Program

ASMDA2021 Conference and Demographics Workshop

Applied Stochastic Models and Data Analysis International Conference
Athens, Greece, 1 – 4 June, 2021 *Turned into Virtual*

Tuesday, 1.6.2020

TIME ZONE: CEST — Central European Summer Time

11:00- 11:30 Preparation, interconnections

11:30 – 12:00   **Room 1**   Opening Ceremony

12:00-12:40   Plenary Session   **Room 1** (PS1)   Chair: Christos H Skiadas   Speaker: Gilbert Saporta   Title: From the triumph of black boxes to the right to understand and the search for fairness

12:40- 13:00 Preparation, interconnections

13:00-14.45 SCS1 Special and Contributed Sessions		
Room 1	**Room 2**	
SPECIAL SESSION: Models & Methods in Stochastic and Multivariate Data Analysis Part I Chair: Ilia Vonta	**HEALTH I**	
Andreas Artemiou Robust Methodology in Sufficient Dimension Reduction	**Tomáš Fiala, Jitka Langhamrová, Jana Vrabcová** Increase of retirement age and health state of population in Czechia	
Andreas Artemiou, Alex Karagrigoriou, Kimon Ntotsis A Novel Approach to Multicollinearity Detection via Coefficient Penalization	**Frank Okwan** Predicting Child Health Outcome in Ghana using Partial Least Squares (PLS) Structural Equation Modeling (SEM)	
Konstantinos N. Makris, Ilia Vonta Analysis techniques of coupling maximum and minimum values between data sets based on mathematical measures and indices	**Giuliana Passamani, Paola Masotti** A multisite-multivariate AQI and the determination of new threshold values for health risk categories	

Isidora Ovezikoglou, Sonia Malefaki The impact of unemployment on people's quality of life in Greece	**Louisa Testa, Mark Anthony Caruana, Maria Kontorinaki, Charles Savona-Ventura** Predicting Risk of Gestational Diabetes Mellitus through Nearest Neighbour Classification	
Stavroula Eleftheraki, Konstantinos D. Koutroumbas, Athanasios A. Rontogiannis A Possibilistic Approach to Subspace Clustering	**Francesca Bitonti, Angelo Mazza** Exploring chronic diseases' spatial patterns: thyroid cancer in Sicilian volcanic areas	
	V.G. Semyonova, A.V. Zubko, A.E. Ivanova, T.P. Sabgayda, V.G. Zaporozhchenko Exogenous risk factors as a reservoir of deaths from cardiovascular diseases	

14:45-15:00 Break

15:00- 15:15 Preparation, interconnections

15:15-16:30 SCS2 Special and Contributed Sessions

Room 1	Room 2	
Mini-symposium "Fundamental problems arising in the analysis of applied stochastic models of complex structure" (Session I) Chais: Ekaterina Bulinskaya and Elena Yarovaya (Lomonosov Moscow State University)	**STOCHASTICS I**	
Larisa Afanaseva, Elena Bashtova Queueing Systems with Regenerative Input Flow	**Aynura Poladova, Salih Tekin, Tahir Khaniyev** Asymptotic Results for the Stochastic Inventory Model of Type (s, S) with Dependent Components	
Grigory Afanasyev The Number of Completed Vacations for a Vacation Queueing System with Applications to Maintenance of Residential Buildings	**Javier Villarroel, Juan A. Vega** The Distribution of the Amount of Rain. A Renewall Stochastic Process Model	
Daria Balashova Structure of the Particle Field in Branching Walks with Generation Centers of Particles at Every Lattice Point	**Rachid Belfadli Khalifa Es-Sebaiy, Fatima-Ezzahra Farah** Statistical analysis of the non-ergodic fractional Ornstein-Uhlenbeck process with periodic mean	

Yana Belopolskaya Stochastic Models for Nonlinear Systems of PDEs	**Kaloyan Vitanov, M. Slavtchova-Bojkova** A decomposable multi-type Bellman-Harris branching process with multiple supercritical types	
Ekaterina Bulinskaya Optimization and Asymptotic Analysis of Insurance Models	**Christos Floros, Konstantinos Gkillas and Christos Kountzakis** Stochastic Integration, Arrhenius Equation and Capital Transfer	

16:30- 16:45 Preparation, interconnections

16:45-18:30 **SCS3** **Special and Contributed Sessions**

Room 1	Room 2	
Special Session **Multiblock analysis** **Chair: Gilbert Saporta**	**WORKSHOP** **Financial effects / consequences of the COVID-19 pandemic on Crete** **Chairs: Christos Floros and George Matalliotakis** **Implementing body and participants:** **Region of Crete, Accounting and Finance Laboratory (LAFIM) of the Hellenic Mediterranean University**	
Vincent Audigier, Ndèye Niang Cluster analysis after multiple imputation	**George Matalliotakis** The consequences of COVID -19 on the businesses of Crete: Research design	
Alessandra Biancolillo Discussion over Sequential Multi-Block Methods	**George Matalliotakis and Christos Floros** Economic consequences of COVID-19: The case of Crete	
Stéphanie Bougeard, Pasquale Dolce, Véronique Cariou, Mohamed Hanafi Multiblock prediction model through Partial Least Squares Path Modeling	**George Matalliotakis** Working conditions in the businesses of Crete during the COVID-19 pandemic: Research methodology	
Xavier Bry, Catherine Trottier Generalized linear regression with multiple explanatory arrays: the Supervised Component methodology	**Christos Floros** The Impact of the COVID-19 Pandemic on Firm Performance: The case of Greece	
Véronique Cariou, Philippe Courcoux, Mohamed Hanafi Analysis of three-way data by means of rank (Lr,Lr,1) decomposition	**Christos Floros** Determinants of Financial Distress: The case of Greece	

