

# Dr. Melinda Soares-Furtado

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EDUCATION Ph.D., Astrophysical Science, Princeton University 2020  
Advisor: Prof. Gáspár Bakos  
M.A., Astrophysical Science, Princeton University 2016  
B.S., Physics, University of California, Santa Cruz 2014

RESEARCH Postdoctoral Fellow 2020 – present  
Department of Astronomy, University of Wisconsin–Madison  
Senior Collaborators: Profs. Robert Mathieu & Richard Townsend  
Graduate Student Researcher 2014 – 2020  
Department of Astrophysical Sciences, Princeton University  
Advisor: Prof. Gáspár Bakos  
Undergraduate Student Researcher 2009 – 2014  
Department of Astronomy, University of California, Santa Cruz  
Advisors: Profs. Enrico Ramirez-Ruiz & David Williams

## PUBLICATIONS

[[ADS Search](#)]

8. *Lithium Enrichment Signatures of Planetary Engulfment Events in Evolved Stars*  
**Soares-Furtado, M.**; Cantiello, M.; MacLeod, M.; Ness, M. — *Submitted to The Astrophysical Journal*. ([arXiv:2002.05275v1](#)) [4 citations]
7. *A Catalog of Periodic Variables in Open Clusters M35 & NGC 2158*  
**Soares-Furtado, M.**; Hartman, J. D.; Bhatti, W.; Bouma, L. G.; Barna, T.; Bakos, G.Á. 2019, *ApJS*, Volume 246, Issue 1, id.15. ([arxiv:1911.00832](#)) [1 citation]
6. *Modeling Gas Evacuation Mechanisms in Present-Day Globular Clusters: Stellar Winds from Evolved Stars & Pulsar Heating*  
Naiman, J.; **Soares-Furtado, M.**; Ramirez-Ruiz, E. 2019, *Monthly Notices of the Royal Astronomical Society*, Volume 491, Issue 4, p.4602-4614. ([arxiv:1310.8301](#)) [7 citations]
5. *Deep Long Asymmetric Occultation in EPIC 204376071*  
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. 2019, *Monthly Notices of the Royal Astronomical Society*, Volume 485, Issue 2, p.2681–2693. ([arxiv:1902.08152](#)) [7 citations]
4. *Planetary Engulfment in the Hertzsprung-Russell Diagram*  
MacLeod, M.; Cantiello, M.; **Soares-Furtado, M.** 2018, *ApJL*, Volume 853, Issue 1. ([arxiv:1801.04274](#)) [13 citations]
3. *Extracting Microlensing Signals from K2 Campaign 9*  
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. 2017, *PASP*, Volume 129, Issue 980. ([arxiv:1704.08692](#)) [21 citations]
2. *Image Subtraction Reduction of Open Clusters M35 & NGC 2158 in the K2 Campaign 0 Super Stamps*  
**Soares-Furtado, M.**; Hartman, J. D.; Bakos, G.Á.; Huang, C. X.; Penev, K.; Bhatti, W. 2017, *PASP*, Volume 129, Issue 974. ([arxiv:1703.00030](#)) [14 citations]
1. *Long Term Observations of B2 1215+30 with VERITAS*  
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. 2013, ApJ, Volume 779, Issue 2. ([arxiv:1310.6498](https://arxiv.org/abs/1310.6498)) [[20 citations](#)]

