ITISE-2024

PROGRAM

15th-17th JULY, 2024
Gran Canaria (SPAIN)

ITISE-2024 Program

Sunday, July 14th, 2024	
18:30-20:00	**REGISTRATION DESK** ***(start at 18:30h but it is open during all the conference)***
18:30-20:00	**Upload the presentations to the room's computer (in case you haven't sent them by email).**

NOTES:

- All **Sessions A** will be held in Hotel Lopesan Villa del Conde Resort. They are **face-to-face sessions**, and they will also be shared on-line by Zoom. The **plenary lectures** are in **Session A.**
- All **Sessions B** will be held on-line (virtual) using Zoom.
- **Oral** Presentation: **15 minutes** (including questions). Short Presentation: **10 minutes** (including questions). Depending on whether there are absent speakers, times may be adjusted.
- **Poster** authors are requested to place their posters on the panels before the start of the poster session (e.g. morning posters can be placed before 10 o'clock, before the coffee break). It is recommended to use **A0 size** and large fonts.

Session A: Located on the last floor of the main building

Monday, July 15, 2024		
8:30	**REGISTRATION DESK** ***(start at 8:30h but it is open during all the conference)***	
	All **Sessions A: Oral face-to-face sessions**. All **Sessions B:** Oral (will be held on-line by Zoom)	
9:00-10:15	**Session A.1: Econometric Modelling of Financial Market Trends (Part I)**	**Session B.1: Econometric Models and Forecasting (Part I)**
10:15- 11:00	**Session A.2: Time Series Analysis for Sustainable and Resilient Infrastructure Systems**	**Session B.2: Computational Intelligence methods for Time Series (Part I).**
11:00-11:40	**COFFEE BREAK**	
11:00-13:00	**Session A.3: POSTER SESSION**	
11:40-12:55	**Session A.4: Time Series Analysis with Computational Intelligence in Energy Forecasting**	**Session B.3: Time Series Analysis for Sustainable and Resilient Infrastructure Systems**
13:00-14:00	**Session A.P1: Opening & Plenary Lecture.** **Prof. Faramarz F. Samavati** **Department of Computer Science, University of Calgary**	
14:00-16:00	**REST BREAK**	
16:00-17:45	**Session A.5: New Advances in Time Series Analysis and Forecasting (Part I)**	**Session B.4: Forecasting Financial Markets**
17:50-19:50	**Session A.6: Applications in: energy, finance, transportation, networks…** Short Presentation	**Session B.5: New Advances in Time Series Analysis and Forecasting (Part I)**

<table>
<tr><th colspan="3">Tuesday, July 16th, 2024</th></tr>
<tr><td rowspan="2">8:45</td><td colspan="2">REGISTRATION DESK
(start at 8:45h but it is opened during all the conference)</td></tr>
<tr><td colspan="2">All Sessions A: Oral <u>face-to-face sessions</u>.
All Sessions B and C: Oral (will be held on-line by Zoom)</td></tr>
<tr><td>9:00-9:45</td><td rowspan="2">Session A.7: Computational Intelligence methods for Time Series.</td><td></td></tr>
<tr><td>9:45- 10:45</td><td>Session B.6: Econometric Models and Forecasting (Part II)</td></tr>
<tr><td>10:45-11:15</td><td colspan="2">COFFEE BREAK</td></tr>
<tr><td>11:15-12:00</td><td>Session A.8: Econometric Modelling of Financial Market Trends (Part II)</td><td>Session B.7: Time Series Analysis with Computational Intelligence in Energy Forecasting</td></tr>
<tr><td>12:00-13:00</td><td>Session A.9: Forecasting theory, adjustment and data preprocessing methods.</td><td>Session B.8: Computational Intelligence methods for Time Series (Part II).</td></tr>
<tr><td>13:00-14:00</td><td colspan="2">Session A.P2: Plenary Lecture.
Prof. Hossein Bonakdari
P.Eng., esteemed professor at the University of Ottawa, Canada.
Assoc. Editor Highlights of Sustainability. Editorial board, Natural Resources</td></tr>
<tr><td>14:00-16:00</td><td colspan="2">REST BREAK</td></tr>
<tr><td>16:00-17:25</td><td>Session A.10:
Economics as a Methodological Progression: The Pipeline from Conventional Methods to Supervised and Unsupervised Machine Learning</td><td rowspan="2">Session B.9: New Advances in Time Series Analysis and Forecasting (Part II)</td></tr>
<tr><td>17:30-18:45</td><td>Session A.11: New Advances in Time Series Analysis and Forecasting (Part II)
Short Presentation</td></tr>
<tr><td>20:30</td><td colspan="2">GALA DINNER
Hotel Lopesan Baobab 5*
(15 minutes walking from Hotel Lopesan Villa del Conde Resort)</td></tr>
</table>

