

# Brittany E. Miles

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## Education

- 2022 PhD, Astronomy & Astrophysics, University of California, Santa Cruz
- 2018 M.S, Astronomy & Astrophysics, University of California, Santa Cruz
- 2016 B.S., Physics, Geophysics and Planetary Physics Minor, UCLA

## Fellowships

- 2022 – current 51 Pegasi b Fellow, Steward Observatory
- 2022 – current Presidential Postdoctoral Fellow, University of Arizona
- 2022 Presidential Postdoctoral Fellow, University of California, Irvine
- 2017-2021 NSF Graduate Research Fellowship
- 2016 – 2017, 2022 Eugene Cota-Robles Graduate Fellowship
- 2016 UCSC Regents Graduate Fellowship
- 2016 Other Worlds Laboratory Graduate Fellowship
- 2015, 2016 Initiative for Maximizing Student Development Scholar
- 2015 CARE Fellow
- 2014 CARE Scholar
- 2011 – 2015 UCLA Black Alumni Winston C. Doby Legacy Scholar

## Awards and Honors

- 2020 Barbara Walker Best Paper Award
- 2019 Excellence in Mentoring Award (UCSC Astronomy)
- 2018 UCSC Astronomy Department Whitford Prize
- 2018 Osterbrock Mini-Grant: Supporting Underrepresented Womxn-Identified Students on Their Path to Graduate School, \$3900
- Dean's Honor List (Winter 2015, Spring 2015, Winter 2016)

## First Author Publications

1. **Miles, B.E.**, and the High Contrast Imaging of Exoplanets and Exoplanetary Systems with JWST Collaboration (2023) "The JWST Early Release Science Program for Direct Observations of Exoplanetary Systems II: A 1 to 20 Micron Spectrum of the Planetary-Mass Companion VHS 1256-1257 b" *ApJL* Accepted
2. **Miles, B.E.**, Hinz, P. M., Skemer, A. J., Martin, E.C., Stelter, R.D. (2021) "Testing a 10 micron HgCdTe Detector for Ground-Based Exoplanet Science", *SPIE Proceedings* Volume 11823

3. **Miles, B. E.**, Skemer, A. J. I., Morley, C. V., Marley, M. S., Fortney, J.J. , Allers, K.N., Faherty, J. K., Geballe, T. R., Visscher, C., Schneider, A. C., Lupu, R., Freedman, R. S. , Bjakker, G. L. (2020) "Observations of Disequilibrium CO Chemistry in the Coldest Brown Dwarfs" AJ, 160, 63
4. **Miles, B. E.**, Skemer, A. J., Barman T. S., Allers, K. N., Stone, J. M. (2018) "Methane in Analogs of Young, Directly Imaged Exoplanets", ApJ, 869, 18
5. **Miles, B. E.** & Shkolnik, E. L. (2017). "HAZMAT II: Ultraviolet Variability of Low-Mass Stars in the GALEX Archive", AJ, 154, 67
6. **Miles, B. E.**, Roberge, A., & Welsh, B. (2016). "UV Spectroscopy of Star-Grazing Comets Within the 49 Ceti Debris Disk.", ApJ, 824, 126

[Link for First and N-th author publications](#)

### Talks

May 2023 Characterizing Substellar Atmospheres in the Era of JWST  
Exoplanets and Habitability Seminar  
ETH Zürich

May 2023 Characterizing Substellar Atmospheres in the Era of JWST  
AMNH Astro Seminar  
American Museum of Natural History

May 2023 The JWST Early Release Science Program for Direct Observations of  
Exoplanetary Systems II: A 1 to 20 Micron Spectrum of the  
Planetary- Mass Companion VHS 1256-1257 b  
Planetary Systems and the Origins of Life in the Era of JWST, STSci  
Invited Speaker

April 2023 Characterizing Brown Dwarfs and Exoplanets in the Mid-Infrared  
Steward Observatory Colloquium  
University of Arizona

