

# Caroline V. Morley

## Curriculum Vitae

cmorley@utexas.edu

*Department of Astronomy*

*University of Texas at Austin*

*2515 Speedway, Austin, TX 78712*

### **CURRENT POSITION**

August 2018—present, Assistant Professor, University of Texas at Austin

### **EDUCATION**

2016—PhD, Astronomy and Astrophysics, University of California, Santa Cruz

2012—M.S., Astronomy and Astrophysics, University of California, Santa Cruz

2010—B.S., Physics, Massachusetts Institute of Technology

—B.S., Earth, Atmosphere, and Planetary Science, Massachusetts Institute of Technology

### **FIELDS OF INTEREST**

Atmospheres of extrasolar planets and brown dwarfs from Earths to super-Jupiters. Planet characterization using transmission spectroscopy, secondary eclipse spectroscopy, and direct-imaging. Brown dwarf characterization. Clouds in all substellar environments.

### **GRANTS, HONORS, AND AWARDS**

2022, PI, HST Cycle 30 Theory Grant, amount TBA

2021, co-I, 11 approved JWST programs

2021, PI, NASA ADAP Grant, total award: **\$491,097**

2021, Sloan Fellowship, **\$75,000**

2020, AAS Annie Jump Cannon award.

2020, PI, NASA FINESST student grant, total award to UT Austin: **\$145,000**

2019, PI, NASA XRP Grant, total award to UT Austin: **\$541,620**

2019, PI, HST Cycle 27 Theory Grant, total award to UT Austin: **\$91,339**

2019, PI, NSF AAG Grant, total award to UT Austin: **\$345,403**

2017, IAU PhD Thesis Prize

2016, NASA Sagan Postdoctoral Fellowship

2016, Institute for Theory and Computation Postdoctoral Fellowship, CfA

2016, NASA Hubble Postdoctoral Fellowship, *declined*

2016, Miller Fellowship, Berkeley, *declined*

2016, Porat Fellowship, Stanford, *declined*

2016, O.K. Earl Fellowship, Caltech, *declined*

2015, Chancellor's Dissertation Year Fellowship, UC Santa Cruz

2015, Pierazzo International Student Travel Award

2014, HST Cycle 22 Theory Grant  
2014, ARCS Foundation Fellowship, UC Santa Cruz  
2014, Excellence in Mentoring, UC Santa Cruz, Dept. of Astronomy and Astrophysics  
2012, Donald and Irene Osterbrock Prize, UC Santa Cruz, Dept. of Astronomy and Astrophysics  
2011, Harriet G. Jenkins Predoctoral Fellowship, NASA/UNCFSP  
2011, Excellence in Teaching Award, UC Santa Cruz, Dept. of Astronomy and Astrophysics  
2011, National Science Foundation Graduate Student Research Fellowship, Honorable Mention

### **TEACHING AND ADVISING EXPERIENCE**

2022, Planetary Astrophysics (graduate level), AST 394P, UT Austin  
2021, Planetary Systems (upper-division undergraduate level), AST 364P, UT Austin.  
2019–2021, Search for Extraterrestrial Life, AST 309L, UT Austin  
2018—present: primary advisor for three graduate students (Melanie Rowland, PhD est. 2024, James Mang, PhD est. 2026; Katie Teixeira, PhD est. 2026), UT Austin.  
Past graduate students: Jessica Luna, M.S. 2022, UT Austin.  
Past senior thesis students: Joel Burke, B.S. 2022, Sarah Howes, B.S. 2022, Peter Smith, B.S. 2020. UT Austin.  
2014, Teaching Assistant, Astronomy 2 (Overview of the Universe). UCSC.  
2013, Instructor, Astronomy 2 (Overview of the Universe). UCSC.  
2013-2015, Mentored 6 high school student research projects in Science Internship Program, UCSC. Siemens Competition Semifinalists(2013, 2014, 2015)  
2012-2017, Mentored 2 undergraduate senior thesis research projects, 2 additional projects  
2012, Center for Astronomy Education, Teaching Excellence Workshop  
2011, Professional Development Program. Inst. for Science and Engineer Educators, UCSC.  
2011, Teaching Assistant, Astronomy 5 (Cosmology). UCSC.  
2010, Teaching Assistant, 12.409. Observing Stars and Planets. MIT.

