Francesco GAFFI

CURRENT POSITION:	Assistant Professor of Statistics
	Department of Economics
	University of Bergamo, Italy
EMAIL:	francesco.gaffi@unibg.it

EDUCATION

2023	Ph.D. in STATISTICS, *cum laude*
	Bocconi University, Milano, Italy
	Supervisors: Antonio Lijoi and Igor Prünster
	Thesis: Modeling with discrete random probability measures
	Defence date: January 23rd, 2023
2018	M.Sc. in PURE AND APPLIED MATHEMATICS, *cum laude*
	Università di Roma Tor Vergata, Italy
	Supervisor: Domenico Marinucci
	Thesis: Functional data analysis on $\mathcal{L}^2\left(\mathbb{S}^2\right)$
	Defence date: July 24th, 2018
2016	B.Sc. in MATHEMATICS
	Università di Roma Tor Vergata, Italy
2014	M.Mus. in ORCHESTRAL REPERTOIRE AND CHAMBER MUSIC, *cum laude*
	Conservatorio Licinio Refice, Frosinone, Italy
2011	B.Mus. in CLARINET
	Conservatorio Licinio Refice, Frosinone, Italy

SUMMER SCHOOLS

JUL 2019	*Random graphs and complex networks: structure and function,*
	Bocconi Summer School in Advanced Statistics and Probability, Como, Italy

ACADEMIC POSITIONS

NOV 2025 - NOW	**Assistant Professor of Statistics** (RTT STAT01/A), Department of Economics, University of Bergamo, Italy
AUG 2025 - OCT 2025	**Researcher**, Bocconi Institute for Data Science and Analytics, Milano, Italy
FEB 2024 - JUL 2025	**Postdoctoral Associate**, Department of Mathematics, University of Maryland, College Park, MD, USA
FEB 2023 - JAN 2024	**Robert and Sara Lumpkins Postdoctoral Fellow**, Department of Applied and Computational Mathematics and Statistics, University of Notre Dame, South Bend, IN, USA
FEB 2023 - NOW	**External affiliate**, BayesLab, Bocconi Institute for Data Science and Analytics, Milano, Italy
SEP 2022 - JAN 2023	**Ph.D. Candidate**, Department of Decision Sciences, Bocconi University, Milano, Italy
SEP 2018 - AUG 2022	**Ph.D. Student in Statistics**, Department of Decision Sceinces, Bocconi University, Milano, Italy

INDUSTRY EXPERIENCE

2016 - 2017	**Quantitative analyst intern**, Ladbrokes Coral, Roma, Italy

Awards&Funding

2025	BNP14 Travel Award, International Society for Bayesian Analysis
2024	⋆ ISBA2024 Travel Award, University of California, Los Angeles
	⋆ Scientific Exchange support, Swiss National Science Foundation
2023	⋆ Robert and Sara Lumpkins Postdoctoral Fellowship (3.5 years), University of Notre Dame
	⋆ Student Paper Award, American Statistical Association - Section on Bayesian Statistical Science
2022	⋆ Special financial support for PhD candidates, Fondazione Invernizzi
	⋆ ISBA2022 Travel Award, International Society for Bayesian Analysis
	⋆ BNP2022 Travel Award, International Society for Bayesian Analysis
2018	PhD Scholarship (4 years), Bocconi University
2014	'V. Mancini' Award for Best Graduate Student - Winds Section, Conservatorio Licinio Refice

Publications

Working papers

Alamichel, L., Durante, D., Rigon, T., Gaffi, F. **Enriched stochastic block models**.

Ghidini, V., Franzolini, B., Gaffi, F., Durante, D. **Bayesian stochastic block models for exchangeable multiplex networks**.

Franzolini, B., Gaffi, F. **Scalable slice sampling for (hierarchical) Dirichlet process mixtures**.

Gaffi, F., Franzolini, B., Josephs, N., Lin, L. **Dependent random partitions for data integration in networks**.

Gaffi, F., Josephs, N., Lin, L. **Exchangeable random permutations with an application to Bayesian graph matching**.

Franzolini, B., Gaffi, F. **An invariance-based approach to dynamic block detection in networks**.

Gaffi, F., Lijoi, A., Prünster, I. **Transition probabilities of continual Young diagrams and Dirichlet random means**.

