

19th Applied Stochastic Models and Data Analysis International Conference (ASMDA2019)

with Demographics 2019 Workshop

11-14 June, 2019, Florence, Italy

Program

Session / Room	Date / Time	Authors / Talk Title / Event	Authors / Talk Title / Event
Grand Hotel Adriatico	8:00-9:15	Tuesday June 11	Registration
Opening Ceremony			
Sala Firenze	9:15-9:30	Special Speech (Chair: Robert J. Elliott) Christos H Skiadas	Applied Stochastic Models: Theory vs Applications?
Sala Firenze	9:30-10:30	ManLab, Technical University of Crete, Chania, Greece	
10:30-10:50		Coffee Break	
Sala Firenze	10:50-11:30	Plenary Session (Chair: Sally McClean) Robert J. Elliott University of South Australia and University of Calgary	New Filters for the Calibration of Regime Switching BETA Dynamics
Sala Firenze	11:30-12:10	Plenary Session (Chair: Robert Elliott) Valérie Girardin Laboratoire de Mathématiques Nicolas Oresme, Normandie Univ., Caen, France	Entropy Rates of Markov Chains
Sala Firenze	12:10-13:00	Plenary Session (Chair: Robert Elliott) Narayanaswamy Balakrishnan Department of Mathematics and Statistics, McMaster University, Hamilton, Ontario, Canada	Reliability Modelling and Assessment of a Heterogeneously Repaired System with Partially Relevant Recurrence Data
Lunch			
13:00-14:00		Lunch	

Sala Firenze		Tuesday June 11	Plenary Sessions	
Sala Firenze	14:00-14:35	Plenary Session (Chair: Narayanaswamy Balakrishnan) Vassily Voinov KIMEP University, Almaty, Republic of Kazakhstan		A note on serious arguments in favor of equality P=NP
Sala Firenze	14:35-15:10	Plenary Session (Chair: Narayanaswamy Balakrishnan) Sally McClean School of Computing, Ulster University		From Process Modelling to Process Mining: using Big Data for Improvement
Sala Firenze	15:10-15:45	Plenary Session (Chair: Narayanaswamy Balakrishnan) Isaac Meilijson Tel-Aviv University		Skorokhod embeddings in Brownian Motion and applications to Finance
Sala Siena	14:00-15:45	Invited Session Chair: Mariano J. Valderrama		Data Analysis (Regression-Variables-Tree Methods) Pilar Valderrama-Baca, Manuel Escabias Machuca, Evaristo Jiménez-Contreras, Mariano J. Valderrama, Arlette Antoni, Thierry Dhome, Evelyne Vigneau, Timothy M. Young, Robert A. Breyer, Terry Liles, Alexander Petutschnigg, Jorge Miguel Bravo, Edviges Coelho, Dominique Desbois
15:45-16:10		Coffee Break		

Sala Firenze		Tuesday June 11		Plenary Sessions	
Sala Firenze	16:10-16:45	Plenary Session (Chair: Sheldon Mark Ross) Fabio L. Spizzichino University "La Sapienza", Rome, Italy	Applied and conceptual meaning of multivariate failure rates and load-sharing models		
Sala Firenze	16:45-17:20	Plenary Session (Chair: Sheldon Mark Ross) Michael N. Katehakis Rutgers University, Piscataway, NJ, USA	Reinforcement Learning: Connections between MDPS and MAB problems		
Sala Firenze	17:20-18:00	Plenary Session (Chair: Sheldon Mark Ross) Mark Brown Department of Statistics Columbia University USA	Approximations with Error Bounds in Applied Probability Models: Exponential and Geometric Approximations		
Sala Siena	16:10-18:00	Special Session Chair: Ekaterina Bulinskaya Comparison of stability conditions for queueing systems with simultaneous service New Dividends Strategies Multivariate Random Sums: Limit Theorems, Related Distributions and Their Properties. The method of moments and its applications in the theory of stochastic processes Structure of the particle field for a branching random walk with a critical branching process at every point	Asymptotic Analysis of Complex Stochastic Evolutionary Systems Larisa Afanaseva, Svetlana Grishunina Ekaterina Bulinskaya Yury Khokhlov, Victor Korolev Elena Yarovaya Daria Balashova, Stanislav Molchanov, Elena Yarovaya		
		18:00	Welcome Cocktail		

