

JOSHUA S. SPEAGLE (沈佳士)

Statistical Sciences | Astronomy & Astrophysics

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MENTORSHIP

I have (co-)mentored or am currently (co-)mentoring a total of **20 individuals**.

Graduate

4. Sam Berek (Astronomy, Toronto) Spring 2022-Present
Modelling Galaxy Globular Clusters Populations with Hurdle Models (with Gwen Eadie)
3. Yunyi Shen (Statistics, Madison → CompSci, MIT) Summer 2021-Present
Modelling Stellar Flares with HMMs (with Vianey Leos Barajas, Gwen Eadie, Amber Medina)
2. Steffani Grondin (Astronomy, Toronto) Spring 2021-Present
Identifying Tidally Stripped Cluster Members with Machine Learning and Corespray (with Jeremy Webb)
1. Aarya Patil (Astronomy, Toronto) Winter 2021-Present
Asteroseismology with Multitaper Methods (with Gwen Eadie)

Undergraduate

15. Grace Yu (Computer Science, Toronto) Summer 2022-Present
Mapping the Milky Way with Blue Horizontal Branch Stars (with Ting Li)
14. Jinoo Kim (Astronomy, Toronto) Summer 2022-Present
Estimating Galaxy Sizes from Panchromatic Images (with Lamiya Mowla and Kartheik Iyer)
13. Robin Wen (Physics, Waterloo → Caltech) Summer 2022-Present
Hierarchical Modelling of Globular Cluster Properties (with Jeremy Webb and Gwen Eadie)
12. Feiyu Quan (Astronomy, Toronto) Summer 2022-Present
Investigating Warped Disk Galaxies in IllustrisTNG (with Neige Frankel and J.J. Zanazzi)
11. Charlie Hughes (Astronomy, Toronto) Fall 2021-Present
Estimating Photometric Metallicities with DECam and S5 (with Ting Li)
10. Eric Conenna (Astronomy, Toronto) Fall 2021-Spring 2022

- High-Dimensional Analysis of APOGEE Data (with Jeremy Webb and Steffani Grondin)
9. Daniel Ding (Engineering, Toronto → Amazon) Fall 2021-Present
Latent Space Decompositions of APOGEE Spectra (with Jo Bovy)
 8. Ava Oveisi (Computer Science, Toronto-Scarborough) Summer 2021-Present
Imaging Cosmic Dust with Machine Learning (with Kristen Menou)
 7. Alicia Savelli (Physics, Brock → Astronomy, Toronto) Summer 2021-Present
Milky Way Analogues in Cosmological Simulations (with Ted Mackereth)
 6. Jeff Shen (Astronomy, Toronto → Princeton) Winter 2020-Present
Estimating Stellar Parameters using 220M Gaia DR3 BP/RP Spectra (with Neige Frankel)
Disentangling Stellar Age Estimates from Galactic Chemodynamical Evolution (with Neige Frankel and Ted Mackereth)
Estimating the Mass of the Milky Way with the H3 Survey (with Gwen Eadie, Norm Murray, and Dennis Zaritsky)
 5. Mingxuan Teng (Compute Science, Toronto) Fall 2020-Present
Detecting and Characterizing Outliers in Machine Learning Applications
 4. Zhiya Lou (Statistics, Toronto → ICL) Fall 2020-Present
Bayesian Model Selection with Globular Clusters (with Gwen Eadie and Jeremy Webb)
 3. Sina Babaei Zadeh (Physics & Astronomy, Western) Summer 2021
Studying Galaxy Assembly Histories in Cosmological Simulations (with Ted Mackereth and Lamiya Mowla)
 2. Alan Tu (Physics, Harvard) Summer 2020-Summer 2021
Kinematics of Young Stars in the Radcliffe Wave (with Catherine Zucker & Gus Beane)
 1. Kaustav Das (Physics, IIT Kanpur) Summer 2019-Fall 2020
Constraining the Distance to the North Polar Spur (with Catherine Zucker)

High School

1. Liam Pilarski (Millburn High School, NJ) Fall 2021-Spring 2022
Estimating Galaxy Properties from Images with Probabilistic Deep Learning