The 39th International Symposium on Forecasting 2019

Proceedings

Workshop SAP: Forecasting to meet demand

9:30am - 1:00pm, Jun 16

Amfitrion II

Demand is influenced by various drivers, from the «standard» ones treated in every forecasting course and textbook like seasonality, trend etc. to causal factors we can influence, like prices or promotions, to factors we cannot influence, like the weather or a competitor's marking activities. We will start out with a very high-level overview of common forecasting methods, then dig deeply into causal forecasting: how to choose causal factors, how to model them, what

to look out for, and how to figure out whether we are going in the right direction (or not). We will explain a range of errors we have made so you can learn from them and don't need to make your own errors. (You can start making new errors right away.) We will mostly work in a model-agnostic way, so you can apply what you learn whether your model of choice is ordinary least squares, neural networks or random forests. We may use some R for illustration, but if you are not proficient in R, don't let this be a reason not to come – the code will be easy to understand

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Speakers

Stephan Kolassa
Data Science Expert, SAP Switzerland AG

Roland Martin
Research Expert, SAP SE

Workshop Business Forecast Systems: Business Forecasting: Techniques, Application and Best Practices

9:30am - 5:30pm, Jun 16

Melpomeni

This workshop surveys the most commonly implemented business forecasting methods, explains how they work conceptually, reveals their strengths and limitations, and offers best practices for applying them in a business environment. Numerous real-life examples from a range of industries will be presented to illustrate how the techniques are applied to corporate data. You will leave the workshop with a working knowledge of quantitative and qualitative forecasting methods, enabling you to improve your forecast process and your forecast accuracy.

Speaker

Eric Stellwagen
President, Business Forecast Systems, Inc.

Workshop SAS: Applied time series analysis using unobserved component models

9:30am - 5:30pm, Jun 16
Kalliopi

Unobserved component models (UCMs) are flexible, reliable and easy-to communicate tools for analyzing and forecasting time series. This workshop will illustrate how UCMs work and, using a case-study approach, the class will learn how to successfully apply these models to solve real time series problems taken from different fields of application. In his classic book (Harvey, A.C. (1989) “Forecasting, Structural Time Series Models, and the Kalman Filter”), Professor Harvey has explained the benefits of modeling univariate and multivariate time series by using UCMs. A more recent book by Pelagatti (Pelagatti, M. (2015) “Time Series Modeling with Unobserved Components”) provides a contemporary and accessible treatment of this subject. The workshop will cover the following topics:

• Introduction to univariate and multivariate trend, cycle, and seasonal models

• Linear and nonlinear regression effects

• Model fitting and diagnostics

• Detection of structural breaks

• Data analysis examples (as time permits):

o Model-based seasonal adjustment and trend extraction

o Cointegration analysis based on common trends

o Incorporating nonlinear regression effects by using splines

o Strategies to model seasonal patterns that have long season lengths

Several commercial and open source-software tools are available for UC modeling. This workshop uses SAS® and R. The computations for the illustrative examples are carried out by two SAS procedures (PROC UCM for univariate analysis and PROC SSM for multivariate analysis) and the KFAS package in R. However, prior exposure to SAS or R is not necessary for understanding the workshop material.

Speakers

Matteo Pelagatti
Professor, University of Milano-Bicocca

R

Rajesh Selukar
Principal Research Statistician Developer, SAS Institute

Workshop: Neural Networks and Artificial Intelligence in Forecasting

9:30am - 5:30pm, Jun 16

Erato

Time Series Analysis and Forecasting is a clear defined question: what is the future development of the given observations? The typical situation in forecasting is that the measured data series are generated by very complex systems and the data reflect only a part of the underlying structure. The usual answer is to explain only a part of the time series behavior and describe the leftover as noise. Nowadays, Artificial Intelligence is seen as a universal solution method for a wide variety of problems - and Neural Networks is the underlying mathematics to realize Artificial Intelligence tasks. Let´s specify the Artificial Intelligence view: Here the working concept is to start with observations (not obligatory numbers), build a model and use this as a basis for optimal decision making. Having the similarity between forecasting and Artificial Intelligence in mind we can ask what the advantage is of using Neural Networks in Forecasting. A first obvious topic is that the Neural Network mathematics is unconditionally dedicated to complex systems (high dimensional, nonlinear). A second topic is that Neural Networks allow in an elegant way the integration of data and principal insights of the application. Examples would be incomplete input information, load curve forecasting as an example of a very high dimensional forecasting task, the direction of time in Causal-Retro-Causal Models, a quantitative analysis of uncertainty. We have to discuss in the tutorial the mathematics of the system identification, but nowadays the focus is on building concepts in form of neural network architectures instead of speaking about the parameter optimization. The mathematics will be enriched with applications of 30 years in Siemens Corporate Technology. Last but not least the speaker will describe why he does not believe that the Artificial Intelligence will make our Natural Intelligence obsolete.

Speaker

H

Hans Georg Zimmerman

2:00pm

Workshop Amazon: Deep Learning for Forecasting

2:00pm - 5:30pm, Jun 16

Amfitrion II

In this 0.5-day workshop, we will cover fundamentals of deep learning and its applications in forecasting. We will introduce feed-forward networks, convolutional neural networks and recurrent neural networks in general terms and then show how to use them for forecasting. In more detail, we will provide an overview on appropriate, modern neural net- work architectures (e.g., WaveNet[6], DeepAR [3] and the sequenceto-sequence model family [5, 7]) and modern tools (such as drop-out [4]). We cover general recipes on how to obtain probabilistic, multi-step forecasts with neural networks. If time permits, we will dive into recent work on combining neural networks with probabilistic modelssuch as deep state space and deep factor models and Bayesian techniques such as [1]. One focus area of the workshop will be on practical considerations for using neural networks as global models (models that learn parameters across multiple time series). For this, we will present ways to design training schemes for neural networks, proper scaling of input data and more. We will accompany the workshop with hands-on material using MXNet [2] and Amazon SageMaker notebooks, case studies and publicly available data.

Speakers

Tim Januschowski
Machine Learning Scientist, Amazon Development Center Germany

S

Syama Rangapuram
Machine learning scientist, Amazon

Konstantinos Benidis
Amazon

Laurent Callot
Senior Economist, Amazon

5:30pm

Registrations

5:30pm - 6:30pm, Jun 16
Foyer Alexandros

5:45pm

IJF Editors Meeting (open to IJF Editors and Associate Editors)

5:45pm - 6:30pm, Jun 16
Amfitrion II

Early Career Researcher (ECR) Network Welcome

5:45pm - 6:30pm, Jun 16
Veranda Aristotelis

All PhD students and Early Career Researchers are invited to this special welcome. Want to have a chat in an informal setting, test your network skills on your peers and have (free) drinks and food with us? Subscribe here

6:30pm

Welcome Reception
6:30pm - 8:00pm, Jun 16
Veranda Alexandros

Mon, Jun 17, 2019

8:30am

Registrations
8:30am - 10:30am, Jun 17
Foyer Alexandros

9:15am

Keynote: Gael Martin
9:15am - 10:30am, Jun 17
Alexandros I

Keynote

Chair: George Athanasopoulos

Speaker

Gael Martin
Professor of Econometrics, Monash University

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1 Subsessions

- **Looking into the Future with the Reverend! Bayesian Forecasting in the 21st Century**
  9:30am - 10:30am, Jun 17 Alexandros I

10:30am

Coffee Break

10:30am - 11:00am, Jun 17

Foyer Alexandros

11:00am

Partner Tour: Thessaloniki Walking Tour

11:00am - 1:00pm, Jun 17

Departing from Makedonia Palace

Social

Join us for a walking tour of Thessaloniki, a city with a long history reflected in its important monuments, streets, squares, neighborhoods and secret corners. Our first stop is the Rotonda, a circular structure with a masonry core that had an oculus, similar to the Pantheon in Rome. It has gone through multiple periods of use and modification as a polytheist temple, a Christian basilica, a Muslim mosque, and again a Christian church (and archaeological site). From here, we will visit the famous Acheiropoietos-Basilika Church, built in the 5th century and dedicated to the Holy Mother of God. A three-aisled basilica with a wooden roof, it is a beautiful sample of Paleo-Christian byzantine architecture. The tour will end with a stop at the Paleo – Christian temple of Agia Sophia, one of the most impressive Byzantine churches in Thessaloniki. Located in the center of the city as well, it is a very beautiful “Domed Basilica” style temple with imposing architecture, beautiful wall paintings and elaborate mosaics.

Sign up now

Cost/person: 15 euro ~ 1st 20 to register receive complimentary tickets!

Meeting point: Makedonia Palace Hotel
Price includes: professional guide
20 people per tour/guide; additional tours will be added, as needed

Practitioner track: Tim Januschowski

11:00am - 12:00pm, Jun 17

Alexandros I

Practitioner track

Chair: Chris Fry

Speaker

Tim Januschowski
Machine Learning Scientist, Amazon Development Center Germany

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1 Subsessions

- **Recent advances in neural forecasting methods**
  11:00am - 12:00pm, Jun 17

Alexandros I

ISIR (International Society for Inventories Research) - Supply Chain Forecasting 1

11:00am - 12:00pm, Jun 17

Alexandros II

Invited session

Chair: Ruud Teunter

Speakers

Thanos Goltsos
Research Associate, Cardiff University

Jente Van Belle
PhD Student, Vrije Universiteit Brussel

Ruud Teunter
Chair Operational Research, University of Groningen

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3 Subsessions

- **The effect of serialization on forecasting for remanufacturing: an empirical assessment**
  11:00am - 11:20am, Jun 17
  Alexandros II
- **Demand Forecasting Using Sell-through Data**
  11:20am - 11:40am, Jun 17
  Alexandros II
- **Data driven inventory control using causal demand forecasting**
  11:40am - 12:00pm, Jun 17
  Alexandros II

SWEET (IIF Section on Water, Energy, and EnvironmenT) - Electricity Demand 1: Data Resolution

11:00am - 12:00pm, Jun 17

Aristotelis I

Chair: Tao Hong

Speakers

Bradley Lawson
Industry Consultant in the Global Utilities Practice, SAS

Mohd Azlan Uda Kanardin
Manager , Tenaga Nasional Berhad

Tao Hong
Associate Professor, UNC Charlotte

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3 Subsessions

- **Forecasting Individual Electric Utility Customer Hourly Loads from AMI Data**
  11:00am - 11:20am, Jun 17
  Aristotelis I
- **Development of an end-use load forecasting model for peninsular Malaysia**
  11:20am - 11:40am, Jun 17
  Aristotelis I
- **Daily Peak Load Forecasting with Mixed-frequency Input Data**
  11:40am - 12:00pm, Jun 17
  Aristotelis I

Asset Return Forecasting

11:00am - 12:00pm, Jun 17
Aristotelis II

Invited session

Chair: David Rapach

Speakers

Wenying Yao
Senior Lecturer, Deakin University

Ilias Filippou
Visiting Assistant Professor, Washington university in St. Louis

David Rapach
Professor of Economics, Simon Endowed Char in Economics, Saint Louis University

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3 Subsessions

- **Forecasting the Volatility of Asset Returns: The Informational Gains from Option Prices**
  11:00am - 11:20am, Jun 17
  Aristotelis II
- **Country Characteristics and Currency Return Predictability**
  11:20am - 11:40am, Jun 17
  Aristotelis II
- **Sparse Macro Factors**
  11:40am - 12:00pm, Jun 17
  Aristotelis II