### **COLLOQUIA AND SEMINARS**

Texas A&M Astronomy Seminar, September 20, 2021.  
Indiana University Astronomy Colloquium, September 14, 2021.  
Caltech Planetary Science Seminar, February 22, 2021.  
Carnegie EPL, December 14, 2020.  
Caltech Planetary Science Seminar, Spring 2020, cancelled due to COVID-19  
Southwest Research Institute Seminar, February 28, 2020  
JPL Astrophysics Colloquium, February 24, 2020  
UCLA Colloquium, April 24, 2019  
UC Santa Barbara Seminar, February 22, 2019

Carnegie Observatories Colloquium, November 13, 2018  
Caltech Colloquium, October 10, 2018  
Notre Dame Colloquium, September 19, 2018  
Boston University, Astronomy Colloquium. May 30, 2018.  
University of Chicago, Astrophysics Seminar. March 20, 2018.  
UT Austin, Astronomy Colloquium. February 19, 2018.  
KIPAC Colloquium, Stanford University. February 8, 2018.  
UMass Amherst Five College Astronomy Department Colloquium. October 12, 2017.  
Brown University Astrophysics Seminar Series. September 29, 2017.  
American Museum of Natural History Seminar. April 18, 2017.  
MIT PICS Seminar. April 7, 2017.  
Florida Institute of Technology Colloquium. March 24, 2017.  
UCLA iPLEX Lunch. January 29, 2016.  
Johns Hopkins Earth and Planetary Science Seminar. November 19, 2015.  
McGill Space Institute Seminar. October 6, 2015.  
CfA Small Scale Phenomena Seminar. October 5, 2015.  
IPAC Lunch Seminar. September 23, 2015.  
IfA Colloquium, Univ. of Hawaii. August 26, 2015.  
UC Santa Cruz Astronomy Department FLASH. August 14, 2015.  
Berkeley CIPS Seminar. March 19, 2014.  
Arizona ORIGINS Seminar. March 3, 2014.  
Caltech Yuk Yung Lunch Seminar. February 3, 2014.  
CU Boulder, Laboratory for Atmospheric and Space Physics Colloquium. November 1, 2012.  
Gemini North Seminar. October 16, 2012.  
Center for Astrophysics Solar, Stellar, and Planetary Sciences Seminar. August 13, 2012.  
Caltech Planetary Science Seminar. May 1, 2012.  
UC Santa Cruz Astronomy Department FLASH. April 13, 2012.

## CONFERENCE TALKS

Atmospheric characterization at high spectral resolution with KPIC. *Invited talk.* June 29, 2021.  
DPS 52. Virtual. October 27, 2020.  
Lorentz Workshop: From brown dwarfs to (exo-)planets. *Invited talk.* February 11, 2020.  
Rocky Exoplanets in the Era of JWST, Greenbelt, MD. *Invited talk.* November 5, 2019.  
Extreme Solar Systems IV, Reykjavik, Iceland. August 22, 2019.  
Exoclimates V, Oxford, UK. August 13, 2019.  
Bay Area Exoplanet Science Meeting. *Invited talk.* June 28, 2019.

AAS 233. January 8, 2019.

American Geophysical Union, Special joint AAS-AGU session. *Invited talk*. December 12, 2018.

DPS 50, Knoxville, TN. November 25, 2018.

Multi-dimensional Characterization of Distant Worlds Meeting, *Invited talk*. October 15, 2018.

Planet Habitability Workshop. Leiden, The Netherlands. *Invited talk*. April 23, 2018.

Sagan Symposium, Pasadena, CA. November 9, 2017.

The Brown Dwarf Exoplanet Connection, Newark DE. *Invited talk*. October 26, 2017.

DPS 49, Provo, UT. October 18, 2017.

