SP/A 2023

43rd **Conference** on **Stochastic Processes** and **their Applications**

july **24-28**th

LISBOA PORTUGAL

Faculty of Sciences of the University of Lisbon

CONFERENCE
PROGRAMME

www.spa2023.org

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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, 24th July 08:00 – 18:00	Tuesday, 25th July 08:00 – 18:00	Wednesday, 26th July 08:30 – 13:00	Thurday, 27th July 08:30 – 13:00	Friday, 28th 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.
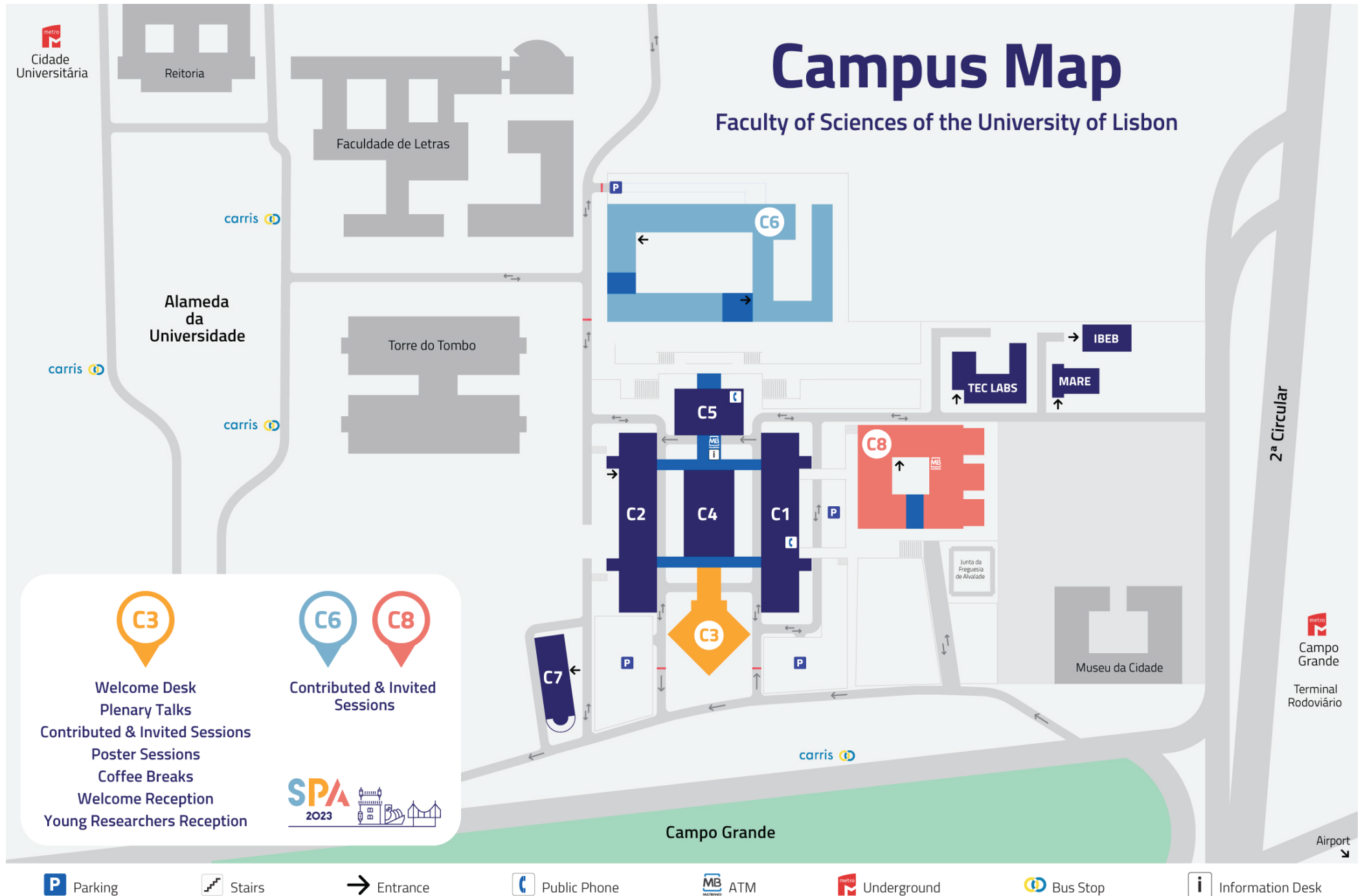On Monday, Tuesday and Thursday – lunch box will be provided at **Building C3** at 12:30
There are a number of restaurants located on the campus area. Below you can find some suggestions.

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
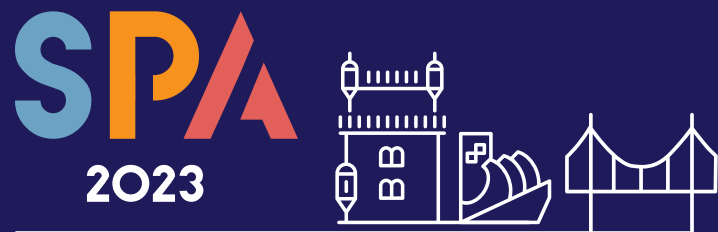· **Bar (ATFCUL)** – Building **C8**, level 2

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

Campus Map

Faculty of Sciences of the University of Lisbon

Cidade Universitária

Reitoria

Faculdade de Letras

carris

Alameda da Universidade

carris

Torre do Tombo

carris

C6

IBEB

TEC LABS

MARE

C5

C8

C2

C4

C1

Junta da Freguesia de Alvalade

C3

C7

Museu da Cidade

Campo Grande

Terminal Rodoviário

2ª Circular

Airport

C3

Welcome Desk
Plenary Talks
Contributed & Invited Sessions
Poster Sessions
Coffee Breaks
Welcome Reception
Young Researchers Reception

C6 **C8**

Contributed & Invited Sessions

SPA 2023

Campo Grande

| P Parking | Stairs | → Entrance | Public Phone | MB ATM | metro Underground | Bus Stop | i Information Desk |

PROGRAMME OVERVIEW

Monday, 24th JULY

B.F.R 3.2.14 — 09:00-09:30
Opening Ceremony

B.F.R 3.2.14 — 09:30-10:20
Lévy lecture: Horng-Tzer Yau (Harvard University)
Spectral statistics of random matrices and random graphs

Bldg. C3 — 10:20-10:50
Coffee break and Poster Sessions

B.F.R 3.2.14 — 10:50-11:40
Plenary lecture: Gesine Reinert (University of Oxford)
Stein's method for network distributions

B.F.R 3.2.14 — 11:40-12:30
Schramm lecture: Louigi Addario-Berry (McGill University)
Some recent results in probability

Bldg. C3 — 12:30-14:00
Lunch break (with lunch box)

14:00-15:45
Contributed & Invited Sessions 1:
- 3.2.14 **IS8**-Entropy and geometry in stochastic analysis
- 3.2.15 **IS20**-Non-equilibrium statistical mechanics
- 3.2.16 **IS24**-Mean field games
- 3.2.13 **IS28**-Numerical methods for stochastic differential equations: standard, mean-field and forward--backward
- 6.2.47 **CS7**-Asymptotic methods in stochastic models
- 6.2.49 **CS8**-From nonlinear PDEs to singular McKean-Vlasov SDEs and nonlinear Markov processes
- 8.2.11 **CS13**-Stochastic fluid-dynamics
- 6.2.50 **CS15**-Jump diffusion models
- 6.2.48 **CS18**-Stochastic processes resulting from dynamics of cancer growth and genomic analyses
- 8.2.13 **CS20**-Interacting Markov processes related to random matrices
- 3.1.10 **CS41**-Constrained and interacting stochastic dynamics I
- 3.1.11 **CS43**-Branching processes

Bldg. C3 — 15:45-16:15
Coffee break and Poster Sessions

16:15-18:00
Contributed & Invited Sessions 2:
- 3.2.14 **IS2**-Random matrices and number theory
- 3.2.15 **IS19**-Graphons and their applications to biological networks
- 3.2.16 **IS29**-Financial mathematics
- 3.2.13 **IS30**-Statistical extreme value theory
- 6.2.50 **CS1**-Recent trends in stochastic partial differential equations
- 8.2.11 **CS3**-Various aspects of determinantal point processes
- 8.2.13 **CS12**-Stochastic geometric mechanics and non-equilibrium thermodynamics
- 6.2.47 **CS14**-Branching processes with dependencies
- 3.1.10 **CS17**-Non-linear heat equations perturbed by multiplicative fractional noises
- 6.2.48 **CS29**-Boundary driven exclusion processes
- 3.1.11 **CS32**-Recent advances in Lévy processes
- 6.2.49 **CS42**-Constrained and interacting stochastic dynamics II

Bldg. C3 — 18:15-20:00
Welcome Reception

Tuesday, 25th JULY

B.F.R 3.2.14 — 09:30-10:20
Medallion lecture: Sylvia Serfaty (NYU)
Coulomb gases: dynamics and statistical equilibrium

