Cecilia Balocchi

CONTACT INFORMATION

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EMPLOYMENT

University of Edinburgh, School of Mathematics. Edinburgh, UK.
Lecturer in Statistics. May 2022 - present.

University of Torino, Department of Economics and Statistics. Torino, Italy.
Postdoctoral researcher in Statistics. May 2020 - April 2022.
Advised by Stefano Favaro, supported by ERC grant NBEB-SSP.

EDUCATION

University of Pennsylvania, The Wharton School. Philadelphia, PA.
Ph.D. in Statistics. May 2020.
Advisors: Ed George and Shane Jensen.
Thesis: "Bayesian Nonparametric Analysis of Spatial Variation with Discontinuities"

University of Torino. Torino, Italy.
M.Sc. in Mathematics with emphasis in Probability (110/110 *cum laude*). July 2015
Advisors: Ciro Cattuto, Antonio Lijoi, Igor Prünster and Laura Sacerdote.

Collegio Carlo Alberto, Allievi Honors Program. Moncalieri, Italy.
Master in Statistics and Applied Mathematics (graduated with distinction). July 2015
Advisors: Antonio Lijoi and Igor Prünster.

University of Parma. Parma, Italy.
B.S. in Mathematics (110/110 *cum laude*). September 2013
Advisors: Maria Groppi and Marzia Bisi.

AWARDS AND GRANTS

2021 Savage Award - Applied Methodology.
American Statistical Association & International Society for Bayesian Analysis

Donald S. Murray Prize for Excellence in Teaching.
University of Pennsylvania, 2020

Best Talk Prize.
BAyesian Young Statistician Meeting 2018

Conference Travel Awards
BNP 11, ISBA 2018, BNP 12

Wharton Doctoral Program Fellowship.
First Year Award, 2015.

Collegio Carlo Alberto.
Allievi Honors Program Scholarship, 2013 - 2015.

INdAM - National Institute of High Mathematics "F. Severi".
3-year merit-based scholarship, awarded to the forty best italian students in Mathematics, 2010 - 2013.

Ministry of Education, Universities and Research.
Included in "Excellence Board", 2010.

National Mathematics Olympiads, team competition.
Member of the school team, 2007-2010

SERVICE

j-ISBA board, Secretary. 2022-2023.

UoE Center for Statistics Annual Conference, Organizing Committee. June 2022.

POSTERS AND TALKS

ISBA 2022, Montreal, invited talk (delivered remotely).
Bayesian Nonparametric Analysis of Spatial Variation with Discontinuities.

OxCSML Seminar, June 2022, University of Oxford, invited talk.
Bayesian Nonparametric Analysis of Spatial Variation with Discontinuities.

BNP Networking Event 2022, Nicosia, contributed talk.
A Bayesian Nonparametric Model for Partitions with Ordered Clusters.

Statistics Seminar, December 2021, University of Edinburgh, invited talk.
Bayesian Spatial Clustering of Crime in Urban Environments.

BAYSM 2021, online, contributed talk.
Imputing Synthetic Pseudo Data from Aggregate Data: Development and Validation for Precision Medicine.

ISBA 2021, online, contributed talk.
A Bayesian Nonparametric Approach to Clustering Data at Multiple Resolutions.

45th University of Arkansas Spring Lecture Series, online, invited talk.
Bayesian Spatial Clustering of Crime in Philadelphia.

JSM 2020, online, invited talk.
Spatial Modeling and Clustering of Crime Trends in Urban Environments.

JSM 2019, Denver, contributed talk.
Clustering Data at Multiple Resolutions.

O'Bayes 2019, University of Warwick, poster.
Clustering Data at Multiple Resolutions.

BNP 12, Oxford, contributed talk.
Clustering Data at Multiple Resolutions.

BAYSM 2018, University of Warwick, contributed talk.
Bayesian Spatial Clustering of crime with Particle Optimization.

ISBA 2018, Edinburgh, contributed talk.
Prior Choice and Ensemble Particle Optimization for Clustering Areal Data.

BayesComp 2018, Barcelona, poster.
Bayesian Spatial Clustering with Particle Optimization.

BNP 11, Paris, poster.
Non-parametric Spatial Modeling of Changes in Crime over Time.

PAPERS

Cecilia Balocchi, Federico Camerlenghi, and Stefano Favaro (2021+). A Bayesian Nonparametric Approach to Species Sampling Problems with Ordering. *arXiv preprint arXiv:2203.07342.*

Cecilia Balocchi, Stefano Favaro, and Zacharie Naulet (2021+). Bayesian Nonparametric Inference for "Species-sampling" Problems. *arXiv preprint arXiv:2203.06076.*

Cecilia Balocchi, Edward I. George, and Shane T. Jensen (2021+). Clustering Areal Units at Multiple Levels of Resolution to Model Crime Incidence in Philadelphia. *arXiv preprint arXiv:2112.02059.*

Cecilia Balocchi, Ray Bai, Jessica Liu, Silvia P. Canelón, Edward I. George, Yong Chen and Mary R. Boland (2021+). A Bayesian Hierarchical Modeling Framework for Geospatial Analysis of Adverse Pregnancy Outcomes. *arXiv preprint arXiv:2105.04981.*

Sameer K. Deshpande, Ray Bai, Cecilia Balocchi, Jennifer E. Starling, and Jordan Weiss (2020+). VC-BART: Bayesian trees for varying coefficients. *arXiv preprint arXiv:2003.06416.*

Cecilia Balocchi, Sameer K. Deshpande, Edward I. George, and Shane T. Jensen, (2019+). Crime in Philadelphia: Bayesian Clustering with Particle Optimization. *arXiv preprint arXiv:1912.00111.*

Cecilia Balocchi, Shane T. Jensen (2019) Spatial Modeling of Trends in Crime over Time in Philadelphia. *Annals of Applied Statistics.*