



ITISE 2018

**International Conference on
Time Series and Forecasting**

**September, 19-21,
Granada, Spain**

ITISE 2018

PROGRAM

**19th-21th September, 2018
Granada (SPAIN)**

ITISE 2018 Short Program

Wednesday, September 19, 2018		
8:00-8:30	REGISTRATION DESK <i>(start at 8h but it is opened during all the conference)</i>	
8:30-10:00	Session A.1: Expert systems and recent developments with Time Series- Data	Session B.1: Applications in Time Series (Part. I)
10:00-10:30	COFFEE BREAK	
10:30-11:30	OPENING PLENARY LECTURE. Prof. Dr. Peter M Robinson	
11:30-12:45	Session A.2: Energy Forecasting	Session B.2: Real Macroeconomic Monitoring and Forecasting (Part. I)
12:45-13:30	Session A.3: Atmospheric Science Forecasting	Session B.3: Advanced econometric methods
13:30-15:00	LUNCH & COFFEE	
15:00-16:30	Session A.4: Health Forecasting	Session B.4: Econometric Models (Part.I)
16:30-17:00	COFFEE BREAK	
17:00-18:00	PLENARY LECTURE. Prof. Salah Bourenane	
18:00-19:30	Session A.5: Computational Intelligence methods for Time Series	Session B.5: Spatio-temporal brain dynamics in attention tasks

NOTES:

- All **Sessions A** will be held in Salón de Grados, Edificio Mecenas (just 50 meters from the Facultad de Ciencias).
- All **Sessions B** will be held in Salón de Grados, Facultad de Ciencias.
- The **Poster Sessions** will be held in the Hall of Facultad de Ciencias.
- **Social event (departure):** Buses will be at the main entrance of Hotel Granada Center (20th September at 20:30 for the Gala Dinner at Hotel Alhambra Palace and 21th September at 15:15 for the visit to Alhambra).

Thursday, September 20, 2018

8:00-8:30	REGISTRATION DESK <i>(start at 8h but it is opened during all the conference)</i>	
8:30-10:00	Session A.6: Forecasting performance evaluation	Session B.6: Applications in Time Series (Part.II)
10:00-10:30	COFFEE BREAK	
10:30-11:30	PLENARY LECTURE. Prof Andrew C. Harvey	
11:30-12:45	Session A.7: Times series analysis in geosciences	Session B.7: Forecasting Complex/Big data (Part. II)
12:45-13:30	Session A.8: Nonstationarity Time Series	Session B.8: Real Macroeconomic Monitoring and Forecasting (Part.II)
13:30-15:00	LUNCH & COFFEE	
15:00-16:30	Session A.9: Advanced methods in Forecasting	Session B.9: Econometric Models (Part.II)
16:30-17:00	COFFEE BREAK	
17:00-18:00	PLENARY LECTURE. Dr. Karsten Webel	
18:00-18:45	Session A.10: Quantum Computing	Session B.10: Structural Time Series Models
18:45-20:15	Session A.11/B.11: Poster Session.	
20:30	Gala Dinner at Hotel Alhambra Palace	

