Stochastic Modeling Techniques and Data Analysis International Conference (SMTDA2014)

Demographic Analysis and Research International Workshop (Demographics2014)

11 - 14 June 2014 Lisbon, Portugal

Program

Session / Room	Date / Time	Event	Talk Title / Event
	8.30-10.00	**Wednesday June 11**	Registration
Auditorium	10.00-10.30	Opening Ceremony	
Auditorium	10.30-11.10	Keynote Session (Chair: Raimondo Manca) Helena Bacelar-Nicolau	*On Cluster Analysis of Complex and Heterogeneous Data*
Auditorium	11.10-11.50	Keynote Session (Chair: Christos Skiadas) Jean-Marie Robine	*What is the relationship between longevity and health?*
	11.50-12.20		Coffee Break
SCS1	Wednesday June 11	SPECIAL AND CONTRIBUTED SESSIONS	
Room 1	12.20-14:00	Chair: Ekaterina Bulinskaya	Asymptotic Analysis of Stochastic Systems with Complex Structure
		Limit Theorems for Description of the Development of Epidemic in a Large Population	Larisa Afanasyeva, Elena Bashtova
		Optimization of Multi-component Inventory and Insurance Systems	Ekaterina V. Bulinskaya
		Global limit theorems and their applications	Stanislav Molchanov
		Limit Theorems for Supercritical Branching Random Walks with Heavy Tails	Elena Yarovaya
Room 2	12.20-14:00	Chairs: Philippe Castagliola and Sotiris Bersimis	Advanced Statistical Process Control (I)
		Statistical Design of Adaptive Control Charts for Linear Profile Monitoring	Maysa S. De Magalhães, Viviany L. Fernandes, Francisco D. Moura Neto
		Nonparametric Design of the Combined X-S Control Chart for Retrospective Analysis	Giovanna Capizzi, Guido Masarotto
		Monitoring the Coefficient of Variation for Short Run Production	Asma Amdouni, Philippe Castagliola, Hassen Taleb, Giovanni Celano
		Resampling methodologies in Phase I control charts	Fernanda O. Figueiredo, M. Ivette Gomes
		Control Charts for Zero-Inflated Processes with Estimated Parameters	Athanasios C. Rakitzis, Philippe Castagliola

Room 3	12.20-14:00	**Chair: Jean-Marie Robine, Co-Chair: Alina Potrykowska**	**HEALTH-MORTALITY-RANKING**
		The recent trends in mortality in Poland	**Alina Potrykowska**
		Social vector of mortality due to cardiovascular diseases in Russia	**Tamara P. Sabgayda, Victoria G. Semyonova**
		A Further Analysis on Exploring Sullivan's Health Status Index of Mortality and Morbidity	**Christos H Skiadas, Charilaos Skiadas**
		Mathematical analysis of the role of population heterogeneity in the evolution of human mortality dynamics	**Demetris Avraam, Joao Pedro de Magalhaes, Séverine Arnold-Gaille, Bakhtier Vasiev**
		Population Health Index in Portugal	**Ângela Freitas, Paula Santana, Cláudia Costa, Artur Vaz**
Room 4	12:20-14:00	**Chair: Robert Elliott, Co-Chair: Takeaki Kariya**	**Risk Theory**
		Competing Risks Modeled by Phase Type Distributions	**Bo H. Lindqvist**
		On the Accuracy of the Risk Estimators	**Georgios C. Zachos**
		BINOMIAL TREE MALLIAVIN CALCULUS AND RISK MEASURES	**Robert Elliott, Tak Kuen Siu, Sam Cohen**
		A System for Empirically Effective Credit Risk Analysis	**Takeaki Kariya, Yoshiro Yamamura, Zhu Wang**
		Empirical Credit Risk Analysis on Euro Government Bonds – Term Structures of Default Probabilities–	**Takeaki Kariya, Yoshiro Yamamura, Yoko Tanokura, Zhu Wang**
	14.00-15.00		**Lunch**
Auditorium	15.00-15.50	**Keynote Session (Chair: Jean-Marie Robine) Christos H Skiadas**	***Health State and Health Status: definitions and estimates***
	15.50-16.20		**Coffee Break**
SCS2	**Wednesday June 11**	**SPECIAL AND CONTRIBUTED SESSIONS**	
Room 1	16.20-18.00	**Chair: Guglielmo D'Amico**	**Stochastic models for insurance and energy**
		On Matrix-Exponential Distributions In Risk Theory	**Carleo Alessandra, De Medici Giovanna, Manca Raimondo, Pietroluongo Mariafortuna**
		Multistate model for evaluating conversion options in life insurance	**Guglielmo D'Amico, Montserrat Guillen, Manca Raimondo**
		Is the Weibul distribution really suitable to forecast wind energy production?	**G. D'Amico, F. Petroni, F. Prattico**
		Insuring wind farm from energy underproduction: a semi-Markov approach	**Filippo Petroni, Flavio Prattico, Guglielmo D'Amico**
Room 2	16.20-18.00	**Chair: Leda Minkova**	**Stochastic Models and Applications**
		Numerical Valuation of American Options with Discrete Dividends	**Dessislava Koleva, Mariyan Milev**
		Combinatorial Approach to Statistical Design of Experiment	**Petya Valcheva**
		On a family of Bivariate Compound Generalized Power Series Distributions	**Leda D. Minkova**
		An Information Theoretic Measure of Cluster Validity for Fuzzy Clustering	**Abdul Suleman**

