ISF 2022: Oxford, England

Event Schedule

Sat, Jul 09, 2022

9:00 AM

Forecasting Summer School
9:00 AM - 4:00 PM, Jul 9
Room 6

Sun, Jul 10, 2022

9:00 AM

Forecasting Summer School
9:00 AM - 4:00 PM, Jul 10
Room 6

Forecasting for Social Good, IIF workshop
9:00 AM - 6:00 PM, Jul 10
SWS

Authors: Bahman Rostami-Tabar;

Speaker

Bahman Rostami-Tabar
Cardiff University

The Future of Forecasting with Neural Networks
9:00 AM - 4:00 PM, Jul 10
Room 8

Authors: Hans Georg Zimmerman;

Speaker

Hans Georg Zimmerman
Fraunhofer Society

Forecasting Correlations: a state of the art for risk management
9:00 AM - 12:00 PM, Jul 10
Room 14

Authors: Malvina Marchese;

Speaker

Malvina Marchese
Bayes (formerly Cass) business school, University of London

Deep Learning for Forecasting

9:00 AM - 12:00 PM, Jul 10

Room 7

Authors: Tim Januschowski;

Speaker

Tim Januschowski
Zalando SE

1:00 PM

Judgemental Forecasting

1:00 PM - 4:00 PM, Jul 10

Room 14

Authors: Shari De Baets;Anna Sroginis

Speaker

Shari De Baets
ECR president
International Institute of Forecasting

Forecasting to Meet Demand

1:00 PM - 4:00 PM, Jul 10

Room 7

Authors: Roland Martin;Stephan Kolassa

Speaker

Roland Martin
Data Scientist
SAP

5:00 PM

ECR Reception

5:00 PM - 6:00 PM, Jul 10

Great Hall

Plenary

Chair: Shari De Baets; Anna Sroginis

Speakers

Shari De Baets
ECR president
International Institute of Forecasting

Anna Sroginis
Centre for Marketing Analytics and Forecasting, Lancaster University

Sarah Van der Auweraer
Postdoctoral Researcher
University of Luxembourg

Niles Perera
Senior Lecturer
University of Moratuwa

Margarete Afonso de Sousa
PhD Student
PUC-Rio

6:00 PM

Welcome Reception

6:00 PM - 8:00 PM, Jul 10
Ashmolean Museum, Oxford

Plenary

Chair: John Boylan The reception will be at Ashmolean Museum, follow this link on Google Maps: https://goo.gl/maps/w3K5zkjRWjTSWCTL6

Speakers

John Boylan
Professor of Business Analytics
Lancaster University

Ivan Svetunkov
Lecturer of Marketing Analytics
Centre for Marketing Analytics and Forecasting, Lancaster University

Mon, Jul 11, 2022

8:50 AM

Welcome!

8:50 AM - 9:00 AM, Jul 11
SWS

Speaker

John Boylan
Professor of Business Analytics
Lancaster University

9:00 AM

Communication of Uncertainty

9:00 AM - 10:00 AM, Jul 11
SWS

Plenary

Authors: Yael Grushka-Cockayne;

Chair: Pierre Pinson

Abstract: While constructing accurate forecasts is critically important for business and policy, communicating these forecasts to various stakeholder groups is as fundamental and often an afterthought. In this talk, we will consider how various forms of forecast communication, i.e. expressing the meaning of the uncertainty, visualizing the forecasts, and highlighting the implications of operational choices in light of existing uncertainty, can lead to different outcomes and behaviors. We will explore the communication of uncertainty in various domains, among them sports, COVID 19, retail, and others.

Speaker

Yael Grushka-Cockayne
Professor
University of Virginia, Darden Business School

10:10 AM

Nowcasting

10:10 AM - 11:30 AM, Jul 11
Room 6

Regular Submis…

Chair: Stefan Neuwirth

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4 Subsessions

Macroeconomic Forecasting Evaluation of MIDAS Models
10:10 AM - 10:30 AM, Jul 11
Room 6

Testing big data in a big crisis: Nowcasting under COVID-19
10:30 AM - 10:50 AM, Jul 11
Room 6

The Nowcasting Lab II
10:50 AM - 11:10 AM, Jul 11
Room 6

The Nowcasting Lab
11:10 AM - 11:30 AM, Jul 11
Room 6

F4SG: Forecasting and Effective Altruism

10:10 AM - 11:30 AM, Jul 11
Room 7

Invited Sess…

Chair: David Bernard

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4 Subsessions

Designing and Running a Biorisk Forecasting Tournament
10:10 AM - 10:30 AM, Jul 11
Room 7

Challenges in forecasting AI progress
10:30 AM - 10:50 AM, Jul 11
Room 7

An Interactive Calibration Training App for Improving Probabilistic Judgments
10:50 AM - 11:10 AM, Jul 11
Room 7

Forecasting long-term treatment effects without long-term outcome data
11:10 AM - 11:30 AM, Jul 11
Room 7

Econometric Analyses of Climate Change

10:10 AM - 11:30 AM, Jul 11

Room 8

Invited Sess…

Chair: Jennifer Castle

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4 Subsessions

How Does Economic Activity Interact with Climate? What We Learn from Global Temperature Anomaly Distributions

10:10 AM - 10:30 AM, Jul 11

Room 8

Analyzing Differences between Scenarios

10:30 AM - 10:50 AM, Jul 11

Room 8

The Expected Macroeconomic Impact of Extreme Weather Events

10:50 AM - 11:10 AM, Jul 11

Room 8

Identification of integrated assessment models of climate change

11:10 AM - 11:30 AM, Jul 11

Room 8

Forecasting in Unstable and High-dimensional Settings

10:10 AM - 11:30 AM, Jul 11

Room 9

Invited Sess…

Chair: Artem Prokhorov

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4 Subsessions

Forecast Evaluation and Selection in Unstable Environments

10:10 AM - 10:30 AM, Jul 11

Room 9

On the asymptotic behavior of bubble date estimators

10:30 AM - 10:50 AM, Jul 11

Room 9

FNETS: Factor-adjusted network estimation and forecasting for high-dimensional time series

10:50 AM - 11:10 AM, Jul 11

Room 9

A Machine Learning Attack on Illegal Trading

11:10 AM - 11:30 AM, Jul 11

Room 9

Finance 1

10:10 AM - 11:30 AM, Jul 11

Room 10

Regular Submis…

Chair: Arief Hakim

4 Subsessions

● **Predictability of Jumps**
10:10 AM - 10:30 AM, Jul 11
Room 10

● **Revisiting the volatility prediction with a global integration index**
10:30 AM - 10:50 AM, Jul 11
Room 10

● **The Most Predictable Aspects of Time Series**
10:50 AM - 11:10 AM, Jul 11
Room 10

● **Forecasting extended CoVaR for crypto and non-crypto assets in times of the COVID-19 crisis: An asymmetric model approach**
11:10 AM - 11:30 AM, Jul 11
Room 10

Inflation Forecasting 1

10:10 AM - 11:30 AM, Jul 11
Room 11

Invited Sess…

Chair: James Mitchell

4 Subsessions

● **How to Limit the Spillover from the 2021 Inflation Surge to Inflation Expectations?**
10:10 AM - 10:30 AM, Jul 11
Room 11

● **Survey respondents' inflation forecasts and unprecedented events**
10:30 AM - 10:50 AM, Jul 11
Room 11

● **Heterogeneity in survey-based density forecasts: A compositional data approach**
10:50 AM - 11:10 AM, Jul 11
Room 11

● **The Predictive Content of Inflation Expectations Measures**
11:10 AM - 11:30 AM, Jul 11
Room 11

Low-voltage Electricity Demand Forecasting – Peaks and Weather Effects

10:10 AM - 11:30 AM, Jul 11
Room 14

Invited Sess…

Chair: Jethro Browell

4 Subsessions

● **Generalized additive models for residential electricity demand forecasting**
10:10 AM - 10:30 AM, Jul 11
Room 14

● **The Effect of Weather on Probabilistic Smart Meter Load Forecasting**
10:30 AM - 10:50 AM, Jul 11
Room 14

● **Review of low voltage load forecasting: Methods, applications, and recommendations**
10:50 AM - 11:10 AM, Jul 11
Room 14

● **Probabilistic LV load forecasting: forecast fusion and daily peaks**
11:10 AM - 11:30 AM, Jul 11
Room 14

Neural Networks 1

10:10 AM - 11:10 AM, Jul 11

Room 15

Regular Submis…

Chair: Arpita Mukherjee

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3 Subsessions

Interval Prediction with Deep Learning Models

10:10 AM - 10:30 AM, Jul 11

Room 15

GARCH Models Structure of Neural Network and Applications

10:30 AM - 10:50 AM, Jul 11

Room 15

An empirical study to compare different types of encoder decoder models for forecasting network traffics

10:50 AM - 11:10 AM, Jul 11

Room 15

Everything you ever wanted to know about forecasting in retail (and more)

10:10 AM - 11:30 AM, Jul 11

SWS

Practitioner tr…

Authors: Stephan Kolassa;

Chair: Len Tashman

Abstract: One sector of the economy we all have contact with is retail: supermarkets, drugstores, offline and online. Demand needs to be forecasted on various granularities in the product, location, and time dimensions, in order to support many different planning and decision-making processes. Unfortunately, retail data exhibits many idiosyncrasies, from truly appalling data quality to unexplained peaks and troughs – and the treatment of these effects depends on what subsequent processes plan on doing with the forecast. We will give an overview of our experience in retail demand forecasting, with an outlook on the "consumers" of our forecasts, and of course including thoughts on the influence of the M5 competition, the COVID-19 pandemic, the war in the Ukraine, and any other developments that happen between my typing the abstract and my giving the talk.