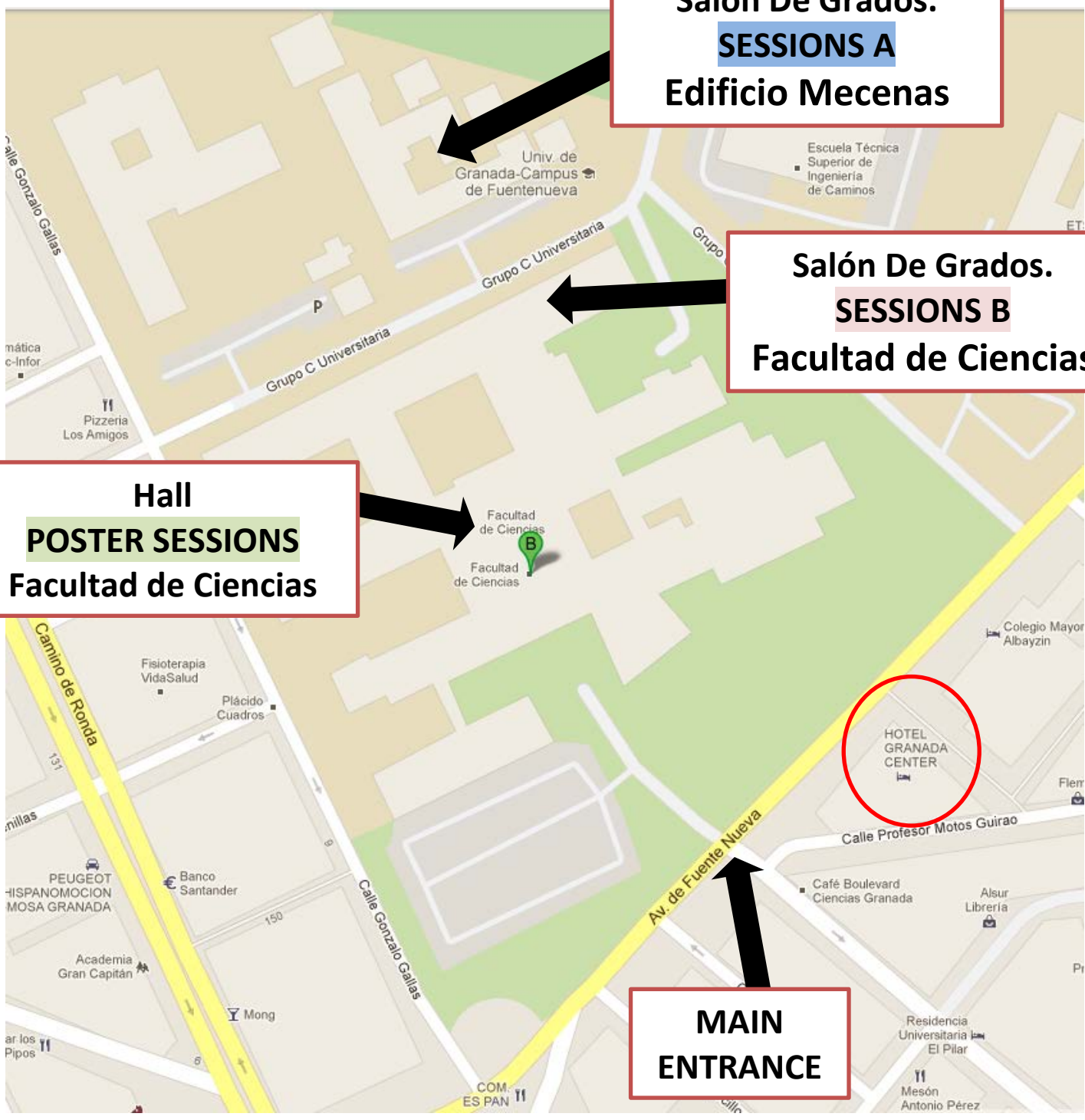
Friday, September 21, 2018		
8:00-8:30	REGISTRATION DESK <i>(start at 8h but it is opened during all the conference)</i>	
8:30-10:00	Session A.12: Applications of time series for hydro-climatic data	Session B.12: Applications in Time Series (Part. III)
10:00-10:30	COFFEE BREAK	
10:30-11:15	PLENARY LECTURE. Univ. Prof. Dr. Robert Kunst	
11:15-12:20	Session A.13: Forecasting Complex/Big data (Part.II)	Session B.13: Financial Forecasting and Risk Analysis
12:20-13:15	Session A.14: Vector processes in Time Series	Session B.14: Nonparametric and Functional Methods in Time Series
13:15-14:00	CLOSING PLENARY LECTURE. Prof. Dr. Uwe Hassler	
14:00-15:15	FREE TIME	
15:15	Visit to the Alhambra	

Salón De Grados.
SESSIONS A
Edificio Mecenas

Salón De Grados.
SESSIONS B
Facultad de Ciencias

Hall
POSTER SESSIONS
Facultad de Ciencias

MAIN
ENTRANCE



ITISE 2018 FULL PROGRAM

Wednesday, September 19, 2018

Session A.1: Expert systems and recent developments with Time Series- Data

Robust autocovariance estimation from the frequency domain

Higor Henrique Aranda Cotta, Valdério Reisen, Pascal Bondon and Celine Levy-Leduc

Penalty terms for estimation of ARMA models:A Bayesian inspiration

Helgi Tómasson

Semi-Online Imagined Speech classification from EEG data based on DWT and Random Forest

Luis Alfredo Moctezuma Pascual

A Simulation of a Custom Inspection in the Airport

Kalle Saastamoinen, Petteri Mattila and Antti Rissanen

Complex networks of scalar time series using a data compression algorithm

Debora Correa, David Walker and Michael Small

Computation and validation of wind and solar time series based on global reanalysis

Marta Victoria, Gorm B. Andresen and Martin Greiner

Session B.1: Applications in Time Series (Part. I)

A Study with NDVI Time Series of the Brazilian Caatinga

Claudionor Silva, Aracy Araujo and Sérgio Machado

Characterizing Market Behavior through Risk Forecasts: a Powerful VaR Backtesting

Marta Malecka

The Long-term memory effects of the Baltic Dry Index

Jose Ramon San Cristobal

Forecasting Peak Period of Travel Time

Béla Paláncz, Jianhong Xia and Yuchen Liu

Transfer function modeling of constant work-rate tests in patients with COPD

Joren Buekers, Hanne Cryns, Patrick De Boever, Emiel F.M. Wouters, Martijn A. Spruit, Jan Theunis and Jean-Marie Aerts

Adaptive R-peak Detection Using Empirical Mode Decomposition

Christina Koza, Randa Herzallah and David Lowe

PLENARY LECTURE:**Prof. Dr. Peter M Robinson**Tooke Professor of Economic Science and Statistics Department of
Economics, London School of Economics

