

# Federica Zoe Ricci

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## Academic Appointments

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### Assistant Professor of Statistics (tenure-track)

Swarthmore College, Swarthmore, PA, USA

August 2025 - present

## Education

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### PhD, Statistics

June 2025

*University of California, Irvine*

Advisors: Erik Sudderth and Michele Guindani

Dissertation: "Advances in Bayesian methods for sparse network analysis and time-series biclustering"

### MSc, Economic and Social Sciences

2019

*Bocconi University*

Thesis Advisor: Antonio Lijoi

Thesis: "Sticky hierarchical Pitman-Yor process as prior for hidden Markov models"

### BSc, Economics and Management for Arts, Culture and Communication

2015

*Bocconi University*

Thesis (Anthropology, advised by Ugo Fabietti): "Building social ties: gift exchange in contemporary art"

## Publications

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### PEER-REVIEWED

Migliavada, R., Ricci, M., Garavelli, G., **Ricci, F.Z.** and Torri, L. (2025). "The way calories are communicated may not affect calorie intake: evidence from an online experiment". *Nutrients* 17 (23), 3642

Dogucu, M., Demirci, S., Bendekgey, H., **Ricci, F.Z.** and Medina, C.M. (2025). "A systematic literature review of undergraduate data science education research". *Journal of Statistics and Data Science Education*, 1-13

**Ricci, F.Z.**, Medina, C.M. and Dogucu, M. (2024). "Automated grading workflows for providing personalized feedback to open-ended data science assignments". *Technology Innovations in Statistics Education*, 15 (1).

**Ricci, F.Z.**, Guindani, M. and Sudderth, E.B. (2022). "Thinned random measures for sparse graphs with overlapping communities". *Advances in Neural Information Processing Systems* 35, 38162-38175

Migliavada, R., **Ricci, F.Z.**, Denti, F., Haghverdian, D. and Torri, L. (2022). "Is purchasing of vegetable dishes affected by organic or local labels? Empirical evidence from a university canteen". *Appetite* 173, 105995

Migliavada, R., **Ricci, F.Z.** and Torri, L. (2021). "A three-year longitudinal study on the use of pre-ordering in a university canteen". *Appetite* 163, 105203

### OTHER PUBLICATIONS

Micheletti, D., **Ricci, F.Z.** and Sudderth, E.B. (2025). "A Generative Framework for Exchangeable Graphs with Global and Local Latent Structure". *Workshop on New Perspectives in Graph Machine Learning, Conference on Neural Information Processing Systems*, Dec. 2025.

Rummerfield, W., **Ricci, F.Z.** and Dogucu, M. (2021). "Training graduate students to teach statistics and data science from a distance". *Proceedings of the IASE 2021 Satellite Conference*

### IN PREPARATION

**Ricci, F.Z.**, Sudderth, E.B., Lee, J., Peters, M.A.K., Vannucci, M. and Guindani, M. (2026+). "Bayesian temporal biclustering with applications to multi-subject neuroscience studies". *arXiv preprint arXiv:2406.17131*

**Ricci, F.Z.**, Micheletti D., Guindani, M. and Sudderth, E.B. (2026+). "Sparse and scalable mixed membership stochastic blockmodels for network analysis".

# Presentations

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## Approximately sparse mixed-membership stochastic blockmodels for the analysis of large networks

- Poster presentation, *Bayesian Nonparametrics Conference*

UCLA, June 2025

## Bayes BATS: a program for advancing Bayesian thinking in STEM education

- Contributed talk, *Joint Statistical Meetings*

Portland (OR), Aug 2024

## Bayesian temporal biclustering with applications to multi-subject neuroscience studies

- ★ Invited talk, *International Society for Bayesian Analysis (ISBA) World Meeting*

Venice (Italy), Jul 2024

- ★ Invited talk, *Colloquium of Department of Mathematics and Statistics*

University of West Florida, Mar 2024

- Best poster award (1st classified), *Biomedical Data Science Workshop*

UC Irvine, Feb 2024

## See you at the Posterior Line: teaching Bayesian modeling with a racing game

- Poster presentation, *Bayesian Young Statistician Meeting*

Venice (Italy), Jun 2024

- Poster (video presentation), *Electronic Conference on Teaching Statistics (eCOTS)*

online, Jun 2024

## Building Data Science Education Research Plan for Teacher-Scholar

- Breakout Session (voted “hot topic of the day”), *eCOTS*

online, Jun 2024

## Automate your grading workflow with gradetools: a grading assistant in RStudio

- Workshop, *United States Conference on Teaching Statistics*

State College (PA), May 2023

- ★ Invited workshop, *Researchers of Statistics Education Conference*

online, May 2023

## Thinned random measures for sparse networks with overlapping communities

- ★ Invited talk, *International Day of Women in Statistics and Data Science*

online, Oct 2022

- Poster presentation, *Objective Bayes Conference*

UC Santa Cruz, Sep 2022

- Poster award in Bayesian Nonparametrics, *ISBA World Meeting*

Montreal (Canada), Jul 2022

# Teaching Experience

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## Instructor, Swarthmore College

- STAT 111- Statistical Methods I

F 2025

## Teaching Assistant, UC Irvine

Led weekly discussion (lab) sessions with up to 50 students, wrote homework and exams, held weekly office hours.

