

SPA

2023



43rd Conference on Stochastic Processes and their Applications

july 24-28th

LISBOA PORTUGAL

Faculty of Sciences of the University of Lisbon

CONFERENCE
PROGRAMME

www.spa2023.org

Hosted by



Bernoulli Society
for Mathematical Statistics
and Probability



LISBOA

UNIVERSIDADE
DE LISBOA



TABLE OF CONTENTS

PRATICAL INFORMATION	3
CAMPUS MAP	4-5
PROGRAMME OVERVIEW	6-7
CONFERENCE PROGRAMME	8
Monday, 24 th JULY	9-14
Tuesday, 25 th JULY	15-20
Wednesday, 26 th JULY	21-23
Thursday, 27 th JULY	24-29
Friday, 28 th JULY	30
POSTERS	31-36
LIST OF PARTICIPANTS	37-39
SOCIAL EVENT	40

PRACTICAL INFORMATION

Venue

FACULTY OF SCIENCES OF THE UNIVERSITY OF LISBON

Address: Campo Grande 016,1749-016 Lisbon

How to get there: Getting to the Faculty of Sciences of the University of Lisbon is easy and quick, by bus, metro/subway (*Cidade Universitária station* (yellow line) and *Campo Grande station* (yellow and green lines)), Train (*Entrecampos Station*), car or even bicycle (*cycle lanes*). For more information, please refer to the conference website.

Emergency at the Venue

FCUL has an internal emergency plan, including first aid with AED and fire intervention.

More information on <https://ciencias.ulisboa.pt/en/emergency> and <https://ciencias.ulisboa.pt/en/safety-plans>

Emergency contacts at FCUL: Phone: (+ 351) 217 500 600 (use only for emergencies)

Internet

At FCUL the EDUROAM network is available. To use WiFi you need to be affiliated with an EDUROAM institution and have your laptop prepared for the EDUROAM network. EDUROAM is an international collaboration between educational institutions all over the world and provides secure and encrypted wireless access. EDUROAM requires modifications in your computer settings. Further information can be found at the website www.eduroam.org

Welcome Desk – located in Building C3

OPENING HOURS				
Monday, 24 th July 08:00 – 18:00	Tuesday, 25 th July 08:00 – 18:00	Wednesday, 26 th July 08:30 – 13:00	Thursday, 27 th July 08:30 – 13:00	Friday, 28 th July 08:30 – 13:00

Lunches and coffee-breaks

Coffee-breaks will take place at the FCUL Campus at Building C3 - on Monday to Friday at 10:20-10:50 and on Monday, Tuesday and Thursday at 15:45-16:15.

On Monday, Tuesday and Thursday – lunch box will be provided at Building C3 at 12:30

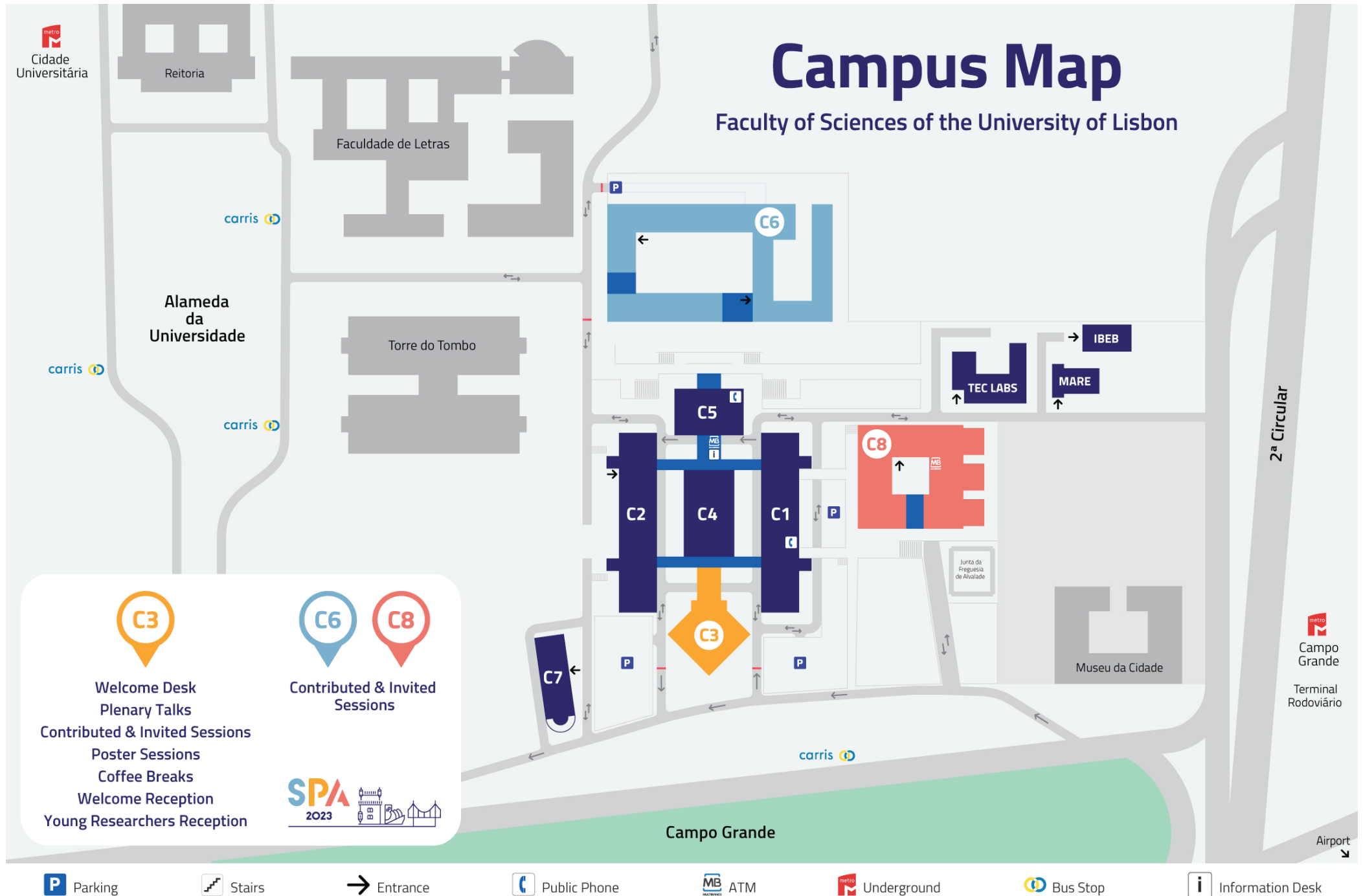
There are a number of restaurants located on the campus area. Below you can find some suggestions.

Inside the Campus

- Bar – Building C6, level 1
- Bar (ATFCUL) – Building C2, level 1
- Bar and Esplanade – Building C5, level 2
- Bar (Students Association) – Building C7, level 2
- Bar and Cafeteria (ATFCUL) – Building C7, level 2
- Convenience Store – Building C7, level 1
- Bar (ATFCUL) – Building C8, level 2

Outside the Campus

- Tutti a Tavola – Italian food – Address: Jardim Mário Soares, 1700-097 Lisboa
- Caso do Lago – Portuguese food – Address: Campo Grande 294, 1700-097 Lisboa
- Jockey Restaurante – Portuguese food – Address: Sociedade Hípica Portuguesa - Hipódromo do Campo Grande, 1600-008 Lisboa
- BarNeário Gastrobar – Address: Casa Raul Lino, Jardim do Campo Grande Sul, 1700-094 Lisboa – Note: Monday and Tuesday closed
- Capas Negras - O Sportinguista – Portuguese food – Address: Rua Dr. João Soares 2B, 1600-060 Lisboa
- Restaurante Borges – Portuguese food – Address: Rua Dr. João Soares 6, 1600-067 Lisboa
- Quiosque Pimenta – Address: Campo Grande 245, 1700-091 Lisboa
- 100 Montaditos - Tapas Bar – Address: Campo Grande C7, Lisboa
- Uspot Campo Grande 115 – Address: Campo Grande 115B, 1700-089 Lisboa
- Macdonald's Campo Grande – Address: Jardim do Campo Grande, 1700-090 Lisboa



