# ASMDA 2013

# Program

## 15th Applied Stochastic Models and Data Analysis International Conference

**Including Demographics 2013 Workshop**

**June 25–28, 2013**

**Mataró (Barcelona), Spain**

# Preface

## XV$^{th}$ Applied Stochastic Models and Data Analysis (ASMDA2013) International Conference

**June 25–28, 2013, Mataró (Barcelona), Spain**

Since 1981, ASMDA aims to serve as the interface between Stochastic Modeling and Data Analysis and their real life applications particularly in Business, Finance and Insurance, Management, Production and Reliability, Biology and Medicine.

Our main objective is to welcome papers, both theoretical and practical, presenting new results capable of solving real-life problems. Another important objective is to show how the data should be handled in these studies. The use of recent advances in different fields is also promoted such as for example, new optimization and statistical methods, data warehouse, data mining and knowledge systems, computing-aided decision supports and neural computing.

The role played by the ASMDA as an interface between theory and practice means that the ASMDA conferences are of great interest for both academic and business worlds. A high standard of these meetings is guaranteed by strong international scientific committees.

The preceding international ASMDA Symposia were organized in 1981, 1983, 1985 in Brussels (Belgium), in 1988 in Nancy (France), in 1991 in Granada (Spain), in 1993 in Chania (Greece), in 1995 in Dublin (Ireland), Ireland, in 1997 in Anacapri (Italy), in 1999 in Lisboa (Portugal), in 2001 in Compiègne (France), in 2005 in Brest (France), in 2007 again in Chania, in 2009 in Vilnius (Lithuania) and in 2011 in Rome (Italy).

In general, ASMDA proceeding volumes were published by international scientific publishers or by local publishers.

The ASMDA 2013 Conference focuses on new trends in theory and applications of Applied Stochastic Models and Data Analysis.

A special Demographics2013 Workshop is organized under the umbrella of the ASMDA International. The aim is to bring together people interested in focusing on demography and related fields of analysis and research including life and physical sciences, as well as medical and technical applications. We strongly support interdisciplinary studies and foster the improvement of new analytic tools and research methods

We thank all conference participants for their contribution to the success of the conference, the ISAST Committee, the Secretary Mary Karadima, Prof. Yiannis Dimotikalis, Dr. Aris Meletiou, the especially the plenary and invited speakers and all authors of the abstracts and papers.

June, 2013

***Raimondo Manca***, Rome, Italy

***Christos H. Skiadas***, Chania, Crete, Greece

***Vladimir Zaiats***, Barcelona, Spain

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Vladimir Zaiats, Universitat de Vic, Spain

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University of Rome "La Sapienza" Italy

**Christos H. Skiadas**
Technical University of Crete, Greece

**Vladimir Zaiats**
Escola Politècnica Superior, Universitat de Vic, Spain

# Plenary Speakers

**Narayanaswamy Balakrishnan**
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Hamilton, Ontario, Canada

**Leonid Gavrilov**
Center on Aging,
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**Dmitrii Silvestrov**
Department of Mathematics
Stockholm University
Sweden

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| **Stochastic Modeling Techniques and Data Analysis International Conference (ASMDA2013)** | | | |
| **Demographic Analysis and Research International Workshop (Demographics2013)** | | | |
| **June 25 - 28, 2013 Mataró (Barcelona), Spain** | | | |
| **Program** | | | |
| **Session / Room** | **Date / Time** | **Event** | **Talk Title / Event** |
| | | | |
| | 8.30-10.00 | **Tuesday June 25** | **Registration** |
| **Auditorium** | 10.00-10.30 | **Opening Ceremony** | |
| **Auditorium** | 10.30-11.10 | **Keynote Session (Chair: Raimondo Manca)<br>Joseph Glaz** | ***Scan Statistics and Applications: Recent Advances and Future Developments*** |
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| **Auditorium** | 11.10-11.50 | **Keynote Session (Chair: Christos Skiadas)<br>Jean-Marie Robine** | ***Health expectancies in the European Union, 2005-2011*** |
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| | 11.50-12.10 | | **Coffee Break** |
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| **Auditorium** | 12.10-12.50 | **Keynote Session (Chair: Vladimir Zaiats)<br>Yury A. Kutoyants** | ***On ADF Goodness of Fit Tests for Stochastic Processes*** |
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| **SCS1** | | **SPECIAL AND CONTRIBUTED SESSIONS** | |
| **Room 1** | 25.06.13:12.50-14.30 | **Chair: Guglielmo D'Amico** | **SEMI-MARKOVIAN BASED MODELS FOR FINANCE AND ECONOMICS** |
| | | **A semi-Markovian Present Worth Analysis and its applications** | **Guglielmo D'Amico** |
| | | **Some Remarks on Income Inequality Measurement** | **Guglielmo D'Amico, Giuseppe Di Biase Raimondo Manca** |
| | | **Multivariate Weighted Indexed Semi-Markov Models in Stock Market** | **Guglielmo D'Amico, Filippo Petroni** |
| | | **Discrete Time Homogeneous Markov Processes for the Study of the Basic Risk Processes** | **Fulvio Gismondi, Jacques Janssen, Raimondo Manca, Giuseppina Ventura** |
| | | **Forecasting wind farm financial return** | **F. Prattico, G. D'Amico, F. Petroni** |

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| **Room 2** | 25.06.13:12.50-14.30 | **Chair: Félix Belzunce** | **DATA ANALYSIS I** |
| | | **Limitations and assumptions of experience curves used as an instrument to evaluate the competitiveness of photovoltaic technologies in the energy market** | **Heino Albering, Michal Greguš** |
| | | **Asymptotic properties of trimmed sums** | **Alina Bazarova, Istvan Berkes, Lajos Horvath** |
| | | **A Characterization and Sufficient Conditions for the Total Time on Test Transform Order** | **Félix Belzunce, Carolina Martínez-Riquelme, José M. Ruiz** |
| | | **Convergence properties of mixture of factor analyzers with unequal number of factors** | **Charles Bouveyron, Julien Jacques** |
| **Room 3** | 25.06.13:12.50-14.30 | **Chair: Jean-Marie Robine** | **HEALTH-MORTALITY** |
| | | **Modal Age at Death: Lifespan Indicator in the Era of Longevity Extension** | **Shiro Horiuchi, Nadine Ouellette, Siu Lan Karen Cheung, and Jean-Marie Robine** |
| | | **Mortality measurement and modelling at advanced ages** | **Gavrilova N.S., Gavrilov L.A.** |
| | | **Spatial Variation in the Relationship between Mortality Rates and Neighborhood Characteristics in South Korea** | **Yoohyung Joo, Hee Yeon Lee** |
| | | **Healthy Life Expectancy in UK: Estimates and Comments on the UK Health Performance** | **Christos H Skiadas and Charilaos Skiadas** |
| **Room 4** | 25.06.13:12.50-14.30 | **Chair: Shiang-Tai Liu** | **SAMPLING** |
| | | **Informative selection of a sample: asymptotic issues** | **Daniel Bonnéry, F. Jay Breidt, François Coquet** |
| | | **Multiple kernel testing procedures with non-asymptotic bootstrap approaches for two-sample problems** | **Magalie FROMONT, Béatrice LAURENT, Matthieu LERASLE, Patricia REYNAUD-BOURET** |
| | | **Sample coefficient of variation under uncertainty** | **Shiang-Tai Liu** |
| | | **Some Ranked Set Sampling Based Strategies for Statistical Process Control** | **Muhammad Rizwan Anwar** |
| **Room 5** | 25.06.13:12.50-14.30 | **Chair: Mariano J. Valderrama** | **MODELS AND MODELLING** |
| | | **FUNCTIONAL MODELS TO FORECAST AIRBORNEPOLEN CONCENTRATON AS PREVENTIVE TOOL FOR ALLERGIES** | **Mariano J. Valderrama, Manuel Escabias** |
| | | **Migration Flows Estimation Using The Modified Gravity Model** | **Diana Santalova** |

