# MELINDA SOARES-FURTADO, PH.D.

Astrophysicist, University of Wisconsin–Madison msoaresfurtado.com \( \phi \) mmsoares@wisc.edu

#### Professional Appointments

Assistant Professor of Astronomy & Physics, University of Wisconsin-Madison	*begins August 2024
NASA Hubble Postdoctoral Fellow, University of Wisconsin-Madison	2021-present
Postdoctoral Fellow, University of Wisconsin-Madison	2020-2021
High School Math & Physics Instructor, Mount Madonna School	2012-2013

#### EDUCATION

Princeton University	Astrophysical Science	Ph.D., 2020
Princeton University	Astrophysical Science	M.S., 2016
University of California, Santa Cruz	Physics	B.S., 2014

#### RESEARCH EXPERIENCE

Graduate Student Researcher, Princeton University, Astrophysical Sciences	2014-2020
Advisor: Prof. Gáspár Bakos	
Undergraduate Student Researcher, UC Santa Cruz, Physics & Astronomy	2009-2014
Advisors: Profs. Enrico Ramirez-Ruiz & David Williams	

## PEER-REVIEWED PUBLICATIONS

- \* Mentored students are underlined
- **21. Soares-Furtado, M.**; Limbach, M.; Vanderburg, A.; Best, W.; Cody, A. M.; D'Onghia, E.; Heller, R.; Hensley, B.; Kounkel, M.; Kraus, A.; Mann, A.; Robberto, M.; Rosen, A.; Townsend, R.; Vos, J. *The TEMPO Survey II: Predicting Yields of Transiting Moons, Planets, and Satellites from a 30-day Survey of Orion with the Roman Space Telescope*, in preparation to be submitted to the Publications of the Astronomical Society of the Pacific.
- **20.** Schulte, J.; Rodriguez, J.; Bieryla, A.; Quinn, S.; Collins, K.; Yee, S.; Nine, A.; **Soares-Furtado, M.**; Latham, D.; Eastman, J.; Barkaoui, K.; Ciardi, D.; Dragomir, D.; Everett, M.; Giacalone, S.; Mireles, I.; Murgas, F.; Narita, N.; et al. *Migration and Evolution of giant ExoPlanets (MEEP) I: Nine Newly Confirmed Hot Jupiters from the TESS Mission*, submitted to the Publications of the Astronomical Journal.
- **19.** Ong, J.; Hon, M.; **Soares-Furtado, M.**; Stephan, A.; van Saders, J.; Tayar, J.; Shappee, B.; Hey, D.; Montet, B.; Cao, L.; Yildiz, M.; Çelik Orhan, Z.; Örtel, S.; Ahlborn, F. *Gasing Pangkah I: Asteroseismology and Preliminary Characterisation of a Rapidly-Rotating Red Giant in the TESS SCVZ*, in press with The Astrophysical Journal. [arXiv:2402.16971]
- 18. Soares-Furtado, M.; Capistrant, B.; Vanderburg, A.; Jankowski, A.; Mann, A.; Ross, G.; Srdoc, G.; Hinkel, N.; Becker, J.; Magliano, C.; Limbach, M.; Stephan, A.; Nine, A.; Tofflemire, B.; Kraus, A.; Giacalone, S.; Winn, J.; Bieryla, A.; Bouma, L.; Ciardi, D.; Collins, K.; Covone, G.; de Beurs, Z.; Huang, C.; Jenkins, J.; Kreidberg, L.; Latham, D.; Quinn, S.; Seager, S.; Shporer, A.; Twicken, J.; Wohler, B.; Vanderspek, R.; Yarza, R.; Ziegler, C. TESS Hunt for Young and Maturing Exoplanets (THYME) XI: An Earth-sized Planet Orbiting a Nearby, Solar-like Host in the 400 Myr Ursa Major Moving Group, 2024, The Astronomical Journal, 167, 2. [arXiv:2401.04785]
- 17. Yarza, R.; Razo-López, N.; Murguia-Berthier, A.; Wallace Everson, R.; MacLeod, M.; Soares-Furtado, M.; Lee, D.; Ramirez-Ruiz, E. Hydrodynamics and Survivability During Post-Main-Sequence Planetary Engulfment, 2023, The Astrophysical Journal, 954, 2. [arXiv:2203.11227]

