







A publication of the International Institute of Forecasters
<u>Fernando Cyrino</u>, Oracle Editor

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• https://forecasters.org/blog/



ISF 2025 is only a few weeks away, and we hope to see many of you all in Beijing. If you haven't registered, check out our <u>website</u>. If you have any questions, email us <u>ISF@forecasters.org</u>.

Mark your calendar for: ISF 2026: Montreal, Canada | June 28 – July 1 and ISF 2027: Paphos, Cyprus | June 20 – June 23

New IIF Directors

We are delighted to announce the new and re-elected Directors to the IIF Board. Please join us in congratulating:

- Fernando Cyrino, Pontifical Catholic University of Rio de Janeiro, Brazil
- Lauren Davis, North Carolina A&T State University, US (new director)
- Chris Fry, Google Cloud, US



We would like to also say a special thank you to our departing director, **Tao Hong**, whose contributions over the years have been greatly appreciated.



Member Profile - Yongmiao Hong

Yongmiao Hong is currently a Kwan Chao-Chih Chief Research Fellow at Academy of Mathematics and Systems Science, Chinese Academy of Sciences, and the Dean of School of Economics and Management, University of Chinese Academy of Sciences. He is a Fellow of the World Academy of Sciences for advance of sciences in developing countries, a Fellow of the Econometric Society, a Fellow of International Association of Applied Econometrics, a Fellow of the Asia-Pacific Artificial Intelligence Association. Previously, Professor Hong was the Ernest S. Liu Professor of Economics and International Studies, a Professor of Statistics at Cornell University, and the President of Chinese Economists Society in North America from 2009 to 2010.

Professor Hong's research interests include econometric theory, time series econometrics, financial econometrics, and statistics. He has published referred papers in mainstream economic, financial and statistical journals such as Annals of Statistics, Biometrika,

Econometric Theory, Econometrica, International Economic Review, Journal of American Statistical Association, Journal of Business and Economic Statistics, Journal of Econometrics, Journal of Political Economy, Journal of Royal Statistical Society (Series B), Quarterly Journal of Economics, Management Science, Review of Economic Studies, Review of Economics and Statistics, and Review of Financial Studies. His most recent English book is Foundations of Modern Econometrics: A Unified Approach. He has been listed among Most Cited Chinese Researchers in Economics/Statistics by Elsevier for 11 consecutive years from 2014 to 2024, and was awarded the first prize in the 2022 National Teaching Award for Higher Education (Undergraduate). Yongmiao is the General Chair for for <u>ISF2025</u>.

Read more about Yongmiao.

• Interested in having your member profile featured in our next newsletter? Send submission to <u>forecasters@forecasters.org</u>.

Forecasting Impact, Podcast

Forecasting Impact is a bimonthly podcast that aims to disseminate the science and practice of forecasting by introducing prominent academics, practitioners, and visionaries in the forecasting domain. Our vision is to help grow the forecasting community, foster collaboration between academia, industry, and governments, and promote scientific forecasting and good practices.

Check out our latest episodes:

- Food Bank Forecasting with Professor Lauren B. Davis
- MLOps and Dockerisation in Forecasting with Rami Krispin
- Healthcare Product Forecasting in Africa

IIF Student Awards

Calling all teachers of Forecasting! The IIF is offering prizes to top-performing students in undergraduate and graduate level forecasting courses. Star students will receive US\$100, a Certificate of Achievement, and complimentary, one-year <u>membership</u> to the IIF.

To qualify for the award, the course must (a) be taught by an IIF member at a recognised and reputable university, (b) have a substantial forecasting content, and (c) be a substantial course with at least 20 hours contact time. Read more for complete <u>guidelines</u>. To participate, contact <u>forecasters@forecasters.org</u>.

Foresight News





FREVIEW OF FORESIGNT ISSUE TO

Issue 78 begins with **Yue Li** and **Rachel Pedersen** taking a deep look into the role of Generative AI in the future of demand forecasting. They note that gen AI is still evolving, but has the potential to enrich existing forecasting



frameworks even if not a replacement for forecasting expertise. They also warn that strong AI governance is needed to ensure data quality and reliability.

Continuing in the Al/ML space, **Joost van der Haar**, **Yves Sagaert**, and **Robert Boute** investigate the integration of forecasting and inventory decisions using machine learning. In their study of three Belgian companies in the food industry, they find that better forecasts do not necessarily lead to better inventory decisions. Instead, predicting optimal order quantities directly can lead to substantial cost savings for smoother time series.

Forecast errors are inevitable, but not all errors are created equal. So goes the argument by **Kolja Johannsen**, who categorizes four types of forecast errors and provides strategies for responding to them. As he shows, being aware of the drivers behind forecast errors can help improve accuracy as well as make the forecast more useful for decision making.

Forty years ago the "asymmetry" of mean absolute percent error was noted by Scott Armstrong. Forecasts that exceeded the actual were penalized harsher by MAPE than forecasts below the actual, introducing a possible incentive for biasing forecasts to the low side. Various flavors of *sMAPE* – purporting to provide symmetry – were introduced, and **Rob Hyndman** opens our special feature on Revisiting Symmetric MAPE with a recap of that history.

Slawek Smyl continues the discussion with a proposed new metric he calls *Sparse-Proof MAPE* (msMAPE), designed to better handle both large-valued and sparse (intermittent) time series when forecasts and actuals are non-negative. **Stephan Kolassa** ends the special feature with a commentary on Smyl's msMAPE and a call for using simulation to better understand what any error metric does in a variety of situations.