Bldg. C3 — 10:20-10:50
Coffee break and Poster Sessions

B.F.R 3.2.14 — 10:50-11:40
Plenary lecture: Riddhipratim Basu (Tata Institute)
Large scale geometry of two dimensional KPZ models

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)
On a skew stable Lévy process

Bldg. C3 — 12:30-14:00
Lunch break (with lunch box)

14:00-15:45
Contributed & Invited Sessions 3:
- 3.2.15 **IS5**-Convex hulls of random walks on a skew stable Lévy process
- 3.2.14 **IS10**-Stochastic optimal transportation
- 3.2.16 **IS11**-Stochastic calculus on manifolds
- 3.2.13 **IS22**-KPZ universality class
- 6.2.48 **IS27**-Stochastic geometric mechanics and fluid dynamics
- 3.1.10 **CS9**-Regularisation by noise
- 8.2.11 **CS10**-Perturbed ODEs: stochastic oscillations, small noise limit and critical fluctuations
- 6.2.47 **CS22**-Limit theorems and local times for Markov processes: Part I
- 6.2.49 **CS26**-Scaling limits in stochastic non-Markovian epidemic models
- 8.2.13 **CS39**-Infinite dimensional stochastic calculus and applications
- 6.2.50 **CS44**-Boundary crossing problems for diffusion processes
- 3.1.11 **CS51**-Dependent limit theorems

Bldg. C3 — 15:45-16:15
Coffee break and Poster Sessions

16:15-18:00
Contributed & Invited Sessions 4:
- 3.2.14 **IS14**-Statistical mechanical models
- 3.2.15 **IS15**-Random conformal geometries and field theories
- 3.2.16 **IS21**-Persistence probabilities
- 3.2.13 **IS23**-Optimal transport and stochastic dynamics
- 6.2.48 **CS2**-Inference for stochastic processes
- 3.1.11 **CS23**-Limit theorems and local times for Markov processes: Part II
- 6.2.50 **CS25**-Copulae and stochastic processes
- 6.2.47 **CS27**-Topics in population genetics
- 6.2.49 **CS28**-Stochastic processes for manifold estimation
- 3.1.10 **CS49**-Interacting systems and KPZ universality

Bldg. C3 — 18:15-19:15
Young Researchers Reception

Wednesday, 26th JULY

B.F.R 3.2.14 — 09:30-10:20
Doob lecture: René Carmona (Princeton Univ., APP)
Optimal control of conditional processes

Bldg. C3 — 10:20-10:50
Coffee break

10:50-12:30
Contributed & Invited Sessions 5:
- 3.2.14 **IS3**-Stochastic models in epidemiology and evolution
- 3.2.15 **IS4**-Interacting particle systems
- 3.2.16 **IS7**-Random dynamics systems
- 3.2.13 **IS18**-Quantitative homogenization
- 3.1.10 **CS4**-Recent advances in stochastic fluid dynamics
- 8.2.13 **CS6**-On analytical methods for stochastic PDEs
- 6.2.50 **CS16**-Qualitative analysis of solutions to (S)PDEs
- 8.2.11 **CS30**-Lévy-based spatio-temporal processes: inference and forecast
- 3.1.11 **CS31**-Geometry of spherical random fields
- 6.2.48 **CS33**-Genealogies of branching processes
- 6.2.49 **CS38**-Recent advances in exact simulation
- 6.2.47 **CS45**-Statistics for high-dimensional stochasticprocesses

Thursday, 27th JULY

B.F.R 3.2.14 — 09:30-10:20
Medallion lecture: Richard Kenyon (Yale University)
Dimers and tensor networks

Bldg. C3 — 10:20-10:50
Coffee break and Poster Sessions

B.F.R 3.2.14 — 10:50-11:40
Plenary lecture: Makiko Sasada (Tokyo University)
Probabilistic approaches to discrete integrable systems

B.F.R 3.2.14 — 11:40-12:30
Plenary lecture: Jean-Dominique Deuschel (Berlin University) *An isomorphism theorem for anharmonic fields and scaling limits*

Bldg. C3 — 12:30-14:00
Lunch break (with lunch box)

14:00-15:45
Contributed & Invited Sessions 6:
- 3.2.14 **IS1**-Integrable probability
- 3.2.15 **IS6**-Mixing times, cutoff and limit profiles
- 3.2.16 **IS16**-Interacting random walks
- 3.2.13 **IS25**-Combinatorial probability
- 6.2.48 **IS26**-Machine learning and probability
- 3.1.10 **CS5**-Recent development of Gaussian approximation
- 3.1.11 **CS11**-Statistical mechanics and stochastic PDEs
- 6.2.50 **CS19**-Probabilistic methods for Stefan-type equations
- 8.2.13 **CS34**-Numerical analysis for solutions to penalized BSDE, McKean-Vlasov equation and path-dependent McKean-Vlasov equation
- 6.2.47 **CS35**-Dependence and limit theorems I
- 6.2.49 **CS37**-Wiener chaos, orthogonal polynomials, and intertwinings
- 8.2.11 **CS40**-Recent progresses on random dynamical systems

Bldg. C3 — 15:45-16:15
Coffee break and Poster Sessions

16:15-18:00
Contributed & Invited Sessions 7:
- 3.2.14 **IS9**-Stein method
- 3.2.15 **IS12**-Singular SPDEs
- 3.2.16 **IS13**-Random planar metric spaces
- 3.2.13 **IS17**-Random walks in random environments
- 6.2.48 **CS21**-Recent progress in random fields and SPDEs
- 6.2.50 **CS24**-Topics in integrable probability
- 6.2.49 **CS36**-Dependence and limit theorems II
- 8.2.11 **CS46**-Gradient flows and mean-field optimization
- 8.2.13 **CS47**-Applications in finance and insurance: Regime switching processes and term structure of interest rates
- 3.1.11 **CS48**-Advances in branching processes with applications in biology
- 6.2.47 **CS50**-Stochastic modelling and its applications

B.F.R 3.2.14 — 18:15-19:00
Public Lecture*: Persi Diaconis (Stanford University)
The mathematics of solitaire
*(this session is open to all and it is not part of the conference programme)

20:00
Conference Dinner

Friday, 28th JULY

B.F.R 3.2.14 — 09:30-10:20
Doeblin prize lecture: Yinon Spinka (University of British Columbia) – *Characterizing (non)amenability through stochastic domination and finitary codings*

Bldg. C3 — 10:20-10:50
Coffee break

B.F.R 3.2.14 — 10:50-11:40
Plenary lecture: Martina Hofmanová (Bielefeld University) *Anomalous and total dissipation due to advection by Navier-Stokes equations*

B.F.R 3.2.14 — 11:40-12:30
Medallion lecture: Massimiliano Gubinelli (Oxford University) *Stochastic equations for Euclidean fields*

B.F.R 3.2.14 — 12:30-13:00
Closing Ceremony

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

SPA
2023

43rd **Conference** on **Stochastic Processes** and **their Applications**

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Monday, 24th JULY

09:00-09:30	**Opening Ceremony**
09:30-10:20	**Lévy lecture:** Horng-Tzer Yau (Harvard University) *Spectral statistics of random matrices and random graphs*
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11:40-12:30	**Schramm lecture:** Louigi Addario-Berry (McGill University) *Some recent results in probability*
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 Kuwae [1]
1 – *Department of Applied Mathematics, Fukuoka University*

On the W-entropy and NFW formula on Rieman-nian manifolds and Ricci flow
Xiang-Dong Li [1]
1 – *Academy of Mathematics and Systems Science, Chinese Academy of Sciences*

Differential Harnack inequalities on general path spaces
Bo Wu [1]
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 Dagallier [1]
1 – *University of Cambridge*

Localization and delocalization for a class of degenerate convex grad phi interface model
Paul Dario [1]
1 – *Université Paris Est Créteil*

Spectral gap for long-range interactions in harmonic chain of oscillator
Angeliki Menegaki [1]
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 Mou [1]
1 – *City University of Hong Kong*

The Convergence rate of vanishing viscosity approximations for mean field games
Wenpin Tang [1]
1 – *Columbia University*

On the long time behavior of mean field control problems
Alekos Cecchin [1]
1 – *Università di Padova*

IS28 NUMERICAL METHODS FOR STOCHASTIC DIFFERENTIAL EQUATIONS: STANDARD, MEAN-FIELD AND FORWARD-BACKWARD
Organizer: **Gonçalo Dos Reis**, The University of Edinburgh

Numerical approximation of McKean-Vlasov SDEs via SGD
Gonçalo Dos Reis[1]
1 – *The University of Edinburgh, UK*

A posteriori error estimates for fully coupled McKean-Vlasov forward-backward SDEs
Wolfgang Stockinger[1]
1 – *Imperial College London, UK*

High order splitting methods for SDEs satisfying a commutativity condition
James Foster[1]
1 – *The University of Bath, UK*

