

## Thursday, 27<sup>th</sup> JULY

Bldg.Floor.Room 3.2.14	09:30-10:20 <b>Medallion lecture:</b> Richard Kenyon (Yale University) <i>Dimers and tensor networks</i>
Bldg. C3	10:20-10:50 <b>Coffee break and Poster Sessions</b>
Bldg.Floor.Room 3.2.14	10:50-11:40 <b>Plenary lecture:</b> Makiko Sasada (Tokyo University) <i>Probabilistic approaches to discrete integrable systems</i>
Bldg.Floor.Room 3.2.14	11:40-12:30 <b>Plenary lecture:</b> Jean-Dominique Deuschel (Berlin University) <i>An isomorphism theorem for anharmonic fields and scaling limits</i>
Bldg. C3	12:30-14:00 <b>Lunch break</b> (with lunch box)
Bldg.Floor.Room 3.2.14 3.2.15 3.2.16 3.2.13 6.2.48 3.1.10 3.1.11 6.2.50 8.2.13	14:00-15:45 <b>Contributed &amp; Invited Sessions 6:</b> 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 intertwining CS40-Recent progresses on random dynamical systems
Bldg. C3	15:45-16:15 <b>Coffee break and Poster Sessions</b>
Bldg.Floor.Room 3.2.14 3.2.15 3.2.16 3.2.13 6.2.48 6.2.50 6.2.49 8.2.11 8.2.13	16:15-18:00 <b>Contributed &amp; Invited Sessions 7:</b> 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.Floor.Room 3.2.14	18:15-19:00 <b>Public Lecture*</b> (this session is open to all and it is not part of the conference programme) <i>The mathematics of solitaire:</i> Persi Diaconis (Stanford University)
	20:00 <b>Conference Dinner</b>

## Friday, 28<sup>th</sup> JULY

Bldg.Floor.Room 3.2.14	09:30-10:20 <b>Doebelin prize lecture:</b> Yinon Spinka (University of British Columbia) <i>Characterizing (non)amenability through stochastic domination and finitary codings</i>
Bldg. C3	10:20-10:50 <b>Coffee break</b>
Bldg.Floor.Room 3.2.14	10:50-11:40 <b>Plenary lecture:</b> Martina Hofmanová (Bielefeld University) <i>Anomalous and total dissipation due to advection by Navier-Stokes equations</i>
Bldg.Floor.Room 3.2.14	11:40-12:30 <b>Medallion lecture:</b> Massimiliano Gubinelli (Oxford University) <i>Stochastic equations for Euclidean fields</i>
Bldg.Floor.Room 3.2.14	12:30-13:00 <b>Closing Ceremony</b>

Funded by



Supported by



Logistics



Mundiconvenius | E-mail: [spa@spa2023.org](mailto:spa@spa2023.org)

[www.spa2023.org](http://www.spa2023.org)



43<sup>rd</sup> Conference on Stochastic Processes and their Applications

july 24-28<sup>th</sup>

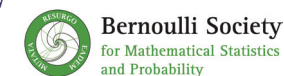
LISBOA PORTUGAL

Faculty of Sciences of the University of Lisbon

PROGRAMME OVERVIEW

[www.spa2023.org](http://www.spa2023.org)

Organized by



## Monday, 24<sup>th</sup> JULY

Bldg.Floor.Room 3.2.14	09:00-09:30 Opening Ceremony
Bldg.Floor.Room 3.2.14	09:30-10:20 <b>Lévy lecture:</b> Horng-Tzer Yau (Harvard University) <i>Spectral statistics of random matrices and random graphs</i>
Bldg. C3	10:20-10:50 Coffee break and Poster Sessions
Bldg.Floor.Room 3.2.14	10:50-11:40 <b>Plenary lecture:</b> Gesine Reinert (University of Oxford) <i>Stein's method for network distributions</i>
Bldg.Floor.Room 3.2.14	11:40-12:30 <b>Schramm lecture:</b> Louigi Addario-Berry (McGill University) <i>Some recent results in probability</i>
Bldg. C3	12:30-14:00 Lunch break (with lunch box)
Bldg.Floor.Room 3.2.14 3.2.15 3.2.16 3.2.13 6.2.47 6.2.49 8.2.11 6.2.50 6.2.48 8.2.13 3.1.10 3.1.11	14:00-15:45 <b>Contributed &amp; Invited Sessions 1:</b> <b>IS8</b> -Entropy and geometry in stochastic analysis <b>IS20</b> -Non-equilibrium statistical mechanics <b>IS24</b> -Mean field games <b>IS28</b> -Numerical methods for stochastic differential equations: standard, mean-field and forward-backward <b>CS7</b> -Asymptotic methods in stochastic models <b>CS8</b> -From nonlinear PDEs to singular McKean-Vlasov SDEs and nonlinear Markov processes <b>CS13</b> -Stochastic fluid-dynamics <b>CS15</b> -Jump diffusion models <b>CS18</b> -Stochastic processes resulting from dynamics of cancer growth and genomic analyses <b>CS20</b> -Interacting Markov processes related to random matrices <b>CS41</b> -Constrained and interacting stochastic dynamics I <b>CS43</b> -Branching processes
Bldg. C3	15:45-16:15 Coffee break and Poster Sessions
Bldg.Floor.Room 3.2.14 3.2.15 3.2.16 3.2.13 6.2.50 8.2.11 8.2.13 6.2.47 3.1.10 6.2.48 3.1.11 6.2.49	16:15-18:00 <b>Contributed &amp; Invited Sessions 2:</b> <b>IS2</b> -Random matrices and number theory <b>IS19</b> -Graphons and their applications to biological networks <b>IS29</b> -Financial mathematics <b>IS30</b> -Statistical extreme value theory <b>CS1</b> -Recent trends in stochastic partial differential equations <b>CS3</b> -Various aspects of determinantal point processes <b>CS12</b> -Stochastic geometric mechanics and nonequilibrium thermodynamics <b>CS14</b> -Branching processes with dependencies <b>CS17</b> -Non-linear heat equations perturbed by multiplicative fractional noises <b>CS29</b> -Boundary driven exclusion processes <b>CS32</b> -Recent advances in Lévy processes <b>CS42</b> -Constrained and interacting stochastic dynamics II
Bldg. C3	18:15-20:00 Welcome Reception