Exoclipse. Boise, ID. *Invited Talk*. August 23, 2017.

Workshop on Astrophysical Opacities. Kalamazoo, MI. *Invited Talk*. August 1, 2017.

Enabling Transiting Exoplanet Science with JWST. Baltimore, MD. July 11, 2017.

Gordon Conference, Mt Holyoke College, MA. *Invited Talk*. June 21, 2017.

Wenner-Gren Conference, Stockholm, Sweden. *Invited Talk*. June 16, 2017.

High Contrast Imaging in Space, Baltimore, MD. *Invited Talk*. November 15, 2016.

DPS 48, Pasadena, CA. October 18, 2016.

Cool Stars 19, Uppsala, Sweden. *Invited Talk*. June 7, 2016.

Bay Area Exoplanet Science Meeting. June 3, 2016.

AAS 227, Kissimmee. January 5, 2016.

Extreme Solar Systems III, Kona, HI. December 3, 2015.

Enabling Transiting Exoplanet Science with JWST. Baltimore. *Invited Talk*. November 17, 2015.

Planetary Systems: A Synergistic View. *Invited Talk*. July 23, 2015.

Bay Area Exoplanet Science Meeting. June 5, 2015.

Wide-field Infrared Surveys Conference. *Invited talk*. November 17, 2014.

DPS 46, Tucson. November 11, 2014.

The Brown Dwarf Exoplanet Connection, Newark DE. *Invited talk*. October 23, 2014.

Cool Stars 18, Flagstaff AZ. June 9, 2014.

AAS 223, National Harbor. January 6, 2014.

Bay Area Exoplanet Science Meeting. December 6, 2013.

Kepler Science Meeting 2. November 5, 2013.

DPS 45, Denver. October 7, 2013.

Brown Dwarfs Come of Age. May 22, 2013.

AAS 221, Long Beach. January 7, 2013.

Bay Area Exoplanet Science Meeting. December 14, 2012.

Exomol Opacities in Cool Stars and Exoplanets. July 3, 2012.

Cool Stars 17, Barcelona. June 25, 2012.

Exoclimates 2012, Aspen, CO. January 19, 2012.

## **SERVICE AND LEADERSHIP**

Member of Space Telescope Users Committee (2020-present)

Gemini Planet Imager Steering Committee (2021-present)

TESS Atmosphere Characterization Working Group, Steering Committee (2020-present)

Referee for Science, Icarus, MNRAS, ApJ Letters, A&A, ApJ, AJ.

Reviewer / External Reviewer for NASA panels.

## **PAPERS IN REFEREED JOURNALS (114 papers, 5,486 citations, h-index 44)**

### **5 MOST CITED PAPERS (OVERALL):**

[1] Macintosh, B.; et al. Discovery and spectroscopy of the young Jovian planet 51 Eri b with the Gemini Planet Imager. *Science Express*, Aug 13 2015. **378 citations.**

[2] **Morley, C. V.**; et al. Neglected Clouds in T and Y Dwarf Atmospheres. *The Astrophysical Journal*, Volume 756, Issue 2, article id. 172, 17 pp. (2012). **303 citations.**

[3] Kempton et al. A Framework for Prioritizing the TESS Planetary Candidates Most Amenable to Atmospheric Characterization. *Publications of the Astronomical Society of the Pacific*, Volume 130, Issue 993, pp. 114401 (2018). **223 citations.**

[4] Parmentier et al. Transitions in the Cloud Composition of Hot Jupiters. *The Astrophysical Journal*, Volume 828, Issue 1, article id. 22, 20 pp. (2016). **183 citations.**

[5] Morley et al. Observing the Atmospheres of Known Temperate Earth-sized Planets with JWST. *The Astrophysical Journal*, Volume 850, Issue 2, article id. 121, 18 pp. (2017). **172 citations.**

### **5 MOST CITED PAPERS (FIRST-AUTHOR):**

[1] Morley, C. V.; et al. Neglected Clouds in T and Y Dwarf Atmospheres. *The Astrophysical Journal*, Volume 756, Issue 2, article id. 172, 17 pp. (2012). **303 citations.**