Julien Gibaud, Xavier Bry, Catherine Trotier Response clustering in component-based GLM	**Tabouratzi Efthalia, Vasilakakis Konstantinos** The application of Costing Systems in the Greek Hotel Industry	
Michel Tenenhaus, Arthur Tenenhaus, Theo Dijkstra Consistent and asymptotically normal RGCCA estimators for linear structural equations with latent variables (RGCCAc)	**Nikolaos Grigorakis and Georgios Galyfianakis** Examining the effect of Military Expenditures on out of pocket healthcare payments: Evidence from NATO members, 2000–2018	
	Nektarios Gavrilakis, Christos Floros ESG performance, herding behavior and stock returns: Evidence from Europe	
	Georgia Zournatzidou and Christos Floros Hurst exponent analysis: Evidence from volatility indices and the volatility of volatility indices	

18:30- 18:45 Preparation, interconnections

18:45-19:30
Room 1 **(PS2)**
Plenary Session
Chair: Alex Karagrigoriou
Speaker: N. Balakrishnan
Title: Accelerated Life Testing of One-Shot Devices: Data Collection and Analysis

End of the 1st Day

Program

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Wednesday, 2.6.2020

TIME ZONE: CEST — Central European Summer Time

11:30- 12:00 Preparation, interconnections

12:00-13:30 SCS4 Special and Contributed Sessions

Room 1	Room 2	Room 3
SPECIAL SESSION: Models & Methods in Stochastic and Multivariate Data Analysis Part II Chair: Christina Parpoula	**Mini-symposium "Fundamental problems arising in the analysis of applied stochastic models of complex structure" (Session II) Chais: Ekaterina Bulinskaya and Elena Yarovaya (Lomonosov Moscow State University)**	**Special Session Challenges in Extreme Value Analysis Chairs: Dora Prata Gomes and Ayana Mateus**
Christos Meselidis, Alex Karagrigoriou Multiway Contingency Table Analysis based on a New General Class of Test Statistics	**Elena Lenena** Stability of Unreliable Jackson Networks and Approaches to Bottlenecks Recognition	**Frederico Caeiro, Ayana Mateus, Conceição Veiga de Almeida** Statistical Analysis of Traffic Volume in the 25 de Abril Bridge
Vlad Stefan Barbu, Thomas Gkelsinis, Alex Karagrigoriou A Goodness of Fit Test based on Directed Divergence Measures	**Viatcheslav Melas, Dmitrii Salnikov** On the asymptotic power of the new test for equality of two distributions	**M. Ivette Gomes, Lígia Henriques Rodrigues, Dinis Pestana** A Generalized Mean under Non-Regular Frameworks and Extreme Value Index Estimation
Ch. Koukoumis, A. Karagrigoriou On Entropy-type measures and divergences with applications	**Vladimir Rykov, Nika Ivanova, Emmanuel Nibasumba** On Reliability of a Double Redundant System under Full Repairment Scenario	**Ayana Mateus, Frederico Caeiro** Weighted Hill Estimators for the extreme value index
Alex Karagrigoriou, Ilia Vonta An Exponentiality GoF Test vs. Light & Heavy Tailed Alternatives	**Anastasiya Rytova** Limit Theorems for Branching Random Walks with Heavy Tails	**Dora Prata Gomes, Helena Penalva, Sandra Nunes, M. Manuela Neves** Extreme value parameters estimation: an application to environmental data
Aida Toma, Alex Karagrigoriou, Paschalini Trentou Robust Model Selection Criteria	**Elena Yarovaya** Branching Random Walks and Their Applications	

13:30- 13:40 Preparation, interconnections

13:40-14:20 **Room 1** (PS3) **Plenary Session** **Chair: Christos H Skiadas** **Speaker: Sally McClean** **Title: Attaining Process Completion targets based on Markov models and their extensions**		

14:20-15:00 **Room 1** (PS4) **Plenary Session** **Chair: Alex Karagrigoriou** **Speaker: Mark Brown** **Title: Approximations with Error Bounds in Applied Probability Models: Exponential and Geometric Approximations**		