Wednesday June 12			
SC	Wednesday June 12	SPECIAL AND CONTRIBUTED SESSIONS	
Sala Siena	9.00-10.20	Invited Session Chair: Mark Brown	Error Detection-Optimal Transport Cost-Bandit Problems-Hawkes Processes
		Error Detection in sequential laser sensor input Distributionally Robust Optimization with Data Driven Optimal Transport Cost and its Applications in Machine Learning Some New Results in Bandit and Related Problems Modeling Sporadic Event Dynamics with Markov-Modulated Hawkes Processes Balancing Covariates in Regression Discontinuity Designs	Gwenaël Gatto, Olympia Hadjiladis Yang Kang, Jose Blanchet, Fan Zhang, Karthyek Murthy Sheldon Mark Ross Jing Wu, Tian Zheng Shuangning Li
Sala Napoli	9.00-10.20	Invited Session Chairs: Adele H Marshall and Sally McClean	Stochastic Models for Healthcare
		Investigating some attributes of periodicity in DNA sequences via semi Markov modelling A general piecewise multi-state survival model for the study on the progression of breast cancer Modelling the Lombardy region's geriatric healthcare systems Discrete Conditional phase-type models for Emergency Departments	Pavlos Koliass,Aleka Papadopoulou Juan Eloy Ruiz-Castro and Mariangela Zenga Hannah Mitchell, Adele H Marshall and Mariangela Zenga Adele H Marshall, Jordan McCallen
Sala Venezia	9.00-10.20	Special Session Chair: Alex Karagrigoriou	Demographics on Actuarial and Financial Mathematics - DAFMA
		Introducing and evaluating a new multiple component stochastic mortality model Classification Methods for Healthcare System Costs in EU On Dimensionality Reduction and Modelling of Pension Expenditures in Europe Distributional Properties of the Percentage Change of Discrete Valued Stochastic Processes	P. Hatzopoulos, A. Sagianou A.Anastasiou, P. Hatzopoulos, A. Karagrigoriou, G. Mavridoglou Kimon Ntosis, Marianna Papamichail, Peter Hatzopoulos, Alex Karagrigoriou George-Jason Siouris,Alex Karagrigoriou
Sala Roma	9.00-10.20	Chair: Christopher Engström	Data Analysis and Informatics
		Mobile learning for training bioinformatics in the connected world Applied Meta-Analysis in Two-Class Overbooking Model A Topological Multiple Correspondence Analysis Estimating differences between two models based on different input data and environmental factors	Taerim Lee, Juhan Kim Murati Somboon Rafik Abdesselam Christopher Engström
	10.20-10.40	Coffee Break	

SC	Wednesday June 12	SPECIAL AND CONTRIBUTED SESSIONS	
Sala Siena	10.40-12.00	Chair: Sheldon Mark Ross	Models in Applied Probability
		Minimizing Expected Discounted Cost in Queueing Loss Models with Discriminating Arrivals	Babak Haji
		Sequential on-line detection and classification in 3D Computer Vision	Olympia Hadjiladis
		FCFS Dynamic Matching Models	Gideon Weiss
		Firm Technology Adoption: Optimal Timing and Employee Incentives	Yugian Xu
Sala Napoli	10.40-13.00	Special Session Chairs: Ying Ni (Mälardalen University, Sweden), Lu Jin (University of Electro-communications, Tokyo, Japan)	Stochastic modelling with financial and actuarial applications
		Calibration of two-factor stochastic volatility model	Betuel Canhanga, Ying Ni, Calisto Guambe
		American option pricing under a Markovian regime switching model	Lu Jin, Yuji Sakurai, Ying Ni
		Asymptotics of Implied Volatility in the Gatheral Double Stochastic Volatility Model	Mohammed Albuhayri, Anatoliy Malyarenko, Sergei Silvestrov, Ying Ni, Christopher Engström, Finnan Tewolde, Jiahui Zhang
		A Comparative Study for Forecasting Stochastic Volatility Models: EWMA model versus Heston model	Jean-Paul Murara,, Anatoliy Malyarenko, Milica Rancic, Ying Ni, Sergei Silvestrov
		Forecasting Stochastic Volatility for Exchange Rate	Jean-Paul Murara,, Anatoliy Malyarenko, Milica Rancic, Ying Ni, Sergei Silvestrov
		Pricing Options under two-dimensional Black-Scholes Equations by using C-N Scheme	Jean-Paul Murara,, Anatoliy Malyarenko, Ying Ni, Sergei Silvestrov
		An Algebraic Method for Pricing Financial Contracts in the Post-Crisis Financial Market	Hossein Nohrouzian, Anatoliy Malyarenko, Ying Ni, Christopher Engström
Sala Venezia	10.40-13.00	Chair: David Steinsaltz, Co-Chair: Alla Ivanova	Health - Modeling - Analysis
		Variability and the latent ageing process in life histories: Developing the statistical toolbox	David Steinsaltz, Maria Christodoulou
		The Weibull model and its relationship to the Healthy years lost in a human population	Christos H Skiadas, Charilaos Skiadas, Konstantinos N. Zafeiris
		Health status and social activity of men and women at pre- and retirement age in Russia	Alla Ivanova, Elena Zemlyanova, Tamara Sabgaida, Sergey Ryazantsev
		Health loss among the late pre-retirement and early retirement population	Victorya Semyonova, Tamara Sabgayda
		Healthy Ageing in Czechia	Tomas Fiala, Jitka Langhamrova
		Stochastic Profile of Strains of Zika from Tropical and Subtropical Regions	Jesús E. García, V.A. González-López, S.L. Mercado Londoño, M.T.A. Cordeiro
		Heterogeneity of chronic pathology burden among elderly	Tamara Sabgayda, Anna Edeleva, Victorya Semyonova