Evaluating Macro Forecasters I

11:00am - 12:00pm, Jun 17
Amfitrion I

Chair: Victor Lopez Perez

Speakers

Ana Galvao
Professor of Economic Modelling and Forecasting, University of Warwick

Nathan Goldstein
University of California, Berkeley

Víctor López-Pérez

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3 Subsessions

- **How and when does Judgment improve the Accuracy for Macroeconomic Forecasts?**
  11:00am - 11:20am, Jun 17
  Amfitrion I

- Tracking inattention: A new expectations-based measure
  11:20am - 11:40am, Jun 17
  Amfitrion I

- Why can't professional macroeconomic forecasters predict recessions?
  11:40am - 12:00pm, Jun 17
  Amfitrion I

Hierarchical Forecasting 1: Advances in Hierarchical Forecasting Methodology

11:00am - 12:00pm, Jun 17
Amfitrion II

Invited session

Chair: Anastasios Panagiotelis

Speakers

Kandrika Pritularga
PhD student, Centre of Marketing Analytics and Forecasting

Souhaib Ben Taieb
Associate Professor, University of Mons

Anastasios Panagiotelis
Associate Professor, Monash University

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3 Subsessions

- Co-err with Thy Neighbour: Understanding the Covariance Matrix in Hierarchical Forecasting
  11:00am - 11:20am, Jun 17
  Amfitrion II

- Regularized regression for hierarchical forecasting without unbiasdness conditions
  11:20am - 11:40am, Jun 17
  Amfitrion II

- Probabilistic forecast reconciliation
  11:40am - 12:00pm, Jun 17
  Amfitrion II

Sports Forecasting

11:00am - 12:00pm, Jun 17

Melpomeni

Invited session

Chair: Philip Scarf

Speakers

R

Rose Baker

Luca De Angelis
Assistant professor of econometrics, University of Bologna

Phil Scarf
Professor, The University of Salford

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3 Subsessions

- **Forecasting scores in games with multiple scoring modes**
  11:00am - 11:20am, Jun 17
  Melpomeni
- **Informational efficiency and price reactions in exchange betting markets**
  11:20am - 11:40am, Jun 17
  Melpomeni
- **Forecasting netball scores**
  11:40am - 12:00pm, Jun 17
  Melpomeni

Time Series Modelling 1

11:00am - 12:00pm, Jun 17

Kalliopi

Chair: Don Poskitt

Speakers

Boris Ryabko
Institute of Computational Technologies SB RAS

Slawek Smyl
Senior Data Scientist II, Uber

D

Don Poskitt
Professor, Monash University

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3 Subsessions

- **Application of data compression techniques to time series forecasting**
  11:00am - 11:20am, Jun 17
  Kalliopi
- **R Rlgt package - Bayesian Extensions of Exponential Smoothing models**
  11:20am - 11:40am, Jun 17
  Kalliopi
- **Component Forecasting Using Singular Spectrum Analysis**
  11:40am - 12:00pm, Jun 17
  Kalliopi

Exchange Rate Forecasting

11:00am - 12:00pm, Jun 17
Erato

Chair: Vasileios Bougioukos

Speakers

Piotr Dybka
SGH Warsaw School of Economics

F

Fumiko Takeda
Associate Professor, University of Tokyo

S

Sun Rui
温州肯恩大学

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3 Subsessions

- One model or many? Exchange rates determinants and their predicitve capabilities.
  11:00am - 11:20am, Jun 17
  Erato
- Application of Google Trends Data in Exchange Rate Prediction
  11:20am - 11:40am, Jun 17
  Erato
- The impact of expert advice on forecasts based on presumed credibility, identification, and the media source of conveying the advice.
  11:40am - 12:00pm, Jun 17
  Erato

12:10pm

Practitioner track: Brian Seaman & Phillip M. Yelland

12:10pm - 1:30pm, Jun 17
Alexandros I

Practitioner track

Chair: Ruud Teunter

Speakers

Brian Seaman
Senior Director of Engineering, Walmart

Phillip M. Yelland

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2 Subsessions

- Demand Forecasting for Retail Pricing
  12:10pm - 12:50pm, Jun 17
  Alexandros I
- Design, implementation and operation of a large-scale, mission-critical sales forecasting system
  12:50pm - 1:30pm, Jun 17
  Alexandros I

Forecasting with AI

12:10pm - 1:30pm, Jun 17

Alexandros II

Invited session

Chair: Lawrence Vanston

Speakers

Evangelos Spiliotis
Research Associate, Forecasting & Strategy Unit

A

Artemios-Anargyros Semenoglou
Student, National Technical University of Athens

Spyros Makridakis
Professor , University of Nicosia

Lawrence Vanston
President, Technology Futures, Inc.

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4 Subsessions

- **From models to data: Forecasting through similarity**
  12:10pm - 12:30pm, Jun 17
  Alexandros II

- **From models to pictures: Forecasting through automatically generated image features**
  12:30pm - 12:50pm, Jun 17 Alexandros II

- **Deep Learning (DL) for time series forecasting: An evaluation and a comparison with other ML/NN algorithms.**
  12:50pm - 1:10pm, Jun 17
  Alexandros II

- **Forecasting AI in Forecasting**
  1:10pm - 1:30pm, Jun 17
  Alexandros II

SWEET - Forecasting in the energy sector

12:10pm - 1:30pm, Jun 17
Aristotelis I

Invited session

Chair: Jethro Browell

Speakers

Jonathan Farland
Data Scientist, TROVE - Predictive Data Science

Nicole Ludwig
Karlsruhe Institute of Technology

Adam Wigington
Technical Leader, Electric Power Research Institute

Jethro Browell
Research Fellow, University of Strathclyde

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4 Subsessions

- **Forecasting algorithm assignment to distribution grid service points in the context of demand response**
  12:10pm - 12:30pm, Jun 17
  Aristotelis I
- **Modelling Uncertainty: Probabilistic Load Forecasting Using Weather Ensemble Predictions**
  12:30pm - 12:50pm, Jun 17
  Aristotelis I
- **Understanding the Impacts of Distributed PV Resources on Short-Term Load Forecasting – A Comparative Study on Solar Data Availability**
  12:50pm - 1:10pm, Jun 17
  Aristotelis I
- **Access forecasting for safety-critical crew transfers in offshore environments**
  1:10pm - 1:30pm, Jun 17
  Aristotelis I

Judgement in Forecasting 1

12:10pm - 1:30pm, Jun 17
Aristotelis II

Invited session

Chair: Anna Sroginis

Speakers

K

Konstantia Litsiou
PhD Student, Salford Business School

Paul Goodwin
Emeritus Professor, University of Bath

Sinan Gonul
Senior Lecturer, Northumbria University

Anna Sroginis
PhD student, Lancaster University

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4 Subsessions

- **Long-Term Economic Forecasting with Structured Analogies and Interaction groups**
  12:10pm - 12:30pm, Jun 17 Aristotelis II

- **Contrast effects in judgmental forecasting when assessing the implications of worst- and best-case scenarios**
  12:30pm - 12:50pm, Jun 17
  Aristotelis II

- **The effects of scenarios on judgmental demand forecasts and the subsequent production decisions**
  12:50pm - 1:10pm, Jun 17
  Aristotelis II

- **Decomposition of contextual information for forecast adjustments**
  1:10pm - 1:30pm, Jun 17
  Aristotelis II

Forecasting for Social Good 1

12:10pm - 1:30pm, Jun 17
Amfitrion II

Invited session

Chair: Bahman Rostami-Tabar

Speakers

Farshid Vahid

SangKyun Jo
PhD candidate, KAIST

Jinhwan Park
PhD. Candidate, KAIST

Siddharth Arora
University of Oxford

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3 Subsessions

- **Forecasting mortality rates with time series models**
  12:10pm - 12:30pm, Jun 17
  Amfitrion II

- **Verification and prediction of the effect of healthcare control policy.**
  12:30pm - 12:50pm, Jun 17
  Amfitrion II

- **The effects of health shocks on hospital visit rates and healthcare spending**
  12:50pm - 1:10pm, Jun 17
  Amfitrion II

Finance 1

12:10pm - 1:30pm, Jun 17
Melpomeni

Chair: Matteo Pelagatti

Speakers

Adam Chudziak
Research And Teaching Assistant, SGH Warsaw School of Economics

Kamil Kladivko
Associate Senior Lecturer, Örebro University, School of Business

V

Vasiliki Skintzi

Matteo Pelagatti
Professor, University of Milano-Bicocca

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4 Subsessions

- **Changes in Stock Returns Predictability using Artificial Neural Networks**
  12:10pm - 12:30pm, Jun 17
  Melpomeni
- **Maximum likelihood estimation of the Hull-White interest rate model for pricing and forecasting**
  12:30pm - 12:50pm, Jun 17
  Melpomeni
- **Economic uncertainty and stock market volatility prediction**
  12:50pm - 1:10pm, Jun 17
  Melpomeni
- **Estimating high dimensional stochastic volatility models**
  1:10pm - 1:30pm, Jun 17
  Melpomeni

Time Series Modelling 2

12:10pm - 1:30pm, Jun 17
Kalliopi

Chair: Dimitrios Thomakos

Speakers

Siuli Mukhopadhyay
Associate Professor, Indian Institute of Technology Bombay

Christos Katris
Postdoctoral Researcher, Athens University of Economics and Business

Maria Voulgaraki
PhD Candidate, University of Crete

Foteini Kyriazi
PhD Candidate, University of Peloponnese

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4 Subsessions

- **Modelling Count Time Series with Zero Inflation and Overdispersion**
  12:10pm - 12:30pm, Jun 17
  Kalliopi
- **The Effect of Hybridization on Time Series Models for Forecasting Baltic Dry Indices**
  12:30pm - 12:50pm, Jun 17
  Kalliopi
- **Box-Cox transformation in forecasting sales. Evidence of the Greek Market.**
  12:50pm - 1:10pm, Jun 17
  Kalliopi
- **Threshold & Multivariate Adaptive Learning Forecasting**
  1:10pm - 1:30pm, Jun 17
  Kalliopi

M4

12:10pm - 1:30pm, Jun 17
Erato

Chair: Tobias Bischoff

Speakers

Pablo Montero-Manso
Monash University

Tugce Ekiz Yilmaz
PhD Student, Dokuz Eylul University

Beyza Çetin
MSc Student, Dokuz Eylul University

Tobias Bischoff
Data Scientist, Microsoft Corporation

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4 Subsessions

- **Forecasting Related Time Series with Linear methods via Data-driven Regularization**
  12:10pm - 12:30pm, Jun 17
  Erato
- **Comparison of ATA trended models with other trended benchmark models on both M3 and M4-Competition Data Sets**
  12:30pm - 12:50pm, Jun 17
  Erato
- **Comparison of The Forecasting Performances of Ata Simple and Simple Exponential Smoothing on M3 and M4 Competition Data Sets**
  12:50pm - 1:10pm, Jun 17
  Erato
- **Wavenet + Dropout – An Efficient Setup for Competitive Forecasts at Scale**
  1:10pm - 1:30pm, Jun 17
  Erato

1:30pm

Lunch
1:30pm - 2:30pm, Jun 17
Foyer Alexandros

2:30pm

Featured: Tanya Garcia
2:30pm - 3:30pm, Jun 17
Alexandros I

Featured

Chair: Nikolaos Kourentzes

Speaker

Tanya Garcia
Assistant Professor, Texas A&M University

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1 Subsessions

- **Bayesian functional predictor for survival data**
  2:30pm - 3:30pm, Jun 17
  Alexandros I

