

# Cecilia Balocchi

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## CONTACT INFORMATION

*E-mail:*  
ceciliadotbalocchiatgmaildotcom

## CURRENT POSITION

**University of Torino**, Torino, Italy.  
Postdoctoral researcher in Statistics, May 2020 - present  
*Advised by Stefano Favaro.*  
*Support: ERC grant NBEB-SSP.*

## EDUCATION

**University of Pennsylvania**, Philadelphia, PA.  
Ph.D. in Statistics.  
Graduated in May 2020.  
*Co-advised by 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.  
Graduated in July 2015, with 110/110 *cum laude*.  
*Co-advised by Ciro Cattuto, Antonio Lijoi, Igor Prünster and Laura Sacerdote.*

**Collegio Carlo Alberto**, Moncalieri, Italy.  
Master in Statistics and Applied Mathematics, *Allievi Honors Program*.  
Graduated in July 2015 with distinction.  
*Co-advised by Antonio Lijoi and Igor Prünster.*

**University of Parma**, Parma, Italy.  
B.S. in Mathematics.  
Graduated in September 2013, with 110/110 *cum laude*.  
*Co-advised by Maria Groppi and Marzia Bisi.*

**Liceo Scientifico Statale Giacomo Ulivi**, Parma, Italy.  
High School Diploma with emphasis in Science.  
Graduated in July 2010 , with 100/100 *cum laude*.

## AWARDS AND GRANTS

**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

**POSTERS AND TALKS**

**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, 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. *submitted*.

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

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

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