April 2023 Characterizing Brown Dwarfs and Exoplanets in the Mid-Infrared  
Colloquium  
Carnegie Observatories

Feb 2023 Characterizing Brown Dwarfs and Exoplanets in the Mid-Infrared  
Origins Seminar  
University of Arizona

Jan 2023 The JWST Early Release Science Program for Direct Observations of  
Exoplanetary Systems II: A 1 to 20 Micron Spectrum of the  
Planetary- Mass Companion VHS 1256-1257 b  
241<sup>st</sup> AAS Meeting

Dec 2022 The JWST Early Release Science Program for Direct Observations of  
Exoplanetary Systems II: A 1 to 20 Micron Spectrum of the  
Planetary- Mass Companion VHS 1256-1257 b  
First Science Results from JWST Conference, STSci

Dec 2021 Atmospheric Mixing in Cool Exoplanet Analogs  
Astronomy and Space Science Seminar  
University of Kansas

Sept 2021 Atmospheric Mixing in Cool Exoplanet Analogs  
Stars and Exoplanets Seminar  
University of Hawaii

Aug 2021 Testing a 10 micron HgCdTe Detector for Ground-Based Exoplanet Science  
SPIE Optics and Photonics  
San Diego Convention Center

April 2021 Choosing a Dewar for Mid-IR Detector Testing  
Graduate Student Postdoc Seminar  
UC Berkeley

April 2021 Testing a 13 $\mu$ m cutoff HgCdTe Detector for Ground Based Astronomy  
Lunch Seminar  
UC Berkeley

April 2021 Atmospheric Mixing in Cool Exoplanet Analogs  
Astronomy Seminar  
University of Connecticut

Dec 2020 Atmospheric Mixing in Cool Exoplanet Analogs  
Exoplanet Talk Seminar  
The Ohio State University

Dec 2020 Atmospheric Mixing in Cool Exoplanet Analogs  
Planetary Science Seminar

UC Berkeley and UCLA

- Dec 2020 Atmospheric Mixing in Cool Exoplanet Analogs  
Planetary Science Seminar  
California Institute of Technology
- Oct 2020 Testing a 13 $\mu$ m cutoff HgCdTe Detector for Ground Based Astronomy  
Network of Young Researchers in Instrumentation for Astronomy
- Aug 2020 Atmospheric Mixing in Cool Exoplanet Analogs  
Star, Planets, and Formation Summer Speaker Series  
University of Michigan
- Aug 2020 Atmospheric Mixing in Cool Exoplanet Analogs  
Exoplanet Journal Club, JPL
- Jun 2020 M-band Observations of the Coldest Brown Dwarfs  
ExoPAG 22
- Feb 2020 Disequilibrium CO Chemistry in the Coldest Brown Dwarfs  
Exo Update, UT Austin
- Oct 2019 Non-Equilibrium CO Chemistry in the Coldest Brown Dwarfs  
BDEXOCON
- Sept 2019 Non-Equilibrium CO Chemistry in the Coldest Brown Dwarfs  
Bay Area Exoplanet Science Meeting
- Sept 2018 Methane in Analogs of Young Directly Imaged Exoplanets  
Keck Science Meeting
- Mar 2017 HAZMAT II: UV Variability of M Dwarfs in the GALEX Archive  
Bay Area Exoplanet Science Meeting

### **Teaching Experience**

- Spring 2020 TA - ASTR 3 Introductory Astronomy: Planetary Systems  
Spring 2019 TA - ASTR 9 Introduction to Research in Physics and Astrophysics

### **Observing Experience and Programs**

- JWST: NIRSpec (PI, 12 hours) Cycle 2  
Keck Observatory: NIRSPEC (4 nights), NIRES (2 nights)

Gemini Observatory: GNIRS, 2018B (PI, 2 hours), 2016B and 2017A (50 queue mode hours)