Speaker

Stephan Kolassa
Data Science Expert
SAP

THS: Tourism and Hospitality 1

10:10 AM - 11:30 AM, Jul 11

EWS

Invited Sess…

Chair: Haiyan Song

4 Subsessions

● **Forecasting Tourism in the EU after the COVID-19 Crisis**
10:10 AM - 10:30 AM, Jul 11
EWS

● **How to forecast the tourism business transformation configuration after the pandemic? – by analysing the digital business model transformation of SMEs in the UK**
10:30 AM - 10:50 AM, Jul 11
EWS

● **Forecasting Country-Level Airbnb Prices While Respecting the Endogeneity of Demand as Instrumented by a Continuous Treatment**
10:50 AM - 11:10 AM, Jul 11
EWS

● **Forecasting tourism demand amid COVID-19: A time-varying parameter perspective**
11:10 AM - 11:30 AM, Jul 11
EWS

11:30 AM

Coffee Break
11:30 AM - 12:00 PM, Jul 11
NWS

12:00 PM

On-demand Platform Forecasting
12:00 PM - 1:00 PM, Jul 11
Room 6

Invited Sess…

Chair: Jeroen Rombouts

3 Subsessions

● **Forecasting the geolocalized imbalance between supply and demand in last-mile logistics**
12:00 PM - 12:20 PM, Jul 11
Room 6

● **Online changepoint detection using forecasts**
12:20 PM - 12:40 PM, Jul 11
Room 6

● **Forecast Evaluation**
12:40 PM - 1:00 PM, Jul 11
Room 6

F4SG: Forecasting in Healthcare 1
12:00 PM - 1:00 PM, Jul 11
Room 7

Regular Submis…

Chair: Eliud Silva

3 Subsessions

A robust autonomous method for blood demand forecasting
12:00 PM - 12:20 PM, Jul 11
Room 7

Asthma Monitoring and Prediction
12:20 PM - 12:40 PM, Jul 11
Room 7

Impact of the COVID-19 pandemic on births' trend in Mexico
12:40 PM - 1:00 PM, Jul 11
Room 7

Hierarchical Forecasting 1

12:00 PM - 1:00 PM, Jul 11
Room 8

Regular Submis…

Chair: Tommaso Di FonzoHan Li

3 Subsessions

Point and probabilistic forecast reconciliation for general linearly constrained multiple time series
12:00 PM - 12:20 PM, Jul 11
Room 8

Hierarchical Mortality Forecasting with EVT Tails: An Application to Solvency Capital Requirement
12:20 PM - 12:40 PM, Jul 11
Room 8

Cross-temporal reconciliation of solar forecasts
12:40 PM - 1:00 PM, Jul 11
Room 8

Retail Demand Forecasting 1

12:00 PM - 1:00 PM, Jul 11
Room 9

Invited Sess…

Chair: Stephan Kolassa

3 Subsessions

What's new in Retail Demand Forecasting?
12:00 PM - 12:20 PM, Jul 11
Room 9

Evaluating Human Behaviour in Response to AI Recommendations for Judgemental Forecasting
12:20 PM - 12:40 PM, Jul 11
Room 9

Automatic determination of calendar effects on daily retail time series
12:40 PM - 1:00 PM, Jul 11
Room 9

Finance 2

12:00 PM - 1:00 PM, Jul 11
Room 10

Regular Submis…

3 Subsessions

Forecasting metals network synchronization with commodity currencies
12:00 PM - 12:20 PM, Jul 11
Room 10

Impact of Covid-19 on Oil prices volatility and their recovery
12:20 PM - 12:40 PM, Jul 11
Room 10

Trading volume as a predictor of risk and return of the Swiss SMI: A quantile regression approach
12:40 PM - 1:00 PM, Jul 11
Room 10

Inflation Forecasting 2
12:00 PM - 1:00 PM, Jul 11
Room 11

Invited Sess…

Chair: Laurent Ferrara

3 Subsessions

Disentangling supply and demand effects on business expectations during the pandemic
12:00 PM - 12:20 PM, Jul 11
Room 11

A Neural Phillips Curve and a Deep Output Gap
12:20 PM - 12:40 PM, Jul 11
Room 11

Commodity jump tail risk as predictor of inflation
12:40 PM - 1:00 PM, Jul 11
Room 11

F4SG: Wastewater Epidemiology 1
12:00 PM - 1:00 PM, Jul 11
Room 14

Invited Sess…

Chair: Mami Taniuchi

3 Subsessions

Environmental surveillance as a complement to clinical case data during COVID-19 and the future of wastewater-based epidemiology
12:00 PM - 12:20 PM, Jul 11
Room 14

Model-based assessment of Covid-19 epidemic dynamics by wastewater analysis
12:20 PM - 12:40 PM, Jul 11
Room 14

Identifying opportunities for environmental surveillance in areas without centralized sewer systems
12:40 PM - 1:00 PM, Jul 11
Room 14

Machine Learning 1
12:00 PM - 1:00 PM, Jul 11
Room 15

Regular Submis…

Chair: Mahdi Abolghasemi

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3 Subsessions

● Integrating text analysis in electricity load forecasting: evidence from UK electricity load
12:00 PM - 12:20 PM, Jul 11
Room 15

● Deep learning for VAR modelling and forecasting
12:20 PM - 12:40 PM, Jul 11
Room 15

● Predicting the solutions of optimisation models via machine learning
12:40 PM - 1:00 PM, Jul 11
Room 15

Usage and Understanding of Forecasting in Organizations
12:00 PM - 1:00 PM, Jul 11
EWS

Invited Sess…

Chair: Fotios Petropoulos

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3 Subsessions

● The UFO Project
12:00 PM - 12:20 PM, Jul 11
EWS

● Findings from the Foresight Survey and Implications
12:20 PM - 12:40 PM, Jul 11
EWS

● Forecasting in Organizations: Findings from Semi-structured Interviews.
12:40 PM - 1:00 PM, Jul 11
EWS

1:00 PM

Lunch
1:00 PM - 2:00 PM, Jul 11
NWS

2:00 PM

Valid sequential inference on forecast performance
2:00 PM - 3:00 PM, Jul 11
SWS

Plenary

Authors: Johanna Ziegel;

Chair: Laurent Ferrara

Abstract: Forecasting and forecast evaluation are inherently sequential tasks. Predictions are often issued on a regular basis, such as every hour, day, or month, and their quality is monitored continuously. However, the classical statistical tools for forecast evaluation are static, in the sense that statistical tests for forecast calibration or comparison are only valid if the evaluation period is fixed in advance. Recently, e-values have been introduced as a new, dynamic method for assessing statistical significance. An e-value is a non-negative random variable with expected value at most one under a null hypothesis. Large e-values give evidence against the null hypothesis, and the multiplicative inverse of an e-value is a conservative p-value. E-values are particularly suitable for sequential forecast evaluation, since they naturally lead to statistical tests which are valid under optional stopping. The sequential tests constructed with e-values have close connections to the theory of test super-martingales. As examples of successful applications of e-values in forecast evaluation, I will discuss the case of comparing predictive performance of probability forecasts for binary events, and the monitoring of calibration of probabilistic forecasts for realvalued outcomes.

Speaker

Johanna Ziegel
Professor of Applied Stochastics
University of Bern

3:10 PM

Forecast Evaluation 1

3:10 PM - 4:10 PM, Jul 11
Room 6

Regular Submis…

Chair: David Rapach

3 Subsessions

- **Are Forecasters All Alike? Evidence from Three Decades of Growth Forecasts, 1990 to 2020**
  3:10 PM - 3:30 PM, Jul 11
  Room 6
- **A General Procedure for Localizing Strictly Proper Scoring Rules**
  3:30 PM - 3:50 PM, Jul 11
  Room 6
- **The Anatomy of Out-of-Sample Forecasting Accuracy**
  3:50 PM - 4:10 PM, Jul 11
  Room 6

F4SG: Forecasting in Healthcare 2

3:10 PM - 4:10 PM, Jul 11
Room 7

Regular Submis…

Chair: Mecit Can Emre Simsekler

3 Subsessions

- **Revisiting Forecasting for Emergency Department Staffing**
  3:10 PM - 3:30 PM, Jul 11
  Room 7
- **Probabilistic Forecasting of hourly Emergency Department arrivals**
  3:30 PM - 3:50 PM, Jul 11
  Room 7
- **Using Bayesian Network Model to Explore the Influencing Factors of Incident Reporting in Healthcare**
  3:50 PM - 4:10 PM, Jul 11
  Room 7

Hierarchical Forecasting 2

3:10 PM - 4:10 PM, Jul 11
Room 8

Regular Submis…

Chair: Ross Hollyman

3 Subsessions

● **The value of hierarchically aligned forecasts for staff scheduling**
3:10 PM - 3:30 PM, Jul 11
Room 8

● **An Importance Sampling algorithm for probabilistic reconciliation**
3:30 PM - 3:50 PM, Jul 11
Room 8

● **Hierarchies Everywhere - Bayesian Hierarchical Forecasting**
3:50 PM - 4:10 PM, Jul 11
Room 8

Supply Chain 1

3:10 PM - 4:10 PM, Jul 11
Room 9

Regular Submis…

Chair: Patrícia Ramos

3 Subsessions

● **Development of censored ExponenTial Smoothing models for lost-sales demand forecasting**
3:10 PM - 3:30 PM, Jul 11
Room 9

● **A data-driven stock control optimization framework**
3:30 PM - 3:50 PM, Jul 11
Room 9

● **Sales forecasting with machine learning methods using external information for the retail Supply Chain**
3:50 PM - 4:10 PM, Jul 11
Room 9

Finance 3

3:10 PM - 4:10 PM, Jul 11
Room 10

Regular Submis…

Chair: Markus Vogl

3 Subsessions

● **Macroeconomic Extrapolation, Machine Learning, and Equity Risk Premium Forecast**
3:10 PM - 3:30 PM, Jul 11
Room 10

● **Forecasting the volatility of U.S. oil and gas firms: beyond linearity and volatility factors**
3:30 PM - 3:50 PM, Jul 11
Room 10

● **Hurst Exponent Dynamics of S&P 500 Returns: Implications for Market Efficiency, Long Memory, Multifractality and Financial Crises Predictability by Application of a Generalized Nonlinear Dynamics Analysis Framework**
3:50 PM - 4:10 PM, Jul 11
Room 10