PROGRAMME OVERVIEW

Monday, 24 th JULY		Tuesday, 25 th JULY		Wednesday, 26 th JULY		Thursday, 27 th JULY		Friday, 28 th JULY	
B.F.R 3.2.14	09:00-09:30 Opening Ceremony	B.F.R 3.2.14	09:30-10:20 Medallion lectures: Sylvia Serfaty (NYU) <i>Coulomb gases: dynamics and statistical equilibrium</i>	B.F.R 3.2.14	09:30-10:20 Doob lecture: René Carmona (Princeton Univ, APP) <i>Optimal control of conditional processes</i>	B.F.R 3.2.14	09:30-10:20 Medallion lecture: Richard Kenyon (Yale University) <i>Dimers and tensor networks</i>	B.F.R 3.2.14	09:30-10:20 Doebelin prize lecture: Yrno Spinka (University of British Columbia) <i>TBA</i>
Bldg. C3	10:20-10:50 Coffee break and Poster Sessions	Bldg. C3	10:20-10:50 Coffee break and Poster Sessions	Bldg. C3	10:20-10:50 Coffee break	Bldg. C3	10:20-10:50 Coffee break and Poster Sessions	Bldg. C3	10:20-10:50 Coffee break
B.F.R 3.2.14	10:50-11:40 Plenary lecture: Gesine Reinert (University of Oxford) <i>Stein's method for network distributions</i>	B.F.R 3.2.14	10:50-11:40 Plenary lecture: Riddhipratim Basu (Tata Institute) <i>Large scale geometry of two dimensional KPZ models</i>	B.F.R 3.2.14	10:45-12:30 Contributed & Invited Sessions 5: IS3 - Stochastic models in epidemiology and evolution IS4 - Interacting particle systems IS7 - Random dynamics systems IS18 - Quantitative homogenization IS4 - Recent advances in stochastic fluid dynamics CS6 - On analytical methods for stochastic PDEs CS16 - Qualitative analysis of solutions to (S)PDEs CS30 - Lévy-based spatio-temporal processes: inference and forecast CS31 - Geometry of spherical random fields CS33 - Genealogies of branching processes CS38 - Recent advances in exact simulation CS45 - Statistics for high-dimensional stochastic processes	B.F.R 3.2.14	10:50-11:40 Plenary lecture: Makiko Sasada (Tokyo University) <i>Probabilistic approaches to discrete integrable systems</i>	B.F.R 3.2.14	10:50-11:40 Plenary lecture: Martina Hofmanová (Bielefeld University) <i>Anomalous and total dissipation due to advection by Navier-Stokes equations</i>
B.F.R 3.2.14	11:40-12:30 Schramm lecture: Louigi Addario-Berry (McGill University) <i>TBA</i>	B.F.R 3.2.14	11:40-12:30 Itô prize lecture: Andrey Pilipenko (National Academy of Sciences of Ukraine) and Oleksandr Iksanov (University of Kyiv) <i>On a skew stable Lévy process</i>	B.F.R 3.2.14	11:40-12:30 Contributed & Invited Sessions 6: IS1 - Integrable probability IS6 - Mixing times, cutoff and limit profiles IS16 - Interacting random walks IS25 - Combinatorial probability IS26 - Machine learning and probability CS5 - Recent development of Gaussian approximation CS11 - Statistical mechanics and stochastic PDEs CS19 - Probabilistic methods for Stefan-type equations CS34 - Numerical analysis for solutions to penalized BSDE, McKean-Vlasov equation and path-dependent McKean-Vlasov equation CS35 - Dependence and limit theorems I CS37 - Wiener chaos, orthogonal polynomials, and intertwinings CS40 - Recent progresses on random dynamical systems	B.F.R 3.2.14	11:40-12:30 Plenary lecture: Jean-Dominique Deuschel (Berlin University) <i>An isomorphism theorem for anharmonic fields and scaling limits</i>	B.F.R 3.2.14	11:40-12:30 Medallion lecture: Massimiliano Gubinelli (Oxford University) <i>Stochastic equations for Euclidean fields</i>
Bldg. C3	12:30-14:00 Lunch break (with lunch box)	Bldg. C3	12:30-14:00 Lunch break (with lunch box)	Bldg. C3	12:30-14:00 Lunch break (with lunch box)	Bldg. C3	12:30-14:00 Lunch break (with lunch box)	Bldg. C3	12:30-13:00 Closing Ceremony
B.F.R 3.2.14	14:00-15:45 Contributed & Invited Sessions 1: IS8 - Entropy and geometry in stochastic analysis IS20 - Non-equilibrium statistical mechanics IS24 - Mean field games IS28 - Numerical methods for stochastic differential equations: standard, mean-field and forward-backward CS7 - Asymptotic methods in stochastic models CS8 - From nonlinear PDEs to singular McKean-Vlasov SDEs and nonlinear Markov processes CS13 - Stochastic fluid-dynamics CS15 - Jump diffusion models CS18 - Stochastic processes resulting from dynamics of cancer growth and genomic analyses CS20 - Interacting Markov processes related to random matrices CS41 - Constrained and interacting stochastic dynamics I CS43 - Branching processes	B.F.R 3.2.14	14:00-15:45 Contributed & Invited Sessions 3: IS5 - Convex hulls of random walks on a skew stable Lévy process IS10 - Stochastic optimal transportation IS11 - Stochastic calculus on manifolds IS22 - KPZ universality class IS27 - Stochastic geometric mechanics and fluid dynamics CS9 - Regularisation by noise CS10 - Perturbed ODEs: stochastic oscillations, small noise limit and critical fluctuations CS22 - Limit theorems and local times for Markov processes: Part I CS26 - Scaling limits in stochastic non-Markovian epidemic models CS39 - Infinite dimensional stochastic calculus and applications CS44 - Boundary crossing problems for diffusion processes CS51 - Dependent limit theorems	B.F.R 3.2.14	14:00-15:45 Contributed & Invited Sessions 7: IS9 - Stein method IS12 - Singular SPDEs IS13 - Random planar metric spaces IS17 - Random walks in random environments CS21 - Recent progress in random fields and SPDEs CS24 - Topics in integrable probability CS36 - Dependence and limit theorems II CS46 - Gradient flows and mean-field optimization CS47 - Applications in finance and insurance: Regime switching processes and term structure of interest rates CS48 - Advances in branching processes with applications in biology CS50 - Stochastic modelling and its applications	B.F.R 3.2.14	14:00-15:45 Contributed & Invited Sessions 6: IS1 - Integrable probability IS6 - Mixing times, cutoff and limit profiles IS16 - Interacting random walks IS25 - Combinatorial probability IS26 - Machine learning and probability CS5 - Recent development of Gaussian approximation CS11 - Statistical mechanics and stochastic PDEs CS19 - Probabilistic methods for Stefan-type equations CS34 - Numerical analysis for solutions to penalized BSDE, McKean-Vlasov equation and path-dependent McKean-Vlasov equation CS35 - Dependence and limit theorems I CS37 - Wiener chaos, orthogonal polynomials, and intertwinings CS40 - Recent progresses on random dynamical systems	B.F.R 3.2.14	14:00-15:45 Contributed & Invited Sessions 7: IS9 - Stein method IS12 - Singular SPDEs IS13 - Random planar metric spaces IS17 - Random walks in random environments CS21 - Recent progress in random fields and SPDEs CS24 - Topics in integrable probability CS36 - Dependence and limit theorems II CS46 - Gradient flows and mean-field optimization CS47 - Applications in finance and insurance: Regime switching processes and term structure of interest rates CS48 - Advances in branching processes with applications in biology CS50 - Stochastic modelling and its applications
Bldg. C3	15:45-16:15 Coffee break and Poster Sessions	Bldg. C3	15:45-16:15 Coffee break and Poster Sessions	Bldg. C3	15:45-16:15 Coffee break and Poster Sessions	Bldg. C3	15:45-16:15 Coffee break and Poster Sessions	Bldg. C3	15:45-16:15 Coffee break and Poster Sessions
B.F.R 3.2.14	16:15-18:00 Contributed & Invited Sessions 2: IS2 - Random matrices and number theory IS19 - Graphons and their applications to biological networks IS29 - Financial mathematics IS30 - Statistical extreme value theory CS1 - Recent trends in stochastic partial differential equations CS3 - Various aspects of determinantal point processes CS12 - Stochastic geometric mechanics and non-equilibrium thermodynamics CS14 - Branching processes with dependencies CS17 - Non-linear heat equations perturbed by multiplicative fractional noises CS29 - Boundary driven exclusion processes CS32 - Recent advances in Lévy processes CS42 - Constrained and interacting stochastic dynamics II	B.F.R 3.2.14	16:15-18:00 Contributed & Invited Sessions 4: IS14 - Statistical mechanical models IS15 - Random conformal geometries and field theories IS21 - Persistence probabilities IS23 - Optimal transport and stochastic dynamics CS2 - Inference for stochastic processes CS23 - Limit theorems and local times for Markov processes: Part II CS25 - Copulae and stochastic processes CS27 - Topics in population genetics CS28 - Stochastic processes for manifold estimation CS49 - Interacting systems and KPZ universality	B.F.R 3.2.14	16:15-18:00 Contributed & Invited Sessions 7: IS9 - Stein method IS12 - Singular SPDEs IS13 - Random planar metric spaces IS17 - Random walks in random environments CS21 - Recent progress in random fields and SPDEs CS24 - Topics in integrable probability CS36 - Dependence and limit theorems II CS46 - Gradient flows and mean-field optimization CS47 - Applications in finance and insurance: Regime switching processes and term structure of interest rates CS48 - Advances in branching processes with applications in biology CS50 - Stochastic modelling and its applications	B.F.R 3.2.14	16:15-18:00 Contributed & Invited Sessions 7: IS9 - Stein method IS12 - Singular SPDEs IS13 - Random planar metric spaces IS17 - Random walks in random environments CS21 - Recent progress in random fields and SPDEs CS24 - Topics in integrable probability CS36 - Dependence and limit theorems II CS46 - Gradient flows and mean-field optimization CS47 - Applications in finance and insurance: Regime switching processes and term structure of interest rates CS48 - Advances in branching processes with applications in biology CS50 - Stochastic modelling and its applications		
Bldg. C3	18:15-20:00 Welcome Reception	Bldg. C3	18:15-19:15 Young Researchers Reception	Bldg. C3	18:15-19:15 Young Researchers Reception	Bldg. C3	18:15-19:00 Public Lecture*: Persi Diaconis (Stanford University) <i>The mathematics of solitaire</i> <small>*(this session is open to all and it is not part of the conference programme)</small>	Bldg. C3	18:15-19:00 Public Lecture*: Persi Diaconis (Stanford University) <i>The mathematics of solitaire</i> <small>*(this session is open to all and it is not part of the conference programme)</small>
							20:00 Conference Dinner		

Glossary
Bldg. = Building
B.F.R = Bldg.Floor.Room = 0.0.00



43rd Conference on Stochastic Processes and their Applications

CONFERENCE PROGRAMME

Monday, 24th JULY

09:00-09:30	Opening Ceremony
09:30-10:20	Lévy lecture: Horng-Tzer Yau (Harvard University) <i>Spectral statistics of random matrices and random graphs</i>
10:20-10:50	Coffee break and Poster Sessions
10:50-11:40	Plenary lecture: Gesine Reinert (University of Oxford) <i>Stein's method for network distributions</i>
11:40-12:30	Schramm lecture: Louigi Addario-Berry (McGill University) <i>TBA</i>
12:30-14:00	Lunch break (with lunch box)
14:00-15:45	Contributed & Invited Sessions 1

- IS8 ENTROPY AND GEOMETRY IN STOCHASTIC ANALYSIS**
Organizer: Xiang-Dong Li, Chinese Academy of Sciences
- The Littlewood-Paley-Stein inequality for Dirichlet space tamed by distributional curvature lower bounds**
Kazuhiro Kuwae¹
1 - Department of Applied Mathematics, Fukuoka University
- On the W-entropy and NFW formula on Riemannian manifolds and Ricci flow**
Xiang-Dong Li¹
1 - Academy of Mathematics and Systems Science, Chinese Academy of Sciences
- Differential Harnack inequalities on general path spaces**
Bo Wu¹
1 - Fudan University
- IS20 NON-EQUILIBRIUM STATISTICAL MECHANICS**
Organizer: Marielle Simon, Université Lyon 1
- Fluctuations in WASEP on a ring subject to an atypical current**
Benoît Dagallier¹
1 - University of Cambridge
- Localization and delocalization for a class of degenerate convex gradient interface model**
Paul Dario¹
1 - Université Paris Est Créteil
- Spectral gap for long-range interactions in harmonic chain of oscillator**
Angeliki Menegaki¹
1 - IHES Paris
- IS24 MEAN FIELD GAMES**
Organizer: François Delarue, University of Nice
- Master equations for extended MFG and MFG with a major player**
Chenchen Mou¹
1 - City University of Hong Kong
- The Convergence rate of vanishing viscosity approximations for mean field games**
Wenpin Tang¹
1 - Columbia University
- On the long time behavior of mean field control problems**
Alekos Cecchin¹
1 - Università di Padova

IS28 NUMERICAL METHODS FOR STOCHASTIC DIFFERENTIAL EQUATIONS: STANDARD, MEAN-FIELD AND FORWARD-BACKWARDOrganizer: **Gonçalo Dos Reis**, The University of EdinburghNumerical approximation of McKean-Vlasov SDEs via SGDGonçalo Dos Reis¹
1 - *The University of Edinburgh, UK*A posteriori error estimates for fully coupled McKean-Vlasov forward-backward SDEsWolfgang Stockinger¹
1 - *Imperial College London, UK*High order splitting methods for SDEs satisfying a commutativity conditionJames Foster¹
1 - *The University of Bath, UK***CS7 ASYMPTOTIC METHODS IN STOCHASTIC MODELS**Organizer: **Yan Dolinsky**, The Hebrew University of JerusalemAn approximation of populations on a habitat with large carrying capacityNaor Bauman¹, Pavel Chigansky², Fima Klebaner²
1 - *The Hebrew University of Jerusalem, Israel*; 2 - *Monash University, Australia*A stochastic energy-balance model with moving ice lineIlya Pavlyukevich¹
1 - *Friedrich Schiller University Jena, Germany*Utility indifference pricing with high risk aversion and small linear price impactYan Dolinsky¹
1 - *The Hebrew University of Jerusalem, Israel***CS8 FROM NONLINEAR PDES TO SINGULAR MCKEAN-VLASOV SDEs AND NONLINEAR MARKOV PROCESSES**Organizer: **Marco Rehmeier**, Scuola Normale Superiore PisaEntropy estimate between diffusion processes and application to McKean-Vlasov SDEsPanpan Ren¹
1 - *City University of Hong Kong*;Nonlinear Fokker-Planck equations with fractional Laplacian and McKean-Vlasov SDEs with Lévy-NoiseMichael Röckner¹
1 - *Fakultät für Mathematik, Universität Bielefeld and Academy of Mathematics and Systems Science, CAS, Beijing*On nonlinear Markov processes in the sense of McKeanMarco Rehmeier¹
1 - *Scuola Normale Superiore Pisa***CS13 STOCHASTIC FLUID-DYNAMICS**Organizer: **Margherita Zanella**, Politecnico di MilanoNo blow-up by nonlinear Itô noise for Euler equationsMarco Bagnara¹
1 - *Scuola Normale Superiore*Distributional solutions for Euler equations with Kraichnan noiseMichele Coghi¹
1 - *Università degli Studi di Trento*A Stochastic Particle Approximation Approach of the 2D Navier-Stokes Equations with Vorticity GenerationEliseo Luongo¹
1 - *Scuola Normale Superiore***CS15 JUMP DIFFUSION MODELS**Organizer: **Markus Riedle**, King's College London; **Anita Behme**, TU DresdenGradient formula for transition semigroup corresponding to stochastic equation driven by a system of independent Lévy processesSzymon Peszat¹
1 - *Institute of Mathematics, Jagiellonian University*Certain jump diffusion models and their inferenceJan Rosinski¹
1 - *University of Tennessee, Knoxville, USA*Concentration analysis of multivariate elliptic diffusionsLukas Trottnner¹
1 - *Aarhus University***CS18 STOCHASTIC PROCESSES RESULTING FROM DYNAMICS OF CANCER GROWTH AND GENOMIC ANALYSES**Organizer: **Marek Kimmel**, Rice UniversityMutation accumulation in growing cell populationsTibor Antal¹
1 - *School of Mathematics, University of Edinburgh*Probabilistic analysis of partial sequence reads in the genomeBrandon Legried¹
1 - *Georgia Institute of Technology, School of Mathematics*Analysis of a countable-type branching process model for the tug-of-war cancer cell dynamicsRen-Yi Wang¹
1 - *Rice University***CS20 INTERACTING MARKOV PROCESSES RELATED TO RANDOM MATRICES**Organizer: **Elia Bisi**, Universität WienOn some interacting particle systems related to random matricesTheodoros Assiotis¹
1 - *University of Edinburgh*Probabilistic methods in the asymptotic analysis of Fredholm PfaffiansWill Fitzgerald¹
1 - *University of Manchester*Matrix Whittaker processesJonas Arista¹
1 - *Bielefeld University***CS41 CONSTRAINED AND INTERACTING STOCHASTIC DYNAMICS**Organizer: **Nicholas Georgiou**, Durham UniversityDeposition, diffusion, and nucleation on an intervalNicholas Georgiou¹
1 - *Durham University*Loop-erased random walk and scaling limits of uniform spanning treesEleanor Archer¹
1 - *University Paris-Nanterre*Brownian motion drifted by random vector fieldsIsao Sauzedde¹
1 - *University of Warwick***CS43 RANCHING PROCESSES**Organizer: **Mine Caglar**, Koc UniversityGeneralized Hawkes shot-noise processesMine Caglar¹
1 - *Koc University*The total mass of branching Brownian motion among random obstaclesMehmet Öz¹
1 - *Özyeğin University*The edge-reinforced branching random walk on the triangleGiordano Giambartolomei¹
1 - *King's College London*