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| | | Estimating the model with fixed and random effects by a robust method | Jan Ámos Víšek |
| | | General efficiency modeling with planned preventive maintenance | Makram KRIT |
| | | Optimal quantization and transmission for ECG signals using genetic algorithms | A. Pastor-Sánchez, E. Alexandre-Cortizo, S. Salcedo-Sanz, D. Gallo-Marazuela, L. Cuadra-Rodríguez |
| | 25.06.13:14.30-15.30 | | **Lunch** |
| **SCS2** | | **SPECIAL AND CONTRIBUTED SESSIONS** | |
| **Room 1** | 25.06.13:15.30-17.10 | **Chair: Joseph Glaz** | **SCAN STATISTICS AND APPLICATIONS** |
| | | Scan Statistics for Monitoring Data Modeled by a Negative Binomial Distribution | Jie Chen, Joseph Glaz |
| | | Adaptive Monitoring Rules based on Scan Statistics for Compound Patterns with an Application to Quality Control in Blood Banking | Wendy Lou, James C. Fu, Qilong Yi |
| | | Approximations for two-dimensional discrete scan statistics in some dependent models | Alexandru Amărioarei, Cristian Preda |
| | | A Variable Window Scan Statistic for MA(1) Process | Xiao Wang, Joseph Glaz |
| **Room 2** | 25.06.13:15.30-17.10 | **Chair: Eva Maria Ortega** | **STOCHASTIC ORDERINGS AND APPLICATIONS** |
| | | Comparison of multi-stage dose-response mixture models, with applications | Eva Maria Ortega, José Alonso |
| | | Comparisons of multistate models with discrete-time pure-birth process for recurrent events and uncertain parameters | EM. Ortega, E. Ortega-Quiles, J. Alonso |
| | | Some monotonicity properties of Bayesian updating | Yosef Rinott, joint with Marco Scarsini |
| **Room 3** | 25.06.13:15.30-17.10 | **Chair: Leonid Gavrilov** | **POLULATION-MORTALITY** |
| | | Modeling of mortality of the Czech and Spanish populations | Petra Dotlacilova, Tomas Fiala, Jitka Langhamrova |
| | | TO RELIABILITY OF MORTALITY SHIFTS IN WORKING POPULATION IN RUSSIA | Alla Ivanova, Tamara Sabgayda, Viktoria Semyonova, Elena Zemlyanova |
| | | Reach and Utilization of Maternal and Child Health Services in India | P. Murugesan |

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| Room 4 | 25.06.13:15.30-17.10 | Chair: Harald Hruschka | MODELS AND MODELLING |
| | | Comparing small and large scale models of multicategory buying behavior | Harald Hruschka |
| | | Age-Period-Cohort models using smoothing splines: a generalized additive model approach | Bei Jiang, KC Chough |
| | | Some procedures for solving common difficulties in Bayesian Space-Time models | Alberto López, M. Pilar Muñoz, Josep A. Sánchez |
| SCS3 | | SPECIAL AND CONTRIBUTED SESSIONS | |
| Room 1 | 25.06.13:17.10-18.30 | Chair: Valérie Girardin | THE USE OF ENTROPY IN STATISTICAL INFERENCE FOR STOCHASTIC PROCESSES |
| | | On interrelations of generalized *q*-entropies and a generalized Fisher information, including a Cramér-Rao inequality | Jean-François Bercher |
| | | Relative Entropy Versus Entropy Difference in Goodness-of-Fit Tests. Application to Pareto fitting. | Valérie Girardin |
| | | Computation of Generalized Entropy Rates and Generalized Relative Entropy rates | Valerie Girardin, Loïck Lhote |
| | | Confidence Intervals for Dynamic Concentration/Inequality Indices of Economic Systems Modeled by Birth-Death Processes | Philippe Regnault |
| | | Estimation of the entropy of semi-Markov chains | Vlad Stefan Barbu, Valérie Girardin |
| Room 2 | 25.06.13:17.10-18.30 | Chair: L.G.Afanasyeva, E. Bulinskaya, E. Yarovaya | ASYMPTOTIC ANALYSIS OF STOCHASTIC MULTICOMPONENT SYSTEMS |
| | | Coupling Method for Asymptotic Analysis of Queues with Regenerative Input and Unreliable Server | L.G.Afanasyeva, E.E.Bashtova |
| | | Asymptotic Behavior of the Processes Describing Some Insurance Models | Ekaterina Bulinskaya |
| | | Typical Distances in Large Synchronized Stochastic Particle Systems | Anatoly Manita |
| | | Asymptotic Behavior of Green's Functions Arising in Branching Random Walks | Elena Yarovaya |
| Room 3 | 25.06.13:17.10-18.30 | Chair: Dmitrii Silvestrov | FINANCE |
| | | Fractional Brownian Motion and its Application to Financial Time Series | Mária Bohdalová and Michal Greguš |

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| | | **Admissible strategies and European claims for non-Markovian SDEs** | **Ionela Marinela Marinescu** |
| | | **Relationships between stock and bond markets in the Euro Zone, during crisis periods** | **M. Dolores Márquez, M. Pilar Muñoz, Pilar Soriano** |
| | | **Minimum Pseudodistance Estimators and Applications to Portfolio Optimization** | **Aida Toma, Samuela Leoni-Aubin** |
| | | **Modelling financial data using distributions tailored on given moments of the empirical distribution** | **V. Potì, M. G .Zoia, M. Faliva** |
| **Room 4** | 25.06.13:17.10-18.30 | **Chair: A.Meletiou, Co-Chair: Mikhail G. Konovalov** | **OPTIMIZATION** |
| | | **Optimizing properties of adaptive strategy in computing system with different workload** | **Mikhail G. Konovalov** |
| | | **Approach for Vehicle Routing Problem with Resource Constraints** | **A. LAMAMRI, A. NAGIH, H. AIT HADDADENE** |
| | | **On the Application of an Evolutionary Algorithm for the Optimization of Kitting Areas in Car Manufacturing Production Chains** | **C. A. Garcia-Santiago, A. Gonzalez-Gonzalez, I. Landa-Torres, J. Del Ser, S. Gil-Lopez, I. Diaz-Iriberri, F. Duran Limon, and S. Salcedo-Sanz** |
| | | **Vibrations control: singular solutions for mean square optimization** | **Larisa Manita** |
| **Room 5** | 25.06.13:17.10-18.30 | **Chair: Jozef Komornik, Magda Komornikova** | **MODELS AND MODELLING** |
| | | **Modelling structural changes in relations between returns of selected stock indexes** | **Jozef Komornik, Magda Komornikova, Cuong Nguyen** |
| | | **Semi-parametric models for coral reef dynamics** | **Kamila Zychaluk, Matthew Spencer, Damian Clancy, John F. Bruno and Tim McClanahan** |
| | | **Scale-free property for degrees and weights in a preferential attachment random graph model** | **István Fazekas, Bettina Porvázsnyik** |
| | | **Construction of a happiness index using polytomous item response theory models in a survey** | **Diana Carolina Gamboa, Álvaro Mauricio Montenegro** |
| | | **Stationarity and Geometric Ergodicity of a class of Periodic Threshold ARCH Models** | **Hafida Guerbyenne, Abderrahim Kessira** |
| | 25.06.13:18.30-19.30 | | **Welcome Reception** |