15:00- 15:20 Break

15:20- 15:30 Preparation, interconnections

15:30-17:00
SCS5
Special and Contributed Sessions

Room 1	Room 2	Room 3
Special Session **Advanced in latent variable modeling** **Chair: Cristina Mollica (University of Rome)**	**Special Session** **Stochastic modelling with applications to financial engineering** **Chairs: Ying Ni (Mälardalen University, Sweden), Lu Jin (University of Electro-communications, Tokyo, Japan)**	**INSURANCE**
Veronica Ballerini, Li-Chun Zhang Log-linear models in the presence of out-of-scope units	**Marko Dimitrov, Mohammed Albuhayri, Ying Ni, Anatoliy Malyarenko** Numerical Studies of Implied Volatility Expansions under the Gatheral Model	**Valeria D'Amato, Emilia di Lorenzo, Gabriella Piscopo and Marilena Sibillo** Insurance incentives to pursue social well-being
Pierfrancesco Alaimo Di Loro, Kieran Kalair, Colm Connaughton A non-parametric Hawkes process model for road accidents	**Hossein Nohrouzian, Anatoliy Malyarenko, Ying Ni** Pricing Financial Derivatives in the Hull–White Model Using Cubature Methods on Wiener Space	**P.-O. Goffard, S. Rao Jammalamadaka, S. G. Meintanis** Goodness--of--fit procedures for compound distributions with an application to Insurance
Pierfrancesco Alaimo Di Loro, Marco Mingione, Jonah Lipsitt, Christina M. Batteate, Michael Jerrett, Sudipto Banerjee Bayesian hierarchical modeling for physical activity trajectories using Actigraph data	**Kouki Takada, Marko Dimitrov, Lu Jin, Ying Ni** Pricing American Options Using a Semi-Markov Decision Process	**Massimiliano Menzietti, Marco Pirra** Weather index-based insurance in advanced agricultural risk management
		Christos Floros, Konstantinos Gkillas and Christos Kountzakis Generalized Johnson Distributions

		Valeria D'Amato, Maria Carannante Satellite data for Optimal Weather Risk Hedging in Agribusiness

17:00- 17:15 Preparation, interconnections

17:15-19:00 SCS6 Special and Contributed Sessions

Room 1	Room 2	Room 3
SPECIAL SESSION: Models & Methods in Stochastic and Multivariate Data Analysis Part III Chair: Alex Karagrigoriou	**STOCHASTICS II**	**HEALH II**
Vlad Stefan Barbu, Alex Karagrigoriou, Andreas Makrides Statistical Inference for Multi State Systems: The Kumaraswamy case	**Neringa Urbonaite, Leonidas Sakalauskas** Investigation of Fractional Brownian Fields	**Vladimir Anisimov** Predicting event's counts in event-driven clinical trials accounting for cure and ongoing recruitment
Milan Stehlík REDACS: Regional emergency driven adaptive cluster sampling or effective COVID-19 prevalence	**Fred Espen Benth, Griselda Deelstra, Sinem Kozpınar** Pricing energy quanto options: a regime-switching framework with stochastic interest rates	**Krasimira Prodanova, Maria Negreva** Prediction of coagulation activity in patients with paroxysmal atrial fibrillation
Emmanouil-Nektarios Kalligeris, Alex Karagrigoriou, Christina Parpoula The use of Penalized Regime Switching for the Modeling of Consultation Rate Data	**Thi Diu Cap, Ying Ni** Implied Volatility under HJM-type Stochastic Volatility model	**Konstantinos N. Zafeiris and Christos Skiadas** Global health and longevity: an analysis of post-World War II data
Christina Parpoula, Alex Karagrigoriou A Recursive Optimization Algorithm for Optimal Multiple Change-Point Detection and Inference	**Marek T. Malinowski** Bipartite Fuzzy Stochastic Differential Equations: Generalization of the Lipschitz Condition	**Anatoly Kovalenko, Konstantin Lebedinski, Verangelina Moloshneva** The correlation between oxygen consumption and excretion of carbon dioxide in the human respiratory cycle
	Jean-Paul Murara Stochastic Optimal Control with a Multiscale Volatility Model	**Vasilii Orel, Olga Nosyreva, Tatiana Buldakova, Natalya Gureva, Viktoria Smirnova** Differences in the structure of

		infectious morbidity of the population during the first and second half of 2020
		Eleni Serafetinidou, Georgia Verropoulou Differences in the structure of infectious morbidity of the population during the first and second half of 2020