Session A.2: Energy Forecasting

Understanding the behaviour of energy prices in Brazil

Abdinardo Moreira Barreto de Oliveira and Anandadeep Mandal

Stacked LSTM Snapshot Ensembles for Time Series Forecasting

Sascha Krstanovic and Heiko Paulheim

Time series Analysis for Re-Commissioning of Building Service installations

*Wim Zeiler*Predictive model of the techno-environmental performance of novel multi-function
window combined ventilation system and solar photovoltaic blind using finite element
method*Taehoon Hong, Jongbaek An, Jeongyoon Oh, Woojin Jung and Minhyun Lee*Prediction of Current by Artificial Neural Networks in a Substation in order to
Schedule Thermography*Per Westerlund and Ilias Dimoulkas*

Session B.2: Real macroeconomic monitoring and forecasting (Part. I)

Permutation entropy as the measure of globalization process.

Janusz Mikiewicz

Estimating macroeconomic uncertainty from surveys – a mixed frequency approach

*Jeffrey Sheen and Ben Wang*External Migration as a Factor of Economic Growth: Econometric Analysis for CIS
Countries*Kseniya Bondarenko*

Business Cycle Synchronizaiton: The effects of Trade, Sectoral and financial linkages

Kanya Paramaguru

Session A.3: Atmospheric Science Forecasting

Localized Online Weather Predictions with Overnight Adaption

Michael Zauner, Michaela Killian and Martin Kozek

Establishment of operational strategy of the ventilation system in a building by considering the indoor and outdoor concentration of fine dust

Taehoon Hong, Jeongyoon Oh, Woojin Jung, Jongbaek An and Hakpyeong Kim

Air Pollution Forecasting using Machine Learning Techniques

Marijana Cosovic and Emina Junuz

Session B.3: Advanced econometric methods

Forward Regression with Discrete and Continuous Wavelet Time-Frequency Window
-An application to the Market Line-

Roman Mestre and Michel Terraza

Using subspace methods to model long memory processes

Dietmar Bauer

Changepoints to Improve Forecasts

Jamie-Leigh Chapman, Rebecca Killick and Idris Eckley

Session A.4: Health Forecasting

ProMoBed: a forecasting and simulation model for estimating future hospital bed capacity

Marlies Van der Wee, Timo Latruwe, Sofie Verbrugge, Pieter Vanleenhove and Henk Vansteenkiste

Panel Data Unit Root Tests on the Income-Health Relationship of the Mexican States

Vicente German-Soto and Martha Elena Fuentes Castillo

Forecasted trends for cardiovascular disease in England and Wales to 2040 and impact of reduction in smoking prevalence: a probabilistic Markov modelling study

Sara Ahmadi-Abhari, Piotr Bandosz, Maria Guzman-Castillo, Hannah Whittaker, Martin Shipley, Mika Kivimäki, Simon Capewell, Martin O'Flaherty and Eric Brunner

Forecasting in qPCR procedure by means of hyperbolastic stochastic model

Antonio Barrera, Patricia Román-Román and Francisco Torres-Ruiz

Effects of electrical stimulation on phase synchronization of cortical tissue as a measure of excitability of epileptic tissue

Farrokh Manzouri, Matthias Duempelmann and Andreas Schulze-Bonhage

Using time series analysis for challenging breast lesion detection and classification in DCE-MRI

Ignacio Alvarez, Anthony Bagnall, Javier Ramirez, Juan Manuel Gorriz, Katja Pinker, Maria Adele Marino, Daly Avendaño and Anke Meyer-Baese

Session B.4: Econometric models (Part.I)

Volatility Estimation when Observations Are Missing

Natalia Bahamonde, Hamdi Raissi and Genaro Sucarrat

On the computation and application of M-estimators and its bootstrapped version in GARCH models

Hang Liu and Kanchan Mukherjee

Relationships between Shanghai, Shenzhen and Hong Kong Stock Markets considering the split-share reform

Yang Mestre-Zhou, François Benhmad and Roman Mestre

Economic and Environmental Benefits Based on Scenario Analysis in Transportation Sector: A Case Study of Kuwait

Sarah Alosaimi and K. J. Sreekanth

Tourism – the factor of employment sustainability in Croatian economy

Justin Pupavac and Drago Pupavac

PLENARY LECTURE:

Prof. Salah Bourenane

Full Professor and he held also the position of the Dean of Research at the Ecole Centrale de Marseille, France

Session A.5: Computational Intelligence methods for Time Series

Enhancement of time series analysis by including label variables

José Carlos García-García, Ricardo García-Ródenas and Francisco P. Romero

Direct and Recursive Strategies for Multi-Step Ahead Wind Speed Forecasting

Sameer Al-Dahidi and Hisham Elmoaqet

Identification of multiregime periodic autoregressive models by genetic algorithms

Domenico Cucina, Manuel Rizzo and Eugen Ursu

Change Detection for Streaming Data using Wavelet-based Least Square Density Difference

Nenad Mijatovic, Rana Haber, Mark Moyou, Anthony O. Smith and Adrian M. Peter

Fuzzy time series applied to short term load forecasting: analysis of applications and extensions