- 16. Limbach, M.; Soares-Furtado, M.; Vanderburg, A.; Best, W.; Cody, A. M.; D'Onghia, E.; Heller, R.; Hensley, B.; Kounkel, M.; Kraus, A.; Mann, A.; Robberto, M.; Rosen, A.; Townsend, R.; Vos, J. The TEMPO Survey I: Predicting Yields of Transiting Moons, Planets, and Satellites from a 30-day Survey of Orion with the Roman Space Telescope, 2023, Publications of the Astronomical Society of the Pacific, 135, 1043. [arXiv:2209.12916]
- 15. Kolborg, A.; Ramirez-Ruiz, E.; Martizzi, D.; Macias, P.; Soares-Furtado, M. Constraints on the Frequency and Mass Content of R-Process Events Derived from Turbulent Mixing in Galactic Disks, 2023, The Astrophysical Journal Letters, 936, 2. [arXiv:2304.01144]
- 14. Limbach, M.; Vanderburg, A.; Stevenson, K.; Blouin, S.; Morley, C.; Lustig-Yaeger, J.; Soares-Furtado, M.; Janson, M. A New Method for Finding Nearby White Dwarf Exoplanets and Detecting Biosignatures, 2022, Monthly Notices of the Royal Astronomical Society, 517, 2. [arXiv:2209.12914]
- **13.** Tayar, J.; Moyano, F.; **Soares-Furtado, M.**; Escorza, A.; Joyce, M.; Martell, S.; Garcia, R.; Breton, S.; Mathis, S.; Mathur, S.; Delsanti, V.; Kiefer, S.; Bowman, D.; Van Reeth, T.; Shetye, S.; Daniel, D.; Christine, C.; Hedlund, S. *Spinning up the Surface: Evidence for Planetary Engulfment or Unexpected Angular Momentum Transport*, 2022, The Astrophysical Journal, 940, 1. [arXiv:2208.01678]
- 12. Capistrant, B.; Soares-Furtado, M.; Rappaport, S.; Vanderburg, A. A Population of Dipper Stars from the Transiting Exoplanet Survey Satellite Mission, 2022, The Astrophysical Journal Supplement Series, 263, 1. [arXiv:2209.03379]
- 11. Kolborg, A.; Martizzi, D.; Ramirez-Ruiz, E.; Pfister, H.; Sakari, C.; Wechsler, R.; Soares-Furtado, M. Supernova-Driven Turbulent Metal Mixing in High Redshift Galactic Disks: Metallicity Fluctuations in the Interstellar Medium and its Imprints on Metal Poor Stars in the Milky Way, 2022, The Astrophysical Journal Letters, 936, 2. [arxiv:2111.02619]
- **10.** Vigna-Gómez, V.; Liu, B.; Aguilera-Dena, D..; Grishin, E.; Ramirez-Ruiz, E.; **Soares-Furtado, M.** *Mergers Prompted by Dynamical Resonances in Compact, Multiple-Star Systems: a Stellar-Reduction Case for the Massive Triple TIC 470710327*, 2022, Monthly Notices of the Royal Astronomical Society: Letters, 515, 1. [arXiv:2204.10600]
- 9. Grunblatt, S.; Saunders, N; Sun, M.; Thaddeus, K.; Huber D.; Chontos, A.; Soares-Furtado, M.; Eisner, N.; Pereira, F.; Collins, K.; Quinn, S.; Tronsgaard, R.; Zhou, G.; Nowak, G.; Ciardi, D.; Howard, A.; Buchhave, L.; Ricker, G.; Jenkins, J.; Latham, D.; Seager, S.; Vanderspek, R.; Winn, J. *Planets Orbiting Evolved TESS Stars (POETS) II: The Hottest Jupiters Orbiting Evolved Stars*, 2022, The Astrophysical Journal, 163, 3. [arXiv:2201.04140]
- **8. Soares-Furtado, M.**, Cantiello, M.; MacLeod, M.; Ness, M. Lithium Enrichment Signatures of Planetary Engulfment Events in Evolved Stars, 2021, The Astrophysical Journal, 162, 6. [arXiv:2002.05275]
- 7. Soares-Furtado, M.; Hartman, J. D.; Bhatti, W.; Bouma, L. G.; Barna, T.; Bakos, G.Á. A Catalog of Periodic Variables in Open Clusters M35 and NGC 2158, 2020, The Astrophysical Journal Supplement, 246, 1. [arXiv:1911.00832]
- **6.** Naiman, J.; **Soares-Furtado, M.**; Ramirez-Ruiz, E. *Modeling Gas Evacuation Mechanisms in present-Day Globular Clusters: Stellar Winds from Evolved Stars & Pulsar Heating*, 2019, Monthly Notices of the Royal Astronomical Society, 491, 4. [arXiv:1310.8301]
- 5. Rappaport, S.; Zhou, G.; Vanderburg, A.; Mann, A.; Kristiansen, M. H.; Oláh, K.; Jacobs, T. L.; Newton, E.; Omohundro, M. R.; LaCourse, D.; Schwengeler, H. M.; Terentev, I. A.; Latham, D. W.; Bieryla, A.; Soares-Furtado, M.; Bouma, L. G.; Ireland, M. J.; Irwin, J. "Deep Long Asymmetric Occultation in EPIC 204376071", 2019, Monthly Notices of the Royal Astronomical Society, 485, 2. [arXiv:1902.08152]
- **4.** MacLeod, M.; Cantiello, M.; **Soares-Furtado, M.** Planetary Engulfment in the Hertzsprung-Russell Diagram, 2018, The Astrophysical Journal Letters, 853, 1. [arXiv:1801.04274]