Journal papers

Durante, D., Gaffi, F., Lijoi, A., Prünster, I. (2025). **Partially exchangeable stochastic block models for (node-colored) multilayer networks.** *Journal of the American Statistical Association*, 120(551), 1811–1827.
https://doi.org/10.1080/01621459.2025.2507825
[2023 ASA-SBSS Student Paper Award winner]

Gaffi, F., Lijoi, A., Prünster, I. (2025). **Random probability measures with fixed mean distributions.** *Annals of Applied Probability*, 35(4), 2239-2261.
https://doi.org/10.1214/24-AAP2130

Conference proceedings

Gaffi, F. (2026). **Conditionally partially exchangeable partitions for dynamic networks.** In *New Trends in Bayesian Statistics. BaYSM 2023*, 79-92, Springer Proceedings in Mathematics and Statistics, vol 511, Springer.
https://doi.org/10.1007/978-3-031-99009-0_7

Gaffi, F. (2025). **Modeling multiple node-colored networks with partial exchangeability.** In *Statistics for Innovation III. SIS 2025*, 274-280, Italian Statistical Society Series

on Advances in Statistics, Springer.
https://doi.org/10.1007/978-3-031-95995-0_46

GAFFI, F., LIJOI, A., PRÜNSTER, I. (2022). **Specification of the base measure of non-parametric priors via random means.** In *New Frontiers in Bayesian Statistics. BaYSM 2021*, 91-100, Springer Proceedings in Mathematics and Statistics, vol 405, Springer.
https://doi.org/10.1007/978-3-031-16427-9_9

Discussions

CATALANO, M., GAFFI, F. (2025). **Contributed discussion on "A tree perspective on stick-breaking models in covariate-dependent mixtures"** by Horiguchi, A., Chan, C., and Ma, L. *Bayesian Analysis*, 20(3) 1201-1203.
https://doi.org/10.1214/24-BA1462

Theses

GAFFI, F. (2023). **Modelling with discrete random probability measures.** Bocconi University, Milano.

GAFFI, F. (2018). **Functional data analysis on $\mathcal{L}^2(\mathbb{S}^2)$.** Università di Roma Tor Vergata, Roma.

EDITORIAL ACTIVITY

Reviewer	*Bayesian Analysis, Electronic Journal of Statistics, Journal of Complex Networks, Journal of Econometrics, Journal of Machine Learning Research, Journal of the American Statistical Association, Statistics and Computing, Statistics and Probability Letters, Stochastic Processes and their Applications.*
Committees	2024-2026 ASA-SBSS Student Paper Award

SCIENTIFIC SOCIETIES

Member	ISBA, International Society for Bayesian Analysis
	j-ISBA, Junior Section of ISBA
	BNP-ISBA, Bayesian Nonparametrics Section of ISBA
	IMS, Institute of Mathematical Statistics
	SIS, Società Italiana di Statistica
Chair-Elect	j-ISBA (2026)

VISITING PERIODS

OCT 2025	Brin Mathematics Research Center, University of Maryland, College Park, MD, USA

PRESENTATIONS

Invited talks

JUL 2026	**BNP2026**, 4th Bayesian Nonparametrics Networking Workshop, University of Seoul, South Korea.
JUN 2026	**ISNPS2026**, 7th International Symposium on Nonparametric Statistics, Thessaloniki, Greece.
	IMPMS2026, 5th Italian Meeting on Probability and Mathematical Statistics, University of Palermo, Italy.
JAN 2026	**Nonparametric Bayesian Inference - Computational Issues**, Institute for Computational and Experimental Research in Mathematics, Brown University, Providence (RI), USA
DEC 2025	**Bayesian Uncertainty Quantification in Large Models**, Chennai Mathematical Institute, India.
SEP 2025	**MSP2025**, The Mathematics of Subjective Probability, Università di Milano-Bicocca, Italy.

Jun 2025	**BNP14**, 14th International Conference on Bayesian Nonparametrics, University of California Los Angeles, USA.
Jan 2025	**Recent Developments in the Techniques of the Bayesian Paradigm**, Banaras Hindu University, Varanasi, India.
Sep 2024	**Frontiers of Bayesian Inference and Data Science**, Casa Matemática Oaxaca, Mexico.
Aug 2024	**Bernoulli-IMS2024**, 11th World Congress in Probability and Statistics, Ruhr-Universität Bochum, Germany.
Jul 2024	**ISBA2024**, World Meeting of the International Society for Bayesian Analysis, Università Ca' Foscari, Venezia, Italy.
Jun 2024	**Satellite workshop to ISBA World Meeting**, Università della Svizzera Italiana, Lugano, Switzerland.
	IMPMS2024, 4th Italian Meeting on Probability and Mathematical Statistics Roma, Italy.
Aug 2023	**JSM2023**, Joint Statistical Meetings, Toronto, Canada.
	EcoSta2023, 6th International Conference on Econometrics and Statistics, Waseda University, Tokyo, Japan.
Jun 2023	**10th International Purdue Symposium on Statistics**, Purdue University, West Lafayette (IN), USA.
Dec 2022	**IISA2022**, International Indian Statistical Association Conference, Indian Institute of Science, Bengaluru, India.
Jun 2022	**IMPMS2022**, 3rd Italian Meeting on Probability and Mathematical Statistics, Alma Mater Studiorum, Bologna, Italy.
Jun 2021	**EcoSta2021**, 4th International Conference on Econometrics and Statistics, virtual.