Guilherme Costa Silva, João Luis R. Silva, Adriano Lisboa, Douglas Vieira and Rodney Saldanha

Selection of neural network for crime time series prediction by Virtual Leave One Out tests

Stanislaw Jankowski, Zbigniew Szymaski, Zbigniew Wawrzyniak, Pawe Cichosz, Eliza Szczechla and Radosaw Pytlak

Data Mining Applied for Performance Index Prediction in Highway Long Segment Maintenance Contract

Andri Irfan, Susanti Handayani and Merry Lita

Novel order patterns recurrence plot-based quantification measures to unveil deterministic dynamics from stochastic processes

Shuixiu Lu, Sebastian Oberst, Guoqiang Zhang and Zongwei Luo

Session B.5: Spatio-temporal brain dynamics in attention tasks

On Statistical Inference for Independent Colored Sources Analysis

Young Truong and Rachel Nethery

Relevance analysis in spatio-spectral components based on Permutation Entropy supporting MI discrimination

Juan Camilo López Montes, David Cárdenas Peña and German Castellanos Domínguez

Entropy-based relevance selection of independent components supporting motor imagery tasks

David Felipe Luna Naranjo, David Cardenas Peña and German Castellanos Domínguez

Analysis of interchannel phase connectivity for EEG event-related potentials using auditory oddball paradigm in attention tasks

Jorge Ivan Padilla Buritica

Sub-band brain mapping based on a Multivariate Wavelet Packet Decomposition

Pablo Andrés Muñoz Gutiérrez, Eduardo Giraldo, Juan David Martínez Vargas and German Castellanos Domínguez

Localizing the Focal Origin of Epileptic Activity using EEG Brain Mapping based on Empirical Mode Decomposition

Pablo Andrés Muñoz Gutiérrez, Eduardo Giraldo, Marta Molinas and Maximiliano Bueno López

Thursday, September 20, 2018

Session A.6: Forecasting performance evaluation

Assessing the Uncertainty in Central Banks' Inflation Outlooks

Guido Schulte frankenfeld and Malte Knueppel

Performance Assessment of A short-Term Travel Forecasting Scheme for Multi-Lane Highway

Jamal Raiyn

On the limits of probabilistic prediction in nonlinear time series analysis

Jose Maria Amigo, Yoshito Hirata and Kazuyuki Aihara

Evaluation of regression and judgement-incorporated forecasting processes using hybrid MCDM models

Yvonne Badulescu and Naoufel Cheikhrouhou

Outlier Identification in Multivariate Time Series: Boilers Case Study

Joana Ribeiro, Mário Antunes, Diogo Gomes and Rui Aguiar

Realized volatility in the presence of structural breaks: which forecast?

Giuseppina Albano

Session B.6: Applications in Time Series (Part.II)

Experimental Comparison and Tuning of Time Series Prediction for Telecom Analysis

Andrè Pinho, Pedro Furtado, Helena Silva and Ricardo Filipe

Multivariate forecasting of extreme wave climate and storm evolution

Andrea Lira-Loarca, Manuel Cobos, Asunción Baquerizo and Miguel A. Losada

Pattern similarity-based load forecasting applied to unit commitment problem

Guilherme Costa Silva, Adriano Lisboa, Douglas Vieira and Rodney Saldanha

Modified Granger Causality in Selected Neighborhoods

Martina Chvosteková

State of Charge Depended Modeling of an Equivalent Circuit of Zinc Air Batteries Using Electrochemical Impedance Spectroscopy

Andre Loechte, Ole Gebert, Ludwig Horsthemke, Daniel Heming and Peter Gloesekoetter

Cryptanalysis of a Chaos Based Encryption Algorithm for Secure Communication

Salih Ergun

PLENARY LECTURE:
Prof Andrew C. Harvey

Emeritus Professor of Econometrics in the Faculty of Economics,
University of Cambridge, and a Fellow of Corpus Christi College

Session A.7: Times series analysis in geosciences

Local fractal analysis of time series

Eulogio Pardo-Igúzquiza, F. J. Rodríguez-Tovar and J. Sanchez-Morales

Time series analysis with a Gamma probability density function of airborne fungal spores in Catalonia

Andrés M. Vélez-Pereira, Concepción De Linares, Miguel-Angel Canela and Jordina Belmonte

Discussion on Geodetic Times Series of Mixed Spectra and Levy Processes

Jean-Philippe Montillet and Kegen Yu

Forecasting of daily reference evapotranspiration for oceanic climate using autoregressive Hilbertian process

Rousseau Tawegoum, Besnik Pumo and Pierre Santagostini

Session B.7: Forecasting Complex/Big data (Part. II)

Characterization and detection of potential fraud taxpayers in Personal Income Tax using data mining techniques

María Del Camino González Vasco, Maria Jesús Delgado Rodríguez and Sonia de Lucas Santos