Wednesday, July 17th, 2024		
8:45	**REGISTRATION DESK** ***(start at 8:45h but it is opened during all the conference)***	
	All **Sessions A: Oral face-to-face sessions**. All **Sessions B:** Oral (will be held on-line by Zoom)	
9:00-10:15	**Session A.12: Advanced Applications in Time Series Forecasting**	**Session B.10: New Advances in Time Series Analysis and Forecasting (Part III)**
10:15- 11:00	**Session A.13: Forecasting Financial Markets**	**Session B.11: Data preprocessing methods in Time Series**
11:00-11:30	**COFFEE BREAK**	
11:30-13:00	**Session A.14: Advanced econometric methods**	
13:00-13:45	**Session A.15: Functional Time Series Analysis and Application**	
13:45	**Closing ceremony**	

ITISE 2024 PROGRAM

Monday, July 15, 2024

(9:00-10:15) Session A.1: Econometric Modelling of Financial Market Trends (Part I)

Chairman: Dr. Marta Tolentino and Dr. Maria de la O Gonzalez Perez

Testing for asymmetric correlations between US sector returns and interest rate changes **(Ref: *66*)**

Francisco Jareno, María de La O González and José M^{a} Almansa

Gender as a tool for diversification **(Ref: *2061*)**

Ana Escribano, Antonio Díaz and Rocio Hidalgo

Measuring the impact of climate risk in financial markets: a joint quantile and expected shortfall regression mode **(Ref: *2819*)**

Lidia Sanchis-Marco and Laura Garcia-Jorcano

Gauging Growth Risk in an International Financial Centre: Some Evidence from Singapore **(Ref: *3699*)**

Hwee Kwan Chow

Which is the Significance of Environmental Awareness in Energy Investment Decisions? A Study on Portfolio Rebalancing with an Environmental Focus **(Ref: *5286*)**

Carlos Esparcia Sanchís and Antonio Diaz

(10:15-11:00) Session A.2: Time Series Analysis for Sustainable and Resilient Infrastructure Systems

Chairman: Dr. Maria Luisa Villani and Dr. Ebrahim Ehsanfar

Towards an automatic tool for resilient waterway transport: the case of the Italian river PO **(Ref: *8495*)**

Maria Luisa Villani, Ebrahim Ehsanfar, Sohith Dhavaleswarapu, Alberto Agnetti, Luca Crose and Sonia Giovinazzi

Energy Efficiency Evaluation of Frameworks for Algorithms in Time Series Forecasting **(Ref: *9117*)**

Sergio Aquino-Britez, Pablo García Sánchez, Andrés Ortiz and Diego Aquino-Britez

Detecting Trend Turning Points in PS-InSAR Time Series: Slow-Moving Landslides in Province of Frosinone, Italy **(Ref: *9712*)**

Ebrahim Ghaderpour, Benedetta Antonielli, Francesca Bozzano, Gabriele Scarascia Mugnozza and Paolo Mazzanti

(11:00-13:00) Session A.3: POSTER SESSION

Chairman: Dr. Fernando Rojas and Dr. Alberto Guillen

Assessing Urban Bicycle Traffic Using a Forecasting Model **(Ref: *1603*)**

Anamaria Ilie, Eugen Roșca, Cristina Oprea, Aura Ruscă, Oana Dinu and Valentina Radu

Comparative methods for structural breaks in time series **(Ref: *1786*)**

Dulce Gomes

Prediction of the characteristics of concrete containing crushed brick aggregate **(Ref: *2679*)**

Marijana Hadzima-Nyarko, Miljan Kovacevic, Ivanka Netinger Grubesa and Silva Lozancic

Chlorophyll-a time series study on a saline Mediterranean lagoon: the Mar Menor case **(Ref: *3946*)**

Arnau Garcia i Cucó, José Gellida Bayarri, Beatriz Chafer-Dolz and José M. Cecilia

On the Use of Preprocessing and a Consensus Model to Calculate the Social Security Contributions of Spanish Self-Employed Workers Based on Adjusted Revenue Estimate **(Ref: *4241*)**

Luis Palomero López de Armentia, Vicente Garcia and Jose Salvador Sanchez

Developing a forecasting model for allergenic nettle pollen in North-Eastern Croatia **(Ref: *4352*)**

Edita Stefanic, Sanda Rasic, Pavo Lucic, Marin Lukacevic and Slavica Antunovic

Simulating the Aerial Ballet: The Dance of Fire-Fighting Planes and Helicopters **(Ref: *4747*)**
Kalle Saastamoinen, Juha Alander and Lauri Honkasilta

Estimation of the Gini coefficient using incomplete data **(Ref: *4797*)**
Szabolcs Kelemen, Máté Józsa and Zoltán Néda

Studying LF and HF time series to characterize cardiac physiological responses to mental fatigue **(Ref: *5133*)**
Alexis Boffet, Veronique Deschodt Arsac and Eric Grivel

Exploring Different Modelling Approaches to Forecast Acute Respiratory Infections: An Italian Epidemiological Time Series Study **(Ref: *5280*)**
Riccardo Boracchini, Benedetta Canova, Pietro Ferrara, Elisa Barbieri, Pietro Giorgio Lovaglio, Giovanni Corrao, Daniele Donà, Carlo Giaquinto, Costanza Di Chiara and Anna Cantarutti