Econometrics 1

3:10 PM - 4:10 PM, Jul 11
Room 11

Regular Submis…

Chair: Bonsoo Koo

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2 Subsessions

● Monitoring daily unemployment at risk
3:10 PM - 3:30 PM, Jul 11
Room 11

● Forecasting with subset regularization
3:30 PM - 3:50 PM, Jul 11
Room 11

F4SG: Wastewater Epidemiology 2
3:10 PM - 4:10 PM, Jul 11
Room 14

Invited Sess…

Chair: Mami Taniuchi

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2 Subsessions

● TALK CANCELLED: Environmental surveillance as an early warning for outbreaks of infectious diseases
3:10 PM - 3:30 PM, Jul 11
Room 14

● Mapping the denominator: Predicting small area population distributions, demographics and dynamics for health applications
3:30 PM - 3:50 PM, Jul 11
Room 14

Machine Learning 2
3:10 PM - 4:10 PM, Jul 11
Room 15

Regular Submis…

Chair: Anne-Flore Elard

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2 Subsessions

● The benefit of clustering for cross-learning models on M5 data
3:10 PM - 3:30 PM, Jul 11
Room 15

● Machine Learning forecasts – confirmation bias or value add?
3:30 PM - 3:50 PM, Jul 11
Room 15

Explaining why the forecast didn't match reality
3:10 PM - 4:10 PM, Jul 11
SWS

Practitioner tr…

Authors: Trevor Sidery;

Chair: Chris Fry

Abstract: At Tesco we use automated systems to produce forecasts for operational planning, and a separate process to create insights on what affected last week’s sales. Part of this process requires us to understand what caused the errors in the forecast, which informs both improvements to the forecast process, and to flag business issues that need to be investigated. We present how these systems interact, and some of the issues we find in expecting them to align.

Speaker

Trevor Sidery
Lead Data Scientist
Tesco

Forecasting Practices and Processes 2

3:10 PM - 4:10 PM, Jul 11
EWS

Regular Submis…

Chair: Hussain Kazmi

3 Subsessions

Forecasting Italian GDP Growth with Epidemiological Data

3:10 PM - 3:30 PM, Jul 11
EWS

A two-step short-term demand forecasting algorithm based on generalized additive models

3:30 PM - 3:50 PM, Jul 11
EWS

Incorporating downstream, task-specific information in forecasting models

3:50 PM - 4:10 PM, Jul 11
EWS

SWEET Members Meeting

3:10 PM - 4:10 PM, Jul 11
Room 12

Invited Sess…

Chair: Richard Povinelli

Description: This is the Section on Water, Energy, and Environment (SWEET) members meeting, but everyone is invited even if you aren't a SWEET member. We will discuss the organization of the SWEET board and how to select the next SWEET board member. Also on the agenda are the proposed quarterly virtual meetings, pursuing a special edition journal on SWEET topics, developing starter datasets, and brainstorming other activities that SWEET could undertake.

4:10 PM

Coffee Break

4:10 PM - 4:30 PM, Jul 11
NWS

4:30 PM

Forecast Evaluation 2

4:30 PM - 5:30 PM, Jul 11
Room 6

Regular Submis…

Chair: Red Davies

3 Subsessions

● Assessing the Accuracy of Directional Forecasts
4:30 PM - 4:50 PM, Jul 11
Room 6

● "Three is not a crowd": A new test for Forecast Evaluation
4:50 PM - 5:10 PM, Jul 11
Room 6

● Evaluating Incident Forecasts in the Presence of Sparsity
5:10 PM - 5:30 PM, Jul 11
Room 6

Forecasting Applications 1
4:30 PM - 5:30 PM, Jul 11
Room 7

Regular Submis…

Chair: Lauren Davis

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3 Subsessions

● Forecasting tennis game outcomes: The predictive value of betting odds
4:30 PM - 4:50 PM, Jul 11
Room 7

● Classifying Pantry Food Offerings by Client Preferences
4:50 PM - 5:10 PM, Jul 11
Room 7

● Predicting and Optimizing the Fair Allocation of Donations in Humanitarian Supply Chains
5:10 PM - 5:30 PM, Jul 11
Room 7

Hierarchical Forecasting 3
4:30 PM - 5:30 PM, Jul 11
Room 8

Regular Submis…

Chair: Fernando Cyrino

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2 Subsessions

● Probabilistic reconciliation of count time series
4:30 PM - 4:50 PM, Jul 11
Room 8

● Improving hierarchical time series forecasting via resistant reconciliation
4:50 PM - 5:10 PM, Jul 11
Room 8

Supply Chain 2
4:30 PM - 5:30 PM, Jul 11
Room 9

Regular Submis…

Chair: Yves R. Sagaert

3 Subsessions

● Probabilistic Forecasting with modified N-BEATS networks
4:30 PM - 4:50 PM, Jul 11
Room 9

● Data-driven forecasting for a multi-level parcel distribution network
4:50 PM - 5:10 PM, Jul 11
Room 9

● Information sharing via hierarchical modelling for collaboration in a retail Supply Chain
5:10 PM - 5:30 PM, Jul 11
Room 9

ECR: Ten things I wish I'd known earlier in my career
4:30 PM - 5:30 PM, Jul 11
Room 10

Invited Sess…

Authors: Shari De Baets; Anna Sroginis; Sarah Van Der Auweraer; Niles Perera; Margarete Afonso de Sousa;

Chair: Shari De Baets

Speakers

Shari De Baets
ECR president
International Institute of Forecasting

Anna Sroginis
Centre for Marketing Analytics and Forecasting, Lancaster University

Sarah Van der Auweraer
Postdoctoral Researcher
University of Luxembourg

Niles Perera
Senior Lecturer
University of Moratuwa

Margarete Afonso de Sousa
PhD Student
PUC-Rio

Inflation Forecasting 3
4:30 PM - 5:30 PM, Jul 11
Room 11

Regular Submis…

Chair: Shovon Sengupta

3 Subsessions

Forecasting inflation with twitter
4:30 PM - 4:50 PM, Jul 11
Room 11

Political Polarization, Inflation's Perception and Inflation Expectations – Evidence form Poland
4:50 PM - 5:10 PM, Jul 11
Room 11

A Multi-decomposed Wavelet Neural Network for Long Term Forecasting of CPI Inflation for BRIC Countries under economic and geo-political uncertainties
5:10 PM - 5:30 PM, Jul 11
Room 11

SWEET: Solar

4:30 PM - 5:30 PM, Jul 11
Room 14

Regular Submis…

Chair: Margarete Afonso de Sousa

3 Subsessions

Making Energy Forecasting Resilient to Missing Features: a Robust Optimization Approach
4:30 PM - 4:50 PM, Jul 11
Room 14

Privacy-preserving solar forecasting using federated learning
4:50 PM - 5:10 PM, Jul 11
Room 14

An Exploratory Study of Solar Irradiance Reanalysis data available in Brazil for Scenarios Simulation
5:10 PM - 5:30 PM, Jul 11
Room 14

The M6 Competition

4:30 PM - 5:30 PM, Jul 11
Room 15

Invited Sess…

Chair: Evangelos Spiliotis

2 Subsessions

The M6 competition in progress
4:30 PM - 5:10 PM, Jul 11
Room 15

Predicting the M6 competiton with technical indicator Neural Network Ensembles
5:10 PM - 5:30 PM, Jul 11
Room 15

Best Practices for Running Global Time Series Models

4:30 PM - 5:30 PM, Jul 11
SWS

Practitioner tr…

Authors: Skander Hannachi;

Chair: Chris Fry

Abstract: Time series forecasting practitioners, especially in the retail and CPG demand planning space, are now increasingly adopting Global Forecasting Models as part of their modeling toolkit, both for the improved accuracy that they can provide, as well as for their ability to model forecasting use cases that have been challenging to model with established statistical/local forecasting models (LFM), such as cold-start and short lifecycle product forecasting problems, and in the case of Deep Learning based GFM, ingesting complex covariates that statistical methods can't process. The increased adoption of GFM for production forecasting is leading to new challenges and questions in how to manage these models in production, both from engineering and business process perspectives. These challenges stem mainly from two considerations: Established best practices for managing forecasting models at scale often implicitly assume that models are LFM. Current production demand planning pipelines, and the underlying data layers, and the business and semantic layers on top of them, aren't (usually) equipped to handle high cardinality complex covariate sets, especially when they include unstructured and multi-modal data. This is preventing many teams from leveraging the full capabilities of SOTA GFM models. Moreover, addressing these challenges is complicated by the fact that many of these best practices are accrued "tribal knowledge" that is carried within the practitioner community but rarely discussed or elaborated upon in academic texts or open source content. In this article, I will attempt to outline some of these best practices, and then point out why they mostly assume that the underlying forecasting models are local, and how

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Speaker

Skander Hannachi
AI/ML Cloud Architect
Google

Forecasting Practices and Processes 3

4:30 PM - 5:30 PM, Jul 11

EWS

Regular Submis…

Chair: Michele Trovero

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3 Subsessions

Bridging the gap between forecast and business value

4:30 PM - 4:50 PM, Jul 11

EWS

Trends in the Field of Forecasting (1982-2022)

4:50 PM - 5:10 PM, Jul 11

EWS

BYOL (Bring Your Own Language): The Case for the Tower of Babel

5:10 PM - 5:30 PM, Jul 11

EWS

5:30 PM

IIF Members meeting

5:30 PM - 6:30 PM, Jul 11

Room 7

Tue, Jul 12, 2022

9:00 AM

Forecasting for inventory control

9:00 AM - 10:00 AM, Jul 12

SWS

Plenary

Authors: Ruud Teunter ;

Chair: Aris Syntetos

Abstract: In practice and in most software implementations, forecasting and inventory control are done sequentially. Moreover, when analyzing inventory control decisions, uncertainty in forecasted parameters such as the mean demand per period are completely ignored. I will show that this can lead to far from optimal decisions and discuss the complexity of correcting this. Another mismatch is that forecasting is often per period (i.e., weekly demand), whereas decisions can be made at any time. Again, I will show that this can lead to suboptimal decisions and discuss corrections. In recent years, several authors have proposed data-driven approaches that integrate forecasting and inventory control and could potentially resolve the abovementioned issues. However, these are often based on asymptotic results, and I will show that they require more data than is typically available, and so I argue that more research is needed on handling data limitations. I will also discuss the potential benefits and drawbacks of using bootstrapping approaches from an inventory control perspective.