15:45-16:15 Coffee break and Poster Sessions

16:15-18:00 Contributed & Invited Sessions 2

IS2 RANDOM MATRICES AND NUMBER THEORY

Organizer: Paul Bourgade, NYU

On consecutive values of random completely multiplicative functionsJoseph Najnudel¹
1 - *University of Bristol***On the large deviations of Selberg's central limit theorem**Emma Bailey¹
1 - *City University of New York***Squarefree integers in short intervals**Brad Rodgers¹
1 - *Queen's University***IS19 GRAPHONS AND THEIR APPLICATIONS TO BIOLOGICAL NETWORKS**

Organizer: Viet Chi Tran, Université Gustave Eiffel

Multivariate Hawkes processes on inhomogeneous random graph and long-term stabilityZoé Agathe-Nerine
1 - *Université Paris Cité***Individual based infection models on (not so) dense large random networks**Aurélien Velleret¹
1 - *MaIAGE, Inrae, Jouy-en-Josas***Dense multigraphon-valued stochastic processes and edge-changing dynamics in the configuration model**Zhuosong Zhang¹
1 - *Southern University of Science and Technology***IS29 FINANCIAL MATHEMATICS**

Organizer: Carlos Oliveira, Norwegian University of Science and Technology

Perpetual American standard and lookback options with event risk and asymmetric informationPavel Gapeev¹
1 - *The London School of Economics and Political Sciences***A new algorithm to compute HMM parameters**Diogo Pereira¹; Cláudia Nunes¹
1 - *CEMAT and Instituto Superior Técnico***VIX pricing in generalized rough Bergomi models**Henrique Guerreiro¹
1 - *ISEG-School of Economics and Management, Universidade de Lisboa; REM - Research in Economics and Mathematics, CEMAPRE***IS30 STATISTICAL EXTREME VALUE THEORY**

Organizer: Marta Ferreira, University of Minho

An integer-valued M4 processAna Paula Martins¹
1 - *Universidade da Beira Interior, Departamento de Matemática, Centro de Matemática e Aplicações, Covilhã***Comparison of parameters' estimation methods in EVT**Dora Gomes¹
1 - *Faculdade de Ciências e Tecnologia and CMA/FCT, Universidade Nova de Lisboa***On the estimation of the extreme value index with probability weighted moments**Frederico Caeiro¹; M. Ivette Gomes²
1 - *Centro de Matemática e Aplicações (CMA), Universidade Nova de Lisboa; 2 - CEAUL, Universidade de Lisboa***CS1 RECENT TRENDS IN STOCHASTIC PARTIAL DIFFERENTIAL EQUATIONS**

Organizer: Dirk Blömker, Universität Augsburg; Jonas Tölle, Aalto University

Stochastic evolution equations on networksLuigi Amedeo Bianchi¹
1 - *University of Trento***Cellular automata in self-organized criticality and their continuum limits**Benjamin Gess¹
1 - *Bielefeld University and MPI MIS Leipzig***Bifurcation theory for SPDEs: finite-time Lyapunov exponents and amplitude equations**Alexandra Neamtu¹
1 - *University of Konstanz***CS3 VARIOUS ASPECTS OF DETERMINANTAL POINT PROCESSES**

Organizer: Alessandra Occeili, Université d'Angers

Determinantal point processes via Riemann–Hilbert problemsSofia Tarricone¹
1 - *IPhT CEA Paris-Saclay***Determinantal point processes and combinatorial problems on symmetric groups**Harriet Walsh¹
1 - *LAREMA, Université d'Angers***Determinantal point processes and orthogonal polynomials**Daniel Ofner¹
1 - *Hebrew University of Jerusalem***CS12 STOCHASTIC GEOMETRIC MECHANICS AND NONEQUILIBRIUM THERMODYNAMICS**

Organizer: Qiao Huang, Nanyang Technological University

Schrödinger meets OnsagerQiao Huang¹
1 - *Nanyang Technological University***The Hamilton–Jacobi theory for stochastic contact Hamiltonian systems**Pingyuan Wei¹
1 - *Beijing International Center for Mathematical Research, Peking University***A stochastic fractional Schrödinger equation with multiplicative noise**Ao Zhang¹
1 - *Central South University***CS14 BRANCHING PROCESSES WITH DEPENDENCIES**

Organizer: Sophie Hautphenne, The University of Melbourne

Scaling limits of critical controlled multitype branching processesMiguel González¹
1 - *University of Extremadura. Department of Mathematics.***A branching process with oscillations to model predator-prey systems**Cristina Gutiérrez¹; Carmen Minuesa²
1 - *Faculty of Business, Finance and Tourism; University of Extremadura; 2 - Faculty of Sciences; University of Extremadura***Population-dependent two-sex processes with random mating and overlapping generations**Manuel Molina¹; Manuel Mota¹
1 - *Department of Mathematics. University of Extremadura*

CS17 NON-LINEAR HEAT EQUATIONS PERTURBED BY MULTIPLICATIVE FRACTIONAL NOISES

Organizer: José Alfredo López-Mimbela, Centro de Investigación en Matemáticas, A.C.

Estimates of blowup times of a semilinear stochastic parabolic equation with a gradient dependent noiseEkaterina Kolkovska¹¹ - Centro de Investigación en Matemáticas, A.C.**Blowup probability of semilinear SPDEs driven by a rough Gaussian noise**Gerardo Pérez-Suárez¹¹ - Centro de Investigación en Matemáticas, A.C.**Estimates for the distribution function of exponential functionals of real-valued continuous Gaussian processes**José Alfredo López-Mimbela¹¹ - Centro de Investigación en Matemáticas, A.C.**CS29 BOUNDARY DRIVEN EXCLUSION PROCESSES**

Organizer: Simone Floreani, University of Oxford

Universal properties of non-equilibrium steady states of boundary driven symmetric systemsSimone Floreani¹¹ - University of Oxford**Mixing times for exclusion processes with open boundary**Nina Gantert¹¹ - Technical University of Munich**A reverse duality for the ASEP with open boundaries**Gunter Schütz¹¹ - Department of Mathematics, Instituto Superior Técnico, Universidade de Lisboa**CS32 RECENT ADVANCES IN LÉVY PROCESSES**

Organizer: David Kramer-Bang, University of Warwick

Markov additive friendshipsLukas Trottner¹¹ - Aarhus University**When and how is the convex hull of a Lévy path smooth?**Jorge González Cázares^{1,2}; David Kramer-Bang¹; Aleksandar Mijatovic^{1,2}¹ - University of Warwick; ² - The Alan Turing Institute**Coupling of multidimensional Lévy processes and Wasserstein bounds in the small-time stable domain of attraction**Aleksandar Mijatović¹¹ - University of Warwick & The Alan Turing Institute, UK**CS42 CONSTRAINED AND INTERACTING STOCHASTIC DYNAMICS II**

Organizer: Miha Bresar, University of Warwick; Conrado Da Costa, Durham University

Lower bounds on the rate of convergence to the invariant measure of continuous Markov processes, with applications to reflecting diffusionsMiha Bresar¹¹ - University of Warwick**Stochastic billiards with Markovian re-reflection in generalized parabolic domains**Conrado Da Costa¹¹ - Durham University**Weakly self-avoiding random walk in a random potential**Renato Santos¹¹ - Federal University of Minas Gerais

18:15-20:00 Welcome Reception

Tuesday, 25th JULY

09:30-10:20	Medallion lecture: Sylvia Serfaty (NYU) <i>Coulomb gases: dynamics and statistical equilibrium</i>
10:20-10:50	Coffee break and Poster Sessions
10:50-11:40	Plenary lecture: Riddhipratim Basu (Tata Institute) <i>Large scale geometry of two dimensional KPZ models</i>
11:40-12:30	Itô prize lecture: Andrey Pilipenko (National Academy of Sciences of Ukraine) and Oleksandr Iksanov (University of Kyiv) <i>On a skew stable Lévy process</i>
12:30-14:00	Lunch break (with lunch box)
14:00-15:45	Contributed & Invited Sessions 3

IS5 CONVEX HULLS OF RANDOM WALKS AND LÉVY PROCESSES

Organizer: Dmitry Zaporozhets, University St.Petersburg

The isoperimetric problem for convex hulls and the large deviations rate functions of random walksVladislav Vysotsky¹¹ - University of Sussex**Two problems with extrema of Brownian motion and random walks**Julien Randon-Furling¹¹ - Centre Borelli (UMR9010), École normale supérieure Paris-Saclay, Université Paris-Saclay**Statistics of the maximum and the convex hull of a Brownian motion in confined geometries**Schehr Grégory¹¹ - CNRS-Sorbonne Université**IS10 STOCHASTIC OPTIMAL TRANSPORTATION**

Organizer: Toshio Mikami, Tsuda University

A multi-scale Hamilton-Jacobi theory in $P_2(\mathbb{R}^d)$, in the context of hydrodynamic limit for action minimizing dynamicsJin Feng¹¹ - University of Kansas**A glance at entropic optimal transport**Christian Léonard¹¹ - Université Paris Nanterre**Beyond optimal transport**Dan Mikulincer¹¹ - Massachusetts Institute of Technology**IS11 STOCHASTIC CALCULUS ON MANIFOLDS**

Organizer: Karl-Theodor Sturm, Bonn University

Curvature bound of Dyson Brownian motionKohei Suzuki¹¹ - Durham University**A nonsmooth approach to Einstein's theory of gravity**Mathias Braun¹¹ - University of Toronto**Generalized stochastic areas, Winding numbers, and hyperbolic Stiefel fibrations**Fabrice Baudoin¹¹ - University of Connecticut

IS22 KPZ UNIVERSALITY CLASSOrganizer: **Daniel Remenik**, Universidad de Chile**Stationary measures for the open KPZ equation**Guillaume Barraquand¹

1 - CNRS and École Normale Supérieure

Scaling limit of multi-type stationary measures in the KPZ classOfer Busani¹

1 - University of Bonn

From ABC to KPZAlessandra Occeili¹

1 - Université d'Angers

IS27 STOCHASTIC GEOMETRIC MECHANICS AND FLUID DYNAMICSOrganizer: **Dan Crisan**, Imperial College**Noise calibration for a stochastic rotating shallow water model**Dan Crisan¹

1 - Imperial College London

Variational integrators for stochastic Hamiltonian uid dynamicsFrançois Gay-Balmaz¹; Meng Wu¹

1 - CNRS & Ecole Normale Supérieure

Stochastic models in geophysical fluid dynamicsErwin Luesink¹; Sagy Ephrati¹; Arnout Franken¹; Bernard Geurts^{1,2}

1 - University of Twente; 2 - Technical University of Eindhoven

CS9 REGULARISATION BY NOISEOrganizer: **Mate Gerencser**, TU Wien; **Chengcheng Ling**, TU Wien**Stochastic equations with singular drift driven by fractional Brownian motion**Oleg Butkovsky¹

1 - Weierstrass Institute

Non-linear Young equations in the plane and path-wise regularization by noise for the stochastic wave equationFlorian Bechtold¹; Fabian Harang¹; Nimit Rana¹

1 - Universität Bielefeld

McKean SDEs with singular coefficientsElena Issoglio¹

1 - University of Torino

CS10 PERTURBED ODEs: STOCHASTIC OSCILLATIONS, SMALL NOISE LIMIT AND CRITICAL FLUCTUATIONSOrganizer: **Michele Aleandri**, La Sapienza University of Rome**Long time fluctuations at critical parameter of Hopf bifurcation**Michele Aleandri¹; Paolo Dai Pra²

1 - La Sapienza University of Rome; 2 - University of Verona

The asymptotic frequency of stochastic oscillatorsZachary Adams¹

1 - Max Planck Institute for Mathematics in the Sciences

Sharp convergence for degenerate Langevin dynamicsGerardo Barrera Vargas¹

1 - University of Helsinki

CS22 LIMIT THEOREMS AND LOCAL TIMES FOR MARKOV PROCESSES: Part IOrganizer: **Juan Carlos Pardo Millan**, Centro de Investigación en Matemáticas**Strong noise limit of stochastic differential equations**Joseph Najnudel¹

