

Melinda Soares-Furtado

CONTACT INFORMATION	4 Ivy Lane, Office 020 Department of Astrophysical Sciences Princeton University Princeton, NJ 08544 USA	+1 650 314 8547 msoares@princeton.edu http://msoaresfurtado.com (US Citizen)
EDUCATION	Ph.D. Astrophysical Science , Princeton University Advisor: Dr. Gaspar Bakos M.A., Astrophysical Science , Princeton University B.S. Physics , University of California, Santa Cruz Advisors: Dr. Enrico Ramirez-Ruiz & Dr. David Williams Thesis: <i>Modeling The Tenuous Intrachuster Medium in Globular Clusters</i>	expected in 2020 2016 2014
RESEARCH	Graduate Student Researcher Department of Astrophysical Sciences, Princeton University Advisor: Dr. Gaspar Bakos Senior Collaborators: J. Hartman (Princeton), M. Cantiello (CCA), M. MacLeod (Harvard), & M. Ness (CCA/Columbia) Undergraduate Student Researcher Department of Astronomy, University of California, Santa Cruz Advisor: Dr. Enrico Ramirez-Ruiz Senior Collaborators: J. Naiman (UIUC), L. Lopez (OSU) Undergraduate Student Researcher Department of Astronomy, University of California, Santa Cruz Advisor: Dr. David Williams Senior Collaborator: A. Furniss (CSUEB) & P. Saz Parkinson (UCSC) <i>*8-month maternity leave during academic year of 2011–2012</i> <i>*9-month teaching leave in 2012–2013</i>	2014 – present 2012 – 2014 2009 – 2013
FELLOWSHIPS, GRANTS, & HONORS	National Science Foundation Graduate Research Fellowship TESS Cycle 1 Guest Investigator Program, Co-Investigator (\$200,000) <i>Difference Imaging of Star Clusters at Low Galactic Latitude</i> Kenneth & Ann Thimann Scholarship (UCSC) SLUG Fellowship (UCSC) Lamat Fellowship Campus Merit Scholarship (UCSC) Regents Scholarship (UCSC) California Alliance for Minority Participation Fellowship (UCSC) The National Science & Mathematics Access to Retain Talent Grant The Isobel Milton Cerney Peace & Justice Scholarship Uvas Valley Retired Teachers Association Scholarship Associated Student Body Scholarship (UCSC) Outstanding Transfer Student, Highest Graduate GPA (UCSC)	2015 – 2018 2018 2014 2013 2013 2010 2008 – 2010 2008 – 2010 2008 2008 2008 2008 2008
COMMUNICATION & TEACHING AWARDS	First Place Poster, Kepler & K2 Science Conference V Exhibition Selection, Art of Science, Princeton University First Place Oral Presentation, AAAS National ERN Conference Steven Chu Award for Undergraduate Research, APS Annual Conference Ron Ruby Memorial Scholarship for Teaching Excellence (UCSC) — Division of Physical & Biological Sciences	2019 2017 2012 2011 2010

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](#))
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](#))
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](#)) [[5 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, *MNRAS*, Volume 485, Issue 2, p.2681–2693. ([arxiv:1902.08152](#)) [[4 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](#)) [[9 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](#)) [[16 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](#)) [[13 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.; Tezhinsky, 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. 2013, *ApJ*, Volume 779, Issue 2. ([arxiv:1310.6498](#)) [[16 citations](#)]

COLLOQUIUM,
PRESENTATIONS,
& CONFERENCES

Invited Talks

American Museum of Natural History Astrophysics Seminar	2020
Carnegie Department of Terrestrial Magnetism Astronomy Seminar	2019
Harvard University Stars & Planets Seminar	2019
Princeton University Envision Conference (Ethics & Space Policy)	2019
University of Wisconsin–Madison Colloquium	2019
Pomona College Colloquium	2019
University of the Virgin Islands Colloquium	2019
Harvard University Exoplanet Lunch Series	2019

NASA's Kepler & K2 SciCon V (poster award talk)	2019
NASA's Kepler & K2 SciCon V (2 breakout session talks)	2019
Harvard University Institute for Theory and Computation	2017
Harvard University Exoplanet Lunch Series	2016
UCSC Supercomputing Laboratory for Undergraduates	2015

Contributed Talks & Posters

NASA Exoplanets in Our Backyard Workshop (VEXAG, OPAG, and ExoPAG)	2020
NASA Goddard Extrasolar Planets Seminar	2019
University of California Santa Cruz Planetary Lunch Series	2019
University of Michigan Star and Planet Formation Series	2019
Princeton University Thunch Series	2019
NASA's Kepler & K2 SciCon V (poster presentation)	2019
Emerging Researchers in Exoplanet Science IV	2018
Princeton University Seminar (8 talks)	2014–2018
Dwarf Stars & Clusters with K2 Conference	2018
Emerging Researchers in Exoplanet Science III (poster)	2017
Princeton University Research Day	2017
Workshop on Common-Envelope Evolution at the Flatiron Institute	2017
223rd AAS Conference (poster)	2014
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
Annual Meeting of the California-Nevada Section of the APS	2011
Society for Advancement of Chicanos & Native Americans	2011
Annual Undergraduate Research Symposium (poster)	2011
VERITAS Collaboration Meeting	2011
University of California–Santa Cruz Science Symposium (poster)	2011
West Coast Conference for Undergraduate Women in Physics	2010
University of California–Santa Cruz Astronomy Seminar	2010
Annual Undergraduate Research Symposium (poster)	2009
West Coast Conference for Undergraduate Women in Physics (UCSC)	2009

