

# J. Sebastian Monzon

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New Haven, CT

## EDUCATION

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### Yale University

September 2021 - Expected [2026]

PhD Astronomy

Advisor: Frank van den Bosch

### University of California, Santa Cruz

September 2015 - June 2019

B.S. Physics (Astrophysics)

Advisor: J. Xavier Prochaska

## RESEARCH

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### PhD Thesis

July 2022 - present

Advisor: Frank van den Bosch

*The Impact of halo-to-halo variance on constraints of the Stellar to Halo Mass Relation*

### 1st Year Graduate Project

August 2021 - July 2022

Advisor: Prof. Marla Geha

*Measuring Metallicities in Milky Way Satellites using Keck/DEIMOS*

### Research Intern, NASA Ames

February 2020 - May 2021

PIs: Dr. Naseem Rangwala, Dr. Sarah Nickerson

*Astrochemical Observations of Hot Molecular Cores with SOFIA*

### Gemini/HST Cluster Project Intern, Gemini N. Observatory

May 2020 - September 2020

PIs: Dr. Inger Jorgensen, Dr. Kristin Chiboucas

*HST Cluster Project*

### USRA Research Assistant, NASA Ames

June 2019 - February 2020

PI: Dr. Randolph Klein

*Modeling the SEDs of Early Massive Clumps*

### Undergraduate Researcher / Lamat REU, UC Santa Cruz

June 2017 - June 2019

Advisor: Prof. J. Xavier Prochaska

*The Effective Opacity of the Intergalactic Medium from Galaxy Spectra Analysis*

## PUBLICATIONS

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**Monzon J., Prochaska J.X., Lee K.G., Chisholm J.** doi:10.3847/1538-3881/ab94c2

*"Effective Opacity of the Intergalactic Medium from Galaxy Spectra Analysis"*

**Monzon J. et al.** in prep.

*"High Resolution Emission Line Spectra with SOFIA/EXES Toward Orion IRc2"*

**Nickerson S., et al.** doi:10.48550/arXiv.2211.15707

*"The mid-infrared molecular inventory towards Orion IRc2"*

## CONFERENCES AND PRESENTATIONS

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- Galactic Frontiers: Dwarf Galaxies in the Local Volume and Beyond** Summer 2023  
*Presented work on halo-to-halo variance at the Center for Computational Astrophysics.*  
(New York, New York)
- 241st AAS Conference** Winter 2023  
*Presented a poster on halo-to-halo variance and dark matter substructure.*  
(Seattle, Washington)
- SACNAS STEM Diversity Conference** Fall 2022  
*Presented work on metallicity measurements of globular clusters and satellite galaxies.*  
(San Juan, Puerto Rico)
- 235th AAS Conference** Winter 2020  
*Presented a poster on Lyman Break Galaxies and the effective opacity of the IGM. Helped create presentation slides for talk on preliminary results of proto-stellar SEDs.*  
(Honolulu, Hawaii)
- Revealing Cosmology and Reionization History with the IGM** Summer 2018  
*Gave a short talk followed by a poster presentation on IGM research at the Kavli Institute.*  
(Tokyo, Japan)
- NASA Ames Center-Wide Internship Presentations** Summer, Fall 2020  
*End of term poster and slide presentations on SOFIA/EXES project for research groups and mentors.*  
(Mountain View, California)

## LEADERSHIP AND TEACHING

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- Yale Astronomy Climate and Diversity Committee** Fall 2022 - present  
*Overseeing organizational tasks to keep the committee active and efficient. Developing undergraduate workshops to maximise effectual access to research. Advising faculty about equitable practices concerning qualifying exams.*
- Yale Astronomy Student Council** Fall 2022 - present  
*Acting as channel of communication between the faculty and the graduate student body.*
- Yale AstroSibs** Fall 2021 - present  
*Mentoring Yale astronomy undergrads on handling demanding classes, best practices for research projects and submitting graduate applications*
- Yale Teaching Fellow** Fall 2021 - present  
*Teaching assistant for ASTR 110, 160, 170, 180. Lead office hours and discussion sections to help students with introductory series of astronomy.*
- UCSC Academic Excellence Program (ACE)** Spring 2016 - Fall 2019  
*Session co-leader and tutor for large group of students in the introductory series of physics and mathematics. Tutored and advised lower-division undergraduates in their academic prospects and research opportunities.*

## AWARDS AND RECOGNITION

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|-----------------------|------------------|
| Gruber Science Fellow | 2021, 2022       |
| Senior Thesis Honors  | 2019             |
| Lamat REU Fellowship  | 2017, 2018       |
| UCSC Dean's Honors    | 2015, 2017, 2019 |