Practitioner: Sales/Demand Forecasting

2:30pm - 3:30pm, Jun 17
Alexandros II

Chair: Oliver Schaer

Speakers

Doron Bartov
Data Science team leader, WIX

S

Sarah Boufelja
Data Scientist, Renault-Nissan-Mitsubishi

Oliver Schaer
PhD Student, Lancaster University Management SChool

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3 Subsessions

- **Building a forecasting model where a 1% error is worth $5M**
  2:30pm - 2:50pm, Jun 17
  Alexandros II
- **Forecasting Demand at the Mix-Level using Deep Learning & Hierarchical Time Series**
  2:50pm - 3:10pm, Jun 17
  Alexandros II
- **Estimating success of own and competitor's new products with pre-release buzz**
  3:10pm - 3:30pm, Jun 17 Alexandros II

SWEET - Electricity Demand 2: Short Term Load Forecasting

2:30pm - 3:30pm, Jun 17

Aristotelis I

Chair: Eduardo Caro

Speakers

Akylas Stratigakos
Phd candidate, University of Patras

Madan Mohan Tripathi

Eduardo Caro
Associate Professor, Technical University of Madrid

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3 Subsessions

- **Evaluation of multi-horizon strategies for electricity load forecasting**
  2:30pm - 2:50pm, Jun 17
  Aristotelis I
- **Zero Initialization of modified Gated Recurrent Encoder-Decoder Network for Short Term Load Forecasting**
  2:50pm - 3:10pm, Jun 17
  Aristotelis I
- **Impact of meteorological variables in short-term electric load forecasting**
  3:10pm - 3:30pm, Jun 17
  Aristotelis I

Recent Advances in Forecasting with Big Data

2:30pm - 3:30pm, Jun 17

Aristotelis II

Invited session

Chair: Yoshimasa Uematsu

Speakers

Klaus Ackermann
Lecturer (US Assistant Professor), Monash University

Erik Christian Montes Schütte
Assistant Professor, Aarhus University

Yoshimasa Uematsu
Assistant Professor, Tohoku University

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3 Subsessions

- **Unpacking value from a new granularly resolved global dataset on internet activity**
  2:30pm - 2:50pm, Jun 17
  Aristotelis II
- **Forecasting house prices using online search activity**
  2:50pm - 3:10pm, Jun 17
  Aristotelis II
- **Estimation of Weak Factor Models and Its Application to Forecasting**
  3:10pm - 3:30pm, Jun 17
  Aristotelis II

Operations Forecasting 1

2:30pm - 3:30pm, Jun 17
Amfitrion I

Chair: Shixuan Wang

Speakers

Sarah Van der Auweraer
PHD Candidate, KU Leuven

Mahdi Abolghasemi
PhD Researcher, Casual Academic, University of Newcastle

Shixuan Wang
Lecturer in Economics, University of Reading

3 Subsessions

- **Improved spare part inventory management using installed base information**
  2:30pm - 2:50pm, Jun 17
  Amfitrion I

- **What is the value of POS data in supply chain? The empirical analysis of a two-echelon supply chain.**
  2:50pm - 3:10pm, Jun 17
  Amfitrion I

- **Forecasting Repairing Time of Automotive Parts: An Ordinal Logit Model using LASSO and Elastic Net**
  3:10pm - 3:30pm, Jun 17
  Amfitrion I

ICT Forecasting

2:30pm - 3:30pm, Jun 17
Amfitrion II

Invited session

Chair: Mohsen Hamoudia

Speakers

N

Nigel Meade
Emeritus Professor, Imperial College

Sheik Meeran
Associate professor, University of Bath

Mohsen Hamoudia
Head of BI Department, Orange Labs

3 Subsessions

- **Forecasting International Market Segmentation**
  2:30pm - 2:50pm, Jun 17
  Amfitrion II

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Do the individual personal characteristics of customers impact the change in importance weights of features?
2:50pm - 3:10pm, Jun 17
Amfitrion II

- **Analysis of the Key Adoption Predictors in the Market for Mobile Internet**
  3:10pm - 3:30pm, Jun 17
  Amfitrion II

Combinations 1

2:30pm - 3:30pm, Jun 17
Melpomeni

Chair: Andrey Vasnev

Speakers

Devon Barrow
Associate Professor, University of Birmingham

Yunjie Wei
Assistant Professor, Academy of Mathematics and Systems Science, Chinese Academy of Sciences

Andrey Vasnev
Associate Professor, University of Sydney

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3 Subsessions

- **Temporal aggregation level and forecast horizon: investigating the connection**
  2:30pm - 2:50pm, Jun 17
  Melpomeni

- **Can bagging improve the trading performance of exchange rates? The LSTM touch at work**
  2:50pm - 3:10pm, Jun 17
  Melpomeni

- **What to do with negative weights when combining forecasts?**
  3:10pm - 3:30pm, Jun 17
  Melpomeni

Econometrics

2:30pm - 3:30pm, Jun 17

Kalliopi

Chair: Michele Costola

Speakers

Alev Atak
Lecturer, City, University of London

Spencer Wheatley
Senior Scientist, ETH Zürich

Michele Costola
Assistant Professor, SAFE, House of Finance, Goethe University Frankfurt

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3 Subsessions

- **Designating the Endogeneity in the Cryptocurrency Market Using an Intensity-based Hawkes Process**
  2:30pm - 2:50pm, Jun 17
  Kalliopi
- **Econometric analysis of the Bitcoin market: a successful prediction, & looking forward**
  2:50pm - 3:10pm, Jun 17
  Kalliopi
- **Predictability, Spillover and Disagreement in Signed Financial Networks**
  3:10pm - 3:30pm, Jun 17
  Kalliopi

Nowcasting 1

2:30pm - 3:30pm, Jun 17

Erato

Chair: Marcella Niglio

Speakers

Laurent Ferrara
Head on International Macro Division, Banque de France

Baoline Chen
Bureau of Economic Analysis

Marcella Niglio
University of Salerno

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3 Subsessions

- **When are Google data useful to nowcast GDP? An approach via pre-selection and shrinkage**
  2:30pm - 2:50pm, Jun 17
  Erato

- **Weighted-Covariance Factor Reduction of VARMA Models: Illustrated with Forecasting Quarterly GDP at Monthly Intervals Using Monthly Indicator Variables**
  2:50pm - 3:10pm, Jun 17
  Erato

- **SETAR forecasts with weighted observations**
  3:10pm - 3:30pm, Jun 17
  Erato

3:40pm

Practitioner track: Carla Di Cairano-Gilfedder

3:40pm - 4:40pm, Jun 17
Alexandros I

Practitioner track

Chair: Mike Gilliland

Speaker

Carla Di Cairano-Gilfedder
Principal Researcher, BT

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1 Subsessions

- Workforce forecasting
  3:40pm - 4:40pm, Jun 17
  Alexandros I

Practitioner: Software

3:40pm - 4:40pm, Jun 17
Alexandros II

Chair: Magne Jørgensen

Speakers

Alex Hallam
Data Scientist, Inspire Brands

Guilherme Cano Lopes
Data Scientist / PhD Student, Itaú Unibanco

Magne Jørgensen

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3 Subsessions

- Delivering forecast models using Plumber APIs in R
  3:40pm - 4:00pm, Jun 17
  Alexandros II

- PypeCast: A framework for time series forecasting with artificial neural networks and uncertainty modelling
  4:00pm - 4:20pm, Jun 17
  Alexandros II

- Predicting software development skill from effort estimates
  4:20pm - 4:40pm, Jun 17
  Alexandros II

SWEET - Electricity Demand 3: Load & Price

3:40pm - 4:40pm, Jun 17
Aristotelis I

Chair: Peter Nystrup

Speakers

Sergei Kulakov
University of Dusiburg-Essen

Michael O'Leary
Associate Director of Quantitative Research, Morningstar

Peter Nystrup
Postdoctoral Fellow, Lund University

3 Subsessions

- **Determining the Demand Elasticity in a Wholesale Electricity Market**
  3:40pm - 4:00pm, Jun 17
  Aristotelis I
- **Horse and Cart: A Scalable Electricity Load and Price Forecast Model**
  4:00pm - 4:20pm, Jun 17
  Aristotelis I
- **Temporal hierarchies with autocorrelation for load forecasting**
  4:20pm - 4:40pm, Jun 17
  Aristotelis I

Tourism Forecasting 1

3:40pm - 4:40pm, Jun 17
Aristotelis II

Invited session

Chair: Doris Chenguang Wu

Speakers

X

Xiaoying Jiao
PhD researcher, University of Surrey

Andrea Saayman
North-West University

Doris Chenguang Wu

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3 Subsessions

- **Forecasting International Tourism Demand Using Global and Local Spatiotemporal Autoregressive Models**
  3:40pm - 4:00pm, Jun 17
  Aristotelis II
- **Forecasting asymmetric tourism demand over the business cycle**
  4:00pm - 4:20pm, Jun 17
  Aristotelis II
- **Tourism demand forecasting using a nonlinear ARDL model**
  4:20pm - 4:40pm, Jun 17
  Aristotelis II

Macroeconometrics

3:40pm - 4:40pm, Jun 17
Amfitrion I

Chair: Eva Senra

Speakers

Philip Hans Franses
Erasmus School of Economic

Danilo Leiva-Leon
Banco de España

Eva Senra
Associate Professor, Universidad de Alcala

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3 Subsessions

- **Evaluating heterogeneous forecasts for vintages of macroeconomic variables**
  3:40pm - 4:00pm, Jun 17
  Amfitrion I
- **Endogenous Time-Variation in Vector Autoregressions**
  4:00pm - 4:20pm, Jun 17
  Amfitrion I
- **Multivariate business cycle by Circulant SSA**
  4:20pm - 4:40pm, Jun 17
  Amfitrion I

Bayesian Forecasting 1: Approximate Bayesian Computation

3:40pm - 4:40pm, Jun 17
Amfitrion II

Chair: Georgios Tsiotas

Speakers

R **Ruben Loaiza-Maya**


Ville Satopää
Assistant Professor of Technology and Operations Management, INSEAD

G **Georgios Tsiotas**

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3 Subsessions

- **Focused Bayesian Prediction**
  3:40pm - 4:00pm, Jun 17
  Amfitrion II
- **Automatic Bayesian Aggregation of Predictions**
  4:00pm - 4:20pm, Jun 17
  Amfitrion II
- **Approximate Bayesian Computing for asymmetric loss functions**
  4:20pm - 4:40pm, Jun 17
  Amfitrion II

Combining Statistical and Deep Learning-Based Forecasting Methods 1

3:40pm - 4:40pm, Jun 17

Melpomeni

Invited session

Chair: Konstantinos Benidis

Speakers

S

Syama Sundar Rangapuram

Marinela Profi

Customer Advisor, Advanced Analytics - SEMEA TEAM, SAS Institute SRL

Konstantinos Benidis

Amazon

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3 Subsessions

- **Deep State Space Models for Time Series Forecasting**
  3:40pm - 4:00pm, Jun 17
  Melpomeni
- **Combinations of Machine Learning and Traditional Approaches to increase accuracy in Forecasting**
  4:00pm - 4:20pm, Jun 17
  Melpomeni
- **Time Series Forecasting via Spline Quantile Function RNNs**
  4:20pm - 4:40pm, Jun 17
  Melpomeni

