Centre for Central Banking Studies

Advanced analytics: new methods and applications for macroeconomic policy

3–5 November
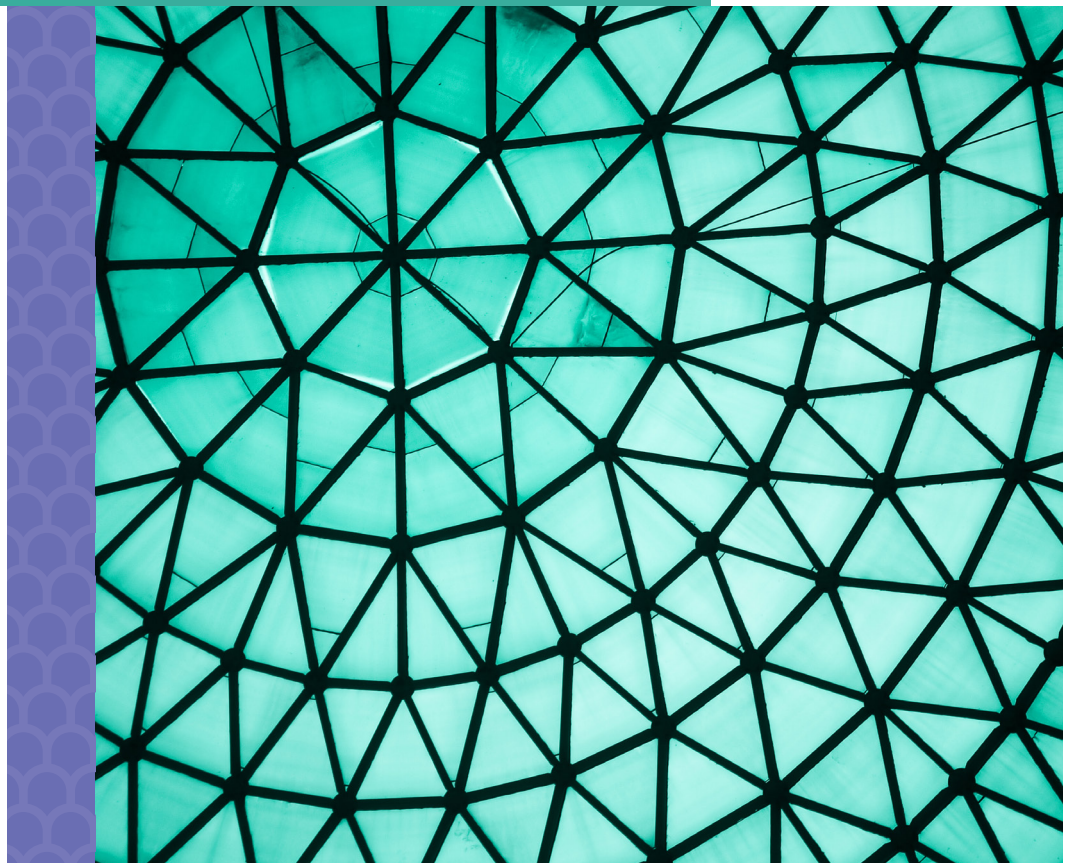Event Directors: Andreas Joseph and Andrew Blake

EUROPEAN CENTRAL BANK

KING'S College LONDON

KING'S BUSINESS SCHOOL

Advanced analytics: new methods and applications for macroeconomic policy

Bank of England, the European Central Bank and King's College London joint conference, **3 – 5 November 2021, virtual, London times**, Frankfurt +1h, New York -5h, Beijing +8h.

Day 1

Wednesday 3 November 2021

12:30 – 13:00 **Online registration**

13:00 – 13:05 **Welcome**
Paul Robinson (Head of Advanced Analytics, Bank of England)

13:05 – 13:15 **Opening remarks**
Cornelia Holthausen (Deputy Director General Economics, European Central Bank)

Session 1 chaired by Fotis Papailias (King's College London)
13:15 – 14:00 **Central bank communication with non-experts – a road to nowhere?**

Michael Ehrmann (European Central Bank)
Discussant**:** Conor Parle (Central Bank of Ireland)

14:00 – 14:45 **The ECB's tracker: nowcasting the press conferences of the ECB**

Armando Marozzi (London School of Economics and Political Science)
Discussant: Michael Ehrmann (European Central Bank)

14:45 – 15:15 **Break**

Session 2 chaired by Michele Lenza (European Central Bank)
15:15 – 16:00 **Deep reinforcement learning in a monetary model**
Andreas Joseph (Bank of England)
Discussant: Carlos Montes-Galdon (European Central Bank)