Detecting Anomalous Pattern-of-Life from Human Trajectory Data

Yazan Qarout and David Lowe

Model-based Data Exploration

Hans-Ulrich Kobialka, Daniel Paurat and Lisa Schrader

Modeling smartphone app data for learning time-varying individual location densities

Francesco Finazzi and Lucia Paci

Session A.8: Nonstationarity Time Series

Identification of nonstationary processes using noncausal bidirectional lattice filtering

Maciej Niedzwiecki and Damian Chojnacki

CUSUM Based Ratio Tests for Parameter Constancy: With Application to Variance Stability

Antonio Rubia, Uwe Hassler, Mehdi Hosseinkouchack and Paulo Rodrigues

A New Estimation Method for an Identifiable Fractional Vector Error Correction Model
Katarzyna Lasak and Federico Carlini

Identification Algorithms Based on the Associative Search of Analogs and Association Rules
Natalia Bakhtadze, Vladimir Lototsky and Valery Pyatetsky

Session B.8: Real Macroeconomic Monitoring and Forecasting (Part.II)

The impact of the increased domestic energy prices on the Saudi Arabian economy. Insights from KGEMM.

Fakhri Hasanov, Frederic Joutz and Jeyhun Mikayilov

Yield Curve Modeling with Macro Factors

András Bebes, Dávid Tran and László Bebesi

Ranking multi-step system forecasts invariant to linear transformations

Håvard Hungnes

Session A.9: Advanced methods in Forecasting

Conditional Heteroskedasticity in Long Memory Model 'FIMACH' for Return Volatilities in Equity Markets

A.M.M. Shahiduzzaman Quoreshi and Sabur Mollah

Probabilistic forecasting and simulation of electricity prices

Peru Muniain and Florian Ziel

Computing Environment for Forecasting based on System Dynamics Models

Radoslaw Pytlak, Damian Suski, Tomasz Tarnawski, Zbigniew Wawrzyniak, Tomasz Zawadzki and Pawe Cichosz

The Contrast Between Management Consulting and Outsourcing Management Services: A financial perspective

Carlos Jerónimo, Leandro Pereira, José Santos and Nelson Antonio

FPGA-based accelerator design for Echo-State networks

Jose L Rossello, Miquel L. Alomar, Erik Sebastian Skibinsky Gitlin, Christiam F Frasser, Vicente Canals, Eugeni Isern, Fabio Galan Prado, Alejandro Morán and Miquel Roca

Session B.9: Econometric models (Part.II)

Implications for Aggregate Inflation of Sectoral Asymmetries: an empirical application

Hannu Koskinen and Jouko Vilmunen

Demand effects of the introduction of the seasonal lift pass Magic Pass

Martin Falk and Miriam Scaglione

Testing for Differences in Forecast-Error Dynamics in Path Forecasts

Andrew Martinez

What can drive economic growth in Russia? Mid-term growth scenarios

Svetlana Balashova, Vladimir Matyushok and Inna Lazanyuk

Determining the cointegration rank using a Residual-based Procedure

Antonio Aznar

On controllability conditions in Extended Yule-Walker methods for VARMA models

Celina Pestano-Gabino, Concepcion Gonzalez-Concepcion and Candelaria Gil-Fariña

PLENARY LECTURE:

Dr. Karsten Webel

Deutsche Bundesbank, Central Office, Directorate General
Statistics Germany.

Session A.10: Quantum Computing

A scheme to realize a quantum computer based on coupled NV and P1 centers in diamond.

Jan Meijer

Point Function Analysis and a Hypothesis on the Origin of Quantum Mechanics

Bernd Burchard

Blueprint for nanoscale NMR

Ili Schwartz, Joachim Roskopf and Martin Plenio

Session B.10: Structural Time Series Models

Dynamic Bayesian smooth transition autoregressive models applied to hourly electricity load in southern Brazil

Alvaro Faria and Alexandre Santos

CP-based cloud workload annotation as a preprocessing for anomaly detection using deep neural networks