1 - University of Bristol

Mathematical analysis of automated market makersJoseph Najnudel¹; Ju-Yi Yen²

1 - School of Mathematics, University of Bristol; 2 - Department of Mathematical Sciences, University of Cincinnati

Recurrent extensions and stochastic differential equationsVictor Rivero¹

1 - Centro de Investigación en Matemáticas

CS26 SCALING LIMITS IN STOCHASTIC NON-MARKOVIAN EPIDEMIC MODELSOrganizer: **Guodong Pang**, Rice University; **Etienne Pardoux**, Aix-Marseille University**Local weak convergence for a general stochastic SIR model**Jean-Jil Duchamps¹

1 - Université de Franche-Comté

Crump-Mode-Jagers with interactions as epidemic models: Law of large numbers and central limit theoremFelix Foutel-Rodier¹

1 - University of Oxford

A stochastic epidemic model with varying infectivity and waning immunityArsene Brice Zotsa-Ngoufack¹

1 - Aix-Marseille University

CS39 INFINITE DIMENSIONAL STOCHASTIC CALCULUS AND APPLICATIONSOrganizer: **Ryoichi Suzuki**, Ritsumeikan University**A numerical scheme for solving stochastic control problems via stochastic hamiltonian systems**Riki Kitano¹

1 - Department of Mathematical Sciences, Ritsumeikan University

A certain representation of martingales and its associated infinite dimensional moment problem

Yuma Tamura

1 - Ritsumeikan University Graduate School

Randomized positive-definite fourier estimatorNatsuki Toda¹

1 - Department of Mathematical Sciences, Ritsumeikan University

CS44 BOUNDARY CROSSING PROBLEMS FOR DIFFUSION PROCESSESOrganizer: **Cristina Zucca**, University of Torino; **Samuel Herrmann**, University of Burgundy**First passage problems in neuronal modelling**Laura Sacerdote¹

1 - Department of Mathematics - University of Torino

The inverse first-passage time problem for general stochastic processes including Lévy processes and diffusionsAlexander Klump¹; Mladen Savov¹

1 - Bulgarian Academy of Sciences

Polynomial approximation of the first passage time density of diffusion processesGiuseppe D'onofrio¹

1 - Dipartimento di Scienze Matematiche, Politecnico di Torino

CS51 DEPENDENT LIMIT THEOREMSOrganizer: **Adam Jakubowski**, Nicolaus Copernicus University**Laws of large numbers for non-stationary sequences without rate assumptions**Zbigniew S. Szewczak¹

1 - Nicolaus Copernicus University, Faculty of Mathematics and Computer Science

Functional convergence of maxima of linear processes with heavy-tailed innovations and random coefficientsDanijel Krizmanic¹

1 - Faculty of Mathematics, University of Rijeka

Multivariate phantom distributionsAdam Jakubowski¹

1 - Nicolaus Copernicus University

15:45-16:15 Coffee break and Poster Sessions

16:15-18:00 Contributed & Invited Sessions 4

IS14 STATISTICAL MECHANICAL MODELSOrganizer: **Christophe Garban**, Lyon**Recent results on lattice gauge theories with a finite gauge group**Malin Palö Forsström¹¹ - *University of Gothenburg, Mathematical Sciences***Bijectioning the BKT transition**

Piet Lammers

¹ - *Institut des Hautes Études Scientifiques***One-endedness of the uniform spanning tree and Harnack inequalities on stationary random graphs**Diederik Van Engelenburg¹¹ - *Universität Wien, Fakultät für Mathematik***IS15 RANDOM CONFORMAL GEOMETRIES AND FIELD THEORIES**Organizer: **Juhan Aru**, EPFL**A probabilistic construction of Liouville conformal blocks**

Guillaume Baverez

¹ - *Humboldt-Universität zu Berlin***On the geometry of uniform meandric systems**

Jacopo Borga

¹ - *Stanford University***Crossing exponent and conformally invariant field in the 2D Brownian loop soup**Antoine Jego¹¹ - *EPFL***IS21 PERSISTENCE PROBABILITIES**Organizer: **Naomi Feldheim**, Bar-Ilan University**Persistence and ball events for Gaussian stationary functions**Ohad Noy Feldheim¹¹ - *The Hebrew University of Jerusalem***Persistence of weighted sums of GSPs**

Sumit Mukherjee

¹ - *Columbia University***Persistence exponent for some Pfaffian point processes**Grégory Schehr¹¹ - *CNRS-Sorbonne Université***IS23 OPTIMAL TRANSPORT AND STOCHASTIC DYNAMICS**Organizer: **Jan Maas**, IST Austria**Transport-Entropy forms of Santaló type inequalities for volume product**Nathael Gozlan¹¹ - *Université Paris Cité***On the convergence rate of sinkhorn's algorithm**Marcel Nutz¹¹ - *Columbia University***The emergence of clusters in self-attention dynamics**Philippe Rigollet¹¹ - *MIT***CS2 INFERENCE FOR STOCHASTIC PROCESSES**Organizer: **Ciprian Tudor**, University of Lille**Stochastic PDE's driven by the Rosenblatt process**Bohdan Maslowski¹¹ - *Charles University, Prague***Statistics for stochastic PDE's based on discrete observation in arbitrary dimensions**Mathias Trabs¹¹ - *Karlsruhe Institute Technology***Exact variation and drift parameter estimation for the nonlinear fractional stochastic heat equation**Ciprian Tudor¹¹ - *University of Lille***CS23 LIMIT THEOREMS AND LOCAL TIMES FOR MARKOV PROCESSES: Part II**Organizer: **Joseph Najnudel**, University of Bristol; **Ju-Yi Yen**, University of Cincinnati**Limit theorems for occupation times of symmetric Markov processes**Juan Carlos Pardo¹¹ - *Centro de Investigación en Matemáticas***Limit theorems for local times and applications to SDEs with jumps**Aleksandar Mijatović¹¹ - *University of Warwick & The Alan Turing Institute, UK***A limit theorem for local times of branching processes**Gerónimo Uribe Bravo¹¹ - *Universidad Nacional Autónoma de México***CS25 COPULAE AND STOCHASTIC PROCESSES**Organizer: **Tomasz Bielecki**, Illinois Institute of Technology; **Mariusz Niewegłowski**, Warsaw University of Technology**Functional data analysis with copulas**Dennis Schroers¹¹ - *University of Bonn, Institute of Finance and Statistics***Indifference pricing of credit default swaps in a multi-period model**Xiaosong Qian¹¹ - *Center for Financial Engineering, Soochow University***Structured dependence between stochastic processes**Mariusz Niewegłowski¹¹ - *Warsaw University of Technology, Faculty of Mathematics and Information Science***CS27 TOPICS IN POPULATION GENETICS**Organizer: **Apolline Louvet**, University of Bath**A diploid population model for the copy number variation of genetic elements**Anton Wakolbinger¹¹ - *Goethe-University Frankfurt am Main***Muller's ratchet with tournament selection: near-criticality and links to the classical ratchet**Jan Lukas Igelbrink^{1,2}¹ - *Goethe Universität Frankfurt am Main, FB 12, Institut für Mathematik*; ² - *Institut für Mathematik, Johannes Gutenberg-Universität Mainz***Stochastic measure-valued processes for populations expanding in a spatial continuum**Apolline Louvet¹¹ - *University of Bath*

CS28 STOCHASTIC PROCESSES FOR MANIFOLD ESTIMATIONOrganizer: **Hélène Guérin**, Université du Québec à Montréal; **Viet Chi Tran**, Université Gustave Eiffel**Limit theorems in Wasserstein distance for empirical measures of diffusion processes on Riemannian manifolds**Jie-Xiang Zhu¹¹ - Center for Applied Mathematics, Tianjin University**Convergence of occupation measure for diffusion processes on manifolds: An improved rate with convolution smoothing**Dinh-Toàn Nguyen^{1,2}¹ - Université du Québec à Montréal (UQAM); ² - Université Gustave Eiffel, Université Paris Est Creteil**Adaptive estimation in manifold inference**Vincent Divo¹¹ - Université Paris Dauphine – PSL**CS49 INTERACTING SYSTEMS AND KPZ UNIVERSALITY**Organizer: **Bálint Vető**, Budapest University of Technology and Economics**Derivation of the fractional porous medium equation from a microscopic dynamics**Pedro Cardoso¹¹ - Bonn University**Large Deviations for the height function of the q-deformed Polynuclear Growth**Matteo Mucciconi¹¹ - Department of Mathematics, University of Warwick**The geometry of coalescing random walks, the Brownian web distance and KPZ universality**Bálint Vető¹¹ - Budapest University of Technology and Economics

18:15-19:15 Young Reserchers Reception

Wednesday, 26th JULY

09:30-10:20	Doob lecture: René Carmona (Princeton Univ., APP) <i>Optimal control of conditional processes</i>
10:20-10:50	Coffee break
10:45-12:30	Contributed & Invited Sessions 5

IS3 STOCHASTIC MODELS IN EPIDEMIOLOGY AND EVOLUTIONOrganizer: **Vincent Bansaye**, École Polytechnique**Convergence to the canonical equation of adaptive dynamics when mutations are small but frequent**Nicolas Champagnat¹¹ - Inria Nancy - Grand Est**Gaussian waves in BBM with mean-dependent branching**Sarah Penington¹¹ - University of Bath**Epidemics on spatial random graphs**Michele Salvi¹¹ - University of Rome Tor Vergata**IS4 INTERACTING PARTICLE SYSTEMS**Organizer: **Alessandra Faggionato**, University La Sapienza**Kinetically constrained models out of equilibrium**Ivailo Hartarsky¹¹ - TU Wien**Voter model on random directed graphs**Matteo Quattropani¹¹ - Sapienza Università di Roma**Exact large deviations for a model of "KMP-type"**Frank Redig¹¹ - Delft University of Technology**IS7 RANDOM DYNAMICS SYSTEMS**Organizer: **Jacob Bedrossian**, University Maryland**Exponential mixing for random flows**Rishabh Gvalani¹¹ - Max-Planck-Institut für Mathematik in den Naturwissenschaften**Shear-induced chaos via stochastic forcing: a tale of finding positive Lyapunov exponents**Maximilian Engel¹¹ - Free University of Berlin**Shear-induced chaos via stochastic forcing: a tale of finding positive Lyapunov exponents**Benjamin Gess¹¹ - Bielefeld University and MPI MIS Leipzig

IS18 QUANTITATIVE HOMOGENIZATIONOrganizer: **Scott Armstrong**, NYUQuantitative homogenization of the invariant measure for nondivergence form elliptic equationsJessica Lin¹1 - *McGill University*Rigidity of harmonic functions on the supercritical percolation clusterAhmed Bou-Rabee¹1 - *Cornell University*Raghav Venkatraman¹1 - *Courant Institute***CS4 RECENT ADVANCES IN STOCHASTIC FLUID DYNAMICS**Organizer: **Lucio Galeati**, EPFLLocal and global existence for SPDEs with applications to stochastic fluid dynamics

Oana Lang

1 - *Imperial College London*Global existence and non-uniqueness-in-law for 3D Euler equations with transport noiseTheresa Lange¹1 - *Bielefeld University*Some recent results on stochastic fluid PDEs: pseudo-differential noise, blow-up/global regularity and stabilityHao Tang¹1 - *University of Oslo***CS6 ON ANALYTICAL METHODS FOR STOCHASTIC PDEs**Organizer: **Yassine Tahaoui**, NOVA University of LisbonConservation laws with noise: Well-posedness of entropy solutionsNeeraj Bhauryal¹1 - *Grupo de Física Matemática da Universidade de Lisboa*Renormalized solutions for stochastic p -Laplace equations with L^1 -initial data: The case of multiplicative noiseNiklas Sapountzoglou¹1 - *Institute of Mathematics, Technical University of Clausthal*On time-dependent Stochastic PDEs with constraintsYassine Tahaoui¹1 - *Center for Mathematics and Applications (NovaMath), Nova SST, Portugal***CS16 QUALITATIVE ANALYSIS OF SOLUTIONS TO (S)PDEs**Organizer: **Michele Coghi**, Università degli Studi di TrentoStatistical stationary solutions of a nonlinear Schrödinger equation