CS7 ASYMPTOTIC METHODS IN STOCHASTIC MODELS
Organizer: **Yan Dolinsky**, The Hebrew University of Jerusalem

An approximation of populations on a habitat with large carrying capacity
Naor Bauman[1], Pavel Chigansky[1], Fima Klebaner[2]
1 – *The Hebrew University of Jerusalem, Israel;* 2 – *Monash University, Australia*

A stochastic energy-balance model with moving ice line
Ilya Pavlyukevich[1]
1 – *Friedrich Schiller University Jena, Germany*

Utility indifference pricing with high risk aversion and small linear price impact
Yan Dolinsky[1]
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 Pisa

Entropy estimate between diffusion processes and application to McKean-Vlasov SDEs
Panpan Ren[1]
1 – *City University of Hong Kong;*

Nonlinear Fokker-Planck equations with fractional Laplacian and McKean-Vlasov SDEs with Lévy-Noise
Michael Röckner[1]
1 – *Fakultät für Mathematik, Universität Bielefeld and Academy of Mathematics and Systems Science, CAS, Beijing*

On nonlinear Markov processes in the sense of McKean
Marco Rehmeier[1]
1 – *Scuola Normale Superiore Pisa*

CS13 STOCHASTIC FLUID-DYNAMICS
Organizer: **Margherita Zanella**, Politecnico di Milano

No blow-up by nonlinear Itô noise for Euler equations
Marco Bagnara[1]
1 – *Scuola Normale Superiore*

Distributional solutions for Euler equations with Kraichnan noise
Michele Coghi[1]
1 – *Università degli Studi di Trento*

A Stochastic Particle Approximation Approach of the 2D Navier-Stokes Equations with Vorticity Generation
Eliseo Luongo[1]
1 – *Scuola Normale Superiore*

CS15 JUMP DIFFUSION MODELS
Organizer: **Markus Riedle**, King's College London; **Anita Behme**, TU Dresden

Gradient formula for transition semigroup corresponding to stochastic equation driven by a system of independent Lévy processes
Szymon Peszat[1]
1 – *Institute of Mathematics, Jagiellonian University*

Certain jump diffusion models and their inference
Jan Rosinski[1]
1 – *University of Tennessee, Knoxville, USA*

Concentration analysis of multivariate elliptic diffusions
Lukas Trottner[1]
1 – *Aarhus University*

CS18 STOCHASTIC PROCESSES RESULTING FROM DYNAMICS OF CANCER GROWTH AND GENOMIC ANALYSES
Organizer: **Marek Kimmel**, Rice University

Mutation accumulation in growing cell populations
Tibor Antal[1]
1 – *School of Mathematics, University of Edinburgh*

Probabilistic analysis of partial sequence reads in the genome
Brandon Legried[1]
1 – *Georgia Institute of Technology, School of Mathematics*

Analysis of a countable-type branching process model for the tug-of-war cancer cell dynamics
Ren-Yi Wang[1]
1 – *Rice University*

CS20 INTERACTING MARKOV PROCESSES RELATED TO RANDOM MATRICES
Organizer: **Elia Bisi**, Universität Wien

On some interacting particle systems related to random matrices
Theodoros Assiotis[1]
1 – *University of Edinburgh*

Probabilistic methods in the asymptotic analysis of Fredholm Pfaffians
Will Fitzgerald[1]
1 – *University of Manchester*

Matrix Whittaker processes
Jonas Arista[1]
1 – *Bielefeld University*

CS41 CONSTRAINED AND INTERACTING STOCHASTIC DYNAMICS
Organizer: **Nicholas Georgiou**, Durham University

Deposition, diffusion, and nucleation on an interval
Nicholas Georgiou[1]
1 – *Durham University*

Loop-erased random walk and scaling limits of uniform spanning trees
Eleanor Archer[1]
1 – *University Paris-Nanterre*

Brownian motion drifted by random vector fields
Isao Sauzedde[1]
1 – *University of Warwick*

CS43 RANCHING PROCESSES
Organizer: **Mine Caglar**, Koc University

Generalized hawkes shot-noise processes
Mine Caglar[1]
1 – *Koc University*

The total mass of branching Brownian motion among random obstacles
Mehmet Öz[1]
1 – *Özyeğin University*

The edge-reinforced branching random walk on the triangle
Giordano Giambartolomei[1]
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 functions
Joseph Najnudel[1]
1 – *University of Bristol*

On the large deviations of Selberg's central limit theorem
Emma Bailey[1]
1 – *City University of New York*

The Fyodorov-Hiary-Keating conjecture
Paul Bourgade[1]
1 – *NYU*

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 stability
Zoé Agathe-Nerine[1]
1 – *Université Paris Cité*

Individual based infection models on (not so) dense large random networks
Aurélien Velleret[1]
1 – *MaIAGE, Inrae, Jouy-en-Josas*

Dense multigraphon-valued stochastic processes and edge-changing dynamics in the configuration model
Zhuosong Zhang[1]
1 – *Southern University of Science and Technology*

IS29   FINANCIAL MATHEMATICS
Organizer: **Carlos Oliveira**, Norwegian University of Science and Technology

A new algorithm to compute HMM parameters
Diogo Pereira[1]; Cláudia Nunes[1]
1 – *CEMAT and Instituto Superior Técnico*

VIX pricing in generalized rough Bergomi models
Henrique Guerreiro[1]
1 – *ISEG-School of Economics and Management, Universidade de Lisboa; REM - Research in Economics and Mathematics, CEMAPRE*

Perpetual American standard and lookback options with event risk and asymmetric information
Pavel Gapeev[1]
1 – *The London School of Economics and Political Sciences*

IS30   STATISTICAL EXTREME VALUE THEORY
Organizer: **Marta Ferreira**, University of Minho

An integer-valued M4 process
Ana Paula Martins[1]
1 – *Universidade da Beira Interior, Departamento de Matemática, Centro de Matemática e Aplicações, Covilhã*

Comparison of parameters' estimation methods in EVT
Dora Gomes[1]
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 Caeiro[1]; M. Ivette Gomes[2]
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 networks
Luigi Amedeo Bianchi[1]
1 – *University of Trento*

Cellular automata in self-organized criticality and their continuum limits
Benjamin Gess[1]
1 – *Bielefeld University and MPI MiS Leipzig*

Bifurcation theory for SPDEs: finite-time Lyapunov exponents and amplitude equations
Alexandra Neamtu[1]
1 – *University of Konstanz*

CS3   VARIOUS ASPECTS OF DETERMINANTAL POINT PROCESSES
Organizer: **Alessandra Occelli**, Université d'Angers; **Ofer Busani**, Univeristy of Bonn

Determinantal point processes via Riemann–Hilbert problems
Sofia Tarricone[1]
1 – *IPhT CEA Paris-Saclay*

Determinantal point processes and combinatorial problems on symmetric groups
Harriet Walsh[1]
1 – *LAREMA, Université d'Angers*

Determinantal point processes and orthogonal polynomials
Daniel Ofner[1]
1 – *Hebrew University of Jerusalem*

CS12   STOCHASTIC GEOMETRIC MECHANICS AND NONEQUILIBRIUM THERMODYNAMICS
Organizer: **Qiao Huang**, Nanyang Technological University

Schrödinger meets Onsager
Qiao Huang[1]
1 – *Nanyang Technological University*

The Hamilton–Jacobi theory for stochastic contact Hamiltonian systems
Pingyuan Wei[1]
1 – *Beijing International Center for Mathematical Research, Peking University*

A stochastic fractional Schrödinger equation with multiplicative noise
Ao Zhang[1]
1 – *Central South University*

CS14   BRANCHING PROCESSES WITH DEPENDENCIES
Organizer: **Sophie Hautphenne**, The University of Melbourne

Scaling limits of critical controlled multitype branching processes
Miguel González[1]
1 – *University of Extremadura. Department of Mathematics.*

A branching process with oscillations to model predator-prey systems
Cristina Gutiérrez[1]; Carmen Minuesa[2]
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 Molina[1]; Manuel Mota[1]
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 noise
Ekaterina Kolkovska[1]
1 – *Centro de Investigación en Matemáticas, A.C.*

Blowup probability of semilinear SPDEs driven by a rough Gaussian noise
Gerardo Pérez-Suárez[1]
1 – *Centro de Investigación en Matemáticas, A.C.*

Estimates for the distribution fuction of exponential functionals of real-valued continuos Gaussian processes
José Alfredo López-Mimbela[1]
1 – *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 systems
Simone Floreani[1]
1 – *University of Oxford*

Mixing times for exclusion processes with open boundary
Nina Gantert[1]
1 – *Technical University of Munich*

A reverse duality for the ASEP with open boundaries
Gunter Schütz[1]
1 – *Department of Mathematics, Instituto Superior Técnico, Universidade de Lisboa*

CS32 **RECENT ADVANCES IN LÉVY PROCESSES**
Organizer: **David Kramer-Bang**, University of Warwick