The "explainability" of a model has become an important element in forecasting. This is especially true with the increased reliance on machine learning models that lack transparency into what variables are driving the forecast. **Trevor Sidery** argues that explainability is a requirement for trust in forecasts, and categorizes four types of explainability requirements involving methods, components, drivers, and errors. Since each business user may have a different understanding of explainability, these different understandings can affect what models the forecaster uses.

In a pair of commentaries, **Anne-Flore Elard** looks at the distinction between explainability and explanations, and notes that when models lack a direct mapping with business drivers, this creates a roadblock to their trust and adoption. Then **Zabiulla Mohammed** agrees that explainability is important for building trust, but not at the expense of predictive power or business value.

In *Foresight* issue 74, Bahman Rostami-Tabar and I raised the question of forecasting's role in supporting the United Nations' Sustainable Development Goals. In response, **Lauren Davis** looks at the role of forecasting in ending global hunger, and **Leo Sadovy** addresses its role in life below water.

Frequent book review contributor **Ira Sohn** delivers another, this time examining David Spiegelhalter's *The Art of Uncertainty*. Sohn finds Spiegelhalter to have a singular command of the technicalities of statistics and probability, along with a special talent for communication that exudes confidence and trust. He considers the book an engaging and entertaining read.

Issue 78 concludes with an OpEd by **Malte Tichy** on the overcategorization of continuous data. In the most egregious cases, "category hacking" occurs when different category splits are tested until one happens to be statistically significant. Tichy argues that binary decisions don't necessarily require binary categorization of the data, and that prematurely classifying continuous quantities is often a lazy shortcut that can impact the quality of the analysis.

Announcement of the 2025 PhD Forecasting Hackathon

We are proud to announce the PhD Forecasting Hackathon, hosted by the Tourism and Hospitality section of the International Institute of Forecasters at the prestigious <u>International Symposium on Forecasting</u> at 10am-5pm on June 29, 2025. This hackathon will challenge you to unleash your forecasting skills and predict the future of the tourism demand in Hong Kong and Macau.



TOURISM & HOSPITALITY SECTION

The task is to forecast the monthly visitor arrivals from the top 5 source markets for Hong Kong and Macau, spanning from May 2024 to April 2025.

The historical data of visitor arrivals of top 10 source markets will be provided and participants are allowed to use any publicly available data sources in addition to the provided dataset. Participants can compete individually or in teams of up to 4 members. The top-performing individuals or teams will receive a cash prize up to USD 250 and a bottle of wine from Ningxia, China.

Please feel free to register at <u>https://forms.gle/YPVeyeg89XLZHp4eA</u>. More information can be found <u>here</u>.

Please note that participants competing in the hackathon need to register for ISF to attend. Should you have any enquiries, please feel free to email <u>THSIIF@outlook.com</u>.

Forecasting: Principles and Practice, the Pythonic Way

Professors <u>Rob Hyndman</u> and <u>George Athanasopoulos</u> together with their co-authors Azul Garza, Cristian Challu and Max Mergenthaler from Nixtla and Kin G Olivares from Amazon, are excited to announce the launch of <u>Forecasting:</u> <u>Principles and Practice, the Pythonic Way</u>, a long-awaited resource that brings the trusted content of <u>https://otexts.com/fpp3/</u> into the Python ecosystem.

Whether you're teaching, learning, or applying forecasting in the real world, <u>FPP for Python</u> provides free, online access to:

- A practical, modern approach to time series forecasting.
- Fully reproducible Python code and examples
- Exercises and datasets ideal for teaching (instructor resources) or self-study
- Two new chapters covering recent advancements:
 - Neural Networks: introduces deep learning methods for time series forecasting, including multilayer
 perceptrons, CNNs, and RNNs, as well as state-of-the-art models like NHITS. It provides insights into their
 training, and techniques for improving performance.
 - Foundation Forecasting Models: explores cutting-edge approaches using large pre-trained transformers, discussing their theoretical basis, architectures, and applications
- The same accessible explanations trusted by 2,100+ instructors worldwide

With over 10,000 citations, 50M+ pageviews, and translations in multiple languages (<u>Chinese</u>, <u>Korean</u>, <u>Japanese</u>, <u>Greek</u>, <u>Italian</u>, <u>Portuguese</u>, <u>Russian</u>), <u>Forecasting: Principles and Practice</u> has become a global standard – and it's available to the Python community.

Explore now: https://otexts.com/fpppy

Econometrics Summer School Cambridge

timberlake

Dates: July 21-25, 2025

The 5-day in-person Econometrics Summer School is designed to equip researchers, analysts, and policy professionals with cutting-edge tools for causal inference and machine learning using Stata. The School will feature courses on featuring courses on Difference in Differences, Machine Learning and Causal Inference led by <u>Prof. Jeffrey</u> <u>Wooldridge</u> and <u>Dr. Melvyn Weeks</u>.

More information and how to enroll: https://timberlake.co/uk/cambridge-2025.html

Dynamic Econometrics Conference | Call for Presentations

Dates: September 18-19, 2025

The 27th Dynamic Econometrics Conference is a forum for empirical economic modelling, forecasting, computational econometrics, time series and much more.

We are delighted to be accepting presentation submissions for the conference, the submission deadline is the June 16, 2025.

Submit a paper: <u>https://www.dynamiceconometrics.com/call-for-papers</u>

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