# Wednesday June 26

| SCS4 | | SPECIAL AND CONTRIBUTED SESSIONS | |
|---|---|---|---|
| **Room 1** | 26.06.13:9.00-10.30 | **Chair: Ivanka Horová** | **KERNEL SMOOTHING** |
| | | **Bandwidth selection for mean shift clustering** | **José E. Chacón, Tarn Duong** |
| | | **Conditional Density Estimations** | **Katerina Konecna, Ivanka Horova, Jan Kolacek** |
| | | **Kernel Regression Model with Correlated Errors** | **Dagmar Lajdová, Jan Koláček, Ivanka Horová** |
| | | **Kernel and ESIS estimates of J-divergence** | **Martin Řezáč** |
| | | **Kernel Density Derivatives Estimations with Iterative Bandwidth Selection** | **Kamila Vopatová, Ivanka Horová, Jan Koláček** |
| **Room 2** | 26.06.13:9.00-10.30 | **Chair: James R. Bozeman, Co-Chair: Yuan-chin Ivan Chang** | **DATA ANALYSIS II** |
| | | **Calculating the Convexity Ratio and Applications** | **James R. Bozeman, Eva Glidden, Erin Milne, Timothy Nicholson** |
| | | **GENERAL DIAMETER-HEIGHT EQUATIONS FOR Ochroma lagopus S.W., COAST REGION, ECUADOR** | **Álvaro Cañadas, František Vilčko, Diana Rade, Carlos Zambrano** |
| | | **A Novel Pointer-Encoding Genetic Programming Algorithm for Classification Problems** | **L. Carro-Calvo, S. Salcedo-Sanz, A. Portilla-Figueras, S. Jiménez-Fernández, L. Cuadra, E. Alexandre-Cortizo** |
| | | **Finding the best combination of variables with respect to an ROC curve type measure under a continuous reference** | **Yuan-chin Ivan Chang** |
| | | **A Functional Hodrick-Prescott Filter** | **Boualem Djehiche, Hiba Nassar** |
| **Room 3** | 26.06.13:9.00-10.30 | **Chair: Ekaterina Bulinskaya** | **MARKOV** |
| | | **Undergraduate Students' Career in Italy: a non Homogeneous Markov Approach with Fuzzy States** | **Franca Crippa, Marcella Mazzoleni, Mariangela Zenga** |
| | | **Multistage Non-Homogeneous Markov Chain Modeling of the Non-Homogeneous Genetic Algorithm and Convergence Results** | **André G. C. Pereira, Viviane S. M. Campos** |
| | | **Trading with Hidden Markov Models** | **I. Róbert Sipos, János Levendovszky** |

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| **Room 4** | 26.06.13:9.00-10.30 | **Chair: Leonid Gavrilov** | **MORTALITY** |
| | | **Wrong assessment of mortality from diabetes in Russia** | **TP Sabgayda, DO Roschin, VG Semyonova** |
| | | **Changes in Causes of Death in the City of Zurich** | **Cornelia Schwierz, Klemens Rosin, Judith Riegelnig** |
| | | **Modelling of Cohort Mortality Patterns – New Approaches** | **Petr Mazouch, Klára Hulíková Tesárková** |
| | | **Markov Aging Process and Phase-Type Law of Mortality** | **Sheldon Lin and Xiaoming Liu** |
| | | **Estimating distribution of age at menarche based on recall information** | **Sedigheh Mirzaei S., Debasis Sengupta** |
| **Room 5** | 26.06.13:9.00-10.30 | **Chair: Giovanni Barone-Adesi** | **REGRESSION-SIMULATION** |
| | | **A Tale of Two Investors: Estimating Risk Aversion, Optimism, and Overconfidence** | **Giovanni Barone-Adesi, Loriano Mancini, Hersh Shefrin** |
| | | **Regression Models for Repairable Systems** | **Petr Novák** |
| | | **Skew *t*-copula and tail dependence: a simulation study** | **Tõnu Kollo, Gaida Pettere, Marju Valge** |
| | | **Discriminant and Regression Analysis Based on Convex Piece-wise Linear Minimization with Applications to Allergological Data** | **Wojciech Niemiro, Wojciech Rejchel., Marta Zalewska** |
| | | **Functional logistic regression with derivative component** | **Ahmedou Aziza, Marion Jean-Marie, Pumo Besnik** |
| **Auditorium** | 26.06.13:10.30-11.10 | **Keynote Session (Chair: Raimondo Manca) Dmitrii Silvestrov** | ***Optimal Stopping and Convergence for American Type Options*** |
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| **Auditorium** | 26.06.13:11.10-11.50 | **Keynote Session (Chair: Christos H Skiadas) Leonid Gavrilov** | ***Biodemography of mortality and longevity*** |
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| | 11.50-12.10 | | **Coffee Break** |
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| **Auditorium** | 26.06.13:12.10-12.50 | **Keynote Session (Chair: Vladimir Zaiats) Pere Puig** | ***Beyond the Maximum Likelihood characterization of distributions*** |
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| SCS5 | | SPECIAL AND CONTRIBUTED SESSIONS | |
|---|---|---|---|
| Room 1 | 26.06.13:12.50-14.30 | Chair: Anatoliy Swishchuk | STOCHASTIC MODELS IN FINANCE |
| | | A Double HMM Approach to Altman Z-scores and Credit Ratings | Robert J. Elliott, Tak Kuen Siu, Eric S. Fung |
| | | Cascade Models for Random Financial Networks | Tom Hurd |
| | | A New Analytic Approximation Technique for Options in a Regime-Switching Market | Melissa Mielkie, Matt Davison |
| | | Stochastic correlation in financial markets | Luis Seco |
| | | Delayed Heston Model: Improvement of Vol Surface and Hedging of Vol Swaps | Anatoliy Swishchuk |
| Room 2 | 26.06.13:12.50-14.30 | Chair: Yiannis Dimotikalis | NEURAL |
| | | Multiple testing for the detection of local dependence between two point processes. Application to the study of neuronal spike trains synchronization | Mélisande Albert, Yann Bouret, Magalie Fromont, Franck Grammont, Patricia Reynaud-Bouret |
| | | A comparison of artificial neural networks to forecast nitrogen dioxide concentrations | Carmen Capilla |
| | | Neural network modeling and fractional model identification of a thermal process | Sofiane Hammouche, Rabah Mellah, Tounsia Djamah, Rachid Mansouri |
| | | ON THE PERFORMANCE OF ARTIFICIAL NEURAL NETWORKING FOR PROCESS MONITORING | Babar Zaman, Muhammad Riaz |
| Room 3 | 26.06.13:12.50-14.30 | Chair: Vladimir Zaiats | DISTRIBUTIONS I |
| | | Comparing relative skewness of multivariate distributions | Félix Belzunce, Julio Mulero, José M. Ruiz and Alfonso Suárez-Llorens |
| | | BPSO Versions with Chi-squared Distribution for MKP Resolution | Raida KTARI, Habib CHABCHOUB |
| | | Generalized Asymmetric Linnik distributions and process | Kuttykrishnan A.P. |
| | | Using optimized distributional parameters for continuous data modelling | K. Mwitondi, J. Bugrien and K. Wang |

