

JOSHUA S. SPEAGLE (沈佳士)

Statistical Sciences | Astronomy & Astrophysics

University of Toronto

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RESEARCH INTERESTS

My research lies at the intersection of **astrostatistics**, **data science**, and **artificial intelligence**. I develop and apply a variety of methods to **large datasets** to answer complex astrophysical questions and improve how we learn about the world from noisy, messy data.

POSITIONS

Assistant Professor of Astrostatistics: University of Toronto	2022-Present
Research Scientist: River Run Trading	Jan-Apr 2025
Quantitative trading strategies for crypto assets	
Dunlap Postdoctoral Fellow: University of Toronto	2020-2022
Banting Postdoctoral Fellow: University of Toronto	2020-2022
Supervisor: Gwen Eadie	
Project Academic Support Staff: Kavli IPMU, University of Tokyo	2015-2016
Supervisors: Naoki Yoshida, Alexie Leauthaud, & Kevin Bundy	

EDUCATION

Harvard University: PhD in Astronomy	2016-2020
Advisers: Doug Finkbeiner, Charlie Conroy, & Daniel Eisenstein (with Alyssa Goodman)	
Harvard University: MA in Astronomy	2016-2020
Advisers: Daniel Eisenstein & Alexie Leauthaud	
Harvard University: BA in Astrophysics and Physics	2011-2015

SELECTED AWARDS & HONORS

Connaught New Researcher Award: University of Toronto	2024
John Charles Polanyi Prize in Physics: Council of Ontario Universities	2022
Best Astrostatistics Student Paper Award: Astrostatistics Interest Group (ASA)	2020
Eric R. Keto Prize for Best Thesis in Theoretical Astrophysics: Harvard University	2020

SUPERVISION & MENTORSHIP

I am currently (co-)supervising/mentoring a total of **19 individuals**. This includes:

- 5 postdoctoral researchers
- 6 doctoral students
- 3 MSc students/projects
- 5 undergraduate students

See my [website](http://joshspeagle.com) for a full record of the **75 individuals** I have (co-)supervised/mentored.

PUBLICATIONS

I am an author on **126+ papers** that have **16,000+** citations ([h-index=43](#)). This includes:

- 18 papers as primary/co-first author
- 23 papers with significant contributions
- 5 papers led by postdocs
- 17 papers led by students

Most of my papers can be found online on [ADS](#), [arxiv](#), and [Google Scholar](#). My ORCID is [0000-0003-2573-9832](#). A full list of publications and additional details can be found on my [website](#).

SELECTED PROFESSIONAL ACTIVITIES & SERVICE

Professional Societies:

Statistical Society of Canada (SSC): Data Science and Analytics Section President	2025-2026
American Astronomical Society (AAS): WGAA Steering Committee	2020-2026
LSST Informatics & Statistics Science Collaboration (ISSC): Publication Committee Chair	2024
American Statistical Association (ASA): AIG Program Chair (Interim)	2023-2024
Web Director	2021-2023
Canadian Astronomical Society (CASCA): Postdoc Committee	2020-2023

University Service

Statistical Sciences: Graduate Admissions Committee (2022-Present), UTSSRP (Instructor 2026), Undergraduate Curriculum Committee (2025-Present)
Astronomy & Astrophysics: Undergraduate Curriculum Committee (2023-2024, 2025-Present), SURP Committee (Chair 2022-2024, Member 2021-2022, 2026), Training & Mentoring Committee (Co-Chair, 2021-2023, Graduate Admissions Committee (2021)

Discussion Groups, Workshops, & Conferences

Annual UofT STATSTRO Workshop: Founder & Co-Organizer	2021-Present
Globular Clusters & Their Tidal Tails: SOC Co-Chair, LOC Co-Chair	2024
CASCA Annual General Meeting: SOC Co-Chair, LOC Member	2024

Manuscript Referee

AAS Journals, MNRAS, A&A, RASTI, JOSS, Annals of Applied Statistics, Statistical Science

SELECTED PRESENTATIONS & APPEARANCES

I have given numerous presentations related to work being done by me and my collaborators to the scientific community and the public along with providing lectures and tutorials and participating in panel discussions. See my [website](#) for a full record.

TEACHING

I have a strong interest in education and pedagogy, with a focus on skills such as programming, applied statistics, and data science. See my [website](#) for additional details on courses I have taught.

EQUITY, DIVERSITY, & INCLUSION

I am committed to improving equity, diversity, and inclusion (EDI) in the classroom, in my work, and in the wider academic community. See my [website](#) for additional details.