- 3. Zhu, Wei; Huang, C. X.; Udalski, A.; Soares-Furtado, M.; Poleski, R.; Skowron, J.; Mróz, P.; Szymański, M. K.; Soszyński, I.; Pietrukowicz, P.; KozŁowski, S.; Ulaczyk, K.; Pawlak, M. Extracting Microlensing Signals from K2 Campaign 9, 2017, Publications of the Astronomical Society of the Pacific, 129, 980. [arXiv:1704.08692]
- 2. Soares-Furtado, M.; Hartman, J. D.; Bakos, G.Á.; Huang, C. X.; Penev, K.; Bhatti, W. *Image Subtraction Reduction of Open Clusters M35 & NGC 2158 in the K2 Campaign 0 Super Stamps*, 2017, Publications of the Astronomical Society of the Pacific, 129, 974. [arXiv:1703.00030]
- Aliu, E.; Archambault, S.; Arlen, T.; Aune, T.; Beilicke, M.; Benbow, W.; Bird, R.; Bouvier, A.; Buckley, J. H.; Bugaev, V.; Cesarini, A.; Ciupik, L.; Connolly, M. P.; Cui, W.; Dumm, J.; Errando, M.; Falcone, A.; Federici, S.; Feng, Q.; Finley, J. P. Fortin, P.; Fortson, L.; Furniss, A.; Galante, N.; Gérard, L.; Gillanders, G. H.; Griffin, S.; Grube, J.; Gyuk, G.; Hanna, D.; Holder, J.; Hughes, G.; Humensky, T. B.; Kaaret, P.; Kertzman, M.; Khassen, Y.; Kieda, D.; Krawczynski, H.; Krennrich, F.; Lang, M. J.; Madhavan, A. S.; Maier, G.; Majumdar, P.; McArthur, S.; McCann, A.; Moriarty, P.; Mukherjee, R.; Nieto, D.; O'Faoláin de Bhróithe, A.; Ong, R. A.; Orr, M.; Otte, A. N.; Park, N.; Perkins, J. S.; Pohl, M.; Popkow, A.; Prokoph, H.; Quinn, J.; Ragan, K.; Reyes, L. C.; Reynolds, P. T.; Richards, G. T.; Roache, E.; Saxon, D. B.; Sembroski, G. H.; Skole, C.; Smith, A. W.; Soares-Furtado, M.; Staszak, D.; Telezhinsky, I.; Tešić, G.; Theiling, M.; Varlotta, A.; Vassiliev, V. V.; Vincent, S.; Wakely, S. P.; Weekes, T. C.; Weinstein, A.; Welsing, R.; Williams, D. A.; Zitzer, B.; VERITAS Collaboration; Böttcher, M.; Fumagalli, M.; Jadhav, J. Long Term Observations of B2 1215+30 with VERITAS, 2013, The Astrophysical Journal, 779, 2. [arXiv:1310.6498]

## OTHER PUBLICATIONS

- \* Mentored students are underlined
- **3.** Hinkel, N.; Youngblood, A.; **Soares-Furtado, M.**. *Host Stars and How Their Compositions Influence Exoplanets*, in press with Reviews in Mineralogy and Geochemistry, 88.
- 2. Howell, S.; Howell, A.; Street, R.; Soares-Furtado, M.; Jackson, B.; Greene, T. The Dynamic Universe: Realizing the Potential of Classical Time Domain and Multimessenger Astrophysics, 2024, Frontiers in Astronomy and Space Sciences, 11.
- 1. Soares-Furtado, M.; Kubiak, S. Aging Ungracefully, 2023, Sky and Telescope, 145, 1, p.14

# SELECTED FELLOWSHIPS, GRANTS, & AWARDS

Postdoctoral Excellence in Mentoring Award, University of Wisconsin-Madison	2023
NASA Topical Workshops, Symposia, and Conferences Award, Total budget: \$69,550	2023
PI: E. Zweibel, Science-PI: M. Soares-Furtado	
NASA Hubble Fellowship, Total budget: \$364,527	2021-2024
TESS DDT Proposal, Principal Investigator	2021
Asteroseismic Investigation of Pulsating Blue Stragglers in M67	
TESS DDT Proposal, Principal Investigator	2021
Asteroseismic Investigation of Pulsating Blue Stragglers in NGC 6819	
NASA Postdoctoral Program Fellowship (declined), Total budget: \$237,162	2020
First Place Poster, Kepler & K2 Science Conference V	2019
National Science Foundation Graduate Research Fellowship, Total budget: \$102,000	2015-2018
TESS Cycle 1 Guest Investigator Program, Total budget: \$200,000	2018
PI: J. Hartman, Co-I: M. Soares-Furtado	
Permanent Exhibit Selection, Art of Science, Princeton University	2017
Kenneth & Ann Thimann Scholarship, UCSC	2014
SLUG Fellowship, UCSC	2013

Lamat Fellowship, UCSC	20
First Place Oral presentation, AAAS National ERN Conference	20
Steven Chu Award for Undergraduate Research, APS Annual Conference	20
Ron Ruby Memorial Scholarship for Teaching Excellence, UCSC	20
Regents Scholarship, UCSC	2008–20
Selected Scientific Presentations	
I have given <b>60 talks</b> , including <b>40 invited</b> colloquia, seminars, and conference talks.	
Colloquia:	
University of Colorado Boulder	20
University of Nevada, Las Vegas	20
University of Illinois Urbana-Champaign (2x)	2022 & 20
Harvard Institute for Theory and Computation	20
University of Wisconsin–Madison, Department of Physics	20
Massachusetts Institute of Technology Kavli Institute for Astrophysics and Space Research	
University of California, Los Angeles	20
NASA Goddard Space Flight Center	20
Astrophysics Research Centre of the Queen's University, Belfast	20
University of California, Santa Barbara Kavli Institute for Theoretical Physics	20
University of Wisconsin–Madison, Department of Astronomy (2x)	2019 & 20
Pomona College	20
University of the Virgin Islands	20
Recent Invited Seminars:	
American Physical Society's April Meeting	20
CIERA, Northwestern University (2x)	2021 & 20
MIT Planetary Lunch Colloquium Series (PlCS)	20
Penn State Center for Exoplanets and Habitable Worlds	20
Presentation, NASA Hubble Fellowship Program Symposium (3x)	2021, 2022, 20
Harvard University Exoplanet Lunch Series (3)	2016, 2019, 20
Probes of Transport in Stars—Kavli Institute for Theoretical Physics	20
Michigan State University	20
Carnegie Earth and Planets Laboratory	20
Division on Dynamical Astronomy of the AAS	20
UCLA-UCSC Joint Astrophysics Seminar Series	20
American Museum of Natural History	20
Carnegie Department of Terrestrial Magnetism	20
Harvard University Stars & Planets Seminar Series	20
Princeton University Envision Conference—Ethics & Space Policy	20
Harvard University Institute for Theory and Computation	20
Recent Invited Conference Presentations:	
33rd Annual Wisconsin Space Conference	20
Probes of Transport in Stars, UCSB Kavli Institute for Theoretical Physics	20
NASA's Kepler & K2 SciCon V	20

