



**On-line seminar "Big Data"**  
**April 29-30, 2024**

Organizer: Julio RAMOS-TALLADA



**Program\***

**Monday, April 29**

**Big data: challenges and opportunities**

**Paris local time**

14:45 - 15:00	Julio RAMOS-TALLADA (Banque de France, IBFI)	Welcome and program presentation
15:00 - 15:45	Sebastian DOERR (BIS) Douglas ARAUJO (BIS)	1. Big data and machine learning in central banks
15:45 - 16:30	Li-Chun ZHANG (University of Southampton)	2. Secure big data collection and processing: Framework, means and opportunities
16:30 - 16:45	Break	
16:45 - 17:30	Katharine G. ABRAHAM (University of Maryland & NBER)	3. Big data and official statistics
17:30 - 18:15	Galina HALE (University California Santa Cruz & NBER & CEPR)	4. Monitoring banking system connectedness with big data

**Tuesday, April 30**

**Big data: types and uses**

**Paris local time**

10:15 - 11:00	Jean-Charles BRICONGNE (Banque de France, DECAMS)	5. Natural Language Processing (NLP): analyzing newspaper articles and social media data to measure inflation expectations
11:00 - 11:45	Mariam MAMEDLI (ISI Emerging Markets group - CEIC data)	6. Macroeconomic forecasting with machine learning techniques and alternative data
11:45 - 12:30	Luca BARBAGLIA (European Commission - JRC)	7. Testing big data in a big crisis: Nowcasting under COVID-19
12:30 - 14:15	Break	
14:15 - 15:00	Baptiste MEUNIER (ECB) Benjamin LIETTI (HEC Lausanne)	8. Using satellite data to track economic activity
15:00 - 15:45	Abderrahmen DRIDI (Banque de France, DDSA)	9. Dataplateform: collecting and processing external Data
15:45 - 16:00	Jérôme COFFINET (Banque de France, DDSA)	Closing remarks
16:00 - 16:15	Julio RAMOS-TALLADA (Banque de France, IBFI)	Seminar assessment

\* Seminar in English

BIS: Bank for International Settlements; NBER: National Bureau of Economic Research; CEPR: Center for Economic and Policy Research  
DECAMS: Business Surveys, Microeconomic and Structural Analysis directorate; JRC: Joint Research Centre; ECB: European Central Bank;  
DDSA: Data and Analytical Services Directorate; IBFI: International Banking and Finance Institute

## Speakers' Bio (1)

**Sebastian DOERR** is an economist at the Bank for International Settlements and a CEPR Research Affiliate. His research and policy work centre on the implications of financial innovation for financial stability and the real economy. Sebastian's work has been published in leading academic journals and widely cited in the media. He was awarded the European Economic Association's Young Economist Award as well as the Young Innovators Award. He holds a PhD in economics from the University of Zurich.



**Douglas ARAUJO** is an economist at the BIS since May 2022. Previously, Douglas was in the Secretariat of the Basel Committee on Banking Supervision from September 2018 overseeing a range of policy and supervisory topics. Before that, he worked at the Central Bank of Brazil on macroprudential supervision (2011-15) and led the efforts to develop and implement the Brazilian proportionality framework for prudential regulation (2015-18). His current research spans financial and price stability topics. Douglas also contributes to open source software at the intersection of machine learning and economics.



**Li-Chun ZHANG** is a Professor of Social Statistics at the University of Southampton and a Senior Researcher at Statistics Norway. His research interests include graph sampling, machine learning, nonresponse and missing data, measurement errors, small area estimation, index number calculations, editing and imputation, multisource statistics, statistical matching, record linkage, population size estimation, etc. He has been involved in the EU framework projects EURAREA, DACSEIS, RISQ and BLUE-ETS, the ESSnet projects Small Area Estimation, Data Integration, Quality of Multisource Statistics and Mobile Network Operator Data for Official Statistics, the H2020-project InGRID-2, the ESRC-projects ADRCCE and NCRM-SAE.



