Francesca Panero

Website francescapanero.github.io
Work email francesca.panero@uniroma1.it; f.panero@lse.ac.uk

Education

Oct 2017 – Jun 2022	**PhD in Statistics**, *University of Oxford* Oxford-Warwick Statistical Programme
Sep 2015 – Jul 2017	**MSc in Stochastics and Data Science**, *University of Turin, Italy* Final grade: 110/110 *cum laude*
Sep 2012 – Jul 2017	**Allievi Honors Program**, *Collegio Carlo Alberto, Moncalieri, Italy* Diploma in Economics *with distinction* and MA in Statistics and Applied Mathematics *with distinction*
Sep 2012 – Oct 2015	**BSc in Mathematics**, *University of Turin, Italy* Final grade: 110/110 *cum laude*
Sep 2007– Jul 2012	**High School (with emphasis on Humanities)**, *"V. Alfieri", Turin, Italy* Final grade: 98/100

Work experience

May 2024 – present	**Assistant Professor (tenure-track), Università di Roma "La Sapienza"**, *Rome, Italy* Department of Methods and Models for Economics, Territory and Finance
2024 – present	**Affiliate to the Data Science Institute and the Grantham Institute on Climate Change and the Environment, London School of Economics**, *London, UK*
Jul 2022 – May 2024	**Assistant Professor (tenure-track), London School of Economics and Political Science**, *London, UK* Department of Statistics
Apr – Jun 2022	**Researcher**, *University of Oxford*, Oxford, UK Part-time researcher for the MPLS division on ED&I topics related to admission data.
Jul – Oct 2021	**Intern at J.P. Morgan Chase**, *London, UK* Associate Quantitative Researcher with expertise in applied ML/AI, trading team
Mar – May 2021	**Visiting researcher at IDSIA**, *Lugano, Switzerland* Working with Dr Marco Scutari on fair ML models
Winter 2020	**Visiting student at Duke University**, *Durham, North Carolina (USA)*

Teaching and supervision experience

Teaching qualification

Jul 2024	**Postgraduate Certificate in Higher Education**, *LSE*

Teaching

AY 2024/25	**Lecturer, Probability and Stochastic Processes**, *graduate. MEMOTEF Department, Sapienza*
Jul 2024	**Lecturer, Machine Learning in Practice, ME315**, *Summer school, LSE*

AY 2023/24	**Lecturer, Deep Learning ST456**, *graduate. Department of Statistics, LSE*
AY 2023/24	**Lecturer, Foundations of Machine Learning ST510**, *PhD. Department of Statistics, LSE (2 hours, Deep Learning lecture)*
AY 2022/23	**Teaching Assistant, Deep Learning ST456**, *graduate. Department of Statistics, LSE*
AY 2022/23	**Teaching Assistant, Artificial Intelligence ST449**, *graduate. Department of Statistics, LSE*
2018 – 2021	**Teaching Assistant, Applied Statistics**, *Department of Statistics, University of Oxford*
2019	**Tutor, Preliminary of Statistics and Data Science, Applied Statistics**, *Hertford College and Exeter College, University of Oxford*

Supervision

AY 2023/24	**Capstone Project ST498**, *MSc Data Science. Department of Statistics, LSE* Supervision of a group of four students, in collaboration with KPMG
AY 2023/24	**MSc thesis supervision**, *MSc Statistics. Department of Statistics, LSE* joint with Dr K. Kalogeropoulos and Dr S. Geneletti
AY 2023-2024	**PhD supervision**, *Department of Statistics, LSE* Second supervisor of Xianghe Zhu, first Prof. Q. Yao
AY 2022/23	**Capstone Project ST498**, *MSc Data Science. Department of Statistics, LSE* Supervision of a group of four students, in collaboration with Deutsche Bank