Gilles Madi Wamba and Nicolas Beldiceanu

Time series modelling with MATLAB: the SSspace toolbox

Diego J. Pedregal, Marco A. Villegas, Diego Villegas and Juan R. Trapero

Session A.11/B.11: Poster Session

The Impact of Feedback Trading on Option Prices

Thorsten Lehnert

- Post-processing of Numerical Forecasts Using Polynomial Networks with the Operational calculus PDE substitution
Ladislav Zjavka and Stanislav Mišák
- Physical Laws Extracted from Statistical Analyses of Solar Magnetic Elements
Mohsen Javaherian and Hossein Safari
- A novel forecasting framework for stock market crisis events using Deep Learning techniques on an extended global dataset.
Vasileios Siakoulis, Anastasios Petropoulos, Nikolaos Vlachogiannakis and Evangelos Stavroulakis
- Identification of Structural Vector Autoregressions Through Higher Unconditional Moments
Michel Normandin and Alain Guay
- Forecasting Electricity Price : a multidisciplinary approach
Stéphane Genoud, Jean-Christophe Loubier, Marut Doctor and Francesco Cimmino
- A robust alternative for the estimation of autocovariance from the frequency domain for multivariate processes
Higor Henrique Aranda Cotta, Valdério Reisen, Pascal Bondon and Céline Lévy-Leduc
- Changes in rapeseed canopy spectral reflectance under different cultivars and nitrogen levels
Hong-Xin Cao, Wei-Tao Chen and Bao-Jun Zhang
- Application of Deep-Learning Algorithm for Inflow Series Forecasting in South Korea
Jun-Haeng Heo, Ju-Young Shin and Taereem Kim
- Evaluation of Atmospheric Particulate Matter (PM10) Time Series in Badajoz, 2010-2015
Selena Carretero-Peña, Conrado Miró Rodríguez and Eduardo Pinilla-Gil
- Long-term (2010-2015) tropospheric ozone temporal series in Badajoz (Spain). Trend and seasonal behavior
María Cerrato Alvarez, Conrado Miró Rodríguez and Eduardo Pinilla-Gil
- Verification on winter rapeseed (*Brassica napus* L.) aboveground dry weight and yield models under waterlogging stress at anthesis
Hong-Xin Cao, Tai-Ming Yang and Bao-Jun Zhang
- On the Impact of Shale Oil Revolution in Oil-Dollar Comovement
Francois Benhmad
- Forecasting and recession dating using real-time Swiss GDP data
Christain Glocker and Philipp Wegmueller
- Forecasting inflation with long-short term memory recurrent neural networks: the Colombian case
Andres C. Serna, Javier G. Diaz and Julio Alonso
- Hybrid forecasting methods applied to the Earth's rotation and Radon time-series for anomalies detection
Fabrizio Ambrosino, Lenka Thinová, Miloš Briestenský and Carlo Sabbarese

Analyses of the time series based on atmospheric energy budget determination for the purpose of budget prognosis with ARMA method

Monika Birylo

Using smartphone-based location data for assessing dynamic personal exposure to air pollution

Lucia Paci and Francesco Finazzi

Effects of the levels of soil water deficit, duration of soil water shortage on different rice cultivars

Daokuo Ge, Hongxin Cao and Yuwang Yang

The role of oil prices on the Russian business cycle

Yi Zheng and Harri Pönkä

Seasonal Variations of Sea Level in the Polish Coastal Zone from Satellite Altimetry and Tide Gauge Data

Katarzyna Pajak, Monika Birylo, Joanna Kuczynska-Siehiem and Kamil Kowalczyk

The Performance of the Wavelet Holt-Winters Hybrid Model in Forecasting the Groundwater Level Time Series

Hamid Reza Nassery, Ali Mirarabi, Mohammad Nakhaei and Farshad Alijani

Tipping point analysis and its applications in geophysics, environmental sciences, and smart sensor systems

Valerie Livina

Combination of neural network and wavelet to predict suspended sediment load in river by using data clustering

Samir Bengherifa, Abd El Wahab Lefkir and Abd El Malek Bermad

SSA Approach in Investigation and Forecasting of Hydrological Time Series

Svetlana Polukoshko

Using a naive Bayes classifier to explore the factors driving the harmful dinoflagellate *Alexandrium minutum* dynamics

Wafa Feki, Asma Hamza, Hasna Njah, Nouha Barraaj, Mabrouka Mahfoudi, Ahmed Rebai and Malika Bel Hassen

Modeling Global Radiation in Kuwait

Shafiqah Alawadhi

The predictability of heat-related mortality in Prague, Czech Republic during summer 2015 – A comparison of selected thermal indices

Aleš Urban, David M. Hondula, Hana Hanzlíková and Jan Kysely

Power laws in stock market and fractal complexity of S&P500 and DAX

Anna Krakovská

Oracle properties and applications of robust penalized and subset regression in the presence of outliers