Sala Roma	10.40-12.00	Chair: Dimitrios Sotiropoulos	Social Science - Modeling and Applications
		Acoustic evaluation of the rise-age in children's acquisition of speech sounds Spatio-temporal Aspects of Community Well-Being In Multidimensional Functional Data Approach Latent class detection in Latent Growth Curve Models	D. A. Sotiropoulos Miroslaw Krzyško, Włodzimierz Okrasa, Waldemar Wołyński Katerina M. Marcoulides, Laura Trinchera
SC	Wednesday June 12	SPECIAL AND CONTRIBUTED SESSIONS SC	
Sala Siena	12.00-13.00	Chair: S.B. Fotopoulos, Co-Chair: Jim Freeman	Regression Models - Poisson Regression
		One step-ahead predictive ability in nested regression models Prediction of the 2019 IHF World Men's Handball Championship -- An underdispersed sparse count data regression model Poisson regression and change-point analysis	S.B. Fotopoulos, S. Lyu, V.K. Jandhyala, A. Kaul Andreas Groll, Jonas Heiner, Gunther Schauburger, Jörn Uhrmeister Jim Freeman, Yijin Wen
Sala Roma	12.00-13.00	Chair: Dimitrios Sotiropoulos	Regression
		Multiple outliers identification in linear regression Residual based goodness-of-fit tests for linear regression models A Flexible Regression Model for Compositional Data	Vilijandas Bagdonavičius, Linas Petkevičius Vilijandas Bagdonavičius, Rūta Levulienė Agnese M. Di Brisco, Sonia Migliorati
	13:00-14.00	Lunch	
Excursion	14.30-17.30	Half Day Excursion	

Thursday June 13		
Sala Firenze	9.00-10.20	Chair: D. Steinsaltz Demography - Estimates
	Variability and the latent ageing process in life histories: Applications on cohort studies	M.D. Christodoulou, J.A. Brettschneider, D. Steinsaltz
	Evaluating gender differences in Greece, 1985-2017	Konstantinos N. Zafeiris
	On the evaluation of 'Self-perceived Age' for Europeans and Americans	Apostolos Papachristos, Georgia Verropoulou
Sala Siena	9.00-10.20	Chair: Christian Derquenne Data Analysis - Correlation - Fuzzy
	Co-clustering for time series based on a dynamic mixed approach for clustering variables	Christian Derquenne
	Correlation and the time interval over which the variables are measured – a non-parametric approach	Amit Shelef, Edna Schechtman
	Robust Estimation for the Single Index Model using Pseudodistances	Aida Toma, Cristina Fulga
Sala Napoli	9.00-10.20	Chair: István Fazekas Networks
	Shortest paths in Markov-modulated networks	A.M Andronov, I.M. Dalingier, I.V. Yackiv
	Is Taylor's power law true for random networks?	István Fazekas, Csaba Noszály, Noémi Uzonyi
	Gaussian Limits for Multichannel Networks with Input Flows of General Structure	Hanna V. Livinska, Eugene O. Lebedev
	Information Networks and Perturbed Markov Chains with Damping Components	Dmitrii Silvestrov, Benard Abola, Pitos Seleka Biganda., Sergei Silvestrov, Christopher Engstrom, John Mango Magero, Godwin A. Kakuba
Sala Venezia	9.00-10.20	Chair: Yiannis Dimotikalis, Co-Chair: Mark Anthony Caruana Stochastic - Entropy
	Comparative study of two different SW-RPA approaches to calculate the excess entropy of some liquid metals	N.E. Dubinin
	K-optimal designs for parameters of shifted Ornstein–Uhlenbeck processes	Sándor Baran
	Quantization of Transformed Lévy Measures	Mark Anthony Caruana
	Entropy Analytics of Euro-Disney Facebook Five Star Rating Dataset	Yiannis Dimotikalis
Sala Roma	9.00-10.20	Chair: Emanuela Raffinetti Data Analysis - Cluster, Dependence Analysis
	A cluster analysis of multiblock datasets	Fabien Llobell., Véronique Cariou, Evelyne Vigneau, Amaury Labenne, El Mostafa Qannari
	Latest frontiers in grouped-ordinal data dependence analysis	Emanuela Raffinetti, Fabio Aimar
	A Novel Approach for Predicting Quality Sleep Efficiency from Wearable Device's Data	Mayank Singh, Viranjay M. Srivastava
	A New Method to Relate Multiblock Datasets	Essomanda Tchando-Mangamana, Véronique Cariou, Evelyne Vigneau, Romain Glèlè Kakaï, El Mostafa Qannari
	Efficient Method for Lighting and Blind Control in Smart Homes to Save Energy Consumption	Mayank Singh, Viranjay M. Srivastava
10:20-10:40		Coffee Break