**Katharine G. ABRAHAM** is a Distinguished University Professor of Economics and Survey Methodology at the University of Maryland. Abraham served as Commissioner of the Bureau of Labor Statistics from 1993 through 2001 and as a Member of the President's Council of Economic Advisers from 2011 through 2013. Her recent research focuses on nonstandard work arrangements; work at older ages; and the measurement of economic activity. She is a member of the National Academy of Sciences, a member of the American Academy of Arts and Sciences and a distinguished fellow of the American Economic Association. Abraham received her Ph.D. in economics from Harvard University.



**Galina HALE** is a Professor of Economics at the University California Santa Cruz. She served as a Research Advisor at the Federal Reserve Bank of San Francisco, and as an assistant professor of economics at Yale University. Galina's current research interests focus on attracting mainstream finance to climate solutions, the sustainability of the global food system, and international financial stability, especially with respect to climate risks. Galina has published over 30 articles in leading economics and finance peer-reviewed journals. She serves on multiple editorial boards and presents her work regularly at scholarly and policy meetings worldwide.



**Jean-Charles BRICONGNE** is Deputy Director of the Business Surveys, Microeconomic and Structural Analysis Directorate of the Banque de France (BdF), and Adjunct Professor at Paris I Panthéon-Sorbonne University. He was previously Deputy Director of the International Economics and Cooperation Directorate, a seconded national expert at the European Commission (DG ECFIN), adviser to the BdF's Director General Economics and Research, and Head of the trade and competitiveness division. He has written on various topics in applied trade analysis, globalisation statistics, financial macroeconomics, housing, migration, high-frequency indicators, and the implementation of data-science techniques in economics. He holds a PhD from Paris School of Economics.



## Speakers' Bio (2)

**Mariam MAMEDLI** serves as Head of Product at CEIC within the ISI Emerging Markets Group. She holds a PhD in Economics and has held positions in several institutions, including a tenure as Deputy Head of Big Data in Economic Research at the Bank of Russia. In academia, Mariam has been pivotal at the National Research University—Higher School of Economics, aiding in the inception of a cutting-edge Bachelor's program in 'Economics and Data Science' and a course on employing machine learning in economic studies. During her recent career, Mariam has been leading the creation of innovative products and predictive tools rooted in data analysis and data science.



**Luca BARBAGLIA** is a scientific project officer in the Nowcasting team of the Economic and Financial Resilience unit at the European Commission Joint Research Centre (JRC). Before that, he was a member of the Big Data and Economic Forecasting team at the JRC Centre for Advanced Studies. Luca obtained his PhD in Business Economics at the KU Leuven. Previously he studied Econometrics at the Université catholique de Louvain and Economics at Bocconi University. His main interests are time series econometrics, commodity markets, big data, machine learning and nowcasting/forecasting. Luca's works have been published in the Journal of Business and Economic Statistics, Journal of Applied Econometrics, and Journal of Financial Econometrics, among others.



**Baptiste MEUNIER** is a trade economist in the External Developments Division of the European Central Bank (on leave from Banque de France). He graduated from Ecole Polytechnique, and currently pursues a PhD at the Aix-Marseille School of Economics. His research covers trade as well as the use of data science and high-frequency data in macroeconomics.



**Benjamin LIETTI** is a PhD student at the Center for Economics at Paris-Saclay (CEPS). He holds a Master of Science degree in Economics (with a focus on Macroeconomics and Quantitative Economics) from the University of Lausanne (HEC) in Switzerland. His current research focuses on utilizing Satellite Data and Machine Learning techniques applied to Economics.



**Abderrahmen DRIDI** is a Data Engineer and Technical Leader in the DataPlatform team within the Data and Analytic Services Directorate of the Banque de France. He designs and develops solutions by harnessing advanced analytical techniques. Abderrahmen contributed to the deployment and implementation of analytical tools, enhancing the capabilities of the AI and Data Science innovation team. He holds a Master's degree in Data Science from Paris-Saclay University and an Engineering degree from ENSIIE Paris.



**Jérôme COFFINET** is Deputy Director of the Data and Analytic Services Directorate of the Banque de France. Previously, he occupied various positions in statistics, monetary policy, financial stability and banking supervision at the Banque de France and at the Autorité de Contrôle Prudentiel et de Résolution. He is currently a member of the Regulatory Oversight Committee of the Global LEI System and of the Central Bank Data Collaboration Group. He holds Masters degrees in physics, public administration and econometrics.