Speaker

Ruud Teunter
Professor
University of Groningen

10:10 AM

Probabilistic Forecasting

10:10 AM - 11:30 AM, Jul 12

Room 6

Regular Submis…

Chair: James Taylor

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4 Subsessions

Bias in the reporting of probabilistic expectations: evidence and implications

10:10 AM - 10:30 AM, Jul 12

Room 6

Extremal dependence modelling of global horizontal irradiance with temperature and humidity: An application using South African data

10:30 AM - 10:50 AM, Jul 12

Room 6

The coverage probability of forecast intervals in the presence of unpredictable and predictable spikes

10:50 AM - 11:10 AM, Jul 12

Room 6

Angular Combining of Forecasts of Probability Distributions

11:10 AM - 11:30 AM, Jul 12

Room 6

Detecting and Modelling Breaks and Outliers

10:10 AM - 11:10 AM, Jul 12

Room 7

Invited Sess…

Chair: Jennifer Castle

3 Subsessions

Detecting Crises, Jumps, and Changes in Regime with Saturation Techniques
10:10 AM - 10:30 AM, Jul 12
Room 7

What Does it Take to Control Global Temperatures? Prospective and Counterfactual Carbon Abatement Policies in a Cointegrated Vector Autoregressive Model
10:30 AM - 10:50 AM, Jul 12
Room 7

Discriminating direct from induced equilibrium mean shifts
10:50 AM - 11:10 AM, Jul 12
Room 7

F4SG: Privacy and Fairness in Forecasting

10:10 AM - 11:30 AM, Jul 12
Room 8

Invited Sess…

Chair: Matthew Schneider

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3 Subsessions

The Effects of Privacy Protection on Forecast Accuracy
10:10 AM - 10:30 AM, Jul 12
Room 8

Choosing Aggregation Levels for Forecasting and Fairness
10:30 AM - 10:50 AM, Jul 12
Room 8

Forecasting Criminal Justice Outcomes While Reducing Negative Consequences
10:50 AM - 11:10 AM, Jul 12
Room 8

Supply Chain 3

10:10 AM - 11:30 AM, Jul 12
Room 9

Regular Submis…

Chair: Sarah Van der Auweraer

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4 Subsessions

On the inventory performance of hierarchical forecasting approaches
10:10 AM - 10:30 AM, Jul 12
Room 9

Forecast of New Products in a Portuguese Brewery
10:30 AM - 10:50 AM, Jul 12
Room 9

Hierarchical forecasting for inventory planning
10:50 AM - 11:10 AM, Jul 12
Room 9

Inventory Control for Periodic Intermittent Demand
11:10 AM - 11:30 AM, Jul 12
Room 9

Financial Forecasting

10:10 AM - 11:30 AM, Jul 12
Room 10

Invited Sess…

Chair: Timo Dimitriadis

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4 Subsessions

- **Scores for Multivariate Distributions and Level Sets**
  10:10 AM - 10:30 AM, Jul 12
  Room 10
- **Bagged Value-at-Risk Forecast Combination**
  10:30 AM - 10:50 AM, Jul 12
  Room 10
- **Penalized quantile regression for time series data with heavy tails**
  10:50 AM - 11:10 AM, Jul 12
  Room 10
- **Dynamic Co-Quantile Regression**
  11:10 AM - 11:30 AM, Jul 12
  Room 10

Advances in Macroeconomic Forecasting and Macroeconometrics

10:10 AM - 11:30 AM, Jul 12

Room 11

Invited Sess…

Chair: Gergely Ganics

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4 Subsessions

- **Confidence bands for the PIT histogram**
  10:10 AM - 10:30 AM, Jul 12
  Room 11
- **Reordering variables in VARs with stochastic volatility: implications for forecasting and structural analysis**
  10:30 AM - 10:50 AM, Jul 12
  Room 11
- **Robust Inference in Structural VAR Models Identified by Non-Gaussianity**
  10:50 AM - 11:10 AM, Jul 12
  Room 11
- **Constructing the Term Structure of Uncertainty from the Ragged Edge of SPF Forecasts**
  11:10 AM - 11:30 AM, Jul 12
  Room 11

SWEET: Gas and Electricity Demand

10:10 AM - 11:30 AM, Jul 12

Room 14

Regular Submis…

Chair: Eduardo Caro

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3 Subsessions

- **Generating synthetic load profiles of buildings from metadata**
  10:10 AM - 10:30 AM, Jul 12
  Room 14
- **Iterative Load Shifting Disaggregation Algorithm**
  10:30 AM - 10:50 AM, Jul 12
  Room 14
- **Electricity Demand Forecasting: Modelling the COVID-19 Lockdown in Spain**
  10:50 AM - 11:10 AM, Jul 12
  Room 14

Neural Networks 2

10:10 AM - 11:30 AM, Jul 12
Room 15

Regular Submis…

Chair: Slawek Smyl

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4 Subsessions

● Credit Image: A method to convert data for credit scoring to images for convolutional Neural Networks
10:10 AM - 11:30 AM, Jul 12
Room 15

● A verifiable estimation and parametric inference of nonlinear equations using neural networks
10:30 AM - 10:50 AM, Jul 12
Room 15

● Forchestra: Towards a Scalable and Flexible Time Series Prediction Framework for Demand Forecasting
10:50 AM - 11:10 AM, Jul 12
Room 15

● Multilevel Lifetime Value Forecast for VR Users at Meta
11:10 AM - 11:30 AM, Jul 12
Room 15

In the spirit of Box: Useful models need more information to deliver business value
10:10 AM - 11:30 AM, Jul 12
SWS

Practitioner tr…

Authors: Polly Mitchell-Guthrie;

Chair: Chris Fry

Abstract: If supply chains had perfect information, perfect forecasts would allow us to make exactly the right amount to balance demand and supply. But forecasts are not perfect predictions of the future, and never will be. George Box was right when he said “All models are wrong but some are useful," so what does it take to make a forecasting model useful? Forecasts should be inputs into business decisions, along with other information. "Wrong" has less to do with the models themselves than what we do with them. Rather than making models easy targets for blame, using forecasts as models that can mathematically represent a situation close enough to reality can turn them into helpful allies. But because research shows humans are far more forgiving of our fellow humans than we are of algorithms, models alone are not enough. As the uncertainty underlying forecast variability grows, we need better forecasting more than ever to improve business decision-making. But to get more out of our better forecasts we also need more robust information in many forms and aligned across an organization. "Wrong" forecasts are rarely about the math and more often about information failures before and after the model is built. This talk will explain how intelligent agility can mitigate these tradeoffs, even in the face of the tremendous disruptions we've seen.

Speaker

Polly Mitchell-Guthrie
VP, Industry Outreach & Thought
Kinaxis

THS: Tourism and Hospitality 2
10:10 AM - 11:30 AM, Jul 12
EWS

Invited Sess…

Chair: Doris Chenguang Wu

4 Subsessions

Forecasting the tourism demand cycle: A Markov-VAR approach
10:10 AM - 10:30 AM, Jul 12
EWS

Investigation of substitution effects and adoption patterns across Swiss hotel distribution channels - A multigeneration perspective
10:30 AM - 10:50 AM, Jul 12
EWS

Time Series Forecasting in the Field of Property Management in Tourism Regions
10:50 AM - 11:10 AM, Jul 12
EWS

Can Fashion Forecast Tourism?
11:10 AM - 11:30 AM, Jul 12
EWS

11:30 AM

Coffee Break
11:30 AM - 12:00 PM, Jul 12
NWS

12:00 PM

Forecast Evaluation 3
12:00 PM - 1:00 PM, Jul 12
Room 6

Regular Submis...

Chair: Alexander Jordan

3 Subsessions

Density forecast comparison in small samples
12:00 PM - 12:20 PM, Jul 12
Room 6

Forecasting Colombian inflation in real time
12:20 PM - 12:40 PM, Jul 12
Room 6

Evaluating Probabilistic Classifiers: The Triptych
12:40 PM - 1:00 PM, Jul 12
Room 6

Forecasting Applications 2
12:00 PM - 1:00 PM, Jul 12
Room 7

Regular Submis...

Chair: Massimo Guidolin

3 Subsessions

- **A methodology for identifying new U.S. non-stop flying routes using algorithms from Machine Learning**
  12:00 PM - 12:20 PM, Jul 12
  Room 7
- **Forecasting Appeals in Polish Corporate Income Tax Cases Involving Bilateral Tax Agreement**
  12:20 PM - 12:40 PM, Jul 12
  Room 7
- **Forecasting Realized Equity Volatility From Text Sentiment Revealed by Company Filings**
  12:40 PM - 1:00 PM, Jul 12
  Room 7

State Space Models 1

12:00 PM - 1:00 PM, Jul 12
Room 8

Regular Submis…

Chair: Giacomo Sbrana

3 Subsessions

- **Shrinkage Estimator for Exponential Smoothing Models**
  12:00 PM - 12:20 PM, Jul 12
  Room 8
- **Global Output Factor and Predictability of Commodity Prices**
  12:20 PM - 12:40 PM, Jul 12
  Room 8
- **Markov intermittent demand**
  12:40 PM - 1:00 PM, Jul 12
  Room 8

Retail Demand Forecasting 2

12:00 PM - 1:00 PM, Jul 12
Room 9

Invited Sess…

Chair: Anna-Lena Sachs

3 Subsessions

- **The Australian retail sector through the COVID-19 pandemic**
  12:00 PM - 12:20 PM, Jul 12
  Room 9
- **Demand forecasting for pricing in fashion retail – an overview**
  12:20 PM - 12:40 PM, Jul 12
  Room 9
- **Retail analytics – Integrated forecasting and inventory management for perishable products**
  12:40 PM - 1:00 PM, Jul 12
  Room 9

Finance 4

12:00 PM - 1:00 PM, Jul 12
Room 10

Regular Submis…

Chair: Michał Rubaszek

3 Subsessions

An integrated-signal approach to selective hedging
12:00 PM - 12:20 PM, Jul 12
Room 10

Modelling and adaptive forecasting of trends in temperature distributional characteristics under structural change
12:20 PM - 12:40 PM, Jul 12
Room 10

Are consensus FX forecasts valuable for investors?
12:40 PM - 1:00 PM, Jul 12
Room 10

MacroFor 1

12:00 PM - 12:40 PM, Jul 12
Room 11

Regular Submis...

