

Federica Zoe Ricci

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Academic Appointments

Assistant Professor of Statistics (tenure-track)

August 2025 - present

Swarthmore College, Swarthmore, PA, USA

Education

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

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

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

Instructor, Swarthmore College

- STAT 11- 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

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

Reviewer	
★ <i>Neural Information Processing Systems (NeurIPS) - Selected as Top Reviewer</i>	2025
• <i>Journal of the American Statistical Association (JASA)</i>	2025
• <i>Journal of Statistics and Data Science Education (JSDSE)</i>	2025
• <i>Artificial Intelligence and Statistics (AISTATS)</i>	2023 , 2024
• <i>Computational Statistics and Data Analysis (CSDA)</i>	2023
Associate Editor, <i>Teaching Bayes</i> section	2024 - present
Quarterly Bulletin of <i>International Society for Bayesian Analysis</i>	
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 <i>Consortium for the Advancement of Undergraduate Statistics Education, American Statistical Association</i>	Winter & Summer 2024
• Data Visualization Poster Competition <i>K-12, American Statistical Association</i>	Spring 2024

Awards

HPI Fellowship for Machine Learning and Data Science, UC Irvine	2022 - present
Outstanding Qualifying Exams (Newcomb Award), <i>UC Irvine</i>	2020
Outstanding Teaching Assistant Award (Honorary Mention), <i>UC Irvine</i>	2020
Dean's Recruitment Fellowship, UC Irvine	2019
Graduate Fellow , IGIER-BIDSA Research Centers, <i>Bocconi University</i>	2017-19

Certifications

CITI Basic HRP Course for Social and Behavioral Investigators	Fall 2023
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Professional Memberships

Institute of Mathematical
Statistics

American Statistical
Association

International Society for
Bayesian Analysis