## Observational Experience

Southern African Large Telescope High Resolution Échelle Spectrograph (65 hours)

WIYN 3.5-M telescope at Kitt Peak National Observatory (4 nights)

Australian National University 2.3-m telescope at Siding Spring Observatory (15 nights)

Magellan Telescopes (Walter Baade 6.5-m) at Las Campanas Observatory (2 nights)

VERITAS at Whipple Observatory (12 nights)

## TEACHING EXPERIENCE

Summer Instructor, Lamat REU Program (NSF #1852393)	Summer 2021, 2022, & 2023
Guest Instructor, Pomona College	2019
Stellar Structure & Evolution (ASTR 123)	
Assistant Instructor, Princeton University	2015
The Universe (AST 205)	
Head Instructor, Mount Madonna School	2012–2013
AP Physics, AP Calculus, & Python Programming	
Physics Section Leader & Lecturer, UCSC Academic Excellence Program	2009–2011
Introduction to Waves & Optics, Introduction to Elementary Mechanics,	
Introduction to Electricity & Magnetism	
Assistant Instructor, Princeton University  The Universe (AST 205)  Head Instructor, Mount Madonna School  AP Physics, AP Calculus, & Python Programming  Physics Section Leader & Lecturer, UCSC Academic Excellence Program  Introduction to Waves & Optics, Introduction to Elementary Mechanics,	2012–2013

## Advising Experience

I have served as the primary advisor or co-advisor(\*) for **nineteen** students. † denotes that a publication has resulted from our collaboration. ‡ denotes that a publication is in progress.

#### **Graduate Students:**

Julia K. Sheffler‡ (University of Wisconsin-Madison)	2023-present
Andrew Nine*† (University of Wisconsin–Madison)	2022-2023
Anne Noer Kolbrog*† (University of California, Santa Cruz)	2021-2023
Ricardo Yarza*† (FINESST Fellow; University of California, Santa Cruz)	2021-present
Mary Anne Limbach*† (Texas A&M)	2021-2023
Updated role: Assistant Research Scientist at the University of Michigan	
Rachel McClure*‡ (NSF GRFP Fellow; University of Wisconsin–Madison)	2020-2022

#### Postbaccalaureate Students

Lily Robinthal* (University of Wisconsin–Madison)	Summer 2022
Updated role: Graduate student at Arizona State University	
Benjamin Capistrant*† (University of Wisconsin–Madison)	2021-2022
Updated role: Graduate student at the University of Florida	

# **Undergraduate Students**

onder Studdents	
A. Distler‡ (University of Wisconsin–Madison)	2023-present
M. L. Clark‡ (University of Wisconsin–Madison)	2023-present
Nicholas Marston‡ (University of Wisconsin-Madison)	2023-present
Brooke Kotten*‡ (University of Wisconsin–Madison)	2023-present
Alyssa Jankowski† (University of Wisconsin-Madison)	2022–2023
Sara Kubiak† (University of Wisconsin-Madison)	Summer 2022
Updated role: Graduate student at Colorado State University	
Evan Bauer* (University of Wisconsin-Madison)	2021–2022
Rianna Kuenzi‡ (University of Wisconsin-Madison)	2021–2022

