

PIETRO BATTISTON

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Born: 07/29/1985, Pisa (Italy)
Married, two daughters

I am a researcher in Economics with a background in Mathematics and a passion for programming. My main research interests are Network Theory (and in particular applications to economic and financial networks), Law & Economics, Experimental Economics, and Bibliometrics.

Since September 2022, I am a researcher at the Department of Economics and Management of University of Pisa (Italy).

Education

- PhD in Economics, University of Milan Bicocca, 2010-2014 (dissertation: *“Essays on networks and information dynamics”*, advisor: Luca Stanca).
- Laurea Magistralis in Economics, University of Bologna, 2008-2010.
- Laurea in Mathematics, University of Pisa, 2004-2008.

Past positions

- November 2019 - August 2022: researcher at the Department of Economics and Management, University of Parma (Italy).
- November 2018 - November 2019: researcher at the Department of Economics, Management and Statistics (DEMS), University of Milan-Bicocca (Italy).
- June 2017 - May 2018: research fellow at the Department of Legal Systems of the University of Milan Bicocca (Italy).
- January 2014 - December 2016: research fellow at the Institute of Economics of the Sant’Anna School of Advanced Studies, Pisa.

Visiting periods

- 2017, February: Weiss Visiting International Scholar, Barnard College, Columbia University.
- 2013, April-June: visiting PhD student at Central European University, Budapest.

Publications

Refereed journal articles:

- Battiston P., Gamba S., Santoro A. (2024) “[Machine learning and the optimization of prediction-based policies](#)”, *Technological Forecasting & Social Change*, 199, 123080
- Battiston, P., Harrison, S. (2024) “[Believe it or not: Experimental Evidence on Sunspot Equilibria with Social Networks](#)”, *Games and Economic Behavior*, 143, 223–247
- Battiston, P., Menegatti, M. (2023) “[Interaction in Prevention: A General Theory and an Application to COVID-19 Pandemic](#)”, *The Geneva Risk and Insurance Review*
- Rabasco, M., Battiston, P. (2023) “[Predicting the Deterrence Effect of Tax Audits. A Machine Learning Approach](#)”, *Metroeconomica*, 74(3), 531-556
- Battiston, P., Sacco, P., Stanca, L. (2022) “[Cover Effects on Citations Uncovered: Evidence from Nature](#)”, *Journal of Informetrics*, 16(2), 101293
- Battiston, P., Gamba, S., Rizzolli, M., Rotondi, V. (2021) “[Lies have long legs. Cheating, public scrutiny and loyalty in teams](#)” *Journal of Behavioral and Experimental Economics*, 94, 101732
- Bonan, J., Battiston, P., Bleck, J., LeMay-Boucher, P., Pareglio, S., Sarr, B.A., Tavoni, M. (2021) “[Social Interaction and Technology Adoption: Experimental Evidence from Improved Cookstoves in Mali](#)”, *World Development*, 105467
- Battiston, P., Kashyap, R., Rotondi, V. (2021) “[Reliance on scientists and experts during an epidemic: Evidence from the COVID-19 outbreak in Italy](#)”, *SSM – Population Health*, 13, 100721
- Battiston, P., Gamba, S. (2021) “[COVID-19: \$R_0\$ is lower where outbreak is larger](#)”, *Health Policy*, 125(2), 141-147
- Battiston, P., Gamba, S. (2020) “[When the two ends meet: an experiment on cooperation across the Italian North-South divide](#)” *Economia Politica*, 37(3), 911-940
- Battiston, P., Duncan, D. R., Gamba, S., Santoro, A. (2020) “[Audit publicity and tax compliance: a natural experiment](#)” *Scandinavian Journal of Economics*, 122(1), 81-108
- Battiston, P. (2016) “[Constrained network formation](#)”, *Italian Economic Journal*, 2(3), 347-362
- Battiston, P., Gamba, S. (2016) “[The Impact of Social Pressure on Tax Compliance: a Field Experiment](#)”, *International Review of Law and Economics*, 46, 78-85
- Battiston, P., Stanca, L. (2015) “[Boundedly Rational Opinion Dynamics in Directed Social Networks: Theory and Experimental Evidence](#)”, *Journal of Economic Behavior and Organization*, 119, 400-421

Books:

- Battiston P. (2024) *Contagion and the Responsibility of Networks — From Pandemics to Financial Crises and Fake News* (2024), Routledge — *English version of La responsabilità di rete. Network, economia e società* (2021), Il Mulino
- Battiston P., Battiston R. (2020) *La matematica del virus*, Castelvecchi

Book chapters:

- Battiston, P., Gamba, S., Rotondi V. (2019), “What does a young cheater look like? An innovative approach”. In Bucciol, A. and Montinari, N., editors, *Dishonesty in Behavioral Economics*, Elsevier