Benedetta Ferrario

1 - *Università di Pavia*An application of macroscopic fluctuation theory to reaction-diffusion equationsStefano Bonaccorsi¹1 - *Università degli Studi di Trento*Ergodic results for the stochastic nonlinear Schrödinger equation with large dampingMargherita Zanella¹1 - *Politecnico di Milano***CS30 LÉVY-BASED SPATIO-TEMPORAL PROCESSES: INFERENCE AND FORECAST**Organizer: **Imma Valentina Curato**, TU ChemnitzEstimation and Inference for Multivariate Continuous-time AutoRegressive ProcessesLorenzo Lucchese¹1 - *Imperial College London*Parameter inference and forecasting for trawl processes and simple ambit fields

Dan Leonte

1 - *Imperial College London*Mixed moving average field guided learning for spatio-temporal dataImma Valentina Curato¹1 - *TU Chemnitz***CS31 GEOMETRY OF SPHERICAL RANDOM FIELDS**Organizer: **Valentina Cammarota**, Sapienza University of Rome; **Anna Paola Todino**, Sapienza University of RomeOn critical points of random spherical harmonics and isotropic stationary Gaussian fields

Valentina Cammarota

1 - *Department of Statistical Sciences, Sapienza University of Rome*Spherical poisson wavesAnna Paola Todino¹1 - *Sapienza University of Rome*The scaling limits of Gaussian spin fieldsMichele Stecconi¹1 - *University of Luxembourg***CS33 GENEALOGIES OF BRANCHING PROCESSES**Organizer: **Alice Callegaro**, University of Munich; **Emma Horton**, INRIA Bordeaux Sud-OuestAncestral reproductive bias in branching processesSamuel G. G. Johnston¹1 - *King's College London*Asymptotics for the site frequency spectrum associated with the genealogy of a birth and death process

Jason Schweinsberg

1 - *University of California San Diego*A branching particle system as a model of pushed frontsJulie Tourniaire¹1 - *IST Austria***CS38 RECENT ADVANCES IN EXACT SIMULATION**Organizer: **Giuseppe D'onofrio**, Politecnico di Torino; **Pierre Patie**, Cornell UniversityGateway and interweaving relations as exact simulation algorithm for non-colliding particle systemsRohan Sarkar¹; Yuxuan Liu²; Pierre Patie³; Andrew Chee⁴1 - *University of Connecticut*; 2 - *Cornell University*Exact methods for the simulation of first exit times for diffusion processesCristina Zucca¹1 - *University of Torino*Exact simulation of the first time a stochastic process overcomes a given thresholdSamuel Herrmann¹1 - *University of Burgundy***CS45 STATISTICS FOR HIGH-DIMENSIONAL STOCHASTIC PROCESSES**Organizer: **Lukas Trottner**, Aarhus UniversityOn lasso and slope drift estimators for Lévy-driven ornstein-uhlenbeck processesNiklas Dexheimer¹1 - *Aarhus University*A Gaussian approximation of multivariate Lévy processesDavid Kramer-Bang¹1 - *University of Warwick, Department of Statistics*Asymptotic expansions for high-frequency option dataCarsten Chong¹1 - *Hong Kong University of Science and Technology*

Thursday, 27th JULY

09:30-10:20	Medallion lecture: Richard Kenyon (Yale University) <i>Dimers and tensor networks</i>
10:20-10:50	Coffee break and Poster Sessions
10:50-11:40	Plenary lecture: Makiko Sasada (Tokyo University) <i>Probabilistic approaches to discrete integrable systems</i>
11:40-12:30	Plenary lecture: Jean-Dominique Deuschel (Berlin University) <i>An isomorphism theorem for anharmonic fields and scaling limits</i>
12:30-14:00	Lunch break (with lunch box)
14:00-15:45	Contributed & Invited Sessions 6

IS1 INTEGRABLE PROBABILITY

Organizer: **Alisa Knizel**, Chicago University

Interacting particle systems and random walks on Hecke algebra

Alexey Bufetov¹
1 - Leipzig University

Dunkl theory at large N

Colin McSwiggen¹
1 - Courant Institute of Mathematical Sciences, New York University

Markov processes related to steady states of the KPZ equation on an interval

Włodzimierz Bryc¹
1 - University of Cincinnati

IS6 MIXING TIMES, CUTOFF AND LIMIT PROFILES

Organizer: **Evita Nestoridi**, Princeton University

Random walks on finite fields with deterministic jumps

Jimmy He¹
1 - MIT

Last passage percolation and random young tableaux

Peter Nejjar¹
1 - Potsdam University

Mixing times for exclusion processes with open and periodic boundaries

Dominik Schmid¹
1 - University of Bonn

IS16 INTERACTING RANDOM WALKS

Organizer: **David Croydon**, Kyoto University

Frogs playing table tennis to stay awake: on the phase transition of activated random walks

Nicolas Forien¹
1 - Università Roma 1 La Sapienza

Convergence and non-convergence of some self-interacting random walks to a perturbed Brownian motion

Elena Kosygina¹
1 - Baruch College and the CUNY Graduate Center

***-Reinforced Random Walks, Bayesian Statistics and Statistical Physics**

Pierre Tarrès¹
1 - CNRS, Sorbonne Université and NYU Shanghai

IS25 COMBINATORIAL PROBABILITY

Organizer: **Valentin Féray**, University de Lorraine

Enumerative theory for the Tsetlin library

Persi Diaconis¹
1 - Department of Mathematics and Statistics, Stanford University

Scaling limit of critical random trees in random environment

Cécile Mailler¹
1 - University of Bath

Components of meandric systems and the infinite noodle

Paul Thévenin¹
1 - University of Vienna

IS26 MACHINE LEARNING AND PROBABILITY

Organizer: **Andrea Montanari**, Stanford University

Algorithmic decorrelation and planted clique in dependent random graphs

Guy Bresler¹
1 - MIT

On orthogonally-invariant spin glasses and linear models with invariant designs

Zhou Fan¹
1 - Yale University

Detection of dense subhypergraphs by low-degree polynomials

Alex Wein¹
1 - University of California, Davis

CS5 RECENT DEVELOPMENT OF GAUSSIAN APPROXIMATION

Organizer: **Xiao Fang**, The Chinese University of Hong Kong

Edgeworth expansion by Stein's method

Xiao Fang¹
1 - The Chinese University of Hong Kong

From L^2 -Wasserstein bounds to moderate deviations

Yuta Koike¹
1 - Graduate School of Mathematical Sciences, The University of Tokyo

Generalization of the fourth moment theorem

Nobuaki Naganuma¹
1 - Kumamoto University

CS11 STATISTICAL MECHANICS AND STOCHASTIC PDES

Organizer: **Francesco Caravenna**, Università di Milano-Bicocca

High moments of the 2D polymer partition function

Clément Cosco¹
1 - Université Paris-Dauphine

Directed polymers and the stochastic heat equation with Lévy noise

Quentin Berger¹
1 - Sorbonne Université and École Normale Supérieure

Fluctuations for the directed polymer model in weak disorder without L^2 -boundedness

Stefan Junk¹
1 - AIMR, Tohoku University

CS19 PROBABILISTIC METHODS FOR STEFAN-TYPE EQUATIONSOrganizer: **Sergey Nadtochiy**, Illinois Tech**Particle systems, Stefan problems and systemic risk**Ben Hambly¹
1 - *University of Oxford***On blow-ups in a stochastic Stefan problem for the freezing of a supercooled liquid**Andreas Søjmark¹
1 - *London School of Economics***Hopf bifurcation in a mean field model of integrate and fire neurons**Quentin Cormier¹
1 - *Inria Saclay***CS34 NUMERICAL ANALYSIS FOR SOLUTIONS TO PENALIZED BSDE, MCKEAN-VLASOV EQUATION AND PATH-DEPENDENT MCKEAN-VLASOV EQUATION**Organizer: **Yating Liu**, Paris Dauphine University**Error analysis of implicit scheme by Empirical Regression of Monte-Carlo method for penalized BSDE**Wanqing Wang¹
1 - *CMAP, École Polytechnique, Institut Polytechnique de Paris***A statistical approach for simulating the density solution of a McKean-Vlasov equation**Yating Liu¹
1 - *CEREMADE, University Paris-Dauphine PSL***Numerical analysis of McKean-Vlasov equations**Armand Bernou¹
1 - *Dipartimento di Matematica, Università di Roma La Sapienza***CS35 DEPENDENCE AND LIMIT THEOREMS 1**Organizer: **Marie Kratz**, ESSEC Business School**General bootstrap random walks**Kais Hamza¹
1 - *Monash University***Stochastic processes with random harmonics, distributional and ergodic properties**Krzysztof Podgórski¹
1 - *Department of Statistics Lund University***Mixing of fast random walks on dynamic random permutations**Oliver Nagy¹
1 - *Mathematical Institute, Leiden University***CS37 WIENER CHAOS, ORTHOGONAL POLYNOMIALS, AND INTERTWININGS**Organizer: **Simone Floreani**, University of Oxford; **Dario Spanò**, University of Warwick**Intertwining relations and beyond: What for?**Pierre Patie¹
1 - *Cornell University***De Jong Theorem, functional convergence and sparsity**Giovanni Peccati¹
1 - *University of Luxembourg***Infinite particle systems in non-discrete spaces: orthogonal intertwiners**Stefan Wagner^{1,2}
1 - *Mathematisches Institut, Ludwig-Maximilians-Universität and Munich Center for Quantum Science and Technology (MCQST)***CS40 RECENT PROGRESSES ON RANDOM DYNAMICAL SYSTEMS**Organizer: **Hiroki Takahasi**, Keio University**Limit theorems for (random) non-hyperbolic dynamics**Yushi Nakano¹
1 - *Tokai University, Department of Mathematics***An explicit formula for invariant densities of random piecewise linear maps**Shintaro Suzuki¹
1 - *Tokyo Gakugei University***Finitude of physical measures for random maps**Hisayoshi Toyokawa¹
1 - *Kitami Institute of Technology*

15:45-16:15 Coffee break and Poster Sessions

16:15-18:00 Contributed & Invited Sessions 7

IS9 STEIN METHODOrganizer: **Giovanni Peccati**, University Luxembourg**Poisson cylinder sets for modelling mobile telecommunication networks**Hanna Döring¹
1 - *University Osnabrück***How good is your Laplace approximation of the Bayesian posterior? Finite-sample computable error bounds for a variety of useful divergences**Mikołaj Kasprzak¹
1 - *University of Luxembourg***Wasserstein bounds through Stein's method with bespoke derivatives**Yvik Swan¹
1 - *Université Libre de Bruxelles***IS12 SINGULAR SPDES**Organizer: **Hendrik Weber**, University of Münster**Multiscale coupling for the Φ_4^2 field**Michael Hofstetter¹
1 - *Weizmann Institute of Science***Stochastic quantization of gauge theories**Hao Shen¹
1 - *University of Wisconsin - Madison***Invariant Gibbs measures in nonlinear dispersive equations**Yu Deng¹
1 - *University of Southern California***IS13 RANDOM PLANAR METRIC SPACES**Organizer: **Jian Ding**, Peking University**Metric growth dynamics in Liouville quantum gravity**Hugo Falconet¹
1 - *Courant Institute, New York University***Geodesics in Brownian surfaces**Wei Qian¹
1 - *City University of Hong Kong***Geodesic local time in the directed landscape**Lingfu Zhang¹
1 - *University of California, Berkeley*

IS17 RANDOM WALKS IN RANDOM ENVIRONMENTSOrganizer: **Ryoki Fukushima**, Tsukuba University**Hölder regularity and local limit theorem for random conductance models with long-range jumps**Sebastian Andres¹1 - *University of Manchester***RWRE as rough paths**

Tal Orenshtein

1 - *Università degli Studi Milano - Bicocca***Scaling limit for the simple random walk on long range percolation clusters**Tal Peretz¹1 - *Technion - Israel Institute of Technology***CS21 RECENT PROGRESS IN RANDOM FIELDS AND SPDES**Organizer: **Yimin Xiao**, Michigan State University**Hitting probabilities of Gaussian random fields and SPDEs in critical dimensions**Cheuk Yin Lee¹1 - *National Tsinghua University, Taiwan***Spatial averages for the Parabolic Anderson model driven by rough noise**Xiaoming Song¹1 - *Drexel University***Fractal and intersection properties of Gaussian random fields**Yimin Xiao¹1 - *Michigan State University***CS24 TOPICS IN INTEGRABLE PROBABILITY**Organizer: **Alisa Knizel**, University of Chicago**Randomized Yang-Baxter equation and its applications to particle systems**Leonid Petrov¹1 - *University of Virginia***The lower tail of q -pushTASEP**Milind Hegde¹1 - *Columbia University***Stochastic six-vertex model and Hall-Littlewood positivity**Konstantin Matveev¹1 - *Rutgers University***CS36 DEPENDENCE AND LIMIT THEOREMS 2**Organizer: **Kais Hamza**, Monash University**Joint asymptotics for the sample quantile and measures of dispersion for functionals of mixing processes**Marie Kratz¹1 - *ESSEC Business School, CREAR risk research center***Local Asymptotic Normality of the mixed fractional Brownian motion**Pavel Chigansky¹; Marina Kleptsyna²1 - *The Hebrew University of Jerusalem*; 2 - *Le Mans University***Functional central limit theorems for Wigner matrices**Jana Reker¹1 - *IST Austria***CS46 GRADIENT FLOWS AND MEAN-FIELD OPTIMIZATION**Organizer: **Mateusz B. Majka**, Heriot-Watt University**Polyak-Łojasiewicz inequality on the space of measures and convergence of mean-field birth-death processes**Mateusz B. Majka¹1 - *Heriot-Watt University***Gradient and mirror descent for stochastic control problems**