Chair: Christopher Gilbert

2 Subsessions

Modelling Okun's Law – Does non-Gaussianity Matter?
12:00 PM - 12:20 PM, Jul 12
Room 11

Does forecast optimism affect outcomes? A re-examination of Beaudry-Willems
12:20 PM - 12:40 PM, Jul 12
Room 11

SWEET: Peak Electricity Demand

12:00 PM - 1:00 PM, Jul 12
Room 14

Regular Submis...

Chair: Abhishek Sharma

3 Subsessions

High-Resolution Peak Demand Estimation Using Generalized Additive Models and Deep Neural Networks
12:00 PM - 12:20 PM, Jul 12
Room 14

Peak electric load days forecast performance improvement by combining base models predictions using machine learning based ensemble methods
12:20 PM - 12:40 PM, Jul 12
Room 14

A Hybrid Weighted LSTM-NBEATS-RBFNN Method for Day-ahead Peak Load Forecasting
12:40 PM - 1:00 PM, Jul 12
Room 14

Machine Learning 3

12:00 PM - 1:00 PM, Jul 12
Room 15

Regular Submis...

Chair: Hamin Oh

3 Subsessions

● How concepts like Feature Evolution, Automatic Machine Learning and ML Ops are rapidly advancing AI applications for electrical grid operators, utilities and energy suppliers.

12:00 PM - 12:20 PM, Jul 12
Room 15

● A Machine Learning based Approach to Forecast Hierarchical Time Series using Non-linear Mappings

12:20 PM - 12:40 PM, Jul 12
Room 15

● Machine Learning based Financial Forecasting and Planning

12:40 PM - 1:00 PM, Jul 12
Room 15

Man versus Machine: Enemy or Ally

12:00 PM - 1:00 PM, Jul 12
SWS

Practitioner tr…

Authors: Shari De Baets;

Chair: Mike Gilliland

Abstract: “Love and Marriage, go together like a horse and carriage. This I tell ya brother, you can't have one without the other..”. Can we say the same about judgment and statistics? It seems that in practice, this seems to be the case. Nearly three quarters of businesses report the use of judgment in forecasting, by itself (a minority) or in combination with a statistical forecast. The other quarter, indicating the sole use of statistical methods, should be taken with a grain of salt. After all, judgment can intervene at many phases of the forecasting process: cleaning the data, defining parameters, selecting criteria and selecting the statistical method, to name but a few. Whether this co-existence of judgment and statistics in business practice is a good thing or not, is a long-standing question within the forecasting community. The views on the value of judgment in forecasting swing from pessimism to optimism and back. Let us be honest: biases are unavoidable when we talk about human cognition. We are overoptimistic, we see patterns where there are none, we anchor on the last data point in a series, and we fiddle around with a forecast and make small unnecessary, but damaging, changes to a forecast. To add insult to injury, we are (over)confident while we are doing so. Should we abandon judgment all together and turn to the ever more sophisticated statistical approaches? After all, models, unlike humans, are logical and systematic in their processing of information. They can handle much larger amounts of data than a human can dream of. They are consistent, less errorprone, and reliable. Yet, however central forecasting software has become in organizational life, systems are not perfect. Statistical models perform well in a stable environment, with plenty of data, and a continuous trend. Unfortunately, that is not how the world works. We live in a world of uncertainty and noise, of missing data and changing trends. Could it be that the ideal forecast is a combination of both, or should we find ways to minimize the role of judgment? Is judgment the enemy of forecasting accuracy, or can judgment and statistics be allies in reaching new heights in forecasting practice.

Speaker

Shari De Baets
ECR president
International Institute of Forecasting

Forecasting Practices and Processes 4

12:00 PM - 1:00 PM, Jul 12
EWS

Regular Submis…

Chair: André Hoogstrate

3 Subsessions

● Reconciliation of low frequency quantile forecasts
12:00 PM - 12:20 PM, Jul 12
EWS

● TALK CANCELLED: Forecasting at Scale: A global transformation by a consumer product company and Bain & Company
12:20 PM - 12:40 PM, Jul 12
EWS

● The effect of Big Data and Artificial Intelligence on Forecasting in Defence and Military Applications
12:40 PM - 1:00 PM, Jul 12
EWS

1:00 PM

Lunch
1:00 PM - 2:00 PM, Jul 12
NWS

2:00 PM

Using Fuzzy Sets to deal with Uncertainty and Imprecision
2:00 PM - 3:00 PM, Jul 12
SWS

Practitioner tr…

Authors: Steve Morlidge;

Chair: Len Tashman

Abstract: One of persistent themes in forecasting research are the use of judgement in forecasting and the generation and application of ranges, in addition to or in place of single point forecasts. These two issues are closely related, because judgement is typically used in circumstances of high uncertainty, when evidence is scarce and ambiguous and where precision is impossible. It is easy to generate a range, judgementally. The challenge is to devise a methodology to use this information once captured in a rigorous and standardised way so that robust inferences can be made, so aiding decision making. The concepts of fuzzy sets have been around for over half a century, but their application has been confined to abstruse problems in control engineering (where is has had a profound effect) and on the margins of Operational Research. This talk explains how fuzzy sets can be used in this context, as a means of capturing the unavoidable nuances and uncertainty attached to judgements and manipulating them to inform decision making. Specifically, I will explain how fuzzy sets differ from probability distributions, thereby simplifying their application.

Speaker

Steve Morlidge
Director
Satori Partners Ltd

Forecast Evaluation 4
2:00 PM - 3:00 PM, Jul 12
Room 6

Regular Submis…

Chair: Keith Ord

3 Subsessions

- **Honest calibration assessment for binary outcome predictions**
  2:00 PM - 2:20 PM, Jul 12
  Room 6
- **Testing for equal predictive accuracy with strong dependence**
  2:20 PM - 2:40 PM, Jul 12
  Room 6
- **Machine Learning Methods are Better – But When?**
  2:40 PM - 3:00 PM, Jul 12
  Room 6

Forecasting Applications 3

2:00 PM - 3:00 PM, Jul 12

Room 7

Regular Submis…

Chair: Nicolò Bertani

3 Subsessions

- **Using big data analytics to forecast governance performance**
  2:00 PM - 2:20 PM, Jul 12
  Room 7
- **Monthly active user forecasting and its positive externalities at Frontify**
  2:20 PM - 2:40 PM, Jul 12
  Room 7
- **Spatiotemporal Modeling with General and Geographical Covariates: Insights on Crime in Philadelphia**
  2:40 PM - 3:00 PM, Jul 12
  Room 7

State Space Models 2

2:00 PM - 3:00 PM, Jul 12

Room 8

Regular Submis…

Chair: Huijing Chen

3 Subsessions

- **A novel approach to the identification and estimation of outliers and structural changes in unobserved component models**
  2:00 PM - 2:20 PM, Jul 12
  Room 8
- **Connecting the dots: how to make ETS work with ARIMA**
  2:20 PM - 2:40 PM, Jul 12
  Room 8
- **Commonality in time series: PIC (parameters, initial states and components) and its application to vector exponential smoothing**
  2:40 PM - 3:00 PM, Jul 12
  Room 8

Retail Demand Forecasting 3

2:00 PM - 3:00 PM, Jul 12

Room 9

Invited Sess…

Chair: Michał Kurcewicz

3 Subsessions

Using Internet-of-Things Point-of-Consumption Data for Smart Replenishment
2:00 PM - 2:20 PM, Jul 12
Room 9

Predictably unpredictable: How judgmental and machine learning forecasts complement each other
2:20 PM - 2:40 PM, Jul 12
Room 9

Promotional Forecasting using Machine Learning
2:40 PM - 3:00 PM, Jul 12
Room 9

Connectedness and Spillover Analysis 1

2:00 PM - 3:00 PM, Jul 12
Room 10

Invited Sess…

Chair: Claudio Antonini

3 Subsessions

The equity markets of the BRICS and the world: raw material suppliers vs manufacturing economies
2:00 PM - 2:20 PM, Jul 12
Room 10

Forecasting the Swiss Market Index using market entropy
2:20 PM - 2:40 PM, Jul 12
Room 10

Spillovers among Energy Commodities and the Russian Stock Market
2:40 PM - 3:00 PM, Jul 12
Room 10

MacroFor 2

2:00 PM - 3:00 PM, Jul 12
Room 11

Regular Submis…

Chair: Alessandro Giovannelli

3 Subsessions

Asymmetric New Keynesian Phillips Curve for Mexico, 2005Q1-2021Q4
2:00 PM - 2:20 PM, Jul 12
Room 11

Getting the ROC into Sync
2:20 PM - 2:40 PM, Jul 12
Room 11

Band-Pass Filtering with High-Dimensional Time Series
2:40 PM - 3:00 PM, Jul 12
Room 11

SWEET: Wind

2:00 PM - 3:00 PM, Jul 12
Room 14

Regular Submis…

Chair: Pierre Pinson

3 Subsessions

● **Characterizing the temporal dependence structure between wind speed variables and wind energy generation via Copula Theory**
2:00 PM - 2:20 PM, Jul 12
Room 14