Research production

Publications and preprints

2023	**On sparsity, power-law and clustering properties of graphex processes** F. Caron, F. Panero, J. Rousseau. *Advances in Applied Probability, 1-43*
2022	**Achieving fairness with a simple ridge penalty** M. Scutari, F. Panero, M. Proissl. *Statistics and Computing 32, 77*
2021	**Bayesian nonparametric disclosure risk assessment** S. Favaro, F. Panero, T. Rigon. *Electron. J. Statist. 15(2): 5626-5651*
2021	**Optimal disclosure risk assessment** F. Camerlenghi, S. Favaro, Z. Naulet, F. Panero. *The Annals of Statistics, 49.2: 723-744* (All the authors contributed equally to the paper)

Refereed conference proceedings, discussions

2023	**Issues with Sparse Spatial Random Graphs** F. Panero. *Book of short papers CLADAG 2023*
2023	**A discussion on Evaluating Sensitivity to the Stick-Breaking Prior in Bayesian Nonparametrics**, *by R. Giordano, R. Liu, M. I. Jordan, T. Broderick* X. Miscouridou, F. Panero. *Bayesian Analysis*
2019	**Issues with Nonparametric Disclosure Risk Assessment** F. Camerlenghi, S. Favaro, Z. Naulet, F. Panero. *Book of short papers SIS 2019*

Working papers

Sparse spatial random graphs
F. Panero, F. Caron, J. Rousseau

Dynamic communities in sparse networks
X. Miscouridou, F. Panero

Forecasting food insecurities with Gaussian Processes
S.Ishida, G. Martini, F. Panero

Evaluating uncertainty in fair GLM
F. Panero, M. Scutari, E. Witt

Talks and posters

Sep 2024	**BIRS, Frontiers of Bayesian inference and data science, Oaxaca**, *invited session* Modeling sparse networks with Bayesian Nonparametrics
Jul 2024	**Design and Analysis of Networked Experiments workshop, King's College London**, *invited session* Modeling sparse networks with Bayesian Nonparametrics
Jul 2024	**ISBA World meeting, Venice**, *poster and invited session* Can Gaussian Processes forecast food insecurity?
Jun 2024	**Satellite Workshop ISBA, Lugano**, *invited session* Modeling sparse networks with Bayesian Nonparametrics
May 2024	**University of Southampton Statistical Sciences Research Institute**, *seminar* Modeling sparse networks with Bayesian Nonparametrics
Apr 2024	**Department of Statistics, University of Oxford**, *seminar* Modeling sparse networks with Bayesian Nonparametrics
Dec 2023	**ICSDS 2023, Lisbon**, *contributed session* Achieving fairness with a simple ridge penalty
Nov 2023	**School of Mathematics, University of Edinburgh**, *seminar* Sparse spatial random graphs
Nov 2023	**World Food Programme, Rome**, *seminar* Forecasting food insecurities with Gaussian Processes
Oct 2023	**Department of Statistics, University College London**, *reading group* Achieving fairness with a simple ridge penalty
Sep 2023	**Cladag 2023, Salerno**, *invited session* Sparse spatial random graphs
Jun 2023	**Department of Mathematics and Statistics, Lancaster University**, *reading group* Sparse spatial random graphs
Jun 2023	**Statistics Research Showcase, LSE**, *seminar* Sparse networks with Bayesian nonparametrics
May 2023	**Department of Statistics, Università degli Studi di Padova**, *seminar* Achieving fairness with a simple ridge penalty
Mar 2023	**King's College London**, *seminar* Sparse spatial random graphs
Dec 2022	**CMStatistics**, *invited session* Sparse spatial random graphs
Dec 2022	**Department of Statistics, University of Oxford**, *seminar* Achieving fairness with a simple ridge penalty
Nov 2022	**QuantumBlack, McKinsey**, *seminar* Achieving fairness with a simple ridge penalty