Anam Zakir and Sohail Chand

- Selection of Geographical Factors Using the Random Forest Analysis Method for Developing Site Index of *Pinus densiflora* stands in Republic of Korea
Hee-Jung Park, Se-Ik Park, Hyun-Soo Kim, Eun-Seong Lee, Hyun-Jun Kim and Sang-Hyun Lee
- The Non-Stationary Unconstrained BINAR(1) Process with Geometric Marginals.
Yuvraj Sunecher, Vandna Jowaheer, Naushad Mamode Khan, Isven Veerasawmy and Azmi Muslun
- Revealing gender differences from an EEG based emotion classification task
Iván De La Pava Panche, Andrés Alvarez, Paula Herrera, Germán Castellanos-Domínguez and Álvaro Ángel Orozco Gutiérrez
- Characterising Dependency in Computer Networks Using Spectral Coherence
Alexander Gibberd, Jordan Noble and Edward Cohen
- Time Series Analysis as a Powerful Tool in Space Weather Event Studies
Agnieszka Gil-Swidorska
- Storm characterization using a BME approach
Manuel Cobos, Andrea Lira-Loarca, George Christakos and Asunción Baquerizo
- The Utility of POI Data for Crime Prediction
Pawel Cichosz, Zbigniew Wawrzyniak, Radoslaw Pytlak, Grzegorz Borowik, Eliza Szczechla, Pawel Michalak, Dobieslaw Ircha, Wojciech Olszewski and Emilian Perkowski
- Analyzing credit indices time series: How random are trades arrival times?
Achraf Bahamou, Maud Doumergue and Philippe Donnat
- Empirical Prediction of Northeast Atlantic Storm Activity
Oliver Krueger, Frauke Feser and Ralf Weisse
- Tests for Segmented Cointegration: An Application to US Governments Budgets
Paulo Rodrigues and Luis Martins
- One-pass Incremental Learning of Temporal Patterns on a Budget
Koki Ando and Koichiro Yamauchi
- Nonlinear relationship detection using pseudocorrelation
Jozef Jakubík
- Adaptive Methods for Energy Forecasting of Production and Demand of Solar Assisted Heating Systems
Viktor Unterberger, Thomas Nigitz, Mauro Luzzu, Daniel Muschick and Markus Gölles
- Short-term forecast of wind turbine production with machine learning methods: direct approach and indirect approach
Mamadou Dione and Eric Matzner Lober
- Highlighting relevant EEG-based brain connectivity patterns from an MI task
Viviana Gómez Orozco, Andres Marino Alvarez, Paula Marcela Herrera Gómez, César Germán Castellanos Domínguez and Álvaro Ángel Orozco Gutiérrez

Application of Random Forest time series model and multivariate adaptive regression spline in Short-term electric load forecasting

Leili Tapak, Omid Hamidi and Ramezan Ali Naghizadeh

Multivariate INAR processes - Periodic case

Cláudia Santos, Isabel Pereira and Manuel Scottó

Automatic detection of sleep disorders: Multi-class automatic classification algorithms based on Support Vector Machines

David López-García, María Ruz, Javier Ramírez Pérez de Inestrosa and Juan Manuel Górriz Sáez

Relevance of Filter-Banked Features using Multiple Kernel Learning for Brain Computer Interfaces

Daniel Guillermo García-Murillo, David Cárdenas-Peña and German Castellanos-Dominguez

Multiple Instance Learning Selecting Time-Frequency Features for Brain Computing Interfaces

Julian Camilo Caicedo Acosta, Luisa Fernanda Velasquez-Martinez, David Cardenas-Peña and German Castellanos-Dominguez

Event Study in Tehran Stock Exchange: Central Bank Intervention and Market Impact Reaction

Gholamreza Keshavarz Haddad and Hadi Heidari

Influence of time-series extraction on binge drinking interpretability using functional connectivity analysis

Jorge Ivan Padilla Buritica

MoCap multichannel time series representation and relevance analysis by kernel adaptive filtering and multikernel learning oriented to action recognition tasks

Juan Diego Pulgarin-Giraldo, Andres Marino Alvarez-Meza, Steven Van Vaerenbergh, Ignacio Santamaría and German Castellanos

Forecast Model for Current, Wave and Wind Climate at the Danish Test Site for Wave Energy, DanWEC

Amélie Têtu

Determination of energy losses in distribution transformers using a compensation algorithm in energy meters

Marco Toledo, Carlos Alvarez Bel, Paul Cando, Juan Maldonado, Pablo Méndez and Diego Morales

Oil Flow Rate Forecasting For Directional Wells Drilled in Uncon-ventional Petroleum Reservoirs

Umer Farooq, Randy Hazlett and Krishna Babu

Density Forecast Comparison For Disaggregated Macroeconomic Random Variables Using Bayesian VAR Models, Bayesian Global VAR Models and Large Bayesian VAR Models With Stochastic Volatility

Roberto Arsenal and Miguel Ángel Gómez Villegas

Simple estimators and inference for higher-order stochastic volatility models

Md Nazmul Ahsan and Jean-Marie Dufour

Entropy-based Channel Selection using Supervised Temporal Patterns in MI Tasks

Luisa Velasquez, Frank Zapata, David Cardenas and German Castellanos

Friday, September 21, 2018

Session A.12: Applications of time series for hydro-climatic data

Forecasting Subtidal Water Levels and Currents in Estuaries. Assessment of Management Scenarios.

Miguel Ángel Reyes Merlo, Maria De Los Reyes Siles Ajamil and Manuel Díez Minguito

Nonstationary time series forecasting of wind and waves, combining hindcast, measured and satellite data

Christos Stefanakos

Spatial distribution of climatic cycles in Andalusia (southern Spain)

José Sánchez-Morales, Eulogio Pardo-Igúzquiza and Francisco Javier Rodríguez-Tovar

Session B.12: Applications in Time Series (Part. III)

Real time anomaly detection in network traffic time series

Sergio Martínez Tagliafico, Gastón García González, Alicia Fernández, Gabriel Gómez Sena and José Acuña

Spacecraft Mission Control Center Resource State Estimation and Contingency Forecasting

Natalia Bakhtadze, Denis Elpashev, Alexey Lototsky, Vladimir Lototsky and Eddy Zakharov

Towards Hybrid Prediction over Time Series with Non-Periodic External Factors

Xavier Fontes and Daniel Silva

A Forecasting Methodology based on growth models, for assessing performance: Application on the Moroccan Railway.

