Davide Agnoletto

Duke University, Department of Statistical Science

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Current position Postdoctoral Associate (October 2024 - ongoing)

Department of Statistical Science, Duke University

Mentors: David Dunson, Amy Herring

Research interests

Bayesian methodology, predictive Bayesian inference, generalized Bayes.

Education

PhD in Statistics

(10/2021 - 01/2025)

Department of Statistical Sciences, University of Padova

Thesis title: "Statistical modeling within the generalized Bayesian paradigm".

Supervisors: Bruno Scarpa, Tommaso Rigon, David Dunson

Master's Degree in Statistical Sciences

(10/2019 - 09/2021)

Department of Statistical Sciences, University of Padova

Thesis title: "Analysis of mortality curves: non-parametric density estimation using

a Bayesian approach"

Supervisors: Bruno Scarpa, Tommaso Rigon

Final mark: 110/110 cum laude

Bachelor's Degree in Statistics for Economics and Business

(10/2016 - 09/2019)

Department of Statistical Sciences, University of Padova

Thesis title: "The use of All-Resolution Inference for fMRI images without smooth-

ing"

Supervisor: Livio Finos

Final mark: $110/110 \ cum \ laude$

Awards

Academic

- Best Poster award. ISBA 2024 World Meeting, Venice, IT.
- "Mille e una Lode" Award 2018/2019 (scholarship awarded to the best 1000 students of the University of Padova).

Data competition

- HackTheGene Hackathon for young Data Scientists, University of Padua, September 2022. 1st place team.
- "Laboratorio di Statistica per le Aziende" 2021, in collaboration with Deloitte. 1st place team.

Travel awards

- Best poster award. ISBA 2024 World Meeting, Venice, IT.
- ISBA travel award (\$800). ISBA 2024 World Meeting, Venice, IT.
- BNP travel award (\$300). 14th International Conference on Bayesian Nonparametrics (2025), Los Angeles, USA.

Service to profession

Referee service

• Statistics & Probability Letters.

Service to University

Positions in Boards and Committees

• Board member of the Department of Statistical Sciences, University of Padova, Italy. Representation of PhD students and research fellows. 10/2022 – 09/2025.

Pubblications

Submitted and working papers

- Agnoletto, D., Rigon, T., and Dunson D.B. (2025). Nonparametric predictive inference for discrete data via Metropolis-adjusted Dirichlet sequences. *ArXiv*, arXiv:2507.08629.
- Agnoletto, D., Rigon, T., and Dunson D.B. (2025). Bayesian inference for generalized linear models via quasi-posteriors. *Biometrika*, 112(2), asaf022.

National conference proceedings

- Agnoletto, D., Rigon, T., and Dunson, D. B. (2024). Bayesian inference for generalized linear models via quasi-posteriors: an application to Eurasian chaffinch abundance in Finland. *Book of Short Papers of the Italian Statistical Society* (Pollice, A., Mariani, P.) 2024, ISBN:9783031643453.
- Agnoletto, D., Rigon, T. and Scarpa, B. (2023). Bayesian density estimation for modeling age-at-death distribution. In Book of Short Papers of the Italian Statistical Society (Chelli, F. M., Ciommi, M., Ingrassia, S., Mariani, F., Recchioni, M.C.) 2023. ISBN: 9788891935618.

Presentations

Contributed presentations

- (2025) 14th International Conference on Bayesian Nonparametrics, Los Angeles, USA.
- (2024) BAYSM 2024: Bayesian Young Statisticians Meeting, Venice, IT.
- (2024) SIS 2024, Bari, IT.
- (2023) BAYSM 2023: Bayesian Young Statisticians Meeting, online.
- (2023) Bayes at CIRM: Autumn school in Bayesian Statistics, Marseilles, FR.
- (2023) SEAS-IN 2023: Statistical Learning, Sustainability and Impact Evaluation, Ancona, IT.

Poster presentations

- (2024) ISBA World Meeting, Venice, IT.
- (2022) Statistical methods and models for complex data: 800 years of research to understand a complex world, Padova, IT.

Summer schools and workshop

Summer schools and workshops

(2023) Bayes at CIRM: Autumn school in Bayesian Statistics, Marseilles, FR.

(2022) SELECT - Climbing mortality model, Misurina, IT.