Sala Firenze		Plenary and Invited Talks	
Sala Firenze	10:40-11:20	Plenary Session (Chair: Gilbert Saporta) Claude Lefèvre Université Libre de Bruxelles, Département de Mathématique, Bruxelles, Belgium	Schur-Constant and Related Dependency Models
Sala Firenze	11:20-12:00	Plenary Session (Chair: Gilbert Saporta) Dmitrii Sylvestrov Department of Mathematics, Stockholm University, Stockholm, Sweden	Asymptotic Algorithms of Phase Space Reduction and Ergodic Theorems for Perturbed Semi-Markov Processes
Sala Firenze	12:00-12:40	Plenary Session (Chair: Gilbert Saporta) P.-C.G. Vassiliou Department of Statistical Sciences, University College London	On the Theory and Applications of Nonhomogeneous Markov Set Systems
Sala Firenze	12:40-13:15	Plenary Session (Chair: Gilbert Saporta) Narayanaswamy Balakrishnan Department of Mathematics and Statistics, McMaster University, Hamilton, Ontario, Canada	Reliability Modelling and Assessment of a Heterogeneously Repaired System with Partially Relevant Recurrence Data
SC	Thursday June 13	SPECIAL AND CONTRIBUTED SESSIONS SC	
Sala Siena	10:40-12:00	Special Session Chairs: Mariangela Sciandra, Antonella Plaia	Advances in preference data analysis
		Simultaneous Threshold Interaction Modeling Approach for Paired Comparisons Rankings Generating a ranking on a set of alternatives from the qualitative assessments given by agents with different expertise Ensemble Methods for preference structures, with relevance to the rankings' positions Probabilistic Preference Learning via the Mallows rank model: advances and case studies	Antonio D'Ambrosio, Alessio Baldassarre, Claudio Conversano José Luis García-Lapresta, Raquel González del Pozo Antonella Plaia, Simona Buscemi, Mariangela Sciandra Valeria Vitelli, Øystein Sørensen, Elja Arjas, Arnoldo Frigessi
Sala Napoli	10:40-12:00	Chair: Valery Antonov, Co-Chair: Vassily Voinov	Algorithms - Fractals
		Fractal analysis of nanostructured material objects Increasing efficiency in the EBT algorithm Solving Rank Aggregation Problems through Memetic Algorithms An exact polynomial in time solution of the one-dimensional bin-packing problem	Valery Antonov, Anatoly Kovalenko, Tin Nwe Aye, Linus Carlsson Carmela Iorio, Giuseppe Pandolfo, Autilia Vitiello Vassily Voinov, Rashid Makarov, Yevgeniy Voinov
Sala Venezia	10:40-12:00	Chair: Yuri Kuperin	Time Series - Neurons - Data Analysis
		Calculation of Analogs of Lyapunov Indicators for Different Types of EEG Time Series Using Artificial Neural Networks Application of Modified Local Holder Exponents Method to Study the Multichannel EEG in States of Meditation and Background Estimating age-demographic trends based on Renyi entropy Revisiting Transitions between Superstatistics	German Chernykh, Ludmila Dmitrieva, Yuri Kuperin Ludmila Dmitrieva, Yuri Kuperin, German Chernykh, Daria Kleeva Vasile Preda, Irina Bancescu Petr Jizba, Martin Prokš

Sala Roma	10:40-12:00	Chair: Jerzy Filus, Co-Chair: Yiannis Dimotikalis	Survival
		Revised survival analysis-based models in medical device innovation field Goodness-of-Fit Testing for Point Processes in Survival Analysis A proportional hazard model under bivariate censoring and truncation Construction and Universal Representation of k -Variate Survival Functions	Andrea Bastianin, Emanuela Raffinetti Sami Umut Can, Estate V. Khmaladze, Roger J.A. Laeven Hongsheng Dai, Chao Huang, Miriam J. Johnson, Marialuisa Restaino Jerzy Filus, Lidia Filus
SC	Thursday June 13	SPECIAL AND CONTRIBUTED SESSIONS SC	
Sala Siena	12:00-13:00	Chair: Pierre Devolder	Pension - Longevity - Risk
		Pricing of Longevity derivatives and cost of capital Introduction of reserves in self adjusting steering the parameters of a pay-as-you-go pension plan Reverse Mortgages: Risks and Opportunities	Pierre Devolder, Fadoua Zeddouk Keivan Diakite, Abderrahim Oulidi, Pierre Devolder Emilia Di Lorenzo, Roberto Tizzano, Gabriella Piscopo, Marile Sibillo
Sala Napoli	12:00-13:00	Chair: Valery Antonov	Floods - Models - Applications
		Floods: Statistics, Analysis, Regulation Detecting long term and abrupt changes in hydrological processes Groundwater level forecasting for water resource management Modeling private preparedness behavior against flood hazards	Valery Antonov, Roman Davydov Dominika Ballová, Adam Šeliqa Andrea Zirulia, Enrico Guastaldi, Alessio Barbagli Pedro Araujo, Gilvan Guedes, Rosangela Loschi
Sala Venezia	12:00-13:00	Chair: Leda Minkova	Risk - Insurance - Renewal
		Discrete Time Risk Model Stochastic comparisons of contagion risk measures in portfolios of dependent risks The Rate of Growth and Fluctuations of Compound Renewal Processes Stochastic Modeling for Weather Derivatives and Application to Insurance	Leda D. Minkova Patricia Ortega-Jimenez, Miguel A. Sordo, Alfonso Suárez-Llorens Nadia Zinchenko Clarinda Nhangumbe, Alex Marrime, Betuel Canhanga, Calisto Guambe
Sala Roma	12:00-13:00	Chair: James R. Bozeman	Methods of Data Analysis
		Current multibloc methods. A comparative study in a unified framework Redistricting Using Counties, Municipalities and the Convexity Ratio Two-way cross balanced ORDANOVA Weak Signals in High-dimensional Poisson Regression Models	Stéphanie Bougeard, Ndèye Niang, Thomas Verron, Xavier Bry James R. Bozeman Tamar Gadrich Orawan Reangsephet, Supranee Lisawadi, S. Ejaz Ahmed
	13:00-14.00		Lunch