[2] Morley et al. Observing the Atmospheres of Known Temperate Earth-sized Planets with JWST. *The Astrophysical Journal*, Volume 850, Issue 2, article id. 121, 18 pp. (2017). **172 citations.**

[3] Morley et al. Quantitatively Assessing the Role of Clouds in the Transmission Spectrum of GJ 1214b. *The Astrophysical Journal*, Volume 775, Issue 1, article id. 33, 13 pp. (2013). **155 citations.**

[4] Morley et al. Thermal Emission and Reflected Light Spectra of Super Earths with Flat Transmission Spectra. *The Astrophysical Journal*, Volume 815, Issue 2, article id. 110, 22 pp. (2015). **152 citations.**

[5] Morley et al. Water Clouds in Y Dwarfs and Exoplanets. *The Astrophysical Journal*, Volume 787, Issue 1, article id. 78, 21 pp. (2014). **120 citations.**

**ALL FIRST AUTHOR (9):**

**Caroline V. Morley**, Skemer, Andrew J.; Miles, Brittany E.; Line, Michael R.; Lopez, Eric D.; Brogi, Matteo; Freedman, Richard S.; Marley, Mark S. Measuring the D/H Ratios of Exoplanets and Brown Dwarfs. *The Astrophysical Journal Letters*, Volume 882, Issue 2, article id. L29, 8 pp. (2019).

**Caroline V. Morley**, Andrew J. Skemer, Katelyn Allers, et al. An L Band Spectrum of the Coldest Brown Dwarf. *The Astrophysical Journal*, Volume 858, Issue 2, article id. 97, 17 pp. (2018).

**Caroline V. Morley**, Laura Kreidberg, Zafar Rustamkulov, Tyler Robinson, Jonathan J. Fortney. Observing the Atmospheres of Known Temperate Earth-sized Planets with JWST. *The Astrophysical Journal*, Volume 850, Issue 2, article id. 121, 18 pp. (2017).

**Caroline V. Morley**, Heather Knutson, Michael Line, Jonathan J. Fortney, Daniel Thorngren, Mark S. Marley, Dillon Teal, Roxana Lupu. Forward and Inverse Modeling of the Emission and Transmission Spectrum of GJ 436b: Investigating Metal Enrichment, Tidal Heating, and Clouds. *The Astronomical Journal*, Volume 153, Issue 2, article id. 86, 15 pp. (2017).

**Caroline V. Morley**, Jonathan J. Fortney, Mark S. Marley, Kevin Zahnle, Michael Line, Eliza Kempton, Nikole Lewis, Kerri Cahoy. Thermal Emission and Reflected Light Spectra of Super Earths with Flat Transmission Spectra. *ApJ*, Volume 815, 110. (2015)

**Caroline V. Morley**, Mark S. Marley, Jonathan J. Fortney, Roxana Lupu. Spectral Variability from the Patchy Atmospheres of T and Y Dwarfs. *ApJL*, Volume 789, Issue 1. (2014)

**Caroline V. Morley**, Mark S. Marley, Jonathan J. Fortney, Roxana Lupu, Didier Saumon, Tom Greene, Katharina Lodders. Water Clouds in Y Dwarfs and Exoplanets. *ApJ*, Volume 787, Issue 1. (2014)

**Caroline V. Morley**, Jonathan J. Fortney, Eliza M.-R. Kempton, Mark Marley, Channon Visscher, Kevin Zahnle. Quantitatively Assessing the Role of Clouds in the Transmission Spectrum of GJ 1214b. *ApJ* Volume 775, Issue 1. (2013)

**Caroline V. Morley**, Jonathan J. Fortney, Mark Marley, Channon Visscher, Didier Saumon, Sandy Leggett. Neglected Clouds in T and Y Dwarf Atmospheres. *ApJ* Volume 756, Issue 2. (2012).