Markov additive friendships
Lukas Trottner[1]
1 – *Aarhus University*

When and how is the convex hull of a Lévy path smooth?
Jorge González Cázares[1,2]; David Kramer-Bang[1]; 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 Mijatović[1]
1 – *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 diffusions
Miha Bresar[1]
1 – *University of Warwick*

Stochastic billiards with Markovian re-flection in generalized parabolic domains
Conrado Da Costa[1]
1 – *Durham University*

Weakly self-avoiding random walk in a random potential
Renato Santos[1]
1 – *Federal University of Minas Gerais*

18:15-20:00	Welcome Reception

Tuesday, 25th JULY

09:30-10:20	**Medallion lecture:** Sylvia Serfaty (NYU) *Coulomb gases: dynamics and statistical equilibrium*
10:20-10:50	**Coffee break and Poster Sessions**
10:50-11:40	**Plenary lecture:** Riddhipratim Basu (Tata Institute) *Large scale geometry of two dimensional KPZ models*
11:40-12:30	**Itô prize lecture:** Andrey Pilipenko (National Academy of Sciences of Ukraine) and Oleksandr Iksanov (University of Kyiv) *On a skew stable Lévy process*
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 walks
Vladislav Vysotsky[1]
1 – *University of Sussex*

Two problems with extrema of Brownian motion and random walks
Julien Randon-Furling[1]
1 – *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 Grégory[1]
1 – *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 dynamics
Jin Feng[1]
1 – *University of Kansas*

A glance at entropic optimal transport
Christian Léonard[1]
1 – *Université Paris Nanterre*

Beyond optimal transport
Dan Mikulincer[1]
1 – *Massachusetts Institute of Technology*

IS11 **STOCHASTIC CALCULUS ON MANIFOLDS**
Organizer: **Karl-Theodor Sturm**, Bonn University

Curvature bound of Dyson Brownian motion
Kohei Suzuki[1]
1 – *Durham University*

A nonsmooth approach to Einstein's theory of gravity
Mathias Braun[1]
1 – *University of Toronto*

Generalized stochastic areas, Winding numbers, and hyperbolic Stiefel fibrations
Fabrice Baudoin[1]
1 – *University of Connecticut*

IS22   KPZ UNIVERSALITY CLASS
Organizer: **Daniel Remenik**, Universidad de Chile

Stationary measures for the open KPZ equation
Guillaume Barraquand[1]
1 - *CNRS and École Normale Supérieure*

Scaling limit of multi-type stationary measures in the KPZ class
Ofer Busani[1]
1 - *University of Bonn*

From ABC to KPZ
Alessandra Occelli[1]
1 - *Université d'Angers*

IS27   STOCHASTIC GEOMETRIC MECHANICS AND FLUID DYNAMICS
Organizer: **Dan Crisan**, Imperial College

Noise calibration for a stochastic rotating shallow water model
Dan Crisan[1]
1 - *Imperial College London*

Variational integrators for stochastic Hamiltonian uid dynamics
François Gay-Balmaz[1]; Meng Wu[1]
1 - *CNRS & Ecole Normale Supérieure*

Stochastic models in geophysical fluid dynamics
Erwin Luesink[1]; Sagy Ephrati[1]; Arnout Franken[1]; Bernard Geurts[1,2]
1 - *University of Twente;* 2 - *Technical University of Eindhoven*

CS9   REGULARISATION BY NOISE
Organizer: **Mate Gerencser**, TU Wien; **Chengcheng Ling**, TU Wien

Stochastic equations with singular drift driven by fractional Brownian motion
Oleg Butkovsky[1]
1 - *Weierstrass Institute*

Non-linear Young equations in the plane and path-wise regularization by noise for the stochastic wave equation
Florian Bechtold[1]; Fabian Harang[1], Nimit Rana[1]
1 - *Universität Bielefeld*

McKean SDEs with singular coefficients
Elena Issoglio[1]
1 - *University of Torino*

CS10   PERTURBED ODEs: STOCHASTIC OSCILLATIONS, SMALL NOISE LIMIT AND CRITICAL FLUCTUATIONS
Organizer: **Michele Aleandri**, La Sapienza University of Rome

Long time fluctuations at critical parameter of Hopf bifurcation
Michele Aleandri[1]; Paolo Dai Pra[2]
1 - *La Sapienza University of Rome;* 2 - *University of Verona*

The asymptotic frequency of stochastic oscillators
Zachary Adams[1]
1 - *Max Planck Institute for Mathematics in the Sciences*

Sharp convergence for degenerate Langevin dynamics
Gerardo Barrera Vargas[1]
1 - *University of Helsinki*

CS22   LIMIT THEOREMS AND LOCAL TIMES FOR MARKOV PROCESSES: Part I
Organizer: **Juan Carlos Pardo Millan**, Centro de Investigación en Matemáticas

Strong noise limit of stochastic differential equations
Joseph Najnudel[1]
1 - *University of Bristol*

Mathematical analysis of automated market makers
Joseph Najnudel[1]; Ju-Yi Yen[2]
1 - *School of Mathematis, University of Bristol;* 2 - *Department of Mathematical Sciences, University of Cincinnati*

Recurrent extensions and stochastic differential equations
Victor Rivero[1]
1 - *Centro de Investigación en Matemáticas*

CS26   SCALING LIMITS IN STOCHASTIC NON-MARKOVIAN EPIDEMIC MODELS
Organizer: **Guodong Pang**, Rice University; **Etienne Pardoux**, Aix-Marseille University

Local weak convergence for a general stochastic SIR model
Jean-Jil Duchamps[1]
1 - *Université de Franche-Comté*

Crump-Mode-Jagers with interactions as epidemic models: Law of large numbers and central limit theorem
Felix Foutel-Rodier[1]
1 - *University of Oxford*

A stochastic epidemic model with varying infectivity and waning immunity
Arsene Brice Zotsa-Ngoufack[1]
1 - *Aix-Marseille University*

CS39   INFINITE DIMENSIONAL STOCHASTIC CALCULUS AND APPLICATIONS
Organizer: **Ryoichi Suzuki**, Ritsumaikan University

A numerical scheme for solving stochastic control problems via stochastic hamiltonian systems
Riki Kitano[1]
1 - *Department of Mathematical Sciences, Ritsumeikan University*

A certain representation of martingales and its associated infinite dimensional moment problem
Yuma Tamura[1]
1 - *Ritsumeikan University Graduate School*

Randominzed positive-definite fourier estimator
Natsuki Toda[1]
1 - *Department of Mathematical Sciences, Ritsumeikan University*

CS44   BOUNDARY CROSSING PROBLEMS FOR DIFFUSION PROCESSES
Organizer: **Cristina Zucca**, University of Torino; **Samuel Herrmann**, University of Burgundy

First passage problems in neuronal modelling
Laura Sacerdote[1]
1 - *Department of Mathematics - University of Torino*

The inverse first-passage time problem for general stochastic processes including Lévy processes and diffusions
Alexander Klump[1]; Mladen Savov[1]
1 - *Bulgarian Academy of Sciences*

Polynomial approximation of the first passage time density of diffusion processes
Giuseppe D'onofrio[1]
1 - *Dipartimento di Scienze Matematiche, Politecnico di Torino*

CS51   DEPENDENT LIMIT THEOREMS
Organizer: **Adam Jakubowski**, Nicolaus Copernicus University

Laws of large numbers for non-stationary sequences without rate assumptions
Zbigniew S. Szewczak[1]
1 - *Nicolaus Copernicus University, Faculty of Mathematics and Computer Science*

Functional convergence of maxima of linear processes with heavy-tailed innovations and random coefficients
Danijel Krizmanić[1]
1 - *Faculty of Mathematics, University of Rijeka*

Multivariate phantom distributions
Adam Jakubowski[1]
1 - *Nicolaus Copernicus University*

15:45-16:15	Coffee break and Poster Sessions
16:15-18:00	**Contributed & Invited Sessions 4**

IS14   STATISTICAL MECHANICAL MODELS
Organizer: **Christophe Garban**, Lyon

Recent results on lattice gauge theories with a finite gauge group
Malin Palö Forsström[1]
1 – *University of Gothenburg, Mathematical Sciences*

Bijecting the BKT transition
Piet Lammers[1]
1 – *Institut des Hautes Études Scientifiques*

One-endedness of the uniform spanning tree and Harnack inequalities on stationary random graphs
Diederik Van Engelenburg[1]
1 – *Universität Wien, Fakultät für Matematik*

IS15   RANDOM CONFORMAL GEOMETRIES AND FIELD THEORIES
Organizer: **Juhan Aru**, EPFL

A probabilistic construction of Liouville conformal blocks
Guillaume Baverez [1]
1 – *Humboldt-Universität zu Berlin*

On the geometry of uniform meandric systems
Jacopo Borga[1]
1 – *Stanford University*

Crossing exponent and conformally invariant field in the 2D Brownian loop soup
Antoine Jego[1]
1 – *EPFL*

IS21   PERSISTENCE PROBABILITIES
Organizer: **Naomi Feldheim**, Bar-Ilan University