Transportation

3:40pm - 4:40pm, Jun 17

Kalliopi

Chair: Christos Keramydas

Speakers

Antonio García-Ferrer
Catedrático, Universidad Autonoma de Madrid

Yiannis Kamarianakis
Adjunct Professor, Arizona State University

Christos Keramydas
Assistant Professor, International Hellenic University

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3 Subsessions

- **The relationship between traffic accidents and real economic activity revisited: old targets and new policy implications**
  3:40pm - 4:00pm, Jun 17
  Kalliopi
- **Bayesian estimation of Threshold Autoregressions for short-term forecasting of traffic occupancies**
  4:00pm - 4:20pm, Jun 17
  Kalliopi
- **On the validation of the performance of micro-scale vehicle emission models in a metropolitan city network**
  4:20pm - 4:40pm, Jun 17
  Kalliopi

Risk and Uncertainty

3:40pm - 4:40pm, Jun 17
Erato

Chair: Esther Ruiz

Speakers

Agnieszka Borowska
Postdoctoral researcher, University of Glasgow, School of Mathematics and Statistics

Steffen Mueller
University Of Hamburg

Esther Ruiz
Catedrático de Universidad, Universidad Carlos III de Madrid

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3 Subsessions

- **Bayesian Risk Forecasting for Long Horizons**
  3:40pm - 4:00pm, Jun 17
  Erato
- **Forecasting economic decisions under risk: The predictive importance of choice-process data**
  4:00pm - 4:20pm, Jun 17
  Erato
- **Bootstrap confidence intervals for multi-period value at risk**
  4:20pm - 4:40pm, Jun 17
  Erato

4:40pm

Coffee Break
4:40pm - 5:10pm, Jun 17
Foyer Alexandros

5:10pm

Practitioner track: Mike Wilson
5:10pm - 5:50pm, Jun 17
Alexandros I

Practitioner track

Chair: Roy Bachelor

Speaker

Mike Wilson
Global Head of Logistics and Manufacturing, Panalpina Management Ltd.

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1 Subsessions

- **Adapting the Supply Chain to match the Acceleration of Change**
  5:10pm - 5:50pm, Jun 17
  Alexandros I

ISIR - Supply Chain Forecasting 2

5:10pm - 5:50pm, Jun 17

Alexandros II

Invited session

Chair: M. Zied Babai

Speakers

Dejan Mircetic
Faculty of Technical Sciences, Novi Sad, Serbia

Evangelos Theodorou
National Technical University of Athens

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2 Subsessions

- **The impact of time series characteristics on temporal aggregation performance**
  5:10pm - 5:30pm, Jun 17
  Alexandros II

- **Supply Chain Management: Bridging the gap between business and academia**

  5:30pm - 5:50pm, Jun 17 Alexandros II

SWEET Member's meeting

5:10pm - 5:50pm, Jun 17

Aristotelis I

Chair: Tao Hong

The IIF has recently launched the Section on Water, Energy and Environment (SWEET). SWEET welcomes researchers and practitioners across the globe to work together on various aspects of forecasting problems concerning water, energy and environment. In this session, we will discuss new initiatives of SWEET, such as future forecasting competitions, planned activities at ISF2020, and how members can benefit from SWEET. The session welcomes all conference attendees who are interested in SWEET.

Education

5:10pm - 5:50pm, Jun 17

Melpomeni

Chair: Sophia Dimeli

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1 Subsessions

- **Is new-age, virtual engagement for large cohorts, useful in predicting the overall performance of students?**
  5:10pm - 5:50pm, Jun 17
  Melpomeni

State Space

5:10pm - 5:50pm, Jun 17
Amfitrion I

Chair: Jing Tian

Speakers

Steve Matthews
Methodologist, Statistics Canada

Jing Tian
Lecturer, University of Tasmania

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2 Subsessions

- **A Comparison of Seasonal Adjustment Approaches using State Space Representation**
  5:10pm - 5:30pm, Jun 17 Amfitrion I
- **An unobserved component modelling approach to evaluate fixed-event forecasts**
  5:30pm - 5:50pm, Jun 17
  Amfitrion I

Bayesian Forecasting 2: Variational Bayes

5:10pm - 5:50pm, Jun 17
Amfitrion II

Chair: Hoang Nguyen

Speakers

Nathaniel Tomasetti
Phd Candidate, Monash University

Hoang Nguyen
PhD Student, Universidad Carlos III de Madrid

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2 Subsessions

- **Online Bayesian Density Forecasts for Vehicle Trajectory with Heterogeneous Driver Behaviour**
  5:10pm - 5:30pm, Jun 17
  Amfitrion II

- **Variational Inference for high dimensional structured factor copulas**
  5:30pm - 5:50pm, Jun 17
  Amfitrion II

Combining Statistical and Deep Learning-Based Forecasting Methods 2

5:10pm - 5:50pm, Jun 17
Aristotelis II

Invited session

Chair: Laurent Callot

Speakers

Lilian Wong
Applied Scientist, Amazon Web Services

Laurent Callot
Senior Economist, Amazon

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2 Subsessions

- **Error Metrics for Time Series Forecasting**
  5:10pm - 5:30pm, Jun 17
  Aristotelis II

- **On the parametrization of simple autoregressive models with neural**

networks
5:30pm - 5:50pm, Jun 17
Aristotelis II

Forecasting for Social Good 2
5:10pm - 5:50pm, Jun 17
Kaliopi

Chair: Rob Hyndman

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1 Subsessions

- **Forecasting for Social Good: Why it Matters**
  5:10pm - 5:50pm, Jun 17
  Kaliopi

6:00pm

Current and prospective members' meeting (all are welcome)
6:00pm - 6:30pm, Jun 17
Alexandros I

Chair: George Athanasopoulos

8:30pm

IJF Editors Dinner (by invitation only)
8:30pm - 10:30pm, Jun 17
Social

Tue, Jun 18, 2019

9:30am

Clive Granger Memorial Keynote: George Kapetanios
9:30am - 10:30am, Jun 18
Alexandros I
Keynote

Chair: Farshid Vahid

Speaker

George Kapetanios
Professor of Economics, Kings College

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1 Subsessions

- **Making text count**
  9:30am - 10:30am, Jun 18
  Alexandros I

10:30am

Coffee Break
10:30am - 11:00am, Jun 18
Foyer Alexandros

11:00am

Practitioner: Retail
11:00am - 12:00pm, Jun 18
Alexandros I

Chair: Michał Kurcewicz

Speakers

Emmanuel Silva
Course Leader MSc (Integrated) Strategic Fashion Management, London College of Fashion, University of the Arts London

Koel Ghosh
Lead Data Scientist, Data Science & Engineering, EDABI Center of Excellence, Target

M

Michał Kurcewicz

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3 Subsessions

- **Googling Fashion: Forecasting Fashion Consumer Behaviour using Google Trends**
  11:00am - 11:20am, Jun 18
  Alexandros I

- [Seeking Forecasting Accuracy Gains at Scale - Does Pre-model Data Clustering Help?]
  11:20am - 11:40am, Jun 18 Alexandros I

- [Large-scale retail forecasting – a hybrid approach]
  11:40am - 12:00pm, Jun 18
  Alexandros I

Deep Learning / Neural Networks 1

11:00am - 12:00pm, Jun 18
Alexandros II

Chair: Viacheslav Lyubchich

Speakers

Nahid Jafari
Assistant Professor

Michel Tokic
Research Scientist, Siemens AG

Viacheslav Lyubchich
University of Maryland Center for Environmental Science

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3 Subsessions

- [Air Passenger Demand Forecasting using Deep Learning Methods]
  11:00am - 11:20am, Jun 18
  Alexandros II

- [Air Quality Forecast with Recurrent Neural Networks]
  11:20am - 11:40am, Jun 18
  Alexandros II

- **Enhancing predictive classification of bank customers with machine learning and network information**
  11:40am - 12:00pm, Jun 18
  Alexandros II

SWEET - Electricity Price 1: German Market

11:00am - 12:00pm, Jun 18
Aristotelis I

Invited session

Chair: Rafal Weron

Speakers

Michał Narajewski
Scientific Assistant, University of Duisburg-Essen

Christopher Kath
PhD student, University of Duisburg-Essen

Tim Janke
TU Darmstadt

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3 Subsessions

- Econometric modelling and forecasting of intraday electricity prices
  11:00am - 11:20am, Jun 18
  Aristotelis I
- On the Importance of Cross-border Market Integration under XBID: Evidence from the German Intraday Market
  11:20am - 11:40am, Jun 18
  Aristotelis I
- A Generative Model for Multivariate Probabilistic Scenario Forecasting
  11:40am - 12:00pm, Jun 18
  Aristotelis I

Gambling and Sport Forecasting

11:00am - 12:00pm, Jun 18
Aristotelis II

Invited session

Chair: James Reade

Speakers

Carl Singleton
Lecturer in Economics, University of Reading

Leighton Vaughan Williams
Professor of Economics and Finance, Nottingham Business School

James Reade
Associate Professor, The University of Reading

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3 Subsessions

- **Going With Your Gut: The (In)accuracy of Forecast Revisions in a Football Score Prediction Game**
  11:00am - 11:20am, Jun 18
  Aristotelis II
- **Forecasting the outcome of professional tennis matches: Evidence from Wimbledon 2018**
  11:20am - 11:40am, Jun 18
  Aristotelis II
- **Evaluating Strange Forecasts: The Curious Case of Football Match Scorelines**
  11:40am - 12:00pm, Jun 18
  Aristotelis II

Academic Panel Discussion for ECRs

11:00am - 12:00pm, Jun 18
Amfitrion I

Chair: Shari De Baets

Speakers

Tanya Garcia
Assistant Professor, Texas A&M University

Rob Hyndman
Professor of Statistics, Monash University

N

Nikolaos Kourentzes

Haiyan Song
Associate Dean and Chair Professor, School of Hotel and Tourism Management, The Hong Kong Polytechnic University

Hierarchical Forecasting 2: New Applications of Hierarchical Forecasting

11:00am - 12:00pm, Jun 18
Amfitrion II

Invited session

Chair: Florian Eckert

Speakers

Carla Freitas Silveira Netto
UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL

Han Li
Lecturer, Macquarie University

Florian Eckert
KOF ETHZ

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3 Subsessions

- **What is the optimal strategy of aggregation for forecasting sales? Time series forecast reconciliation by region, product category, and channel.**
  11:00am - 11:20am, Jun 18
  Amfitrion II
- **Analyzing Mortality Bond Indexes via Hierarchical Forecast Reconciliation**
  11:20am - 11:40am, Jun 18
  Amfitrion II
- **Bayesian Forecast Reconciliation**
  11:40am - 12:00pm, Jun 18
  Amfitrion II

SWEET - Environment

11:00am - 12:00pm, Jun 18

Melpomeni

Chair: Jooyoung Jeon

Speakers

Priyanga Dilini Talagala
Monash University, Australia

S

Sebastien Perez Vasseur

Jooyoung Jeon
Lecturer (Assistant Professor), School of Management, University of Bath

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3 Subsessions

- **A feature-based framework for detecting technical outliers in water-quality data from in situ sensors**
  11:00am - 11:20am, Jun 18
  Melpomeni
- **Probabilistic forecasting models for NO2 concentrations**
  11:20am - 11:40am, Jun 18
  Melpomeni
- **Probabilistic forecasting of an air quality index**
  11:40am - 12:00pm, Jun 18
  Melpomeni