		Preservation of ageing classes in deterioration models with independent increments	**C. Sanguesa, F. G. Badía, J.H. Cha**
Room 3	16.20-18.00	**Chair: Adele H Marshall and Sally McClean**	**Stochastic Modelling and Data Analysis for Healthcare Applications**
		The incidence of cancer	**C.T. Lenard, T.M. Mills, R.F.G. Williams**
		Modelling patient length of stay in using the discrete conditional phase-type model with decision trees	**Adele H Marshall, Mariangela Zenga**
		A Coxian phase-type model with a hidden node for patient quality of care	**Hannah Mitchell, Adele H Marshall, Mariangela Zenga**
		Discrete semi Markov patient pathways through hospital care via Markov modelling	**Aleka Papadopoulou, Sally McClean, Lalit Garg**
		Discrete observation of a continuous time semi Markov model for HIV control – Modelling the quality of life through rewards	**Zacharias Kyritsis, Aleka Papadopoulou**
Room 4	16.20-18.00	**Chair: Manuel Molina**	**Branching Processes and their Applications**
		Applications of the Bayesian and the Trimmed Likelihood Estimation in Multitype Branching Processes	**Ana Staneva**
		Branching Processes: Forecasting Human Population	**Plamen I. Trayanov, Maroussia Slavtchova-Bojkova**
		Near-critical Bienaymé-Galton-Watson processes escaping extinction	**M. Conceição Serra, Serik Sagitov**
SCS3	**Wednesday June 11**	**SPECIAL AND CONTRIBUTED SESSIONS**	
Room 1	18:00-19:40	**Chairs: Sergei Silvestrov, Co-Chair: Thorsten Lehnert**	**Option Theory / Mixture Model**
		Using Filtered Historical Simulations in Option Pricing	**Bart Frijns, Thorsten Lehnert, Remco Zwinkels**
		Value of a Firm With Exit and Suspension Options	**Carlos Oliveira, Cláudia Nunes, Manuel Guerra**
		Perturbation Methods for Pricing European Options in a Model with Two Stochastic Volatilities	**Betuel Canhanga, Sergei Silvestrov, Anatoliy Malyarenko, Ying Ni**
		Asian Options, Jump-Diffusion Processes on a Lattice, and Vandermonde Matrices	**Karl Lundengård, Carolyne Ogutu, Sergei Silvestrov**
		A Finite Mixture Model with Trajectories Depending on Covariates	**Jang SCHILTZ, Jean-Daniel GUIGOU, Bruno LOVAT**

Room 2	18:00-19:40	**Chair: Helena Bacelar-Nicolau**	**Data Analysis**
		Probabilistic Approach for Comparing Partitions	**Osvaldo Silva, H. Bacelar-Nicolau, Fernando C. Nicolau, Áurea Sousa**
		Hierarchical Cluster Analysis of Groups of Individuals: Application to Business Data	**Áurea Sousa, Helena Bacelar-Nicolau, Osvaldo Silva**
		Testing unit root test based on Polyvariogram	**WU, Ka Ho**
		Saddlepoint-Based Bootstrap Inference in Dependent Data Settings	**Pratheepa Jeganathan, Robert L. Paige, A. Alexandre Trindade, R. Indika P. Wickramasinghe**
		Cogarch(1,1) model: applications and performance in analysing real data	**Enrico Bibbona, Ilia Negri**
		Shortcoming in some Index: A Mathematical Modeling	**Barun Kumar Mukhopadhyay**
Room 3	18:00-19:40	**Chair: Anatoliy Swishchuk, Co_Chair: Jozef Komorník**	**Finance**
		The Minimum Pseudodistance Approach: an Application to Extreme Quantile Estimation in Finance	**Aida Toma, Silvia Dedu**
		Stochastic Evolution of New York Stock Market Distributions	**Paulo Rocha, João P. da Cruz, Frank Raischel, Pedro G. Lind**
		Covariance and Correlation Swaps for Markov and Semi-Markov Volatilities	**Anatoliy Swishchuk**
		Time Operator and Innovation. Applications to Financial Data	**Gialampoukidis Ilias, Antoniou Ioannis**
		Modelling relations between returns of financial investments using perturbed of copulas	**Jozef Komorník, Magda Komorníková, Jana Kalická**
Room 4	18:00-19:40	**Chair: M. Conceição Serra**	**Branching Processes and their Applications II**
		Estimators in Discrete Time Multitype Branching Processes	**Vessela Stoimenova**
		Two-sex branching processes with mating and reproduction phases influenced by the number of females and males in the population	**Manuel Molina, Manuel Mota, Alfonso Ramos**
		Stochastic Modeling in Sexually Reproducing Biological Populations Through Branching Models	**Manuel Molina, Manuel Mota, Alfonso Ramos**
	19:40-20:20		**Welcome Reception**
Thursday June 12			
SCS4	**Thursday June 12**	**SPECIAL AND CONTRIBUTED SESSIONS**	
Room 1	9.00-10.40	**Chair: Aglaia Kalamatianou**	**Stochastic Modelling and Analysis of Educational Data**
		Job Satisfaction of European graduates. An analysis and multiple group comparison	**Ioulia Papageorgiou, Aglaia Kalamatianou**
		Motives, expectations, preparation, and time to degree: A proportional hazards approach with latent covariates	**Dimitrios Kalamaras, Aglaia Kalamatianou**
		Time to degree and gender differences: the case of an Italian and Greek university	**Adele H. Marshall, Mariangela Zenga, Aglaia Kalamatianou**
		Modeling students' flow in higher education. The role of the membership function	**Franca Crippa, Mariangela Zenga**
		Predicting achievement of first year students: a new approach	**Peter G.M. van der Heijden, Dave Hessen, Theo Wubbels**