Karima Selmani Bouayoune

Pereira Market Scan

Leandro Pereira, Carlos Jerónimo and José Santos

Forecasting health of complex IT systems using system log data

Shivshanker Singh Patel

PLENARY LECTURE:

Univ. Prof. Dr. Robert Kunst

Professor of Economics at the University of Vienna and affiliated with the IHS .

Session A.13: Forecasting Complex/Big data (Part.II)

Maximum Entropy Methodologies in Large-Scale Data

Maria Da Conceição Costa and Pedro Macedo

Comparing linear and non-linear dynamic factor models for large macroeconomic datasets

Alessandro Giovannelli and Marina Khoroshiltseva

Simultaneous Multi-Response Multi-Covariate Best Subset Selection- with application to fault modelling

Aaron Lowther, Matt Nunes, Paul Fearnhead and Kjeld Jensen

Integrating Apache Spark with Solr Framework to improve the online search in Big Data environment

Karim Aoulad Abdelouarit, Boubker Sbihi and Noura Aknin

Session B.13: Financial Forecasting and Risk Analysis

Forecasting of Multiple Yield Curves Based on Machine Learning

Eva Lütkebohmert, Christoph Gerhart and Marc Weber

Empirical evaluation of advanced oversampling methods for improving bankruptcy prediction

Wedyan Alswiti, Hossam Faris, Huthaifa Aljawazneh, Salah Al-Deen Safi, Pedro Castillo Valdivieso, Antonio Mora García, Ruba Abukhurma and Hamad Alsawalqah

On the changing shape of the sovereign default intensities

Yusho Kagraoka and Zakaria Moussa

Detecting super-exponential returns in financial time series

Christopher Lynch and Benjamin Mestel

Session A.14: Vector processes in Time Series

On Theory and Applications of Vector Gegenbauer Processes with Long Memory

M. Shelton Peiris, Hao Wu and Richard Hunt

PoARX models for count time series

Jamie Halliday and Georgi Boshnakov

Gaussian Variational Bayes Kalman Filtering for Dynamic Sparse Bayesian Learning

Christo Kurisummoottil Thomas and Dirk Slock

Session B.14: Nonparametric and Functional Methods in Time Series

A geometric proxy of economic uncertainty based on the disagreement in survey expectations

Oscar Claveria, Enrique Monte-Moreno and Salvador Torra Porras

Prediction of crime from time series data-driven model

Grzegorz Borowik, Zbigniew Wawrzyniak, Pawel Cichosz, Radoslaw Pytlak, Eliza Szczechla, Pawel Michalak, Dobieslaw Ircha and Wojciech Olszewski

Measurement and Modelling of Business Cycles using Linear and Nonlinear methods
Nomeda Bratikovien

PLENARY LECTURE:
Prof. Dr. Uwe Hassler
 Applied Econometrics and International Economic Policy. Goethe
 University Frankfurt .

Virtual Session

Examination of forecasting in education field

Wafa Terouzi, Fatima Zahra Mahjoubi and Abdel Khalek Oussama

Time Series Versus Causal Forecasting: An Application of Artificial Neural Networks

Prithviraj Lakkakula

A value-based evaluation methodology for renewable energy supply prediction

Robert Ulbricht, Bijay Neupane, Martin Hahmann and Wolfgang Lehner

Analysis of Terrestrial Water Storage Variations on the Terrain of Vistula and Odra
 Basins in Poland

Zofia Rzepecka

Fourier Analysis of Cerebral Metabolism of Glucose: Gender Differences in Mechanisms
 of Colour Processing in the Ventral and Dorsal Streams in Mice

Philip Njemanze, Mathias Kranz and Peter Brust

NIST tests versus bifurcation diagrams and Lyapunov exponents when evaluating
 chaos-based pRNGs

Octaviana Dateu and Radu Hobincu

Gas Consumption Forecasting: Source Data Analysis and Models Evolution

Leonid Grigoryev, Dmitry Leonov and Olga Stepankina

Risk Assessment Approach to Support IT Collaboration Network

Dikra Chikhaoui, Mohammed Salim Benqatla and Bouchaib Bounabat

Enhancing Stock Index Forecasting With Ensemble-based Techniques

Dhanya Jothimani, Surendra S. Yadav and Ravi Shankar

GARCH-VMD Based Forecasting for Volatile Time Series of Indian Small Car Sales

Rajeev Pandey, Ravi Shankar and P.K. Jain

Solar Irradiance forecasting of Ahmedabad based on Ant Colony Optimization and
 Neural Network

Md. Janibul Alam Soeb, Md. Irfanul Hasan and Md. Shahid Iqbal

Analysis of interchannel phase connectivity for EEG event-related potentials using auditory oddball paradigm in attention tasks

Juana Valeria Hurtado, Juan David Martinez, Germán Castellanos, Francia Restrepo and Jorge Iván Padilla



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