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. , Bjoraker, 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
241st 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 13μm 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 13μm 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)