

# JOSHUA S. SPEAGLE (shěn jiā shì 沈佳士)

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## MENTORSHIP

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I am currently (co-)mentoring a total of **11 individuals** and have (co-)mentored a total of **14 individuals**.

### Graduate

2. Steffani Grondin (Astronomy, Toronto) Spring 2021-Present  
Identifying Tidally Stripped Cluster Members with Machine Learning and  
Corespray (with Prof. Jeremy Webb)
1. Aarya Patil (Astronomy, Toronto) Winter 2021-Present  
Asteroseismology with Multitaper Methods (with Prof. Gwen Eadie)

### Undergraduate

11. Charlie Hughes (Astronomy, Toronto) Fall 2021-Present  
Photometric Metallicity with DECam and S5 (with Prof. Ting Li)
10. Eric Conenna (Astronomy, Toronto) Fall 2021-Present  
High-Dimensional Analysis of APOGEE Data (with Prof. Jeremy Webb and  
Steffani Grondin)
9. Daniel Ding (Engineering, Toronto) Fall 2021-Present  
Latent Space Decompositions of APOGEE Spectra (with Prof. Jo Bovy)
8. Ava Oveisi (CS/Physics, Toronto-Scarborough) Summer 2020-Present  
Imaging Cosmic Dust with Machine Learning (with Prof. Kristen Menou)
7. Alicia Savelli (Math/Education/Physics, Brock) Summer 2020-Present  
Milky Way Analogues in Cosmological Simulations (with Dr. Ted Mackereth)
6. Jeff Shen (Statistics/Astronomy/Math, Toronto) Winter 2020-Present  
Disentangling Stellar Age Estimates from Galactic Chemodynamical Evolution  
(with Drs. Neige Frankel and Ted Mackereth)  
Estimating the Mass of the Milky Way with the H3 Survey (with Profs. Gwen  
Eadie, Norm Murray, and Dennis Zaritsky)
5. Mingxuan Teng (Math/CS, Toronto) Fall 2020-Present  
Detecting and Characterizing Outliers in Machine Learning Applications
4. Zhiya Lou (Math/Statistics, Toronto) Fall 2020-Present

- Bayesian Model Selection with Globular Clusters (with Profs. Gwen Eadie and Jeremy Webb)
3. Sina Babaei Zadeh (Physics & Astronomy, Western) Summer 2020  
Studying Galaxy Assembly Histories in Cosmological Simulations (with Drs. Ted Mackereth and Lamiya Mowla)
  2. Alan Tu (Physics, Harvard) Summer 2020-Summer 2021  
Kinematics of Young Stars in the Radcliffe Wave (with Dr. Catherine Zucker & Gus Beane)
  1. Kaustav Das (Physics, IIT Kanpur) Summer 2019-Fall 2020  
Constraining the Distance to the North Polar Spur (with Dr. Catherine Zucker)

## High School

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