

CALL FOR PAPERS**Central bankers go data driven: applications of AI and ML for policy and prudential supervision**
De Nederlandsche Bank
Amsterdam, 12 - 13 May 2022

The field of Artificial intelligence and machine learning has entered the world of economics, finance and central banks. Massive amounts of data are collected by central banks and supervisors world-wide nowadays. These amounts lead to new challenges. How to analyze these massive amounts? Which data science methods provide promising results and can be used in the policy and supervision functions of the central bank? Against this backdrop, this conference will bring together senior policy makers and prudential supervisors, practitioners and academics from around the world to share original research and stimulate inter-disciplinary ways of thinking in this exciting world of AI and ML. The conference is hosted by De Nederlandsche Bank. Attendance at the conference is limited to authors of accepted papers (or posters) and invited guests.

The organizers encourage the submission of both theoretical and empirical research related to applications of artificial intelligence and machine learning to data sources relevant to prudential supervision, financial stability and payment systems. Topics and applications of interest include but are not limited to:

- Fraud:
 - Know your customer (KYC) (customer's transaction data).
 - Detecting fraud and market manipulation from granular financial data (such as money laundering, terrorism financing, spoofing).
- Detecting risks in markets using granular data:
 - Detecting risks from derivative data, such as European market Infrastructure Regulation (EMIR), security financing transactions (SFTR), etc.
 - Detecting liquidity problems and undesired behavior from payment's data (such as real time gross settlement systems, central counterparties, retail payment system).
 - The functioning of the money market, such as from Money Market Statistical Reporting (MMSR).
 - Sentiment analysis by combining financial and non-financial data (such as twitter, images, newspaper articles, social media).
- The new toolbox: new data or new tooling
 - Applications of Natural Language Programming (NLP) to textbased reporting.
 - Running models with and processing of big financial data.

Those submitting papers should note the following:

- Submissions are encouraged from policy driven data scientist, practitioners and academics. If accepted, authors are required to produce a paper (details below) which is of academic journal standard.
- Extended abstracts (between 750 and 1500 words) or completed papers should be sent in PDF format to ebo_conferences@dnb.nl **to be received no later than 21-02-2022.**
- Extended abstracts should be in English and should explain the nature and contribution of the research, the methodology employed.
- Submissions of extended abstracts will be reviewed by the conference organizers. Authors will be contacted with a decision on their submission 06-04-2022.
- Authors of selected papers will be asked to provide a full paper no later than 22-04-2022.
 - Full papers will be distributed electronically in advance to conference attendees.
- Authors will be given 25 minutes to present their paper at the conference, followed by a short presentation by a discussant and open discussion among delegates.
- Authors whose papers are not accepted for presentation at the conference maybe considered for a place on one of the conference panels, maybe invited to take part at the poster display at the conference reception, or maybe invited to attend the conference as a delegate.
- Call for posters: Posters explaining AI/ML-related research projects will be displayed during the conference reception. If you wish to be considered for the poster display, please contact ebo_conferences@dnb.nl no later than 21-02-2022 with a summary of your research (no longer than 500 words) and including your name and affiliation.

Successful submissions for the poster display will be notified by 06-04-2022. Researchers will be required to provide a poster of A1 dimensions (594 x 841 mm) at their own expense.

Logistics

- Cost: There is no charge for the conference but participants are expected to cover their own travel and accommodation cost.
- Timing: The exact schedule is to be confirmed, but it is anticipated that the conference will start at around 9am on the first day and close at around 5pm on the second day.
- Venue: Amsterdam, tbc
- Reception and dinner: There will be a drinks reception and conference dinner on the evening of the first day of the conference. Details to be confirmed.
- Contact details/queries: ebo_conferences@dnb.nl
- Contact organizers: Dr. Ronald Heijmans (DNB) or Prof. Dr. Iman van Lelyveld (DNB and VU Amsterdam).

Scientific committee

1. Flavia Barsotti (Institute of Advanced Studies, University of Amsterdam)
2. Ron Berndsen (LCH, Tilburg University)
3. Ricardo Correa (Federal Reserve Board)
4. Martin Diehl (Deutsche Bundesbank)
5. Patty Duijm (De Nederlandsche Bank)
6. Leonardo Gambacorta (BIS)
7. Co-Pierre George (University of Cape Town)
8. Andreas Joseph (Bank of England)
9. Pablo Rovira Kaltwasser (National bank of Belgium)
10. Serafín Martínez-Jaramillo (CEMLA, Mexico)
11. Luca Mossink (De Nederlandsche Bank)
12. Ellen van der Woerd (De Nederlandsche Bank)
13. Willem-Jan Willemsse (De Nederlandsche Bank)