SC	Thursday June 13		
Sala Firenze	14.00-15:50	Plenary and Invited Talks Chair: Claude Lefèvre	
	14:00-14:50	Gilbert Saporta (co-authors: Ruiping Liu, Ndeye Niang, Huiwen Wang)	Sparse Correspondence Analysis
	14:50-15:10	Data Fraud and Inlier Detection	H.-J. Lenz, W. Kössler
	15:10-15:30	Inflation Rates Indicators and their Properties	Josef Arit, Markéta Aritová
	15:30-15:50	Brand-Level Market Basket Analysis by Conditional Restricted Boltzmann Machines	Harald Hruschka
Sala Siena	14.00-15:50	Invited Session Chair: Mei-Ling Ting Lee	Recent Advances in Statistical Applications
		The wide variety of regression models for lifetime data	Chrys Caroni
		Filling the Gap between Continuous Time Autoregressive Processes and Discrete Observations	Valrie Girardin, Rachid Senoussi
		Death, Disease, Failure Prediction: Survival Models vs Statistical Machine Learning/Reduced Order Models	Catherine Huber-Carol
		Analysing the risk of bankruptcy of firms: survival analysis, competing risks and multistate models	Francesca Pierri, Chrys Caroni
		Threshold Regression Model with Applications to the Adherence of HIV Treatment	Takumi Saegusa, Ying Qing Chen, Mei-Ling Ting Lee
Sala Napoli	14.00-15:50	Invited Session Chairs: Guglielmo D'Amico, Filippo Petroni	Real life applications of stochastic processes
		Performance estimation of a wind farm with a copula dependence structure	Laura Casula, Guglielmo D'Amico, Giovanni Masala, Filippo Petroni, Robert Adam Sobolewski
		A Probabilistic Model of Wind Farm Power Generation via Copulas and Indexed Semi-Markov Models	Guglielmo D'Amico, Giovanni Masala, Filippo Petroni, Robert Adam Sobolewski
		Rocof of higher order for multistate systems in continuous time	Guglielmo D'Amico, Filippo Petroni
		A copula based Markov Reward approach to the credit spread in European Union	Guglielmo D'Amico, Filippo Petroni, Philippe Regnault, Stefania Scocchera, Lorian Storchi
		The Generalized Calculation of Pure Premium for Non-Life Insurance by Generalized Non-Homogeneous Markov Reward Processes	Guglielmo D'Amico, Jacques Janssen, Filippo Petroni, Raimondo Manca and Ernesto Volpe Di Prignano
		Dynamic inequality: a Python tool to compute the Theil inequality within a stochastic setting	Guglielmo D'Amico, Stefania Scocchera, Lorian Storchi
Sala Venezia	14.00-15:50	Chair: Leda Minkova	Distributions - Branching Processes
		Statistical estimation in multitype branching processes with multivariate power series offspring distributions	Ana Staneva, Vessela Stoimenova
		A new simplex distribution allowing for positive Covariances	Roberto Ascari, Sonia Migliorati, Andrea Ongaro
		Polya-Aeppli Geometric process	Stefanka Chukova, Leda D. Minkova
		I-Delaporte process and applications	Meglena D. Lazarova, Leda D. Minkova
		Branching Processes as Models of Epidemics with Vaccination Control	Maroussia Slavtchova-Bojkova
		Cone distribution functions and quantiles for multivariate random variables	Andreas Hamel, Daniel Kostner
Sala Roma	14.00-15:50	Chair: Mariya Svishchuk	Markov -Semi Markov
		Robust Minimal Markov Model	Jesús E. García, V.A. González-López
		Maximization problem subject to constraint of availability in semi-Markov model of operation	Franciszek Grabski
		Limiting Form for the Ergodic Distribution of a Semi-Markovian Random Walk with General Interference of Chance	Ozlem Ardic Sevinc, Tahir Khaniev
		A Markov Model for Product Line Design	Wee Meng Yeo
		Properties of patterns in a semi-Markov chain	Brenda Ivette Garcia Maya and Nikolaos Limnios
		SIR endemic and epidemic models in random media	Mariya Svishchuk, Anatoliy Swishchuk, Yiqun Li
	15:50:16:10	Coffee Break	

