



ACADEMIA ROMÂNĂ
Institutul de Statistică
Matematică și
Matematică Aplicată
„Gheorghe Mihoc–
Caius Iacob”



UNIVERSITATEA
DIN BUCUREȘTI
Facultatea de Matematică
și Informatică



ACADEMIA
DE STUDII ECONOMICE
DIN BUCUREȘTI
Departamentul de
Matematici Aplicate



INSTITUTUL
DE MATEMATICĂ
“SIMION STOILOW”
AL ACADEMIEI
ROMÂNE

A 21-a CONFERINȚĂ A SOCIETĂȚII DE PROBABILITĂȚI ȘI STATISTICĂ DIN ROMÂNIA

Academia de Studii Economice din București

Departamentul de Matematici Aplicate

13-14 aprilie 2018

Președinte: Acad. Marius Iosifescu

Comitetul științific

*Acad. Ioan Cuculescu
Vlad Ștefan Barbu
Lucian Beznea
Mioara Buiculescu
Denis Enăchescu
Mihai Pascu
Cristian Preda
Vasile Preda
I.M. Stancu-Minasian
Aida Toma
Romică Trandafir
Ciprian Tudor
Maria Tudor
Ion Văduva
Gheorghiu Zbăganu*

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Ana Maria Răducan
Silviu Laurențiu Vasile*

PROGRAMUL CONFERINȚEI SPSR 2018

Secțiuni:

1. Probabilități și Procese Stochastice
2. Statistică
3. Actuarial și Matematici Financiare
4. Modelare Statistică cu Aplicații
5. Entropii, Divergențe și Selecția Modelului cu Aplicații

Vineri 13 aprilie

Academia de Studii Economice București (Calea Dorobanți 15–17)

8:30 – 9:00 *Primirea și înregistrarea participanților* (Sala 2102)

9:00 – 9:05 *Cuvânt de deschidere* – Ciprian Tudor (Sala 2102)

9:05 – 10:35 *Sesiune plenară 1* (Sala 2102)

10:35 – 11:00 *Pauză de cafea*

11:00 – 12:30 *Sesiune plenară 2* (Sala 2102)

12:30 – 13:30 *Pauză de masă* (Cafeteria ASE)

13:30 – 14:00 *Adunarea generală a SPSR* (Sala 2102)

14:00 – 15:30 *Sesiune plenară 3* (Sala 2102)

15:30 – 15:45 *Pauză de cafea*

15:45 – 17:10 *Comunicări pe secțiuni* (săli 2013, 2102, 2416)

17:10 – 17:30 *Pauză de cafea*

17:30 – 19:00 *Comunicări pe secțiuni* (săli 2013, 2102, 2416)

19:15 – 22:00 *Cină festivă* (Casa Universitarilor, str. Dionisie Lupu 46)

Sâmbătă 14 aprilie

Academia de Studii Economice București (Calea Dorobanți 15–17)

9:00 – 11:00 *Sesiune plenară 4* (Sala 2102)

11:00 – 11:15 *Pauză de cafea*

11:15 – 13:15 *Comunicări pe secțiuni* (săli 2013, 2102)

Programul comunicărilor – Vineri 13 aprilie

SESIUNE PLENARĂ 1 (Sala 2102)

Chair: Ciprian Tudor

9:05 – 9:50

Mădălina Deaconu (INRIA Nancy-Grand Est & Institut Élie Cartan de Lorraine)

Hitting times for stochastic processes - some new algorithms

9:50 – 10:35

Jean-Marc Bardet (SAMM, University Paris 1)

Asymptotic behavior of the Laplacian quasi-maximum likelihood estimator of affine causal processes

SESIUNE PLENARĂ 2 (Sala 2102)

Chair: Lucian Beznea

11:00 – 11:45

Dan Crișan (Imperial College London)

Solution properties of a 3D stochastic Euler fluid equation

11:45 – 12:30

Francesco Russo (ENSTA ParisTech)

BSDEs, martingale problems, associated deterministic equations and applications to finance

SESIUNE PLENARĂ 3 (Sala 2102)

Chair: Mădălina Deaconu

14:00 – 14:45

Alex Karagrigoriou (University of the Aegean, Samos, Greece)

Statistical Data Processing and Inference Based on Divergence Measures

14:45 – 15:30

Ali Suleyman Ustunel (Bilkent University, Turkey)

Ito Representation For the Functionals of Degenerate Diffusions

COMUNICĂRI PE SECȚIUNI

Secțiunea Probabilități și Procese Stochastice (Sala 2102) Chair: Francesco Russo

15:45 – 16:25

Florin Avram (Université de Pau, France)

First passage problems for Markov processes without positive jumps

16:25 – 16:40

Iulian Cîmpean (IMAR)

(Local) Quasimartingale functionals and their Doob-Meyer decompositions

16:40 – 16:55

Meryem Slaoui, Ciprian Tudor (University Lille 1)