Room 2	9.00-10.40	**Chair: Philippe Castagliola and Sotiris Bersimis**	**Advanced Statistical Process Control (II)**
		Monitoring Multivariate Non-Industrial Processes	**Sotiris Bersimis, Athanasios Sachlas**
		Control Charts for Arbitrage-Based Trading	**Stelios Psarakis, Kostas Triantafyllopoulos, Aggeliki Vyniou**
		Monitoring Multivariate Dispersion and Interpreting Out-of-Control Signals	**Georgios Bartzis**
		Multivariate Control Charts Based on Bayes Factors	**Kostas Triantafyllopoulos, Sotiris Bersimis**
Room 3	9.00-10.40	**Chair: Teresa Oliveira**	**Experimental Design and Risk Analysis I**
		Entropy Measures and the Generalized Fisher's Information	**Christos P. Kitsos, Thomas L. Toulias**
		Estimation in models with Orthogonal Block Structure	**Sandra S. Ferreira, Célia Nunes, Dário Ferreira, João Tiago Mexia**
		Stochastic Response Surface Methodology – a study on polynomial chaos expansion	**Conceição Leal, Teresa Oliveira, Amílcar Oliveira**
		One-Way Repeated Measures ANOVA in the Study of the Lower Limbs' Explosive Power Level – a study with secondary education students	**Domingos J. Lopes da Silva, Teresa Paula C.A. Oliveira, Amílcar Manuel R. Oliveira**
		A robust coefficient of determination for heritability estimation in genetic association studies	**Vanda M. Lourenço, Paulo C. Rodrigues, Ana M. Pires**
Room 4	9.00-10.40	**Chair: Alina Potrykowska, Co-Chair: Terry Mills**	**Demographics / Health**
		Youth mortality by violence in the Brazilian semiarid region	**Neir Antunes Paes, Everlane Suane de Araújo da Silva**
		Modeling the relationship between temperature and daily mortality in Cyprus	**Haritini Tsangari, Zoi Konsoula, Stephanie Christou, Kyriacos Georgiou, Edna Yamasaki**
		Employment and Fertility – A Comparison of the Family Survey 2000 and the Pairfam Panel	**Andreas Groll, Jasmin Abedieh**
		IMPACTS OF DIABETES AND HOMICIDE MORTALITY ON LIFE EXPECTANCY IN MEXICO	**Alejandro Aguirre, Fortino Vela**
		National Survey for Non-Communicable Disease Risk Factors and Injuries for Timor-Leste	**João Soares Martins**
	10.40-11.00		**Coffee Break**

SCS5	Thursday June 12	SPECIAL AND CONTRIBUTED SESSIONS	
Room 1	11:00-13:00	Chair: Teresa Oliveira	Experimental Design and Risk Analysis II
		Optimal design for parameters of stochastic processes	Milan Stehlik
		Estimable Vectors and Models with Orthogonal Block Structure	Francisco Carvalho, João T. Mexia, Ricardo Covas
		Is it worth using a fuzzy controller to adjust the mutation probability in a genetic algorithm when the input variable is the number of iterations?	André G. C. Pereira, Enrico Colossimo, Bernardo B. de Andrade
		BIBD, Hadamard Matrices and Combinatorial Analysis	Carla Francisco, Teresa A.Oliveira, Donald Giles
		Error orthogonal models: building up complex models	Carla Santos, Célia Nunes, João Tiago Mexia
Room 2	11:00-13:00	Chair: Terrance J. Quinn II	Demographic Models and Modeling
		Modeling a Free-Ranging Rhesus Macaque Population	Raisa Hernandez-Pacheco
		Models for the Demographics of Commercially-Utilized Fish Populations	Terrance J. Quinn II
		ML estimates of Modified Gravity Model with Skew-Normally Distributed Errors	Diana Santalova
		A multivariate SDE model for death rates: application to the Portuguese population data	Sandra Lagarto, Carlos A. Braumann, Dulce Gomes
		Demographic characteristics of Hypoaspis aculeifer fed on Rhizoglyphus echinopus at constant temperatures	Mohammdreza Amin, Mohammad Khanjani, Babak Zahiri
		Analysis survival with Aalen and Cox Models For delaying blindness in patients with diabetic	Alir Reza Safaei, Seyyed Ali Mirebrahimi
Room 3	11:00-13:00	Chair: Sergei Silvestrov	Ranking
		Spectral analysis of Markov chains and graphs for ranking of evolving data and information	Sergei Silvestrov
		Genetic algorithm-based tuning of the *C-Value* for term ranking	Christopher Engström, Thierry Hamon, Sergei Silvestrov
		Sommerfeld's Integrals and Hallén's Integral Equation in Data Analysis for Horizontal Dipole Antenna above Real Ground	Farid Monsefi, Milica Rančić, Sergei Silvestrov, Slavoljub Aleksić
		Performance of combined models on multi-class discrete classification problems	Anabela Marques, Ana Sousa Ferreira, Margarida G. M. S. Cardoso
		Building-type classification based on measurements of energy consumption data	Ying Ni, Christopher Engström, Anatoliy Malyarenko, Fredrik Wallin
		On stable states of GMM clustering	Dvora Toledano-Kitai, Zeev Volkovich
Room 4	11:00-13:00	Chair: Victor A. Ivnitskiy, Co-Chair: Pedro G. Lind	Markov
		Multivariate Markov chain predictions adjusted with copula models	Mariela Fernández, Jesús E. García, V. A. González-López
		Detecting regime changes in Markov models	Jesus Enrique Garcia, Veronica Andrea Gonzalez-Lopez
		Moments of non-homogeneous semi-Markov flow	Ivnitskiy V.A.
		Solvency capital within the Brownian framework modulated by a continuous-time Markov chain	Pierre Devolder, Adrien Lebègue
		Are credit ratings time-homogeneous and Markov?	Pedro Lencastre, Frank Raischel, Pedro G. Lind, Tim Rogers