Inflation

11:00am - 12:00pm, Jun 18

Kalliopi

Chair: Jamus Lim

Speakers

Pär Österholm
Professor, Örebro University

J

Julia Regina Scotti
Analyst, Brazilian Central Bank

Jamus Lim
Associate Professor of Economics, ESSEC Business School

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3 Subsessions

- **Does Money Growth Predict Inflation? Evidence from Vector Autoregressions Using Four Centuries of Data**
  11:00am - 11:20am, Jun 18
  Kalliopi
- **Forecasting food-at-home inflation using weather data**
  11:20am - 11:40am, Jun 18
  Kalliopi
- **Forecasting Inflation for the Long Run**
  11:40am - 12:00pm, Jun 18
  Kalliopi

Forecasting Infectious Disease Outbreaks

11:00am - 12:00pm, Jun 18
Erato

Invited session

Chair: Nicholas Reich

Speakers

A

Ana Pastore y Piontti

Nicholas Reich
UMass Amherst

Vladimir Minin
Professor of Statistics, University of California, Irvine

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2 Subsessions

2 Subsessions

- Spread of Zika virus in the Americas
  11:00am - 11:20am, Jun 18
  Erato

- Stacking Probabilistic Time Series Forecasts of Infectious Disease Outbreaks using Gradient Tree Boosting
  11:20am - 11:40am, Jun 18
  Erato

12:10pm

Practitioner track: Haiyan Song & Nikolaos Kourentzes

12:10pm - 1:30pm, Jun 18
Alexandros I

Practitioner track

Chair: Anastasios Panagiotelis

Speakers

Haiyan Song
Associate Dean and Chair Professor, School of Hotel and Tourism Management, The Hong Kong Polytechnic University

N

Nikolaos Kourentzes

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2 Subsessions

- Large Scale Tourism Demand Forecasting
  12:10pm - 12:50pm, Jun 18
  Alexandros I

- Cross-temporal coherent forecasts for Australian tourism
  12:50pm - 1:30pm, Jun 18
  Alexandros I

Retail Forecasting

12:10pm - 1:30pm, Jun 18
Alexandros II

Invited session

Chair: Tim Januschowski

Speakers

Stephan Kolassa
Data Science Expert, SAP Switzerland AG

Shaohui Ma
professor, Nanjing audit universtiy

Trevor Sidery
Lead Data Scientist, Tesco Plc

Robert Fildes
Director, Centre for Marketing Analytics and Forecasting, Lanc aster University

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4 Subsessions

- **Visualizing the consequences of forecasts, logistics and costs using R and Shiny**
  12:10pm - 12:30pm, Jun 18
  Alexandros II
- **Retail sales forecasting with meta-learning**
  12:30pm - 12:50pm, Jun 18
  Alexandros II
- **Forecasting at Scale**
  12:50pm - 1:10pm, Jun 18
  Alexandros II
- **Issues in Retail Forecasting: Research and Practice**
  1:10pm - 1:30pm, Jun 18
  Alexandros II

SWEET - Oil & Gas
12:10pm - 1:30pm, Jun 18
Aristotelis I

Chair: Richard Povinelli

Speakers

Marek Kwas
Senior Lecturer, SGH Warsaw School of Economics

Erick de Oliveira
Energy and IT analyst, Brazilian Agency for Research and Innovation (Finep)

Jue Wang
Chinese Academy of Sciences

Colin Quinn
Graduate Research Assistant, Marquette University

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4 Subsessions

- **Forecasting oil and natural gas prices with futures and threshold models**
  12:10pm - 12:30pm, Jun 18
  Aristotelis I
- **Ensemble-based approaches and regularization techniques to enhance natural gas consumption forecasts**
  12:30pm - 12:50pm, Jun 18
  Aristotelis I
- **A multi-granularity heterogeneous combination approach to crude oil price**
  12:50pm - 1:10pm, Jun 18
  Aristotelis I
- **Predicting Natural Gas Pipeline Alarms**
  1:10pm - 1:30pm, Jun 18
  Aristotelis I

Recent Advances in Bayesian Computation and Forecasting

12:10pm - 1:30pm, Jun 18
Aristotelis II

Invited session

Chair: Gael Martin

Speakers

Matteo Ruggiero
University of Torino and Collegio Carlo Alberto

Maria Kalli
Lecturer in Statistics, University of Kent

Alex Cooper
Senior Analyst, Reserve Bank of Australia

Matias Quiroz

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4 Subsessions

- **Bayesian functional forecasting with locally-autoregressive dependent processes**
  12:10pm - 12:30pm, Jun 18
  Aristotelis II

- **Bayesian nonparametric methods for macroeconomic forecasting**
  12:30pm - 12:50pm, Jun 18
  Aristotelis II

- **Variational Forecasts of Observation-driven Models**
  12:50pm - 1:10pm, Jun 18
  Aristotelis II

- **Bayesian forecasting for high-dimensional state-space models: A variational approach**
  1:10pm - 1:30pm, Jun 18
  Aristotelis II

ISIR - Intermittent Demand Forecasting

12:10pm - 1:30pm, Jun 18
Amfitrion I

Invited session

Chair: John Boylan

Speakers

M. Zied Babai
Senior Professor, Kedge Business School

Athanasios Tsadiras
Assistant Professor, Aristotle University of Thessaloniki

Ivan Svetunkov
Assistant Professor of Marketing Analytics, Centre for Marketing Analytics and Forecasting

Caner Turkmen
PhD Student, Bogazici University

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4 Subsessions

- **On the empirical performance of Bayesian approaches for spare parts inventory forecasting**
  12:10pm - 12:30pm, Jun 18
  Amfitrion I
- **Forecasting intermittent demand of an airline's spare parts using incrementally trained neural networks**
  12:30pm - 12:50pm, Jun 18
  Amfitrion I
- **What about those sweet melons? Using mixture models for demand forecasting in retail**
  12:50pm - 1:10pm, Jun 18
  Amfitrion I
- **Intermittent Demand Forecasting with Deep Temporal Point Processes**
  1:10pm - 1:30pm, Jun 18
  Amfitrion I

Judgement in Forecasting 2

12:10pm - 1:30pm, Jun 18
Amfitrion II

Invited session

Chair: Shari De Baets

Speakers

Oscar Claveria
Associate Professor, AQR-IREA, University of Barcelona

Michał Chojnowski
Forecasting & Sales Analysis Specialist, General Motors

Ariel Cecchi
Research Associate, UCL

Shari De Baets
Post-doctoral researcher, Ghent University

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4 Subsessions

- **A new metric of consensus for Likert-type scale questionnaires: An application to forecast the unemployment rate using the degree of agreement in consumer expectations**
  12:10pm - 12:30pm, Jun 18
  Amfitrion II

- **Effects of information on the market performance - application in forecasting.**
  12:30pm - 12:50pm, Jun 18
  Amfitrion II

- **How does financial information impact judgment in forecasting company stocks?**
  12:50pm - 1:10pm, Jun 18
  Amfitrion II

- **Nudging for improved forecasts of future expenses and savings**
  1:10pm - 1:30pm, Jun 18
  Amfitrion II

Measuring Accuracy of Macro Forecasts

12:10pm - 1:30pm, Jun 18
Melpomeni

Chair: Neil Ericsson

Speakers

Axel Lindner
IWH

Michael McCracken
Assistant Vice President, Federal Reserve Bank of St. Louis

Marc-Oliver Pohle
Goethe University Frankfurt

Neil Ericsson
Principal Economist, Federal Reserve Board

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4 Subsessions

- **Economic Sentiment in Europe: Disentangling Private Information from Public Knowledge**
  12:10pm - 12:30pm, Jun 18 Melpomeni
- **Tests of Conditional Predictive Ability: Some Simulation Evidence**
  12:30pm - 12:50pm, Jun 18
  Melpomeni
- **Analyzing Different Facets of Forecast Quality through Decompositions of Loss Functions**
  12:50pm - 1:10pm, Jun 18
  Melpomeni
- **Evaluation of Government Budget Forecasts**
  1:10pm - 1:30pm, Jun 18
  Melpomeni

SWEET - Wind & Solar

12:10pm - 1:30pm, Jun 18
Kalliopi

Chair: Paula Maçaira

Speakers

Soraida Aguilar
PUC-Rio

Benedikt Sommer
PhD student, Maersk Line

Vinayak Sharma
PhD student, University of North Carolina at Charlotte

Paula Maçaira
PUC-Rio

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4 Subsessions

- **A comparison of wind speed probabilistic forecast via quantile regression models**
  12:10pm - 12:30pm, Jun 18
  Kalliopi
- **Online Distributed Learning in Wind Power Forecasting**
  12:30pm - 12:50pm, Jun 18
  Kalliopi
- **Probabilistic Solar Power Forecasting: Long Short-Term Memory Network vs. Simpler Approaches**
  12:50pm - 1:10pm, Jun 18
  Kalliopi
- **A non-parametric approach to wind power forecast**
  1:10pm - 1:30pm, Jun 18
  Kalliopi

Early Warning Indicators

12:10pm - 1:30pm, Jun 18
Erato

Invited session

Chair: Claudio Antonini

Speakers

Angi Roesch
FOM University of Applied Sciences

Marcin Lupinski
Expert, National Bank od Poland

Kamil Jonski
University of Lodz

Claudio Antonini
Director - Analytics, BNY Mellon

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4 Subsessions

- **Measuring the amount of disorder in financial networks**
  12:10pm - 12:30pm, Jun 18
  Erato

- **An early-warning indicators' framework for Polish banking sector**
  12:30pm - 12:50pm, Jun 18
  Erato

- **Designing the early warning model that do not incorporate ex-post knowledge of crisis mechanisms**
  12:50pm - 1:10pm, Jun 18
  Erato

- **Forecasting Defaults of US Banks in Early Warning Systems**
  1:10pm - 1:30pm, Jun 18
  Erato

1:30pm

Lunch
1:30pm - 2:30pm, Jun 18
Foyer Alexandros

2:30pm

Featured: Nigel Harvey
2:30pm - 3:30pm, Jun 18
Alexandros I

Featured

Chair: Philip Hans Franses

Speaker

Nigel Harvey
University College, London

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1 Subsessions

- Judgment in forecasting
  2:30pm - 3:30pm, Jun 18
  Alexandros I

Automated Forecasting and its Applications

2:30pm - 3:30pm, Jun 18
Alexandros II

Invited session

Chair: Yanfei Kang

Speakers

Thiyanga Talagala
PHD Candidate, Monash University

Feng Li
Assistant Professor at School of Statistics and Mathematics, Central University of Finance and Economics

Yanfei Kang
Associate Professor, School of Economics and Management , Beihang University

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3 Subsessions

- **Peeking inside FFORMS: Feature-based FORecast Model Selection**
  2:30pm - 2:50pm, Jun 18
  Alexandros II

- **Time series forecasting based on automatic feature extraction**
  2:50pm - 3:10pm, Jun 18
  Alexandros II

- **GRATIS: GeneRAting TIme Series with diverse and controllable characteristics**
  3:10pm - 3:30pm, Jun 18
  Alexandros II

SWEET - Electricity Price 2: Probabilistic Forecasting

2:30pm - 3:30pm, Jun 18
Aristotelis I

Invited session

Chair: Katarzyna Maciejowska

Speakers

Tomasz Serafin
Wroclaw University of Science and Technology

Bartosz Uniejewski
Wroclaw University of Science and Technology

Katarzyna Maciejowska
Wroclaw University of Science and Technology

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3 Subsessions

- **Averaging probabilistic forecasts of day-ahead electricity prices across calibration windows**
  2:30pm - 2:50pm, Jun 18
  Aristotelis I
- **Regularization for quantile regression averaging. A new approach to constructing probabilistic forecasts**
  2:50pm - 3:10pm, Jun 18
  Aristotelis I
- **Revisiting the jackknife method for construction of prediction intervals – application to electricity market**
  3:10pm - 3:30pm, Jun 18
  Aristotelis I