Disse Lopez (University of California, Santa Cruz)   Updated role: Software engineer	Tyler Barna† (Rutgers University)	2018–2019
Atirath Dhara (West Windsor Plainsboro High School) Updated role: Regent Scholar; Graduate student at UCSC    SELECTED PROFESSIONAL SERVICE EXPERIENCE		2014–2015
Media Fellow, University of Wisconsin-Madison2024Reviewer, National Science Foundation Panel2024Lead Organizer, Aspen Center for Physics 2023 winter conference2022-2023Exoplanet Systems and Stellar Life Cycles: Late-Stage and Post-MS Systems2023Reviewer, NASA Panel2023Reviewer, NASA Panel Inclusion Review2023Referee for the scientific journal Monthly Notices of the Royal Astronomical Society2022Referee for the scientific journal Nature2021-presentCo-organizer & host of the TESS (TSC2) Splinter Session "Ultra Short Period Planets"2021-presentCo-Division for Dynamical Astronomy Session Chair, "How Gaia Reveals the Galaxy's Secrets"2021Member of the TESS Follow-Up Working Group2021-presentLAMAT REU Admissions Committee Member2021-presentUW-Madison Southern African Large Telescope Telescope Allocation Committee2023-2024UW-Madison Graduate Admissions Committee Member2021-2024UW-Madison Graduate Application Advice Panel2021-2024Co-organizer, UW-Madison Monday Science Seminar2021-2024Co-organizer, UW-Madison Board of Visitors2022Graduate Applicant Recruiter, SACNAS & NSBP Conferences2020-2021Presenter, Princeton Advisory Council2020Session Chair, Princeton Research Day2021	Atirath Dhara (West Windsor Plainsboro High School)	2017–2019
Reviewer, National Science Foundation Panel Lead Organizer, Aspen Center for Physics 2023 winter conference Exoplanet Systems and Stellar Life Cycles: Late-Stage and Post-MS Systems Reviewer, NASA Panel Reviewer, NASA Panel 2023 Referee for the scientific journal Monthly Notices of the Royal Astronomical Society 2022 Referee for the scientific journal Nature 2021 Advisory Board Member, Lamat Institute 2021-present Co-organizer & host of the TESS (TSC2) Splinter Session "Ultra Short Period Planets" 2021 Co-Division for Dynamical Astronomy Session Chair, "How Gaia Reveals the Galaxy's Secrets" 2021 Member of the TESS Follow-Up Working Group 2021-present LAMAT REU Admissions Committee Member 2021-2022  SELECTED DEPARTMENTAL SERVICE EXPERIENCE  UW-Madison Southern African Large Telescope Telescope Allocation Committee 2021-2024 UW-Madison Graduate Admissions Committee Member 2021-2024 Co-organizer, UW-Madison Sherry Hour 2021-2024 Co-organizer, UW-Madison Monday Science Seminar 2021-2024 Co-organizer, UW-Madison Board of Visitors 2022 Graduate Applicant Recruiter, SACNAS & NSBP Conferences 2020-2021 Presenter, Princeton Advisory Council 2020-2021 Session Chair, Princeton Research Day 2021-2024	Selected Professional Service Experience	
Lead Organizer, Aspen Center for Physics 2023 winter conference2022–2023Exoplanet Systems and Stellar Life Cycles: Late-Stage and Post-MS Systems2023Reviewer, NASA Panel2023Reviewer, NASA Panel Inclusion Review2023Referee for the scientific journal Monthly Notices of the Royal Astronomical Society2021Advisory Board Member, Lamat Institute2021–presentCo-organizer & host of the TESS (TSC2) Splinter Session "Ultra Short Period Planets"2021Co-Division for Dynamical Astronomy Session Chair, "How Gaia Reveals the Galaxy's Secrets"2021Member of the TESS Follow-Up Working Group2021–presentLAMAT REU Admissions Committee Member2021–2022W—Madison Southern African Large Telescope Telescope Allocation Committee2023–2024UW-Madison Graduate Admissions Committee Member2021–2024UW-Madison Graduate Application Advice Panel2021–2024Co-organizer, UW-Madison Sherry Hour2021–2024Co-organizer, UW-Madison Monday Science Seminar2021–2024Presenter, UW-Madison Board of Visitors2022Graduate Applicant Recruiter, SACNAS & NSBP Conferences2020–2021Presenter, Princeton Advisory Council2020–2021Session Chair, Princeton Research Day2017	Media Fellow, University of Wisconsin–Madison	2024
Reviewer, NASA Panel 2023 Reviewer, NASA Panel 1nclusion Review 2023 Referee for the scientific journal Monthly Notices of the Royal Astronomical Society 2021 Referee for the scientific journal Nature 2021 Advisory Board Member, Lamat Institute 2021–present Co-organizer & host of the TESS (TSC2) Splinter Session "Ultra Short Period Planets" 2021 Co-Division for Dynamical Astronomy Session Chair, "How Gaia Reveals the Galaxy's Secrets" 2021 Member of the TESS Follow-Up Working Group 2021–present LAMAT REU Admissions Committee Member 2021–2022  SELECTED DEPARTMENTAL SERVICE EXPERIENCE  UW-Madison Southern African Large Telescope Telescope Allocation Committee 2023–2024 UW-Madison Graduate Admissions Committee Member 2021–2024 Co-organizer, UW-Madison Sherry Hour 2021–2024 Co-organizer, UW-Madison Monday Science Seminar 2020–2023 Presenter, UW-Madison Board of Visitors 2022 Graduate Applicant Recruiter, SACNAS & NSBP Conferences 2020–2021 Presenter, Princeton Advisory Council 2020 Session Chair, Princeton Research Day 2021	Reviewer, National Science Foundation Panel	2024
Reviewer, NASA Panel Reviewer, NASA Panel Inclusion Review Referee for the scientific journal Monthly Notices of the Royal Astronomical Society Referee for the scientific journal Nature Reviewer, NASA Panel Inclusion Review Referee for the scientific journal Nature Referee for the scientific journal Nature Reviewer, NASA Panel Inclusion Review Referee for the scientific journal Nature Referee for the scientific journal Nature Referee for the scientific journal Nature Reviewer, NASA Panel Inclusion Scientific Journal Nature Referee for the scientific journal Nature Reviewer, NASA Panel Inclusion Scientific Journal Nature Referee for the scientific journal Nature Referee for the Scientific Journal Nature Reviewer, NASA Panel Inclusion Sciente Fescope Inclusion Includes Included Includes Included Includes Included Includes Included Includes Included Includes Included Includes Includes Included Includes Includes Included Includes	Lead Organizer, Aspen Center for Physics 2023 winter conference	2022-2023
