# Lorenzo Mauri

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# **EDUCATION**

Duke University Durham (NC), USA

PhD in Statistical Science Aug 2022–Present

GPA: 4/4

Relevant Courses: Measure Theory, HD Probability, Probability Models, Statistical Inference, Bayesian Statistics, Bayesian Asymptotics, Optimization, Linear Models, Applied Statistics, Multivariate Statistics.

Bocconi University Milan, IT

MSc Data Science Sep 2019–Oct 2021

Final Grade: 110/110 with Honors; GPA: 30/30

Final Paper: "Stochastic Gradient MCMC: the Stochastic Barker Proposal".

Relevant Courses: Real Analysis, Probability Theory, Stochastic Processes, Optimization, Machine Learning,

Deep Learning, Bayesian Statistics, Computational Statistics.

Bocconi University

Milan, IT

 $BSc\ in\ Quantitative\ Economics$  Sep 2016–Oct 2019

Final Grade: 110/110 with Honors; GPA: 30/30

Exchange term at *University of Pennsylvania*, GPA: 4/4 (Spring '19).

## Publications

"Robust Approximate Sampling via Stochastic Gradient Barker Dynamics" In Artificial Intelligence and Statistics, 2024 (Oral). (Mauri, L; Zanella, G.)

## Preprints

"Generalized Bayes Kernel Similarity for Supervised Dimensionality Reduction" Submitted, 2024. (Mauri, L; Dunson, D. B.)

# WORKING PAPERS

"Bayesian Heavy-Tailed Density Estimation via the Tree-Logistic GP Prior", (Mauri, L; Tokdar, S. T; Wang, H)

"Bayesian Sparse Infinite Factor Models via Constraint Relaxation", (Anceschi, N; Dunson, D., B.; Mauri, L)

"The Blessing of Dimensionality in Latent Factor Models for Binary Data", (Dunson, D., B.; Mauri, L)

## RESEARCH EXPERIENCE

#### Bocconi, Department of Decision Sciences

Milan, IT

Research Assistant. PI: Giacomo Zanella.

Nov 2021-Jul 2022

Contributed to the development of a novel stochastic gradient MCMC (SGMCMC) that is robust to hyperparameter-tuning by applying the SGMCMC framework to the "Barker Proposal Algorithm".

#### Bocconi Institute for Data Science and Analytics

Milan, IT

Visiting Student at the BayesLab. Supervisors: Daniele Durante and Igor Prünster.

Apr 2020–Jul 2021

Analysis of seminal and state-of-the-art papers with a particular focus on Bayesian Computation, Bayesian Nonparametrics and Probabilistic Machine Learning.

# Teaching

• TA for Advanced Data Visualization (DUKE STA - 313); Honorable Mention for TA of the year.

Spring '23

• TA for Theory of Statistical Inference (DUKE STA - 532);

Spring '24

# WORK EXPERIENCE

#### Hoffmann-La Roche - Data Science and AI team

Basel, CH

Data Science Intern.

Apr 2021-Oct 2021

Contributed to large scale NLP and Machine Learning Projects.

#### ECB - European Systemic Risk Board Secretariat

Frankfurt, DE

Data Science Intern.

Feb 2021-Apr 2021

Performed statistical analysis on financial data to assess systemic risk indicators.

# IT SKILLS

Python, R, Latex: advanced; Rcpp, Matlab, Git: intermediate; SQL: basic.

## LANGUAGES

Italian: native-speaker; English: fluent; French: basic.

# Scholarships, Extracurricular Activities and Interests

• Bocconi Graduate Merit Award, issued to the best academic profiles amongst the applicants for MSc. 2019–2021

• Attended EPFL Summer School "Big Data and Machine Learning for Chemistry".

Jun 2021

• Volunteering activities at local organizations: support during hometown celebrations and charity events. 2015–2020

• Interests: reading, playing soccer and basketball, running, hiking.