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| Room 4 | 26.06.13:12.50-14.30 | Chair: Mariano J. Valderrama, Co-Chair: A.Meletiou | REGRESSION |
| | | A fuzzy regression model for non-convex fuzzy numbers: the crisp input - fuzzy output case | Antonio Calcagn, Luigi Lombardi |
| | | Optimal Sample Size Allocation for Multi-level Stress Testing with Extreme Value Regression Under Type-I Censoring | So, H.Y., Ng, H.K.T., Gao, W. |
| | | Beta kernel regression estimator: Some comparisons with symmetric kernel | Zohra Guessoum, Sara Ghettab, Ourida Sadki |
| | | The Building of Credit Scoring System on the Residential Mortgage Finance by Logistic Regression and Classification Tree_ A Case Study From Taiwan | Rwei-Ju Chuang |
| Room 5 | 26.06.13:12.50-14.30 | TUTORIAL: Christos Skiadas | Estimation of Healthy Life Expectancy |
| | | Life Table Data Bases (Application base USA, UK, Japan) | C. H. Skiadas, A. Meletiou |
| | | Simple model fitting to data (Gompertz, Weibull) | Yiannis Dimotikalis, A. Meletiou |
| | | Advanced model fitting (First Exit Time Models) | C. H. Skiadas |
| | | Life Expectancy and Healthy Life Expectancy Estimates | C. H. Skiadas, A. Meletiou |
| | | Provided Software and Publications | Christos H Skiadas, Charilaos Skiadas |
| | 26.06.13:14.30-15:30 | | Lunch |
| Excursion | 26.06.13:15:30-20:00 | | Half Day Excursion |

# Thursday June 27

| SCS6 | | SPECIAL AND CONTRIBUTED SESSIONS | |
|---|---|---|---|
| Room 1 | 27.06.13:9.00-10.30 | Chair: Samis Trevezas | MONTE CARLO METHODS FOR PARAMETER ESTIMATION IN PLANT GROWTH MODELS |
| | | A NONLINEAR MIXED EFFECTS MODEL TO EXPLAIN INTER-INDIVIDUAL VARIABILITY IN PLANTS POPULATIONS | Charlotte Baey, Samis Trevezas, Paul-Henry-Cournède |
| | | SOME SEQUENTIAL MONTE CARLO TECHNIQUES FOR DATA ASSIMILATION IN A PLANT GROWTH MODEL | Yuting Chen, Samis Trevezas, Paul-Henry-Cournède |
| | | A bayesian approach for PARAMETER ESTIMATION OF A plant growth model | Sonia Malefaki, Trevezas Samis, Paul-Henry-Cournède |
| | | Stochastic variANts of the EM algorithm FOR PARAMETER ESTIMATION IN PLANT GROWTH MODELS | Trevezas Samis, Sonia Malefaki, Paul-Henry-Cournède |
| Room 2 | 27.06.13:9.00-10.30 | Chair: Raimondo Manca | DATA ANALYSIS III |
| | | Variations of PageRank with application to linguistic data | Christopher Engström, Sergei Silvestrov, Thierry Hamon |
| | | The Illumination Inverse Problem Applications to Electron Microscopy | Segolen Geffray, Nicolas Klutchnikoff, Myriam Vimond |
| | | Optimal turbines layout in an offshore wind farm using evolutionary computation | D. Gallo-Marazuela, S. Salcedo-Sanz, A. Pastor-Sánchez, E. Alexandre-Cortizo, A. Portilla-Figueras, L. Prieto |
| Room 3 | 27.06.13:9.00-10.30 | Chair: Mukhopadhyay, Co-Chair: A.Meletiou | MORTALITY |
| | | MULTIVARIATE LIFETIME MODELS BASED ON LATENT RANDOM VARIABLES: A REVIEW AND SOME RECENT EXTENSIONS | Juana-María Vivo |
| | | Alternative assessments of the probability of death with a case study for persons with Celiac Disease in selected Easter European countries | Ondrej Simpach |
| | | MDG and 1000 Day Window: Health and Mortality Disparities in India | Barun Kumar Mukhopadhyay |
| | | Multifractal analysis: identifying the boundaries application in the study of HRV | Artem Zagaynov, Valery Antonov, Vu van Quang |
| Room 4 | 27.06.13:9.00-10.30 | Chair: Dvora Toledano-Kitai, Co-Chair: Jeng-Min Chiou | MULTIVARIATE-MODELS AND MODELLING |
| | | Analysis of Multivariate Functional Data | Jeng-Min Chiou |

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| | | Cluster Model Selection using Minimum Cost Spanning Trees | Renata Avros, Avi Soffer, Dvora Toledano-Kitai, Zeev Volkovich |
| | | DECREASE IN RISK OF ERRONEOUS CLASSIFICATION OF THE MULTIVARIATE STATISTICAL DATA | Farhadzadeh E.M., Farzaliev Y.Z., Muradaliev A.Z. |
| | | Parameter estimations in a special forward interest rate model | Balázs Nyul |
| | | A virtual age model for imperfect repair of a continuously monitored system with accumulating deterioration | Sophie Mercier, Inmaculada T. Castro |
| **Room 5** | 27.06.13:9.00-10.30 | **Chair: Yiannis Dimotikalis** | **QUEUE THEORY** |
| | | Empirical analysis of queues with abandonment: simple (but not too simple) models of complex systems | David Azriel, Paul D. Feigin, Avishai Mandelbaum |
| | | An Unreliable Retrial Queue with Impatience and Preventive Maintenance | Amar Aissani, Samira Taleb, Djamel Hamadouche |
| | | Approximation of the GI/M/1 Queue with Exponential Vacations | Sabrina Aoumer, Karim Abbas, Djamil Aïssani |
| | | Truncation Approximations of the M/G/1 Queue: Strong Stability Approach | Badredine Issaadi, Karim Abbas, Djamil Aïssani |
| | | Queuing Systems with Two Service Operations as Mathematical Models of Reliability and Survivability | Revaz Kakubava, Tinatin Kaishauri, Otar Shonia |
| | | Retrial queues with disruptive and non-disruptive server interruptions | Tewfik Kernane |
| **Auditorium** | 27.06.13:10.30-11.10 | **Keynote Session (Chair: Raimondo Manca) Marco Scarsini** | ***On information distortion in online ratings*** |
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| **Auditorium** | 27.06.13:11.10-11.50 | **Keynote Session (Chair: Christos H. Skiadas) N.Balakrishnan** | ***One-Shot Device Testing and Analyses*** |
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| | 27.06.13:11.50-12.10 | | **Coffee Break** |