- STATS 120B - Mathematical Statistics

W 2025

- STATS 8 - Introduction to Biological Statistics

F 2021

- STATS 68 - Statistical Computing and Exploratory Data Analysis

S 2021

- STATS 67 - Introduction to Probability and Statistics for Computer Science

W 2021, S-W-F 2020

## Guest Instructor, UC Irvine

Designed and taught “See you at the posterior line: a game-based activity for the Beta-Binomial model” for STATS 115 - Introduction to Bayesian Data Analysis.

## Workshop Instructor, UC Irvine

Designed and taught scientific writing workshops for a total of 70 undergraduate and 20 graduate students.

- Creating your professional website

2025

- Writing a data analysis paper

2023, 2024

- Writing a honors thesis

2024

- Quarto documents (the new RMarkdown!)

2023

- Preparing for the data analysis qualifying exam

2023

## Program Assistant, Bayes BATS program for the advancement of Bayesian Thinking in STEM

- Supported development of material and instruction of summer bootcamp for undergraduate STEM instructors.

July 2023

- Mentored Dr. P. Toledo with developing materials for introducing frequentist and Bayesian methods in parallel to undergraduate students in Economics.

2023 - 2025

**Participant of Preparing to Teach Statistics and Data Science Workshop, Corvallis (OR)**

August 2024

Selective, fully-funded workshop organized by the Section on Statistics and Data Science Education of the American Statistical Association to prepare for undergraduate-focused faculty roles.

**Graduate Fellow of Division of Teaching Excellence and Innovation, UC Irvine**

Summer 2020

Advanced pedagogical training with emphasis on remote learning from Division of Teaching Excellence and Innovation (DTEI).

## Undergraduate Research Mentoring

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**Irvine Summer Institute in Biostatistics and Undergraduate Data Science**

Summer 2024

Mentored team of four undergraduate students studying the impact of stigma and displacement on mental-health outcomes among sexual minority men in Ukraine.

**Mentoring Excellence Program, UC Irvine**

Fall 2024

Completed 5-week training on: building a mentoring relationship; conflict resolution; mentoring across differences; communication and interpersonal relationships; mentoring and academic wellness.

## Service

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**Reviewer**

- ★ *Neural Information Processing Systems (NeurIPS) - Selected as Top Reviewer* 2025
- *Journal of the American Statistical Association (JASA)* 2025
- *Journal of Statistics and Data Science Education (JSDSE)* 2025
- *Artificial Intelligence and Statistics (AISTATS)* 2023 , 2024
- *Computational Statistics and Data Analysis (CSDA)* 2023

**Associate Editor, Teaching Bayes section**

2024 - present

Quarterly Bulletin of International Society for Bayesian Analysis

**Statistics Brown Bag seminar series, UC Irvine**

2021 - 2025

Founded and led the organization of bimonthly seminars for promoting graduate students' professional development (research fairs, workshops, faculty showcase).

**Pacific Alliance for Low-income Inclusion in Statistics and Data Science**

2023-24

Mentored undergraduate student who transferred from community college to Data Science Bachelors at UC Irvine.

**Competition Judge**

- Undergraduate Class Project Competition  
*Consortium for the Advancement of Undergraduate Statistics Education, American Statistical Association* Winter & Summer 2024
- Data Visualization Poster Competition  
*K-12, American Statistical Association* Spring 2024

## Awards

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**HPI Fellowship for Machine Learning and Data Science, UC Irvine**

2022 - present

**Outstanding Qualifying Exams (Newcomb Award), UC Irvine**

2020

**Outstanding Teaching Assistant Award (Honorary Mention), UC Irvine**

2020

**Dean's Recruitment Fellowship, UC Irvine**

2019

**Graduate Fellow, IGIER-BIDSA Research Centers, Bocconi University**

2017-19

## Certifications

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**CITI Basic HRP Course for Social and Behavioral Investigators**

Fall 2023

## **Professional Memberships**

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Institute of Mathematical  
Statistics

American Statistical  
Association

International Society for  
Bayesian Analysis