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JOSHUA S. SPEAGLE（沈佳士）

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MENTORSHIP

I have (co-)mentored/am currently (co-)mentoring **48 individuals**. This includes:

3 postdoctoral researchers
8 doctoral students
1 master's student
35 undergraduate students
1 secondary school student

All affiliations outside of the main University of Toronto-St. George (UTSG) campus are listed. The Scarborough and Mississauga campuses are abbreviated as UTSC and UTM, respectively.

Postdoctoral Researchers

3. Tanveer Karim — Fall 2023-Present
   Co-supervised with Renée Hložek
   Arts & Science Postdoctoral Fellow
2. Mike Walmsley — Fall 2023-Present
   Dunlap Postdoctoral Fellow
1. Jacqueline Antwi-Danso — Fall 2023-Present
   Banting Postdoctoral Fellow

Doctoral Students

8. Maggie Zhai — Fall 2023-Present
   Co-supervised with Gwen Eadie
   Statistical Applications in Astronomical Image Analysis
7. Alex Laroche — Fall 2022-Present
   Co-supervised with Maria Drout
   Constraining Binary Stellar Evolution with Middle-Aged Massive Binaries
6. Phil Van-Lane — Fall 2022-Present
   Co-supervised with Gwen Eadie and Ryan Cloutier (McMaster)
   Time Evolution of Exoplanet Population Demographics around Low-Mass Stars
5. Alicia Savelli — Fall 2022-Summer 2023

Evolution of Milky Way Analogues in Cosmological Simulations

4. Mairead Heiger — Fall 2022-Present
   Co-supervised with Ting Li
   Galactic Chemical Evolution with Dwarf Galaxies and Metal-Poor Stars
3. Sam Berek — Spring 2022-Present
   Co-supervised with Gwen Eadie
   Galaxy Globular Clusters Populations with Hurdle Models (with Gwen Eadie)
2. Steffani Grondin — Spring 2021-Present
   Primarily supervised by Maria Drout and Jeremy Webb (now York)
   Stellar and Binary Evolution with Star Clusters
1. Aarya Patil — Winter 2021-Spring 2023
   Primarily supervised by Gwen Eadie, Jo Bovy, and Sebastian Jaimungal
   Asteroseismology with Multitaper Methods

Master's Students

1. Yunyi Shen (UW-Madison, MIT) — Summer 2021-Summer 2022
   Co-supervised with Vianey Leos Barajas, Gwen Eadie, and Amber Medina (UT Austin, now USA Department of Defense)
   Modelling Stellar Flares with Hidden Markov Models

Undergraduate Students

35. Patrice Yee — Fall 2023-Present
    Population Demographics of Exoplanets and their Host Stars
34. Jimmy Yang — Fall 2023-Present
    Population Demographics of Exoplanets and their Host Stars
33. Xinpeng Xing — Fall 2023-Present
    Population Demographics of Exoplanets and their Host Stars
32. Wanshi Liang — Fall 2023-Present
    Population Demographics of Exoplanets and their Host Stars
31. Yonatan Eyob — Fall 2023-Present
    Population Demographics of Exoplanets and their Host Stars
30. Matthew Kustec — Fall 2023-Present
    Exploring Galaxy Assembly Histories Across Cosmological Simulations
29. Maximilian Zabrodski — Fall 2023-Present
    Co-supervised with Steffani Grondin
    Multiple Stellar Populations: Observations, Origins, and Onetime Solutions
28. Qianyu "Rita" Fan — Fall 2023-Present
    Latent Parameter Inference with Probabilistic Dimensionality Reduction
27. Yihan "Christine" Wang — Summer 2023-Present

Stellar Parameter Estimation with Likelihood-Free Frequentist Inference (LF2I)

26. Belle Pensamiento (George Brown College) Summer 2023-Present
Co-supervised with Brian Nord (Fermilab)
Classifying PLAsTiCC Transient Simulations with Recurrent Neural Networks

25. Guiping Zhao Summer 2023
Deriving Stellar Properties with Spectrophotometric Modelling

24. Shu Yan "Alice" Wang Summer 2023
Co-supervised with Sam Berek and Gwen Eadie
Applications of Bayesian Predictive Model Comparison in Astronomy

23. Stephanie Lee Summer 2023
Co-supervised with Ting Li and Mairead Heiger
Deriving Stellar Abundances in DESI using Machine Learning

22. Eshal Arshad Summer 2023
Co-supervised with Alicia Savelli
Exploring Galaxy Assembly Histories Across Cosmological Simulations

