

Detailed Program of the VII WCDANM

Thursday (September 10)

09:00 – 12:00 | Course PLS-SEM (First day)

Christian Ringle	Chair: Luís Grilo
Hamburg University, Germany	PLS-SEM using SmartPLS

14:00 - 14:45 | Open Session and Plenary Session

Indranil Ghosh	Chair: Filipe Marques
University of North Carolina at Wilmington, USA	<i>A class of skewed distributions with applications in environmental data</i>

14:45 - 15:00 | Break

15:00 - 17:00 | Parallel Sessions

S1	Chair: Carlos Braumann
Gonçalo Jacinto	<i>Individual Growth Modelling with Stochastic Differential Equations</i>
Sergey Frenkel	<i>Ontological and probabilistic aspects of assessing the quality of predictors</i>
Alberto Simões	<i>A new kind of stability for the Bessel equation: the σ-semi-Hyers-Ulam stability</i>
Manuel Esquivel	<i>A Wavelet Based Neural Network Scheme (NNS) for Supervised and Unsupervised Learning</i>
Carlos Braumann	<i>Harvesting policies with stepwise effort in random environments</i>

S2	Statistical Theory and Applications (organized session) Chair: Carla Santos
Nadab Jorge	<i>The likelihood ratio test of independence for random sample sizes - power studies and computational issues</i>
Ana Cantarinha	<i>Multivariate collective risk models. Inference and special case</i>
Maria Isabel Borges	<i>Statistical Modelling of the Performance of Portuguese Granites Exposed to Salt Mist: the Cases of RA and SPI Granites</i>
Maria Varadinov	<i>Multivariate APC model in the analyses of the logistics activities within Agri-Food Supply Chains</i>
Cristina Dias	<i>Analysis of adaptability and production stability of common wheat genotypes</i>
Carla Santos	<i>On the optimization of unbiased linear estimators in models with orthogonal block structure</i>

17:00 - 17:30 | Break

17:30 - 19:30 | Parallel Sessions

S3	Additive models, discriminant analysis and asymptotic results (organized session) Chair: Dário Ferreira
Sandra Ferreira	<i>Asymptotic Results for the Discrete Case</i>
Patrícia Antunes	<i>Bi-additive Models, Adjustment, Confidence Ellipsoids and Prediction Intervals</i>
Isaac Akoto	<i>Singular Multinomial Distribution and Discriminant Analysis</i>
João T. Mexia	<i>Asymptotic Results for the Discrete Case-Part II</i>
Dário Ferreira	<i>Sums of squares in prime factorial designs</i>

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S4	Chair: Clara Grácio
Sara Perestrelo	<i>Modelling spreading process of a wildfire in heterogeneous orography, fuel distribution and environmental conditions { a complex networks approach</i>
Oumaima Mesbahi	<i>New Approach of Total Least Square Algorithm for nonlinear models</i>
Oussama Rida	<i>A stochastic diffusion process based on brody curve with exogenous factors</i>
Sérgio Cavaleiro Costa	<i>A Novel Predator-Prey Strategy for Optimization Problems: Preliminary Study</i>

Friday (September 11)

09:00 – 12:00 | Course PLS-SEM (Second day)

Christian Ringle	Chair: Luís Grilo
Hamburg University, Germany	PLS-SEM using SmartPLS

14:00 - 14:45 | Plenary Session

Sílvia Barbeiro	Chair: Ana Nata
University of Coimbra, Portugal	<i>Mathematical models for elastography</i>

14:45 - 15:00 | Break

15:00 - 17:00 | Parallel Sessions

S5	Chair: Eliana C. Silva
Emanuel Lopes	<i>A Preliminary Study on the Transportation of Non-Urgent Patients by a Fire Station</i>
Mariana Cardante	<i>A cluster analysis of the Business Behavior and Attitudes indicators defined by Global Entrepreneurship Monitor</i>
Carlos Gomes	<i>The role of Perceptual Variables and Country-Level Culture on International Entrepreneurship</i>
Aldina Correia	<i>The role of framework conditions in Income Level of Countries</i>
Eliana Costa e Silva	<i>European Economies Clustering based on the Entrepreneurial Framework Conditions</i>

S6	Chair: A. Manuela Gonçalves
Telma Mendes	<i>How does organizational ambidexterity influence the firms' internationalization speed? The contribution of network clustering</i>
Fernanda Pereira	<i>Short-Term Forecast Models for the Maximum Temperature Time Series</i>
Ana Borges	<i>The Impact of Entrepreneurial Framework Conditions on Entrepreneurship Early activities: An European Longitudinal Study</i>
Susana Faria	<i>Bivariate multilevel modelling of Portuguese student achievement</i>
A. Manuela Gonçalves	<i>TBATS models and linear regression models approaches for forecasting daily weather time series</i>

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17:00 – 17:30 | Break

17:30 - 19:30 | Parallel Sessions

S7	Chair: José A. Pereira
João Mendes	<i>Deep Learning method to identify fire ignitions</i>
Inês Sena	<i>Trends Identification in Medical Care</i>
Sónia Dias	<i>Clusterwise regression for interval data</i>
Erika J. Martinez Salinas	<i>Stochastic Model to analyze the changes in the fisheries catch and species composition due to varying oceanic temperature along the Colombian Pacific coast</i>
José A. F. Lobo Pereira	<i>Modelling Complex Relationships in Dentistry - The GAMLSS Approach</i>