Tourism Forecasting 2

2:30pm - 3:30pm, Jun 18
Aristotelis II

Invited session

Chair: Haiyan Song

Speakers

Egon Smeral
Modul University Vienna

Shanshan Lin
Associate Professor, Zhejiang University

Long Wen
Postdoctoral Research Fellow, Hong Kong Polytechnic University

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3 Subsessions

- **Forecasting performance of seasonal tourism market share models in the EU-15**
  2:30pm - 2:50pm, Jun 18
  Aristotelis II

- **Forecasting big tourism flows at attractions and destinations using mixed-frequency data**
  2:50pm - 3:10pm, Jun 18
  Aristotelis II

- **Tourism Forecasting Combining Time-varying Parameter and Mixed Frequency Techniques**
  3:10pm - 3:30pm, Jun 18
  Aristotelis II

Operations Forecasting 2

2:30pm - 3:30pm, Jun 18
Amfitrion I

Chair: John Boylan

Speakers

Nikolaos Athiniotis
Student, Forecasting & Strategy Unit (National Technical University of Athens)

Patrícia Ramos
ISCAP/INESC TEC

John Boylan
Professor of Business Analytics, Lancaster University

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3 Subsessions

- **Pharmaceutical forecasting with low-volume data: A case-study in Greece**
  2:30pm - 2:50pm, Jun 18
  Amfitrion I
- **Automatic selection of predictors for ARIMA models**
  2:50pm - 3:10pm, Jun 18
  Amfitrion I
- **Demand forecasting model taxonomy for short seasonal time series using cross-sectional information**
  3:10pm - 3:30pm, Jun 18
  Amfitrion I

Bayesian Forecasting 3: Bayesian Econometrics

2:30pm - 3:30pm, Jun 18
Amfitrion II

Chair: Roberto Morales-Arsenal

Speakers

Feng-Chi Liu

Alisa Yusupova
Research Associate, Lancaster University Management School

Roberto Morales-Arsenal
Professor of Statistics, CUNEF

3 Subsessions

- A generalized threshold stochastic volatility model incorporating with realized measures
  2:30pm - 2:50pm, Jun 18
  Amfitrion II
- Adaptive Dynamic Model Averaging for House Price Forecasting
  2:50pm - 3:10pm, Jun 18
  Amfitrion II
- Density Forecast Combination using Bayesian Global VAR Models and Bayesian Neural Networks
  3:10pm - 3:30pm, Jun 18
  Amfitrion II

Macroeconomic Forecasting with Machine Learning
2:30pm - 3:30pm, Jun 18
Melpomeni

Chair: John Guerard

Speakers

Baris Soybilgen

N

Nikoleta Anesti

J

John Guerard
Director of Quantitative Research, McKinley Capital Management

3 Subsessions

- Forecasting US recessions using large scale data sets and machine learning algorithms
  2:30pm - 2:50pm, Jun 18
  Melpomeni
- Forecasting UK GDP growth with large survey panels
  2:50pm - 3:10pm, Jun 18

Melpomeni

- Understanding Automatic Time Series Modeling and Forecasting: A Case Study of Real GDP, the Unemployment Rate, and Leading Economic Indicators

  3:10pm - 3:30pm, Jun 18 Melpomeni

Applications of DSGE models

2:30pm - 3:30pm, Jun 18
Kalliopi

Chair: Norberto Rodriguez

Speakers

Olga Croitorov
JRC, European Commission

Fernanda Valente
University of São Paulo

Norberto Rodriguez
Banco De La Republica, Colombia

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3 Subsessions

- **Conditional forecast and scenario analysis in DSGE models: how to improve causal interpretation.**
  2:30pm - 2:50pm, Jun 18
  Kalliopi

- Forecasting with DSGE-VAR Model: An Application for Brazilian Economy
  2:50pm - 3:10pm, Jun 18
  Kalliopi

- **Evaluation of alternatives for modeling and forecasting non-stationarity DSGE models**
  3:10pm - 3:30pm, Jun 18
  Kalliopi

Forecasting Methods and Applications

2:30pm - 3:30pm, Jun 18
Erato

Chair: George Michailidis

Speakers

F **Francesco D'Amuri**

G **George Michailidis**
University of Florida

E **Eduardo Loria Diaz**

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3 Subsessions

- **Forecasting Births Using Google**
  2:30pm - 2:50pm, Jun 18
  Erato

- **The Bayesian Nested Lasso and its Application to Forecasting Problems with Mixed Frequency Data**
  2:50pm - 3:10pm, Jun 18
  Erato

- **Hybrid New Keynesian Phillips Curve for Mexico, 2002Q1-2018Q4**
  3:10pm - 3:30pm, Jun 18
  Erato

4:15pm

Gala Event: Visit to museum and dinner

4:15pm - 11:00pm, Jun 18
Departing from Makedonia Palace
Social

Tickets: $20/adult, $10/student ~ Includes bus transportation to venues, dinner, entertainment and tour of the museum. Tickets can be purchased during registration process.

Join us for an evening (and night!) of culture, entertainment, dancing and wonderful food and drink. All ISF delegates are welcome, as are friends and family. The schedule is as follows:

16:15-16:30 Bus pick up will be at the Makedonia Palace hotel and transport to the Archaeological Museum of Thessaloniki for a guided tour and drinks

18:30- 18:45 Buses depart from the museum to the gala dinner venue, the Polis Convention Center

19:00-19:15 Arrival at the venue

22:30 Buses will depart for the city center as required or every 10 to 15 minutes.

Wed, Jun 19, 2019

9:30am

Keynote: Tilmann Gneiting

9:30am - 10:30am, Jun 19
Alexandros I

Keynote

Chair: John Boylan

Speaker

Tilmann Gneiting
Professor of Mathematical Statistics, HITS gGmbH

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1 Subsessions

- **Receiver operating characteristic (ROC) curves: What are they and what are they good for?**
  9:30am - 10:30am, Jun 19 Alexandros I

10:30am

Partner Tour: Vergina – half-day tour

10:30am - 4:00pm, Jun 19
Departing from Makedonia Palace

Social

Vergina (Greek: Βεργίνα) is a small town in northern Greece, located in the Imathia region. The town became internationally famous in 1977, when the Greek archaeologist Manolis Andronikos unearthed, what he claimed, was the burial site of the kings of Macedon, including the tomb of Philip II, father of Alexander the Great. The site of the Royal Tombs under a modern roof hosts the main excavation, as well as an exhibition of the major finds from the burials. The tombs are a UNESCO world cultural heritage site. Join us on this tour of the archaeological treasure of Macedonia! After the tour we will visit a local restaurant, “Flamouries”, for lunch! For more information on Vergina, click here.

[Sign up now]

Cost/person: 65 euro
Buses will depart Makedonia Palace Hotel.
Tour price includes: transportation by air-conditioned bus coach, professional guide, all entrance fees, and lunch at a traditional Greek tavern
Minimum participants: 15 persons

Coffee Break

10:30am - 11:00am, Jun 19
Foyer Alexandros

11:00am

Practitioner track: Chris Fry

11:00am - 12:00pm, Jun 19
Alexandros I

Practitioner track

Chair: Stephan Kolassa

Speaker

Chris Fry
Senior Manager, Resource Efficiency Data Science, Google

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1 Subsessions

- The M4 Forecasting Competition: A Practitioner's View
  11:00am - 12:00pm, Jun 19
  Alexandros I
- TensorFlow Probability

Business Forecasting

11:00am - 12:00pm, Jun 19
Alexandros II

Invited session

Chair: Christian Menden

Speakers

Julius Mehringer
Research Associate, Fraunhofer SCS

Antonio Schuh
DBA program candidate, Montpellier Business School

Benedikt Sonnleitner
research assistant, Fraunhofer SCS

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3 Subsessions

- **Evaluating machine learning approaches for spare part demand forecasting**
  11:00am - 11:20am, Jun 19
  Alexandros II
- **Looking back to drive ahead: contrasting insights from meta-analyses of innovation launches with forecasting techniques and ideas for improved methods for new product demand forecast.**
  11:20am - 11:40am, Jun 19
  Alexandros II
- **Predicting demand for road haulage with external data: a comparison of methods**
  11:40am - 12:00pm, Jun 19
  Alexandros II

SWEET - Electricity Demand 4: Statistics vs. Machine Learning

11:00am - 12:00pm, Jun 19
Aristotelis I

Chair: Eralda Gjika

Speakers

Kasun Bandara
PhD Research Student (Machine Learning for Time series Forecasting), Monash University

Guillaume Hochard, PhD
Lead Data scientist , Quantmetry

Eralda Gjika
University of Tirana, Albania

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3 Subsessions

- **Forecasting Time Series with Multiple Seasonal Patterns using a Long Short-Term Memory Neural Network Methodology**
  11:00am - 11:20am, Jun 19
  Aristotelis I
- **Statistical and machine learning methods combination for improved energy consumption forecasting performance**
  11:20am - 11:40am, Jun 19
  Aristotelis I
- **Probabilistic Forecasting of Electricity Demand using Markov Chain and Statistical Distribution**
  11:40am - 12:00pm, Jun 19
  Aristotelis I

Data Mining

11:00am - 12:00pm, Jun 19
Aristotelis II

Chair: Benjamin Buchwitz

Speakers

Sevvandi Kandanaarachchi
Research Fellow, Monash University

Peter Bajorski
RIT

Benjamin Buchwitz
Catholic University of Eichstätt-Ingolstadt

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3 Subsessions

- **Early event classification in spatio-temporal data streams**
  11:00am - 11:20am, Jun 19

Aristotelis II

- **Multi-way Relationships in Multivariate Time Series of Brain Activity Data**
  11:20am - 11:40am, Jun 19
  Aristotelis II

- **Short-term forecasting for product prices with sporadic constant segments**
  11:40am - 12:00pm, Jun 19
  Aristotelis II

Forecasting for Social Good 3

11:00am - 12:00pm, Jun 19
Amfitrion I

Invited session

Chair: Bahman Rostami-Tabar

Speakers

Liam Fassam
Institute Director, University of Northampton

M

Marwa Hasni
Student, National Engineering School of Tunisia

Bahman Rostami-Tabar
Lecturer in Management Science, Cardiff Business School

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2 Subsessions

- **Linking forecasting to inventory for humanitarian operations: an empirical evaluation**
  11:00am - 11:20am, Jun 19
  Amfitrion I

- **Anticipating special events in Emergency Department forecasting**
  11:20am - 11:40am, Jun 19
  Amfitrion I

Hierarchical forecasting 3: Computation and Optimisation

11:00am - 12:00pm, Jun 19
Amfitrion II

Chair: Robert Davies

Speakers

I

Igor Gusakov
Consulting Director, GoodsForecast (Forecsys)

Shanika Wickramasuriya
Lecturer , University of Auckland

R

Robert Davies
Economist, Amazon Economics

3 Subsessions

- **Optimization approach to the low-level forecast reconciliation for two-dimensional hierarchical time series**
  11:00am - 11:20am, Jun 19
  Amfitrion II
- **Non-negative forecast reconciliation for hierarchical and grouped time series**
  11:20am - 11:40am, Jun 19
  Amfitrion II
- **Hierarchical Forecast Reconciliation at Scale**
  11:40am - 12:00pm, Jun 19
  Amfitrion II