Forecasting methods for road accidents, the case of Bucharest city **(Ref: *5548*)**
Cristina Oprea, Eugen Rosca, Ionut Preda, Anamaria Ilie, Mircea Rosca and Florin Rusca

A time series analysis of provincial growth in Spain in the 20th century **(Ref: *5821*)**
Rafael González-Val and Miriam Marcén

Forecasting at Scale: An AutoML Framework for Time-Series Data Challenges **(Ref: *6063*)**
Siddharth Chatterjee, Sourav Banerjee and Divyananda Dileep Aravapalli

Forecasting energy poverty in national energy and climate plans **(Ref: *6482*)**
Renata Slabe Erker, Montserrat González Garibay, Kaja Primc, Darja Zabavnik and Miha Dominko

The Cassandra Method: Dystopian Visions As A Basis For Responsible Design. **(Ref: *6494*)**
Sarah Diefenbach and Daniel Ullrich

Modelling the Daily Concentration of Airborne Particles Using 1D Convolutional Neural Networks **(Ref: *7014*)**
Ivan Gudelj, Mario Lovrić and Emmanuel Karlo Nyarko

Modeling the future of hydroelectric power: a cross-country study **(Ref: *7238*)**
Farooq Ahmad, Livio Finos and Mariangela Guidolin

Sentiment Dynamics and Volatility: a Study Based on GARCH-MIDAS and Machine Learning **(Ref: *7371*)**
Gianmarco Vacca and Luigi Riso

Spectral Characteristics of Strong Ground Motion Time Series for Low to Medium Seismicity Regions with Deep Soil Atop Deep Geological Sediments—An Example of the City of Osijek, Croatia **(Ref: *8118*)**
Silva Lozancic, Borko Bulajic, Gordana Pavic, Ivana Bulajic and Marijana Hadzima-Nyarko

Minimal Reservoir Computing **(Ref: *8321*)**
Haochun Ma, Davide Prosperino and Christoph Räth

Smart Belay Device for Sport Climbing - an Analysis about Falling **(Ref: *9345*)**
Heiko Oppel and Michael Munz

Legendre polynomial modelling-based permutation entropy to analyse encrypted Time series **(Ref: *9491*)**
Meryem Jabloun

Prediction and estimation of yield cereal production using NDVI time series (Sentinel-2) data in central Spain **(Ref: *9973*)**
César Sáenz, Alfonso Bermejo-Saiz, Víctor Cicuéndez, Tomás Pugni, Diego Madruga, Javier Litago and Alicia Palacios-Orueta

Assessing the Pre-processing Benefits of Data-Driven Decomposition Methods for Phase Permutation Entropy - Application to econometric Time-series. **(Ref: *9974*)**
Meryem Jabloun

(11:40-12:55) Session A.4: Time Series Analysis with Computational Intelligence in Energy Forecasting

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Chairman: Dr. Peter Glösekötter, Dr. Moerschell Joseph and Dr. Ignacio Rojas

Towards Resolving the Ambiguity in Low-Field All-Optical Magnetic Field Sensing With High NV-Density Diamonds **(Ref: *1520*)**
Ludwig Horsthemke, Jens Pogorzelski, Dennis Stiegekötter, Frederik Hoffmann, Ann-Sophie Rösner, Markus Gregor and Peter Glösekötter

Optimizing Biogas Power Plants through Deep Learning-Aided Rotor Configuration **(Ref: *1964*)**
Andreas Heller, Héctor Pomares and Peter Glösekötter

Advancing Sustainable Mobility and Transport through Predictive Multi-Level Control of Fuel Cell Electric Vehicles **(Ref: *2713*)**
Christoph Hametner and Stefan Jakubek

Forecasting Electricity Prices in Times of Distress using Bid Data **(Ref: *7840*)**

Aitor Ciarreta and Blanca Martínez-Gonzalo

Neural Network Estimator Performance and Electric Energy Network Optimization **(Ref: *6315*)**

Joseph Moerschell, Fereshteh Jafari and Charles Praplan

(13:00-14:00) Opening Ceremony. Plenary Talk: Prof. Faramarz F. Samavati

Department of Computer Science, University of Calgary

(16:00-17:45) Session A.5: New Advances in Time Series Analysis and Forecasting (Part I)

Chairman: Dr. Emmanuel Karlo Nyarko and Dr. Diefenbach Sarah (tentative)

Evaluating leading and coincident indicators of regional business cycles, a closer look into the Spanish scenario **(Ref: *27*)**

Marco Aurelio Pérez Navarro and Aránzazu De Juan Fernández

Application of the optimised Pulse Width Modulation (PWM) based encoding-decoding algorithm for forecasting with Spiking Neural Networks (SNN) **(Ref: *1448*)**

Sergio Lucas and Eva Portillo Pérez

Modelling Explosive Non-stationarity of Ground Motion Shows Potential for Landslide Early Warning **(Ref: *9458*)**