● **An AI/ML/Statistical Framework for Improving Numerical Weather Prediction (NWP) and Renewable Energy Production Forecasting**
2:20 PM - 2:40 PM, Jul 12
Room 14

● **A wagering mechanism for prediction markets**
2:40 PM - 3:00 PM, Jul 12
Room 14

Machine Learning 4
2:00 PM - 3:00 PM, Jul 12
Room 15

Regular Submis…

Chair: Pablo Montero-Manso

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3 Subsessions

● **Vector Quantized Autoregressive Probabilistic Time Series Forecasting**
2:00 PM - 2:20 PM, Jul 12
Room 15

● **When MIDAS Meets LASSO: Forecasting Tail Risk Using Effective Macroeconomic Variables**
2:20 PM - 2:40 PM, Jul 12
Room 15

● **Improving the forecasting accuracy of global models / cross-learning in large datasets by finding clusters of similar time series**
2:40 PM - 3:00 PM, Jul 12
Room 15

Forecasting Practices and Processes 5
2:00 PM - 3:00 PM, Jul 12
EWS

Regular Submis…

Chair: Michael Gilliland

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3 Subsessions

● **Forecasting 'Accuracy' vs 'Explainability' – Experience from Demand Forecasting in Supply Chain**
2:00 PM - 2:20 PM, Jul 12
EWS

● **Superforecasting Revisited: The Human Forest Effect Dominates Differences in Predictive Skill and Expertise**
2:20 PM - 2:40 PM, Jul 12
EWS

● **20 Years of FVA: A Critical Retrospective**
2:40 PM - 3:00 PM, Jul 12
EWS

3:10 PM

Forecast Evaluation 5
3:10 PM - 4:10 PM, Jul 12
Room 6

Regular Submis…

Chair: Stephen Snudden

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3 Subsessions

- **Alternative Measures to Evaluate Density Forecasting**
  3:10 PM - 3:30 PM, Jul 12
  Room 6
- **Forecasts and Order Decisions: Reactions to Demand Variability**
  3:30 PM - 3:50 PM, Jul 12
  Room 6
- **Predictability of Temporally Aggregated Real Series**
  3:50 PM - 4:10 PM, Jul 12
  Room 6

Judgemental 1

3:10 PM - 4:10 PM, Jul 12
Room 7

Regular Submis...

Chair: Anna Sroginis

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3 Subsessions

- **Evaluating Forecasters in Real-Time by Finding Individuals who are as Wise as the Crowd**
  3:10 PM - 3:30 PM, Jul 12
  Room 7
- **Factors affecting consumers' inflation expectations: Purchase frequency and method of elicitation**
  3:30 PM - 3:50 PM, Jul 12
  Room 7
- **A recommender system for forecast adjustments**
  3:50 PM - 4:10 PM, Jul 12
  Room 7

Combinations 1

3:10 PM - 4:10 PM, Jul 12
Room 8

Regular Submis...

Chair: Malvina Marchese

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2 Subsessions

- **Copula-based combination of point prediction systems to calibrated probabilistic forecasts**
  3:10 PM - 3:30 PM, Jul 12
  Room 8
- **A mixed-frequency combination approach to forecast covariance matrices of asset returns**
  3:30 PM - 3:50 PM, Jul 12
  Room 8

Time Series Models 1

3:10 PM - 4:10 PM, Jul 12
Room 9

Regular Submis...

Chair: Nicos Pavlidis

3 Subsessions

On Volatility Impact of Russian Invasion War on the Crude Oil Market
3:10 PM - 3:30 PM, Jul 12
Room 9

Volatility Forecast and Risk Measure Calculation for Modified Asymmetric GARCH Model with Markov Switching
3:30 PM - 3:50 PM, Jul 12
Room 9

Adaptive commodity price models for Inflation Forecasting
3:50 PM - 4:10 PM, Jul 12
Room 9

Connectedness and Spillover Analysis 2
3:10 PM - 4:10 PM, Jul 12
Room 10

Invited Sess…

Chair: Claudio Antonini

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2 Subsessions

Persistence in Economic Networks
3:10 PM - 3:30 PM, Jul 12
Room 10

Forecasting Economic Supply Chain Risk Capital
3:30 PM - 3:50 PM, Jul 12
Room 10

MacroFor 3
3:10 PM - 4:10 PM, Jul 12
Room 11

Regular Submis…

Chair: Edward Raupp

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3 Subsessions

Assessing GDP forecasts from autoregressive models: the impact of model complexity and training dataset
3:10 PM - 3:30 PM, Jul 12
Room 11

Benchmarking Historical Consistent Neural Networks
3:30 PM - 3:50 PM, Jul 12
Room 11

An Approach to Forecasting Good Growth: Georgia in the Crosshairs
3:50 PM - 4:10 PM, Jul 12
Room 11

SWEET: Electricity Price
3:10 PM - 4:10 PM, Jul 12
Room 14

Regular Submis…

Chair: Rafał Weron

3 Subsessions

● Calibration window selection based on change-point detection for forecasting electricity prices
3:10 PM - 3:30 PM, Jul 12
Room 14

● Smoothing Quantile Regression Averaging for probabilistic electricity price forecasting
3:30 PM - 3:50 PM, Jul 12
Room 14

● Electricity Price Forecasting: Main trends and models as of 2022
3:50 PM - 4:10 PM, Jul 12
Room 14

Neural Networks 3
3:10 PM - 4:10 PM, Jul 12
Room 15

Regular Submis…

Chair: Sven F. Crone

3 Subsessions

● Multi-horizon wind power forecasting using multi-modal spatiotemporal Neural Networks
3:10 PM - 3:30 PM, Jul 12
Room 15

● Learning the Distribution of Economic Variables
3:30 PM - 3:50 PM, Jul 12
Room 15

● Weight Initialization for Neural Network diversity - an empirical evaluation
3:50 PM - 4:10 PM, Jul 12
Room 15

Collaborative Forecasting during COVID-19: Lessons Learned from Budget Forecasting in Washington State
3:10 PM - 4:10 PM, Jul 12
SWS

Practitioner tr…

Authors: Elaine Deschamps;

Chair: Len Tashman

Abstract: In state budget forecasting, the COVID-19 pandemic tested the limits of traditional statistical models and heightened the importance of judgmental input, intuition, domain knowledge, and collaboration in the forecasting process. The Washington State Caseload Forecast Council (CFC) is a state agency responsible for producing nonpartisan, transparent, and official forecasts that directly drive the baseline for the state operating budget. We forecast caseloads in areas such as public schools, higher education, health care, the prison system, public assistance, and long term care. The CFC utilizes a technical workgroup process in each program area, bringing together budget and forecast analysts, program experts, and other stakeholders to review model assumptions and utilize domain knowledge towards the goal of a consensus forecast. We share our lessons learned in collaborative forecasting during these challenging times.

Speaker

Elaine Deschamps
Executive Director
Caseload Forecast Council

Forecasting Practices and Processes 6

3:10 PM - 4:10 PM, Jul 12
EWS
Regular Submis…

Chair: Konstantinos Nikolopoulos

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3 Subsessions

How to be a Forecasting Superhero!
3:10 PM - 3:30 PM, Jul 12
EWS

Fathoming Forecasting practices in the Pharmaceutical Sector
3:30 PM - 3:50 PM, Jul 12
EWS

TALK CANCELLED - Beyond forecast accuracy - The coordinative value of forecasting practice in a demand planning process
3:50 PM - 4:10 PM, Jul 12
EWS

4:10 PM

IIF UK Chapter news and networking
4:10 PM - 4:30 PM, Jul 12
Room 8

Invited Sess…

Chair: Devon Barrow; Ivan Svetunkov; Jethro Browell

Agenda:

1. Welcome to the UK Chapter;
2. Presentation of new committee;
3. Future plans;
4. Social.

About IIF UK Chapter: The UK Chapter of the International Institute of Forecasters was established two years ago. The main activity of this Chapter has been organising the "Quarterly Forecasting Forum" series of workshops, though its scope is broadly to support forecasters in the UK, and we would like to do more now that COVID restrictions are easing. Recent QFFs have been hosted by Tesco and the universities of Glasgow and Cardiff. If you'd like to get involved, come along, and meet us at ISF, contact us via email, or join our mailing list using this link, or join our LinkedIn group: https://www.linkedin.com/groups/8839904/.

6:00 PM

Gala event
6:00 PM - 11:00 PM, Jul 12
Town Hall

Chair: John Boylan, Ivan Svetunkov

The plan of the event:

1. Welcome;
2. Dinner;
3. Open Mic with performance of several tallented forecasters;
4. British Invasion Disco.

The place on Google Maps: https://g.page/OxfordTownHall.

Wed, Jul 13, 2022

9:00 AM

How to handle the COVID-19 pandemic period in macroeconomic forecasting models?
9:00 AM - 10:00 AM, Jul 13
SWS

Plenary

Authors: Massimiliano Marcellino;

Chair: Esther Ruiz

Abstract: The COVID-19 pandemic has led to enormous movements in economic data that strongly affect parameter estimates and influence forecasts obtained from standard macroeconomic forecasting models. In this talk we will discuss various possible approaches to address this issue and produce more reliable forecasts.

Speaker

Massimiliano Marcellino
Professor
Bocconi University

10:10 AM

Time Series Models 2

10:10 AM - 11:30 AM, Jul 13
Room 6

Regular Submis...

Chair: Nabil Kahouadji

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4 Subsessions

Time Series Forecasting on Coronavirus Data in Turkey using Combination of Machine Learning Algorithms and ATA Method
10:10 AM - 10:30 AM, Jul 13
Room 6

Nonlinear smooth transition regression models in electricity price forecasting
10:30 AM - 10:50 AM, Jul 13
Room 6

Impact of decomposition on time series bagging forecasting performance
10:50 AM - 11:10 AM, Jul 13
Room 6

New 2-parameter families of advanced forecasting functions: non-seasonal and seasonal models, and comparison to ARIMA and exponential smoothing models
11:10 AM - 11:30 AM, Jul 13
Room 6

Judgemental 2

10:10 AM - 11:30 AM, Jul 13
Room 7

Regular Submis...

