



MATTEO GIORDANO

CURRICULUM VITAE

Università degli Studi di Torino
Department of Economics, Social Studies,
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ACADEMIC POSITIONS

Current positions

Assistant Professor of Statistics (RTDA SECS-S/01), *2023 - present*
Università degli Studi di Torino
Research areas: Frequentist analysis of nonparametric Bayesian procedures, statistical inverse problems, inference for diffusion processes, inference for point processes

Research Affiliate, “de Castro” Statistics Initiative, *2023 - present*
Collegio Carlo Alberto, Turin

Past positions

Postdoctoral Research Assistant in Statistics, University of Oxford *2021 - 2023*
Mentor: Prof. J. Rousseau

Visiting Professor of Statistics, Università degli Studi di Torino *Mar. 2022 - May 2022*

Research Assistant in Mathematics, University of Cambridge *2018 - 2021*

Visiting Professor of Statistics, Università degli Studi di Torino *Mar. 2021 - May 2021*

EDUCATION

Ph.D. in Mathematical Statistics, University of Cambridge *2017 - 2021*
Ph.D. thesis: Asymptotic theory for Bayesian nonparametric inference in statistical models arising from partial differential equations, [DOI: 10.17863/CAM.78120](https://doi.org/10.17863/CAM.78120)
Supervisor: Prof. R. Nickl

M.Sc. in Mathematics, Università degli Studi di Torino *2015 - 2017*
Final grade: 110/110 cum laude and mention
Thesis title: Continuous-time birth-and-death processes and Pólya urn schemes
Thesis supervisors: Prof. M. Ruggiero and Prof. P. De Blasi

Master in Statistics and Applied Mathematics, Collegio Carlo Alberto, Turin *2015 - 2017*
Final grade: Distinction

B.Sc. in Mathematics for Finance and Insurance,
Università degli Studi di Torino
Final grade: 110/110 cum laude

2012 - 2015

Maturità Scientifica, Liceo Scientifico A. Avogadro, Biella, Italy
Final grade: 100/100

2007 - 2012

PUBLICATIONS

Articles under review

10. Giordano, M. (2024)
A Bayesian approach with Gaussian priors to the inverse problem of source identification in elliptic PDEs
arXiv preprint, [arXiv:2402.19214](https://arxiv.org/abs/2402.19214)
9. Giordano, M., Kirichenko, A., and Rousseau, J. (2023)
Nonparametric Bayesian intensity estimation for covariate-driven inhomogeneous point processes
arXiv preprint, [arXiv:2312.14073](https://arxiv.org/abs/2312.14073)

Articles in referred journals

8. Giordano, M. (2023)
Besov-Laplace priors in density estimation: optimal posterior contraction rates and adaptation
Electronic Journal of Statistics, Vol. 17, No. 2, pp. 2210 - 2249, DOI: [10.1214/23-EJS2161](https://doi.org/10.1214/23-EJS2161)
7. Giordano, M., and Ray, K. (2022)
Nonparametric Bayesian inference for reversible multi-dimensional diffusions
The Annals of Statistics, Vol. 50, No. 5, pp. 2872–2898, DOI: [10.1214/22-AOS2213](https://doi.org/10.1214/22-AOS2213)
6. Giordano, M., and Nickl, R. (2020)
Consistency of Bayesian inference with Gaussian process priors in an elliptic inverse problem
Inverse Problems, Vol. 36, No. 8, pp. 1-35, DOI: [10.1088/1361-6420/ab7d2a](https://doi.org/10.1088/1361-6420/ab7d2a)
5. Giordano, M., and Kekkonen, H. (2020)
Bernstein-von Mises theorems and uncertainty quantification for linear inverse problems
SIAM/ASA Journal on Uncertainty Quantification, Vol. 8, No. 1, pp. 342-373,
DOI: [10.1137/18M1226269](https://doi.org/10.1137/18M1226269)
4. Giordano, M., De Blasi, P., and Ruggiero, M. (2020)
A reversible allelic partition process and Pitman sampling formula
ALEA, Latin American Journal of Probability and Mathematical Statistics, Vol. 17, No. 1, pp. 375-388, DOI: [10.30757/ALEA.v17-15](https://doi.org/10.30757/ALEA.v17-15)