Michael Manthey, Guoqi Qian and Antoinette Tordesillas

A Global Deep Learning Perspective on Australia-Wide Monthly Precipitation Prediction **(Ref: *9610*)**

Luyi Shen, Guoqi Qian and Antoinette Tordesillas

A comparative analysis of forecasting models for CO2 prediction in school classrooms in Navarra **(Ref: *9781*)**

Peio Garcia, Aranzazu Jurio and Daniel Paternain

(17:50-19:50) Session A.6: Applications in: Energy, Finance, Networks, Meteorology, Health, etc (Short Presentation)

Chairman: Dana Bryazka and Dr.Benjamin Ott

Dynamic Maps Powered by Machine Learning and Time Series Classification for Wildfire Risk Management **(Ref: *298*)**

Nicolò Perello, Giorgio Meschi, Andrea Trucchia, Mirko D'Andrea, Silvia Degli Esposti and Paolo Fiorucci

Exploring Optimal Strategies for Small-Hydro Power Forecasting: Training Periods and Methodological Variations **(Ref: *2318*)**

Duarte Lopes, Isabel Preto and David Freire

Enhanced Renewable Power Forecasting through NWP and Historical Power Data Integration **(Ref: *2434*)**

Isabel Preto, António Couto, Ricardo Faria, Hugo Algarvio, Duarte Lopes and Ana Estanqueiro

Big Data Techniques Applied to Forecast Photovoltaic Energy Demand in Spain **(Ref: *9369*)**

Jorge Tapia García, Luis G. Baca Ruiz, David Criado Ramón and María del Carmen Pegalajar Jiménez

Enhanced Volcanic Signal Detection in Santorini: Implications for Sustainable Tourism Development **(Ref: *2301*)**

Antonios Marsellos, Katerina Tsakiri, Stelios Kapetanakis, Nick Ptak and Faith Renner

Forecasting the impacts of smoking prevalence scenarios from 2022 to 2050 **(Ref: *9384*)**

Dana Bryazka, Marissa Reitsma, Natalia Bhattacharjee, Stein Emil Vollset and Emmanuela Gakidou

Signal Detection in High-Noise Time Series Data Using R **(Ref: *4392*)**

Katerina Tsakiri and Antonios Marsellos

A quantum current sensor for energy flow estimation in smart grids **(Ref: *3380*)**

Frederik Hoffmann, Ann-Sophie Bülter, Ludwig Horsthemke, Dennis Stiegekötter, Jens Pogorzelski, Peter Glösekötter and Markus Gregor

Calibration Free Current Measurement with Integrated Quantum Sensor **(Ref: *7470*)**
Jens Pogorzelski, Jonas Homrighausen, Ludwig Horsthemke, Dennis Stiegekötter, Frederik Hoffmann, Ann Sophie Bülter, Markus Gregor and Peter Glösekötter

Digital Boxcar Averager on a Microcontroller for Pulsed ODMR Measurements of NV Centers **(Ref: *9480*)**
Dennis Stiegekötter, Ludwig Horsthemke, Ann-Sophie Bülter, Frederik Hoffmann, Jens Pogorzelski, Peter Glösekötter and Markus Gregor

Tuesday, July 16th, 2024

(9:00-10:45) Session A.7: Computational Intelligence methods for Time Series.

Chairman: Dr. Héctor Pomares

Automatic selection of methods to perform combination of predictions in monthly series **(Ref: *828*)**
Carlos García-Aroca, Asuncion Mayoral, Javier Morales and José Vicente Segura

A Hybrid, Computer Intensive Approach Integrating Machine Learning and Statistical Methods for Fake News Detection **(Ref: *1528*)**
Livio Fenga

Continual Learning for Time Series Forecasting **(Ref: *2474*)**
Quentin Besnard and Nicolas Ragot

Hybridizing Machine Learning with Time Series Analysis for Enhanced Forecasting in Management Science and Operational Efficiency: A Systematic Review **(Ref: *2919*)**
Aydin Teymourifar and Maria A. M. Trindade

Neural Networks Global Models with Context **(Ref: *3460*)**
Slawek Smyl

Drought forecasting for agricultural insurance payments in grasslands using LSTM neural networks **(Ref: *5058*)**
Tom Vanwalleghem and Filippo Milazzo

Modeling algorithms for anomaly detection based on real-time sensor data: The case of a Desalination Plant **(Ref: *8850*)**
Ron Weitzman and David Gavbriel Pinto

(11:15-12:00) Session A.8: Econometric Modelling of Financial Market Trends (Part II)

Chairman: Dr. Ana Escribano and Dr. Rafael González-Val

Impact of interest rate fluctuations on traditional, environmental and stable cryptocurrency returns **(Ref: *5562*)**
Maria de La O Gonzalez, Francisco Jareño and Jose M^{a} Almansa

From Upside and Downside Risks to Resilience: The ESG Imperative in Energy Market Sustainability **(Ref: *6812*)**

Carlos Esparcia, Mariya Gubareva and Francisco Jareño Cebrián

Examining the performance of some stock market indices: before and after the Russia Ukraine conflict (2021-2023) **(Ref: *8685*)**

Marta Tolentino, María del Valle Fernández and Laura Prieto

(12:00-13:00) Session A.9: Forecasting theory, adjustment and data preprocessing methods.