		Modeling and analysis of cyclic inhomogeneous Markov processes: a wind turbine case study	Teresa Scholz, Frank Raischel, Pedro Lind, Vitor Lopes
	13:00-14:00		Lunch
Excursion	14:00-18:00		Half Day Excursion
Friday June 13			
SCS6	Friday June 13	SPECIAL AND CONTRIBUTED SESSIONS	
Room 1	9:00-10:30	Chair: Lino Sant	Estimation / Estimators
		Parameter estimation of a particular class of 2n dimension Ornstein-Uhlenbeck processes	Ana Filipa Prior, Marina Kleptsyna and Paula Milheiro de Oliveira
		The Effect of Using Independent Increments Devoid of Path Regularity Properties in Process Estimation	Lino Sant
		Estimation of Lévy process through Stochastic programming	Lino Sant, Mark Anthony Caruana
		Statistical Estimation of Quadratic Density Functionals for Stationary *m* -Dependent Sequences	Oleg Seleznjev, David Källberg, Nikolaj Leonenko
		On Improving The Maximum Likelihood Estimators	Aleksander Zaigrajew
Room 2	9:00-10:30	Chair: S. Bersimis and H. Evangelaras	Statistical Modeling and Design
		A model based criterion for the selection of a proper design for factorial experiments	Haralambos Evangelaras, Christos Peveretos
		Enumeration and classification of small orthogonal latin hypercubes for computer experiments	Haralambos Evangelaras
		The Joint Distribution of Sums of Success and Failure Runs in a Sequence of Bernoulli Trials and Its Use for Discriminating Membrane Proteins	Athanasios Sachlas, Pandelis Bagos, Sotitis Bersimis
		A Probabilistic Framework for the Evaluation of the Environmental Performance in Wine Industry	D. Dede, S. Bersimis, D. Georgakelos
		Statistical Modeling of Companies' Perceptions on CRM Implementation	C. Agapitou, S. Bersimis, D. Georgakelos, N. Georgopoulos
Room 3	9:00-10:30	Chair: Yiannis Dimotikalis	Fitting / Estimation / Prediction
		Fitting Binomial Distribution to Online Rating Data: TripAdvisor Ratings in Crete Island	Yiannis Dimotikalis
		Optimal designs for parameter estimation and prediction of shifted Ornstein-Uhlenbeck sheets	Sándor Baran, Kinga Sikolya, Milan Stehlík
		Central limit theorems for an Indian buffet model with random weights	Irene Crimaldi
		Estimation of the structure of interacting coordinates for a multivariate stochastic process	Jesus Enrique Garcia, Veronica Andrea Gonzalez-Lopez
		First Passage Time Method Generalization for the Estimation of Stochastic Differential Equation Parameters	Khaled KHALDI, Khedidja DJEDDOUR, Samia MEDDAHI

		NEW INTEGRAL RESULTS FOR RANDOM VARIABLES ESTIMATIONS	**Zoubir DAHMANI**
Room 4	9:00-10:30	**Chair: Sergei Silvestrov**	**Data Analysis and Stochastic Systems**
		Non-normalized PageRank and Random walks on N-partite graphs	**Christopher Engström, Sergei Silvestrov**
		Vandermonde matrices, extreme points, orthogonal polynomials and moment matching	**Jonas Österberg, Karl Lundengård, Sergei Silvestrov**
		Approach For Crew Pairing Problem with Resource Constraints	**A. LAMAMRI, H. AIT HADDADENE, M.KHATIR**
		A survey on the isometry of certain systems orthogonal polynomials in martingale spaces	**Edmundo José Huertas Cejudo**
		Effect of Statistical program on the estimates of genetic parameters of some productive and reproductive traits in Dairy Cattle	**Elsaid Z. M. Oudah, Nazem Shalaby**
Auditorium	10.30-11.10	**Keynote Session (Chair: Raimondo Manca)** **Paulo Lisboa**	***Principled approaches to the interpretation of machine learning classifiers***
Auditorium	11.10-11.50	**Keynote Session (Chair: Maria Ivette Gomes)** **M. Isabel Fraga Alves**	***Estimating the Right Endpoint in the Weibull Max-Domain of Attraction***
	11.50-12.10		**Coffee Break**
SCS7	**Friday June 13**	**SPECIAL AND CONTRIBUTED SESSIONS**	
Room 1	12:10-14:00	**Chair: Robert Aykroyd, Co-Chair: Christos H Skiadas**	**Inverse and Stochastic Problems**
		An inverse first-passage problem for one-dimensional diffusions reflected between two boundaries	**Mario Abundo**
		How to find the State of a System by Inverting the Hitting Time Probability Density Function	**Christos H Skiadas, Charilaos Skiadas**
		Comparison of Jump-Diffusion Parameters Using Passage Times Passage	**Khaled KHALDI, Khedidja DJEDDOUR, Samia MEDDAHI**
		Stochastic Approximation for the Resolution of an Inverse Problem with Associated Errors	**Idir ARAB, Abdelnasser DAHMANI**