Articles in conference proceedings

3. Giordano, M. (2023)
Bayesian nonparametric inference in PDE models: asymptotic theory and implementation
JSM Proceedings 2023, DOI: [10.5281/zenodo.8385373](https://doi.org/10.5281/zenodo.8385373)

2. Giordano, M., Ray, K., and Schmidt-Hieber, J. (2022)
On the inability of Gaussian process regression to optimally learn compositional functions
Advances in Neural Information Processing Systems 36 (NeurIPS 2022), S. Koyejo, S. Mohamed, A. Agarwal, D. Belgrave, K. Cho and A. Oh, eds., Vol. 35, pp. 22341–22353. Curran Associates, Inc., <https://proceedings.neurips.cc/paperfiles/paper/2022>

Discussions

1. Catalano, M., Fasano, A., Giordano, M., and Rebaudo, G. (2024)
A discussion on: “Root and community inference on the latent growth process of a network” by H. Crane and M. Xu
Journal of the Royal Statistical Society Series B, to appear

RESEARCH-RELATED ACTIVITIES

Research projects and funding

- Principal investigator, ESOMAS Department research project** *2023 - present*
Nonparametric Bayesian Methods for Complex Systems
Università degli Studi di Torino
- Member, PRIN-PNRR research project** *Measuring Biodiversity via Bayesian Nonparametrics: Estimation, Clustering and Uncertainty Quantification* *2023 - present*
National Coordinator: Prof. I. Prünster
- Member, PRIN research project** *Discrete Random Structures for Bayesian Learning and Prediction* *2023 - present*
National Coordinator: Prof. A. Lijoi
- Member, ERC project** *General Theory for Big Bayes (GTBB)* *2021 - 2023*
Principal investigator: Prof. J. Rousseau
University of Oxford
- Member, ERC project** *Uncertainty Quantification and Modern Statistical Inference (UQMSI)* *2017 - 2021*
Principal investigator: Prof. R. Nickl
University of Cambridge

Participation to research groups

- Statistics: Methodology and Applications Research Group** *2023 - present*
Università degli Studi di Torino, ESOMAS Department
- Statistical Theory and Methodology Research Group** *2022 - 2023*
University of Oxford, Department of Statistics
- Computational Statistics and Machine Learning Research Group (OxCSML)** *2021 - 2023*
University of Oxford, Department of Statistics

Research visits

University of Oxford, Department of Statistics

Apr. 2023 - June 2023

Doctoral committees

External examiner, Ph.D. in Statistics, University of Cyprus, Cyprus

Dec. 2023

Scientific societies

Roles

International Society for Bayesian Analysis, Junior Section (j-ISBA)

2024 - present

Role: Section Chair-Elect

Clare Hall Mathematical Association (CHMA)

2018 - 2019

Role: Secretary

Memberships

International Society for Bayesian Analysis,
Bayesian Nonparametric Section (BNP-ISBA)

2024 - present

Italian Statistical Society (SIS)

2023 - present

International Society for Bayesian Analysis, Junior Section (j-ISBA)

2023 - present

International Society for Bayesian Analysis (ISBA)

2022 - present

Roles at conferences and seminars

Organisational roles

[European Young Statisticians Meeting \(EYSM\) 2025](#),

July 2025

Collegio Carlo Alberto, Torino, Italy

Role: Organiser (with Dr. A. Chockami, Dr. S. Montagna and Dr. G. Rebaudo)

[Oxford Bayesian Reading Group](#), University of Oxford

2021 - 2023

Role: Organiser (with D. Moss)

[Joint CDT Colloquium 2019 - Interplay of Probability, Statistics and Analysis](#),
University of Warwick

Apr. 2019

Role: Local coordinator (with Dr. D. Heydecker) for the Cambridge Centre for Analysis CDT

Service in scientific committees

Bayesian Young Statisticians Meeting 2024 (BAYSM 2024), Venice, Italy

July 2024

Other roles

NeurIPS 2022 High School Outreach Program

Nov. 2022

Role: Group leader, supervising a pod of high-school students throughout the program

Welcome Home Workshop, Università degli Studi di Torino

Dec. 2021

Role: Conductor (with Dr. C. Caraci) of round table on: The experience of undertaking a Ph.D. and research activities abroad