Persistence and ball events for Gaussian stationary functions
Ohad Noy Feldheim[1]
1 – *The Hebrew University of Jerusalem*

A Sharp transition in zero count of stationary Gaussian processes
Naomi Feldheim[1]
1 – *Columbia University*

Persistence exponent for some Pfaffian point processes
Grégory Schehr[1]
1 – *Bar-Ilan University*

IS23   OPTIMAL TRANSPORT AND STOCHASTIC DYNAMICS
Organizer: **Jan Maas**, IST Austria

Transport-Entropy forms of Santaló type inequalities for volume product
Nathael Gozlan[1]
1 – *Université Paris Cité*

On the convergence rate of sinkhorn's algorithm
Marcel Nutz[1]
1 – *Columbia University*

The emergence of clusters in self-attention dynamics
Philippe Rigollet[1]
1 – *MIT*

CS2   INFERENCE FOR STOCHASTIC PROCESSES
Organizer: **Ciprian Tudor**, University of Lille

Stochastic PDE´s driven by the Rosenblatt process
Bohdan Maslowski[1]
1 – *Charles University, Prague*

Statistiscs for stochastic PDE´s based on discrete observation in arbitrary dimensions
Mathias Trabs[1]
1 – *Karlsruhe Institute Technology*

Exact variation and drift parameter estimation for the nonlinear fractional stochastic heat equation
Ciprian Tudor[1]
1 – *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 Pardo[1]
1 – *Centro de Investigación en Matemáticas*

Limit theorems for local times and applications to SDEs with jumps
Aleksandar Mijatović[1]
1 – *University of Warwick & The Alan Turing Institute, UK*

A limit theorem for local times of branching processes
Gerónimo Uribe Bravo[1]
1 – *Universidad Nacional Autónoma de México*

CS25   COPULAE AND STOCHASTIC PROCESSES
Organizer: **Tomasz Bielecki**, Illinois Institute of Technology; **Mariusz Nieweglowski**, Warsaw University of Technology

Functional data analysis with copulas
Dennis Schroers[1]
1 – *University of Bonn, Institute of Finance and Statistics*

Indifference pricing of credit default swaps in a multi-period model
Xiaosong Qian[1]
1 – *Center for Financial Engineering, Soochow University*

Structured dependence between stochastic processes
Mariusz Nieweglowski[1]
1 – *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 Wakolbinger[1]
1 – *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 Louvet[1]
1 – *University of Bath*

CS28   STOCHASTIC PROCESSES FOR MANIFOLD ESTIMATION
Organizer: **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 Zhu[1]
1 - *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 Divol[1]
1 - *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 Cardoso[1]
1 - *Bonn University*

KPZ models in half space and Pfaffian point processes
Takashi Imamura[1]
1 - *Chiba University*

The geometry of coalescing random walks, the Brownian web distance and KPZ universality
Bálint Vető[1]
1 - *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) *Optimal control of conditional processes*
10:20-10:50	Coffee break
10:50-12:30	**Contributed & Invited Sessions 5**

IS3   STOCHASTIC MODELS IN EPIDEMIOLOGY AND EVOLUTION
Organizer: **Vincent Bansaye**, École Polytechnique

Convergence to the canonical equation of adaptive dynamics when mutations are small but frequent
Nicolas Champagnat[1]
1 - *Inria Nancy - Grand Est*

Gaussian waves in BBM with mean-dependent branching
Sarah Penington[1]
1 - *University of Bath*

Epidemics on spatial random graphs
Michele Salvi[1]
1 - *University of Rome Tor Vergata*

IS4   INTERACTING PARTICLE SYSTEMS
Organizer: **Alessandra Faggionato**, University La Sapienza

Kinetically constrained models out of equilibrium
Ivailo Hartarsky[1]
1 - *TU Wien*

Voter model on random directed graphs
Matteo Quattropani[1]
1 - *Sapienza Università di Roma*

Exact large deviations for a model of "KMP-type''
Frank Redig[1]
1 - *Delft University of Technology*

IS7   RANDOM DYNAMICS SYSTEMS
Organizer: **Jacob Bedrossian**, University Maryland

Exponential mixing for random flows
Rishabh Gvalani[1]
1 - *Max-Planck-Institut für Mathematik in den Naturwissenschaften*

Shear-induced chaos via stochastic forcing: a tale of finding positive Lyapunov exponents
Maximilian Engel[1]
1 - *Free University of Berlin*

Lyapunov exponents and synchronization by noise for systems of SPDEs
Benjamin Gess[1]
1 - *Bielefeld University and MPI MiS Leipzig*

IS18 QUANTITATIVE HOMOGENIZATION
Organizer: **Scott Armstrong**, NYU

Quantitative homogenization of the invariant measure for nondivergence form elliptic equations
Jessica Lin[1]
1 – McGill University

Rigidity of harmonic functions on the supercritical percolation cluster
Ahmed Bou-Rabee[1]
1 – Cornell University

Massless phases for the Villain model in d>=3
Wei Wu[1]
1 – NYU Shanghai

CS4 RECENT ADVANCES IN STOCHASTIC FLUID DYNAMICS
Organizer: **Lucio Galeati**, EPFL

Local and global existence for SPDEs with applications to stochastic fluid dynamics
Oana Lang[1]
1 – Imperial College London

Global existence and non-uniqueness-in-law for 3D Euler equations with transport noise
Theresa Lange[1]
1 – Bielefeld University

Some recent results on stochastic fluid PDEs: pseudo-differential noise, blow-up/global regularity and stability
Hao Tang[1]
1 – University of Oslo

CS6 ON ANALYTICAL METHODS FOR STOCHASTIC PDEs
Organizer: **Yassine Tahraoui**, NOVA University of Lisbon

Conservation laws with noise: Well-posedness of entropy solutions
Neeraj Bhauryal[1]
1 – Grupo de Física Matématica da Universidade de Lisboa

Renormalized solutions for stochastic p-Laplace equations with L^1-initial data: The case of multiplicative noise
Niklas Sapountzoglou[1]
1 – Institute of Mathematics, Technical University of Clausthal

On time-dependent Stochastics PDEs with constraints
Yassine Tahraoui[1]
1 – Center for Mathematics and Applications (NovaMath), Nova SST, Portugal

CS16 QUALITATIVE ANALYSIS OF SOLUTIONS TO (S)PDEs
Organizer: **Michele Coghi**, Università degli Studi di Trento

Statistical stationary solutions of a nonlinear Schrödinger equation
Benedetta Ferrario[1]
1 – Università di Pavia

An application of macroscopic fluctuation theory to reaction-diffusion equations
Stefano Bonaccorsi[1]
1 – Università degli Studi di Trento

Ergodic results for the stochastic nonlinear Schrödinger equation with large damping
Margherita Zanella[1]
1 – Politecnico di Milano

CS30 LÉVY-BASED SPATIO-TEMPORAL PROCESSES: INFERENCE AND FORECAST
Organizer: **Imma Valentina Curato**, TU Chemnitz

Estimation and Inference for Multivariate Continuous-time AutoRegressive Processes
Lorenzo Lucchese[1]
1 – Imperial College London

Parameter inference and forecasting for trawl processes and simple ambit fields
Dan Leonte[1]
1 – Imperial College London

Mixed moving average field guided learning for spatio-temporal data
Imma Valentina Curato[1]
1 – TU Chemnitz

CS31 GEOMETRY OF SPHERICAL RANDOM FIELDS
Organizer: **Valentina Cammarota**, Sapienza University of Rome; **Anna Paola Todino**, Sapienza University of Rome

On critical points of random spherical harmonics and isotropic stationary Gaussian fields
Valentina Cammarota[1]
1 – Department of Statistical Sciences, Sapienza University of Rome

Spherical poisson waves
Anna Paola Todino[1]
1 – Sapienza University of Rome

The scaling limits of Gaussian spin fields
Michele Stecconi[1]
1 – University of Luxembourg

CS33 GENEALOGIES OF BRANCHING PROCESSES
Organizer: **Alice Callegaro**, University of Munich; **Emma Horton**, INRIA Bordeaux Sud-Ouest

Ancestral reproductive bias in branching processes
Samuel G. G. Johnston[1]
1 – King's College London

Asymptotics for the site frequency spectrum associated with the genealogy of a birth and death process
Jason Schweinsberg[1]
1 – University of California San Diego

A branching particle system as a model of pushed fronts
Julie Tourniaire[1]
1 – IST Austria

CS38 RECENT ADVANCES IN EXACT SIMULATION
Organizer: **Giuseppe D'onofrio**, Politecnico di Torino; **Pierre Patie**, Cornell University

Gateway and interweaving relations as exact simulation algorithm for non-colliding particle systems
Rohan Sarkar[1]; Yuxuan Liu[2]; Pierre Patie[2]; Andrew Chee[2]
1 – University of Connecticut; 2 – Cornell University

Exact methods for the simulation of first exit times for diffusion processes
Cristina Zucca[1]
1 – University of Torino