19:00- 19:15 Preparation, interconnections

19:15-21:00 **SCS7** **Special and Contributed Sessions**

Room 1	Room 2	Room 3
Mini-symposium "Fundamental problems arising in the analysis of applied stochastic models of complex structure" (Session III) Chais: Ekaterina Bulinskaya and Elena Yarovaya (Lomonosov Moscow State University)	**STATISTICS I**	**Models and Modeling II**
Ekaterina Vl. Bulinskaya On Fluctuations of the Propagation Front of a Catalytic Branching Random Walk	**Elena Castilla, María Jaenada, Leandro Pardo** Minimum RP estimators for independent but not identically distributed observations	**Cédric Noel, Jang Schiltz** Multiple Trajectory Analysis in Finite Mixture Modeling
Alexander Bulinski Feature Selection in Mixed Models	**Silvana Paralloi, Leda D. Minkova** I-Binomial process of order k	**Carla Santos, Cristina Dias, Célia Nunes, João Tiago Mexia** Addressing models associated to commutative Jordan Algebras
Andrey Bulinski Quantum Entropy Quantifiers of Non-Markovianity of Open Systems Dynamics	**Nadiia Zinchenko** Convergence of Compound Renewal Processes in a Heavy-tailed Set-up	**Surabhi Srivastava, Cristina Trois** 4C Assessment Model during 4IR: Implications and Impact in the Environmental Science and Engineering
Yury Khokhlov, Victor Korolev Multivariate Bernoulli-Geometric Stable Distributions	**Samuel Kosolapov** Monte-Carlo Accuracy Evaluation of Laser Cutting Machines	**Maria Tsiodra, Michail Chronopoulos** A Bi-level Model for Optimal Capacity Investment and Subsidy Design under Risk Aversion and Uncertainty
Alina Khuzieva, Tatiana Matveeva, Dmitry Shabanov Concentration of the strong chromatic number of a random hypergraph	**Meglena D. Lazarova, Leda D. Minkova** On the Bivariate Non-central Polya-Aeppli distribution and application	**Hidekazu Yoshioka, Yumi Yoshioka** Dynamic Optimization with Tempered Stable Subordinators for Modeling River Hydraulics
		Silvia Dedu, Muhammad Sheraz, and Mihaita Dragan

		Minimal non-extensive entropy martingale measures with applications to semi-Markov regime switching interest rate modeling
		J. Leonel Rocha, S. Carvalho Mutual information rate, Kolmogorov-Sinai entropy and synchronization in cyclic networks with discontinuous local dynamics

End of the 2nd Day

Program

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Thursday, 3.6.2020

TIME ZONE: CEST — Central European Summer Time

11:30- 12:00 Preparation, interconnections

12:00-13:50
SCS8
Special and Contributed Sessions

Room 1	Room 2	Room 3
Special Session **Recent advances in COVID-19 data analysis** **Chair: Manuel Escabias**	**MARKOV**	**MORTALITY**
Luis Castro-Martín, María del Mar Rueda, Carmen Sánchez-Cantalejo, Ramón Ferri-García, Andrés Cabrera-León Reweighting with machine learning techniques in panel surveys. Application to the Health Care and Social Survey	**Fulvia Pennoni, Beata Bal-Domańska** Hidden Markov model to analyze NEET and youth unemployment comparing EU countries over time	**Panagiotis Andreopoulos, Fragkiskos G. Bersimis, Alexandra Tragaki** A different approach to current developments in the 21st century - Grouping European countries in terms of Mortality
Manuel Escabias, Christian Acal, Ana M. Aguilera, Mariano J. Valderrama Covid-19 data imputation by Principal Component Prediction (PCP) models	**J.E. García, V.A. González-López, G.H. Tasca, V.G. Santos, F.R. Fernandes-Svartman** Language Modality Representation through Multiple Partition Markov Models	**Diana Paola Ovalle Muñoz** FANOVA applied to mortality from Covid-19 in Colombia
Doris Miranda, M. D. Ruiz-Medina A Spatial functional spectral approach to COVID-19 incidence in Spanish Communities	**Andreas C. Georgiou, Emmanuel Thanassoulis, Alexandra Papadopoulou** Data Envelopment Analysis and Markov Models	**Carlos Sérgio Araújo dos Santos, Neir Antunes Paes** The impact of cesarean sections on neonatal mortality in rural-urban divisions in a region of Brazil
Annalina Sarra, Adelia Evangelista, Tonio Di Battista, Damiana Pieragostino Profile regression model for analysing antibody response to COVID-19 vaccines	**Flavius Guias** Stochastic Runge–Kutta solvers based on Markov jump processes and applications to nonautonomous systems of differential equations	**Iuliana Toropoc** Socio-economic factors and Infant Mortality Rate: Romania
Cristhian Leonardo Urbano Leon, Manuel Escabias	**Petros Damos, Pablo Caballero and Jesse Dorrestijn**	**Jana Vrabcová, Markéta Pechholdová**

Control of Dissipative Dynamical Systems	Markov chain modeling of ecological time series data with emphasis on arthropod disease vector dynamics	Alcohol-related mortality and their cause-elimination in life tables due to alcohol in Europe: an international comparison
	Stelios Zimeras Spreading Disease modeling using Markov Random Fields	**Barun Kumar Mukhopadhyay** Mother and child health: Mal-nutrition, Anemia, Food habits along with MMR, MCH making India the worst position in Hunger index
	Khalifa Es-Sebaiy, Jabrane Moustaaid Rate of Convergence of MLE of the drift in α-Brownian Bridge	**Christos H Skiadas** Direct Healthy Life Expectancy Estimates from Life Tables

13:50- 14:00 Preparation, interconnections

14:00-14:40
Room 1 (PS5)
Plenary Session
Chair: Gilbert Saporta
Speaker: Claude Lefèvre
Title: A chain-binomial epidemic with asymptomatics motivated by COVID-19 modelling