Working papers

- “My Poor(er) Friend: (Non-)Economic Integration in Public Good Games” (with Simona Gamba and Sharon Harrison), 2024
- *Country Music: Strategic Incentives for Competing Voters* (with Marco Magnani, Dimitri Paolini and Luca Rossi), 2024
- “What exactly is public in a public good game? A lab-in-the-field experiment” (with Simona Gamba, Matteo Rizzolli, Valentina Rotondi), *R&R*
- “May The Forcing Be With You: Experimental Evidence on Mandatory Contributions to Public Goods” (with Sharon Harrison and Lorán Chollete), *submitted*
- “Growth and financial exposition in times of crisis” (with Mauro Napoletano), 2017
- “Citations are Forever: Modeling Constrained Network Formation”, 2014

Work in progress

- “Who Wants their Peer to Be a Millionaire?” (with Lorán Chollete, Jeffrey Guo and Sharon Harrison)
- “Measuring risk in repeated games of complete information”
- “Rational Bubbles in closed economies”

Awards and grants

- SIE (Italian Economic Association) award for the best PhD thesis in Economics in 2014: winner (ex-aequo)
- Italian *National Scientific Qualification* for Associate Professor (2022-2031) in *Economics* (P/01), *Economic Policy* (P/02), *Public Economics* (P/03), and *Applied Economics* (P/04)
- Awardee of “Call for Excellent Science Contracts” 2022, University of Parma (€25 000)

- Head of local unit for project “Measuring Scientific Output via Preferences Elicitation”, funded by European Union and Italian Ministry of University and Research (€232 480)
- Department prize for best research papers by young department members, 2024, University of Pisa (1000 €)

Invited talks

- Scientific:
 - March 2022: University of Bologna, (presenting “Machine Learning and the Optimization of Prediction-Based Policies”)
 - February 2022: University of Pisa (presenting “May The Forcing Be With You: Experimental Evidence on Mandatory Contributions to Public Goods”)
 - June 2019: SOSE study center, Rome (presenting “Using machine learning to predict tax behavior”)
 - June 2018: *Data Science for Economics* Workshop, University of Turin (presenting “Using big data to predict tax behavior”)
 - April 2018: Scuola Superiore Sant’Anna, Pisa (presenting “Using big data to predict tax behavior”)
 - October 2017: University of Campinas, Brasil (workshop “The use and role of big data for enhancing agri-food chains and public policy”)
 - February 2017: Barnard College - Columbia University, New York (Weiss International Fellow Lectures in Literature and the Arts)
 - May 2014: Fondazione Eni Enrico Mattei, Milan (presenting “Boundedly Rational Opinion Dynamics in Directed Social Networks: Theory and Experimental Evidence”)
- Scientific computing:
 - PyConLT 2018, May, Kaunas.
 - PiterPy 2017, November, Saint Petersburg.

Other contributions to scientific conferences and workshops

- **2024**: 12th Meeting of the Behavioral and Experimental Economics Network (BEEN), Turin.
- **2023**: Ninth Meeting of the Behavioral and Experimental Economics Network (BEEN), Venice; RegulationResearch Conference 2023, Regensburg.
- **2022**: RegulationResearch Conference 2022, Regensburg; 23rd Global Conference on Environmental Taxation (GCET), Parma.
- **2021**: European Association of Law and Economics (EALE) conference (Online).

- **2020:** Fifth Meeting of the Behavioral and Experimental Economics Network (BEEN), Verona; International conference on tax compliance: new methodological and empirical approaches, University of Perugia (online).
- **2019:** European Association of Law and Economics (EALE) conference, Tel Aviv; 1st CeFES International Conference on European Studies, Milan.
- **2018:** ZEW Public Finance Conference, Mannheim; Workshop “Data Science and Economics”, University of Torino.
- **2017:** 58th Annual Scientific Conference of the Italian Economic Association, University of Calabria; Workshop on the Law and Economics of Migration and Mobility, Bern; 3rd Maastricht Behavioral Economic Policy Symposium, Maastricht.
- **2016:** European Association of Law and Economics (EALE) conference, Bologna.
- **2015:** 30th Annual Congress of the European Economic Association (EEA), Mannheim; WEHIA '15, Sophia Antipolis; ARS '15, Capri.
- **2014:** ECCS Warm-up, Lucca.
- **2013:** 2nd Annual CIRANO-CIREQ Workshop on Networks in Trade and Finance, Montreal; European Conference on Complex Systems (ECCS), Barcelona; World Meeting of Economic Science Association (ESA), Zurich; ARS '13, Roma; NEXT Workshop on Networks and Externalities, Budapest; International Conference on Evolutionary Patterns, Lisbon.
- **2012:** Economic Science Association (ESA) European conference, Köln; 5th Italian Doctoral Workshop in Economics and Policy Analysis, Torino.

