

Lorenzo Ghilotti

PERSONAL INFORMATION

Nationality: Italian
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GitHub page: github.com/LGhilotti

RESEARCH INTERESTS

Bayesian statistics - Bayesian Nonparametrics - data science - computational statistics

EDUCATION

Ph.D. Student in Statistics Nov. 2021 - present

University of Milano - Bicocca, Milan, Italy
Department of Economics, Management and Statistics (DEMS)
Supervisor: Prof. Federico Camerlenghi

M.S., Mathematical Engineering - Statistical Learning Sep. 2018 - Apr. 2021

Politecnico di Milano

Degree conferred with honour, G.P.A 29.2 / 30

Thesis Advisor: Prof. Alessandra Guglielmi

B.S., Mathematical Engineering Sep. 2015 - Sep. 2018

Politecnico di Milano

Degree conferred with honour, G.P.A 29.7 / 30

Secondary School Certificate 2010 - 2015

Liceo Scientifico Geymonat, Tradate, Varese

Final grade: 100 with honours

VISITING PERIODS

- April 3 - July 16, 2023. Department of Biostatistics, University of California, Los Angeles (UCLA), USA. Invited by Prof. Michele Guindani.

CONFERENCES

Invited talks

- December 16-18, 2023 (to be held). 16th International Conference of the ERCIM WG on Computational and Methodological Statistics, Berlin, Germany.
- December 16-18, 2023 (to be held). 16th International Conference of the ERCIM WG on Computational and Methodological Statistics, Berlin, Germany.
- December 17-19, 2022. 15th International Conference of the ERCIM WG on Computational and Methodological Statistics, London, UK. Title of the talk: *Bayesian clustering of high-dimensional data via latent repulsive mixtures*.

Contributed talks

- September 15-16, 2022. 1st Bergamo Workshop in Econometrics and Statistics, Bergamo, Italy. Title of the talk: *Bayesian clustering of high-dimensional data via latent repulsive mixtures*.
- September 1-2, 2021. BAYSM2021, held virtually. Title of the talk: *Bayesian clustering of high-dimensional data via latent repulsive mixtures*.
- June 28 - July 2, 2021. ISBA2021 World Meeting, held virtually. Title of the talk: *High-dimensional Bayesian clustering via anisotropic determinantal point process mixtures on latent factors*.

Poster presentations

- June 26 - July 1, 2022. ISBA2022 World Meeting, Montreal, Canada. Title of the poster: *Bayesian clustering of high-dimensional data via latent repulsive mixtures*.
- June 28 - July 2, 2021. ISBA2021 World Meeting, held virtually. Title of the poster: *High-dimensional Bayesian clustering via anisotropic determinantal point process mixtures on latent factors*.

PUBLICATIONS

Conference proceedings

- Ghilotti, L., Beraha, M., Guglielmi, A. (2022). Repulsive mixture models for high-dimensional data. In Book of the short papers SIS 2022.
- Ghilotti, L., Beraha, M., Guglielmi, A. (2021). Anisotropic determinantal point processes and their application in Bayesian mixtures. In Book of the short papers SIS 2021.

Pre-prints and working papers

- Ghilotti, L., Beraha, M., Guglielmi, A. (2023+). Bayesian clustering of high-dimensional data via latent repulsive mixtures. [arXiv:2303.02438](https://arxiv.org/abs/2303.02438)

TEACHING ACTIVITIES

- Tutor for the course *Probabilità applicata*, Master in Scienze Statistiche ed Economiche, Università di Milano - Bicocca (a.y. 2022-2023, 20 hours)
- Instructor of *Livellamento di Analisi Matematica* (Introduction to Mathematical Analysis), Master in Scienze Statistiche ed Economiche, Università di Milano - Bicocca (a.y. 2022-2023, 14 hours)
- Teaching assistant for the course *Advanced Statistics*, Master in Finance, USI (Università della Svizzera italiana) (a.y. 2021-2022)
- Teaching assistant for the course *Statistics*, Master in Finance, USI (Università della Svizzera italiana) (a.y. 2021-2022)

RESEARCH EXPERIENCE

- June 1, 2021 - March 31, 2022. Research collaborator at Institute of Computational Sciences, Faculty of Economics, USI (Università della Svizzera italiana).

Research project: *Multivariate spatio-temporal models with latent dynamics for cardiovascular disease prediction with heterogeneous factors* (funded by Fondo Nazionale Svizzero per la Ricerca Scientifica), directed by Prof. Antonietta Mira.

SCHOOLS

- May 2-6, 2022. Robust Statistics: Foundations and Recent Developments. III International School on Classification and Data Analysis under the auspices of ClaDAG.

AWARDS

- ISBA2022 Poster Award.
- Travel Award ISBA2022 World Meeting in Montreal, Canada.

SKILLS

Language: Italian (mother tongue), English (advanced)

Programming Languages: C++, Python, R, C, Matlab, LaTeX.

Software: Stan, JAGS