SC	Thursday June 13	SPECIAL AND CONTRIBUTED SESSIONS SC	
Sala Firenze	16:10-18:00	Invited Session Chair: Vladimir Anisimov	Predictive modelling for design and execution of clinical trials
		Data-driven predictive modelling of enrolment associated processes to optimize clinical trial's operations Application of meta-heuristic optimization approaches in operational planning for clinical trials Design of clinical trials with "time-to-event" end points and under Poisson-gamma enrollment model Optimising Group Sequential and Adaptive Clinical Trial Designs: Where Frequentist meets Bayes Response-Adaptive Randomization: Optimizing Clinical Trials for Ethics and Efficiency	Vladimir Anisimov Matthew Austin, Stephen Gormley, Vladimir Anisimov Valerii Fedorov Christopher Jennison William F Rosenberger
Sala Siena	16:10-18:00	Special Session Chair: Anna Dembińska	Order statistics with applications in reliability
		Expected lifetimes of coherent systems with DNID components Residual lifetime of k-out-of-n: G systems with a single cold standby unit Unimodality and Logconcavity of Density Functions of System Lifetimes Subset Selection of System Components for Reliability Analysis Aging intensity order	Anna Dembińska, Agnieszka Goroncy Anna Dembińska, Nikolay I. Nikolov, Eugenia Stoimenova Mariusz Bieniek, Marco Burkschat, Tomasz Rychlik Eugenia Stoimenova Magdalena Szymkowiak
Sala Napoli	16:10-18:00	Chair: Dalkhat M. Ediev, Co-Chair: Neir Antunes Paes	Mortality - Methods - Applications
		Using the Developing Countries Mortality Database (DCMD) to Probabilistically Evaluate the Completeness of Death Registration at Old Ages Structural Equation Modeling: Infant Mortality Rate in Egypt Application Modeling of mortality in elderly by trachea, bronchus and lung cancer diseases in the Northeast of Brazil Comparison of parametric models applied to mortality rate forecasting Mortality developments in Greece from the cohort perspective Correcting death rates at advanced old age: review of models	Nan Li, Hong Mi Fatma Abdelkhalik, Marianna Bolla João Batista Carvalho, Neir Antunes Paes Karl Lundengård, Samya Suleiman, Hisham Sulemana, Milica Rancic, Sergei Silvestrov Konstantinos N. Zafeiris, Anastasia Kostaki, Byron Kotzamanis Dalkhat M. Ediev
Sala Venezia	16:10-18:00	Chair: Ngee Choon Chia, Co-Chair: Jana Vrabcová	Demography - Mortality - Health - Insurance
		Alcohol consumption in selected European countries Births by order and childlessness in the post-socialist countries Model of Lifetable Evolution with Variable Drift and Cointegration Long Term Care Insurance in Singapore: Assessing the Shield Index Health vulnerability related to climate extremes in Amazonia and the Brazilian Northeast Bayesian model for mortality projection: evidence from Central and Eastern Europe	Jana Vrabcová, Kornélia Svačinová, Markéta Pechholdová Filip Hon, Jitka Langhamrova Wojciech Otto Ngee Choon Chia Gilvan Guedes, Pollyane Silva, Maria Helena Spyrides, Claudio Silva, Lara Andrade, Kenya Noronha Justyna Majewska, Grazyna Trzpiot
Sala Roma	16:10-17:30	Chair: Epaminondas G. Kyriakidis, Co-Chair: Giovanni Barone-Adesi	Queue - Optimal Policy - Sentiment Nature
		Optimal collection of two materials from N ordered customers with stochastic continuous demands Computation of the optimal policy for a two-compartment single vehicle routing problem with simultaneous pickups and deliveries, stochastic continuous demands and predefined customer order Research of retrial queuing system with called applications in diffusion environment Greed and Fear: the Nature of Sentiment	Epaminondas G. Kyriakidis, Theodosios D. Dimitrakos, Constantinos C. Karamatsoukis Theodosios D. Dimitrakos, Constantinos C. Karamatsoukis, Epaminondas G. Kyriakidis Viacheslav Vavilov Giovanni Barone-Adesi, Matteo M. Pisati, Carlo Sala
PS	17.30-	POSTER SESSION (The list is at the end of the program)	POSTER SESSION
	20:00.00-23.30		Farewell Dinner