Survey Expectations

11:00am - 12:00pm, Jun 19
Melpomeni
Invited session

Chair: Kajal Lahiri

Speakers

Christian Hepenstrick

Raisa Basselier
Economist, National Bank of Belgium

Kajal Lahiri
Distinguished Professor of Economics, University at Albany

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3 Subsessions

- **What do we know when? A real time investigation of short-term forecasting**
  11:00am - 11:20am, Jun 19
  Melpomeni
- **Can inflation expectations in business or consumer surveys improve inflation forecasts?**
  11:20am - 11:40am, Jun 19 Melpomeni
- **Perceptions and Expectations of Inflation by Indian Households**
  11:40am - 12:00pm, Jun 19
  Melpomeni

Time Series Modelling 3

11:00am - 12:00pm, Jun 19
Kalliopi

Chair: Peter Hingley

Speakers

Oyebimpe Adeniji
University Of Ibadan/ Independent National Electoral Commission

T

Theodoros Daglis
PhD Candidate

P

Peter Hingley
Directorate Advisor, European Patent Office

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3 Subsessions

- **On jumps models and tampered innovations in volatility models and**

applications
11:00am - 11:20am, Jun 19
Kalliopi

- Can Solar Data Help to Forecast NASDAQ’s Finance Sector Price Index? An ARIMA - GARCH Approach
  11:20am - 11:40am, Jun 19
  Kalliopi

- Finding a well performing Box-Jenkins forecasting model for annualised patent filings counts.
  11:40am - 12:00pm, Jun 19
  Kalliopi

Evaluating Macro Surveys

11:00am - 12:00pm, Jun 19
Erato

Chair: Christoph Schult

Speakers

Oguzhan Akgun
University of Paris 2 Pantheon Assas

Katja Heinisch
Economist, Head of Research Group "Econometric Tools for Forecasting", Halle Institute for Economic Research (IWH) – Member of the Leibniz Association

Christoph Schult
Halle Institute for Economic Research

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3 Subsessions

- Equal Predictive Ability Tests for Panel Data with an Application to OECD and IMF Forecasts
  11:00am - 11:20am, Jun 19
  Erato

- Effects of External Assumptions on Forecast Errors
  11:20am - 11:40am, Jun 19
  Erato

- Effects of External Assumptions on Forecast Errors - A Global Perspective
  11:40am - 12:00pm, Jun 19

Erato

12:10pm

Practitioner track: forecasting practices at Microsoft

12:10pm - 1:30pm, Jun 19
Alexandros I

Practitioner track

Chair: Tomas Singliar

Speakers

Tomas Singliar
Principal Data Scientist, Microsoft

Akshey Gupta
Director Product Management, Microsoft

Austin Gross
Senior Data Scientist, Microsoft

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3 Subsessions

- **Practical forecaster construction through cloud-based model search**
  12:10pm - 12:50pm, Jun 19
  Alexandros I
- **Demand forecasting beyond the time series vector: meeting the business requirements**
  12:50pm - 1:10pm, Jun 19
  Alexandros I
- **Moving your custom forecaster to the Azure cloud**
  1:10pm - 1:30pm, Jun 19
  Alexandros I

ISIR - Inventory forecasting

12:10pm - 1:30pm, Jun 19
Alexandros II

Chair: Juan Ramon Trapero

Speakers

Dennis Prak
PhD Candidate, University of Groningen

Joanna Bruzda
Prof., Nicolaus Copernicus University in Torun

Safi Elegbede
PhD Candidate, University of Birmingham

Juan R. Trapero

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4 Subsessions

- **Compound Poisson demand parameter estimation for inventory control**
  12:10pm - 12:30pm, Jun 19
  Alexandros II
- **Demand Forecasting Under the Fill Rate Constraint – The Case of Re-Order Points**
  12:30pm - 12:50pm, Jun 19 Alexandros II
- **Quantifying Economic Impact of Classical Forecast Errors**
  12:50pm - 1:10pm, Jun 19
  Alexandros II
- **Impact of demand volatility forecasting on inventory systems**
  1:10pm - 1:30pm, Jun 19
  Alexandros II

SWEET - Water

12:10pm - 1:30pm, Jun 19
Aristotelis I

Chair: Vasilis Sarafidis

Speakers

Margarete Afonso de Sousa
PUC-RIO

Jens Kley-Holsteg
Student, Univeristät Duisburg-Essen

Clara Cordeiro
Assistant professor, University of Algarve, Portugal

Vasilis Sarafidis
Monash

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4 Subsessions

- **Forecasting power generation for Small Hydropower Plants using inflow data from neighboring basins**
  12:10pm - 12:30pm, Jun 19
  Aristotelis I
- **Probabilistic short-term Water Demand Forecasting**
  12:30pm - 12:50pm, Jun 19
  Aristotelis I
- **When is water consumption extreme?**
  12:50pm - 1:10pm, Jun 19
  Aristotelis I
- **Forecasting Water Usage Demand in Sydney**
  1:10pm - 1:30pm, Jun 19
  Aristotelis I

Forecasting Under Alternative Loss Functions

12:10pm - 1:30pm, Jun 19
Aristotelis II

Invited session

Chair: Valerio Poti

Speakers

Gergely Ganics
Researcher, Bank of Spain

Michael Clements
ICMA, University of Reading

Stelios Arvanitis
Athens University of Economics and Business

Valerio Poti
Professor of Finance, University College Dublin (UCD)

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4 Subsessions

- **Optimal Density Forecast Combinations**
  12:10pm - 12:30pm, Jun 19
  Aristotelis II
- **Forecaster Efficiency, Accuracy and Disagreement: Evidence using Individual-Level Survey Data**
  12:30pm - 12:50pm, Jun 19 Aristotelis II
- **Robust Optimization of Forecast Combinations**
  12:50pm - 1:10pm, Jun 19
  Aristotelis II
- **Nonparametric Tests for Superior Predictive Ability**
  1:10pm - 1:30pm, Jun 19
  Aristotelis II

Finance 2

12:10pm - 1:30pm, Jun 19
Amfitrion I

Chair: Roy Bachelor

Speakers

Marco Valerio Geraci
University of Cambridge-INET

Dae Keun Park
Professor, CHA University

B **Beatriz Jardim Pina Rodrigues**

Roy Batchelor
Professor of Banking and Finance, Cass Business School, City, University of London

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4 Subsessions

- **Forecasting excess return correlation with short selling information**
  12:10pm - 12:30pm, Jun 19
  Amfitrion I

- **Spurious Dividend Smoothing**
  12:30pm - 12:50pm, Jun 19
  Amfitrion I

- **Credit Risk Calculation: an application in the Brazilian market using the CreditRisk+ model with uncertainties**
  12:50pm - 1:10pm, Jun 19
  Amfitrion I

- **Stalking the Lizard: Validation of a Technical Analyst's Track record**
  1:10pm - 1:30pm, Jun 19
  Amfitrion I

Software and Support systems

12:10pm - 1:30pm, Jun 19
Amfitrion II

Chair: Diego J. Pedregal

Speakers

Rob Hyndman
Professor of Statistics, Monash University

Mitchell O'Hara-Wild
Teaching Associate, Monash University

Gareth Thomas
Director, IHS EViews

Diego J. Pedregal
Full Professor, UCLM

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4 Subsessions

- **A feast of time series tools**
  12:10pm - 12:30pm, Jun 19
  Amfitrion II
- **Flexible futures for fable functionality**
  12:30pm - 12:50pm, Jun 19
  Amfitrion II
- **Forecasting performance of Bayesian and Mixed Frequency VAR Models in EViews 11**
  12:50pm - 1:10pm, Jun 19
  Amfitrion II
- **Automatic Forecasting of Unobserved Components Models with the UComp Toolbox for MATLAB**
  1:10pm - 1:30pm, Jun 19
  Amfitrion II

Combinations 2

12:10pm - 1:30pm, Jun 19
Melpomeni

Chair: Simon Spavound

Speakers

Bonan Wang
PhD student, University of Bath

Aranzazu de Juan

Mathias Käso
Research Associate, Brandenburg University of Technology

Simon Spavound
Lecturer, University of Central Lancashire

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4 Subsessions

- **Integrating theta method and multiple temporal aggregation: optimising aggregation levels**
  12:10pm - 12:30pm, Jun 19
  Melpomeni
- **Simplex combination and selection of forecasters**
  12:30pm - 12:50pm, Jun 19
  Melpomeni
- **Trimming of forecasts in simple average combinations**
  12:50pm - 1:10pm, Jun 19
  Melpomeni
- **Principals of Combination Forecasts**
  1:10pm - 1:30pm, Jun 19
  Melpomeni

Time Series Modelling 4

12:10pm - 1:30pm, Jun 19
Kalliopi

Chair: Sergey Svetunkov

Speakers

Bo Guan
PhD student, Cardiff Business School

Ann Maharaj
Associate Professor, Monash University

Sergey Svetunkov
professor, Peter the Great St.Petersburg Polytechnic University

3 Subsessions

- Forecasting Industrial Production Using the State Dependent Models
  12:10pm - 12:30pm, Jun 19
  Kalliopi
- Predicting Group Membership for Interval Time Series
  12:30pm - 12:50pm, Jun 19
  Kalliopi
- Correlation functions of complex-valued variables in economic forecasting
  12:50pm - 1:10pm, Jun 19
  Kalliopi

Forecasting Methods Based on Neutrosophic Sets

12:10pm - 1:30pm, Jun 19
Erato

Invited session

Chair: Erol Egrioglu

Speakers

Ali Zafer Dalar
Asst. Prof. Dr., Giresun University

Ufuk Yolcu
Assoc. Prof., Giresun University

E

Eren Bas
Assoc. Prof. Dr., Giresun University

Erol Egrioglu
Prof., Giresun University

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4 Subsessions

- Definitions and a Forecasting Method for Single-Valued Neutrosophic Time Series
  12:10pm - 12:30pm, Jun 19

Erato

- **Single-Valued Neutrosophic Inference System for Time Series Forecasting based on Ridge Regression and Particle Swarm Optimization**
  12:30pm - 12:50pm, Jun 19
  Erato

- **Picture Fuzzy Inference System for Forecasting Time Series based on Ridge Regression and Genetic Algorithm**
  12:50pm - 1:10pm, Jun 19
  Erato

- **Picture Fuzzy Time Series Definitions and a Forecasting Method to Forecast to Picture Fuzzy Time Series**
  1:10pm - 1:30pm, Jun 19
  Erato

1:30pm

Lunch

1:30pm - 2:30pm, Jun 19
Foyer Alexandros

2:30pm

Practitioner track: Slawek Smyl

2:30pm - 3:30pm, Jun 19
Alexandros I

Practitioner track

Chair: Chris Fry

Speaker

Slawek Smyl
Senior Data Scientist II, Uber

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1 Subsessions

- **M4 Competition Winning Method**
  2:30pm - 3:30pm, Jun 19
  Alexandros I

Judgement in Forecasting 3

2:30pm - 3:30pm, Jun 19

Alexandros II

Invited session

Chair: George Wright

Speakers

F **Fergus Bolger**
Consultant in Decision and Policy, Minerva Consulting

F **Florens Odendahl**

George Wright
Professor, Strathclyde University

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3 Subsessions

- **The Delphi Technique: Does (Group) Size Matter?**
  2:30pm - 2:50pm, Jun 19
  Alexandros II
- **BVAR Forecasts, Survey Information and Structural Change in the Euro Area**
  2:50pm - 3:10pm, Jun 19
  Alexandros II
- **Producing "effective" scenarios: an evaluation of enhancements to the Intuitive Logics scenario development method.**
  3:10pm - 3:30pm, Jun 19
  Alexandros II