Foundations of Bayesian Inference for Complex Statistical Model, Mathematisches Forschungsinstitut Oberwolfach, Germany

May 2021

Role: Video conference assistant (with S. Franssen)

Talks and posters

Invited talks

- SIAM Conference on Uncertainty Quantification (UQ24), Trieste, Italy (Feb. 2024)
- Research Seminar in Mathematical Statistics, Weierstrass Institute (WIAS), Berlin, Germany (Jan. 2024)
- 16th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2023), Berlin, Germany (Dec. 2023)
- Stochastics Seminars, Aarhus University (Nov. 2023)
- Workshop on SDEs with Low-Regularity Coefficients: Theory and Numerics, Turin, Italy (Sept. 2023)
- 11th Applied Inverse Problems Conference (AIP 2023), Mini Symposium on Statistical and computational aspects of non-linear inverse problems, Göttingen, Germany (Sept. 2023)
- Joint Statistical Meetings 2023 (JSM2023), Savage Award Finalists Session, Toronto, Canada (Aug. 2023)
- Workshop on Theory for Scalable, Modern Statistical Methods, Bocconi University, Milan, Italy (Apr. 2023)
- AMS Spring Eastern Sectional Meeting, Special Session on Recent Advances in Infinite-Dimensional Stochastic Analysis (Apr. 2023)
- OxWaSP and StatML CDT Summer Event 2022, University of Oxford (July 2022)
- BNP-ISBA Webinars (June 2022)
- AMS Spring Western Sectional Meeting, Special Session on Mathematical Advances in Bayesian Statistical Inversion and Markov Chain Monte Carlo Sampling Algorithms (May 2022)
- Applied and Computational Mathematics Seminars, Tulane University (March 2022)
- Oxford Computational Statistics and Machine Learning (OxCSML) Seminars, University of Oxford (Nov. 2021)
- The International Bayes Club (May 2021)
- Oxford Bayesian Reading Group, University of Oxford (Oct. 2020)
- Cambridge Analysts' Knowledge Exchange (CAKE) Seminars, University of Cambridge (Nov. 2019)
- Young Researchers' Meeting in Mathematical Statistics, Paris, France (Sept. 2018)

Contributed talks

- Bayesian Young Statisticians Meeting 2023 (BAYSM 2023) (Nov. 2023)
- Turin-Bath PhD Workshop in Applied Probability and Statistics, Collegio Carlo Alberto, Turin (June 2023)
- Welcome Home Workshop, Università degli Studi di Torino (Dec. 2022)
- BNP13 - 13th International Conference on Bayesian Nonparametrics, Puerto Varas, Chile (October 2022)
- International Symposium on Nonparametric Statistics (ISNPS) 2022, Paphos, Cyprus (June 2022)
- Welcome Home Workshop, Università degli Studi di Torino (Dec. 2021)
- 8th European Congress of Mathematics (8ECM), (June 2021)
- Welcome Home Workshop, Università degli Studi di Torino (Dec. 2020)
- 32nd European Meeting of Statisticians (EMS), Palermo, Italy (July 2019)
- Joint CDT Colloquium 2019 - Interplay of Probability, Statistics and Analysis, University Warwick (Apr. 2019)

Posters

- NeurIPS 2022 - Thirty-sixth Conference on Neural Information Processing Systems, New Orleans, Louisiana (November 2022)

Editorial activity

Referee

2021 - present

Annales de l'Institut Henri Poincaré (B) Probabilités et Statistiques, Annals of Statistics, Bayesian Analysis, Bernoulli, Inverse Problems, Journal of Multivariate Analysis, Journal of Nonparametric Statistics, Journal of Statistical Planning and Inference, Journal of the American Statistical Association, Electronic Journal of Statistics, SIAM/ASA Journal on Uncertainty Quantification, Statistics and Computing, Statistics & Probability Letters

Reviewer

2024 - present

Mathematical Reviews/MathSciNet

Other research-related activities

CCA external research project, GlaxoSmithKline, Cambridge

Jan. 2018 - Mar. 2018

Project goal: Development of a Bayesian algorithm for MRI image analysis (coded in MATLAB)