		Adaptive Stochastic Modeling Framework as Applied to Identification of a Simple Thermal Homeostasis Stochastic Model	**Innokentiy V. Semushin, Julia V. Tsyganova, Elena S. Petrova, Anatoli G. Skovikov**
Room 2	12:10-14:00	**Chair: Samuel Kosolapov, Co-Chair: Hiroaki Mohri**	**DISTRIBUTIONS II**
		Monte-Carlo Reliability Evaluation of the Ring Detector based on Heavily Masked Normalized Correlation	**Samuel Kosolapov**
		Multi-commodity Network Flow Problem with Arc failures	**Hiroaki Mohri, Jun'ichi Takeshita**
		Stochastic Modelings in Software Reliability	**Nuria Torrado**
		Real time Reliability of Fiscal stimulus – Comparison with USA, UK and Japan	**Yasuyuki Komaki**
		Management of technical maintenance of water pipeline networks on the bases of reliability characteristics	**Boli Yarkulov**
Room 3	12:10-14:00	**Chair: Valérie Girardin, Co-Chair: D. A. Sotiropoulos**	**Data Analysis and Demography Methods**
		Analysis of information into marginal effects: Application to PISA data	**Valérie Girardin**
		Language variation after a harmonization process. A multivariate analysis for the Basque language case	**G. Aurrekoetxea, K. Fernández-Aguire, J. L. Ormaetxea, J.Rubio**
		A data mining method to measure accuracy in child speech	**E. Babatsouli**
		Evolution of electoral behavior by principal axes methods	**Margarita Marín Jaramillo, Campo Elias Pardo**
		A new perspective of student allocation satisfaction in engineering courses in Portugal	**Raquel Oliveira, A. Manuela Gonçalves, Rosa M. Vasconcelos**
Room 4	12:10-14:00	**Chair: Tapan Nayak**	**Data Analysis and Actuarial Applications**
		The Equivariance Criterion in Statistical Prediction	**Tapan Nayak, Haojin Zhou**
		Wald Test and Distance-Based Generalized Linear Models. Actuarial Application	**Eva Boj, Teresa Costa, Josep Fortiana, Anna Esteve**
		Maximum likelihood estimation in special forward interest rate models	**Balázs Nyul**
		Estimation of the Present Values of Life Annuities for the Complex Actuarial Models	**Oxana V. Gubina, Gennady M. Koshkin**
		Annuities calculation in Algeria: Continuous time approach	**Farid FLICI**
	14:00-15:00		**Lunch**
Auditorium	15.00-15.50	**Keynote Session (Chair: Dimitrios Sotiropoulos) Arthur Pewsey**	***Modelling Toroidal Data Using Circulas***
	15.50-16.20		**Coffee Break**

SCS8	Friday June 13	SPECIAL AND CONTRIBUTED SESSIONS	
Room 1	16:20-18:00	Chair: Gustaf Strandell	Mortality / Life Expectancy
		Out of the crisis in Belarus and Russia: commonality and specificity of mortality changes	Victoria G. Semyonova, Tamara P. Sabgayda
		The contribution of 'avoidable' causes of death to life expectancy gains in Portugal	Paula Santana, Ângela Freitas, Ricardo Almendra, Rui Gama, Adriana Loureiro
		Smoothing of probabilities of death for older people in life expectancy tables	Gustaf Strandell, Tomas Johansson
Room 2	16:20-18:00	Chair: Robert Aykroyd, Co-Chair: Yiannis Dimotikalis	Bayesian
		Bayesian reconstruction of subsurface conductivity from geosounding data	Robert G Aykroyd, Hugo Hidalgo-Silva, Enrique Gómez-Trevino
		Assessment of Classical and Bayesian approach for Estimation of Structural changes in Panel Data	Ishita Basak, Ashis Kumar Chakraborty
		Bayesian Nonparametric Estimation in Nonlinear Dynamic Systems with Geometric Stick Breaking Random noise	Spyridon J. Hatjispyros, Christos Merkatas
		Approximate Bayes estimation of the parameters of gamma exponentiated exponential model	Nabil Zougab
		Sequential estimation has two steps by the Bayesian approach	RIABI LAKHDAR
Room 3	16:20-18:00	Chair: James R. Bozeman	Data Analysis and Applications
		Programming the Convexity Ratio and Applications	James R. Bozeman, Kelly Butler, Matthew Davey, Kayla Flynn
		The influence of classes' entropy and overlap on Random Forests' performance	Margarida G. M. S. Cardoso, Maria José Amorim
		Some criteria to select a pricing measure for solving the valuation problem in incomplete markets	Silvia Dedu, Muhammad Sheraz, Vasile Preda
		Comparison of BMA and EMOS statistical calibration methods for ensemble weather prediction	Sándor Baran, András Horányi, Dóra Nemoda
		Understanding the interactions between global and regional seasonality of crude oil consumption	Julian Inchauspe, Jun Li
Room 4	16:20-18:00	Chair: Ivnitskiy V.A.	Data Analysis / Estimation
		On the extended Orey index and its estimation	Kęstutis Kubilius
		A New Value-at-Risk Semi-parametric Estimation Procedure	M. Ivette Gomes, Frederico Caeiro, Fernanda Figueiredo
		Two-Stage Kalman Filtering for Discrete Systems Using Nonparametric Algorithms	Gennady M. Koshkin, Valery I. Smagin
		A heuristic procedure to estimate the tail index	Marta Ferreira
		Investigating of extreme value threshold estimation approaches	Justyna Majewska