Reviewer, NASA Panel Inclusion Review 2023 Referee for the scientific journal Monthly Notices of the Royal Astronomical Society 2022 Referee for the scientific journal Nature 2021 Advisory Board Member, Lamat Institute 2021–present Co-organizer & host of the TESS (TSC2) Splinter Session "Ultra Short Period Planets" 2021 Co-Division for Dynamical Astronomy Session Chair, "How Gaia Reveals the Galaxy's Secrets" 2021 Member of the TESS Follow-Up Working Group 2021–present LAMAT REU Admissions Committee Member 2021–2022  SELECTED DEPARTMENTAL SERVICE EXPERIENCE  UW-Madison Southern African Large Telescope Telescope Allocation Committee 2023–2024 UW-Madison Graduate Admissions Committee Member 2021–2024 UW-Madison Graduate Application Advice Panel 2021–2024 Co-organizer, UW-Madison Sherry Hour 2021–2024 Co-organizer, UW-Madison Monday Science Seminar 2020–2023 Presenter, UW-Madison Board of Visitors 2022 Graduate Applicant Recruiter, SACNAS & NSBP Conferences 2020–2021 Presenter, Princeton Advisory Council 2020 Session Chair, Princeton Research Day 2021	Exoplanet Systems and Stellar Life Cycles: Late-Stage and Post-MS Systems	
Referee for the scientific journal Monthly Notices of the Royal Astronomical Society2021Referee for the scientific journal Nature2021Advisory Board Member, Lamat Institute2021-presentCo-organizer & host of the TESS (TSC2) Splinter Session "Ultra Short Period Planets"2021Co-Division for Dynamical Astronomy Session Chair, "How Gaia Reveals the Galaxy's Secrets"2021Member of the TESS Follow-Up Working Group2021-presentLAMAT REU Admissions Committee Member2021-2022SELECTED DEPARTMENTAL SERVICE EXPERIENCEUW-Madison Southern African Large Telescope Telescope Allocation Committee2023-2024UW-Madison Graduate Admissions Committee Member2021-2024UW-Madison Graduate Application Advice Panel2021-2024Co-organizer, UW-Madison Sherry Hour2021-2024Co-organizer, UW-Madison Monday Science Seminar2020-2023Presenter, UW-Madison Board of Visitors2022Graduate Applicant Recruiter, SACNAS & NSBP Conferences2020-2021Presenter, Princeton Advisory Council2020Session Chair, Princeton Research Day2017	Reviewer, NASA Panel	2023
Referee for the scientific journal Nature 2021 Advisory Board Member, Lamat Institute 2021-present Co-organizer & host of the TESS (TSC2) Splinter Session "Ultra Short Period Planets" 2021 Co-Division for Dynamical Astronomy Session Chair, "How Gaia Reveals the Galaxy's Secrets" 2021 Member of the TESS Follow-Up Working Group LAMAT REU Admissions Committee Member 2021-present LAMAT REU Admissions Committee Member 2021-2022  SELECTED DEPARTMENTAL SERVICE EXPERIENCE  UW-Madison Southern African Large Telescope Telescope Allocation Committee 2023-2024 UW-Madison Graduate Admissions Committee Member 2021-2024 UW-Madison Graduate Application Advice Panel 2021-2024 Co-organizer, UW-Madison Sherry Hour 2021-2024 Co-organizer, UW-Madison Monday Science Seminar 2020-2023 Presenter, UW-Madison Board of Visitors 2022 Graduate Applicant Recruiter, SACNAS & NSBP Conferences 2020-2021 Presenter, Princeton Advisory Council 2020 Session Chair, Princeton Research Day 2021	Reviewer, NASA Panel Inclusion Review	2023
Advisory Board Member, Lamat Institute Co-organizer & host of the TESS (TSC2) Splinter Session "Ultra Short Period Planets" Co-Division for Dynamical Astronomy Session Chair, "How Gaia Reveals the Galaxy's Secrets" 2021 Member of the TESS Follow-Up Working Group LAMAT REU Admissions Committee Member 2021-present LAMAT REU Admissions Committee Member 2021-2022  SELECTED DEPARTMENTAL SERVICE EXPERIENCE  UW-Madison Southern African Large Telescope Telescope Allocation Committee UW-Madison Graduate Admissions Committee Member 2021-2024 UW-Madison Graduate Application Advice Panel 2021-2024 Co-organizer, UW-Madison Sherry Hour 2021-2024 Co-organizer, UW-Madison Monday Science Seminar Presenter, UW-Madison Board of Visitors 2020 Graduate Applicant Recruiter, SACNAS & NSBP Conferences Presenter, Princeton Advisory Council Session Chair, Princeton Research Day 2021-2024	Referee for the scientific journal Monthly Notices of the Royal Astronomical Society	2022
Co-organizer & host of the TESS (TSC2) Splinter Session "Ultra Short Period Planets"  Co-Division for Dynamical Astronomy Session Chair, "How Gaia Reveals the Galaxy's Secrets"  2021  Member of the TESS Follow-Up Working Group  LAMAT REU Admissions Committee Member  2021–2022  SELECTED DEPARTMENTAL SERVICE EXPERIENCE  UW-Madison Southern African Large Telescope Telescope Allocation Committee  UW-Madison Graduate Admissions Committee Member  2023–2024  UW-Madison Graduate Application Advice Panel  Co-organizer, UW-Madison Sherry Hour  2021–2024  Co-organizer, UW-Madison Monday Science Seminar  Presenter, UW-Madison Board of Visitors  2022  Graduate Applicant Recruiter, SACNAS & NSBP Conferences  Presenter, Princeton Advisory Council  Session Chair, Princeton Research Day	Referee for the scientific journal Nature	2021