External supervisor: Dr. M. De Groot

EDUCATION-RELATED ACTIVITIES

Courses

Università degli Studi di Torino Course: Statistics B.Sc. in Economics	<i>A.y. 2023 - 2024</i>
Università degli Studi di Torino Course: Statistics B.Sc. in Economics	<i>A.y. 2022 - 2023</i>
Università degli Studi di Torino Course: Probability and Statistics B.Sc. in Economics (Economics and Data Science curriculum)	<i>A.y. 2021 - 2022</i>
Università degli Studi di Torino Course: Probability and Statistics B.Sc. in Economics (Economics and Data Science curriculum)	<i>A.y. 2020 - 2021</i>

Teaching assistantship

Jesus College, University of Oxford Tutorial classes for undergraduate course Analysis I (1st year) of the B.Sc. in Mathematics	<i>2022 - 2023</i>
University of Cambridge Tutorial classes (supervisions) for undergraduate courses Statistics IB (2nd year), Principle of Statistics (3rd year) and Statistical Modelling (3rd year) of the Mathematical Tripos	<i>2018 - 2020</i>
Università degli Studi di Torino Teaching assistant for undergraduate course Informatics (1st year) of the B.Sc. in Mathematics for Finance and Insurance	<i>2013 - 2014</i>

Student supervisions

- Gabriele Busà, B.Sc. in Economics, University of Turin (expected graduation: March 2024)

Other teaching experiences and teaching-related roles

University of Cambridge, Faculty of Mathematics Assessor for the CATAM Computational Projects 2020-2021	<i>May 2021</i>
Istituto di Istruzione Superiore Q. Sella, Biella, Italy Introductory workshop on statistical analysis for 3rd year students in upper secondary school	<i>Mar. 2017</i>

Teaching Qualifications

IRIDI START, University of Turin	<i>Mar. 2024</i>
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Local duties

Università degli Studi di Torino, Library of Economics and Management *Jan. 2024 - present*
Member, Library Board

Università degli Studi di Torino, ESOMAS Department *Feb. 2024*
Committee member, committee for the assignment of two postdoctoral researcher positions (4th Cycle 2023)

Università degli Studi di Torino, ESOMAS Department *Dec. 2023*
Committee member and secretary, committee for the assignment of one postdoctoral researcher position (3rd Cycle 2023)

Collegio Carlo Alberto, Turin *June 2023*
Committee member and secretary, Allievi thesis defence

AWARDS AND SCHOLARSHIPS

Doctoral awards

Savage Award (Honourable Mention), International Society for Bayesian Analysis *Aug. 2023*
Award for outstanding doctoral dissertations in Bayesian econometrics and statistics

Doctoral Research Award in the Natural & Life Sciences (Recognition Award), ABTA *Sept. 2022*
UK wide academic competition for early career researchers

Salje Medal in the Sciences, Clare Hall, Cambridge *Mar. 2022*
Award for the most outstanding Ph.D. in the Sciences among students of Clare Hall, University of Cambridge

PhD Prize in Maths and Data Science 2021 (3rd Prize), G-Research *Apr. 2021*
Award for the best Ph.D. draft dissertations

Travel grants

Savage Award Finalists Travel Award, International Society for Bayesian Analysis *Aug. 2023*
Grant covering travel expenses for attending JSM2023

NeurIPS 2022 Scholar Award *Dec. 2022*
Grant providing financial support for attendance at NeurIPS 2022

Travel Grant, The Lockey Fund, University of Oxford *July 2022*
Grant for attendance at overseas scientific conferences

Other awards and scholarships

Degree Award, Edisu Piemonte *Feb. 2018*

Award for M.Sc. graduates

Caligara Award, Collegio Einaudi, Torino

Oct. 2017

Award for the best M.Sc. thesis in scientific disciplines among students of Collegio Einaudi

Allievi Honors Program Scholarship, Collegio Carlo Alberto, Torino

2015 - 2017

Scholarship supporting students of the Allievi Honors Program

Scholarship, Edisu Piemonte

2013 - 2017

Scholarship covering university fees, maintenance and housing expenses

Degree Award, Edisu Piemonte

Feb. 2016

Award for B.Sc. graduates

***Posto di studio gratuito*, Collegio Einaudi, Torino**

2013 - 2014

Award covering housing expenses for overall top four students of Collegio Einaudi