14:40- 15:00 Break

15:00- 15:10 Preparation, interconnections

15:10-15:50
Room 1 (PS6)
Plenary Session
Chair: Gilbert Saporta
Speaker: Catherine Huber
Title: Risk Analysis: Classical Statistics compared to Neural Networks in Survival Analysis. Application to Dementia Prediction

15:50- 16:00 Preparation and Interconnections

16:00-17:30
SCS9
Special and Contributed Sessions

Room 1	Room 2	Room 3
Special Session Regression models for responses with bounded support Chair: Roberto Ascari	**Special Session Statistical Models and Algorithms with applications to plants Chair: Samis Trevezas**	
Roberto Ascari, Sonia Migliorati A new regression model for count compositions	**Leonidas Kordalis, Samis Trevezas** Discrete time convolution and application to Renewal and Markov Renewal Theory	
Dipankar Bandyopadhyay	**Dimitris Logothetis, Sotiria Malefaki, Samis Trevezas, Paul-Henry Cournède**	

A monotone single index model for missing-at-random longitudinal proportion data	Bayesian Estimation to explain sugar beet growth	
Agnese Maria Di Brisco, Roberto Ascari, Sonia Migliorati, Andrea Ongaro The state of the art in flexible regression models for univariate bounded responses	**Antonin Della Noce, Paul-Henry Cournède** Approximate Bayesian inference using mean-field distribution simulations	
Michail Tsagris Compositional data analysis with the R Package Compositional	**Ioannis Oikonomidis, Samis Trevezas** A Comparison of Hidden Markov and Regression Models on Crop Stage Percentages Prediction	

17:30- 17:40 Preparation, interconnections

17:40-19:20
SCS10
Special and Contributed Sessions

Room 1	Room 2	Room 3
Special Session **Stochastic processes and their applications** **Chairs: Filippo Petroni and Riccardo De Blasis**	**Data Analysis I**	**Models and Modeling I**
Laura Casula, Guglielmo D'Amico, Giovanni Masala, Filippo Petroni A multivariate model for hybrid wind-photovoltaic power production with energy portfolio optimization	**Naveenbalaji Gowthaman, Viranjay M. Srivastava** A method of Big Data Collection and Normalization for Electronic Engineering Applications	**Istvan Fazekas, Attila Barta** A continuous time network evolution model governed by a branching process
Guglielmo D'Amico and Riccardo De Blasis Confidence sets for dynamic poverty indexes	**Pilar Valderrama, Pilar Baca, Mariano J. Valderrama** Development of a New Bibliometric Indicator. Application in Dentistry	**Istvan Fazekas, Attila Barta** A network evolution model based on 2- and 3-interactions
Guglielmo D'Amico, Filippo Petroni and Salvatore Vergine Ramp-rate policy in wind power plants with battery storage: a stochastic-economic analysis	**Rosa M. Fernández-Alcalá, Jesús Navarro-Moreno, Juan Carlos Ruiz Molina** A Semi-Widely Linear Estimation Algorithm for Widely Factorizable Quaternion Signals	**Elena Koleva, Lilyana Koleva** 3D Electron Beam Current Distribution Modelling
Arioli Mario, D'Amico Guglielmo, De Blasis Riccardo, Petroni Filippo Stock market networks: The mixture transition distribution approach	**Alan Hylton, Ian Lim, Michael Moy, Robert Short** Interpreting a Topological Measure of Complexity for Decision Boundaries	**Tomáš Kouřim, Petr Volf** Random Walk with Varying Transition Probabilities Applied on Tennis Modelling

	Luiza Bădin Recent Developments in Conditional Frontier Analysis	**K. N. Zafeiris, Kostaki, A., Kontogiannis. G. & Tsoni, A.** A multivariate approach on fertility developments in Greek Thrace during the 21st century
	Lincoln S. Peter, Viranjay M. Srivastava High Speed and Secured Network Connectivity for Higher Education Institution Using Software Define Networks	**Ashok Krishnamurthy, Loren Cobb, Bedrich Sousedik, Maya Mueller, Agatha Ojimelukwe** Application of an SEIRD mathematical model to the COVID-19 pandemic