**ALL CO-AUTHORED (105):**

Limbach, Mary Anne ; Vanderburg, Andrew ; Stevenson, Kevin B. ; Blouin, Simon ; Morley, Caroline ; Lustig-Yaeger, Jacob ; Soares-Furtado, Melinda ; Janson, Markus. A new method for finding nearby white dwarf exoplanets and detecting biosignatures. *Monthly Notices of the Royal Astronomical Society*. October 2022.

Kreidberg, Laura; Mollière, Paul; Crossfield, Ian J. M. ; Thorngren, Daniel P.; Kawashima, Yui; **Morley, Caroline V.**; Benneke, Björn; Mikal-Evans, Thomas; Berardo, David; Kosiarek, Molly R.; Gorjian, Varoujan; Ciardi, David R.; Christiansen, Jessie L.; Dragomir, Diana; Dressing, Courtney D.; Fortney, Jonathan J.; Fulton, Benjamin J.; Greene, Thomas P.; Hardegree-Ullman, Kevin K.; Howard, Andrew W.; Howell, Steve B.; Isaacson, Howard; Krick, Jessica E.; Livingston, John H.; Lothringer, Joshua D.; Morales, Farisa Y.; Petigura, Erik A.; Rodriguez, Joseph E.; Schlieder, Joshua E.; Weiss, Lauren M. Tentative Evidence for Water Vapor in the Atmosphere of the Neptune-sized Exoplanet HD 106315c. *The Astronomical Journal*, Volume 164, Issue 4, id.124, 15 pp. (2022)

Kanodia, Shubham; Libby-Roberts, Jessica; Cañas, Caleb I.; Ninan, Joe P.; Mahadevan, Suvrath; Stefansson, Gudmundur; Lin, Andrea S. J.; Jones, Sinclair; Monson, Andrew; Parker, Brock A.; Kobulnicky, Henry A.; Swaby, Tera N.; Powers, Luke; Beard, Corey; Bender, Chad F.; Blake, Cullen H.; Cochran, William D.; Dong, Jiayin; Diddams, Scott A.; Fredrick, Connor; Gupta, Arvind F.; Halverson, Samuel; Hearty, Fred; Logsdon, Sarah E.; Metcalf, Andrew J.; McElwain, Michael W.; **Morley, Caroline**; Rajagopal, Jayadev; Ramsey, Lawrence W.; Robertson, Paul; Roy, Arpita; Schwab, Christian; Terrien, Ryan C.; Wisniewski, John; Wright, Jason T. TOI-3757 b: A Low-density Gas Giant Orbiting a Solar-metallicity M Dwarf. *The Astronomical Journal*, Volume 164, Issue 3, id.81, 17 pp. (2022).

Tannock, Megan E.; Metchev, Stanimir; Hood, Callie E.; Mace, Gregory N.; Fortney, Jonathan J.; **Morley, Caroline V.**; Jaffe, Daniel T.; Lupu, Roxana. A 1.46-2.48  $\mu\text{m}$  spectroscopic atlas of a T6 dwarf (1060 K) atmosphere with IGRINS: first detections of H<sub>2</sub>S and H<sub>2</sub>, and verification of H<sub>2</sub>O, CH<sub>4</sub>, and NH<sub>3</sub> line lists. *Monthly Notices of the Royal Astronomical Society*, Volume 514, Issue 3, pp.3160-3178. (2022).

Zhang, Zhoujian; Liu, Michael C.; **Morley, Caroline V.**; Magnier, Eugene A.; Tucker, Michael A.; Vanderbosch, Zachary P.; Do, Aaron; Shappee, Benjamin J. COol Companions ON Ultrawide orbits (COCONUTS). III. A Very Red L6 Benchmark Brown Dwarf around a Young M5 Dwarf. *The Astrophysical Journal*, Volume 935, Issue 1, id.15, 25 pp. (2022).