Jun 2022	**ISBA World Meeting**, *poster* Bayesian nonparametric disclosure risk assessment
Apr 2022	**BNP networking event**, *contributed session* Bayesian nonparametric disclosure risk assessment
Dec 2021	**Department of Statistics, London School of Economics**, *seminar* Sparse spatial random graphs
Jul 2021	**ISBA World Meeting**, *contributed session* Sparse spatial random graphs
Jun 2021	**Department of CS, University of the Italian Switzerland, Lugano**, *seminar* Sparse spatial random graphs
Apr 2021	**Young Statisticians Europe (YSE)**, *seminar* Sparse spatial random graphs
Mar 2021	**School of Mathematical Sciences, University of Nottingham**, *seminar* Sparse spatial random graphs
Dec 2020	**CMStatistics**, *contributed session* Sparse spatial random graphs
Aug 2020	**Duke Graduate Summer Talks** Sparse spatial random graphs
Dec 2019	**CMStatistics**, *invided session* Optimal disclosure risk assessment
Jul 2019	**Bocconi Summer School in Advanced Statistics and Probability, Como**, *poster* Sparse spatial random graphs
Jun 2019	**Bayesian Nonparametrics 2019, Oxford**, *poster* Sparse spatial random graphs
Jun 2019	**Italian Statistical Society 2019, Milan**, *invited session* Optimal disclosure risk assessment
Mar 2019	**Workshop on Machine Learning, Amazon Development Centre Germany**, *poster* Sparse spatial random graphs
Jun 2018	**ISBA World Meeting, Edinburgh**, *poster* Optimal disclosure risk assessment

Awards

Jul 2024	**Travel grant**, *International Society of Bayesian Analysis, Venice*
Jun 2024	**Travel grant**, *ISBA satellite workshop, Lugano*
Apr 2023 – Apr 2024	**Research and Impact Support Fund**, *LSE*, Principal investigator of the project "Forecasting food insecurities with Gaussian Processes" (£20000). In collaboration with the United Nation World Food Programme.
Jun 2022	**Best Poster**, *ISBA 2022*
Jun 2022	**Travel grant**, *International Society of Bayesian Analysis, Montreal*
Apr 2022	**Travel grant**, *Bayesian Nonparametrics Networking Event, Nicosia*
Jul 2021	**Best Student/Postdoc Contributed Paper Award**, *ISBA 2021*
Sep 2017 – present	**EPSRC full scholarship (4 years)** Scholarship covering salary, university fees and college fees for the entire length of the PhD.

Sep 2012 – Jul 2017	**Allievi Honors Program full scholarship, Collegio Carlo Alberto**, *Moncalieri, Italy* Scholarship covering university fees.

Service to profession

Organisation

2022 – 2024	Co-organiser of Data Science Seminars, Department of Statistics, LSE.
2022 – 2024	Co-organiser of Women in Statistics, Department of Statistics, LSE.
2018 – 2022	Committee member of ED&I discussion group in the Department of Statistics, Oxford (2020-22). Co-organizer of the Oxford R Users Group (2018-19).

Referee service

Artificial Intelligence and Statistics Conference. Bayesian Analysis. Electronic Journal of Statistics. Fairness, Accountability, and Transparency Conference. Statistical Science.

Public engagement

Mar 2022	Organiser and moderator of the EquiStats event "Oxford women in Machine Learning", University of Oxford
Jun 2021	Organiser and co-speaker of the EquiStats event "Fairness in ML", University of Oxford
2018 – 2019	Co-organiser R Users Group, Oxford
Jun 2018	Oxford Maths Festival, Department of Mathematics, University of Oxford

Skills

Languages

Italian	Native speaker
English	Fluent
French	Intermediate
Spanish	Beginner

Computer skills

Advanced: R, Python (NumPy, SciPy, Pandas, TensorFlow, Keras), LaTeX

Intermediate: GitHub, MATLAB, Microsoft Windows and Office (ECDL)

Basic: HTML, SAS, SQL, C++, CUDA

Summer schools and workshops

Nov 2021	**The Oxford Strategy Challenge**, *University of Oxford* Consultancy challenge, working with a team on a start-up marketing and strategy project
May – Jun 2021	**SeedWISE**, *University of Oxford* Enterprise programme for women doing a PhD in STEM
Jul 2019	**Bocconi Summer School in Advanced Statistics and Probability**, *Como, Italy* Random Graphs and Complex Networks: Structure and Function. Prof. R. van der Hofstad (Eindhoven University of Technology, NL), Prof. S. Bhamidi (University of North Carolina, USA)
Aug 2016	**Summer school "Applied Bayesian Statistics"**, *Como, Italy* Bayes, Big Data, and the Internet.