David Šiška

1 - *School of Mathematics, University of Edinburgh***Solving min-max mean-field games via fictitious play and birth-death dynamics**Razvan-Andrei Lascu¹1 - *Maxwell Institute for Mathematical Sciences, Department of Mathematics, Heriot-Watt University***CS47 APPLICATIONS IN FINANCE AND INSURANCE: REGIME SWITCHING PROCESSES AND TERM STRUCTURE OF INTEREST RATES**Organizer: **Manuel Esquivel**, New University of LisbonManuel L. Esquivel¹1 - *Nova SST, New University of Lisbon***On the biases of the unbiased expectation hypothesis**Renato França¹; Raquel M. Gaspar¹1 - *ISEG and REM/Cemapre, Universidade de Lisboa, Portugal*; 2 - *Towers Watson, Portugal***On coupled pairs of regime switching diffusions**

Pedro P. Mota

1 - *Nova SST and CMA, New University of Lisbon***CS48 ADVANCES IN BRANCHING PROCESSES WITH APPLICATIONS IN BIOLOGY**Organizer: **Sophie Hautphenne**, The University of Melbourne**Linking Population-size-dependent and controlled branching processes**

Sophie Hautphenne

1 - *The University of Melbourne***A branching process approach to the survival of populations: skeleton process and stochastic introgression**Maria Conceição Serra¹1 - *Center of Mathematics, University of Minho***Consistent least squares estimation for population-size-dependent branching processes**Carmen Minuesa Abril¹1 - *University of Extremadura***CS50 STOCHASTIC MODELLING AND ITS APPLICATIONS**Organizer: **Nadarajah Ramesh**, University of Greenwich**Linear spread and explosion for a continuous-time frog model**Viktor Bezborodov¹1 - *The University of Goettingen, Institute for Mathematical Stochastics***A time-dependent non-homogeneous stochastic epidemic model**Giulia Binotto¹1 - *Universitat Autònoma de Barcelona***A doubly stochastic state-dependent exponential pulse model for rainfall**Nadarajah Ramesh¹1 - *University of Greenwich*

18:15-19:00

18:15-19:00

Public Lecture* (this session is open to all and it is not part of the conference programme)
The mathematics of solitaire: Persi Diaconis (Stanford University)

20:00

Conference Dinner

Friday, 28th JULY

09:30-10:20	Doebelin prize lecture: Yinon Spinka (University of British Columbia) <i>TBA</i>
10:20-10:50	Coffee break
10:50-11:40	Plenary lecture: Martina Hofmanová (Bielefeld University) <i>Anomalous and total dissipation due to advection by Navier-Stokes equations</i>
11:40-12:30	Medallion lecture: Massimiliano Gubinelli (Oxford University) <i>Stochastic equations for Euclidean fields</i>
12:30-13:00	Closing Ceremony

POSTERS

Monday, 24th JULY

Coffee-break times (morning and afternoon)

- P001** PORTFOLIO OPTIMIZATION WITH ALLOCATION CONSTRAINTS AND STOCHASTIC FACTOR MARKET DYNAMICS
Marcos Escobar-Anabel¹; Michel Kschonnek²; Rudi Zagst²
1 - Western University, Department of Statistical & Actuarial Sciences; 2 - Technical University of Munich, Chair of Mathematical Finance
- P002** ON A DISCRETE-TIME PARETO-TYPE PROCESS
Marta Ferreira¹
1 - Centro de Matemática, Universidade do Minho
- P003** PROBABILITY AND STATISTICS OF MULTI-PARAMETER RANDOM COMPLEXES
Tadas Temčinai¹; Vidit Nanda²; Gesine Reinert¹
1 - Department of Statistics, University of Oxford; 2 - Mathematical Institute, University of Oxford
- P004** SCHEDULING IN THE HIGH UNCERTAINTY HEAVY TRAFFIC REGIME
Yonatan Shadmi¹
1 - Technion - Israel Institute of Technology
- P005** NEW PROBABILISTIC METHOD FOR TRANSIENT ANALYSIS OF M/G/1 SYSTEMS WITH VACATIONS
Revaz Kakubava¹; Nino Svanidze²
1 - Georgian Technical University, Tbilisi, Georgia; 2 - Shota Rustaveli Batumi State University, Batumi, Georgia
- P006** SIMULATING CONTINUOUS-TIME AUTOREGRESSIVE MOVING AVERAGE PROCESSES DRIVEN BY TEMPERED STABLE LÉVY PROCESSES
Till Massing¹
1 - Universität Duisburg-Essen
- P007** SCALING LIMITS FOR PARKING ON FROZEN ERDŐS–RÉNYI CAYLEY TREES WITH HEAVY TAILS
Andrej Srakar¹
1 - Institute for Economic Research (IER) and University of Ljubljana
- P009** ON THE EXISTENCE OF H^1 -WEAK SOLUTION FOR 3D-STOCHASTIC THIRD GRADE FLUID EQUATIONS
Raya Nouira¹
1 - FCT, NOVA University of Lisbon
- P011** QUENCHED FUNCTIONAL CLT FOR RANDOM WALKS IN DEGENERATE DOUBLY STOCHASTIC RANDOM ENVIRONMENTS
Weile Weng¹
1 - Technical University of Berlin
- P012** A BREAK TEST FOR THE TAIL-EVENT CORRELATION MATRIX BASED ON THE SELF-NORMALIZATION MET
Ji-Eun Choi¹; Dong Wan Shin²
1 - Department of Statistics, Ewha University; 2 - Department of Statistics, Pukyong National University
- P013** NEAR-LINEAR MIXING ON THE CYCLE BY BOUNDED STRUCTURAL PERTURBATION
Balázs Gerencsér¹
1 - Alfréd Rényi Institute of Mathematics, Budapest, Hungary; ELTE Eötvös Loránd University, Budapest, Hungary
- P014** FUNCTIONAL PERIODIC ARMA PROCESSES
Sebastian Kühnert¹
1 - University of California, Davis, Department of Statistics

- PO15 OPTIMAL CONSUMPTION AND INVESTMENT IN GENERAL AFFINE GARCH MODELS**
 Marcos Escobar-Anel¹; Ben Spiess²; Rudi Zagst²
 1 - Department of Statistical and Actuarial Sciences, University of Western Ontario, Canada; 2 - Department of Mathematics, Technical University of Munich, Germany
- PO16 EXISTENCE OF DENSITY FOR THE SOLUTION OF STOCHASTIC DELAY DIFFERENTIAL EQUATIONS WITH REFLECTION DRIVEN BY A FRACTIONAL BROWNIAN MOTION**
 Mireia Besalú¹; David Márques-Carreras¹; Carles Rovira¹
 1 - Universitat de Barcelona
- PO17 EXACT AND EFFICIENT MULTIVARIATE TWO-SAMPLE TESTS THROUGH GENERALIZED LINEAR RANK STATISTICS**
 Dan Daniel Erdmann-Pham¹
 1 - Stanford University
- PO18 WEAK APPROXIMATION FOR MARCUS SDEs**
 Sooppawat Thipyarat¹
 1 - Friedrich-Schiller-Universität Jena
- PO19 DYNAMICAL ANALYSIS OF A STOCHASTIC DELAYED EPIDEMIC MODEL WITH LÉVY JUMPS AND REGIME SWITCHING**
 Bojana Jovanović¹
 1 - Faculty of Sciences and Mathematics, University of Niš, Serbia
- PO20 PARRONDO EFFECT IN CONTINUOUS-TIME RANDOM WALKS WITH PERIODICALLY ALTERNATING JUMPS**
 Jiyeon Lee¹
 1 - Yeungnam University
- PO21 ASYMPTOTIC CONVERGENCE OF THE CUCKER-SMALE MODEL VIA A PROBABILISTIC METHOD**
 Adrien Cotil¹
 1 - UMR MISTEA, Univ. Montpellier, INRAE, Institut Agro
- PO22 A NOTE ON THE EXISTENCE OF GIBBS MARKED POINT PROCESSES WITH APPLICATIONS IN STOCHASTIC GEOMETRY**
 Martina Petráková¹
 1 - Department of Probability and Mathematical Statistics, Faculty of Mathematics and Physics, Charles University
- PO23 GRAPHON MEAN FIELD GAMES WITH JUMPS AND THEIR APPROXIMATE EQUILIBRIA**
 Zhongyuan Cao³
 1 - INRIA Paris and Université Paris Dauphine
- PO26 NONPARAMETRIC STATISTICAL MONITORING OF HIGH-DIMENSIONAL PRODUCTION PROCESSES**
 Marco Marozzi¹
 1 - Ca' Foscari University of Venice
- PO27 ON THE QUENCHED FUNCTIONAL CENTRAL LIMIT THEOREM FOR STATIONARY RANDOM FIELDS UNDER PROJECTIVE CRITERIA**
 Lucas Reding¹
 1 - Univ. Polytechnique Hauts-de-France, INSA Hauts-de-France, CERAMATHS

Tuesday, 25th JULY

Coffee-break times (morning and afternoon)

- PO28 CONTROLLED SUPERPROCESSES AND HJB EQUATION IN THE SPACE OF FINITE MEASURES**
 Antonio Ocello¹
 1 - LPSM, UMR CNRS 8001, Sorbonne Université and Université Paris Cité
- PO29 ON THE LIMITING SPECTRAL DISTRIBUTIONS OF STOCHASTIC BLOCK MODELS**
 May-Ru Chen¹; Giap Van Su^{1,2}
 1 - National Sun Yat-sen University; 2 - Thai Nguyen University of Education
- PO30 SPACE-TIME INTEGER ARMA MODELS: AN INTRODUCTION**
 Ana Martins¹; Manuel G. Scotto³; Christian H. Weiss⁴; Sónia Gouveia^{1,2}
 1 - IEETA and DETI, University of Aveiro, Portugal; 2 - Intelligent Systems Associate Laboratory (IASI), University of Aveiro, Portugal; 3 - CEMAT, Department of Mathematics, IST, University of Lisbon, Portugal; 4 - Department of Mathematics and Statistics, Helmut Schmidt University, Hamburg, Germany
- PO31 MONOTONE DUALITY OF INTERACTING PARTICLE SYSTEMS**
 Jan Niklas Latz¹
 1 - Czech Academy of Sciences & Charles University
- PO32 BAYESIAN SEMIPARAMETRIC VARIABLE SELECTION WITH SHRINKAGE PRIOR**
 Mingan Yang¹
 1 - University of New Mexico
- PO33 STEIN'S METHOD FOR ERDŐS-RÉNYI MIXTURE GRAPH MODELS**
 Anum Fatima¹; Gesine Reinert²
 1 - University of Oxford, U.K. & Lahore College for Women University, Pakistan; 2 - University of Oxford, U.K. & The Alan Turing Institute, London, UK
- PO35 RANDOM MODELS OF BINARY SEARCH TREES**
 Benoît Corsini¹
 1 - Eindhoven University of Technology
- PO36 STOCHASTIC MODELS FOR BACTERIOPHAGE SYSTEMS**
 Xavier Bardina¹
 1 - Universitat Autònoma de Barcelona
- PO37 CONVERGENCE OF PROCESSES TIME-CHANGED BY GMC**
 Takumu Ooi¹
 1 - Research Institute for Mathematical Sciences, Kyoto University
- PO38 NOISE-INDUCED PERIODICITY IN A FRUSTRATED NETWORK OF INTERACTING DIFFUSIONS**
 Elisa Marini¹
 1 - Department of Mathematics Tullio Levi-Civita, University of Padova
- PO39 RANDOM ALGEBRAIC GRAPHS AND THEIR CONVERGENCE TO ERDŐS-RÉNYI**
 Kiril Bangachev¹
 1 - MIT, Department of EECS
- PO40 USING ASYMPTOTIC PSEUDOTRAJECTORIES TO EVALUATE THE TYPICAL EVOLUTION OF MASS, WITHIN A STRUCTURED INDIVIDUAL-BASED MODEL WITH AN ALLOMETRIC FRAMEWORK**
 Virgile Brodu¹
 1 - IECL, Université de Lorraine – Inria Nancy Grand-Est
- PO41 OPTIMAL BAILOUT IN A MEAN-FIELD SYSTEMIC RISK MODEL WITH CONTAGIOUS DEFAULTS**
 Ben Hambly¹; Philipp Jettkant¹
 1 - University of Oxford