| SCS7 | | SPECIAL AND CONTRIBUTED SESSIONS | |
|---|---|---|---|
| Room 1 | 27.06.13:12.10-14.30 | Chair: Raimondo Manca | STOCHASTIC METHODS FOR FINANCE AND INSURANCE |
| | | A generalization of some quantile-based measures commonly used in financial and insurance applications | Jaume Belles-Sampera, Montserrat Guillén, Miguel Santolino |
| | | The Impact of a Pandemic Influenza on Mortality, Temporary Disability and Hospitalization Risks for Protection Insurance, and Hedging Strategies | Marine Corlosquet-Habart,, Jacques Janssen, Philippe Lenca, Raimondo Manca |
| | | Male-female compositional balance in the analysis of longevity for an insurance portfolio: the case of Mexican life tables | Arelly Ornelas, Montserrat Guillén |
| | | Computational Algorithms for Moments of Accumulated Markov and Semi-Markov Rewards | Dmitrii Silvestrov, Raimondo Manca, Evelina Silvestrova |
| Room 2 | 27.06.13:12.10-14.30 | Chair: N. Balakrishnan | DISTRIBUTIONS II |
| | | On some properties of geometric Poisson distribution | Masood Anwar |
| | | The distribution of the average lifetime of the Marshall–Olkin law | Lexuri Fernández, Matthias Scherer |
| | | Some Results on Generalized Mixtures of Weibull Distributions with Different Shape Parameters* | Manuel Franco, Debasis Kundu, Narayanaswamy Balakrishnan, Juana-Maria Vivo |
| | | Description of gene expression from microarray data by fractional stable distributions | Saenko Viacheslav, Saenko Yurij |
| | | Guidelines to Assess a Weibull Approximation to an Independent Competing Risks Model with Two Weibull Distributions | Sergio Yáñez, Luis A. Escobar, Nelfi González |
| | | Modeling survival data using Lindley-Geometric distribution and some extensions | Vasile Preda, Silvia Dedu |
| Room 3 | 27.06.13:12.10-14.30 | Chair: Alessandro De Gregorio | RANDOM PROCESSES |
| | | Random walks with generalized Dirichlet steps | Alessandro De Gregorio |
| | | Robust interpolation of periodically correlated random processes | Iryna Dubovetska, Mykhailo Moklyachuk |
| | | Asymptotic results for empirical means of independent geometric distributed random variables | Claudio Macci, Barbara Pacchiarotti |
| | | On series $\Sigma c_k f(n_k x)$ with random frequencies | Marko Raseta, Istvan Berkes |

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| | | **Approximation of a Random Process with Variable Smoothness** | **Oleg Seleznjev, Enkelejd Hashorva, Mikhail Lifshits** |
| **Room 4** | 27.06.13:12.10-14.30 | **Chair: Vladimir Zaiats** | **STATISTICS** |
| | | **Statistical Inference for Partially Observed Linear Systems** | **Vladimir Zaiats** |
| | | **Robustness in Sequential Hypotheses Testing Applied to Statistical Monitoring of Medical Data** | **Alexey Kharin** |
| | | **Statistical estimation of non-stationary MAP2s** | **Joanna Rodríguez, Rosa E. Lillo, Pepa Ramírez-Cobo** |
| | | **Statistical Estimation Based on Generalized Order Statistics from Kumaraswamy Distribution** | **Samir K. Safi** |
| | | **The Production Volume of the Piggery and the Piglets' Ability to Grow Under Favourable and Unfavourable Circumstances** | **Marijan Sviben** |
| | | **Integrated Likelihood in Statistical Inference** | **Aleksander Zaigrajew** |
| | | **On the Choice of Runs Rules for efficient Process Monitoring** | **Babar Zaman, Muhammad Riaz** |
| **Room 5** | 27.06.13:12.10-14.30 | **Chair: Claude Lefèvre** | **RISK THEORY** |
| | | **Impact of dependencies on insolvency probabilities** | **Orsolya Kocsis** |
| | | **Ruin probabilities for risk models with ordered claim arrivals** | **Claude Lefèvre, Philippe Picard** |
| | | **Assessing the importance of risk factors in distance-based generalized linear models** | **Teresa Costa, Eva Boj, Josep Fortiana, Anna Esteve** |
| | | **Variance reduction techniques for estimating Limited Value-at-Risk and Limited Conditional Tail Expectation measures** | **Silvia Dedu, Florentin Serban** |
| | | **Measuring Credit Risk of Individual Corporate Bonds and Deriving Term Structures of Default Probabilities** | **Takeaki KARIYA, Yoshiro YAMAMUA, Koji INUI, Zhu WANG** |
| | | **A Meta-Heuristic Approach for the Optimal Deployment of Aerial Firefighting Fleets based on Predictive Fire Weather Risk Estimations** | **M. N. Bilbao, D. Gallo-Marazuela, S. Salcedo-Sanz, J. Del Ser, C. Casanova-Mateo** |
| | 27.06.13:14.30-15.30 | | **Lunch** |
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| SCS8 | | SPECIAL AND CONTRIBUTED SESSIONS | |
|---|---|---|---|
| Room 1 | 27.06.13:15.30-17.10 | Chair: Sally McClean, Adele H. Marshall and Mariangela Zenga | MODELLING SURVIVAL DATA USING COXIAN PHASE-TYPE DISTRIBUTIONS |
| | | Coxian Phase-type distributions for studying students' length of graduation: Experience from an Italian and a Greek University | Aglaia Kalamatianou, Adele H. Marshall, Mariangela Zenga |
| | | The Coxian Phase type distribution as a contribution in the multilevel model. | Adele H. Marshall, and Mariangela Zenga |
| | | Phase-type Models for Costing Patient Care Provision in integrated Health and Social Services | Sally McClean, Jennifer Gillespie, Lalit Garg, Maria Barton, Ken Fullerton |
| Room 2 | 27.06.13:15.30-17.10 | Chair: Andrea Spingola, Co-Chair: Soos Anna | DATA ANALYSIS IV |
| | | A Study on European Football Championships in the GLMM Framework with an Emphasis on UEFA Champions League Experience | Andreas Groll, Jasmin Abedieh |
| | | Random Complex and Data Replication | Giseon Heo, Byron Schmuland, Yin Li |
| | | Cluster Analysis of Italian Revenue Agency Provincial Directorates | Andrea Spingola |
| | | Interpolation methods for internet traffic | Soos Anna, Somogyi Ildiko |
| | | Some New Stopping Rules for Multi-Stage Phase II Comparative Clinical Trials Involving Two Dependent Response Variables | Sotiris Bersimis, Takis Papaioannou, Athanasios Sachlas |
| Room 3 | 27.06.13:15.30-17.10 | Chair: Shigeru Mase | POPULATION |
| | | Kernel type estimator of a bivariate average growth function | István Fazekas, Zsolt Karácsony, Renáta Vas |
| | | Couple-wise divorce rates in Japan | Shigeru Mase, Kouji Yoshimoto |
| | | Registration of vital events and verbal autopsy in rural area. Experience of Millennium Villages Project in Potou site (SENEGAL): Challenges and Weakness | Massamba SENE |
| | | The role of sociodemographic and contextual determinants: multilevel analysis of maternal mortality in Cameroon | MOODJOM Roland Marc |

