

Maurice Wilson

Harvard-Smithsonian Center for Astrophysics · 60 Garden St, MS-10 · Cambridge, MA 02138, USA

Education	Harvard University	
	Ph.D. in Astronomy	Achieved: 2022
	M.A. in Astronomy	Achieved: 2018
	Embry-Riddle Aeronautical University (ERAU)	
	B.S. in Space Physics	Achieved: 2016
Research	Energy budget and extended heating of solar CMEs.	
Interests	Detection and characterization of stellar CMEs and exoplanets.	
	High precision photometry and Doppler spectroscopy pipelines.	
Appointments (Selected)	ASP Postdoctoral Fellow	2022—Present
	High Altitude Observatory	
	Advisors: Steve Tomczyk & Sarah Gibson	
	NSF Graduate Research Fellow	2016—2022
	Harvard University	
	Advisors: Jason Eastman & John Raymond	
	Banneker Institute Intern	Summer 2015
	Harvard-Smithsonian Center for Astrophysics	
	Advisors: Jason Eastman & John Johnson	
	SAO REU Summer Intern	Summer 2014
	Harvard-Smithsonian Center for Astrophysics	
	Advisors: Hans Moritz Guenther & Katie Auchettl	
	Undergraduate Research Assistant	2013—2016
	Embry-Riddle Aeronautical University	
	Advisor: Edwin Mierkiewicz	
Honors & Awards	NSF Graduate Research Fellowship	
	The National Science Foundation's Graduate Research Fellowship Program guarantees to fund three years of graduate school expenses.	
	Honors Program of ERAU	
	Selected students, who show high academic achievement, take advanced level courses and receive funding for research projects.	
	Ronald E. McNair Scholars Program at ERAU	
	Selected students receive research advisors, a semiannual \$1,500 scholarship, and funding for conferences and research projects.	
	Jesse C. King Space Physics Scholarship at ERAU	
	Selected Space Physics student receives \$1,000 toward tuition.	

Rodger Doxsey Travel Prize of 239th AAS Meeting

Prize and travel funds for PhD dissertation abstract. Due to the pandemic, the Meeting and thus travel funds were cancelled for January 2022 although the prize was acknowledged.

Funding	Research Grant Provider	Year	Value
	NASA Heliophysics Division	2019-22	\$609,314
	My role: Collaborator; first-author on proposed work: “Constraining the CME Core Heating and Energy Budget with SOHO/UVCS”		
	SAO Scholarly Studies Awards	2018	\$63,479
	My role: Collaborator; first-author on proposed work: “Constraining the CME Core Heating and Energy Budget with SOHO/UVCS”		
	NSF GRFP Funds	2016-19	\$138,000
	My role: led research proposal; first-author on proposed work: “First radial velocity results with the MINIature Exoplanet Radial Velocity Array (MINERVA)”		
	ERAU Ignite Spark Grants	2015	\$2,000
	My role: led proposal for research travel grant; led research resulting in poster at AAS Meeting.		
	ERAU Honors Program	2015	\$1,200
	My role: research travel funds available to Honor Students; led research resulting in poster at AAS Meeting.		
	ERAU McNair Program	2015	\$4,000
	My role: research funding available to McNair Scholars; led research resulting in talk at McNair Conference.		
	ERAU Ignite Spark Grant	2014	\$1,000
	My role: led proposal for travel grant; gathered spectra from the McMath Pierce Solar telescope at Kitt Peak.		

Paper Publications

“Solar CME Plasma Diagnostics Expressed as Potential Stellar CME Signatures”
Wilson, M. L. & Raymond, J. C., 2022, Arxiv: 2205.12985; ApJ-accepted

“Constraining the CME Core Heating and Energy Budget with SOHO/UVCS”
Wilson, M. L., Raymond, J. C., Lepri, S. T., et al. 2022, ApJ, 927, 27

“The HD 217107 Planetary System: Twenty Years of Radial Velocity Measurements”
Giovinazzi, M. R., Blake, C. H., et al. including **Wilson, M. L.**, 2020, AN, 341, 870

- “A Full Implementation of Spectro-perfectionism for Precise Radial Velocity Exoplanet Detection: A Test Case With the MINERVA Reduction Pipeline”
Cornachione, M. A., Bolton, A. S., Eastman, J. D., **Wilson, M. L.**, et al. 2019, PASP, 131, 1006
- “MINERVA-Australis. I. Design, Commissioning, and First Photometric Results”
Addison, B., Wright, D. J., et al. including **Wilson, M.**, 2019, PASP, 131, 1005
- “KELT-24b: A 5 M_J planet on the 5.6 day well-aligned orbit around the young $V=8.3$ F-star HD 93148”
Rodriguez, J. E., Eastman, J. D., et al. including **Wilson, M. L.**, 2019, AJ, 158, 197
- “First radial velocity results with the MINIature Exoplanet Radial Velocity Array (MINERVA)”
Wilson, M. L., Eastman, J. D., Cornachione, M. C., et al. 2019, PASP, 131, 1005
- “KELT-20b: A giant planet with a period of $P \sim 3.5$ days transiting the $V \sim 7.6$ Early A Star HD 185603”
Lund, M. B., Rodriguez, J. E., et al. including **Wilson, M.**, 2017, AJ, 154, 194

Invited Talks (Selected)

- Colloquium: Constraining the CME Core Heating and Energy Budget with SOHO/UVCS
NASA Goddard Space Flight Center (GSFC), virtual-only October 2021
- Colloquium: Constraining the CME Core Heating and Energy Budget with SOHO/UVCS
Naval Research Laboratory (NRL), virtual-only July 2021
- Colloquium: MINERVA’s Intrinsic Stability and First Radial Velocity Results
SAO REU Summer Series, virtual-only June 2020
- Talk: MINERVA’s First Radial Velocity Results
University of Chicago Exoplanet Journal Club, Chicago, IL April 2019

Community Service (Selected)

- Communications and Transparency Subcommittee member of the APS-IDEA community
Harvard-Smithsonian CfA, Cambridge, MA 2021—2022
- Graduate Mentor for the summer Latino Initiative program
Smithsonian Astrophysical Observatory (SAO), Cambridge, MA Summer 2020
- Graduate Mentor for the summer Banneker Institute programs
Harvard University, Cambridge, MA 2016—2019
- Seasonal Volunteer: Space Visualization Lab speaker and (Doane) telescope operator
Adler Planetarium, Chicago, IL 2014—2019
- ERAU Campus Observatory Operator for astronomy class students’ projects
ERAU, Daytona Beach, FL 2014—2015