- P042 HEAVY-TAILED DISTRIBUTIONS IN A STOCHASTIC GENE AUTOREGULATION MODEL**
Pavol Bokes¹
1 - Comenius University Bratislava
- P043 CONVERGENCE OF FINITE SPATIAL RANDOM GRAPHS W.R.T. AN ASSIGNMENT BASED METRIC**
Leoni Carla Wirth¹
1 - Institute for Mathematical Stochastics, University of Göttingen
- P044 BIVARIATE BERNSTEIN-GAMMA FUNCTIONS AND ASYMPTOTIC BEHAVIOUR OF EXPONENTIAL FUNCTIONALS ON DETERMINISTIC HORIZON**
Martin Minchev¹; Mladen Savov^{1,2}
1 - Sofia University; 2 - Bulgarian Academy of Sciences
- P045 REPLICATOR-MEAN-FIELD LIMIT OF CONTINUOUS-TIME FRAGMENTATION-INTERACTION-AGGREGATION PROCESSES**
Michel Davydov¹
1 - INRIA, Paris, France and Département d'informatique de l'ENS, ENS, CNRS, PSL University, Paris
- P046 STRONG SOLUTIONS TO MCKEAN-VLASOV SDES WITH COEFFICIENTS OF NEMYTSKII-TYPE**
Sebastian Grube¹
1 - Bielefeld University
- P047 STABLE MOTION AND RIESZ CAPACITY**
John P. Nolan¹; Debra J. Audus²; Jack F. Douglas²
1 - American University; 2 - National Institute of Standards and Technology
- P048 BROWNIAN MOTION WITH LIMITED OCCUPATION TIME**
Dominic T. Schickentanz¹
1 - Technical University of Darmstadt
- P049 ASYMPTOTICS OF LONGEST INCREASING SUBSEQUENCES IN PERMUTON-SAMPLED RANDOM PERMUTATIONS**
Victor Dubach¹
1 - Institut Elie Cartan de Lorraine
- P051 NONLINEAR SEMIGROUPS AND LIMIT THEOREMS FOR CONVEX EXPECTATIONS**
Jonas Blessing¹; Michael Kupper¹
1 - University of Konstanz
- P052 CONSTRUCTION OF SOLUTIONS TO MODELS OF SYSTEMIC RISK WITH ENDOGENOUS CONTAGION THROUGH SMOOTHED APPROXIMATIONS**
Aldair A. F. M. Petronilia¹
1 - University of Oxford
- P053 LARGE DEVIATION FOR COX-INGERSOLL-ROSS PROCESSES WITH STATE-DEPENDENT FAST SWITCHING**
Yanyan Hu¹
1 - Delft Institute of Applied Mathematics, Delft University of Technology
- P054 FORTET-MOURIER AND DUDLEY DISTANCES TO WEIGHTED SUMS OF DIRAC MEASURES**
Esmée Theewis¹
1 - Delft Institute of Applied Mathematics, TU Delft

Thursday, 27th JULY

Coffee-break times (morning and afternoon)

- P055 PARAMETER ESTIMATION FOR $mmf\mathbb{B}_m$ AND $mmfOU$ PROCESSES**
Hamidreza Maleki Almani¹; Tommi Sottinen¹
1 - University of Vaasa, School of Technology and Innovations
- P056 NEUTRAL EVOLUTION IN THE PRESENCE OF LARGE BUT FINITE OFFSPRING FLUCTUATIONS: INSIGHTS FROM DISORDERED SYSTEMS**
Ethan Levien¹
1 - Dartmouth College, Department of Mathematics
- P058 THE HEAT FLOW OF RANDOM POLYNOMIALS AND THE GAF**
Jonas Jalowy¹
1 - Münster University, Institute of Stochastics
- P059 STICKY COUPLING AS A CONTROL VARIATE FOR SENSITIVITY ANALYSIS**
Shiva Darshan^{1,2}; Andreas Eberle³; Gabriel Stoltz^{1,2}
1 - CERMICS École des Ponts; 2 - Materials Inria Paris; 3 - Institute for Applied Mathematics University of Bonn
- P060 GENEALOGY OF RECORDS OF SKIP-FREE RANDOM WALKS AS UNIMODULAR TREES**
Bharath Roy Choudhury¹
1 - INRIA, Paris, France and Département d'informatique de l'ENS, ENS, CNRS, PSL University
- P061 OPTIMIZATION OF LIPASE PRODUCTION USING OIL AND SEEDS OF PASSIFLORA EDULIS**
Anne B.S. Bardelli¹; Maria V. C. F. Vieira¹; Rúbia M. Suzuki¹; Milena M. Andrade¹
1 - Federal University of Technology - Paraná
- P062 CBI-TIME-CHANGED LÉVY PROCESSES**
Guillaume Szulda¹
1 - CERMICS - École Nationale des Ponts et Chaussées
- P063 LOGARITHMIC DERIVATIVES AND CLOSABILITY OF POINT PROCESSES ON \mathbb{R}^d**
Shota Osada¹
1 - Faculty of Education, Kagoshima University
- P064 EDGE EIGENVALUES AND EIGENVECTOR LOCALIZATION IN ERDŐS-RÉNYI GRAPHS WITH CONSTANT AVERAGE DEGREE**
Ella Hiesmayr¹; Theo Mckenzie²
1 - University of California, Berkeley; 2 - Harvard University
- P065 THE BERNSTEIN FAMILY OF GRADIENT MODELS**
Gabriel S. Nahum¹
1 - Center for Mathematical Analysis, Geometry and Dynamical Systems, Instituto Superior Técnico, Universidade de Lisboa
- P066 CHARACTERIZATION OF QUASI-STATIONARY DISTRIBUTIONS**
Iddo Ben-Ari¹
1 - University of Connecticut, USA
- P067 ATLAS MODEL WITH INHOMOGENEOUS STATIONARY PROFILES**
Peter Rudzis¹
1 - University of North Carolina - Chapel Hill
- P068 REGULARISING EFFECT OF THE BROWNIAN SHEET PATHS**
Moustapha Dieye¹
1 - École Polytechnique de Thies

P069 **CONSENSUS-BASED OPTIMIZATION: AN INTERACTING MULTI-PARTICLE SYSTEM FOR GLOBAL NONCONVEX OPTIMIZATION**Konstantin Riedl^{1,2}

1 - Technical University of Munich; 2 - Munich Center of Machine Learning

P070 **POLYNOMIAL INTERACTING PARTICLE SYSTEMS AND NON- LINEAR SPDES FOR MODELING CAPITALIZATION CURVES**Florian Huber¹

1 - University of Vienna

P071 **PATH INDEPENDENCE OF THE ADDITIVE FUNCTIONALS FOR STOCHASTIC VOLTERRA EQUATIONS WITH SINGULAR KERNELS AND HÖLDER CONTINUOUS COEFFICIENTS**Huijie Qiao¹

1 - Southeast University

P072 **APPROACHING THE TRIPLE POINT IN THE ASEP WITH GROWING SIZE**Jacek Wesolowski¹

1 - Politechnika Warszawska, Warsaw

P074 **ON HOMOGENIZATION OF A MULTIDIMENSIONAL DIFFUSION WITH SEMIPERMEABLE REFLECTING INTERFACES**Olga Ariasova¹

1 - Institute of Geophysics, National Academy of Sciences of Ukraine, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" and Institute of Mathematics, Friedrich Schiller University Jena

P075 **STOCHASTIC PREDICTABILITY AND APPLICATIONS ON STOCHASTIC DIFFERENTIAL EQUATIONS AND DEFAULT RISK MODELING**Ana Merkle¹

1 - University of Belgrade, Faculty of Mathematics, Serbia

P076 **GAUSSIAN STRUCTURE IN COALESCING STOCHASTIC FLOWS**Kateryna Hlyniana¹; Andrey Dorogovtsev²

1 - School of Mathematics, Jilin University, Changchun, China; 2 - Institute of Mathematics, National Academy of Science of Ukraine, Kyiv, Ukraine

P077 **NORMAL APPROXIMATION OF COMPOUND HAWKES FUNCTIONAL**Mahmoud Khabou¹

1 - Institut de Mathématiques de Toulouse, Institut Élie Cartan de Lorraine

P079 **THE KPZ EQUATION LIMIT OF STICKY BROWNIAN MOTION**Hindy Drillick¹

1 - Columbia University

P080 **KPZ MODELS IN HALF SPACE AND PFAFFIAN POINT PROCESSES**Takashi Imamura¹; Matteo Mucciconi²; Tomohiro Sasamoto³

1 - Department of Mathematics and Informatics, Chiba University, Japan; 2 - Department of Mathematics, University of Warwick, UK; 3 - Department of Physics, Tokyo Institute of Technology, Japan

LIST OF PARTICIPANTS**A**

Adam Jakubowski
 Adrien Cotil
 Ahmed Bou-Rabee
 Ahmed Kebaier
 Aldair Petronilia
 Alekos Cecchin
 Aleksandar Mijatovic
 Alessandra Faggionato
 Alessandra Occeci
 Alex Wein
 Alexander Klump
 Alexandra Neamtu
 Alexey Bufetov
 Alice Callegaro
 Amin Wu
 Ana Bela Cruzeiro
 Ana Martins
 Ana Merkle
 Ana Paula Martins
 Anders Rønn-Nielsen
 Andreas Sojmark
 Andrej Srakar
 Andrey Pilipenko
 Angeliki Menegaki
 Anita Behme
 Anna De Crescenzo
 Anna Gusakova
 Anna Hajduk
 Anna Melnykova
 Anna Paola Todino
 Anne Beatriz S Bardelli
 Antoine Jego
 Anton Wakolbinger
 Antonio Ocello
 Anum Fatima
 Ao Zhang
 Apolline Louvet
 Arsene Zotsa
 Augusto Teixeira
 Aurélien Velleret

B

Balázs Gerencsér

Balint Veto
 Beatriz Salvador
 Ben Hambly
 Ben Spies
 Benjamin Gess
 Benoît Corsini
 Benoît Dagallier
 Bharath Roy Choudhury
 Bo Wu
 Bohdan Maslowski
 Bojana Jovanović
 Brad Rodgers
 Brandon Legried
 Burcu Aydoğan

C

Carles Rovira
 Carlos Oliveira
 Carmen Minuesa Abril
 Cecile Mailler
 Chenchen Mou
 Chengcheng Ling
 Cheuk Yin Lee
 Chi Tran
 Chiara Amorino
 Christian Léonard
 Christof Kuelske
 Christophe Garban
 Chunqiu Song
 Ciprian Tudor
 Cláudia Nunes
 Clement Cosco
 Colin McSwiggen
 Conrado da Costa
 Cristina Gutiérrez
 Cristina Zucca

D

Dan Crisan
 Dan Daniel Erdmann-Pham
 Dan Leonte
 Dan Mikulincer
 Daniel Adams
 Daniel Ofner

Danijel Krizmanic
 Dario Spanò
 David Croydon
 David Kramer-Bang
 David Siska
 Dennis Schroers
 Diederik van Engelenburg
 Dinh-Toan Nguyen
 Diogo Pereira
 Dirk Blömkner
 Dominic T. Schickentanz
 Dominik Schmid
 Dong Wan Shin
 Dongjian Qian
 Dora Gomes
 Dorte Kronborg
 Dubach Victor

E

Ekaterina T. Kolkovska
 Eleanor Archer
 Elena Issoglio
 Elena Kosygina
 Elia Bisi
 Elisa Marini
 Eliseo Luongo
 Ella Hiesmayr
 Elsiddig Elsiddig
 Emma Bailey
 Erik Baurdoux
 Erwin Luesink
 Esmée Theewis
 Ethan Levien
 Evita Nestoridi

F

Fabian Höfer
 Fabrice Baudoin
 Félix Foutel-Rodier
 Fernanda Cipriano
 Fernanda Lopez Eslava
 Ferrario Benedetta
 Florian Bechtold
 Florian Huber

Florin Suciuc
 Francesca Cottini
 Francesca Pistolato
 Francesco Caravenna
 Francesco Casini
 Francois Delarue
 François J. M. Gay-Balmaz
 Frank Redig
 Fred Hoppe
 Frederico Caeiro