Limit behavior of the Rosenblatt Ornstein-Uhlenbeck process with respect to the Hurst index

16:55 – 17:10

Dan Goreac, Claudia Grosu (Université Paris-Est, LAMA (UMR 8050), UPEMLV, UPEC, CNRS, F-77454, Marne-la-Vallée, France; Alexandru Ioan Cuza University of Iași)

Approximate and approximate null-controllability of a class of piecewise linear Markov switch system

Secțiunea Entropii, Divergențe și Selecția Modelului cu Aplicații (Sala 2013)

Chair: Vlad Ștefan Barbu

15:45 – 16:25

Ionuț Bebu, John M. Lachin (The Biostatistics Center, Department of Epidemiology and Biostatistics, The George Washington University, Rockville, USA)

Optimal screening schedules for disease progression with application to diabetic retinopathy

16:25 – 16:40

Christina Parpoula, Alex Karagrigoriou, Angeliki Lambrou (University of the Aegean, Samos; Hellenic Center for Disease Control and Prevention, Athens)

Model Selection in Time Series Studies of Influenza Morbidity

16:40 – 16:55

Emmanouil-Nektarios Kalligeris, Alex Karagrigoriou, Christina Parpoula (University of the Aegean, Samos)

On Mixed PARMA Modeling of Epidemic Activity in Biosurveillance Systems

16:55 – 17:10

Aida Toma (ASE, Bucharest & ISMMA)

Robust Estimations for the Single Index Model

Secțiunea Statistică (Sala 2416)

Chair: Jean-Marc Bardet

15:45 – 16:10

Cristian Preda (University Lille 1)

Repeated functional data analysis

16:10 – 16:25

Ion Văduva (University of Bucharest)

On Simulation of Some Particular Discrete Distributions

16:25 – 16:40

Gheorghică Zbăganu (Institute of Mathematical Statistics and Applied Mathematics)

Indices of inequality

16:40 – 16:55

Cornelia Enăchescu, Denis Enăchescu (Institute of Mathematical Statistics and Applied Mathematics)

Learning Efficient Bayesian Network for Classification

16:55 – 17:10

Romică Trandafir, Vasile Preda, Ion Mierluș-Mazilu, Sorin Demetriu (Technical University of Civil Engineering Bucharest; University of Bucharest)

Bayesian statistical inference for a more general beta distribution class

Secțiunea Probabilități și Procese Stochastice (Sala 2102)

Chair: Florin Avram

17:30 – 17:45

Romeo Negrea (Universitatea Politehnică Timișoara)

On a class of Stochastic Delay Differential Equations

17:45 – 18:00

Bogdan Gh. Munteanu ("Henri Coandă" Air Force Academy of Brașov)

The Rayleigh's family of distributions

18:00 – 18:15

Marwa Khalil, Ciprian Tudor (University Lille 1)

On the spatial variation for the solution to the stochastic wave equation driven by fractional noise

18:15 – 18:30

Alexei Leahu (Universitatea Tehnică a Moldovei)

Asupra unor modele probabiliste în fiabilitatea rețelelor

18:30 – 18:45

Daniel Ciuiu (Technical University of Civil Engineering Bucharest)

Stationary Time Series and Auto-copula

18:45 – 19:00

Udrea Păun (Romanian Academy)

A property of probability distribution of a random vector with independent components

Secțiunea Entropii, Divergențe și Selecția Modelului cu Aplicații (Sala 2013)

Chair: Vlad Ștefan Barbu

17:30 – 17:45

Irina Adriana Băncescu, Vasile Preda (University of Bucharest and National Institute for Economic Research "Costin C. Kirițescu"; University of Bucharest and ISMMA Gh. Mihoc – C. Iacob, Bucharest)

Modelling city size using q -Tsallis distributions

17:45 – 18:00

Ioana Dănilă (University of Bucharest, Doctoral School of Mathematics)

New results on cumulative entropies

18:00 – 18:15

Aurelia Cășaru (University of Bucharest, Doctoral School of Mathematics)

Lindley type distributions and Tsallis statistics

18:15 – 18:30

Maria Miroiu, Costel Bălcău, Doru Constantin (University of Pitești)

An Extension with Three Parameters of Burr XII Distribution

18:30 – 18:45

Irina Adriana Băncescu, Luminița Chivu, Vasile Preda (University of Bucharest and National Institute for Economic Research "Costin C. Kirițescu"; National Institute for Economic Research "Costin C. Kirițescu"; University of Bucharest and ISMMA Gh. Mihoc – C. Iacob, Bucharest)

Wage segregation in Romania

18:45 – 19:00

Simona Cojocă (University of Bucharest, Doctoral School of Mathematics)

Comparison between two models: a new approach using the alpha-divergence

Secțiunea Statistică (Sala 2416)

Chair: Cristian Preda

17:30 – 17:45

Luiza Bădin (ASE, Bucharest & ISMMA)