Chair: Fergus Bolger

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4 Subsessions

Perspectives on Diversity in Forecast Aggregation and the Wisdom of Crowds
10:10 AM - 10:30 AM, Jul 13
Room 7

Effects of multiple adjustments in Supply Chain forecasting on forecast accuracy
10:30 AM - 10:50 AM, Jul 13
Room 7

Newsvendor Problems: Naive Judgemental Adjustments Can Help
10:50 AM - 11:10 AM, Jul 13
Room 7

The aggregation of expert judgment for forecasting uncertain quantities
11:10 AM - 11:30 AM, Jul 13
Room 7

Model Selection

10:10 AM - 11:30 AM, Jul 13

Room 8

Regular Submis…

Chair: Fotios Petropoulos

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4 Subsessions

Analysis and Forecast of the Global Maize Price: A Comprehensive Integration of Machine Learning and Econometric Approaches

10:10 AM - 10:30 AM, Jul 13

Room 8

On the use of mean square error and directional forecast accuracy for model selection: A Monte Carlo investigation

10:30 AM - 10:50 AM, Jul 13

Room 8

On the importance of model selection methods in time series forecasting

10:50 AM - 11:10 AM, Jul 13

Room 8

Forecast selection and representativeness

11:10 AM - 11:30 AM, Jul 13

Room 8

Retail Demand Forecasting 4

10:10 AM - 11:30 AM, Jul 13

Room 9

Invited Sess…

Chair: Arnoud Wellens

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4 Subsessions

When is the Next Order? Forecasting the Timing of Retail Orders Using Point-of-Sales Data and Channel Inventory Estimations

10:10 AM - 10:30 AM, Jul 13

Room 9

Learning customer and context specific response to price and availability for dynamic pricing and forecasting in attended home delivery

10:30 AM - 10:50 AM, Jul 13

Room 9

The evolving methodology of Tesco's mid-pandemic forecasting

10:50 AM - 11:10 AM, Jul 13

Room 9

Is Large-Scale Demand Forecasting with Machine Learning ready to be Democratized? - Evidence in the Retail Industry

11:10 AM - 11:30 AM, Jul 13

Room 9

Forecasting with Option-Implied Volatility and Network Dynamic Modelling

10:10 AM - 11:30 AM, Jul 13

Room 10

Invited Sess…

Chair: Massimo Guidolin

4 Subsessions

- **Dynamic industry uncertainty networks and the business cycle**
  10:10 AM - 10:30 AM, Jul 13
  Room 10
- **Option-Implied Network Measures of Tail Contagion and Stock Return Predictability**
  10:30 AM - 10:50 AM, Jul 13
  Room 10
- **Exploiting High-Frequency Option Prices for Modelling and Forecasting Volatility and Equity returns**
  10:50 AM - 11:10 AM, Jul 13
  Room 10
- **Currency Network Risk**
  11:10 AM - 11:30 AM, Jul 13
  Room 10

Recent advances in Global Forecasting Models

10:10 AM - 11:30 AM, Jul 13

Room 11

Invited Sess…

Chair: Christoph Bergmeir

4 Subsessions

- **A fast and scalable ensemble of global models with long memory and data partitioning for the M5 forecasting competition**
  10:10 AM - 10:30 AM, Jul 13
  Room 11
- **Probabilistic Causal Effect Estimation with Global Neural Network Forecasting Models**
  10:30 AM - 10:50 AM, Jul 13
  Room 11
- **NeuralProphet applied to hierarchical forecasting of energy: Aggregate compared to pooled and individual models**
  10:50 AM - 11:10 AM, Jul 13
  Room 11
- **SETAR-Tree: A Novel and Accurate Tree Algorithm for Global Time Series Forecasting**
  11:10 AM - 11:30 AM, Jul 13
  Room 11

SWEET: Energy

10:10 AM - 11:30 AM, Jul 13

Room 14

Regular Submis…

Chair: Jean-François Toubeau

4 Subsessions

● A forecasting framework for strategic electricity demand forecasting in a dynamic environment
10:10 AM - 10:30 AM, Jul 13
Room 14

● The Value of Probabilistic Forecasts for Bidding and Scheduling in Energy Markets
10:30 AM - 10:50 AM, Jul 13
Room 14

● The Short-term Electricity Consumption Forecast Competition Under COVID-19 Lockdown Conditions
10:50 AM - 11:10 AM, Jul 13
Room 14

● Privacy-Preserving Renewable Energy Probabilistic Forecasting using Differentially Private Federated Learning
11:10 AM - 11:30 AM, Jul 13
Room 14

Machine Learning 5

10:10 AM - 11:30 AM, Jul 13
Room 15

Regular Submis...

Chair: Nikolaos Kourentzes

4 Subsessions

● End-to-End Learning of Coherent Probabilistic Forecasts for Hierarchical Time Series
10:10 AM - 10:30 AM, Jul 13
Room 15

● Forecasting student exam results based on online activity and self-reported self-regulation: A partially interpretable machine learning approach
10:30 AM - 10:50 AM, Jul 13
Room 15

● Probabilistic Time Series Forecasting with Implicit Quantile Networks
10:50 AM - 11:10 AM, Jul 13
Room 15

● Temporal Hierarchies in the context of AI
11:10 AM - 11:30 AM, Jul 13
Room 15

Multivariate Times Series Models

10:10 AM - 11:30 AM, Jul 13
SWS

Regular Submis...

Chair: Juhee Bae

4 Subsessions

- **Benchmarking Big Data with mixed-frequency multivariate Time Series Models**
  10:10 AM - 10:30 AM, Jul 13
  SWS
- **Hierarchical Regularizers for Mixed-Frequency Vector Autoregressions**
  10:30 AM - 10:50 AM, Jul 13
  SWS
- **The forecasting performance of the factor model with martingale difference errors: A comparative study**
  10:50 AM - 11:10 AM, Jul 13
  SWS
- **Predicting off-centered steel strips using deep learning**
  11:10 AM - 11:30 AM, Jul 13
  SWS

Forecasting Research at Google

10:10 AM - 11:30 AM, Jul 13

EWS

Invited Sess…

Chair: Casey Lichtendahl

4 Subsessions

- **Interpretable Mixture of Experts for Structured Data**
  10:10 AM - 10:30 AM, Jul 13
  EWS
- **Training an ML model to make outlier adjustments and forecasts simultaneously**
  10:30 AM - 10:50 AM, Jul 13
  EWS
- **Capacity Planning for a Persistent Service with Growing and Volatile Demand**
  10:50 AM - 11:10 AM, Jul 13
  EWS
- **Making and Evaluating Forecasts for Type-2 Service Level Objectives**
  11:10 AM - 11:30 AM, Jul 13
  EWS

11:30 AM

Coffee Break

11:30 AM - 12:00 PM, Jul 13

NWS

12:00 PM

Time Series Models 3

12:00 PM - 1:00 PM, Jul 13

Room 6

Regular Submis…

Chair: Ioannis Papageorgiou

3 Subsessions

Forecasting time series of probability density functions
12:00 PM - 12:20 PM, Jul 13
Room 6

LASSO Principal Component Averaging -- a fully automated approach for point forecast pooling
12:20 PM - 12:40 PM, Jul 13
Room 6

Bayesian autoregressive mixture models based on context trees
12:40 PM - 1:00 PM, Jul 13
Room 6

Judgemental 3
12:00 PM - 1:00 PM, Jul 13
Room 7

Regular Submis…

Chair: Brian Thompson-Collart

1 Subsessions

Wisdom of the Crowd vs. Wisdom of the Few: Citizen Forecasting in Quebec, Canada
12:00 PM - 12:20 PM, Jul 13
Room 7

Combinations 2
12:00 PM - 1:00 PM, Jul 13
Room 8

Regular Submis…

Chair: Anastasios Panagiotelis

3 Subsessions

Forecasting for lead-time period by temporal aggregation: Whether to combine and how
12:00 PM - 12:20 PM, Jul 13
Room 8

The Impact of Sampling Variability on Estimated Combinations of Distributional Forecasts
12:20 PM - 12:40 PM, Jul 13
Room 8

Model combinations through revised base rates
12:40 PM - 1:00 PM, Jul 13
Room 8

Retail Demand Forecasting 5
12:00 PM - 1:00 PM, Jul 13
Room 9

Invited Sess…

Chair: Robert Fildes

2 Subsessions

● A score-driven model of short-term demand forecasting for retail distribution centers
12:00 PM - 12:20 PM, Jul 13
Room 9

● Panel: What's new in Retail Demand Forecasting?
12:20 PM - 1:00 PM, Jul 13
Room 9

ECR: Job interview panel
12:00 PM - 1:00 PM, Jul 13
Room 10

Invited Sess…

Authors: James Taylor;Pilar Poncela;Lauren Davis;Rob Hyndman;Shari De Baets;Sarah Van Der Auweraer;Anna Sroginis;Niles Perera; Margarete Afonso de Sousa

Chair: Anna Sroginis

Speakers

James Taylor
Professor of Decision Science
University of Oxford

Pilar Poncela
Professor of Econometrics
Universidad Autónoma de Madrid

Lauren Davis
Professor - Industrial & Systems Engineering - North Carolina A&T State University

Rob Hyndman
Professor of Statistics
Monash University

Shari De Baets
ECR president
International Institute of Forecasting

Sarah Van der Auweraer
Postdoctoral Researcher
University of Luxembourg

Anna Sroginis
Centre for Marketing Analytics and Forecasting, Lancaster University

Niles Perera
Senior Lecturer
University of Moratuwa

Margarete Afonso de Sousa
PhD Student
PUC-Rio

Econometrics 2
12:00 PM - 1:00 PM, Jul 13
Room 11

Regular Submis…

Chair: Philip Hans Franses

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2 Subsessions

● Equity Risk Premium Prediction: The Role of Technical Trading with Mixed Frequency Models
12:00 PM - 12:20 PM, Jul 13
Room 11