Refereeing activity

- Journals: *American Economic Journal: Economic Policy*, *Journal of Economic Behavior & Organization*, *Journal of Behavioral and Experimental Economics*, *PLOS ONE*, *Health Policy*, *Journal of Complex Networks*, *Royal Society Open Science*, *Journal of Regional Science*, *Technological Forecasting & Social Change*, *Humanities and Social Sciences Communications*, *npj Climate Action*, *International Review of Economics*, *Journal of Sustainable Tourism*, *Review of Law & Economics*, *Journal of Economic Interaction and Coordination*, *Italian Economic Journal*, *Canadian Public Policy*, *Journal of Industrial and Business Economics*
- Conferences: *International Conference on Behavioral, Economic, and Socio-Cultural Computing* (2014-2018)

Research groups

- Co-director of “[Unintended Consequences Lab](#)” (Barnard College, Columbia University)

- Member of [REMARC](#) (Responsible Management Research Center), University of Pisa
- (2020-2021) External member of research group on “Relationships, behavior and finance in real economics for the common well-being” (LUMSA university)
- (2018-2019) Milan Bicocca, Economics Department: member of MIUR “Excellence departments” project “Economics, statistics and big data for Europe”.
- (2017-2018) Milan Bicocca, Law department: member of SIR (financed by the Italian Ministry for Research and Education) project on “Estimated tax assessments and presumptive taxation: a comparative analysis”, PI: Nicola Sartori
- (2014-2017) Sant’Anna : member of Horizon 2020-financed project DOLFINS; collaborator of Horizon 2020-financed project ISIGrowth

Teaching activity

- Academic:
 - Microeconomics, University of Pisa, Spring 2023-2024
 - Advanced Mathematics, Sant’Anna School of Advanced Studies (Ph.D. Program in Economics), Pisa, Fall 2018, Fall 2023, Fall 2024
 - Advanced Calculus II, Sant’Anna School of Advanced Studies, Pisa, Spring 2023
 - Advanced Microeconomics, PhD Programme in Economics of the Tuscan Universities, Spring 2023
 - Introduction to Python Programming for PhD students, University of Parma, Fall 2022
 - Fundamentals of Macroeconomics, University of Parma, Fall 2020, Fall 2021, Fall 2022
 - Fundamentals of Economics, University of Parma, Spring 2020, Spring 2021
 - Introduction to Python Programming for PhD students, University of Milan-Bicocca, Spring 2020
 - Macroeconomics, University of Milan-Bicocca, Fall 2019
 - Winter School in Social Network Analysis, University of Campinas, July 2019
 - Microeconomics, University of Milan-Bicocca, Spring 2019
 - Advanced Calculus I (Teaching Assistant), Sant’Anna School of Advanced Studies, Pisa, Fall 2018, Fall 2019, Fall 2022
 - Mathematics (Teaching Assistant), University of Pisa, Fall 2018
 - Advanced Calculus II (Teaching Assistant), Sant’Anna School of Advanced Studies, Pisa, Fall 2017

- Political Economics I (Teaching Assistant), Catholic University of Milan, Spring 2012, Spring 2013.
- Non-academic:
 - Laboratory of probability for school teachers, yearly congress of GFMT (Gruppo di Formazione Matematica Toscana “Giovanni Prodi”), September 2021.
 - Python for Data Science (for THUX s.r.l.), Milan, Fall 2019.
 - Introductory course on Python programming for scientific applications, Pisa, Spring 2015.
 - Introduction to Economics for high school students, Pisa, Spring 2016, Fall 2016.

Language knowledge

- Italian: mother tongue
- French: excellent fluency in speaking and writing
- English: very good fluency, (IBT) TOEFL test passed with score 112/120
- German: very basic reading and listening skills
- Spanish: very basic reading and listening skills

Other work experience

- 2019, November: Teacher of Python for Data Science (for THUX, Milan)
- 2017, May: Consultant of Python for data analysis (for Thunder Systems s.r.l., Milan)
- 2008: Part-time programmer in Python, employed in the development of a graphical user interface for databases management.
- 2006, 2007, 2008: Mathematics tutor for workshops aimed at middle- and high school students (projects PORTA and “Pianeta Galileo”).

Other activities and skills

- Strong programming experience, in particular with the Python programming language and scientific libraries;
- Developer of the [Python version of stargazer](#) (library for creation of tables from econometric models); former core developer of [pandas](#) (reference library for data manipulation in Python), occasional contributor to other open source softwares related to scientific computing;
- For my research activity I also used R, Matlab, Stata, C, GRET, oTree, z-Tree, among others.
- Creator of [unicerca.it](#), a website devoted to fostering mobility in the Italian academic job market.

- Passioned by music, I have taken part in several concerts both as choir member and as solo singer.

Last update: March 3, 2025.