FELLOWSHIPS, GRANTS, & HONORS	University of Wisconsin–Madison Postdoctoral Fellowship	2020 – 2023
	National Science Foundation Graduate Research Fellowship	2015 – 2018
	TESS Cycle 1 Guest Investigator Program, Co-Investigator (\$200,000) <i>Difference Imaging of Star Clusters at Low Galactic Latitude</i>	2018
	Kenneth & Ann Thimann Scholarship, UCSC	2014
	SLUG Fellowship, UCSC	2013
	Lamat Fellowship, UCSC	2013
	Campus Merit Scholarship, UCSC	2010
	Regents Scholarship, UCSC	2008 – 2010
	California Alliance for Minority Participation Fellowship	2008 – 2010
	The National Science & Mathematics Access to Retain Talent Grant	2008
	The Isobel Milton Cerney Peace & Justice Scholarship	2008
	Uvas Valley Retired Teachers Association Scholarship	2008
COMMUNICATION & TEACHING AWARDS	First Place Poster, Kepler & K2 Science Conference V	2019
	Permanent Exhibition Selection, Art of Science, Princeton University	2017
	First Place Oral Presentation, AAAS National ERN Conference	2012
	Steven Chu Award for Undergraduate Research, APS Annual Conference	2011
	Ron Ruby Memorial Scholarship for Teaching Excellence, UCSC — Division of Physical & Biological Sciences	2010
COLLOQUIUM, PRESENTATIONS, & CONFERENCES	<b>Selected Talks</b>	
	Astrophysics Research Centre of the Queen’s University Belfast ( <i>invited</i> )	2021
	UCSB Kavli Institute for Theoretical Physics ( <i>invited</i> )	2021
	UCLA–UCSC Joint Astrophysics Seminar ( <i>invited</i> )	2021
	Colloquium, University of Wisconsin–Madison ( <i>invited</i> )	2020
	American Museum of Natural History Astrophysics Seminar ( <i>invited</i> )	2020
	NASA Exoplanets in Our Backyard Workshop	2020
	Carnegie Department of Terrestrial Magnetism Astronomy Seminar ( <i>invited</i> )	2019
	Harvard University Stars & Planets Seminar ( <i>invited</i> )	2019
	University of California Santa Cruz Planetary Lunch Series	2019
	NASA Goddard Extrasolar Planets Seminar	2019
	University of Michigan Star and Planet Formation Series	2019
	Princeton University Envision Conference — Ethics & Space Policy ( <i>invited</i> )	2019
	Colloquium, University of Wisconsin–Madison ( <i>invited</i> )	2019
	Colloquium, Pomona College ( <i>invited</i> )	2019
	Colloquium, University of the Virgin Islands ( <i>invited</i> )	2019
	Harvard University Exoplanet Lunch Series ( <i>invited</i> )	2019
	NASA’s Kepler & K2 SciCon V ( <i>invited</i> )	2019
	Princeton University Thunch Series	2019
	Emerging Researchers in Exoplanet Science IV	2018

Dwarf Stars & Clusters with K2 Conference	2018
Princeton University Seminar (8 talks)	2014–2018
Harvard University Institute for Theory and Computation ( <i>invited</i> )	2017
Princeton University Research Day	2017
Harvard University Exoplanet Lunch Series ( <i>invited</i> )	2016
UCSC Supercomputing Laboratory for Undergraduates ( <i>invited</i> )	2015
Aspen Center for Physics Conference: Physical Applications of Millisecond Pulsars	2013
Emerging Researchers National Conference in STEM	2012
Annual Western Conference for Undergraduate Women in Physics	2012
Society for Advancement of Chicanos & Native Americans	2011
VERITAS Collaboration Meeting	2011
West Coast Conference for Undergraduate Women in Physics	2010
University of California–Santa Cruz Astronomy Seminar	2010
West Coast Conference for Undergraduate Women in Physics (UCSC)	2009

### Selected Posters

NASA’s Kepler & K2 SciCon V	2019
Emerging Researchers in Exoplanet Science III	2017
223rd AAS Conference	2014
Annual Meeting of the California-Nevada Section of the APS	2011
University of California–Santa Cruz Science Symposium	2011
Annual Undergraduate Research Symposium (3 posters)	2009–2011

RESEARCH	Co-advisor: Rachel McClure† (graduate student at UW–Madison)	2020 – present
ADVISING	Co-advisor: Christopher Moore† (undergraduate student at UW–Madison)	2020 – present
EXPERIENCE	Co-advisor: Rianna Kuenzi† (undergraduate student at UW–Madison)	2020 – present
	Advisor: Tyler Barna† (undergraduate student at Rutgers University)	2018 – 2019
	Advisor: Atirath Dhara (high school student; now undergrad at UCSC)	2017 – 2019
	Co-advisor: Jose A. Lopez (undergraduate student at UCSC)	2013 – 2014

† Denotes students whose project led to or will soon lead to a refereed publication

TEACHING	Guest Instructor, Pomona College	2019
	<i>Stellar Structure &amp; Evolution</i> (ASTR123)	
	Assistant Instructor, Princeton University	2015
	<i>The Universe</i> (AST 205)	
	Math & Physics Head Instructor, Mount Madonna School	2012 – 2013
	<i>AP Calculus and AP Electromagnetism</i>	
	Physics Section Leader & Lecturer, UCSC Academic Excellence Program	2009 – 2011
	<i>Introduction to Waves &amp; Optics, Introduction to Elementary Mechanics, &amp; Introduction to Electricity &amp; Magnetism</i>	