SCS9	Friday June 13	SPECIAL AND CONTRIBUTED SESSIONS	
Room 1	18:00-19:40	Chair: Y. Dimotikalis	Demography / Health / Development
		A method for calculating life tables using archive data. An example from mountainous Rhodopi.	Konstantinos N. Zafeiris
		Demographic and Health Indicators in the Pomaks	Konstantinos N. Zafeiris, Christos H Skiadas
		Life Expectancy and Modal Age at Death in Selected European Countries in the Years 1950-2012	Jana Langhamrová, Kornélia Cséfalvaiová, Jitka Langhamrová
		Ranking charity applications	Cong Xu, James M Freeman
Room 2	18:00-19:40	Chair: Valery Antonov, Co-Chair: Marijan Sviben	Human Body and Other Estimates
		Expected, predictable and observed magnitudes of the blood pressures through 16 years after the man's stroke	Marijan Sviben
		Dynamic Modeling and Forecasting Stability Deterministically Chaotic Processes of Functioning of the Human Body	Valery Antonov, Anatoly Kovalenko, Sergey Nosyrev, Almira Ivanova
		Software Package for Calculating the Fractal and Cross Spectral Parameters of Cerebral Hemodynamic in a Real Time Mode	Valery Antonov, Artem Zagaynov
		Survival Analysis on clinical trial in Monte Carlo simulation	Megdouda OURBIH-TARI, Mahdia AZZAL
		The use of meta-analytic integration of chemical and biological data in Agroforestry Systems in Brazil	Maria de Lourdes Pinheiro Ruivo, Adrane Rocha
Room 3	18:00-19:40	Chair: K. Borovkov, Co-Chair: Ka Ho WU	Processes / Measures / Tests
		On the asymptotic behaviour of a dynamical version of the Neyman contagious point process	K. Borovkov
		Testing unit root test based on Polyvariogram	WU, Ka Ho
		Inference for Quantile Measures of Peakedness	Robert G. Staudte
		Modelling errors in temperature forecasts	Rui Gonçalves
		From deterministic to stochastic via characteristic systems	Ionela Marinela Marinescu
Room 4	18:00-19:40	Chair: Jerzy K. Filus, Co-Chair: V. Voinov	Regression and Estimation
		On 21 century's misusing of the classical Pearson's goodness-of-fit test	V. Voinov, R. Makarov
		Bandwidth matrix selectors for multivariate kernel regression	Jan Koláček, Ivana Horová
		Parameters Estimation Methods for the "Enforced Regression" Problem	Jerzy K. Filus, Lidia Z. Filus
		A quantile regression approach to male and female wage function in Portugal. Does the database matter?	Maria da Conceição Figueiredo, Elsa Fontainha
		Variance of Estimation in two-phase sampling	R. Arnab, J.O.Olaomi
PS	19:40-20:00	POSTER SESSION *(see at the end of the program)*	POSTER
	20:30-24:00		Farewell Dinner

Saturday June 14			
SCS10	**Saturday June 14**	**SPECIAL AND CONTRIBUTED SESSIONS**	
Room 1	9:20-11:00	**Chair: Yakov Yu. Nikitin, Co-Chair: Adelaide Maria Figueiredo**	**Statistical Methods**
		New Tests of Symmetry Based on Characterizations, and their Efficiencies	**Yakov Yu. Nikitin**
		Monitoring the variability of a multivariate normal process using STATIS	**Adelaide Maria Figueiredo, Fernanda Otília Figueiredo**
		On the probabilistic structure of power TGARCH models and applications to real data	**Esmeralda Gonçalves, Joana Leite, Nazaré Mendes-Lopes**
		A Comparison Between Two Different Statistical Methods for Sires Evaluation in Some Milk Traits in Dairy Cattle	**Elsaid Z. M. Oudah**
		Estimation of Common Correlation Coefficient Using R	**Masood Anwar**
Room 2	9:20-11:00	**Chair: Pedro G. Lind, Co-Chair: Toshihiro Abe**	**Distributions / Stochastics**
		Modelling of the multivariate skewness measure distribution	**Margus Pihlak**
		Bridging data and knowledge through a simple stochastic method	**Pedro G. Lind**
		Univariate skew-unimodal distributions with mode preserving property	**Toshihiro Abe, Hironori Fujisawa**
		Fractional Stable Distribution in Gene Expression	**Viacheslav V. Saenko**
		Cointegration pairs trading strategy on derivatives	**Pak-Kuen Philip Lee, Ngai-Hang Chan, Lai-Fan Pun**
Room 3	9:20-11:00	**Chair: Norio Watanabe, Co-Chair: Y. Dimotikalis**	**Fuzzy**
		A fuzzy trend model for multivariate time series with seasonal components	**Erika Watanabe, Norio Watanabe**
		Set-valued and fuzzy stochastic differential equations	**Marek T. Malinowski**
		VSome Fuzzy Correlation Coefficients for Bivariate Fuzzy Data	**Norio Watanabe, Erika Watanabe**
	11:00-11.30		**Coffee Break**
SCS11	**Saturday June 14**	**SPECIAL AND CONTRIBUTED SESSIONS/ Workshops/Tutorials**	
Room 1	11:30-13:30	**Chair: D. Sotiropoulos, Co-Chair: Ping Shing Ben Chan**	**Data Analysis / Time Series / Stress Testing**
		Optimal Sample Size Allocation for Multi-Level Stress Testing with Exponential Regression Under Type-I Censoring	**Chan P.s., Balakrishnan N., So S.Y., H.K. Ng**
		Analyzing elastic body wave conversion data	**D. A. Sotiropoulos**
		Temperature fluctuation analysis at ESPOL campus in Guayaquil after seven years	**Daniel Moran-Zuloaga, Guillermo Soriano, Ruben Hidalgo**
		Fractional Difference ARFIMA Models for long memory timeseries	**Maryam Haghiri Limoudehi, Dariush Mohamadi**
		A Stochastic Modelling of The Extraction Process: Response Surface Methodology	**Selin SAHIN, Ruya SAMLI**