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| Room 4 | 27.06.13:15.30-17.10 | Chair: Ivnitskiy V.A. | SEMI-MARKOV - STOCHASTIC |
| | | Calculation of semi-Markov flow characteristics | Ivnitskiy V.A. |
| | | Averaging and diffusion approximation of the endemic SIR model in a semi-Markov random medium | Mariya Svishchuk |
| | | Numerical approximation of solutions of stochastic differential equations driven by multifractional Brownian motion | Anna Soós |
| | | Strong Invariance Principle (SIP) for Risk Processes with Stochastic Premiums | Nadiia Zinchenko |
| | 27.06.13:17.10-17.30 | | Coffee Break |
| SCS9 | | SPECIAL AND CONTRIBUTED SESSIONS | |
| Room 1 | 27.06.13:17.30-19.30 | Chair: Leda D.Minkova | STOCHASTIC PROCESSES AND APPLICATIONS |
| | | Geo-Sectorial Interdependence Models for the Study of Credit Risk Evolution | Marina Brogi, Guglielmo D'Amico, Giuseppe Di Biase, Raimondo Manca, Giovanni Salvi |
| | | A parametric non-homogeneous cohort model for the mortality evaluation | Giovanna De Medici, Raimondo Manca, Filippo Petroni, Giuseppina Ventura |
| | | Polya - Aeppli processes in Risk Theory | Leda D.Minkova |
| | | The inhomogeneous bisexual branching process: Asymptotic growth rates | Manuel Molina, Manuel Mota, Alfonso Ramos |
| | | Statistical estimation in discrete-time multitype branching processes – an approach based on the trimmed likelihood | Vessela Stoimenova |
| | | Optimal control of systems with several replenishment sources | Ksenia Shakhgildyan |
| Room 2 | 27.06.13:17.30-19.30 | Chair: Vladimir Zaiats | TIME SERIES |
| | | Prediction for Count Time Series | Vasiliki Christou, Konstantinos Fokianos |
| | | Methods and Techniques for Multifractal Spectrum Estimation in Financial Time Series | Petr Jizba, Jan Korbel |
| | | Towards Dynamic Bayes Networks to model Time Series from the WatSan4Dev subset | Jorge López Puga, Céline Dondeynaz, César Carmona Moreno |
| | | The cogarch models as an alternative to time series analysis: some theoretical results and applications | Ilia Negri |

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| | | **Methods and tools for nonlinear analysis of chaotic time series** | **Valery Antonov, Anatoly Kovalenko, Artem Zagaynov, Vu van Quang** |
| | | **Time Series Analysis of Guayas Basin** | **Daniel Moran-Zuloaga, Paúl Carrión , Paola Romero, Garcés Daniel, Raúl Mejía** |
| **Room 3** | 27.06.13:17.30-19.30 | **Chair: Luigi Lombardi** | **MANAGEMENT-MODELS AND MODELLING** |
| | | **Making decision under uncertainty and Sport-Fantasy. An approach** | **Javier J. Hernández G., María J. García G., José G. Hernández R.** |
| | | **SGR modeling of fake ordinal data with correlational structures** | **Luigi Lombardi, Massimiliano Pastore, Massimo Nucci, Andrea Bobbio** |
| | | **Assessing the Estimation Performance of Two Jittered Particle Filters Applied to State Space Models with Non-stationary Dynamics** | **Lesly M. Acosta and M. Pilar Muñoz** |
| | | **Graphical models for prognostics integration of complex discrete event systems** | **Mohammed-Farouk Bouaziz, Eric Zamaï** |
| | | **Modeling natural gas response to temperature** | **Marek Brabec, Ondrej Konar, Emil Pelikan, Ivan Kasanicky, Marek Maly** |
| **Room 4** | 27.06.13:17.30-19.30 | **Chair: A.Meletiou** | **Short Courses (the talk duration will be set after the registration)** |
| | | **MMR & IMR in Raichur District: A Study Among Rural Poor** | **Prakash Malin, B M Ramesh** |
| | | **No data for older persons (60 years) in the Ugandan National HIV/AIDS policies, strategies and programmes** | **Joseph Nyende** |
| | | **Optimal Portfolio Versus No-arbitrage and its Application** | **Jun Deng** |
| | | **Stochastic Processes in Nominal Exchange Rate: Out-of-Sample Forecasting Accuracy of the EUR/USD** | **Giray Gozgor** |
| | | **Inference for the GNL Distribution and Applications in Finance** | **I. Groparu-Cojocaru, L.G. Doray** |
| | | **Time aspects of a fund manager appraisal** | **Evgeny A. Ivin, Alexey N. Kurbatskiy, Alexandr V. Slovesnov** |
| | | **A Dairy Market Information and intelligence System** | **Arturo Valdivia, José A. Espinosa, Arturo G. Valdivia, Georgel Moctezuma , Alejandra Vélez, José L. Jolalpa, Arturo González, América A. Luna, José J. Espinoza, Sergio F. Góngora, Carlos M. Arriaga-Jordán y Francisco E. Martínez, José L. Dávalos** |
| **Room 5** | 27.06.13:17.30-19.30 | **Chair: Christos H. Skiadas** | **Short Courses (the talk duration will be set after the registration)** |

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| | | **Comparison of fitting crop seedling emergence Models with some nonlinear model** | **Behnam Behtari** |
| | | **Dynamics of the many particle Jaynes-Cummings Model** | **Bogolubov N.N.(Jr.), Rasulova M.Yu.., Tishaboev I.A.** |
| | | **An Economic Order Quantity Inventory Model with Time Dependent Weibull Deterioration and Trended Demand** | **Chukwu W.I.E, Sanni S.S** |
| | | **New Results for an Evolution Problem** | **Zoubir DAHMANI, Soumia BELARBI** |
| | | **The square-well model within the mean spherical approximation as a reference system in variational calculations for liquid metals** | **N.E. Dubinin, V.V. Filippov, A.A. Yuryev, N.A. Vatolin** |
| | | **Emulation of Complex Simulator Models with Application to Hydrology** | **David Machac, Carlo Albert, Peter Reichert** |
| | | **Comparison of Some Effect Size Measures: One-Way and Two-Way Fixed Effect ANOVA Models** | **Ahmet MOLLAOĞULLARI, Erkut AKKARTAL, Mehmet MENDEŞ** |
| **PS** | 27.06.13:19.30-20.00 | **POSTER SESSION *(see at the end of the program)*** | **POSTER** |
| | 27.06.13:20.15-24.00 | | **Farewell Dinner** |

| Friday June 28 | | | |
|---|---|---|---|
| SCS10 | | SPECIAL AND CONTRIBUTED SESSIONS | |
| Room 1 | 28.06.13:9.00-10.50 | Chair: Elena Yarovaya | STOCHASTIC I |
| | | Stationarity of Ornstein-Uhlenbeck processes with Stochastic speed of mean reversion | Fred Espen Benth, Asma Khedher |
| | | On the optimal designs for prediction of Ornstein-Uhlenbeck sheets | Sikolya Kinga |
| | | Modelling death rates with stochastic differential equations: an innovative approach | Sandra Lagarto, Carlos A. Braumann, Dulce Gomes |
| | | Stochastic Gene Expression in Prokaryotes: A Point Process Approach | Emanuele Leoncini |
| Room 2 | 28.06.13:9.00-10.50 | Chair: Lahoz David, Co-Chair: Miloš Jovanović | ALGORITHMS |
| | | CLASSIFICATION ALGORITHMS AND FEATURE SELECTION SCHEMES FOR PREDICTING STUDENTS' SUCCESS - A CASE STUDY | Milan Vukićević, Miloš Jovanović, Boris Delibašić, Milija Suknović |
| | | Algorithm to maximize the degree of attainability and the degree of desirability of manpower planning | Komarudin, Marie-Anne Guerry, Tim De Feyter, Greet Vanden Berghe |
| | | The Algorithm for the Faultless Work Probability Determination of the Water Pipeline Networks at the External Influences | Boli Yarkulov |
| Room 3 | 28.06.13:9.00-10.50 | Chair: Samuel Kosolapov, Co-Chair: Cecilio Mar Molinero | MULTIVARIATE-MONTE CARLO |
| | | Multivariate methods in historical data: An Optimal Scaling Analysis with Missing Categorical Data | Cecilio Mar Molinero, Fabiola Portillo |
| | | EXAMINING THE FACTORS OF SUCCESS OF THE FOOTBALL TEAMS IN 2011-2012 SUPER LEAGUE SEASON IN TURKEY VIA PLS PATH MODELING | Esra Polat, Semra Turkan, Suleyman Gunay |
| | | Reliability Evaluation of 2D Barcode OCR by using Monte-Carlo Simulation | Evgeny Gershikov, Samuel Kosolapov |
| | | Reliability Evaluation of Multi-Camera Motion Detector by using Monte-Carlo Simulation | Samuel Kosolapov |
| | | Correlation control performance in Monte Carlo sampling | Miroslav Vořechovský, Jana Kaděrová |

