London, UK, 2008	

Selected Conferences Attended	"Inhomogeneous Random Systems", Institute Henri Poincaré, Paris 2014	
	"Hitting times and exit problems for stochastic models", University of Dijon, 2013	
	"Random models in neuroscience", Université Pierre et Marie Curie, Paris, 2012	
	"Mean-field methods and multiscale analysis of neuronal populations", CIRM, Marseille, France, 2011	
	"Journées EDP", Port d'Albret, France, 2010	
	"Random differential equations and Gaussian fields" workshop, Chateau de Mons, France, 2009	
	"Asymptotic methods for dissipative particle systems" workshop, IPAM, UCLA, Los Angeles, USA, 2008	
	"Functional Inequalities: Probability and PDEs", final workshop of ANR project IFO, Université Paul Sabatier, Toulouse, France, 2008	
	LMS-EPSRC short course: "Stochastic Partial Differential Equations", Imperial College London, UK, 2008	
	"Particle Systems, Nonlinear Diffusions and Equilibration" workshop, Hausdorff Institute for Mathematical Sciences, Bonn, Germany, 2007	
	London Mathematical Society Durham Symposium: "Recent Developments in Random Walks", University of Durham, UK, 2007	
Computer Skills	 Extensive experience in SAS and SQL Knowledge of C/C++ and Perl Experience programming Monte Carlo simulations Operating Systems: Mac OSX, Unix/Linux, Windows 	