Francesco Pozza

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Academic positions

10/2023- Present **Postdoctoral research fellow:** Bocconi institute for data science and analytics, Bocconi University, Italy.

01/2024-Present **Lecturer** for the course: Advanced mathematics and statistics - module 2 (Academic Years: 23-24 / 24-25, number of hours: 21 per year), bachelor degree "Bemacs" at Bocconi University, Italy.

Past academic positions

03/2023-06/2023 **Visiting Scholar:** Department of Statistics, Texas A&M University, USA.

10/2019 – 07/2020 **Teaching Tutor,** for the courses of Calculus and Advanced Statistics. University of Padova

Education

10/2020-01/2024 **PhD in Statistical Sciences:** Department of Statistical Sciences, University of Padova, Italy.
Advisors: Bruno Scarpa, Daniele Durante and Botond Szabó
Thesis title: *Skew-symmetric approximations of posterior distributions*

10/2021-12/2022 **Visiting PhD student:** Department of Decision Sciences, Bocconi University, Italy.

2018-2020 **MS in Statistical Sciences:** Department of Statistical Sciences, Università degli Studi di Padova, Italy.
Thesis title: *Alternatives to log-binomial regression for inference on the relative risk.*
Advisors: Alessandra Salvan and Clovis E. Kenne Pagui
Final mark: 110 cum laude

2015-2018 **BS in Statistics for Economics and Business:** Department of Statistical Sciences, University of Padova, Italy.
Thesis title: *Mean and median bias reduction for comparing proportions.*
Advisors: Alessandra Salvan and Clovis E. Kenne Pagui
Final mark: 110 cum laude

Publications

Articles in refereed journals

1. Pozza F. and Zanella G. (2025). On the fundamental limitations of multiproposal Markov chain Monte Carlo algorithms. *Biometrika (forthcoming)* https://arxiv.org/abs/2410.23174.

2. Durante D., Pozza F. and Szabo B. (2024). Skewed Bernstein-von Mises theorem and skew-modal approximations. *Annals of Statistics* **52** *(6), 2714-2737* , https://arxiv.org/pdf/2301.03038.pdf.

3. Pozza F., Kenne Pagui E. C. and Salvan A. (2023). Improved and computationally stable estimation of relative risk regression with one binary exposure. *Statistical Methods in Medical Research*, **32**(6), 1234-1246 https://journals.sagepub.com/doi/10.1177/09622802231167436.

Refereed conference proceedings

1. Pozza, F. (2024) An application of skew-symmetric approximations of posterior distributions to logistic regression. *Methodological and Applied Statistics and Demography II - SIS 2024, Short Papers, Solicited Sessions*, Springer Nature, pages 61 - 67, ISBN 978-3-031-64349-1.

2. Kenne Pagui E. C., Pozza, F. and Salvan A. (2021). Improved maximum likelihood estimator in relative risk regression. *Book of short papers - SIS 2021*, Pearson, pages 1138-1143, ISBN 9788891927361.

Manuscripts under review

1 Pozza F., Durante D. and Szabo B. (2025+). Skew-symmetric approximations of posterior distributions. *under review* https://arxiv.org/abs/2409.14167.

Working papers

1 Pozza F. and Zanella G. (2025+) Zero-order parallel sampling *(Working Paper)*.

2 Durante D., Pozza F. and Zanella G. (2025+) Improving variational approximations by renormalization *(Working Paper)*.

3 Dolmeta P., Pozza F., Durante D. and Papaspiliopoulos O. (2025+) Online Gaussian and skew-symmetric posterior approximations *(Working Paper)*.

Conference presentations

Invited presentations

2024 *18th International Joint Conference on Computational and Financial Econometrics (CFE) and Computational and Methodological Statistics (CMStatistics)*, London, Uk, December 14-17 2024.

Department Seminar at the University of Nebraska-Lincoln (online), Lincoln, USA, October 30 2024

52th Meeting of the Italian Statistical Society, Bari, Italy, June 17-20 2024.

Contributed presentations

2024 *AHIDI2024*, Verona, Italy, November 8 2024.

Joint Statistical Meetings, ASA-SBSS student paper competition session, Portland, USA, August 3-8 2024.

2021 *50th Meeting of the Italian Statistical Society,* Pisa, Italy, June 21-25 2021.

Poster presentations

2025 *BISP14,* Milano, Italy, May 26-28, 2025.

2024 *ISBA 2024,* Venezia, Italy, July 1-7, 2024.

2023 *COSMOSTATS 2023 - Bridging the Gap: Statistical Modeling of Cosmology Extremes*, Asiago, Italy, September 12- 15 2023.

2022 *Statistical methods and models for complex data*, Padova, Italy, September 21-23 2022.

EAC ISBA 2022, Taiwan (online), June 9 2022.

ISBA 2022, Montreal, Canada, June 26 - July 1 2022.

Awards and fundings

Fundings

Awards and fundings (continued)

2023-Present	Member of the ERC grant: "Provable Scalability for high-dimensional Bayesian Learning" , ID: 101076564, (Principal investigator: Giacomo Zanella).
2020-2023	Merit-based Ph.D. fellowship, Department of Statistical Sciences, University of Padova.

Academic Awards

2024	ASA-SBSS 2024 Laplace Award.
2018	"Mille e una lode" scholarship (as one of the best 3% students enrolled at University of Padova), academic year 2017/2018.
2017	"Mille e una lode" scholarship (as one of the best 3% students enrolled at University of Padova), academic year 2016/2017.

Travel Awards

2024	ISBA travel award (300$) for ISBA 2024 world meeting, Venice, Italy.
2022	ISBA travel award (500$) for ISBA 2022 world meeting, Montreal, Canada.

Public software

GitHub repository FL-MPMCMC: R codes for the article On the fundamental limitations of multiple proposals Markov chain Monte Carlo algorithms.

GitHub repository SMA: R codes for the article Skewed Bernstein-von Mises theorem and skew-modal approximations.

GitHub repository brrr: R codes for improved and computationally stable estimation of relative risk regression with one binary exposure.

Service to profession

Referee service: 2025 ASA-SBSS Student Paper Competition, Bayesian Analysis, Journal of Computational and Graphical Statistics, Journal of Statistical Planning and Inference, SIS2025

Research network

Member of BayesLab at the Bocconi Institute for Data Science and Analytics (BIDSA)