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| **Room 4** | 28.06.13:9.00-10.50 | **Chair: Neir A. Paes** | **MORTALITY - HEALTH** |
| | | **Estimating child mortality from information on previous birth: data from a Portuguese birth cohort** | **Neir A. Paes, Cristina Teixeira, Henrique Barros** |
| | | **Modeling of Mortality in Elderly Women due to Cardiovascular Disease in the Northeast of Brazil** | **Jozemar Pereira dos Santos, Neir Antunes Paes** |
| | | **Breast Cancer Survival at Braga's Hospital – Portugal** | **Ana Borges, Ines Sousa, Luis Castro** |
| **Room 5** | 28.06.13:9.00-10.50 | **Chair: A.Meletiou** | **Short Courses (the talk duration will be set after the registration)** |
| | | **Probabilistic Approach to Clustering in Stochastic and Agent-Based Computational Models** | **Florentin Paladi, Ghennadii Gubceac** |
| | | **Modeling of correlated longitudinal data and estimation of seasonal factor of zoonotic cutaneous leishmaniasis cases in Center of Tunisia** | **Amine Toumi, Sadok Chlif, Jihene Bettaeib, Afif Ben Salah** |
| | | **Frequentist Model Averaging for Multinomial and Ordered Logit Models** | **Alan Wan, Xinyu Zhang** |
| | | **CALCULATING OF VALUE AT RISK IN RISK MANANGEMENT AND APPLICATIONS** | **Görkem MIZRAK, Sevil ŞENTÜRK, Gültekin ATALIK** |
| | | **Determination of the optimal strategy of a quarry in Algeria using the Three Phase Discrete-Event Simulation: A case study** | **Latifa BAGHDALI-OURBIH, Megdouda OURBIH-TARI, Abdelnasser DAHMANI** |
| | | **Assessing errors in CMM measurements via Kriging and variograms: a simulation study** | **Grazia Vicario, Suela Ruffa, Giovanni Pistone** |
| | | **Prediction of Non-Methane Hydrocarbons in Kuwait Using Regression and Bayesian Kriged Kalman Model** | **F. A. AL-AWADHI** |
| | | **Assessing the Model Performance of Nonparametric Fuzzy Local Polynomial Regression with Different Bandwidth Selection Methods** | **Memmedaga Memmedli, Munevvere Yildiz** |
| | | **Stability Selection and Randomization in $L_1$ Quantile Regression** | **Sidi Zakari Ibrahim, Mkhadri Abdallah, N'Guessan Assi** |
| **Plenary Talk** | 28.06.13:10.50-11:30 | **Keynote Session (Chair: Christos H. Skiadas) Steven Haberman** | ***Modelling and Projecting Mortality Improvement Rates*** |
| | 28.06.13:11.30-12.00 | | **Coffee Break** |

| SCS11 | | SPECIAL AND CONTRIBUTED SESSIONS/ Workshops/Tutorials | |
|---|---|---|---|
| Room 1 | 28.06.13:12.00-14.00 | Chair: Vladimir Zaiats | FORECASTING-FUZZY |
| | | Nonparametric Algorithms of Identification, Forecasting and Control of Economic Systems | Irina L. Foox, Irina Yu. Glukhova, and Gennady M. Koshkin |
| | | Early Forecasting of Parliamentary Seats Distribution: the Representative Polling Stations Method | Ana Martín-Arroyuelos, Karmele Fernández-Aguirre, Juan Ignacio Modroño-Herrán |
| | | Forecasting Methods for Renewable Energy Generation | Ana Alexandra Martins, Margarida G. M. S. Cardoso, Jorge Sousa |
| | | Analysis of High Order Fuzzy Time Series by MLP | Memmedaga Memmedli, Ozer Ozdemir |
| | | A fuzzy correlation coefficient for bivariate fuzzy data | Erika Watanabe, Kyohei Yamamoto, Norio Watanabe |
| Room 2 | 28.06.13:12.00-14.00 | Chair: Cecilio Mar Molinero, Co-Chair: Pierre Joly | HEALTH |
| | | The use of MDS and HCA enabled pharmacists to reveal their roles which reflect on country of practice and cultural differences when improving patients' adherence to asthma medication | Andrea Manfrin, Cecilio Mar Molinero, Luca Cacciolatti |
| | | Effect of Anti-Malarial Medicines Use on the Quality of Health, a study in Kawempe division, Uganda, 2008 | Innocent Asiimwe |
| | | How high is it possible to extend the retirement age? Life expectancy vs. healthy life expectancy | Kornélia Cséfalvaiová, Martina Šimková, Jitka Langhamrová |
| | | Prevalence projections of chronic diseases and impact of public health intervention on risk factor: application on dementia in France | Pierre Joly |
| Room 3 | 28.06.13:12.00-14.00 | Chair: Steven Haberman, Co-Chair: Christos H. Skiadas | MORTALITY |
| | | Multiple Population Projections by Lee Carter Models | Valeria D'Amato, Steven Haberman, Gabriella Piscopo, Maria Russolillo, Lorenzo Trapani |
| | | An Interesting Inversion Problem | Christos H Skiadas and Charilaos Skiadas |
| | | The distorting death causes structure of Russian population | V. Semyonova, T. Sabgayda |
| | | New approaches to study historical evolution of mortality (with implications for forecasting) | Gavrilov L.A., Gavrilova N.S |
| | | Modeling of Mortality in Older Ages by a Modified Gompertz-Makeham Function | Tomas Fiala, Petra Dotlacilova, Jitka Langhamrova |