Co-Division for Dynamical Astronomy Session Chair, "How Gaia Reveals the Galaxy's Secrets"  Member of the TESS Follow-Up Working Group LAMAT REU Admissions Committee Member  SELECTED DEPARTMENTAL SERVICE EXPERIENCE  UW-Madison Southern African Large Telescope Telescope Allocation Committee UW-Madison Graduate Admissions Committee Member 2023–2024 UW-Madison Graduate Application Advice Panel 2021–2024 Co-organizer, UW-Madison Sherry Hour 2021–2024 Co-organizer, UW-Madison Monday Science Seminar Presenter, UW-Madison Board of Visitors 2022 Graduate Applicant Recruiter, SACNAS & NSBP Conferences Presenter, Princeton Advisory Council Session Chair, Princeton Research Day  2021–2027	Advisory Board Member, Lamat Institute	2021-present
Member of the TESS Follow-Up Working Group LAMAT REU Admissions Committee Member2021-presentSELECTED DEPARTMENTAL SERVICE EXPERIENCEUW-Madison Southern African Large Telescope Telescope Allocation Committee2023-2024UW-Madison Graduate Admissions Committee Member2021-2024UW-Madison Graduate Application Advice Panel2021-2024Co-organizer, UW-Madison Sherry Hour2021-2024Co-organizer, UW-Madison Monday Science Seminar2020-2023Presenter, UW-Madison Board of Visitors2022Graduate Applicant Recruiter, SACNAS & NSBP Conferences2020-2021Presenter, Princeton Advisory Council2020Session Chair, Princeton Research Day2017	Co-organizer & host of the TESS (TSC2) Splinter Session "Ultra Short Period Planets"	2021
LAMAT REU Admissions Committee Member 2021–2022  SELECTED DEPARTMENTAL SERVICE EXPERIENCE  UW-Madison Southern African Large Telescope Telescope Allocation Committee 2023–2024  UW-Madison Graduate Admissions Committee Member 2021–2024  UW-Madison Graduate Application Advice Panel 2021–2024  Co-organizer, UW-Madison Sherry Hour 2021–2024  Co-organizer, UW-Madison Monday Science Seminar 2020–2023  Presenter, UW-Madison Board of Visitors 2022  Graduate Applicant Recruiter, SACNAS & NSBP Conferences 2020–2021  Presenter, Princeton Advisory Council 2020  Session Chair, Princeton Research Day 2017	Co-Division for Dynamical Astronomy Session Chair, "How Gaia Reveals the Galaxy's Secre	ts" 2021
LAMAT REU Admissions Committee Member 2021–2022  SELECTED DEPARTMENTAL SERVICE EXPERIENCE  UW-Madison Southern African Large Telescope Telescope Allocation Committee 2023–2024  UW-Madison Graduate Admissions Committee Member 2021–2024  UW-Madison Graduate Application Advice Panel 2021–2024  Co-organizer, UW-Madison Sherry Hour 2021–2024  Co-organizer, UW-Madison Monday Science Seminar 2020–2023  Presenter, UW-Madison Board of Visitors 2022  Graduate Applicant Recruiter, SACNAS & NSBP Conferences 2020–2021  Presenter, Princeton Advisory Council 2020  Session Chair, Princeton Research Day 2017	Member of the TESS Follow-Up Working Group	2021-present
UW-Madison Southern African Large Telescope Telescope Allocation Committee2023–2024UW-Madison Graduate Admissions Committee Member2021–2024UW-Madison Graduate Application Advice Panel2021–2024Co-organizer, UW-Madison Sherry Hour2021–2024Co-organizer, UW-Madison Monday Science Seminar2020–2023Presenter, UW-Madison Board of Visitors2022Graduate Applicant Recruiter, SACNAS & NSBP Conferences2020–2021Presenter, Princeton Advisory Council2020Session Chair, Princeton Research Day2017	LAMAT REU Admissions Committee Member	2021–2022
UW-Madison Graduate Admissions Committee Member2021–2024UW-Madison Graduate Application Advice Panel2021–2024Co-organizer, UW-Madison Sherry Hour2021–2024Co-organizer, UW-Madison Monday Science Seminar2020–2023Presenter, UW-Madison Board of Visitors2022Graduate Applicant Recruiter, SACNAS & NSBP Conferences2020–2021Presenter, Princeton Advisory Council2020Session Chair, Princeton Research Day2017	Selected Departmental Service Experience	
UW-Madison Graduate Admissions Committee Member2021–2024UW-Madison Graduate Application Advice Panel2021–2024Co-organizer, UW-Madison Sherry Hour2021–2024Co-organizer, UW-Madison Monday Science Seminar2020–2023Presenter, UW-Madison Board of Visitors2022Graduate Applicant Recruiter, SACNAS & NSBP Conferences2020–2021Presenter, Princeton Advisory Council2020Session Chair, Princeton Research Day2017	UW-Madison Southern African Large Telescope Telescope Allocation Committee	2023-2024
Co-organizer, UW-Madison Sherry Hour2021–2024Co-organizer, UW-Madison Monday Science Seminar2020–2023Presenter, UW-Madison Board of Visitors2022Graduate Applicant Recruiter, SACNAS & NSBP Conferences2020–2021Presenter, Princeton Advisory Council2020Session Chair, Princeton Research Day2017		2021-2024
Co-organizer, UW-Madison Sherry Hour2021–2024Co-organizer, UW-Madison Monday Science Seminar2020–2023Presenter, UW-Madison Board of Visitors2022Graduate Applicant Recruiter, SACNAS & NSBP Conferences2020–2021Presenter, Princeton Advisory Council2020Session Chair, Princeton Research Day2017	UW-Madison Graduate Application Advice Panel	2021-2024
Co-organizer, UW-Madison Monday Science Seminar2020–2023Presenter, UW-Madison Board of Visitors2022Graduate Applicant Recruiter, SACNAS & NSBP Conferences2020–2021Presenter, Princeton Advisory Council2020Session Chair, Princeton Research Day2017		2021-2024
Presenter, UW-Madison Board of Visitors 2022 Graduate Applicant Recruiter, SACNAS & NSBP Conferences 2020–2021 Presenter, Princeton Advisory Council 2020 Session Chair, Princeton Research Day 2017	·	2020-2023
Graduate Applicant Recruiter, SACNAS & NSBP Conferences2020–2021Presenter, Princeton Advisory Council2020Session Chair, Princeton Research Day2017	,	2022
Presenter, Princeton Advisory Council 2020 Session Chair, Princeton Research Day 2017	Graduate Applicant Recruiter, SACNAS & NSBP Conferences	2020-2021
Session Chair, Princeton Research Day 2017	**	
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20 organizer, i iniceton i namen opeaker ocites	Co-organizer, Princeton Thunch Speaker Series	2015

