Elena Bortolato

CURRICULUM VITAE

Contact Information

University of Padova
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Current Position

Since October 2020; (expected completion: January 2024)
PhD candidate in Statistical Sciences, University of Padova.
Supervisor: prof. Laura Ventura, University of Padova
Co-supervisor: prof. Pierre E. Jacob, ESSEC Business School

Since November 2023;
Research fellow, University of Padova.
Supervisor: prof. Antonio Canale, University of Padova

Research interests

- Likelihood-free inference
- Markov Chain Monte Carlo
- Model mispecification
- Objective Bayesian approach

Education

October 2018 – September 2020
Master degree (*Laurea Magistrale*) in Statistical Sciences
University of Padova, Department of Statistical Sciences
Title of dissertation: "Bias reduction in the equicorrelated multivariate normal"
Supervisor: Prof. Euloge Clovis Kenne Pagui
Final mark: 110/110 cum laude

October 2015 - July 2018
Bachelor degree (*Laurea Triennale*) in Statistics for Technology and Sciences
University of Padova, Department of Statistical Sciences
Title of dissertation: "Models and methods for music analysis"
Supervisor: Prof. Alessandra Rosalba Brazzale
Final mark: 106/110.

Work experience

August 2019 - September 2019
ACAM MOCOTO' (Florianopolis - Brazil).

Social Media analyst (AIESEC volunteer)

February 2019 - July 2019
University of Padova
Research Fellow ROI-MOB: Measuring return on investment from EU VET mobility
(2016-1-IT01-KA202-005396)

Awards and Scholarship

2023 Honorable mention (Poster) GRASPA2023, Palermo

2023 ISBA/BayesComp Travel Grant

2022 Laboratoires Junior financing (PhD student teams prize, University of Lyon, University Jeanne Monnet)

2021 Best thesis in Mathematical Statistics in memory of professor Oliviero Lessi - Società Italiana di Statistica (SIS).

First Prize *Laboratorio con le aziende* (Business Lab)- Department of Statistical sciences University of Padova and ASPIAG.

Computer skills/software

- R, Rstudio
- Julia
- Python
- SAS
- LaTeX

Language skills

Italian: native - English: fluent - Portuguese: basic - French: basic

Publications

Articles in journals

Bortolato, E., Ventura, L. (2023). Objective priors for invariant *e*-values in the presence of nuisance parameters. Entropy - to appear,

Bortolato, E., Kenne Pagui, E.C. (2023) Bias reduction and robustness for gaussian longitudinal data analysis. Journal of Statistical Computation and Simulation - to appear

Bortolato, E., Ventura, L. (2023). On approximate robust confidence distributions. Econometrics and Statistics, 2452-3062, https://doi.org/10.1016/j.ecosta.2023.04.006,

Scarpazza, C., et al. Idiopathic and acquired pedophilia as two distinct disorders: an insight from

neuroimaging. Brain Imaging and Behavior (2021)

Biz, C., et al. (2022) Treatment of Distal Radius Fractures with Bridging External Fixator with Optional Percutaneous K-Wires: What Are the Right Indications for Patient Age, Gender, Dominant Limb and Injury Pattern? Journal of Personalized Medicine, 12, 1532.

Articles in conference book of papers

Bortolato, E., Ventura, L. Confidence distributions and fusion inference for intractable likelihoods, SIS Book of short papers (2022)

Bortolato, E., Kenne Pagui, E.C., Bias reduction in the equicorrelated multivaraite normal, SIS Book of short papers (2021)

Bortolato, E. and Fabbris, L., Vivian, M. Quantity and mood of final open-ended comments on an Erasmus+ VET mobility questionnaire, ASA Book of short papers (2019)

Preprints/Working papers

Bortolato, E., Jacob, P.E., Ryder, R.J. Manifold MCMC for generic sampling problems and couplings (2023+) *working paper*

Bortolato, E., Musio, M., Ventura, L., Evidence measures from Confidence distributions (2023+) *working paper*

Poster

Bortolato, E., Alternatives for approximation in likelihood free inference: Box-ABC, ISBA 2022 world meeting, Montreal, CA, July 2022

Bortolato, E., Jacob, P. E., Ryder, R.J. MCMC convergence on manifolds through coupling techniques, Statistical methods and models for complex data, Padova September 2022

Bortolato, E., Jacob, P. E., Ryder, R.J. Couplings of MCMC algorithms on manifolds, Approximate methods in Statistics, Marseille, FR June 2023

Bortolato, E., Jacob, P. E., James A. Watson, Estimating malaria parasites age distribution: a Bayesian statistical model, GRASPA 2023, Palermo, IT July 2023

Conference presentations

Bortolato, E., Jacob, P. E., Ryder, R. J. Tuning refinements and parallelizable computation for MCMC on manifolds, AppliBUGS2023, Paris, France, June 2023 (*invited*)

Bortolato, E., Jacob, P. E., Ryder, R. J. Convergence of MCMC algorithms on manifolds through coupling techniques, BayesComp2023, Levi, Finand, March 2023 (*contributed*)

Bortolato, E., Ventura, L. Box-ABC for likelihood-free inference, CMStatsistics, London, UK, 17-19 December 2022 (*invited*)

Bortolato, E., Ventura, L. Confidence distributions and fusion inference for intractable likelihoods, Fusion workshop, Marseille , FR, October 2022 (*invited*)

Bortolato, E., Ventura, L. Confidence distributions and fusion inference for intractable likelihoods, Italian Statistic Society meeting, Caserta, IT, June 2022 (*contributed*)

Bortolato, E., Kenne Pagui, E. C. Bias reduction in the equicorrelated multivariate normal, 50th meeting of the Italian Statistical Society, Pisa, Italy, June 25, 2021 (*contributed*)

Teaching experience

Teaching assistant
Multidimensional data analysis (Department of Statistical Sciences)
University of Padova
October 2023 -

Mathemetics and Statistics (Department of Biology)
University of Padova
October 2023 -

Adjunct lecturer
Business Statistics and Introduction to Data Analytics (Grande Ecole - Master in Management)
ESSEC Business School
January - March 2023

Tutoring
Calculus (Statistics for Technology and Sciences, Statistics for Business and Economy, BSc courses)
Statistics (Statistical Sciences, MSc course)
University of Padova
October 2019 - June 2020

Schools

Sampling high-dimensional probability measures: applications in (non)equilibrium molecular dynamics and statistics, *September 2023*

Replicability crisis in Science? *September 2023*

CEREMADE Winter School 2022, Saint-Pierre-Canivet, France, *February 2022*

Visiting

November 2021 - June 2022,November 2022 - June 2023 ESSEC Business School

Other experience

Support to organization of 14th International Conference on Monte Carlo Methods and Applications MCM23, Paris, *June 2023*.

Referee activity

Bayesian Analysis

Memberships

ISBA (International Society of Bayesian Analysis), IMS (Institute of Mathematical Statistics)

10/01/2024