Exact simulation of the first time a stochastic process overcomes a given threshold
Samuel Herrmann[1]
1 – University of Burgundy

CS45 STATISTICS FOR HIGH-DIMENSIONAL STOCHASTIC PROCESSES
Organizer: **Lukas Trottner**, Aarhus University

On lasso and slope drift estimators for Lévy-driven ornstein-uhlenbeck processes
Niklas Dexheimer[1]
1 – Aarhus University

A Gaussian approximation of multivariate Lévy processes
David Kramer-Bang[1]
1 – University of Warwick, Department of Statistics

Asymptotic expansions for high-frequency option data
Carsten Chong[1]
1 – Hong Kong University of Science and Technology

Thursday, 27th JULY

09:30-10:20	**Medallion lecture:** Richard Kenyon (Yale University) *Dimers and tensor networks*
10:20-10:50	Coffee break and Poster Sessions
10:50-11:40	**Plenary lecture:** Makiko Sasada (Tokyo University) *Probabilistic approaches to discrete integrable systems*
11:40-12:30	**Plenary lecture:** Jean-Dominique Deuschel (Berlin University) *An isomorphism theorem for anharmonic fields and scaling limits*
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 waks on Hecke algebra
Alexey Bufetov[1]
1 – *Leipzig University*

Dunkl theory at large N
Colin McSwiggen[1]
1 – *Courant Institute of Mathematical Sciences, New York University*

Markov processes related to steady states of the KPZ equation on an interval
Wlodzimierz Bryc[1]
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 He[1]
1 – *MIT*

Last passage percolation and random young tableaux
Peter Nejjar[1]
1 – *Potsdam University*

Mixing times for exclusion processes with open and periodic boundaries
Dominik Schmid[1]
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 Forien[1]
1 – *Università Roma 1 La Sapienza*

Convergence and non-convergence of some self-interacting random walks to a perturbed Brownian motion
Elena Kosygina[1]
1 – *Baruch College and the CUNY Graduate Center*

∗-Reinforced Random Walks, Bayesian Statistics and Statistical Physics
Pierre Tarrès[1]
1 – *CNRS, Sorbonne Université and NYU Shanghai*

IS25 COMBINATORIAL PROBABILITY
Organizer: **Valentin Féray**, University de Lorraine

Enumerative theory for the Tsetlin library
Persi Diaconis[1]
1 – *Department of Mathematics and Statistics, Stanford University*

Scaling limit of critical random trees in random environment
Cécile Mailler[1]
1 – *University of Bath*

Components of meandric systems and the infinite noodle
Paul Thévenin[1]
1 – *University of Vienna*

IS26 MACHINE LEARNING AND PROBABILITY
Organizer: **Andrea Montanari**, Stanford University

Algorithmic decorrelation and planted clique in dependent random graphs
Guy Bresler[1]
1 – *MIT*

On orthogonally-invariant spin glasses and linear models with invariant designs
Zhou Fan[1]
1 – *Yale University*

Detection of dense subhypergraphs by low-degree polynomials
Alex Wein[1]
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 Fang[1]
1 – *The Chinese University of Hong Kong*

From p-Wasserstein bounds to moderate deviations
Yuta Koike[1]
1 – *Graduate School of Mathematical Sciences, The University of Tokyo*

Generalization of the fourth moment theorem
Nobuaki Naganuma[1]
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 Cosco[1]
1 – *Université Paris-Dauphine*

Directed polymers and the stochastic heat equation with Lévy noise
Quentin Berger[1]
1 – *Sorbonne Université and École Normale Supérieure*

Fluctuations for the directed polymer model in weak disorder without L^2-boundedness
Stefan Junk[1]
1 – *AIMR, Tohoku University*

CS19 PROBABILISTIC METHODS FOR STEFAN-TYPE EQUATIONS
Organizer: **Sergey Nadtochiy**, Illinois Tech

Particle systems, Stefan problems and systemic risk
Adair Petronilia[1]
1 - *University of Oxford*

On blow-ups in a stochastic Stefan problem for the freezing of a supercooled liquid
Andreas Søjmark[1]
1 - *London School of Economics*

Hopf bifurcation in a mean field model of integrate and fire neurons
Quentin Cormier[1]
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 Wang[1]
1 - *CMAP, École Polytechnique, Institut Polytechnique de Paris*

A statistical approach for simulating the density solution of a McKean-Vlasov equation
Yating Liu[1]
1 - *CEREMADE, University Paris-Dauphine PSL*

Numerical anaysis of McKean-Vlasov equations
Armand Bernou[1]
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 Hamza[1]
1 - *Monash University*

Stochastic processes with random harmonics, distributional and ergodic properties
Krzysztof Podgórski[1]
1 - *Department of Statistics Lund University*

Mixing of fast random walks on dynamic random permutations
Oliver Nagy[1]
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 Patie[1]
1 - *Cornell University*

De Jong Theorem, functional convergence and sparsity
Giovanni Peccati[1]
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 Nakano[1]
1 - *Tokai University, Department of Mathematics*

An explicit formula for invariant densities of random piecewise linear maps
Shintaro Suzuki[1]
1 - *Tokyo Gakugei University*

Finitude of physical measures for random maps
Hisayoshi Toyokawa1[1]
1 - *Kitami Institute of Tecnhology*

15:45-16:15	Coffee break and Poster Sessions
16:15-18:00	**Contributed & Invited Sessions 7**

IS9 STEIN METHOD
Organizer: **Giovanni Peccati**, University Luxembourg

Poisson cylinder sets for modelling mobile telecommunication networks
Hanna Döring[1]
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 Kasprzak[1]
1 - *University of Luxembourg*

Wasserstein bounds through Stein`s method with bespoke derivatives
Yvik Swan[1]
1 - *Université Libre de Bruxelles*

IS12 SINGULAR SPDEs
Organizer: **Hendrik Weber**, University of Münster

Multiscale coupling for the Φ_4^2 field
Michael Hofstetter[1]
1 - *Weizmann Institute of Science*

Some recent progress on quasilinear SPDEs
Markus Tempelmayr[1]
1 - *WWU Münster*

Invariant Gibbs measures in nonlinear dispersive equations
Yu Deng[1]
1 - *University of Southern California*

IS13 RANDOM PLANAR METRIC SPACES
Organizer: **Jian Ding**, Peking University

Metric growth dynamics in Liouville quantum gravity
Hugo Falconet[1]
1 - *Courant Institute, New York University*

Geodesics in Brownian surfaces
Wei Qian[1]
1 - *City University of Hong Kong*

Geodesic local time in the directed landscape
Lingfu Zhang[1]
1 - *University of California, Berkeley*

IS17 RANDOM WALKS IN RANDOM ENVIRONMENTS
Organizer: **Ryoki Fukushima**, Tsukuba University

Hölder regularity and local limit theorem for random conductance models with long-range jumps
Sebastian Andres[1]
1 - *University of Manchester*

RWRE as rough paths
Tal Orenshtein[1]
1 - *Università degli Studi Milano - Bicocca*

Scaling limit for the simple random walk on long range percolation clusters
Tal Peretz[1]
1 - *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 Lee[1]
1 - *National Tsinghua University, Taiwan*

Spatial averages for the Parabolic Anderson model driven by rough noise
Xiaoming Song[1]
1 - *Drexel University*

Fractal and intersection properties of Gaussian random fields
Yimin Xiao[1]
1 - *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 Petrov[1]
1 - *University of Virginia*

The lower tail of q-pushTASEP
Milind Hegde[1]
1 - *Columbia University*

Stochastic six-vertex model and Hall-Littlewood positivity
Konstantin Matveev[1]
1 - *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 Kratz[1]
1 - *ESSEC Business School, CREAR risk research center*

Local Asymptotic Normality of the mixed fractional Brownian motion
Pavel Chigansky[1]; Marina Kleptsyna[2]
1 - *The Hebrew University of Jerusalem;* 2 - *Le Mans University*

Functional central limit theorems for Wigner matrices
Jana Reker[1]
1 - *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. Majka[1]
1 - *Heriot-Watt University*

Gradient and mirror descent for stochastic control problems
David Šiška[1]
1 - *School of Mathematics, University of Edinburgh*

Solving min-max mean-field games via fictitious play and birth-death dynamics
Razvan-Andrei Lascu[1]
1 - *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 Lisbon

Regime switching continuous time Markov chains
Manuel L. Esquivel[1]
1 - *Nova SST and CMA, New University of Lisbon*

On the biases of the unbiased expectation hypothesis
Renato França[2]; Raquel M. Gaspar[1]
1 - *ISEG and REM/Cemapre, Universidade de Lisboa, Portugal;* 2 - *Towers Watson, Portugal*

On coupled pairs of regime switching diffusions
Pedro P. Mota[1]
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]
1 - *The University of Melbourne*

A branching process approach to the survival of populations: skeleton process and stochastic introgression
Maria Conceição Serra[1]
1 - *Center of Mathematics, University of Minho*