		Quality control of GNSS-Receivers by accuracy-based analysis	Federico Grasso Toro, Michal Hodoň, Jana Púchyová
Room 2	11:30-13:30	Chair: Ludmila A. Dmitrieva	Signals / Equations
		Nonlinear reconstruction of signals by diffusion maps	Lúcia M. S. Pinto; Ricardo Fabbri; Francisco D. Moura Neto
		A Novel Approach to the study of the EEG Signals Scaling Properties in Various States of Consciousness	Ludmila A. Dmitrieva, Darya A. Zorina, Igor E. Kanunikov, Maria N. Krivoshapova, Yuri A. Kuperin, Maria A. Shaptiley
		The Study of Correlation Dimension of the EEG Signals in a State of Meditation by means of Empirical Mode Decomposition	Ludmila A. Dmitrieva, Igor E. Kanunikov, Maria N. Krivoshapova, Yuri A. Kuperin, Nikolai M. Smetanin, Maria A. Shaptiley
		The Cauchy Problem for BBGKY Hierarchy of Quantum Kinetic Equations with Yukawa Potential	Nikolay N. Bogolubov, Mukhayo Yu.Rasulova, Umar O.Avazov
		An Optimal Band is using for predicted the buy and sell signals of stocks	Parmod K. Paul, Vivek Vijay
		Economic and financial viability of peri-urban dairy farms in Mexico's central Valley: 2010-2018	Rodolfo R. Posadas-Domínguez, Nicolás Callejas-Juárez, Carlos Arriaga-Jordán, Francisco E. Martínez-Castañeda
Room 3	11:30-13:30	Chair: Yiannis Dimotikalis	Demography / Mortality / Population
		Estimation of the missing life tables in the Algerian mortality surface (1977 – 2012) by using Lee Carter Formula	Farid FLICI
		Discrepancies of Life Tables	Eugeny Soroko
		Cohort effects and structural changes in mortality trend	Edviges Coelho, Luís Catela Nunes
		A spatial regression framework for small area population projection with census data	Ghislain Geniaux, José Lopez Kolkovsky
		The Portuguese Stable Equivalent Population – a model and trends	Renato Fernandes, Pedro Campos
		Supercentenarians: the Exceptional Longevity by Extreme Value Theory	Valeria D'Amato, Tewfik Kernane
Room 4	11:30-13:30	Chair: Nadiia Zinchenko, Co-Chair: A. Meletiou	Queue and Control Problems / Data Analysis
		Strong Approximation of the Random Sums with Applications in Queuing and Risk Theories	Nadiia Zinchenko
		Multiobjective Optimization Approach to Solve a Maintenance Process Problem	Nouha Lahiani, Yasmina Hani, Abdelfatteh Triki, Abderahman El-Mhamedi
		Functional clustering by smoothing quantile regression	Paolo Girardi, Roberto Pastres, Carlo Gaetan
		Virtual Waiting Time in an Unreliable Tandem Queueing Network	Amar Aissani
		THE SPATIAL PROBIT MODEL – AN APPLICATION TO THE STUDY OF BANKING CRISES AT THE END OF THE 90'S	Andrea Amaral, Margarida Abreu, Victor Mendes
		Singular extremals in control problems for wireless sensor networks	Larisa Manita
		Steady states for non-Markovian stochastic synchronization	Anatoly Manita
	13:30-14:30		Lunch

SCS12	Saturday June 14	SPECIAL AND CONTRIBUTED SESSIONS	
Room 1	14:30-16:00	Chair: Y. Dimotikalis	Data Analysis / Stochastic / Forecasting
		Markovian Analysis of a three echelon supply chain with stochastic demand, lost sales, (S, s) continuous review policies and Coxian 2-phase lead times	Vidalis Michael, Papadopoulos Chryssoleon, Vrisagotis Vassilios
		A Diffusion Inventory Model for Perishable Items	Anna Kitaeva, Natalya Stepanova
		Estimating multi-factor discretely observed Vasicek term structure models with non-Gaussian innovations	Takayuki Shiohama
		How Long It Takes To Get Social Insurance? Informality Dynamics on the Egyptian Labor Market during the 1998-2012 Period	Rania Roushdy, Irene Selwaness
		A study of an interval scale for a motivation test	Artur Parreira, Ana Lorga da Silva
Room 2	14:30-16:00	Chair: A. Meletiou	Large Systems / Filters / Simulation / Traffic
		Indicator based safety assessment of multimodal traffic incidents	Geltmar von Buxhoeveden, Eckehard Schnieder
		Asymptotic analyses of a cold-stand-by system with large number of units and repair	Guldal Guleryuz, Ebru Yuksel
		Analytical Results For Nonlinear Finite Dimensional Feedback Particle Filters	Guillaume Sartoretti, Max-Olivier Hongler, Roger Filliger
		New results for separating systems	Freixas Josep, Molinero Xavier
Room 3	14:30-16:00	Chair: D. Sotiropoulos	Queueing Systems
		Performance analysis of finite source, non-preemptive priority queueing systems	Sedda HAKMI, Ouiza LEKADIR, Djamil AÏSSANI
		Sensitivity Analysis of the GI/M/1 Queue with Negative Customers	Sofiane Ouazine, Karim Abbas
		Approximating Inter-arrival and Service time Distributions by Phase-type Distributions in Single server Queues: A Strong Stability Approach	Yasmina Djabali, Boualem Rabta, Djamil Aïssani
		Error bounds on practical approximation for two tandem queue with blocking and non-preemtive priority	Ouiza Lekadir, Djamil Aïssani
		A Taylor Series Functional approximation to the Numerical Analysis of a non Periodic Review (S,s) Inventory Model	Rahmoune Fazia
	16:00-16:30		Closing Ceremony
Excursion	15.06.2014	Sunday June 15	Full Day Excursion