Chairman: Dr. Kalle Saastamoinen and Dr.Ebrahim Ghaderpour

Ordinary and robust NIPALS decompositions to explore time series **(Ref: *1971*)**

Adelaide Freitas, Alberto da Silva and Filipa Santana

State-Space Modeling in Time Series Analysis: A Data Assimilation Approach and Challenges in Parameter Estimation **(Ref: *3097*)**

Marco Costa, Magda Monteiro, A. Manuela Gonçalves and F. Catarina Pereira

Statistical analysis of longest dry spells phenomenon in Northern Tunisia based on probability laws **(Ref: *4802*)**

Majid Mathlouthi and Fethi Lebdi

Robust Multitaper Tests for Detecting Frequency Modulated Signals **(Ref: *8767*)**

Benjamin Ott, Glen Takahara and Wesley Burr

(13:00-14:00) Plenary Talk: Prof. Hossein Bonakdari

P.Eng., esteemed professor at the University of Ottawa, Canada.
Assoc. Editor Highlights of Sustainability.
Editorial board, Natural Resources

(16:00-17:25) Session A.10: Economics as a Methodological Progression: The Pipeline from Conventional Methods to Supervised and Unsupervised Machine Learning

Chairman: Dr. James Chen

Relevance, Redundancy, and Regularization: Penalized Regression and the Quest for the Lo Quasi-Norm **(Ref: *6188*)**
James Chen

Shadows of Resilience: Exploring the Impact of the Shadow Economy on Economic Stability in Times of Crisis **(Ref: *2242*)**
Charalampos Agiropoulos, James Chen, Thomas Poufinas and George Galanos

Feature presentation: The proper sampling of feature space as a reasonable response to the unreasonable ineffectiveness of mathematics in economics **(Ref: *2484*)**
James Chen

Exploring Regional Determinants of Tourism Success in the Eurozone: An Unsupervised Machine Learning Approach **(Ref: *4123*)**
George Galanos, Charalampos Agiropoulos, James Ming Chen and Thomas Poufinas

Multi-Source Big Data for Fine-Scale Population Distribution Simulation in Rural Areas **(Ref: *2533*)**
Li Li, Ning Niu and Xiaojian Li

(17:30-18:45) Session A.11: New Advances in Time Series Analysis and Forecasting (Part II) (Short Presentation)

Chairman: Dr. Pablo García Sánchez

The relationship between corporate social responsibility and ethical leadership: the role played by corruption in countries. **(Ref: *1594*)**
Isidro Peña, Rosa M. Muñoz, Silvia M. Andrade and Graca Silva

Boosted Value at Risk and Expected Shortfall – application of gradient boosting machine learning models in market risk estimation problem **(Ref: *2094*)**
Michał Woźniak

Promoting Electric Vehicle Growth Through Infrastructure and Policy: A Forecasting Analysis **(Ref: *2579*)**
Anuva Banwasi, Brennan McManus and Adele Sinai

Forecasting Hungarian FX Bond Yields **(Ref: *5226*)**
Dávid Tran

Multicriteria Forecast Combination with Non Linear Programming **(Ref: *7031*)**
Oscar Generoso Gutiérrez, Clara Simón de Blas and Ana Elisabeth García Sipols

Forecasting stock market dynamics from market cap time series of firms through fluctuating selection **(Ref: *7207*)**
Hugo Fort

Wednesday, July 17th, 2024

(9:00-10:15) Session A.12: Advanced Applications in Time Series Forecasting

Chairman: Dr. Antonios Marsellos and Dr. Christoph Hametner

Optimal Forecast Combination for Japanese Tourism Demand **(Ref: *776*)**
Saeed Heravi, Bo Guan, Yongmi Fang, Emmanuel Silva and Hossein Hassani

Self-normalizing Tests Using the Cauchy Distribution **(Ref: *2366*)**
Uwe Hassler and Mehdi Hosseinkouchack

Crisis and Youth Inactivity: Central and Eastern Europe During the Financial Crisis of 2008 and the COVID-19 Outbreak of 2020 **(Ref: *6602*)**
Nataša Kurnoga, Tomislav Korotaj and James Ming Chen

Detecting Change Points in Temporally Correlated Data: An Environmental Time Series Application **(Ref: *7967*)**
Magda Monteiro and Marco Costa

Modeling and forecasting hourly ozone concentration using functional data approach **(Ref: *8519*)**
Ismail Shah

(10:15-11:00) Session A.13: Forecasting Financial Markets

Chairman: Dr. Katerina Tsakiri and Dr.Saeed Heravi

A Time Series Dashboard for Decision Makers in Higher Education Institutions **(Ref: *946*)**
Gabriel David Pinto and Ron Weitzman