Consistent least squares estimation for population-size-dependent branching processes
Carmen Minuesa Abril[1]
1 - *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 Bezborodov[1]
1 - *The University of Goettingen, Institute for Mathematical Stochastics*

A time-dependent non-homogeneous stochastic epidemic model
Giulia Binotto[1]
1 - *Universitat Autònoma de Barcelona*

A doubly stochastic state-dependent exponential pulse model for rainfall
Nadarajah Ramesh[1]
1 - *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	**Doeblin prize lecture:** Yinon Spinka (University of British Columbia) *Characterizing (non)amenability through stochastic domination and finitary codings*
10:20-10:50	Coffee break
10:50-11:40	**Plenary lecture:** Martina Hofmanová (Bielefeld University) *Anomalous and total dissipation due to advection by Navier-Stokes equations*
11:40-12:30	**Medallion lecture:** Massimiliano Gubinelli (Oxford University) *Stochastic equations for Euclidean fields*
12:30-13:00	**Closing Ceremony**

POSTERS

Monday, 24th JULY
Coffee-break times (morning and afternoon)

PO01   PORTFOLIO OPTIMIZATION WITH ALLOCATION CONSTRAINTS AND STOCHASTIC FACTOR MARKET DYNAMICS
Marcos Escobar-Anabel[1]; Michel Kschonnek[2]; Rudi Zagst[2]
1 – *Western University, Department of Statistical & Actuarial Sciences;* 2 – *Technical University of Munich, Chair of Mathematical Finance*

PO02   ON A DISCRETE-TIME PARETO-TYPE PROCESS
Marta Ferreira[1]
1 – *Centro de Matemática, Universidade do Minho*

PO03   PROBABILITY AND STATISTICS OF MULTI-PARAMETER RANDOM COMPLEXES
Tadas Temčinas[1]; Vidit Nanda[2]; Gesine Reinert[1]
1 – *Department of Statistics, University of Oxford;* 2 – *Mathematical Institute, University of Oxford*

PO04   SCHEDULING IN THE HIGH UNCERTAINTY HEAVY TRAFFIC REGIME
Yonatan Shadmi[1]
1 – *Technion - Israel Institute of Technology*

PO05   NEW PROBABILISTIC METHOD FOR TRANSIENT ANALYSIS OF M/G/1 SYSTEMS WITH VACATIONS
Revaz Kakubava[1]; Nino Svanidze[2]
1 – *Georgian Technical University. Tbilisi. Georgia;* 2 – *Shota Rustaveli Batumi State University. Batumi. Georgia*

PO06   SIMULATING CONTINUOUS-TIME AUTOREGRESSIVE MOVING AVERAGE PROCESSES DRIVEN BY TEMPERED STABLE LÉVY PROCESSES
Till Massing[1]
1 – *Universität Duisburg-Essen*

PO07   SCALING LIMITS FOR PARKING ON FROZEN ERDŐS–RÉNYI CAYLEY TREES WITH HEAVY TAILS
Andrej Srakar[1]
1 – *Institute for Economic Research (IER) and University of Ljubljana*

PO09   ON THE EXISTENCE OF H^1-WEAK SOLUTION FOR 3D-STOCHASTIC THIRD GRADE FLUID EQUATIONS
Raya Nouira[1]
1 – *FCT, NOVA University of Lisbon*

PO11   QUENCHED FUNCTIONAL CLT FOR RANDOM WALKS IN DEGENERATE DOUBLY STOCHASTIC RANDOM ENVIRONMENTS
Weile Weng[1]
1 – *Technical University of Berlin*

PO12   A BREAK TEST FOR THE TAIL-EVENT CORRELATION MATRIX BASED ON THE SELF-NORMALIZATION MET
Ji-Eun Choi[1]; Dong Wan Shin[2]
1 – *Department of Statistics, Ewha University;* 2 – *Department of Statistics, Pukyong National University*

PO13   NEAR-LINEAR MIXING ON THE CYCLE BY BOUNDED STRUCTURAL PERTURBATION
Balázs Gerencsér[1]
1 – *Alfréd Rényi Institute of Mathematics, Budapest, Hungary; ELTE Eötvös Loránd University, Budapest, Hungary*

PO14   FUNCTIONAL PERIODIC ARMA PROCESSES
Sebastian Kühnert[1]
1 – *University of California, Davis, Department of Statistics*

PO15 **OPTIMAL CONSUMPTION AND INVESTMENT IN GENERAL AFFINE GARCH MODELS**
Marcos Escobar-Anel[1]; Ben Spies[2]; Rudi Zagst[2]
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 Besalú[1]; David Márques-Carreras[1]; Carles Rovira[1]
1 – *Universitat de Barcelona*

PO17 **EXACT AND EFFICIENT MULTIVARIATE TWO-SAMPLE TESTS THROUGH GENERALIZED LINEAR RANK STATISTICS**
Dan Daniel Erdmann-Pham[1]
1 – *Stanford University*

PO18 **WEAK APPROXIMATION FOR MARCUS SDEs**
Sooppawat Thipyarat[1]
1 – *Friedrich-Schiller-Universität Jena*

PO19 **DYNAMICAL ANALYSIS OF A STOCHASTIC DELAYED EPIDEMIC MODEL WITH LÉVY JUMPS AND REGIME SWITCHING**
Bojana Jovanović[1]
1 – *Faculty of Sciences and Mathematics, University of Niš, Serbia*

PO20 **PARRONDO EFFECT IN CONTINUOUS-TIME RANDOM WALKS WITH PERIODICALLY ALTERNATING JUMPS**
Jiyeon Lee[1]
1 – *Yeungnam University*

PO21 **ASYMPTOTIC CONVERGENCE OF THE CUCKER-SMALE MODEL VIA A PROBABILISTIC METHOD**
Adrien Cotil[1]
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 Petráková[1]
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 Cao[3]
1 – *INRIA Paris and Université Paris Dauphine*

PO26 **NONPARAMETRIC STATISTICAL MONITORING OF HIGH-DIMENSIONAL PRODUCTION PROCESSES**
Amitava Mukherjee[1]; Marco Marozzi[2]
1 – *XLRI-Xavier School of Management, Jamshedpur, India;* 2 – *Ca' Foscari University of Venice, Italy*

PO27 **ON THE QUENCHED FUNCTIONAL CENTRAL LIMIT THEOREM FOR STATIONARY RANDOM FIELDS UNDER PROJECTIVE CRITERIA**
Lucas Reding[1]
1 – *Univ. Polytechnique Hauts-de-France, INSA Hauts-de-France, CERAMATHS*

PO58 **THE HEAT FLOW OF RANDOM POLYNOMIALS AND THE GAF**
Jonas Jalowy[1]
1 – *Münster University, Institute of Stochastics*

Tuesday, 25th JULY
Coffee-break times (morning and afternoon)

PO28 **CONTROLLED SUPERPROCESSES AND HJB EQUATION IN THE SPACE OF FINITE MEASURES**
Antonio Ocello[1]
1 – *LPSM, UMR CNRS 8001, Sorbonne Université and Université Paris Cité*

PO29 **ON THE LIMITING SPECTRAL DISTRIBUTIONS OF STOCHASTIC BLOCK MODELS**
May-Ru Chen[1]; 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 Martins[1]; Manuel G. Scotto[3]; Christian H. Weiss[4]; Sónia Gouveia[1,2]
1 – *IEETA and DETI, University of Aveiro, Portugal;* 2 – *Intelligent Systems Associate Laboratory (LASI), 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 Latz[1]
1 – *Czech Academy of Sciences & Charles University*

PO32 **BAYESIAN SEMIPARAMETRIC VARIABLE SELECTION WITH SHRINKAGE PRIOR**
Mingan Yang[1]
1 – *University of New Mexico*

PO33 **STEIN'S METHOD FOR ERDÖS-RÉNYI MIXTURE GRAPH MODELS**
Anum Fatima[1]; Gesine Reinert[2]
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 Corsini[1]
1 – *Eindhoven University of Technology*

PO36 **STOCHASTIC MODELS FOR BACTERIOPHAGE SYSTEMS**
Xavier Bardina[1]
1 – *Universitat Autònoma de Barcelona*

PO37 **CONVERGENCE OF PROCESSES TIME-CHANGED BY GMC**
Takumu Ooi[1]
1 – *Research Institute for Mathematical Sciences, Kyoto University*

PO38 **NOISE-INDUCED PERIODICITY IN A FRUSTRATED NETWORK OF INTERACTING DIFFUSIONS**
Elisa Marini[1]
1 – *Department of Mathematics Tullio Levi-Civita, University of Padova*

PO39 **RANDOM ALGEBRAIC GRAPHS AND THEIR CONVERGENCE TO ERDÖS-RÉNYI**
Kiril Bangachev[1]
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 Brodu[1]
1 – *IECL, Université de Lorraine – Inria Nancy Grand-Est*

PO41 **OPTIMAL BAILOUT IN A MEAN-FIELD SYSTEMIC RISK MODEL WITH CONTAGIOUS DEFAULTS**
Ben Hambly[1]; Philipp Jettkant[1]
1 – *University of Oxford*