19:20- 19:30 Preparation, interconnections

**19:30-20:50
SCS11
Special and Contributed Sessions**

Room 1	Room 2	Room 3
Data Analysis II	**STATISTICS II**	**Machine Learning-Strategy-Models**
Samuel Kosolapov Using Parameters of Piecewise Approximation by Exponents for Epidemiological Time Series Data Analysis	**Elena Koleva, Lilyana Koleva Dmitriy Trushnikov** Quality Improvement of Quantitative and Bivariate Characteristics by Robust Optimization	**Yang Kang** Machine Learning's Dropout Training is Distributionally Robust Optimal
Dominika Ballová Detecting change-points in multivariate hydrological time series	**Jesús E. García, V. A. González-López** Non-decreasing Subsequences for Exploring Statistical Independence	**Burcu Bektas Gunes, Evren Bursuk, Ruya Samli** Performance of Evaluation of Diagnosis of Various Thyroid Diseases Using Machine Learning Techniques
Martin Paries, Evelyne Vigneau, Stephanie Bougeard Component-based method for mixed data. Application in biology	**Alexander Kolnogorov, Denis Grunev** An Asymptotic Minimax Risk Description for the Exponential Two-Armed Bandit	**Sukran Ebren Kara, Ruya Samli** Software Cost Estimation Using Machine Learning Algorithms
Áurea Sousa, Leonor Bacelar-Nicolau, Osvaldo Silva, Helena Bacelar-Nicolau On two Algorithms for Clustering Interval Data with the Weighted Generalized Affinity Coefficient	**Claudio Macci, Barbara Pacchiarotti** Asymptotic results for certain first-passage times and areas of renewal processes	**Dariusz Filip** Performance Persistence of Polish Investment Funds: Mobility Measures
Dominique Desbois Structural modelling: an application to the evaluation of ecosystem practices at the plot level	**Hiroaki Mohri, Jun-ichi Taeshita** Network Failure Problem of Random K-out-of-N Systems	**Sergey Garbar** Invariant description for batch version of UCB strategy with unknown control horizon
Yiannis Dimotikalis	**Valery Antonov, Victor Garbaruk, Victor Fomenko**	**Cristina Dias, Carla Santos, and João Tiago Mexia** Isolated and Structured Families of Models

Analytics of Portfolio Selection Dimensions: Return, Risk, Diversification	Application of the Neumann - Pearson method to assess the effectiveness of an expert	

20:50-21:30
Plenary Session
Room 1 (PS7)
Chair: Christos H Skiadas
Speaker: Elena Babatsouli
Title: Modeling the development of consonant clusters with singleton consonants in children's speech

End of the 3rd Day

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Friday, 4.6.2020

TIME ZONE: CEST — Central European Summer Time

11:30- 12:00 Preparation, interconnections

12:00-13:50 SCS12 Special and Contributed Sessions

Room 1	Room 2	Room 3
Recent Advances and Applications in Statistical Process Monitoring II **Chairs: S. Bersimis and A. Rakitzis** **Discussant: Prof. Kostas Triantafyllopoulos (University of Sheffield).**	**DEMOGRAPHY I**	**Data Analysis III**
Konstantinos Bourazas and Panagiotis Tsiamyrtzis Multivariate Self-Starting Shiryaev (M3S): A Bayesian Online Change Point Model in Short Runs	**Michaela Kadlecová, Filip Hon, Jitka Langhamrová** Demography and policies in V4 countries	**Rafik Abdesselam** A Topological Clustering of Variables
V. Molaris, K. Triantafyllopoulos, S. Bersimis, P. Economou and G. Papadakis Application of Time Series Control Charts in Shipping	**Tamara P. Sabgayda, Alexandr V. Zubko, Viktorya Semyonova** Effect of SARS-CoV-2 virus on life expectancy	**Alya Atoui, Zaher Khraibani, Regis Moileron, Kamal Slim, Samir Abbad Andalousi** Prediction and analysis of the Extreme and Records values of air pollution data in Bekaa valley in Lebanon
Athanasios C. Rakitzis, Lafatzi Argyro EWMA Control Charts for Monitoring Rates and Proportions: A Comparative Study	**Simon Schnürch, Ralf Korn** Point and Interval Forecasts of Death Rates Using Neural Networks	**Aslı Bektaş Kamışlık, Feyrouz Baghezza, Tülay Kesemen, Tahir Khaniyev** Moment Based Approximation for a Semi Markovian Inventory Model of Type (s,S)
Elisavet M. Sofikitou, M. Markatou and M. V. Koutras Control Charting Techniques for Mixed-Type Data with Applications to Healthcare	**Samuel Silva, Gilvan Guedes, Paula Miranda-Ribeiro, Kenya Noronha** The WebRDS effectiveness as a sampling method among sexual minorities	**Hassiba Benseradj, Zohra Guessoum** Bandwidth selection for M-estimation under truncated, censored and dependent data

	Martina Simkova, Jaroslav Sixta Labor force ageing in the Czech Republic: the role of education and economic industry	**Orhun Ceng Bozo, Rüya Şamlı** Analysis of Blockchain Based Databases in Web Applications
	Mariarosaria Coppola, Maria Russolillo and Rosaria Simone A comparative cross-country analysis of indexed retirement schemes	**Youssef Anzarmou, Abdallah Mkhadri, Karim Oualkacha** Kendall Interaction Filter for Variable Screening in High Dimensional Classification
	Glykeria Stamatopoulou, Maria Symeonaki, Catherine Michalopoulou Intergenerational class mobility in Greece with evidence from EUSILC [Poster]	**Yuta Kanno and Takayuki Shiohama** Long-Range Dependent Geographically Weighted Regression for Official Land Prices and Their Temporal Variation in Tokyo
		Foad Shokrollahi Long-Range Dependent Completely Correlated Mixed Fractional Brownian Motion