OBSERVATIONS	ANU 2.3-m telescope at Siding Spring Observatory (15 nights)	
	The Very Energetic Radiation Imaging Telescope Array at Whipple Observatory (12 nights)	
	Walter Baade telescope at Las Campanas Observatory (2 nights)	

LEADERSHIP & MENTORING	Co-organizer, Monday Science Seminar, University of Wisconsin–Madison	2020 – 2021
	Founder, Astrono-Mom Conversation Series	2020
	Founder, Princeton University Astrophysics Writing Group	2018
	Session Chair, Princeton Research Day	2017
	Coordinator, Princeton Thunch Speaker Series	2015
	Founder, Graduate Astrophysics Seminar Hour	2014
	Member, Lamat Research Internship Admissions Committee	2014

	Founder, UCSC Undergraduate Astrophysics Journal Club	2011
	Co-organizer, West Coast Conference for Undergraduate Women in Physics	2009
	Member, Gavilan College Accreditation Task Force Committee	2008
	President, Gavilan College Honor Society	2008
OUTREACH	Speaker, Gavilan College — Life Skills for Higher Education ( <i>invited</i> )	2020
	Speaker, Lamat REU Program ( <i>invited</i> )	2020
	Speaker, AeroSTEM Academy Charter School ( <i>invited</i> )	2020
	Speaker, Astronomy on Tap Philadelphia, ( <i>invited</i> )	2019
	Performer, Astrophysics Through Dance: From Stellar Death to Chemical Rebirth	2019
	— Performance earned the Graduate Student Impact Award	
	Speaker, The National Society of Black Physicists ( <i>invited</i> )	2019
	Speaker, Amateur Astronomers Inc. ( <i>invited</i> )	2019
	Co-founder/Co-organizer/Speaker, Astronomy on Tap Trenton	2019
	Organizer, Littlebrook Elementary Solar System Science Workshop	2015 – 2018
	Co-organizer, Princeton Public Observing	2015 – 2018
	Keynote Speaker, National Chemistry Week (932 attendees) ( <i>invited</i> )	2018
	Co-organizer, Princeton Public Observing Night <i>En Español</i>	2018
	Organizer/Mentor, Mastering the Application Process	2018
	— long-term mentoring of 12 non-traditional undergraduate applicants	
	Co-organizer, Young Women’s Conference	2017
	Speaker, Lamat REU Program ( <i>invited</i> )	2015
	Coordinator/Speaker, Boy Scouts of America Astronomy Outreach	2015
	Speaker, UCSC STEM Transfer Day	2014
	Keynote Speaker, Gavilan Community College Graduation ( <i>invited</i> )	2014
	Speaker, Lamat REU Program ( <i>invited</i> )	2014
	Speaker, Minority Access to Research Careers ( <i>invited</i> )	2014
	Coordinator/Speaker, Astronomy Workshop, Alianza Charter School	2014
	Speaker, Lamat REU Community College Student Recruitment, ( <i>invited</i> )	2010 – 2013
	Coordinator, Expanding Your Horizons Conference	2013
	Coordinator, Yuri’s Night, NASA Ames Research Center	2010
MEDIA & PRESS	Princeton University Press, <i>Astronomy on Tap Brings Astrophysicists &amp; the Community Together at a Trenton Pub</i> , Liz Fuller-Wright, Jul 2019. <a href="#">[Article]</a>	
	New Scientist Magazine, <i>Stars That Devour Their Planets Get Brighter &amp; Faster</i> , John Wenz, Jan 2018. <a href="#">[Article]</a>	
	Slate Magazine, <i>Chasing Stars in the Sky &amp; the Classroom</i> , Robin D. Schatz, Jul 2014. <a href="#">[Article]</a>	
	UC Santa Cruz Magazine, <i>Geek Chic: UCSC Supercomputing Lab for Undergraduates</i> , Amy Ettinger, Oct 2013. <a href="#">[Article]</a>	
	UC Santa Cruz Magazine, <i>Physics Undergrad Makes the Most of Research Opportunities</i> , Tim Stephens, Apr 2012. <a href="#">[Article]</a>	
	UC Santa Cruz Magazine, <i>UC Santa Cruz Hosts Conference for Undergraduate Women in Physics</i> , Tim Stephens, Jan 2010. <a href="#">[Article]</a>	
	Santa Cruz Sentinel, <i>UCSC Hosts 5th Annual West Coast Conference for Undergraduate Women in Physics</i> , Jane Palmer, Jan 2010. <a href="#">[Article]</a>	