Conditional Efficiency Analysis: Recent Methodological Developments and Practical Implementation

17:45 – 18:00

Iuliana Iatan, Stefan Giebel (Department of Mathematics and Computer Science, Technical University of Civil Engineering Bucharest; Institut für Psychologie, Technical University of Braunschweig)

A New Representation for the Fuzzy Systems

18:00 – 18:15

Sorina Gramatovici, Corina Mortici (Bucharest University of Economic Studies)

Random Walk Hypothesis on Bucharest Stock Exchange

18:15 – 18:30

Carmina Georgescu, Emil Simion (University Politehnica of Bucharest)

Improvements of NIST statistical tests and applications to Cryptology

18:30 – 18:45

Romică Trandafir, Vasile Preda, Sorin Demetriu, Ion Mierluș-Mazilu (Technical University of Civil Engineering Bucharest; University of Bucharest)

On mixing of continuous distributions with discrete distributions used in reliability

18:45 – 19:00

Tatiana Pașa (State University of Moldova, Chișinău)

Implementation of the genetic algorithm for solving the non-linear transport problem

Programul comunicărilor – Sâmbătă 14 aprilie

SESIUNE PLENARĂ 4 (Sala 2102)

Chair: Ciprian Tudor

9:00 – 9:40

Marianne Clausel (Universite de Lorraine, France)

Anisotropic random fields: main properties and numerical simulation

9:40 – 10:20

Ionel Popescu (FMI/IMAR, Romania and Georgia Tech, US)

Recovery of spectrum for covariance matrix

10:20 – 11:00

Vincent Vandewalle, Matthieu Marbac (Université de Lille 2, France and INRIA; CREST and Ensai)

A tractable Multi-Partitions Clustering

Secțiunea Modelare Statistică cu Aplicații (sala 2102)

Chair: Alex Karagrigoriou

11:15 – 11:30

Despina Skilogianni, Alex Karagrigoriou, Georgios–Jason Siouris
(University of the Aegean, Samos)

The Forecasting Ability under PVaR

11:30 – 11:45

Georgios–Jason Siouris, Alex Karagrigoriou, Despina Skilogianni
(University of the Aegean, Samos)

Expected Percentage Shortfall and Adjusted Evaluation Measures

11:45 – 12:00

Bogdan Corneliu Biolan (University of Bucharest)

A comparison between detrending methods: Hodrick-Prescott filter, Baxter-King filter, Christiano-Fitzgerald filter

12:00 – 12:15

Ion Chițescu, Vasile Preda, Răzvan Sfetcu (University of Bucharest;
University of Bucharest and ISMMA Gh. Mihoc–C. Iacob, Bucharest;
University of Bucharest)

Best Approximation of Convex Sets

12:15 – 12:30

Alex Karagrigoriou, Andreas Makrides, Ilia Vonta (University of the
Aegean, Samos; University of Rouen, France; National Technical
University of Athens)

A New Control Chart for not Necessarily Symmetric Distributions

12:30 – 13:00

Vlad Ștefan Barbu, Guglielmo D'Amico, Raimondo Manca, Filippo
Petroni (University of Rouen; University "G. d'Annunzio" di Chieti-
Pescara; University of Rome "La Sapienza"; University of Cagliari)

***Step semi-Markov processes: modeling and application to manpower
management***

13:00 – 13:15

Roxana Ciumara, Ioana Ileana (Bucharest University of Economic
Studies; University of Bucharest, Doctoral School of Mathematics)

A general weighted cumulative paired entropy model

Optimizări și Actuarial (Sala 2013)

Chair: Vasile Preda and Raluca Vernic

11:15-11:45

Petar Jevtic, Minsuk Kwak, Traian Adrian Pîrvu (McMaster University, Canada; Hankuk University of Foreign Studies, South Korea; McMaster University, Canada)

Longevity bond pricing in equilibrium

11:45-12:00

Ioan M. Stancu-Minasian, Andreea Mădălina Rusu-Stancu (ISMMA)

On semi-infinite programming problem under higher-order convexity

12:00-12:15

Raluca Vernic (Ovidius University of Constanta and ISMMA)

On the evaluation of some multivariate compound distributions with Sarmanov counting distribution

12:15-12:30

Marius Rădulescu, Constanța Zoie Rădulescu (Institute of Mathematical Statistics and Applied Mathematics; National Institute for Research and Development in Informatics)

Single period portfolio selection models with transaction costs and initial holdings

12:30-12:45

Manuela Ghica (University of Medicine and Pharmacy “Carol Davila” Bucharest)

Confidence intervals for establish bioequivalence using bootstrap approach

12:45-13:00

Sezen Mutali (Ovidius University Constanța)

A review of the fuzzy AHP approach to risk modeling

13:00-13:15

Florentin Șerban (Bucharest University of Economic Studies; University of Bucharest, Doctoral School of Mathematics)

Portfolio optimization in return-risk-liquidity framework