#### SELECTED OUTREACH SERVICE EXPERIENCE

I have given **62 talks**, including **51 invited** presentations.

Invited Service:	
Panelist, UW-Madison L&S Graduate Research Scholars	2024
Speaker, Lamat REU Mentor Speaker Series	2020-2024
Presenter, Learn With An Expert, Milwaukee Public Museum	2023
Presenter, Science on Tap, Milwaukee Public Museum	2023
Presenter, Astronomy on Tap, UNLV, UPenn, Princeton, UW-Madison (4x)	2018-2023
Speaker, UW Space Place	2023
Instructor, Lamat REU Professional Development Workshops	2021-2023
Speaker, Society of Physics Students, UNLV, UCSC (2x)	2015-2023
Speaker, Madison Astronomical Society	2022
Panelist for the Committee on the Status of Women in Astronomy	2021
Speaker, European Astronomical Society Annual Meeting	2021
"The Value of Building Social Support Networks for Mothers in Astronomy"	
Speaker, NSF NoirLab DEI Seminar	2021
Speaker, AeroSTEM Academy	2021
Speaker, The National Society of Black Physicists, University of the Virgin Islands	2019
Keynote Speaker & Co-organizer, National Chemistry Week	2018
"Life Beyond Earth" (932 attendees)	
Keynote Speaker, Gavilan Community College Graduation	2014
Contributed Service	
SETI Institute's NASA Community College Network Committee Member	2022-present
Organizer & Speaker, Solar System Annual Science Workshop, Lincoln Elementary School	2022
NASA Hubble Fellowship Program SOC Symposium Committee Member	2021
Panelist for the NASA Hubble Fellowship Program Application Workshop	2021
Founder and organizer, The Astrono-Mom Conversation Series	2020-present
Organizer & Mentor, Mastering the Graduate School Application Process	2018-present
*I have provided guidance for more than 150 URM graduate school applicants	
Co-founder & Co-organizer, Astronomy on Tap Trenton chapter	2019-2020
Co-organizer, Young Women's Conference in STEM, Princeton University	2017

## Media & Press

New Scientist, Where are all the exomoons?, J. O'Callaghan, 2024.

Astronomy Magazine, Nearest young Earth-sized planet could shed light on how terrestrial worlds evolve, S. Kuthunur. 2024.

Inside UW, Earth-sized planet discovered in 'our solar backyard', C. Barncard, 2024.

The Independent, Scientists find Earth-sized planet shockingly nearby, A. Griffin, 2024.

Ars Technica, Astronomers found ultra-hot, Earth-sized exoplanet with a lava hemisphere, J. Ouellette, 2024.

The Atlantic, A Different Vision for Earth's Demise, J. O'Callaghan, 2024.

Planetarium Film, Lights Out! Eclipses: Whys, Wonders, & Wows, Directed by Bob Bonadurer, 2023.

Quanta Magazine, New Clues for What Will Happen When the Sun Eats the Earth, J. O'Callaghan, 2023.

AAS YouTube Series Lithium Enrichment Signatures of Planetary Engulfment Events in Evolved Stars, 2022.

Badger Talks, Devoured Worlds: Lessons From Planet-Ingesting Stars, 2023.

The New York Times, The Juicy Secrets of Stars That Eat Their Planets, B. Ferreira, 2022.

Scientific American Magazine, Women Are Creating a New Culture for Astronomy, A. Finkbeiner, 2022.

Princeton University Press, Astronomy on Tap Brings Astrophysicists & the Community Together at a Trenton Pub, L. Wright, 2019.

New Scientist Magazine, Stars That Devour Their Planets Get Brighter & Faster, J. Wenz, 2018.