

**The 23rd Conference of the  
Romanian Society of Probability and Statistics**  
*Bucharest, November 18-19, 2022*

**Program**

**Saturday, November 19, 2022**

**“Miron Nicolescu” Amphitheater, ground floor**

**Chair:** Lucian Beznea

9:00 – 9:40 **Martin Grothaus** (Technical University Kaiserslautern)

*Hypocoercivity for non-linear infinite-dimensional degenerate stochastic differential equations*

9:45 – 10:25 **Alex Karagrigoriou** (University of the Aegean)

*Explaining Artificial Intelligence: On the Identification of Influential Features & Points*

*Coffee break*

**Probability Session, “Miron Nicolescu” Amphitheater, ground floor**

**Chair:** Martin Grothaus

10:45 – 11:25 **Ashkan Nikeghbali** (University of Zürich)

*Higher order Poisson approximations*

11:30 – 12:10 **Emmanuel Lepinette** (Paris-Dauphine University)

*Dynamic programming principle and computable prices in financial market models with transaction costs*

**Statistics Session, “Ciprian Foiaş” Hall, 8th floor**

**Chair:** Valentin Patilea

10:45 – 11:25 **Mitra Fouladirad** (Ecole Centrale Marseille)

*Model selection for wind data in the frame work of wind turbine reliability analysis*

11:30 – 12:10 **Ionuț Bebu** (The George Washington University)

*Personalized Screening Schedules for Chronic Diseases*

**Special Session “Stochastic Dynamics”, “Miron Nicolescu” Amphitheater, ground floor**

**Chair:** Lucian Beznea

12:15 – 12:45 **Oana Lang** (Imperial College London)

*On local and global solutions for a class of stochastic shallow water models*

12:50 – 13:15 **Benedikt Eisenhuth** (Technical University Kaiserslautern)

*Hypocoercivity for second order in time Reaction-Diffusion and Cahn-Hilliard type equations with multiplicative noise*

13:20 – 13:35 **Adela Popescu** (Simion Stoilow Institute of Mathematics of the Romanian Academy)

*Pure branching and total mass processes*

### **Contributed Talks, “Ciprian Foiaş” Hall, 8th floor**

**Chair:** Ionuţ Bebu

12:15 – 12:30 **Mihaela Pricop-Jeckstadt** (University POLITEHNICA of Bucharest)

*Minimax rates of convergence for statistical inverse problems based on discretely sampled functional data*

12:35 – 12:50 **Florentina Suter** (University of Bucharest and Gheorghe Mihoc – Caius Iacob Institute of Mathematical Statistics and Applied Mathematics of the Romanian Academy)

*Some stochastic orders between the concomitants of order statistics*

12:55 – 13:10 **Christina Parpoula** (Panteion University of Social and Political Sciences)

*Change-point analysis for Public Health surveillance and decision-making*

13:15 – 13:30 **Petre Caraiani** (Bucharest University of Economic Studies)

*Do Monetary Policy Shocks Impact the Network Structure of Financial Markets?*

### **Lunch**

### **Special Session “Stochastic Dynamics”, “Miron Nicolescu” Amphitheater, ground floor**

**Chair:** Lucian Beznea

14:30 – 14:45 **Alexandra Andriciu** (University of Bucharest and Simion Stoilow Institute of Mathematics of the Romanian Academy)

*The PSO algorithm – a particular version*

14:50 – 15:05 **Alexandru Mustăţea** (Simion Stoilow Institute of Mathematics of the Romanian Academy)

*Stochastic integration from a functional-analytic point of view*

15:10 – 15:25 **Marian Petrică** (University of Bucharest and Gheorghe Mihoc – Caius Iacob Institute of Mathematical Statistics and Applied Mathematics of the Romanian Academy)

*A modified SIRD model for Covid19 spread prediction using ensemble neural networks*

15:30 – 15:45 **Alexandra Teodor** (University POLITEHNICA of Bucharest and Simion Stoilow Institute of Mathematics of the Romanian Academy)

*The stochastic solution to a nonlinear Dirichlet problem with discontinuous boundary data*

### **Contributed Talks, “Ciprian Foiaş” Hall, 8th floor**

**Chair:** Aida Toma

14:30 – 14:45 **Silvia Dedu** (University of Economic Studies, Bucharest)

*Loss models involving truncated and censored random variables*

14:50 – 15:05 **Răzvan-Cornel Sfetcu** (University of Bucharest)

*Order results for Awad-Varma entropy*

15:10 – 15:25 **Alexandru Agapie** (University of Economic Studies, Bucharest, and Gheorghe Mihoc – Caius Iacob Institute of Mathematical Statistics and Applied Mathematics of the Romanian Academy)

*Convergence of evolution strategies*

15:30 – 15:45 **Bogdan Ichim** (University of Bucharest and Simion Stoilow Institute of Mathematics of the Romanian Academy)

*Computations of probabilities in five candidates elections*

### **Coffee break**

### **Contributed Talks, “Miron Nicolescu” Amphitheater, ground floor**

**Chair:** Iulian Câmpean

16:05 – 16:20 **Adina Opreșan** (New Mexico State University)

*Large deviations via almost sure central limit theorems*

16:25 – 16:40 **Julie Gamain** (University of Lille)

*Exact variation and drift parameter estimation for the nonlinear fractional stochastic heat equation*

16:45 – 17:00 **Dragoș-Pătru Covei** (University of Economic Studies, Bucharest)

*Some results about a stochastic production planning*

17:05 – 17:20 **Anișoara Maria Răducanu** (University of Economic Studies, Bucharest, and Gheorghe Mihoc – Caius Iacob Institute of Mathematical Statistics and Applied Mathematics of the Romanian Academy)

*On the existence of a leader in a random set*

17:25 – 17:40 **Ioana – Antonia Țacă** (Transilvania University of Brașov)

*A new partial ordering of sequences of real numbers and applications*

17:45 – 18:00 **Alexandra Diana Meleșteu** (Transilvania University of Brașov)

*Convex ordering of Polya random variables and approximation monotonicity of Bernstein-Stancu operators*

### **Contributed Talks, “Ciprian Foiaș” Hall, 8th floor**

**Chair:** Luiza Bădin

16:05 – 16:20 **Marius Rădulescu** (Gheorghe Mihoc – Caius Iacob Institute of Mathematical Statistics and Applied Mathematics of the Romanian Academy)

*Convexity Properties of the Multivariate Monomial*

16:25 – 16:40 **Ioan Stancu-Minasian** (Gheorghe Mihoc – Caius Iacob Institute of Mathematical Statistics and Applied Mathematics of the Romanian Academy)

*Wolfe and Mond-Weir duality for multiobjective programming problems involving higher-order invex functions*

16:45 – 17:00 **Maria Alexandra Badea** (Universitatea Ovidius, Constanța)

*On bivariate composite distributions: the Gumbel-Pareto distribution*

17:05 – 17:20 **Daniel Ciuiu** (University of Civil Engineering Bucharest)

*Cyclic partial autocorrelation function and applications to classical and hierarchical SARMA time series models*

17:25 – 17:40 **Tatiana Pașa** (University of Moldova)

*Genetic algorithms for solving non-linear transportation problems on large-scale networks*

17:45 – 18:00 **Bogdan Gheorghe Munteanu** (Henri Coanda Air Force Academy)

*Analysis of combat dynamics by means of Markov chains*