16:00 – 16:45 *Poster session I (virtual booths)*
Papers listed below

16:45 – 17:00   **Break**

Session 3 chaired by Francesca Monti (UCLouvain)
17.00 – 17.45   **The voice of monetary policy**

Tho Pham (University of Reading)
Discussant: Jonathan Benchimol (Bank of Israel)

17:45 – 18:30   **Whatever it takes to understand a central banker - Embedding their words using neural networks**

Martin Baumgärtner (THM Business School)
Discussant: Linda Shuku (King's College London)

Day 2

Thursday 4 November 2021

12:30 – 13:00   **Online registration**

Session 4 chaired by Sholthana Begum (Bank of England)
13.00 – 13.45   **Inequality and the zero lower bound**

Galo Nuño (Banco de España)
Discussant: Lilia Maliar (City University of New York)

13:45 – 14:30   *Poster session II (virtual booths)*
                     Papers listed below

14:30 – 15:00   **Break**

Keynote 1 chaired by Chiara Osbat (European Central Bank)
15:00 – 16:00   **Don't use black box machine learning models for high-stakes**

Cynthia Rudin (Duke University)

16.00 – 16.30   **Break**

Session 5 chaired by Christopher Kurz (Federal Reserve Board)
16.30 – 17:15   **Forecasting social unrest: a machine learning approach**

Chris Redl (International Monetary Fund)
Discussant: Martin Baumgärtner - (THM Business School)

17:15 – 18:00   **Credit shocks and populism**

Nicolò Fraccaroli (Brown University)
Discussant: Tho Pham (University of Reading)

Day 3

Friday 5 November 2021

12:30 – 13:00 **Online registration**

Keynote 2 chaired by Andreas Joseph (Bank of England)
13.00 – 14.00 **Machine learning for macroeconomics**
Jesús Fernández-Villaverde (University of Pennsylvania)

14:00 – 14:30 **Break**

Session 6 chaired by David Aikman (King's College London)
14:30 – 15:15 **Does regulation only bite the less profitable? Evidence from the too-big-to-fail reforms**
Aakriti Mathur (Bank of England)
Discussant: Tim Munday (University of Oxford)

15:15 – 16:00 **Inside the boardroom: evidence from the board structure and meeting minutes of community banks**
Paul Soto (Federal Deposit Insurance Corporation)
Discussant: Massimo Ferrari (European Central Bank)

16.00 – 16.30 **Break**

Session 7 chaired by Nick Bate (Bank of England)
16:30 – 17:15 **Macroeconomic predictions using payments data and machine learning**
Ajit Desai (Bank of Canada)
Discussant: Nicolas Woloszko (Organisation for Economic Co-ordination and Development)

17:15 – 18:00 **Big data information and nowcasting: consumption and investment from bank transactions in Turkey**
Alvaro Ortiz (BBVA)
Discussant: Gianni Amisano (*Federal Reserve Board*)

18:00 – 18:10 **Closing remarks**
Fotis Papailias (Deputy director of Data Analytics for Finance and Macro (DAFM) Research Centre)

Poster session I
Nov 3, 16:00 – 16:45

- **Mark my words: the transmission of central bank communication to the general public via the print media** by **Tim Munday** (University of Oxford)
- **The central bank crystal ball: temporal information in monetary policy communication** by **Conor Parle** (Central Bank of Ireland)
- **Does central bank talk matter for forecasting? Evidence from untargeted speeches of the BoE, Fed, and ECB** by **Linda Shuku** (King's College London)
- **Five facts about the distributional income effects of monetary policy** by **Anna Rogantini Picco** (Sveriges Riksbank)
- **E pluribus pluribus. Shock dependency of the USD pass-through to real and financial variables** by **Massimo Ferrari** (European Central Bank)

Poster session II
Nov 4, 13:45 – 14:30

- **Learning to make consumption-saving decisions in a changing environment: an AI approach** by **Aruhan Rui Shi** (University of Warwick)
- **Can machine learning change our opinion on Euler's consumption model?** By **Diana Gabrielyan** (University of Tartu)
- **Interpretability and explainability – nonlinear, non-Parametric and time-varying equity risk premia** by **Felix Kempf** (King's College London)
- **Decoupling shrinkage and selection for the Bayesian quantile regression** by **Tibor Szendrei (**Heriot-Watt University)
- **Heteroskedasticity as a complementary identification strategy** by **Tommaso Tornese** (Queen Mary University of London)

For event information or queries, please contact:
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