Tim White

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Education

Ph.D. in Statistics	2022 - Present
University of Michigan	Ann Arbor, MI
Advisor: Jeffrey Regier	GPA: 3.94
M.A. in Statistics	2022 - 2024
University of Michigan	Ann Arbor, MI
B.S. in Statistical Science, *summa cum laude*	2018 - 2022
University of Minnesota	Minneapolis, MN
Secondary Major in Economics (Quantitative Emphasis), Minor in Mathematics	GPA: 4.00

Research interests

- Sequential Monte Carlo
- Markov chain Monte Carlo
- Variational inference
- Applications in astrophysics
- Diffusion models
- Data mining and visualization

Publications

Journal papers

Tim White and Sara Algeri (2023). Estimating the lifetime risk of a false positive screening test result. *PLoS ONE*, *18*(2), e0281153. 📄 [Manuscript](#) ⭘ [Code](#)

Conference papers

Tim White and Jeffrey Regier (2023). Sequential Monte Carlo for detecting and deblending objects in astronomical images. *NeurIPS Workshop on Machine Learning and the Physical Sciences.* 📄 [Manuscript](#) ⭘ [Code](#)

Presentations

Neural posterior estimation for inferring weak lensing shear and convergence from pixels

Joint Statistical Meetings. Nashville, TN.	August 2025
Michigan Student Symposium for Interdisciplinary Statistical Sciences. Ann Arbor, MI.	March 2025
Pixels to Objects Working Group, Dark Energy Science Collaboration. Virtual.	January 2025

Sequential Monte Carlo samplers for probabilistic object detection in images

Joint Statistical Meetings. Portland, OR.	August 2024
Michigan Student Symposium for Interdisciplinary Statistical Sciences. Ann Arbor, MI.	March 2024
NeurIPS Workshop on Machine Learning and the Physical Sciences. New Orleans, LA.	December 2023

Estimating the lifetime risk of a false positive screening test result

Joint Statistical Meetings. Washington, DC.	August 2022

Software

Primary developer of the GitHub repository `smc_object_detection`. ⭘ github.com/timwhite0/smc_object_detection

Author of the R Shiny dashboard `The False Positives Calculator`. ✿ falsepositives.shinyapps.io/calculator

Teaching and mentorship

Graduate Student Instructor   August 2022 - Present
Department of Statistics, University of Michigan   Ann Arbor, MI

Fall 2024, Winter 2025	DATASCI 451: Bayesian Data Analysis	
	Advanced course for approximately 80 undergraduate statistics majors.	
Winter 2024	DATASCI 415: Data Mining and Statistical Learning	
	Advanced course for approximately 80 undergraduate statistics majors.	
Fall 2023	STATS 401: Applied Statistical Methods II	
	Core course for approximately 120 undergraduate statistics minors.	
Winter 2023	DATASCI 306: Introduction to Statistical Computing	
	Introductory course for approximately 160 undergraduate statistics majors and minors.	
Fall 2022	STATS 250: Introduction to Statistics and Data Analysis	
	Introductory course for approximately 800 undergraduates of all majors.	

Graduate Tutor   January 2024 - Present
Department of Statistics, University of Michigan   Ann Arbor, MI

Graduate Mentor   January 2024 - May 2024
Undergraduate Research Program in Statistics, University of Michigan   Ann Arbor, MI

Service

Civic Engagement and Service Committee Member   February 2024 - Present
Statistics Ph.D. Council, University of Michigan   Ann Arbor, MI

Datathon Judge   March 2024, March 2025
Hosted by Michigan Undergraduate Students of Statistics, University of Michigan   Ann Arbor, MI

Data Analyst   September 2019 - May 2022
College of Liberal Arts Student Board, University of Minnesota   Minneapolis, MN

Work experience

Undergraduate Research Assistant, IPUMS International   January 2019 - May 2022
Minnesota Population Center   Minneapolis, MN

Intern, Population and Development Branch   September 2021 - March 2022
United Nations Population Fund   New York, NY (remote)

Honors and awards

Outstanding Graduate Student Instructor Award   April 2025
Department of Statistics, University of Michigan

Best Oral Presentation, Methods/Theory   March 2025
Michigan Student Symposium for Interdisciplinary Statistical Sciences

Best Oral Presentation, Applications   March 2024
Michigan Student Symposium for Interdisciplinary Statistical Sciences

Emerging Researcher Award   March 2024
Department of Statistics Visit Day, University of Michigan

Buehler Memorial Undergraduate Award   May 2022
School of Statistics, University of Minnesota

Honorable Mention, ASA Student Paper Competition   January 2022
American Statistical Association, Section on Medical Devices and Diagnostics