Libby-Roberts, Jessica E.; Berta-Thompson, Zachory K.; Diamond-Lowe, Hannah; Gully-Santiago, Michael A.; Irwin, Jonathan M. ; Kempton, Eliza M. -R.; Rackham, Benjamin V.; Charbonneau, David; Désert, Jean-Michel; Dittmann, Jason A.; Hofmann, Ryan; **Morley, Caroline V.**; Newton, Elisabeth R. The Featureless HST/WFC3 Transmission Spectrum of the Rocky Exoplanet

GJ 1132b: No Evidence for a Cloud-free Primordial Atmosphere and Constraints on Starspot Contamination. *The Astronomical Journal*, Volume 164, Issue 2, id.59, 23 pp. (2022).

May, E. M.; Stevenson, K. B.; Bean, Jacob L.; Bell, Taylor J.; Cowan, Nicolas B.; Dang, Lisa; Desert, Jean-Michel; Fortney, Jonathan J.; Keating, Dylan; Kempton, Eliza M. -R.; Komacek, Thaddeus D.; Lewis, Nikole K.; Mansfield, Megan; **Morley, Caroline**; Parmentier, Vivien; Rauscher, Emily; Swain, Mark R.; Zellem, Robert T.; Showman, Adam. A New Analysis of Eight Spitzer Phase Curves and Hot Jupiter Population Trends: Qatar-1b, Qatar-2b, WASP-52b, WASP-34b, and WASP-140b. *The Astronomical Journal*, Volume 163, Issue 6, id.256, 18 pp. (2022).

Gully-Santiago, Michael; Luna, Jessica; **Morley, Caroline**; Kaplan, Kyle; Ganesh, Aishwarya; Sawczynec, Erica; Burke, Joel ; Krolikowski, Daniel. Astronomical échelle spectroscopy data analysis with 'muler'. *Journal of Open Source Software*, vol. 7, issue 73, id. 4302. (2022).

Karalidi, Theodora; Marley, Mark; Fortney, Jonathan J.; **Morley, Caroline**; Saumon, Didier; Lupu, Roxana; Visscher, Channon ; Freedman, Richard. The Sonora Substellar Atmosphere Models. II. Cholla: A Grid of Cloud-free, Solar Metallicity Models in Chemical Disequilibrium for the JWST Era. *The Astrophysical Journal*, Volume 923, Issue 2, id.269, 17 pp. (2021).

Xu, Siyi; Diamond-Lowe, Hannah; MacDonald, Ryan J.; Vanderburg, Andrew; Blouin, Simon; Dufour, P.; Gao, Peter; Kreidberg, Laura; Leggett, S. K.; Mann, Andrew W.; **Morley, Caroline V.**; Stephens, Andrew W.; O'Connor, Christopher E.; Thao, Pa Chia; Lewis, Nikole K. Gemini/GMOS Transmission Spectroscopy of the Grazing Planet Candidate WD 1856+534 b. *The Astronomical Journal*, Volume 162, Issue 6, id.296, 15 pp. (2021).

Vissapragada, Shreyas; Stefánsson, Gudmundur; Greklek-McKeon, Michael; Oklopčić, Antonija; Knutson, Heather A.; Ninan, Joe P.; Mahadevan, Suvrath; Cañas, Caleb I.; Chachan, Yayaati; Cochran, William D.; Collins, Karen A.; Dai, Fei; David, Trevor J.; Halverson, Samuel; Hawley, Suzanne L.; Hebb, Leslie; Kanodia, Shubham; Kowalski, Adam F.; Livingston, John H.; Maney, Marissa; Metcalf, Andrew J.; Morley, Caroline; Ramsey, Lawrence W.; Robertson, Paul; Roy, Arpita; Spake, Jessica; Schwab, Christian; Terrien, Ryan C.; Tinyanont, Samaporn; Vasisht, Gautam; Wisniewski, John. A Search for Planetary Metastable Helium Absorption in the V1298 Tau System. *The Astronomical Journal*, Volume 162, Issue 5, id.222, 10 pp. (2021).

Bryan, Marta L.; Chiang, Eugene; **Morley, Caroline V.**; Mace, Gregory N.; Bowler, Brendan P. Obliquity Constraints on the Planetary-mass Companion HD 106906 b. *The Astronomical Journal*, Volume 162, Issue 5, id.217, 10 pp. (2021).