LEADERSHIP & MENTORING	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
	Committee 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
	Committee Member, Gavilan College Accreditation Task Force Committee	2008
	President, Gavilan College Honor Society	2008

RESEARCH	Advisor: Atirath Dhara (high school student; now undergrad at UCSC)	2017 – 2019
ADVISING	Advisor: Tyler Barna† (undergrad at Rutgers University)	2018 – 2019
EXPERIENCE	Co-advisor: Jose A. Lopez (undergrad at UCSC)	2013 – 2014

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

TEACHING	Guest Instructor , Pomona College	Spring 2019
	<i>Stellar Structure & Evolution</i> (ASTR123) — two weeks of instruction	
	Assistant Instructor , Princeton University	Spring 2015
	<i>The Universe</i> (AST 205)	

	Math & Physics Head Instructor , Mount Madonna School <i>Advanced Placement Calculus II, Advanced Placement Electromagnetism, & Introductory Programming</i>	2012 – 2013
	Physics Section Leader & Lecturer , UCSC Academic Excellence Program <i>Introduction to Waves & Optics, Introduction to Elementary Mechanics, & Introduction to Electricity & Magnetism</i>	2009 – 2011
OBSERVATIONS	ANU 2.3-m telescope at Siding Spring Observatory (15 nights) VERITAS Cherenkov array at Whipple Observatory (12 nights) Walter Baade telescope at Las Campanas Observatory (2 nights)	
OUTREACH	Astronomy on Tap Philadelphia, <i>invited speaker</i> Astrophysics Through Dance: From Stellar Death to Chemical Rebirth, dancer — Performance earned the Graduate Student Impact Award The National Society of Black Physicists, speaker Astronomy on Tap Trenton, speaker Amateur Astronomers Inc., <i>invited speaker</i> Astronomy on Tap Trenton, co-founder & co-organizer National Chemistry Week, keynote speaker & co-organizer (932 attendees) Princeton Public Observing Night <i>En Español</i> , co-organizer Littlebrook Elementary Solar System Science Workshop, organizer Mastering the Application Process, organizer & mentor — long-term mentoring of 12 non-traditional undergraduate applicants Young Women’s Conference, co-organizer Princeton Public Observing, co-organizer Lamat presentation: The Value of Undergraduate Research, <i>invited speaker</i> Boy Scouts of America Astrophysics Outreach, co-organizer & speaker STEM Transfer Day, oral presentation Gavilan Community College Graduation, <i>invited keynote speaker</i> Lamat REU Presentation, <i>invited speaker</i> Minority Access to Research Careers, <i>invited speaker</i> Astronomy Workshop, Alianza Charter School, organizer & speaker Data Visualization Research Mentorship (student: Jose A. Lopez) Expanding Your Horizons, coordinator Community College REU Recruitment, <i>invited speaker</i> — Hartnell College, Cabrillo College, & Gavilan College NASA Ames Yuri’s Night Science, coordinator	2019 2019 2019 2019 2019 Spring 2019 2018 2018 2015 – 2018 2018 2017 2015 – 2018 2015 2015 2014 2014 2014 2014 2014 Spring 2014 2013 2010 – 2013 Spring 2010
MEDIA & PRESS	Princeton University Press, <i>Astronomy on Tap Brings Astrophysicists & the Community Together at a Trenton Pub</i> , Liz Fuller-Wright, Jul 2019. [Article] New Scientist Magazine, <i>Stars That Devour Their Planets Get Brighter & Faster</i> , John Wenz, Jan 2018. [Article] Slate Magazine, <i>Chasing Stars in the Sky & the Classroom</i> , Robin D. Schatz, Jul 2014. [Article] UC Santa Cruz Magazine, <i>Geek Chic: UCSC Supercomputing Lab for Undergraduates</i> , Amy Ettinger, Oct 2013 [Article] UC Santa Cruz Magazine, <i>Physics Undergrad Makes the Most of Research Opportunities</i> , Tim Stephens, Apr 2012. [Article] UC Santa Cruz Magazine, <i>UC Santa Cruz Hosts Conference for Undergraduate Women in Physics</i> , Tim Stephens, Jan 2010. [Article] Santa Cruz Sentinel, <i>UCSC Hosts 5th Annual West Coast Conference for Undergraduate Women in</i>	

Physics, Jane Palmer, Jan 2010. [\[Article\]](#)