13:50- 14:00 Preparation, interconnections

**14:00-15:50
SCS13
Special and Contributed Sessions**

Room 1	Room 2	Room 3
Recent Advances and Applications in Statistical Process Monitoring I Chairs: S. Bersimis and A. Rakitzis Discussant: Subhabrata Chakraborti (The University of Alabama**)**	**DEMOGRAPHY II**	**Data Analysis IV** **Regression**
F. Bersimis, P. Economou, S. Chakraborti and S. Bersimis A Non-Parametric Control Chart for Multivariate Processes Based on Convex Hulls	**Kornélia Svačinová, Markéta Pechholdová, Jana Vrabcová** Alcohol Policy in the Czech Republic	**Susanna Levantesi, Andrea Nigri, Gabriella Piscopo** Predicting the second wave of COVID-19 pandemic through the Dynamic Evolving Neuro Fuzzy Inference System
P. Economou, S. Bersimis, A. Sachlas and K. Triantafyllopoulos Control Charts Based on Multiple Scan Statistics	**Yichao Li, Nan Li, Hong Mi** Life Expectancy and Different Parameter Identification in Chinese Retirement Plan	**Jelena Jocković, Bojana Todić** Coupon collector problem with universal coupon
Dimitrios Kampitsis, George Nenes, and Sofia Panagiotidou Bayesian monitoring in combined Statistical Process Control and Condition Based Maintenance	**Taís Alexandre Antunes Paes, Rodrigo Ladeira, Neir Antunes Paes** Validation of a Scale of Intention to Travel to a Tourist Destination	**Catherine Kyrtsou, Christina Mikropoulou, Angeliki Papana** Nonlinear connectivity as a driver of time-horizon heterogeneity
Konstantinos A. Tasias, George Nenes and Konstantina Tsiota	**Apostolos Papachristos, Georgia Verropoulou**	**Traian Pirvu, Aditya Maheshwari**

A Statistical Process Monitoring Tool for processes with flexible parameters	Assessing the predictive ability of subjective survival probabilities	Portfolio Optimization under Correlation Constraint
	Georgios Psarrakos, Polyxeni Vliora Sensitivity analysis and tail variability for the Wang's actuarial index	**Bilel Bousselmi, Jean-François Dupuy, and Abderrazek Karoui** Censored Poisson regression with missing censoring indicators
	Maria Symeonaki, Glykeria Stamatopoulou, Dimitris Parsanoglou A cluster analysis approach for identifying precarious workers	**Bilel Bousselmi, Jean-François Dupuy, Abderrazek Karoui** Random orthogonal projections based estimators for nonparametric and linear functional regressions
		Gloria Gheno A new non-monotonic link function for Beta regressions

15:50- 16:00 Break

16:00-16:40   **Room 1** (PS8)   **Plenary Session**   **Chair: Catherine Huber**   **Speaker: Peter Pflaumer**   **Title: Exploring Excess Mortality during the Corona Pandemic with Seasonal ARIMA Models**

16:40- 16:50 Preparation, interconnections

16:50-18:30   **SCS14**   **Special and Contributed Sessions**

Room 1	Room 2	Room 3
Recent Trends and Advances of Statistical Process Monitoring in Health **Chair: S. Bersimis and A. Rakitzis**	**DEMOGRAPHY III**	
S. Bersimis, A. Skamnia, and P. Economou A New Technique for Determining the Order of Heterogeneity Sources in a Multivariate Data Set based on Andrews Curves with applications in health monitoring	**Maria Symeonaki, Glykeria Stamatopoulou, Dimitris Parsanoglou** Capturing school-to-work transitions using data from the first European Graduate Survey	
A. Skamnia, P. Economou, S. Bersimis, M. Frouda, A. Politis and P. Alexopoulos Hotspot identification method based on Andrews curves with an application in monitoring COVID-	**Aggeliki Yfanti, Catherine Michalopoulou** The Implementation of Hierarchical Classifications and Cochran's Rule in the Analysis of Social Data	

19 crisis effects on caregiver distress in neurocognitive disorder		
A. Sachlas, S. Bersimis, and P. Economou Monitoring Disease Events Using Convex Hulls and Control Charting	**Konstantinos N. Zafeiris** How to study longevity's gender gap? An application on the European data	
Nika Elisavet Methods for Optimum Establishment of Government-imposed global budget caps - Monitoring Pharmaceutical Expenditures using SPM Techniques	**Anastasia Charalampi, Eva Tsouparopoulou, Joanna Tsiganou, Catherine Michalopoulou** Political Trust to National Institutions: The Significance of Items' Level of Measurement in the Validation of Constructs	
	David Morávek, Tomáš Běloch and Jitka Langhamrová Decomposing Differences in Life Expectancy with and without Disability: The Case of Czechia	
	Ibrahim Sidi Zakari Investigating the current state of population health and mortality in Niger	

18:30-19:00
Room 1 (PS9)
Plenary Session
Chair: Gilbert Saporta
Speaker: Claude Lefèvre
Title: A chain-binomial epidemic with asymptomatics motivated by COVID-19 modelling

19:00-19:40
Plenary Session
Room 1 (PS10)
Chair: Dimitrios Sotiropoulos
Speaker: Fabio L. Spizzichino
Title: A Multivariate Concept of Stochastic Precedence and Aggregation-type Paradoxes of Voting Theory