Luna, Jessica L.; **Morley, Caroline V.** Empirically Determining Substellar Cloud Compositions in the Era of the James Webb Space Telescope. *The Astrophysical Journal*, Volume 920, Issue 2, id. 146, 18 pp. (2021).



Marley, Mark S.; Saumon, Didier; Visscher, Channon ; Lupu, Roxana; Freedman, Richard; **Morley, Caroline**; Fortney, Jonathan J.; Seay, Christopher ; Smith, Adam J. R. W.; Teal, D. J.; Wang, Ruoyan. The Sonora Brown Dwarf Atmosphere and Evolution Models. I. Model Description and Application to Cloudless Atmospheres in Rainout Chemical Equilibrium. *The Astrophysical Journal*, Volume 920, Issue 2, id.85, 20 pp. (2021).

Cushing, Michael C.; Schneider, Adam C.; Kirkpatrick, J. Davy; **Morley, Caroline V.**; Marley, Mark S.; Gelino, Christopher R. ; Mace, Gregory N.; Wright, Edward L.; Eisenhardt, Peter R. ; Skrutskie, Michael F.; Marsh, Kenneth A. An Improved Near-infrared Spectrum of the Archetype Y Dwarf WISEP J182831.08+265037.8. *The Astrophysical Journal*, Volume 920, Issue 1, id.20, 14 pp. (2021).

May, Erin M.; Komacek, Thaddeus D.; Stevenson, Kevin B.; Kempton, Eliza M. -R.; Bean, Jacob L.; Malik, Matej; Ih, Jegug; Mansfield, Megan; Savel, Arjun B.; Deming, Drake ; Desert, Jean-Michel; Feng, Y. Katherina; Fortney, Jonathan J.; Kataria, Tiffany; Lewis, Nikole; Morley, Caroline; Rauscher, Emily; Showman, Adam. Spitzer Phase-curve Observations and Circulation Models of the Inflated Ultrahot Jupiter WASP-76b. *The Astronomical Journal*, Volume 162, Issue 4, id.158, 18 pp. (2021).

Leggett, S. K.; Tremblin, Pascal; Phillips, Mark W.; Dupuy, Trent J.; Marley, Mark; Morley, Caroline; Schneider, Adam; Caselden, Dan ; Guillaume, Colin ; Logsdon, Sarah E. Measuring and Replicating the 1-20  $\mu\text{m}$  Energy Distributions of the Coldest Brown Dwarfs: Rotating, Turbulent, and Nonadiabatic Atmospheres. *The Astrophysical Journal*, Volume 918, Issue 1, id.11, 31 pp. (2021).

Yu, Xinting; He, Chao; Zhang, Xi ; Hörst, Sarah M.; Dymont, Austin H. ; McGuiggan, Patricia ; Moses, Julianne I.; Lewis, Nikole K. ; Fortney, Jonathan J. ; Gao, Peter ; Kempton, Eliza M. -R.; Moran, Sarah E.; Morley, Caroline V. ; Powell, Diana; Valenti, Jeff A. ; Vuitton, Véronique. Haze evolution in temperate exoplanet atmospheres through surface energy measurements. *Nature Astronomy*, Volume 5, p. 822-831 (2021).

Bowler, Brendan P.; Endl, Michael; Cochran, William D.; MacQueen, Phillip J. ; Crepp, Justin R.; Doppmann, Greg W. ; Dulz, Shannon ; Brandt, Timothy D.; Mirek Brandt, G.; Li, Yiting ; Dupuy, Trent J.; Franson, Kyle ; Kratter, Kaitlin M.; Morley, Caroline V.; Zhou, Yifan. The McDonald Accelerating Stars Survey (MASS): Discovery of a Long-period Substellar Companion Orbiting the Old Solar Analog HD 47127. *The Astrophysical Journal Letters*, Volume 913, Issue 2, id.L26, 8 pp. (2021).