Harnessing Manager Sentiment and Ordinal Regression for Corporate Credit Rating Forecasting **(Ref: *4296*)**
Petr Hajek

GARCH Models Under Additive Outliers: A Robust M-quantile Approach **(Ref: *9812*)**
Patrick Patrocinio, Valderio Reisen and Pascal Bondon

(11:30-13:00) Session A.14: Advanced econometric methods

Chairman: Dr. Pascal Bondon and Dr. Sophie Brana (tentatives)

European electricity market integration and volatility spillovers **(Ref: *1658*)**
Evelyn Chanatásig-Niza, Aitor Ciarreta, Cristina Pizarro-Irizar and Ainhoa Zarraga

Monetary policy and bank risk taking: can macroprudential policy interact ? **(Ref: *3251*)**
Sophie Brana and Stéphanie Prat

High-Dimensional Mean-Variance Spanning Tests **(Ref: *4872*)**
David Ardia, Sébastien Laurent and Rosnel Sessinou

Income inequality and credit cycles: booster or anchor? **(Ref: *8043*)**
Alessandra Centinaio, Fausto Pacicco, Andrea Venegoni and Massimiliano Serati

Testing for Nonlinear Cointegration under Heteroskedasticity **(Ref: *8361*)**
Christoph Hanck and Till Massing

Transmission of oil price volatility to MENA stock markets: A comparative study between oil exporters and importers **(Ref: *8563*)**
Khalil Mhadhbi

(13:00-13:45) Session A.15: Functional Time Series Analysis and Application

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Chairman: Dr. Till Massing and Dr. Adelaide Freitas

New algorithm for detecting weak changes in the mean in a class of CHARN models with application to welding electrical signals **(Ref: *1112*)**
Youssef Salman, Anis Hoayek and Mireille Batton-Hubert

Do Chinese foreign investment boost the Latin American countries? **(Ref: *1796*)**
Nadia Urriola Canchari and Abdul Samad Ibrahimi

Multiscale Hierarchical Forecasting of Urban Footfall **(Ref: *7501*)**
Tom Komar and Philip James

VIRTUAL SESSION ITISE - 2024

SESSIONS B

Monday, July 15, 2024

(9:00-10:15) Session B.1: Econometric Models and Forecasting (Part I)

Chairman: Dr. Yuvraj Sunecher and Dr. Boris Kozyrev (tentative)

Using the dichotomous variable to model structural change in time series: an application to international trade **(Ref: *435*)**
José Gerardo Covarrubias López and Xuedong Liu Sun

Forecast Combination and Interpretability Using Random Subspace **(Ref: *1209*)**
Boris Kozyrev

Comparison of Inferential Methods for a Novel CMP Model. **(Ref: *4508*)**
Yuvraj Sunecher and Naushad Mamode Khan

New Approaches in Demand Forecasting: Tobit Exponential Smoothing with Time Aggregation Constraints **(Ref: *5679*)**
Diego J. Pedregal and Juan R. Trapero

(10:15-11:30) Session B.2: Computational Intelligence methods for Time Series (Part I)

Chairman: Dr. Diego J. Pedregal and Dr. Eugene Pinsky (tentative)

Deep Leaning for crime forecasting of multiple regions, considering the spatial temporal correlations between regions **(Ref: *180*)**
Martín Solís and Luis-Alexander Calvo-Valverde

Enabling Diffusion Model for Conditioned Time Series Generation **(Ref: *783*)**
Frédéric Montet, Benjamin Pasquier, Beat Wolf and Jean Hennebert

A Machine Learning-based Approach to Analyze and Visualize Time-Series Sentencing Data **(Ref: *917*)**
Eugene Pinsky and Pironavakumar Kandaswamy

Analyzing Patterns of Injury in Occupational Hand Trauma Focusing on Press Machines: Registry Based Study and Machine Learning Analysis **(Ref: *1056*)**
Sarthak Pattnaik, Sagar Mandiya, Parita Danole, Ghazal Mashhadiagha, Ali Foroutan, Yousef Shafaei Khangdah, Khatereh Sazadehfar and Eugene Pinsky

Foreign Exchange forecasting models: LSTM and BiLSTM comparison **(Ref: *1328*)**
Fernando García, Francisco Guijarro, Javier Oliver and Rima Tamošiūnienė

(11:40-12:55) Session B.3: Time Series Analysis for Sustainable and Resilient Infrastructure Systems

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Chairman: Dr. Maria Luisa Villani and Dr. Ebrahim Ehsanfar

Assessing Global Wildfire Dynamics and Climate Resilience: A Focus on European Regions Using the Fire Weather Index **(Ref: *3468*)**
Ayat-Allah Bouramdane

Reservoir neural network computing for time series forecasting in Aerospace and beyond. Potential applications to predictive maintenance. **(Ref: *4692*)**
Juan Manuel Rodríguez Riesgo and Juan Luis Cabrera Fernández