Friday June 14		
SC	Friday June 14	SPECIAL AND CONTRIBUTED SESSIONS SC
Sala Siena	9.00-10.20	Chair: Sergei Silvestrov, Co-Chair: George Tsaklidis Models and Modeling
		Kernel SVM Distance Based Control Chart for Statistical Process Monitoring Anastasios Apsemidis, Stelios Psarakis PageRank and Perturbed Markov chains Pitos Seleka Biganda, Benard Abola, Christopher Engström, John Mango Particle filter impoverishment under an urn model perspective Magero, Godwin Kakuba, Sergei Silvestrov Determining influential factors in spatio-temporal models Rodi Lykou, George Tsaklidis Likelihood-comparison of alternative Markov models incorporating duration of stay Rebecca Nalule Muhumuza, Olha Bodnar, Sergei Silvestrov, Joseph Nzabanita, Rebecca Nsubuga A partial unemployment among youths in India owing to under reporting of age of older cohorts Marie-Anne Guerry, Philippe Carette Barun Kumar Mukhopadhyay
Sala Napoli	9.00-10.20	Chair: Yiannis Dimotikalis Stochastics - Statistical Analysis
		Commuter times and the effective resistances of random trees Fahimnah Alawadhi Generalized First Passage Time Method for the Estimation of the Parameters of the Stochastic Differential Equation of the Black-Scholes Model Samia Meddahi, Khaled Khaldi Cumulative Density Function from Contaminated Noise Ben Jrada M Es-salih, Djaballah Khadidja Hybrid multiple imputation for incomplete household surveys Humera Razzak, Christian Heumann Efficiency of Brazilian Hospitals: assessment of Unified Health System (SUS) Laura de Almeida Botega, Mônica Viegas Andrade, Gilvan Ramalho Guedes
Sala Venezia	9.00-10.20	Chair: F. Ruggeri, Co-Chair: Gilvan Guedes Distributions - Time Series - Data Analysis
		Estimating the width of uniform distribution under measurement errors Mirta Benšić, Safet Hamedović, Kristian Sabo Robust Bayesian analysis using multivariate classes of priors distributions F. Ruggeri, M. Sánchez-Sánchez, M.A. Sordo, A. Suárez-Llorens Fractional Difference ARFIMA Models for long memory timeseries Maryam Haghir Generational differences in health-related quality of life among Brazilian gay men Gilvan Guedes, Samuel Araujo, Paula Ribeiro, Kenya Noronha
Sala Roma	9.00-10.20	Chair: Guessoum Zohra Floods - Regression - Data Analysis
		Pre-emergence thermal and hydrothermal time model in crop Behnam Behtari A New Modified Scheme for Linear Shallow-Water Equations Aicha Boussaha Multichannel sequence analysis to identify patient pathway Elisabeth Morand Estimation of the relative error in regression analysis under random left-truncation model Farida Hamrani Robust Regression in Time Series under Truncated and Censored data Benseradj Hassiba, Guessoum Zohra
10:20-10:40		Coffee Break

SC	Friday June 14	SPECIAL AND CONTRIBUTED SESSIONS	
Sala Siena	10.40-12.30	Chair: Andrea Spingola, Co-Chair: Norio Watanabe	Data Analysis - Fuzzy
		Data mining application issues in the taxpayers selection process Are there Limits for Parameter Settings in Choice-Based Conjoint Analysis? Goodness-of-fit tests for logistic family via characterization Multitype branching processes in random environment One bank problem in the federal funds market Fuzzy data analysis and fuzzy directional data	Mauro Barone, Andrea Spingola, Stefano Pisani Winfried J. Steiner, Maren Hein, Peter Kurz Yakov Nikitin, Ilya Ragozin Vladimir Vatutin, Elena Dyakonova, Vitali Wachtel Elena Cristina Canepa, Traian A. Pirvu Norio Watanabe
Sala Napoli	10.40-12.30	Chair: Franca Crippa, Co-Chair: Christopher Engström	Graphs - Statistical Analysis - Distributions
		A comparison of graph centrality measures based on random walks and their computation. Latent Class Analysis in the psychological research on attachment styles and the transition to parenthood TURCOSA: User-friendly, Personalized and Cloud-Based Statistical Analysis System Stochastic Modeling of Affinity Based Cognitive Networks On PageRank Update in Evolving Tree Graphs Properties of the extreme points of the probability density distribution of the Wishart matrix	Collins Anguzu, Christopher Engström, Sergei Silvestrov Franca Crippa, Mariangela Zenga, Rossella Shoshanna Procaccia, Lucia Leonilde Carli Gökmen Zararsız, Selçuk Korkmaz, Dinçer Göksülük, Gözde Ertürk Zararsız, Merve Başol Göksülük, Ahmet Öztürk Denise Duarte, Gilvan Guedes, Gilvan Guedes, Rodrigo Ribeiro Benard Abola, Pitos Seleka Biganda, Christopher Engström, John Mango Magero, Godwin Kakuba, Sergei Silvestrov Karl Lundengård, Asaph Keikara Muhumuza,, Sergei Silvestrov, John Mango, Godwin Kakukuba
Sala Venezia	10.40-12.30	Chair: Marek T. Malinowski, Co-Chair: Soós Anna	Stochastics - Regression
		Mixed Fractional Brownian Motion Itô Type Bipartite Fuzzy Stochastic Differential Equations with Osgood condition Interpolation with stochastic local iterated function systems Probability and Gaussian Stochastic Process applied in Engineering Nonparametric Regression Estimator for LTRC and Dependent Data	Kęstutis Kubilius, Aidas Medžiūnas Marek T. Malinowski Soós Anna, Somoqyi Ildikó Wilker C. Sousa, Natália K. M. Galvão, Fernando F. de Souza, Regina C. B. da Fonseca Siham Bev, Zohra Guessoum, Abdelkader Tatachak
Sala Roma	10.40-12.30	Chair: Francesco Giordano, Co-Chair: Anna Dembińska	Prediction - Curve Fitting - Risk Measures
		Prediction intervals for weighted TAR forecasts An approach to nonparametric curve fitting with censored data On the number of observations in random regions determined by records On a family of risk measures based on largest claims The implications of applying alternative-supplementary measures of the unemployment rate to regions: Evidence from the European Union Labour Force Survey for Southern Europe, 2008-2015 Psychometric validation of constructs defined by ordinal-valued items	Francesco Giordano, Marcella Niglio Jesus Orbe, Jorge Vírto Anna Dembińska, Masoumeh Akbari, Jafar Ahmadi Antonia Castaño, Gema Piqueiras, Miquel Àngel Sordo Aggeliki Yfanti, Catherine Michalopoulou, Stelios Zachariou Anastasia Charalampi, Catherine Michalopoulou, Clive Richardson
	12:30-13:00	Closing Ceremony	
	13:00-14:00	Lunch	