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| | | HOME VERSUS HOSPITAL CANCER MORTALITY (2006-2011) AND PALLIATIVE CARE | Elena Vvedenskaia |
| | | What drives the shape? – Cause of Death Contributions to Survival Shapes | Marcus Ebeling, Marie Pier Bergeron Boucher |
| Room 4 | 28.06.13:12.00-14.00 | Chair: Tetyana Kadankova | STOCHASTIC II |
| | | Exit from a semi-stochastic interval by a Brownian motion | Tetyana Kadankova |
| | | Robust prediction of functionals of stochastic sequences with stationary increments | Maksym Luz, Mykhailo Moklyachuk |
| | | Replicating exchange options with transaction costs in stochastic volatility markets | Thai H. NGUYEN |
| | | Estimating the Density and Hazard Rate Functions Using the Reciprocal Inverse Gaussian Kernel | Raid B. Salha |
| | | Incorporating the Stochastic Process Setup in Parameter Estimation | Lino Sant, Mark Anthony Caruana |
| | 28.06.13:14.00-15.00 | | Lunch |
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| SCS12 | | SPECIAL AND CONTRIBUTED SESSIONS | |
| Room 1 | 28.06.13:15.00-17.00 | Chair: Cecilio Mar Molinero | DATA ANALYSIS - RELIABILITY |
| | | A new principal component method to analyse frequency tables with different row and column sets using common instrumental variables: application to a multilingual survey | Belchin Kostov, Mónica Bécue-Bertaut, François Husson |
| | | One dimensional embedding for nonnegative data visualization | Lazhar Labiod, Mohamed Nadif |
| | | Data analysis and reliability models of pumping stations of the haoud Elhamra-Bejaia pipeline (Algeria) | Medjoudj Rafik, Imine Aghiles, Medjoudj Rabah, Aissani Djamil |
| | | Longitudinal data analysis distance based using generalized estimating equations | Sandra E. Melo, Oscar O. Melo, Carles M. Cuadras |
| | | What do student satisfaction questionnaires measure? | Fabiola Portillo and Cecilio Mar Molinero |
| | | Longitudinal Analysis of renal function with informative observation times | Lisandra Rocha, Inês Sousa, Raquel Menezes |
| Room 2 | 28.06.13:15.00-17.00 | Chair: Steven Haberman | FINANCE-INSURANCE |

| | | | |
|---|---|---|---|
| | | The SCR Adequacy according to the Volatility Longevity Shocks | Mariarosaria Coppola, Valeria D'Amato |
| | | Robustness study of the hedging of European claims | C. Daveloose, A. Khedher, M. Vanmaele |
| | | Optimal Insurance with Investment and Loans | Darya Ostrovskaya |
| | | The market value of life insurance liabilities under a regime switching process | Rosario Monter |
| | | Optimal investment decision under regulatory and environmental risks | Michi Nishihara |
| | | Does Government Ownership and Disclosure affect Performance and Stability of the GCC Banking Sector? | Ritab Al-Khouri |
| | | Some optimization and decision problems in proportional reinsurance | Castañer, A., Claramunt, M.M., Mármol, M. |
| Room 3 | 28.06.13:15.00-17.00 | Chair: Yiannis Dimotikalis | DATA ANALYSIS V |
| | | Spatial-Temporal Interpolation of Non-Methane Hydrocarbons Levels in Kuwait | Shafiqah Alawadhi, Fahima Alawadhi |
| | | A strong optimality result for anisotropic self–similar textures | M. Clausel, B. Vedel |
| | | Analysis of a system with three dissimilar units under pre-emptive repeat repair policy attended by two repairmen | S. B. Singh, Maneesha Gahtori |
| | | Asymptotic behavior of kernel density and mode estimates for censored and associated data | Tatachak Abdelkader, Ferrani Yacine, Ould Said Elias |
| | | Targeted minimum loss estimation of the causal effect of oldness of foci on ZCL incidence based on clustered data | Amine Toumi, Antoine Chambaz, Dhafer Malouche, Afif Ben Salah |
| Room 4 | 28.06.13:15.00-17.00 | | *Late arrivals* |
| | | | |
| | 28.06.13:17.10-17.30 | | Closing Ceremony |
| Excursion | 29.06.13 | Saturday June 29 | Full Day Excursion |

| PS | 27.06.13:19.00-19.45 | POSTER SESSION | POSTER |
|---|---|---|---|
| | | Comparing time series segmentation techniques to detect, locate and estimate change-points of heteroskedastic processes | Ana Laura Badagian, Regina Kaiser, Daniel Peña |
| | | Extreme value copulas and marginal effects | Zuhair Bahraoui, Catalina Bolancé, Ana M. Pérez- Marín |
| | | Mean field optimal control games for jump processes | Rani Basna |
| | | Stochastic models for the chemostat at different scales | Fabien Campillo, Marc Joannides, Iréne Larramendy Valverde |
| | | Regular E-optimal Spring Balance Weighing Designs With Correlated Errors | Bronislaw Ceranka, Malgorzata Graczyk |
| | | Relations Between Regular A-Optimal Chemical Balance Weighing Designs with Diagonal Covariance Matrix of Errors | Bronislaw Ceranka, Malgorzata Graczyk |
| | | Binary dynamic response model with structural changes | Šárka Hudecová |
| | | Estimation of Sasang Constitutional Distribution using Direct Standardization Method | Hee-Jeong Jin, Young Hwa Baek, Ho-Seok Kim, Si-woo Lee |
| | | A Robust Approach To CoPlot Analysis | Yasemin Kayhan Atilgan, Suleyman Gunay |
| | | An empirical study on the index of satisfaction of student allocation in the Portuguese undergraduate engineering courses | Raquel Oliveira, A. Manuela Gonçalves, Rosa M. Vasconcelos |
| | | Linear Regression Models with Censored Data: Bias Correction | Jesus Orbe, Vicente Núñez-Antón |
| | | Mathematical Modeling (ROR) applied to the forecast of earthquakes in the global level | Osés Rodriguez, Ricardo, I Pedraza Martinez, Félix Alfredo, Saura González, Gillermo |
| | | The Coral Reefs Optimization Algorithm: An Efficient Meta-heuristic for Solving Hard Optimization Problems | S. Salcedo-Sanz, J. Del Ser, I. Landa-Torres, S.Gil-López and J. A. Portilla-Figueras |
| | | Identification of a Simple Homeostasis Stochastic Model Based on Active Principle of Adaptation | Innokentiy V. Semushin, Julia V. Tsyganova, Anatoli G. Skovikov |
| | | Intergenerational transmission of education in Greece: evidence from the European Social Survey 2002-2010 | G. Stamatopoulou, M. Symeonaki, K. Michalopoulou |
| | | Intergenerational mobility as a distance measure between probability distribution functions | M. Symeonaki, G. Stamatopoulou |
| | | Decomposition of trends by a fuzzy trend model for multivariate time series | Norio Watanabe, Yasutaka Ohta |
| | | Chernoff-Based Hybrid Tau-Leap (this is a poster presentation) | Alvaro Moraes, Raul Tempone, Pedro Vilanova |

| PS | 27.06.13:19.00-19.45 | POSTER SESSION | POSTER |
|---|---|---|---|
| | | **The Risk of Poverty Model in EU Population** | **Jitka Bartosova, Vladislav Bina, Marie Forbelska** |
| | | **A consistent estimation of the variance in a linear model with severe heteroscedasticity** | **Ali S. Hadi, Beatriz Lacruz, Ana Pérez-Palomares** |
| | | **Multi-objective micro genetic algorithms. Two new approximations.** | **Lacruz Beatriz, Lahoz David, Mateo Pedro M.** |
| | | **Optimal exponential inequalities for the distribution tales of multiple stochastic integrals with Gaussian integrators** | **Alexander Bystrov** |
| | | **Modeling of stochastic hydraulic conditions of pipeline systems** | **N.N.Novitsky, O.V.Vanteyeva** |