Fraine, Jonathan; Mayorga, L. C.; Stevenson, Kevin B.; Lewis, Nikole K.; Kataria, Tiffany; Bean, Jacob L.; Bruno, Giovanni; Fortney, Jonathan J.; Kreidberg, Laura; Morley, Caroline V.; Mouawad, Nelly C.; Todorov, Kamen O.; Parmentier, Vivien; Wakeford, Hannah; Feng, Y. Katherina; Kil-

patrick, Brian M.; Line, Michael R. The Dark World: A Tale of WASP-43b in Reflected Light with HST WFC3/UVIS. *The Astronomical Journal*, Volume 161, Issue 6, id.269, 20 pp. (2021).

Kosiarek, Molly R.; Berardo, David A.; Crossfield, Ian J. M.; Laguna, Cesar; Piaulet, Caroline; Akana Murphy, Joseph M.; Howell, Steve B.; Henry, Gregory W.; Isaacson, Howard; Fulton, Benjamin; Weiss, Lauren M.; Petigura, Erik A.; Behrard, Aida; Hirsch, Lea A.; Teske, Johanna; Burt, Jennifer A.; Mills, Sean M.; Chontos, Ashley; Močnik, Teo; Howard, Andrew W. Werner, Michael; Livingston, John H.; Krick, Jessica; Beichman, Charles; Gorjian, Varoujan; Kreidberg, Laura; **Morley, Caroline**; Christiansen, Jessie L.; Morales, Farisa Y.; Scott, Nicholas J.; Crane, Jeffrey D.; Wang, Sharon Xuesong; Shectman, Stephen A.; Rosenthal, Lee J.; Grunblatt, Samuel K.; Rubenzahl, Ryan A.; Dalba, Paul A.; Giacalone, Steven; Villanueva, Chiara Dane; Liu, Qingtian; Dai, Fei; Hill, Michelle L.; Rice, Malena; Kane, Stephen R.; Mayo, Andrew W. Physical Parameters of the Multiplanet Systems HD 106315 and GJ 9827. *The Astronomical Journal*, Volume 161, Issue 1, id. 47, 16 pp. (2021)

Mikal-Evans, Thomas; Crossfield, Ian J. M.; Benneke, Björn; Kreidberg, Laura; Moses, Julie; **Morley, Caroline V.**; Thorngren, Daniel; Mollière, Paul; Hardegree-Ullman, Kevin K.; Brewer, John; Christiansen, Jessie L.; Ciardi, David R.; Dragomir, Diana; Dressing, Courtney; Fortney, Jonathan J.; Gorjian, Varoujan; Greene, Thomas P.; Hirsch, Lea A.; Howard, Andrew W.; Howell, Steve B. Isaacson, Howard; Kosiarek, Molly R.; Krick, Jessica; Livingston, John H.; Lothringer, Joshua D.; Morales, Farisa Y.; Petigura, Erik A.; Schlieder, Joshua E.; Werner, Michael. Transmission Spectroscopy for the Warm Sub-Neptune HD 3167c: Evidence for Molecular Absorption and a Possible High-metallicity Atmosphere. *The Astronomical Journal*, Volume 161, Issue 1, id.18, 21 pp. (2021).

Bryan, Marta L.; Ginzburg, Sivan; Chiang, Eugene; **Morley, Caroline**; Bowler, Brendan P.; Xuan, Jerry W.; Knutson, Heather A. As the Worlds Turn: Constraining Spin Evolution in the Planetary-mass Regime. *The Astrophysical Journal*, Volume 905, Issue 1, id.37, 11 pp. (2020)

Hood, Callie E.; Fortney, Jonathan J.; Line, Michael R.; Martin, Emily C.; **Morley, Caroline V.**; Birkby, Jayne L.; Rustamkulov, Zafar; Lupu, Roxana E.; Freedman, Richard S. Prospects for Characterizing the Haziest Sub-Neptune Exoplanets with High-resolution Spectroscopy. *The Astronomical Journal*, Volume 160, Issue 5, id.198, 16 pp. (2020).

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