PS	13.06.14 19.40-20:00	POSTER SESSION (13 June 2014)	POSTER
		A bootstrap approximation for the distribution of the Local Whittle estimator	Josu Arteche, Jesus Orbe
		A study of the date of death of a family in Cuba in dependence of the date of birth	Ricardo Osés Rodríguez, Rigoberto Fimia Duarte, Guillermo Saura González, Alfredo Pedraza martínez, Nancy Ruiz Cabrera, Julia Socarras Padrón
		Long term forecast of meteorological variables in Sancti Spiritus. CUBA	Ricardo Osés Rodríguez, Rigoberto Fimia Duarte, Guillermo Saura González, Alfredo Pedraza Martínez, Nancy Ruiz Cabrera, Julia Socarras Padrón
		Transition from School-to-Work in Egypt: An update on Young People Labor Market Conditions in the Wake of the January 25th Revolution	Rania Roushdy, Irene Selwaness
		Demographic Crisis in Russia In the Frame of Demographic Transition Model	Vadim Bezverbny
		The Determinants of Demand for Health Insurance in Ghana: Does Perception of Quality of Healthcare Services Matter?	Stephen K. O. Duku, Edward Nketiah-Amponsah, Wendy Janssen, Menno Pradhan
		The continuum of antenatal care throughout pregnancy and its effect on neonatal survival in the Philippines: Testing the WHO recommendation	Filipinas Bundoc
		Number of patients at Kavala's hospital from 2005 until 2011	FLOROU G., AGGELIDIS V., BATZIOS C., KARASAVVOGLOU A., PETASAKIS I., POLYCHRONIDOU P.
		The estimation of seasonal variation of live births in Eastern European countries	Elisabeta Jaba, Christiana Brigitte Balan
		The association of ethnicity and maternal education with mortality risk at young ages using indirect estimates. Brazil, 2000 and 2010	Mario F. G. Monteiro, Alba M. Zaluar
		Genetic Data Base	Kakha NADIRADZE, Nana PHIROSMANASHVILI
		Modeling of spatial redistribution population due to climatic trends	T.R. Kilmatov, O.I. Trinko
		Path and ridge regression analysis of seed yield and seed yield components of soybean under different irrigation regimes	Behnam Behtari
		Mathematical Models for Calculation of Relative Growth Rate using Seedling Length	Behnam Behtari, Kazem Ghassemi Golezani
		Graphical modelling of high dimension processes: An environmental application	Ali S. Gargoum
		Multichannel Queuing Systems with Impatient Customers and Regenerative Input Flow	Andrey Tkachenko
		AN ADJUSTED NETWORK INFORMATION CRITERION FOR MODEL SELECTION IN STATISTICAL NEURAL NETWORK MODELS	Christopher Godwin Udomboso, Angela Unna Chukwu, Isaac Kwame Dontwi
		Sudden failure of the neuronal network and its decomposition model	S. Govor
		Application of Stable Distributions to the analysis of GPS derived telemetry data	Mutwiri R. M, Mwambi H, Slotow R, Vanak A. T

		Applications of the gambling team method to the solutions of problems deal with occurrences of words in random texts	Krzysztof Zajkowski
		Fitting mixtures of linear mixed models: a simulation study	Susana Faria
		Bootstrap And Gibbs Sampler Of A Parametric Markov Random Field On Image Processing	Abdeslam El Moudden
		Lower bounds on the convergence rate of the Markov symmetric random search	Alexey Tikhomirov
		Proximity measures in topological structure for discrimination	Rafik Abdesselam
		Respiration Rate Recovery from Accelerometric Data	Franco Garofalo, Francesco Lo Iudice, Giovanni Mancini, Michele Pugliese
		Adjustment Curves for Binary Responses Associated to Stochastic Processes	G.D. Costanzo, F. Dell'Accio, G. Trombetta
		Stochastic processes associated with general systems of nonlinear parabolic equations	Yana Belopolskaya
		MOVING AVERAGES FOR FUTURES DATA	Zidrina Pabarskaite[1], Rimvydas Simutis[1], Borisas Bursteinas[2], Aistis Raudys[3]
		On application of gambling team technique to waiting time problems	Urszula Ostaszewska
		Asymptotic Properties of Estimating Parameters of Intensity Function and Maintenance Effect	Makram Krit
		Robust Normal Two-Armed Bandit and Parallel Data Processing	Alexander V. Kolnogorov
		Adaptive access control in the server with a finite number of processors	Konovalov M.G.
		Determination of the optimal strategy of a quarry in Algeria using the Three Phase Discrete-Event Simulation: A case study	Latifa OURBIH-BAGHDALI, Megdouda OURBIH-TARI, Abdelnasser DAHMANI
		Forecasting of jack mackerel landings (Trachurus murphyi) in central-southern Chile through neural networks	LAURA NARANJO, ELEUTERIO YÁÑEZ, MARÍA ÁNGELA BARBIERI, FRANCISCO PLAZA