21. Ishika Bangari Spring 2023
Co-supervised with Alicia Savelli
Exploring Definitions of Milky Way Analogues with Cosmological Simulations

20. Ryan Wang Fall 2022-Summer 2023
Co-supervised with Jeremy Webb (now York) and Steffani Grondin
Identifying Extra-Tidal Stars in APOGEE Globular Clusters

19. Rosalind Liang Fall 2022-Summer 2023
Co-supervised with Jeremy Webb (now York) and Steffani Grondin
Identifying Extra-Tidal Stars in APOGEE Globular Clusters

18. Milica Ivetic Fall 2022-Summer 2023
Co-supervised with Jeremy Webb (now York) and Steffani Grondin
Probabilistic Dimensionality Reduction Methods for Stellar Chemodynamics

17. Ian Chow (now Western) Fall 2022-Summer 2023
Probabilistic Dimensionality Reduction Methods for Stellar Chemodynamics

16. Shahmeer Athar Fall 2022-Spring 2023
Co-supervised with Bob Abraham
Rapid Focusing Algorithms for the Dragonfly Telephoto Array

15. Fengqing "Grace" Yu Summer 2022-Summer 2023
Co-supervised with Ting Li
Mapping the Milky Way with Blue Horizontal Branch Stars

14. Jinoo Kim (now McMaster) Summer 2022-Summer 2023
Co-supervised with Lamiya Mowla (now Wellesley) and Kartheik Iyer (now Columbia)
Estimating Galaxy Sizes from Panchromatic Images

13. Robin Wen (Waterloo, now Caltech) Summer 2022-Summer 2023
Co-supervised with Jeremy Webb (York University) and Gwen Eadie

Hierarchical Modelling of Globular Cluster Properties

12. Feiyu Quan (UTSC, now Cambridge) Summer 2022-Spring 2023
Co-supervised with Neige Frankel
Investigating Warped Disk Galaxies in IllustrisTNG

11. Charlie Hughes Fall 2021-Spring 2022
Co-supervised with Ting Li
Estimating Photometric Metallicities with DECam and S5

10. Eric Conenna (now Kate Spade New York) Fall 2021-Spring 2022
Co-supervised with Jeremy Webb (now York)
High-Dimensional Analysis of APOGEE Data

9. Daniel Ding (now Amazon) Fall 2021-Spring 2022
Co-supervised with Jo Bovy
Latent Space Decompositions of APOGEE Spectra

8. Ava Oveisi (UTSC) Summer 2021-Fall 2022
Co-supervised with Kristen Menou
Imaging Cosmic Dust with Machine Learning

7. Alicia Savelli (Brock, now UTSG) Summer 2021-Summer 2022
Co-supervised with J. Ted Mackereth (now Defined Benefit Solutions)
Milky Way Analogues in Cosmological Simulations

6. Jeff Shen (now Princeton) Winter 2020-Summer 2022
Co-supervised with Neige Frankel
Estimating Stellar Parameters using 220M Gaia DR3 BP/RP Spectra
Co-supervised with Neige Frankel and J. Ted Mackereth (now Defined Benefit Solutions)
Disentangling Stellar Age Estimates from Galactic Chemodynamical Evolution
Co-supervised with Gwen Eadie, Norm Murray, and Dennis Zaritsky (Arizona)
Estimating the Mass of the Milky Way with the H3 Survey

5. Mingxuan Teng (now Huawei) Fall 2020-Summer 2022
Co-supervised with Renée Hložek
Detecting and Characterizing Outliers in Machine Learning Applications

4. Zhiya Lou (now ByteDance) Fall 2020-Fall 2022
Co-supervised with Gwen Eadie and Jeremy Webb (now York)
Bayesian Model Selection with Globular Clusters

3. Sina Babaei Zadeh (Western) Summer 2021
Co-supervised with J. Ted Mackereth (now Defined Benefit Solutions) and Lamiya Mowla (now Wellesley)
Studying Galaxy Assembly Histories in Cosmological Simulations

2. Alan Tu (Harvard) Summer 2020-Summer 2021
Co-supervised with Catherine Zucker (now SAO) and Gus Beane (Harvard)
Kinematics of Young Stars in the Radcliffe Wave

1. Kaustav Das (IIT Kanpur, now Caltech) Summer 2019-Fall 2020
   Co-supervised with Catherine Zucker (now SAO)
   Constraining the Distance to the North Polar Spur

Secondary School Students

1. Liam Pilarski (Millburn HS, NJ, now Georgia Tech) Fall 2021-Spring 2022
   Estimating Galaxy Properties from Images with Probabilistic Deep Learning