G

Gabriel S. Nahum
 Gabriele Degano
 Georgy Gaiatsgori
 Gerardo Barrera
 Gerardo P.S.
 Gesine Reinert
 Giacomo Passuello
 Gioele Gallo
 Giordano Giambartolomei
 Giovanni Peccati
 Giulia Binotto
 Giuseppe D'Onofrio
 Gonçalo dos Reis
 Gonzalo Gomez Abejon
 Gregory Schehr
 Guilherme de Lima Feltes
 Guillaume Barraquand
 Guillaume Baverez
 Guillaume Szulda
 Guodong Pang
 Guy Bresler

H

Hamidreza Maleki Almani
 Hanna Döring
 Hao Shen
 Hao Tang
 Harriet Walsh
 Helena Kremp
 Hélène Guérin
 Henrique Guerreiro
 Hidde Van Wiechen

Hirofumi Osada	Julian Kern	Manuel Mota	Mikolaj Kasprzak	Peter H.C. Pang	Shangjie Yang	Wanqing Wang
Hiroki Takahasi	Julie Tourniaire	Marc Corstanje	Milind Hegde	Peter Nejjar	Shintaro Suzuki	Wei Qian
Hisayoshi Toyokawa	Ju-Yi Yen	Marcel Nutz	Mine Caglar	Peter Rudzis	Shiva Darshan	Weile Weng
Hong-Tzer Yau		Marco Bagnara	MingAn Yang	Philippe Rigollet	Shota Osada	Wenpin Tang
Hu Xingjian	K	Marco Ferrante	Mohamed Maama	Pierre Nolin	Simon Herrmann	Will FitzGerald
Hugo da Cunha	Kais Hamza	Marco Marozzi	Moustapha Dieye	Pierre Patie	Simone Floreani	William Da Silva
Hugo Falconet	Karol Szczytkowski	Marco Rehmeier		Pierre Tarrès	Sofia Tarricone	Wlodek Bryc
Huijie Qiao	Kateryna Hlyniana	Marek Kimmel	N	Piet Lammers	Sooppawat Thipparat	Wolfgang Stockinger
	Kazuhiro Kuwae	Margherita Zanella	Nadarajah Ramesh	Pingyuan Wei	Sophie Hautphenne	
I	Kiril Bangachev	Maria Conceição Serra	Naomi Feldheim		Stefan Junk	X
Iddo Ben-Ari	Kohei Hayashi	Marie Kratz	Nathael Gozlan	Q	Stefan Wagner	Xavier Bardina
Ilya Pavlyukevich	Kohei Suzuki	Marielle Simon	Nathan Judd	Qiao Huang	Stefano Bonaccorsi	Xiangdong Li
Imma Curato	Konstancja Bobecka	Mariusz Niewęglowski	Natsuki Toda	Quentin Berger	Sumit Mukherjee	Xiao Fang
Isaac Meilijson	Konstantin Matveev	Markus Riedle	Neeraj Bhauryal	Quentin Cormier	Sylvia Serfaty	Xiaohao Ji
Isao Sauzedde	Konstantin Riedl	Markus Tempelmayr	Ngartelbaye Guerngar		Szymon Peszat	Xiaoming Song
Ivailo Hartarsky	Krzysztof Bogdan	Marta Ferreira	Nicholas Georgiou	R		Xiaosong Qian
	Krzysztof Podgorski	Martin Barlow	Nicolas Champagnat	Radu Craiu	T	
J	Ksenia Khudiakova	Martin Minchev	Nicolas Forien	Raphael Ducatez	Tadas Temcinas	Y
Jacek Wesolowski		Martin Zerner	Niklas Dexheimer	Raya Noura	Takashi Imamura	Yan Dolinsky
Jacopo Foster	L	Martina Hofmanova	Niklas Sapountzoglou	Renan Lascu	Takashi Kumagai	Yang Xiao
James Foster	Laura Sacerdote	Martina Petráková	Nilton Ávido	Renato S. dos Santos	Takumu Ooi	Yanyan Hu
Jan Lukas Igelbrink	Laurent Loosveldt	Márton Balázs	Nina Gantert	René Carmona	Tal Orenshtein	Yassine Tahraoui
Jan Maas	Lei Sun	Masoud Asgharian	Nino Svanidze	Ren-Yi Wang	Tal Peretz	Yating Liu
Jan Niklas Latz	Leo Petrov	Massimiliano Gubinelli	Nobuaki Naganuma	Riccardo Michielan	Theo Assiotis	Yimin Xiao
Jan Rosinski	Léonard Monsaingeon	Mate Gerencser		Richard Kenyon	Theo Sturm	Yingting Miao
Jana Reker	Leonardo Maini	Mateusz Majka	O	Riddhipratim Basu	Theresa Lange	Yinon Spinka
Jason Schweinsberg	Leoni Wirth	Mathias Braun	Oana Lang	Rik Versendaal	Thomas Mountford	Yonatan Shadmi
Jean-Claude Zambrini	Lerna Pehlivan	Mathias Trabs	Ofer Busani	Riki Kitano	Tibor Antal	Yu Deng
Jean-Dominique Deuschel	Lingfu Zhang	Mathis Fitoussi	Ohad Noy Feldheim	Robert Patterson	Till Massing	Yu Yaolin
Jean-Jil Duchamps	Lorenzo Dello Schiavo	Matija Vidmar	Oleg Butkovsky	Rongning Wu	Tomasz Grzywny	Yuchen Wei
Jessica Lin	Lorenzo Lucchese	Matteo Mucciconi	Oleksandr Iksanov	Ryoichi Suzuki	Toshio Mikami	Yuichi Shiozawa
Jie-Xiang Zhu	Louigi Addario-Berry	Matteo Quattropani	Olga Ariasova	Ryoki Fukushima		Yuma Tamura
Jimmy He	Louis-Pierre Arguin	Maurício Duarte	Oliver Nagy	S	V	Yushi Nakano
Jin Feng	Luca Fresta	Maximilian Engel		Salvador Esquivel	Valentin Féray	Yuta Koike
Jiyeon Lee	Lucas Broux	May-Ru Chen	P	Samuel Herrmann	Valentina Cammarota	Yvik Swan
João Pedro Mangi	Lucas Reding	Mehmet Öz	Panpan Ren	Samuel Johnston	Vicente Lenz	
Johannes Alt	Lucas Teysier	Meng Yang	Panpan Zhang	Sarah Penington	Víctor Rivero	Z
Johannes Rimmelme	Lucio Galeati	Michael Hofstetter	Pascal Oswald	Scott N Armstrong	Viktor Bezborodov	Zachary P. Adams
John Nolan	Luigi Amedeo Bianchi	Michael Röckner	Patrícia Gonçalves	Sebastian Andres	Vincent Bansaye	Zbigniew S. Szewczak
Jonas Arista	Luís Simão Ferreira	Michel Davydov	Paul Bourgade	Sebastian Grube	Vincent Divol	Zhen-Qing Chen
Jonas Blessing	Lukas Trottnner	Michel Kschonnek	Paul Dario	Sebastian Kühnert	Virgile Brodu	Zhou Fan
Jonas Jalowy		Michele Aleandri	Paul Thévenin	Serena Della Corte	Vladislav Kargin	Zhuosong Zhang
Jonas Tölle	M	Michele Coghi	Pavel Chigansky	Sergey Nadtochiy	Vladislav Vysotsky	Zoé Agathe-Nerine
Jorge Gonzalez Cazares	Mads Stehr	Michele Salvi	Pavel V. Gapeev	Serguei Popov		
Jose A. Lopez-Mimbela	Mahmoud Khabou	Michele Stecconi	Pavol Bokes	Seva Shneer	W	
Joseph Najnudel	Makiko Sasada	Miguel González	Pedro Cardoso	Shalin Parekh	Wai-Kit Lam	
Juan Carlos Pardo	Malin Paló Forsström	Miha Brešar	Pedro Mota		Wang Chengshi	

SOCIAL EVENTS

Welcome Reception

Welcome reception will be held at the FCUL Campus, Building **C3**, on Monday, July 24th from 18:15 to 20:00. Drinks and snacks will be served.

Young Researchers Reception

A reception for Young Researchers will be held at the FCUL Campus, Building **C3**, on Tuesday, July 25th from 18:15 to 19:15.

Conference Dinner

If you have purchased a ticket for the Conference Dinner, please note that it will take place at the **Zambeze Restaurant**, close to **S. Jorge Castle**, on Thursday, 27 Julyth from 20:00 to 23:00.

The use of the badge is required for admission.

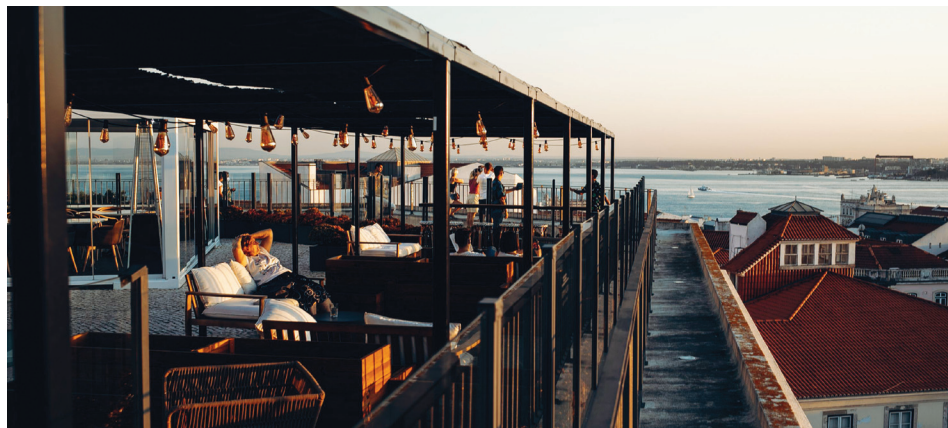
Location: The venue is located on a rooftop with a view of downtown of Lisbon. It can be windy in the late afternoon and evening, so a sweater or a light jacket is advisable.

Transportation: Recommendation is to go by taxi or uber. *Transport by bus will not be provided from the conference venue to the restaurant.*

By metro: The restaurant is within a 10-minute walking distance from **Baixa-Chiado metro station**, served by the blue and green lines. Access to the restaurant can be done with the elevator "Elevador Castelo" that connects downtown area with the uphill area (Rua dos Fanqueiros to Rua da Madalena).

Be aware of pickpockets in the area particularly in the lift Elevador do Castelo.

To access the google maps – please click [here](#)



Contact us

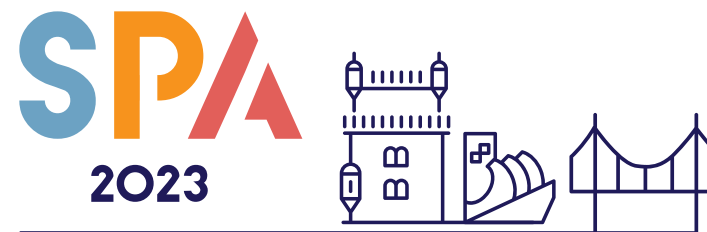
For administration and general information on the logistics of SPA Conference, please contact:



Mundiconvenius

E-mail: spa@spa2023.org

Phone: (+351) 213502549 or (+351) 910992365



43rd Conference on Stochastic Processes and their Applications

Thank you for your participation!

Hosted by



Bernoulli Society
for Mathematical Statistics
and Probability



UNIVERSIDADE
DE LISBOA

Funded by



NOVA SCHOOL OF
SCIENCE & TECHNOLOGY



AbERTA



CENTER FOR MATHEMATICS
& APPLICATIONS



Associação do Instituto Superior Técnico
para a Investigação e Desenvolvimento



Grupo de
Física Matemática
da Universidade de Lisboa



CEMAPRE
Centro de Matemática Aplicada à Previsão e Decisão Económica



center for computational
and stochastic mathematics



CENTRO
INTERNACIONAL
DE MATEMÁTICA



SPE
Sociedade Portuguesa
de Estatística



SOCIEDADE
PORTUGUESA DE MATEMÁTICA



an Open Access Journal by MDPI



ELSEVIER



PRIMO
WATER



Eden
Seltis



Fundação
para a Ciência
e a Tecnologia



Turismo
de
Lisboa



REPÚBLICA
PORTUGUESA
CIÊNCIA, TECNOLOGIA
E ENSINO SUPERIOR

This event is funded by national funds through the FCT - Fundação para a Ciência e a Tecnologia, I.P., under the scope of the projects UIDB/00297/2020 and UIDP/00297/2020 (Center for Mathematics and Applications); the projects UIDB/04459/2020 and UIDP/04459/2020 (CAMGSD); the project UIDP/00208/2020 (GFM); the project UIDP/04561/2020 (CMAFclIO); the project UIDB/04621/2020 (CEMAT)