SWEET - Electricity Price 3

2:30pm - 3:30pm, Jun 19

Aristotelis I

Chair: Conor Lynch

Speakers

Luigi Grossi
Associate Professor, University of Verona

Anna Gloria Billé
Free University of Bolzano-Bozen

Conor Lynch
Research Engineer, Cork Institute of Technology

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3 Subsessions

- **Forecasting Italian spot electricity prices using random forests and intra-daily market information**
  2:30pm - 2:50pm, Jun 19
  Aristotelis I
- **Forecasting Northern Italian Electricity Prices**
  2:50pm - 3:10pm, Jun 19
  Aristotelis I
- **Application of a SVM-based model for day-ahead electricity price prediction for the single electricity market in Ireland**
  3:10pm - 3:30pm, Jun 19
  Aristotelis I

Nowcasting 2

2:30pm - 3:30pm, Jun 19
Aristotelis II

Chair: Nicolas Bonino-Gayoso

Speakers

David Kohns
PhD student, Heriot-Watt University

Alessandro Giovannelli
Researcher, University of Rome "Tor Vergata"

Nicolas Bonino-Gayoso
PhD student, Universidad Complutense de Madrid

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3 Subsessions

- **Big Data and the Macro Economy: A Bayesian Mixed Frequency Estimator**
  2:30pm - 2:50pm, Jun 19
  Aristotelis II
- **Nowcasting Monthly GDP: a Model Averaging Approach**
  2:50pm - 3:10pm, Jun 19
  Aristotelis II
- **Nowcasting macroeconomic variables with a new tool: TF-MIDAS**
  3:10pm - 3:30pm, Jun 19
  Aristotelis II

Practitioner Panel Discussion for ECRs

2:30pm - 3:30pm, Jun 19
Amfitrion I

Michał Chojnowski

Speakers

Diane Berry
Senior Manager, Data Science, Advanced Analytics, Bain & Co.

Carla Di-Cairano-Gilfedder

Mike Gilliland
Product Marketing Manager, SAS Institute

Roland Martin
Research Expert, SAP SE

Hierarchical forecasting 4: Point and Probabilistic Forecasts

2:30pm - 3:30pm, Jun 19
Amfitrion II

Chair: Anastasios Panagiotelis

Speakers

Giorgio Corani
researcher, idsia

Puwasala Gamakumara
PhD Student

Nicolò Bertani
PhD candidate, INSEAD

3 Subsessions

- Probabilistic reconciliation of hierarchies: a closed-form Bayesian approach.
  2:30pm - 2:50pm, Jun 19
  Amfitrion II
- Revisiting Bottom-Up Forecasting for Hierarchical Time-Series Data
  2:50pm - 3:10pm, Jun 19
  Amfitrion II
- Probabilistic Hierarchical Reconciliation via a Non-parametric Bootstrap approach
  3:10pm - 3:30pm, Jun 19 Amfitrion II

Data Privacy and Forecasting

2:30pm - 3:30pm, Jun 19
Melpomeni

Invited session

Chair: Shawn Mankad

Speakers

Shawn Mankad
Assistant Professor, Cornell University

K

Kamil Jonski
University of Lodz

Matthew Schneider
Assistant Professor, Drexel University

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3 Subsessions

- **Personalized Protection of User-Generated Text with Shapley Values**
  2:30pm - 2:50pm, Jun 19
  Melpomeni

- **Coordinating tax revenue forecasting and Regulatory Impact Assessment (RIA) of the tax laws – evidence form Polish efforts to curb tax frauds and avoidance during 2015 - 2019**
  2:50pm - 3:10pm, Jun 19
  Melpomeni

- **The Effects of Data Protection on Forecasting Models**
  3:10pm - 3:30pm, Jun 19
  Melpomeni

Finance 3

2:30pm - 3:30pm, Jun 19
Kalliopi

Chair: Antonios Alexandridis

Speakers

Gokcen Ogruk Maz
Associate Professor of Economics, Texas Wesleyan University

Yang Han
PhD Student, University of Sussex

A

Antonios Alexandridis

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2 Subsessions

- Forecasting Multivariate Distributions of Exchange Rates, Interest Rates and Commodity Futures: Factor Quantile Model and Multivariate Scoring Rules
  2:30pm - 2:50pm, Jun 19
  Kalliopi

- Denoising the Equity Premium
  2:50pm - 3:10pm, Jun 19
  Kalliopi

Evaluating Macro Forecasters II

2:30pm - 3:30pm, Jun 19
Erato

Chair: Karsten Müller

Speakers

Malte Knüppel
Deutsche Bundesbank

Christoph Behrens
Helmut Schmidt University, Hamburg

K

Karsten Müller
Research associate, University of Applied Sciences Merseburg (University of Hamburg)

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3 Subsessions

- Survey forecasts of macroeconomic activity in the Euro area: Country specific versus area-wide information
  2:30pm - 2:50pm, Jun 19
  Erato

- Evaluating the Joint Efficiency of German Trade Forecasts - A nonparametric multivariate approach
  2:50pm - 3:10pm, Jun 19
  Erato

- German Forecaster‘s Narratives: How Informative are Forecast Reports for German Business Cycle Forecasts?
  3:10pm - 3:30pm, Jun 19

Erato

3:40pm

Featured (IJF Editor's invited talk): Ian McHale

3:40pm - 4:40pm, Jun 19

Alexandros I

Featured

Chair: Esther Ruiz

Speaker

Ian McHale
University Of Liverpool

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1 Subsessions

- **Forecasting the impact of recruitment decisions in soccer**
  3:40pm - 4:40pm, Jun 19
  Alexandros I

Deep Learning / Neural Networks 2

3:40pm - 4:40pm, Jun 19

Alexandros II

Chair: Natascha Hinterlang

Speakers

Hansika Hewamalage
PhD Student, Monash University

Sasan Barak
Lancaster University

Natascha Hinterlang
Research Assistant, Deutsche Bundesbank

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3 Subsessions

3 Subsessions

- Recurrent Neural Networks for Time Series Forecasting: An Overview and Empirical Evaluations
  3:40pm - 4:00pm, Jun 19 Alexandros II
- Deep Learning for Forecasting Model Selection
  4:00pm - 4:20pm, Jun 19
  Alexandros II
- Predicting Monetary Policy Using Artificial Neural Networks
  4:20pm - 4:40pm, Jun 19
  Alexandros II

SWEET - Electricity Price 4

3:40pm - 4:40pm, Jun 19
Aristotelis I

Invited session

Chair: Rafal Weron

Speakers

Weronika Nitka
Wroclaw University of Science and Technology

T

Tomasz Weron
Wroclaw University of Science and Technology

Sayar Karmakar
Assistant Professor, University of Florida

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3 Subsessions

- Day-Ahead vs. Intraday — Forecasting the Price Spread to Maximize Economic Benefits
  3:40pm - 4:00pm, Jun 19
  Aristotelis I
- Enhancing wind and solar generation forecasts to yield better short-term electricity price predictions
  4:00pm - 4:20pm, Jun 19
  Aristotelis I

- **Prediction Intervals in High-Dimensional Regression**
  4:20pm - 4:40pm, Jun 19
  Aristotelis I

Forecast Value Added (FVA) Analysis

3:40pm - 4:40pm, Jun 19
Aristotelis II

Invited session

Chair: Mike Gilliland

Speakers

Michael Gilliland
Product Marketing Manager, SAS Institute

Christoph Hartmann
Principal Industry Consultant, SAS Institute GmbH

Anthonelli White
Staff Officer, Supreme Headquarters Allied Powers Europe (SHAPE)

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3 Subsessions

- **Forecast Value Added (FVA) Analysis**
  3:40pm - 4:00pm, Jun 19
  Aristotelis II
- **How a large manufacturer automates their planning process using Forecast Value Added (FVA) analysis**
  4:00pm - 4:20pm, Jun 19
  Aristotelis II
- **Forecasting-focused Climate: Development and Validation of a Measurement Scale**
  4:20pm - 4:40pm, Jun 19
  Aristotelis II

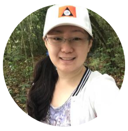
Forecasting Commercial Real Estate Yields

3:40pm - 4:40pm, Jun 19
Amfitrion I

Invited session

Chair: Alimou Bah

Speakers



Wei Shang
Chinese Academy of Sciences

Dimitrios Karlis

Alimou Bah
Senior Associate, CBRE Global Investors

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3 Subsessions

- **Urban Residential Real Estate Appraisal Using Transportation Data**
  3:40pm - 4:00pm, Jun 19
  Amfitrion I
- **Automatic Mass Valuation for Non-Homogeneous Housing Markets**
  4:00pm - 4:20pm, Jun 19
  Amfitrion I
- **Forecasting Commercial Real Estate Yields**
  4:20pm - 4:40pm, Jun 19
  Amfitrion I

Commodities Forecasting

3:40pm - 4:40pm, Jun 19
Amfitrion II

Chair: Robert Kunst

Speakers

Ekachidd Chungcharoen
Associate Professor of Operations Management, Thammasat University

Harald Schmidbauer
Shanxi University of Finance and Economics

Robert Kunst
Institute for Advanced Studies Vienna

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3 Subsessions

- **Forecasting of Sugarcane Production Index in Four Main Regions of Thailand**
  3:40pm - 4:00pm, Jun 19
  Amfitrion II

- **Trends and shock persistence in precious metal prices**
  4:00pm - 4:20pm, Jun 19
  Amfitrion II

- **Forecasting agricultural product and energy prices: A simulation-based model selection approach**
  4:20pm - 4:40pm, Jun 19
  Amfitrion II

Tourism Forecasting 3

3:40pm - 4:40pm, Jun 19
Melpomeni

Invited session

Chair: Miriam Scaglione

Speakers

Han Liu
Associate Professor , Jilin University

Gang Xie
Academy of Mathematics and Systems Science, Chinese Academy of Sciences, China

Miriam Scaglione
Professor, HES-SO Valais-Institute Tourism

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3 Subsessions

- **Nowcasting and Short-Term Forecasting of Tourism Demand with a Lasso-MIDAS Model**
  3:40pm - 4:00pm, Jun 19
  Melpomeni

- **Forecasting tourism demand with web search indexes based on kernel principal component analysis**
  4:00pm - 4:20pm, Jun 19
  Melpomeni

- **Diffusion innovation: evolution of AirBnb listings in Switzerland**
  4:20pm - 4:40pm, Jun 19
  Melpomeni

4:40pm

Coffee Break
4:40pm - 5:10pm, Jun 19
Foyer Alexandros

5:10pm

Panel discussion and closing ceremony
5:10pm - 6:45pm, Jun 19
Alexandros I

Chair: Aris Syntetos

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6 Subsessions

- **Panel discussion: Advancing forecasting research and practice: the contribution of the Institute and its journals**
  5:10pm - 6:10pm, Jun 19
  Alexandros I

- **IIF Fellows presentation**
  6:10pm - 6:15pm, Jun 19

- **Remembering an IIF legend**
  6:15pm - 6:20pm, Jun 19

- **Awards: best IJF paper and best student presentation**
  6:20pm - 6:25pm, Jun 19

- **ISF2020 - Brazil**
  6:25pm - 6:35pm, Jun 19