● An introduction to time-varying lag autoregression
12:20 PM - 12:40 PM, Jul 13
Room 11

Climate and Environment 1
12:00 PM - 1:00 PM, Jul 13
Room 14

Regular Submis…

Chair: Esther Ruiz

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2 Subsessions

● Internal Migration and Climate in Turkey
12:00 PM - 12:20 PM, Jul 13
Room 14

● Modelling and forecasting minimum and maximum temperatures in the Iberian Peninsula
12:20 PM - 12:40 PM, Jul 13
Room 14

Forecasting with AI 1
12:00 PM - 1:00 PM, Jul 13
Room 15

Invited Sess…

Chair: Mohsen Hamoudia

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2 Subsessions

● D for Diversification: Efficient ensembling of Neural Networks for time series forecasting
12:00 PM - 12:20 PM, Jul 13
Room 15

● Reinforcement Learning for Portfolio Optimization: An Introduction with Applications
12:20 PM - 12:40 PM, Jul 13
Room 15

Sales and Operations Execution – systematic execution of the Plan under the S&OP umbrella
12:00 PM - 1:00 PM, Jul 13
SWS

Practitioner tr…

Authors: Mark Chockalingham;

Chair: Michael Gilliland

Abstract: The Pandemic has tested many supply chain planning and forecasting paradigms triggered by shortages, long lead times, port delays, and unexpected demand spikes. Companies and the C-Level managers have started focusing on risk management, forecasts that are built on detailed SKU level plans. In this context, Sales and Operations Execution has evolved as one of the best practices to manage both demand spikes and supply changes during the short-term execution window which is typically the next thirteen weeks. In this session, we will present the key features of S&OE as a short-term model to execute and revise plans to holistically manage risk and incorporate new market information. Demand sensing which is a key component of S&OE will also be discussed.

Speaker

Mark Chockalingham
CEO
Demand Planning LLC / Valtitude

Bayesian Methods 1

12:00 PM - 1:00 PM, Jul 13
EWS
Regular Submis…

Chair: Ville Satopaa

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3 Subsessions

Classifying time series patterns and modeling segments to aid automated forecasting
12:00 PM - 12:20 PM, Jul 13
EWS

Forecasting Macroeconomic Tail Risk with Big Data Quantile Regressions
12:20 PM - 12:40 PM, Jul 13
EWS

Bias, Information, Noise: The BIN Model of Forecasting
12:40 PM - 1:00 PM, Jul 13
EWS

1:00 PM

Lunch
1:00 PM - 2:00 PM, Jul 13
NWS

2:00 PM

Time Series Models 4
2:00 PM - 3:00 PM, Jul 13
Room 6
Regular Submis…

Chair: M. Angeles Carnero

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2 Subsessions

Technological interdependencies predict innovation dynamics
2:00 PM - 2:20 PM, Jul 13
Room 6

Moments of TGARCH models with skewed innovations
2:20 PM - 2:40 PM, Jul 13
Room 6

F4SG: Forecasting in Healthcare 3

2:00 PM - 3:00 PM, Jul 13

Room 7

Regular Submis…

Chair: Siddharth Arora

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3 Subsessions

Forecasting in unplanned healthcare service: A Literature Review
2:00 PM - 2:20 PM, Jul 13
Room 7

Forecasting length of stay in trauma network
2:20 PM - 2:40 PM, Jul 13
Room 7

Probabilistic Forecasting of Length of Stay in an Emergency Department
2:40 PM - 3:00 PM, Jul 13
Room 7

Combinations 3

2:00 PM - 3:00 PM, Jul 13

Room 8

Regular Submis…

Chair: Andrey Vasnev

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3 Subsessions

Multivariate CRPS Learning with Applications to Electricity Price Forecasting
2:00 PM - 2:20 PM, Jul 13
Room 8

Aggregating distribution forecasts from deep ensembles
2:20 PM - 2:40 PM, Jul 13
Room 8

On the uncertainty of a combined forecast: The critical role of correlation
2:40 PM - 3:00 PM, Jul 13
Room 8

Supply Chain 4

2:00 PM - 3:00 PM, Jul 13

Room 9

Regular Submis…

Chair: Juan R. Trapero-Arenas

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3 Subsessions

Inventory Forecasting and Short Term Fill Rates: Managerial Insights, Forecasts Evaluations and Computational Procedures.
2:00 PM - 2:20 PM, Jul 13
Room 9

Using Uncertainty Estimation in Demand Forecasting for Optimizing the Inventory Planning of a German Wholesaler
2:20 PM - 2:40 PM, Jul 13
Room 9

Supply Chain demand forecasting under a backordering context.
2:40 PM - 3:00 PM, Jul 13
Room 9

Finance 5

2:00 PM - 3:00 PM, Jul 13
Room 10
Regular Submis…
Chair: John Guerard

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2 Subsessions

Bond portfolio optimization in turbulent times: a dynamic Nelson-Siegel approach with Wishart stochastic volatility
2:00 PM - 2:20 PM, Jul 13
Room 10

Dow Jones Industrial Average and S&P 500 Index Prices: A Time Series Modeling and Forecasting Analysis
2:20 PM - 2:40 PM, Jul 13
Room 10

MacroFor 4
2:00 PM - 3:00 PM, Jul 13
Room 11
Regular Submis…
Chair: Aránzazu de Juan Fernández

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2 Subsessions

Cross-Sectional Dependence in Growth-at-Risk
2:00 PM - 2:20 PM, Jul 13
Room 11

European Economic Convergence in the 21st century. What can happen in the COVID19 crisis?
2:20 PM - 2:40 PM, Jul 13
Room 11

Climate and Environment 2
2:00 PM - 3:00 PM, Jul 13
Room 14
Regular Submis…
Chair: Lucía Martín

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2 Subsessions

Application of machine-learning models to evaluate air-quality improvement policy: forecasting PM2.5 in South Korea
2:00 PM - 2:20 PM, Jul 13
Room 14

Relationship between GDP and CO2 emissions cycles for the US
2:20 PM - 2:40 PM, Jul 13
Room 14

Forecasting with AI 2
2:00 PM - 3:00 PM, Jul 13
Room 15
Invited Sess…
Chair: Mohsen Hamoudia

2 Subsessions

Forecasting risk appetite using a machine learning sentiment analysis
2:00 PM - 2:20 PM, Jul 13
Room 15

Forecasting the Mobile Market using Statistical and Machine Learning Methods
2:20 PM - 2:40 PM, Jul 13
Room 15

ZOOM PRESENTATION: Toward Unbiased Outcomes: Behavioral Economics and Judgment in Forecasting

2:00 PM - 3:00 PM, Jul 13
SWS

Practitioner tr…

Authors: Jonathon Karelse;

Chair: Mike Gilliland

Abstract: During the COVID19 pandemic or indeed any period of exceptional change, organizations can no longer rely on historic run rates as the basis for production/procurement/demand planning. Many find they are scrambling to get a better current read on what is happening with consumers, the market, and how to respond to it. Business Intelligence has never factored more substantially into corporate planning, but if organizations have not measured and mitigated their unconscious biases and heuristics, they will be trading one problem for another. Behavioral Economics has put a host of powerful new insights and tools into the hands of planners that can mitigate common problems in forecasting and planning processes – namely, biases from across the organization that make their way into the forecast. This session describes the fundamentals of BE and how to apply its core principles. Learn as well from the practical experience of organizations like Dell Technologies, Heineken and others, and see how they adapted their forecast processes to this new environment, and integrated BE insights to improve performance. You will learn: • What is Behavioral Economics and what lessons does it give us for Demand Planning? • What is the role of judgement in forecasting, and where can it best be applied? • What are some of the common biases and heuristics at play in forecasting and how can we mitigate them?

Speaker

Jonathon Karelse
CEO
NorthFind Management

Bayesian Methods 2

2:00 PM - 3:00 PM, Jul 13
EWS

Regular Submis…

Chair: Boyuan Zhang

3 Subsessions

A New Bayesian MIDAS Approach for Flexible and Interpretable Nowcasting
2:00 PM - 2:20 PM, Jul 13
EWS

judgyprophet: python package for forecasting with judgmental adjustment using Bayesian informative priors
2:20 PM - 2:40 PM, Jul 13
EWS

Forecasting with Prior Wisdom on Group Structure in Panel Date Models
2:40 PM - 3:00 PM, Jul 13
EWS

3:10 PM

Using judgmental forecasting and scenario thinking for anticipating the future:

what are the differences, the similarities, and the advantages of each?

3:10 PM - 4:10 PM, Jul 13

SWS

Plenary

Authors: George Wright;

Chair: Paul Goodwin

Abstract: Judgmental forecasting is the domain of psychologists interested in forecasting and covers the areas of judgmental probability forecasting and the judgmental adjustment of time-series models, mostly at an individual-participant level. Closely linked is the Delphi method which is a group-based method. By contrast, scenario thinking was, until recently, the domain of practitioners interested in helping organisations make better decisions in the face of uncertainty. My paper discusses the role of subjective probability and outcome verification, and the focus on single point estimates as opposed to creating multiple, broad-brush anticipations of the future. Until recently, very little academic research has used experimental techniques to evaluate the quality of developed scenarios, but this position is changing. Additionally, recent work within the judgmental forecasting tradition has combined judgmental prediction with scenario storylines, a focus that has also become part of practice - for example, within the UK National Grid energy scenarios that are used for national policymaking. Clearly, scenario thinking is now becoming strongly established in practice - perhaps as a response to the World's lack of preparedness for Covid-19 pandemic. I discuss the emerging need to develop and apply yardsticks of the quality of both the scenario development process and of the resultant scenario content. I outline my thoughts on guidelines for such standard setting.

Speaker

George Wright
Professor of Management
Strathclyde Business School

4:10 PM

Closing Ceremony

4:10 PM - 5:30 PM, Jul 13

SWS

Speaker

George Athanasopoulos
Professor
Monash University