S8	Statistical Modeling (organized session) Chair: Milan Stehlík
Luís M. Grilo	<i>Comparison of different estimators for a reflective SEM: burnout syndrome in Portuguese workers</i>
Pavlina Jordanova	<i>Ratios of order statistics and regularly varying tails</i>
Maria Ivette Gomes	<i>Generalized Means: Progresses and Challenges in Statistics of Extremes</i>
Lidia Filus	<i>Theoretical Aspects and Constructions of Bivariate Probability Distributions, Most General Case</i>
Jerzy Filus	<i>General Theory and Construction of k-dimensional Survival Functions</i>
Milan Stehlík	<i>Modelling and prediction of COVID-19 outbreaks</i>

Saturday (September 12)

09:00 - 11:00 | Parallel Sessions

S9	Chair: Aldina Correia
Raquel Francisco	<i>Factors influencing exports and season sales tend in a footwear industry</i>
Marta Teixeira	<i>Cooperation, Innovation and Environmental Sustainability: Portuguese Companies Research</i>
Filomena Teodoro	<i>Using a Multidimensional Statistical Approach to Select Experts Opinion in a Context of Naval Operations</i>
Rosa Silveira	<i>A new RFM approach for customer segmentation using a SAF-T based business intelligence system</i>
Aldina Correia	<i>The role of framework conditions in Income Level of Countries</i>

11:00 – 11:15 | Break

11:15 – 12:00 | Plenary Session

Malay Banerjee	Chair: Carlos Braumann
Indian Institute of Technology Kampur, Kampur, India	<i>Emergence of stationary pattern in Rosenzweig-MacArthur model</i>

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12:00 – 14:00 | Lunch

14:00 - 16:00 | Parallel Sessions

S10	Statistical application: price modeling, COVID-19 and artificial intelligence (organized session) Chair: Manuela Oliveira
Andressa C. Rodrigues	<i>Selecting The Most Efficient Model In Predicting Financial Resources</i>
Marta Santos	<i>Detection analysis of breaks in water consumption patterns: a simulation study</i>
Tuany Esthefany B. C. Silva	<i>Impacts caused by COVID-19 in the Brazilian Educational sector: An application of Exploratory Factor Analysis</i>
Andressa C. Rodrigues	<i>Image Analysis Using Neural Convolutional Network in Health</i>
Manuela Oliveira	<i>COVID-19: How to estimate the percentages of asymptomatic and immune</i>

S11	Computational Models and Machine Learning Approaches for solving Real-world Applications (organized session) Chair: Padmanabhan Seshaiyer
Padmanabhan Seshaiyer	<i>Computational mathematics for solving real-world problems arising from COVID-19</i>
Udbhav Muthakana	<i>Deep Learning with Neural Networks for Airborne Spread of COVID-19 in Enclosed Spaces</i>
Viraj Boreda	<i>Efficient Image Segmentation and Machine Learning Algorithms for Improved Malaria Detection from Blood Smear Images</i>
Diego Valencia	<i>Computational techniques using machine learning for rehabilitation and relapse-detecting technology to assist recovering Opioid addiction patients</i>
Andrés Ríos-Gutiérrez	<i>Modeling Analysis and Numerical Estimation of a Stochastic Epidemic SEIR Model with Environmental Stochasticity</i>

16:00 – 16:15 | Break

16:15 - 17:45 | Poster Session

Poster Session

Speaker	(Chair: Teresa Oliveira & Luís Grilo)
Carla Santos	<i>Coefficient of variation: properties, bounds and monotony</i>
Cristina Dias	<i>Basic models with orthogonal structure</i>
Carla Santos	<i>Comparing COVID-19 case fatality ratios through Marascuilo Procedure</i>
Maria Varadinov	<i>The need to manage a RL flow to the traditional forward flow</i>
Fátima de Almeida	<i>Minimize the production of scrap in the extrusion process</i>
Manuela Gonçalves	<i>Comparison of time series models' performance applied to economic data forecasting</i>
Conceição Leal	<i>Geographically Weighted Panel Logistic Regression to model COVID-19 data</i>
Filomena Teodoro	<i>Mechanical behavior of the skin: A Statistical Approach</i>
Ricardo Vitorino	<i>The global satisfaction of Portuguese expatriate workers: application of PLS-SEM</i>
Ana Cantarinha	<i>Structured families of multivariate collective models</i>
Fernando Carapau	<i>One-dimensional theories to study three-dimensional problems: theoretical and numerical aspects</i>
Udbhav Muthakana	<i>Deep Learning with Neural Networks for Airborne Spread of COVID-19 in Enclosed Spaces</i>
Diego Valencia	<i>Computational techniques using machine learning for rehabilitation and elapse-detecting technology to assist recovering Opioid addiction patients</i>
M. Ivette Gomes	<i>Extreme value index estimation under non-regularity and through generalized means</i>
Teresa A. Oliveira	<i>Control Charts for Attribute Control based on Life Distributions with Applications on e-learning classes monitoring</i>

17:45 – 18:00 | Break

18:00 – 19:00 | Plenary Session and Close Session

Adélia Sequeira	Chair: Fernando Carapau
University of Lisbon (IST), Portugal	<i>Modeling and Simulation of the Cardiovascular System: A Mathematical Challenge</i>