19:40-20:00
Room 1
Closing Ceremony

End of the Conference

Tuesday 1 of June

ROOM – 1	
Event link https://isast.webex.com/isast/onstage/g.php?MTID=edf9b8faaca9c5f75de6c8566f3039df6	
Event number:	163 482 8223
Event password:	asmda2021
Video Address:	1634828223@isast.webex.com You can also dial 62.109.219.4 and enter your meeting number.
Audioconference:	United Kingdom Toll +44-20-7660-8149 Show all global call-in numbers Access code: 163 482 8223

ROOM – 2	
Event link https://isast.webex.com/isast/onstage/g.php?MTID=ebb31fc2b2826c7dae1ee78c42ffa973a	
Event number:	163 094 8904
Event password:	asmda2021
Video Address:	1630948904@isast.webex.com You can also dial 62.109.219.4 and enter your meeting number.
Audioconference:	United Kingdom Toll +44-20-7660-8149 Show all global call-in numbers Access code: 163 094 8904

Wednesday 2 of June

ROOM – 1	
Event link	
https://isast.webex.com/isast/onstage/g.php?MTID=e95b15a90fd49b8355b62f5994893fb9a	
Event number:	163 871 4634
Event password:	asmda2021
Video Address:	1638714634@isast.webex.com You can also dial 62.109.219.4 and enter your meeting number.
Audioconference:	United Kingdom Toll +44-20-7660-8149 Show all global call-in numbers Access code: 163 871 4634

ROOM – 2	
Event link	
https://isast.webex.com/isast/onstage/g.php?MTID=e8dc0390d14401594595c1561d3e7a725	
Event number:	163 843 7829
Event password:	asmda2021
Video Address:	1638437829@isast.webex.com You can also dial 62.109.219.4 and enter your meeting number.
Audioconference:	United Kingdom Toll +44-20-7660-8149 Show all global call-in numbers Access code: 163 843 7829

ROOM – 3	
Event link	
https://isast.webex.com/isast/onstage/g.php?MTID=e533ed582f14401148ac5f48bf52ee407	
Event number:	163 749 7679
Event password:	asmda2021
Video Address:	1637497679@isast.webex.com You can also dial 62.109.219.4 and enter your meeting number.
Audioconference:	United Kingdom Toll +44-20-7660-8149 Show all global call-in numbers Access code: 163 749 7679

Thursday 3 of June

ROOM – 1	
Event link https://isast.webex.com/isast/onstage/g.php?MTID=eb43bfa57f3d346d0be2423c37347b2ec	
Event number:	163 260 2122
Event password:	asmda2021
Video Address:	1632602122@isast.webex.com You can also dial 62.109.219.4 and enter your meeting number.
Audioconference:	United Kingdom Toll +44-20-7660-8149 Show all global call-in numbers Access code: 163 260 2122

ROOM – 2	
Event link https://isast.webex.com/isast/onstage/g.php?MTID=e2dedcc159d9fd8d0da0e94ef1ba52e49	
Event number:	163 618 8170
Event password:	asmda2021
Video Address:	1636188170@isast.webex.com You can also dial 62.109.219.4 and enter your meeting number.
Audioconference:	United Kingdom Toll +44-20-7660-8149 Show all global call-in numbers Access code: 163 618 8170

ROOM – 3	
Event link https://isast.webex.com/isast/onstage/g.php?MTID=e2fc249cec91d8ccd57a56445a38dbe84	
Event number:	163 730 4550
Event password:	asmda2021
Video Address:	1637304550@isast.webex.com You can also dial 62.109.219.4 and enter your meeting number.
Audioconference:	United Kingdom Toll +44-20-7660-8149 Show all global call-in numbers Access code: 163 730 4550

Friday 4 of June

ROOM – 1	
Event link	
https://isast.webex.com/isast/onstage/g.php?MTID=eb0be654b16e44a47a8d0a9367d0ef185	
Event number:	163 281 5122
Event password:	asmda2021
Video Address:	1632815122@isast.webex.com You can also dial 62.109.219.4 and enter your meeting number.
Audioconference:	United Kingdom Toll +44-20-7660-8149 Show all global call-in numbers Access code: 163 281 5122

ROOM – 2	
Event link	
https://isast.webex.com/isast/onstage/g.php?MTID=ee8a5b880a1ed5dc8c3c0004ee347300f	
Event number:	163 825 9769
Event password:	asmda2021
Video Address:	1638259769@isast.webex.com You can also dial 62.109.219.4 and enter your meeting number.
Audioconference:	United Kingdom Toll +44-20-7660-8149 Show all global call-in numbers Access code: 163 825 9769

ROOM – 3	
Event link	
https://isast.webex.com/isast/onstage/g.php?MTID=edf37779d48188071e06338fc3b7cb439	
Event number:	163 974 2241
Event password:	asmda2021
Video Address:	1639742241@isast.webex.com You can also dial 62.109.219.4 and enter your meeting number.
Audioconference:	United Kingdom Toll +44-20-7660-8149 Show all global call-in numbers Access code: 163 974 2241