Excursion	Saturday June 15 (9:00-19:00)	Full Day Excursion
PS	Poster Titles	Poster Authors
	On demographic approach of the BGGM distribution parameters	Panagiotis Andreopoulos, Alexandra Tragaki, Fragkiskos G. Bersimis, Maria Moutti
	Clustering of multiple lifestyle risk factors and health-related quality of life in Korean population	Younghwa Baek, Kyungsik Jung, Hoseok Kim
	Bayesian analysis for the system lifetimes under Frank copulas of Weibull component lifetimes	Ping Shing Chan, Yee Lam Mo
	Real Estate Market Analysis with Time-frequency Decomposition	Siu Kai Choy, Tsz Fun Stanley Zel
	Modeling of the extreme and records values for precipitation and temperature in Lebanon	Ali Hayek, Zaher Khraibani, Dana Radwan, Nabil Tabaja, Samir Abbad Andaloussi, Joumana Toufaily, Evelvne Garnie-Zarli, Tavssir Hamieh
	Identifying the characteristics influencing the mathematical literacy in Spanish students	Ana María Lara-Porras, María del Mar Rueda-García, David Molina-Muñoz
	Kernel estimator regression in censored and associated models	Nassira Menni, Abdelkader Tatachak
	Performance measures in discrete supervised classification	Ana Sousa Ferreira, Anabela Marques
	Application of Markov chain process to predict the natural progression of diabetic retinopathy among adult diabetic retinopathy patients in the coastal area of South India	Senthilvel Vasudevan, Sumathi Senthilvel, Jayanthi Sureshbabu
	Assessing labour market mobility in Europe	M. Symeonaki, G. Stamatopoulou
	Describing labour market dynamics through Non Homogeneous Markov System theory	M. Symeonaki, G. Stamatopoulou
	Imputation of item non-response in Likert scales using clustering algorithms	Maria Symeonaki, Charalampos Papakonstantinou
	A neural-network approach for predicting attitudes	Maria Symeonaki, Charalampos Papakonstantinou, Catherine Michalopoulou
	A Joint Modelling Approach in SAS to Assess Association between Adult and Child HIV infections in Kenya	Elvis Karanja, Naomi Maina, June Samo
	Under-five mortality in India: An application of multilevel cox proportional hazard model	Awdhesh Yadav
	Generalized T-X family of distributions and their applications	K. K. Jose, Jeena Joseph
	Generalized Lehmann Alternative Type II Family of Distributions and its Application in Record Value Theory	Jisha Varghese, K.K. Jose
	Predicting The Customers Trend in Digital Firms Case Study in Iran	Saeed Fayyaz
	Technical Efficiency of Public Healthcare Systems in Uttar Pradesh and Maharashtra: A Data Envelopment Analysis	Cheryl Anandas
	Identification of thyroid cancer risk factors incidence in urban and rural areas, Pakistan	Asif Faiza, Muhammad Noor-ul-Amin
	Real time prediction of infectious disease outbreaks based on Google trend data in Africa	Elvis Karanja
	The Distribution of the Inverse Cube Root Transformation of Error Component of the Multivariate Logistic Distribution	Dike Awa, Chikezie David, Otuonye Eric
	Changes of the Tehran City Floating Population Based on the 2006 and 2011 Census Data	Reza Sotoudeh Farkosh, Ashraf Mashhadi Heidar
	Modeling with Hyperbolic Restrictions: The Nigerian Population Dynamics	Ovamakin Samuel Oluwafemi, Osanvintupin Olawale Dele
	Performance Comparison of Penalized Regression Method in Logistic Regression under High-dimensional Sparse Data with Multicollinearity	Warangkhana Watcharasatian, Supralee Lisawadi, Benjamas Tulyanitikul
	Properties of the Hardlims-Tansig Model of the Statistical Neural Network	Olamide O. Ilori, Christopher G. Udomboso
	A Mathematical Model for Cannibalism in a Predator-Prey System with Harvesting	Loy Nankinga