Missing data imputation for heat pump performance analytics **(Ref: *9025*)**
Sandhya Patidar, Chakron Dechkrut, Andrew Peacock, Abhinanda Roy and Yigit Duveroglu

Short-term real-time forecasting during turbulent times. A model for the Spanish GDP after the pandemic **(Ref: *5889*)**
Matias Pacce, Ana Gomez Loscos and Miguel Angel Gonzalez Simon

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(16:00-17:45) Session B.4: Forecasting Financial Markets

Chairman: Dr. Anna Łyczkowska-Hańćkowiak

The Interconnected Generalized Autoregressive Conditional Heteroskedasticity Model **(Ref: *2687*)**
Javier Sánchez García, Salvador Cruz Rambaud and Paula Ortega Perals

Fuzzy portfolio selection based on 5-days recommendations – a case study **(Ref: *6415*)**
Anna Łyczkowska-Hańćkowiak and Aleksandra Wójcicka-Wójtowicz

The Intraday Dynamics Predictor: A TrioFlow Fusion of Convolutional Layers and Gated Recurrent Units for High-Frequency Price Movement Forecasting **(Ref: *6541*)**
Ilia Zaznov, Atta Badii, Julian Kunkel and Alfonso Dufour

Do Professional Forecasters Believe in Uncovered **(Ref: *7263*)**
Mengdi Song and Constantin Burgi

Measuring the efficiency of introducing businesses‘ digitalization elements over time in relation to their performance **(Ref: *9372*)**
Jarmila Horváthová and Martina Mokrišová

(17:50-19:50) Session B.5: New Advances in Time Series Analysis and Forecasting (Part I)

Chairman: Dr. Arzu Sardarli

New Studies on Birth, Death, Temperature Time Series and Their Correlation **(Ref: *669*)**
Arzu Sardarli

Identification and Forecasting of Bull and Bear Markets Using a Mixture of Markov switching Models and Rule-based Dating Algorithms **(Ref: *761*)**
John Maheu and Hamidreza Masoumi

Detecting short-notice cancellation in hotels with machine learing **(Ref: *1323*)**
Eleazar C-Sánchez and Agustín J. Sánchez-Medina

Assessing asymptotic tail independence: a simulation study **(Ref: *2078*)**
Marta Ferreira

The impact of the geometry and location of storm surge barriers on storm surge propagation: Great Egg Inlet, New Jersey, USA case study **(Ref: *2598*)**
Gregory Slusarczyk, Mary Cialone and Robert Hampson

Performance of an End-to-End Inventory Demand Forecasting Pipeline Using a Federated Data Ecosystem **(Ref: *3689*)**
Henrique Moura, Els de Vleeschauwer, Gerald Haesendonck, Ben De Meester, Lynn D'Eer, Tom De Schepper, Siegfried Mercelis and Erik Mannens

A System for Efficient Detection of Forest Fires Through Low Power Environmental Data Monitoring and AI **(Ref: *8587*)**
Ipek Uremek, Paul Leahy and Emanuel Popovici

Tuesday, July 16th, 2024

(9:45-10:45) Session B.6: Econometric Models and Forecasting (Part II)

Chairman: Dr. Paula Ortega Perals and Dr. José Gerardo Covarrubias López

Standard errors in nonlinear and time series models **(Ref: *232*)**
Guy Mélard

The role of healthcare quality and macrofinancial factors determining hospital mortality in Spain. Dynamic panel data evidence **(Ref: *7504*)**
Paula Ortega Perals, Salvador Cruz Rambaud and Javier Sánchez García

Modeling a set of variables with different attributes on a quantitative dependent variable: an application of dichotomous variables **(Ref: *9515*)**
José Gerardo Covarrubias López and Xuedong Liu Sun

(11:15-12:00) Session B.7: Time Series Analysis with Computational Intelligence in Energy Forecasting

Chairman: Dr. Jose Aureliano Martin Segura and Dr. David Esneyder Bello

A Simple Computational Approach
to Predict Long-Term Hourly Electric Consumption **(Ref: *1837*)**
Etinenne Meunier, Pierre Moreau, Tanvi Sharma and Eugene Pinsky

The impact of greenhouse gas emissions on global economic activity and health **(Ref: *2265*)**
Jose Aureliano Martin Segura and Cesar Pérez López

Analyzing the impact of Spanish electricity hourly prices over the consumption patterns **(Ref: *9730*)**
Eduardo Caro and Jesús Juan Ruiz

(12:00-13:00) Session B.8: Computational Intelligence methods for Time Series (Part II).

