

## Luca Fontanelli

Post-Doctoral Researcher in Economics - University of Brescia

Affiliated Scientist at RFF-CMCC EIEE

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### (a) Research Interests & Technical Competences

Applied economics, econometrics, firm-level data, Artificial Intelligence & digitalization, industrial organization, firm dynamics, energy & climate change

### (b) Education

Ph.D. in Economics, University of Côte d'Azur - Sant'Anna School of Advanced Studies (2017-2022)

- Under the supervision of Mauro Napoletano and Giovanni Dosi
- Ph.D. Committee: S. Alfarano, F. Bellone, C. Criscuolo, M. Grazzi, F. Tamagni, E. Verdolini
- Winner of the "Prix de Thèse ED-DESPEG 2022" in Economics

M.Sc. in Economics, University of Pisa - Sant'Anna School of Advanced Studies, (2015-2017)

- Final Mark: 110/110 with honours

B.A. in Economics, University of Siena, (2011-2015)

- Final Mark: 110/110 with honours

### (c) Professional Experience

2022 – present Post-Doctoral Researcher, University of Brescia (Brescia)

2021 - 2022 External Consultant, OECD (Paris)

2021 - 2022 Visiting Student, Paris School of Economics (Paris)

2021 Intern, OECD (Paris)

2016 Intern, ISTAT (Rome)

2014 Intern, Bloomberg (London)

### (d) Teaching Experience

2023 Seminar "Digital technologies and macroeconomic trends", Catholic University of Milan, University of Brescia (2 hours, total 4 hours)

2023 Seminar "The Quasi-Replicator Equation", ABM Summer School, University of Brescia (2 hours)

2023 Teaching Assistant in Empirical Economics, University of Brescia (24 hours)

2021 Course of Introduction to R, University of Côte d'Azur (18 hours, total 36 hours)

2021 Course of Introduction to Econometrics, Sciences Po (Menton) (24 hours)

2020 Teaching Assistant in Economics, Sciences Po (Menton) (24 hours)

2019 Course of Microeconomics, SKEMA Business School (Sophia Antipolis) (39 hours)

### (e) Peer Reviewed Publications

1. L. Fontanelli, M. Guerini, M. Napoletano, 2023. *Technological competition and international trade in markets with dynamic increasing returns*, **Journal of Economic Dynamics and Control**.

## (f) Working Papers

1. Theories of market selection: a survey
2. A portrait of AI adopters across countries: firm characteristics, assets' complementarities and productivity
  - Joint work with Flavio Calvino
  - Media coverage: [VoxEU Column](#)
3. Artificial intelligence, complementary assets and productivity: evidence from French firms
  - Joint work with Flavio Calvino
4. Policy insights from the decomposition of CO2 total emissions and emission intensities
  - Joint work with Elena Verdolini
  - Working Paper available upon request

## (g) Work in Progress

1. Similar firms, similar markets? Evidence from the largest French manufacturing exporters
  - Joint work with Lionel Nesta
2. Uncovering the J-shaped relationship between firm growth rate volatility and size
  - Joint work with Mauro Napoletano and Angelo Secchi
3. Cloud Computing Services, firm size and concentration: evidence from French firms
  - Joint work with Bernardo Caldarola
4. The impact of Artificial Intelligence on firm risk: evidence from France
  - Joint work with Mattia Guerini, Raffaele Miniaci and Angelo Secchi
5. Artificial Intelligence, skills and workforce composition: evidence from French firms
  - Joint work with Flavio Calvino, Lionel Nesta and Elena Verdolini

## (h) Computer Skills

R, Stata, Python, Latex, Microsoft Office

## (i) Conference Participation

1. Personal participation as a presenter:  
EMAEE (2019, Brighton), WEHIA (2019, London), WICK (2020, Turin), EAEPE (2020, online), ISGEP (2021, Nice), WEHIA (2022, Catania), EAEPE (2022, Naples), ITSG (2022, Florence), EAERE (2023, Limassol), CEF (2023, Nice), EARIE (2023, Rome)
2. Co-authors presented (selected):  
NBER Summer Institute (2022, Cambridge), WEHIA (2022, Catania), PILLARS (2023, Paris)

## (j) Involvement in Research Projects

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|----------------|---|
| 2022 - present | European Union's Horizon 2020 research and innovation program under the ERC project " <a href="#">2D4D - Disruptive Digitalization 4 Decarbonization</a> ", grant agreement No. 853487  |
| 2022 - present | Italian Ministerial Grant PRIN2020 "DIGITA - DIGitalization for climate-resilient households. Advancing empirical evidence of home energy innovation in ITALy", project code 2020HKPNPL |
| 2020-2021      | OECD Project "AI Diffuse"   |

**(k) Summer School Participation**


2021 SIDE Summer School on Machine Learning

2019 Summer School of Mathematics for Economic and Social Sciences

**(l) Languages**

Italian (mother tongue), English (C2), French (B2)

22/11/2023

A handwritten signature in black ink, appearing to read 'Jean-Henri...', written in a cursive style.