## Tuesday, 25<sup>th</sup> JULY

Bldg.Floor.Room 3.2.14	09:30-10:20 <b>Medallion lecture:</b> Sylvia Serfaty (NYU) <i>Coulomb gases: dynamics and statistical equilibrium</i>
Bldg. C3	10:20-10:50 Coffee break and Poster Sessions
Bldg.Floor.Room 3.2.14	10:50-11:40 <b>Plenary lecture:</b> Riddhipratim Basu (Tata Institute) <i>Large scale geometry of two dimensional KPZ models</i>
Bldg.Floor.Room 3.2.14	11:40-12:30 <b>Itô prize lecture:</b> Andrey Pilipenko (National Academy of Sciences of Ukraine) and Oleksandr Iksanov (University of Kyiv) <i>On a skew stable Lévy process</i>
Bldg. C3	12:30-14:00 Lunch break (with lunch box)
Bldg.Floor.Room 3.2.15 3.2.14 3.2.16 3.2.13 6.2.48 3.1.10 8.2.11 6.2.47 6.2.49 8.2.13 6.2.50 3.1.11	14:00-15:45 <b>Contributed &amp; Invited Sessions 3:</b> <b>IS5</b> -Convex hulls of random walks on a skew stable Lévy process <b>IS10</b> -Stochastic optimal transportation <b>IS11</b> -Stochastic calculus on manifolds <b>IS22</b> -KPZ universality class <b>IS27</b> -Stochastic geometric mechanics and fluid dynamics <b>CS9</b> -Regularisation by noise <b>CS10</b> -Perturbed ODEs: stochastic oscillations, small noise limit and critical fluctuations <b>CS22</b> -Limit theorems and local times for Markov processes: Part I <b>CS26</b> -Scaling limits in stochastic non-Markovian epidemic models <b>CS39</b> -Infinite dimensional stochastic calculus and applications <b>CS44</b> -Boundary crossing problems for diffusion processes <b>CS51</b> -Dependent limit theorems
Bldg. C3	15:45-16:15 Coffee break and Poster Sessions
Bldg.Floor.Room 3.2.14 3.2.15 3.2.16 3.2.13 6.2.48 3.1.11 6.2.50 6.2.47 6.2.49 3.1.10	16:15-18:00 <b>Contributed &amp; Invited Sessions 4:</b> <b>IS14</b> -Statistical mechanical models <b>IS15</b> -Random conformal geometries and field theories <b>IS21</b> -Persistence probabilities <b>IS23</b> -Optimal transport and stochastic dynamics <b>CS2</b> -Inference for stochastic processes <b>CS23</b> -Limit theorems and local times for Markov processes: Part II <b>CS25</b> -Copulae and stochastic processes <b>CS27</b> -Topics in population genetics <b>CS28</b> -Stochastic processes for manifold estimation <b>CS49</b> -Interacting systems and KPZ universality
Bldg. C3	18:15-19:15 Young Researchers Reception

## Wednesday, 26<sup>th</sup> JULY

Bldg.Floor.Room 3.2.14	09:30-10:20 <b>Doob lecture:</b> René Carmona (Princeton Univ., APP) <i>Optimal control of conditional processes</i>
Bldg. C3	10:20-10:50 Coffee break
Bldg.Floor.Room 3.2.14 3.2.15 3.2.16 3.2.13 3.1.10 8.2.13 6.2.50 8.2.11 3.1.11 6.2.48 6.2.49 6.2.47	10:50-12:30 <b>Contributed &amp; Invited Sessions 5:</b> <b>IS3</b> -Stochastic models in epidemiology and evolution <b>IS4</b> -Interacting particle systems <b>IS7</b> -Random dynamics systems <b>IS18</b> -Quantitative homogenization <b>CS4</b> -Recent advances in stochastic fluid dynamics <b>CS6</b> -On analytical methods for stochastic PDEs <b>CS16</b> -Qualitative analysis of solutions to (S)PDEs <b>CS30</b> -Lévy-based spatio-temporal processes: inference and forecast <b>CS31</b> -Geometry of spherical random fields <b>CS33</b> -Genealogies of branching processes <b>CS38</b> -Recent advances in exact simulation <b>CS45</b> -Statistics for high-dimensional stochastic processes

More information on how to get to the venue, speakers, sessions and abstracts please refer to

[www.spa2023.org](http://www.spa2023.org)

## PROGRAMME OVERVIEW



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 (CMAFClO); the project UIDB/04621/2020 (CEMAT)