PO42 **HEAVY-TAILED DISTRIBUTIONS IN A STOCHASTIC GENE AUTOREGULATION MODEL**
Pavol Bokes[1]
1 - *Comenius University Bratislava*

PO43 **CONVERGENCE OF FINITE SPATIAL RANDOM GRAPHS W.R.T. AN ASSIGNMENT BASED METRIC**
Leoni Carla Wirth[1]
1 - *Institute for Mathematical Stochastics, University of Göttingen*

PO44 **BIVARIATE BERNSTEIN-GAMMA FUNCTIONS AND ASYMP- TOTIC BEHAVIOUR OF EXPONENTIAL FUNCTIONALS ON DETERMINISTIC HORIZON**
Martin Minchev[1]; Mladen Savov[1,2]
1 - *Sofia Univeristy*; 2 - *Bulgarian Academy of Sciences*

PO45 **REPLICA-MEAN-FIELD LIMIT OF CONTINUOUS-TIME FRAGMENTATION-INTERACTION-AGGREGATION PROCESSES**
Michel Davydov[1]
1 - *INRIA, Paris, France and Département d'informatique de l'ENS, ENS, CNRS, PSL University, Paris*

PO46 **STRONG SOLUTIONS TO MCKEAN–VLASOV SDES WITH COEFFICIENTS OF NEMYTSKII-TYPE**
Sebastian Grube[1]
1 - *Bielefeld University*

PO47 **STABLE MOTION AND RIESZ CAPACITY**
John P. Nolan[1]; Debra J. Audus[2]; Jack F. Douglas[2]
1 - *American University*; 1 - *National Institute of Standards and Technology*

PO48 **BROWNIAN MOTION WITH LIMITED OCCUPATION TIME**
Dominic T. Schickentanz[1]
1 - *Technical University of Darmstadt*

PO49 **ASYMPTOTICS OF LONGEST INCREASING SUBSEQUENCES IN PERMUTON-SAMPLED RANDOM PERMUTATIONS**
Victor Dubach[1]
1 - *Institut Elie Cartan de Lorraine*

PO51 **NONLINEAR SEMIGROUPS AND LIMIT THEOREMS FOR CONVEX EXPECTATIONS**
Jonas Blessing[1]; Michael Kupper[1]
1 - *University of Konstanz*

PO52 **CONSTRUCTION OF SOLUTIONS TO MODELS OF SYSTEMIC RISK WITH ENDOGENOUS CONTAGION THROUGH SMOOTHED APPROXIMATIONS**
Aldaïr A. F. M. Petronilia[1]
1 - *University of Oxford*

PO53 **LARGE DEVIATION FOR COX-INGERSOLL-ROSS PROCESSES WITH STATE-DEPENDENT FAST SWITCHING**
Yanyan Hu[1]
1 - *Delft Institute of Applied Mathematics, Delft University of Technology*

PO54 **FORTET-MOURIER AND DUDLEY DISTANCES TO WEIGHTED SUMS OF DIRAC MEASURES**
Esmée Theewis[1]
1 - *Delft Institute of Applied Mathematics, TU Delft*

Thursday, 27th JULY
Coffee-break times (morning and afternoon)

PO55 **PARAMETER ESTIMATION FOR mmfBm AND mmfOU PROCESSES**
Hamidreza Maleki Almani[1]; Tommi Sottinen[1]
1 - *University of Vaasa, School of Technology and Innovations*

PO56 **NEUTRAL EVOLUTION IN THE PRESENCE OF LARGE BUT FINITE OFFSPRING FLUCTUATIONS: INSIGHTS FROM DISORDERED SYSTEMS**
Ethan Levien[1]
1 - *Dartmouth College, Department of Mathematics*

PO59 **STICKY COUPLING AS A CONTROL VARIATE FOR SENSITIVITY ANALYSIS**
Shiva Darshan[1,2]; Andreas Eberle[3]; Gabriel Stoltz[1,2]
1 - *CERMICS École des Ponts*; 2 - *Matherials Inria Paris*; 3 - *Institute for Applied Mathematics University of Bonn*

PO60 **GENEALOGY OF RECORDS OF SKIP-FREE RANDOM WALKS AS UNIMODULAR TREES**
Bharath Roy Choudhury[1]
1 - *INRIA, Paris, France and Département d'informatique de l'ENS, ENS, CNRS, PSL University*

PO61 **OPTIMIZATION OF LIPASE PRODUCTION USING OIL AND SEEDS OF PASSIFLORA EDULIS**
Anne B.S. Bardelli[1]; Maria V. C. F. Vieira[1]; Rúbia M. Suzuki[1]; Milena M. Andrade[1]
1 - *Federal University of Technology – Paraná*

PO62 **CBI-TIME-CHANGED LÉVY PROCESSES**
Guillaume Szulda[1]
1 - *CERMICS - École Nationale des Ponts et Chaussées*

PO63 **LOGARITHMIC DERIVATIVES AND CLOSABILITY OF POINT PROCESSES ON $\mathbb{R}^d$**
Shota Osada
1 - *Faculty of Education, Kagoshima University*

PO64 **EDGE EIGENVALUES AND EIGENVECTOR LOCALIZATION IN ERDÖS-RÉNYI GRAPHS WITH CONSTANT AVERAGE DEGREE**
Ella Hiesmayr[1]; Theo Mckenzie[2]
1 - *University of California, Berkeley*; 2 - *Harvard University*

PO65 **THE BERNSTEIN FAMILY OF GRADIENT MODELS**
Gabriel S. Nahum[1]
1 - *Center for Mathematical Analysis, Geometry and Dynamical Systems, Instituto Superior Técnico, Universidade de Lisboa*

PO66 **CHARACTERIZATION OF QUASI-STATIONARY DISTRIBUTIONS**
Iddo Ben-Ari[1]
1 - *University of Connecticut, USA*

PO67 **ATLAS MODEL WITH INHOMOGENEOUS STATIONARY PROFILES**
Peter Rudzis[1]
1 - *University of North Carolina - Chapel Hill*

PO68 **REGULARISING EFFECT OF THE BROWNIAN SHEET PATHS**
Moustapha Dieye[1]
1 - *École Polytechnique de Thies*

PO69 **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*

PO70 POLYNOMIAL INTERACTING PARTICLE SYSTEMS AND NON- LINEAR SPDES FOR MODELING CAPITALIZATION CURVES
Florian Huber[1]
1 – *University of Vienna*

PO71 PATH INDEPENDENCE OF THE ADDITIVE FUNCTIONALS FOR STOCHASTIC VOLTERRA EQUATIONS WITH SINGULAR KERNELS AND HÖLDER CONTINUOUS COEFFICIENTS
Huijie Qiao[1]
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PO72 APPROACHING THE TRIPLE POINT IN THE ASEP WITH GROWING SIZE
Jacek Wesolowski[1]
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PO74 ON HOMOGENIZATION OF A MULTIDIMENSIONAL DIFFUSION WITH SEMIPERMEABLE REFLECTING INTERFACES
Olga Ariasova[1]
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*

PO75 STOCHASTIC PREDICTABILITY AND APPLICATIONS ON STOCHASTIC DIFFERENTIAL EQUATIONS AND DEFAULT RISK MODELING
Ana Merkle[1]
1 – *University of Belgrade, Faculty of Mathematics, Serbia*

PO76 GAUSSIAN STRUCTURE IN COALESCING STOCHASTIC FLOWS
Kateryna Hlyniana[1]; Andrey Dorogovtsev[2]
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PO77 NORMAL APPROXIMATION OF COMPOUND HAWKES FUNCTIONAL
Mahmoud Khabou[1]
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PO79 THE KPZ EQUATION LIMIT OF STICKY BROWNIAN MOTION
Hindy Drillick[1]
1 – *Columbia University*

PO80 KPZ MODELS IN HALF SPACE AND PFAFFIAN POINT PROCESSES
Takashi Imamura[1]; Matteo Mucciconi[2]; Tomohiro Sasamoto[3]
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SOCIAL EVENTS

Welcome Reception
Welcome reception will be held at the **FCUL Campus**, **Building C3**, on **Monday**, **July 24**th 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 25**th 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**th **July** 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
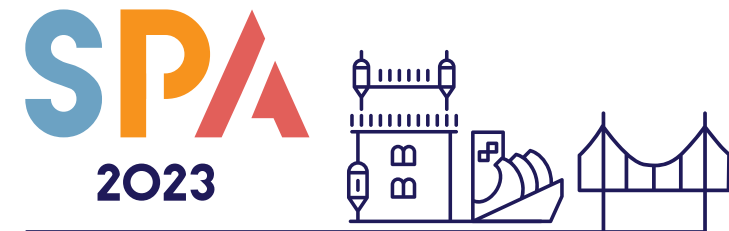For administration and general information on the logistics of SPA Conference, please contact:

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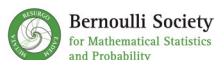
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