Niccolo Anceschi Ph.D.

Postdoctoral Associate in Statistics - Duke University

WORK EXPERIENCE

10/2022 – Present: **Postdoc in Statistics, Duke University (NC)**

- Development of Statistical and Machine Learning Methods for Inferring Latent Structure in High-Dimensional, Complex, and Structured Data
- Collaborative Research with **Merck Sharp & Dohme** and Academic Applied Scientists (Environmental Health, Neuroscience, Ecology)
- Mentors: Amy Herring & David Dunson

06/2017 – 07/2018: **Pricing Analyst, brumbrum S.p.A. (Italy)**

- Development of Efficient and Robust Algorithms for Competitive Data-driven Asset Pricing, Based on Highly Noisy Data (e-commerce)

EDUCATION

09/2018 – 01/2023: **Ph.D. in Statistics, Bocconi University (Italy)**

- Methodological & Computational Innovations in High-dimensional Inference for Binary and Mixed-type Data (Frequentist & Bayesian)
- Optimization, Variational Inference, Markov Chain Monte Carlo

10/2014 – 04/2017: **M.Sc. in Physics, University of Milan (Italy)**

- Advanced Simulation Methods, Molecular Dynamics, Genetic Algorithms
- Modeling Biodiversity in Ecological Communities (Agent-based Models)

08/2014 – 09/2014: **Visiting Student, CU Boulder (CO)**

10/2010 – 04/2014: **B.Sc. in Physics, University of Milan (Italy)**

PUBLICATIONS & PREPRINTS

- Mauri, Anceschi & Dunson (2025+) *Spectral decomposition-assisted multi-study factor analysis*, arXiv
- Anceschi, Ferrari, Mallick & Dunson (2025+) *Bayesian joint additive factor models for multiview learning,* arXiv [JAFAR]
- Anceschi, Rigon, Zanella & Durante (2025+) *Optimal lower bounds for logistic log-likelihoods,* arXiv
- Poworoznek, Anceschi, Ferrari & Dunson (2025+) *Efficiently resolving rotational ambiguity in Bayesian matrix sampling with matching,* arXiv
- Anceschi, Fasano, Durante & Zanella (2023) *Bayesian conjugacy in probit, tobit, multinomial probit and extensions: a review and new results*, Journal of the American Statistical Association
- Anceschi, Hidalgo, Plata, Bellini, Maritan & Suweis (2019) *Neutral and niche forces as drivers of species selection*, Journal of Theoretical Biology

CONTACT

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- Google Scholar 'Niccolo Anceschi'

SKILLS

Technical Skills:

- Interpretable Machine Learning
- Uncertainty Quantification
- Scalable Bayesian Inference
- Scientific Computing & Simulation
- Probabilistic Programming
- Latent Structure Discovery
- Multimodal Data Fusion
- Interdisciplinary Problem Solving

Tools and Software:

- R, Python, C/C++
- Mathematica, MATLAB
- Stan, NumPyro
- GitHub, RMarkdown

Public Software:

- R package `jafar`
- GitHub repos `EPglm`, `TobitSUN`

OTHER

Communication & Leadership:

- 10+ Conference Talks [6 Invited] (JSM, ISBA, ENAR, CMStats, ISEC)
- Reviewer for Scientific Journals (CSDA, JCGS, Biometrics, SPP)
- Course Instructor for B.Sc. Math Stats class STA211 @ Duke (2024)
- TA for 3 B.Sc. classes in Computer Science @ Bocconi (2019-2022)

Awards:

- First Runner up BioPharm Junior Researcher Paper 2024 [JAFAR]
- Biometrics 2024 Excellent Referee