Contributed talks

Jun 2025	**SIS2025**, Scientific Meeting of the Italian Statistical Society, Università di Genova, Italy.
May 2025	**BISP14**, 14th Bayesian Inference for Stochastic Processes Workshop, Consiglio Nazionale delle Ricerche, Milano, Italy.
Apr 2025	**BaYSM2025**, Bayesian Young Statisticians Meeting, virtual.
Nov 2023	**BaYSM2023**, Bayesian Young Statisticians Meeting, virtual.
Jun 2022	**ISBA2022**, World Meeting of the International Society for Bayesian Analysis, Montréal, Canada.
Apr 2022	**BNP2022**, 1st Bayesian Nonparametrics Networking Workshop, University of Cyprus, Nicosia, Cyprus.
Sep 2021	**BaYSM2021**, Bayesian Young Statisticians Meeting, virtual.
Jun 2021	**ISBA2021**, World Meeting of the International Society for Bayesian Analysis, virtual.
	ISBA@CIRM, Junior session of ISBA2021 mirror event, Centre International de Rencontres Mathématiques, Marseille, France.

Poster sessions

Jun 2026	**ISBA2026**, World Meeting of the International Society for Bayesian Analysis, Nagoya, Japan.
Jun 2024	**BaYSM2024**, Bayesian Young Statisticians Meeting, Università Ca' Foscari, Venezia, Italy.
Jun 2023	**Approximation Methods in Bayesian Analysis**, Centre International de Rencontres Mathématiques, Marseille, France.
Oct 2022	**BNP13**, 13th International Conference on Bayesian Nonparametrics, Puerto Varas, Chile.

CONFERENCE ORGANIZATION

Jun 2026	**IMPMS2026**, Contributed session organizer.

RESEARCH SUPERVISION

2025	Edoardo Stefanelli, Research Assistant, Bocconi Institute for Data Science and Analytics (*with Beatrice Franzolini*)

TEACHING

Experience

2026 - NOW	**Lecturer**, University of Bergamo ⋆ Statistical Inference, B.Sc. in Statistics (1 semester) ⋆ Statistics, B.Eng. in Management Engineering (1 semester)
2024 - 2025	**Lecturer**, University of Maryland, College Park ⋆ Applied probability and statistics, B.Sc. in Computer Science (3 semesters) ⋆ High-dimensional statistical models, Ph.D. in Statistics (1 guest lecture)
2023 - 2024	**Lecturer**, University of Notre Dame ⋆ Probability, B.Sc. in Applied Mathematics and Statistics (1 semester)
2020 - 2023	**Adjunct lecturer**, Bocconi University ⋆ Probability, B.Sc. in Mathematics for AI (2 semesters) ⋆ Probability, Ph.D. in Economics and Finance (3 semesters) ⋆ Statistics, B.Sc. in Economics (2 semesters)
2019 - 2023	**Teaching assistant**, Bocconi University ⋆ Optimal control, M.Sc. in Data Science (3 semesters) ⋆ Statistics, B.Sc. in Economics (4 semesters) ⋆ Stochastic processes, M.Sc. in Data Science (4 semesters) ⋆ Probability, B.Sc. in Mathematics for AI (2 semesters)
2017 - 2018	**Teaching assistant**, Università di Roma Tor Vergata ⋆ Discrete mathematics, B.Sc. in Computer Science

Publications

FORTINI, S., GAFFI, F. (2021). **Introduction to Probability. BAI 30456.** Bai series. Volume 2. Egea, Milano.

Certifications

2019	Bocconi Excellence in Advanced Teaching https://bestr.it/award/show/8b3a93e2027f4cbb8988f46cd3ba6371a0e5d075

COMPUTER SKILLS

Programming languages:	C/C++, LaTeX
Software:	R, Matlab
Environments:	Microsoft Windows, Linux distributions