Chairman: Dr. Phillip Wenig (tentative)

Multi-objective Optimization for Selection of Clusterings Across Time **(Ref: *2604*)**
Sergej Korlakov, Gerhard Klassen, Luca T. Bauer and Stefan Conrad

Explaining when Deep Learning models are better for time series forecasting **(Ref: *6055*)**
Martín Solís and Luis-Alexander Calvo-Valverde

JET: Fast Estimation of Hierarchical Time Series Clustering **(Ref: *7729*)**
Phillip Wenig, Mathias Höfgen and Thorsten Papenbrock

Multi-Modal Model based on LSTM for Production Forecasting in Oil Wells with Rod Lift System **(Ref: *9771*)**
David Esneyder Bello Angulo and Elizabeth León Guzmán

(16:00-19:30) Session B.9: New Advances in Time Series Analysis and Forecasting (Part II)

Chairman: Dr. Evangelos Ioannidis and Dr. Santiago Zazo del Dedo

Impact of Solar Activity on Snow Cover Variation Over the Tibetan Plateau and Linkage to the Summer Precipitation in China **(Ref: *211*)**
Yan Song, Zhicai Li and Yu Gu

Time Series Forecasting on Electrochemical Curve in Battery Cycling using Multivariate LSTM and Attention Mechanism **(Ref: *392*)**
Florent Magaud, Xu Zhang and Arnaud Demortiere

A spatio-temporal study of tourist flow in Italian museums **(Ref: *744*)**
Leonardo Moreno, Gabriel Brida and Bibiana Lanzilotta

The stock market reaction to bank Mergers and Acquisitions (MAs): Do ESG factors and Climate Policy Uncertainty affect the wealth effects? **(Ref: *1210*)**
Ioannis Tampakoudis and Nikolaos Kiosses

Deep and Interpretable Probabilistic Forecasts **(Ref: *2016*)**
Philipp Baumann

Landscape Transformation & GLOF's Risk in Climate Changing Scenario in Hindukush Himalayan Region of Pakistan **(Ref: *3084*)**
Muhammad Qasim, Kainat Nafees and Mudassir Khan

Modelling Asymmetric and Time-Dependent Volatility of Bitcoin: An Alternative Approach **(Ref: *4195*)**
Abdulnasser Hatemi-J

Evaluation of Economic Interventions in economic blocks during an Economic and Sanitary Crisis **(Ref: *4767*)**
Carmin Montante and Clemente Hernandez-Rodriguez

Saving attitudes and behaviors in an emerging economy: Assessing the moderating effect of household size **(Ref: *5114*)**
Fatima Zahra Bendriouch and Harit Satt

Forecasting the realized volatility of stock markets: The roles of jumps and asymmetric spillovers **(Ref: *5569*)**
Abdelrazzaq Alrababa'A

Annual runoff forecasting through Bayesian causality **(Ref: *5731*)**
Santiago Zazo del Dedo, José Luis Molina González, Carmen Patino Alonso, Fernando Espejo Almodovar and Juan Carlos García Prieto

Ownership Identity and Stock Price Crash Risk: Evidence from the Mena Region **(Ref: *5948*)**
Harit Satt

A Python Module for Implementing Cointegration Tests with Multiple Endogenous Structural Breaks **(Ref: *6019*)**
Abdulnasser Hatemi-J and Alan Mustafa

A New Non-parametric Cross-spectrum Estimator **(Ref: *6283*)**
Evangelos Ioannidis

Energy prices impact on inflation per household category in Greece **(Ref: *7792*)**
Panagiotis Delis, Stavros Degiannakis and George Filis

Evaluation of clustering methods for the unsupervised classification of ground deformation time series **(Ref: *7542*)**
Jhonatan Rivera Rivera, Héctor Aguilera, Marta Béjar-Pizarro, Carolina Guardiola-Albert, Alejandra Staller, Pablo Ezquerro, Riccardo Palamà and Oriol Monserrat

Wednesday, July 17th, 2024

(9:00-10:15) Session B.10: New Advances in Time Series Analysis and Forecasting (Part III)

Chairman: Dr. Neelam Sinha

Evaluation of the University of Lagos Waste Generation Trend **(Ref: *6304*)**
Charles A. Mbama, Austin Otegbulu, Iain Beverland and Tara K. Beattie

Cellular Automata Framework for Dementia Classification using Explainable AI **(Ref: *6437*)**
Siva Manohar Reddy Kesu, Neelam Sinha and Hariharan Ramasangu

Catalyzing Supply Chain Evolution: A Comprehensive Examination of Artificial Intelligence Integration in Supply Chain Management **(Ref: *6533*)**
Sarthak Pattnaik, Natasya Liew, Ali Ozcan Kures, Kathleen Park and Eugene Pinsky

Decomposing the Sri Lanka yield curve using principal component analysis to examine the term structure of the Interest rate **(Ref: *8995*)**
Sanjeewa Dayarathne and Uthayashnger Thayasiwam

(10:15- 11:00) Session B.11: Data preprocessing methods in Time Series

Chairman: Dr. Charles Mbama

A Contextual Genetic algorithm for weighting Salient Crypto assets **(Ref: *1560*)**
Moulay Amine Jaidi

Short Term Forecasting of Nonstationary Time Series **(Ref: *3079*)**
Amir Aieb, Antonio Liotta, Alexander Jacob and Muhammad Azfar Yaqub

Extraction and forecasting of trends in cases of signal rank overestimation **(Ref: *3136*)**
Nina Golyandina and Pavel Dudnik