

Sean K. Terry

PERSONAL	Department of Astronomy 501 Campbell Hall #3411 Berkeley, CA 94720	Email: sean.terry@berkeley.edu Github: skterry http://w.astro.berkeley.edu/~sean.terry
APPOINTMENTS	Postdoctoral Scholar , University of California, Berkeley	November 2020 – Present
EDUCATION	The Catholic University of America , Ph.D., Physics The Catholic University of America , M.S., Physics George Mason University , B.S., Astronomy/Physics Northern Virginia Community College , A.S., Gen. Science	2020 2018 2015 2012
RESEARCH AREAS	Gravitational microlensing by exoplanets Astrometric microlensing Adaptive optics Galactic bulge stellar kinematics and populations Computational astrophysics	
SERVICE & PROFESSIONAL ACTIVITIES	Professional Activities SOC co-chair – KAPA Annual Science Meeting (KASM) Project Science Team – Keck All-Sky Precision Adaptive Optics (KAPA) Representative – Annual GSFC Administrator’s Congressional Visits LOC – 19th International Conference on Microlensing Professional Memberships Member – American Astronomical Society (AAS) Member – Society for Personality and Social Psychology (SPSP) Member – Seers Exoplanet Environments Collaboration (SEEC) Panels and Reviews <i>HST</i> Cycle 29 <i>TESS</i> Cycle 4	2021 2020–present 2016 2015 2015–present 2017–2020 2016–2020 2021 2021
TEACHING EXPERIENCE	Guest Lecturer (American U.), <i>Complex Problems Seminar: Exoplanets in Fact & Fiction</i> Teaching Assistant (GMU), <i>Astronomy for non-STEM Majors</i> Teaching Assistant (GMU), <i>Introduction to Astrophysics</i>	2019 2014 2013
MENTORING	NASA Goddard Summer Interns Ishaan Gandhi – current: Harvey Mudd College Anshula Gandhi – MIT (graduated) Mackenzie Kynoch – Dartmouth (graduated)	2016 2015 2015

OUTREACH	Instructor, AstroTech 2021, University of California Berkeley, Berkeley, CA	2021
	Guest Speaker, STEM-Day, Garfield High School, Woodbridge, VA	2017
	CUA Booth, Annual Astronomy Festival on the Mall, Washington, DC	2015–2017
	Proctor, GMU Public Observing Nights, Fairfax, VA	2013–2015
	MATHCOUNTS ambassador & judge, TJ High School, VA	2013–2014
GRANTS AWARDED	Hubble Space Telescope Cycle 28 Grant #16509	
	<i>“Detection of the Astrometric Microlensing Signal by the Binary Black Hole Candidate MOA-2019-BLG-284”</i>	
	Principle Investigator: S. K. Terry	
	March 09, 2021 – November 31, 2021	
	Keck Semester 2021B	
	<i>“Finding Black Holes with Astrometric Microlensing”</i>	
	Principle Investigator: J. R. Lu	
	August 03, 2021 – September 03, 2021	
	Keck Semester 2021A	
	<i>“Testing Core Accretion with Microlens Planet Host Star Masses”</i>	
OBSERVING	Principle Investigator: D. P. Bennett	
	May 17, 2021 – July 13, 2021	
	Keck Semester 2020B	
	<i>“Confirmation of a Massive Black Hole Microlens Candidate”</i>	
	Principle Investigator: D. P. Bennett	
	August 2, 2020 – August 11, 2020	
	HST (WFC3/UVIS), 4 orbits	2021
	Keck 10m (NIRC2/OSIRIS), 10.5 nights	2019–2021
	GMU 0.8m, 16 nights	2013–2015
TALKS & PROCEEDINGS	13 talks (4 invited[†], 9 contributed)	
	13. [†] “PSF-Reconstruction, AIROPA, and the KAPA Project”, University of California Los Angeles, June 2021	
	12. [†] “A Sub-Saturn Exoplanet Inside the Mass Desert Predicted by Core Accretion”, University of Maryland, November 2020	
	11. “Roman Space Telescope Mass-measurement Method Determines a Mass of $66 \pm 8M_{\oplus}$ for MOA-2009-BLG-319Lb”, Chesapeake Bay Area Exoplanet Meeting (chExo) #8, June 2020	
	10. [†] “Comparing HST Observations of Bulge Stars to Galactic Population Synthesis Models in Preparation for the WFIRST Microlensing Survey”, NASA GSFC, November 2019	
	9. [†] “Probing the Galactic Bulge Stellar Population as Precursor Science for WFIRST”, University of Maryland, May 2018	
	8. “Preparing for the WFIRST Microlensing Survey: Stellar Populations in the Galactic Bulge”, George Mason University, November 2017	
	7. “Precursor Science for the WFIRST Mission”, Sagan Exoplanet Summer Workshop, Caltech, August 2017	
	6. “A Deep Study of the Stanek Field as Precursor Science for the WFIRST Microlensing Field of Regard”, George Washington University, July 2017	

5. “Bayesian Modeling of Gravitational Microlensing Events”, George Washington University, June 2016
4. “A New Toolkit for Modeling Gravitational Microlensing Events”, The College of William & Mary, March 2016
3. “Exoplanet Detection with WFIRST”, The Catholic University of America, July 2015
2. “A New Near-IR Luminosity Function in the WFIRST Microlensing Fields”, 19th International Conference on Gravitational Microlensing, January 2015
1. “Light Curve Analysis of HD 189733b, WASP-33b and KELT-1b”, George Mason University, November 2013

PUBLICATIONS

10 total (5 first author)

[†] = unrefereed publications

10. **Terry, S. K.**, Bhattacharya, A., Bennett, D. P., Bond, I.A., et al. “Using Keck Adaptive Optics to Break the Degeneracies for OGLE-2011-BLG-0950”, 2021, *in prep*
9. Blackman, J., Beaulieu, J., Bennett, D. P., & 11 coauthors including **Terry, S. K.**, “A Jovian Analog Orbiting a White Dwarf Star”, 2021, *submitted to Nature*
8. Bhattacharya, A., Bennett, D. P., Beaulieu, J., & 11 coauthors including **Terry, S. K.**, “MOA-2007-BLG-400Lb: A Super-Jupiter Mass Planet Orbiting a Galactic Bulge K-dwarf Revealed by Keck Adaptive Optics Imaging”, 2021, *AJ*, 162, 60
7. [†]**Terry, S. K.**, “Breaking a New Degeneracy in High Magnification Microlensing Events”, 2021, *American Astronomical Society*, 237, 218.03
6. **Terry, S. K.**, Bhattacharya, A., Bennett, D. P., Bond, I.A., et al. “MOA-2009-BLG-319Lb: A Sub-Saturn Planet Inside the Predicted Mass Desert”, 2021, *AJ*, 161, 54
5. **Terry, S. K.**, Barry, R. K., Bennett, D. P., Bhattacharya, A., Anderson, J., Penny, M. T., “Comparing Observed Stellar Kinematics and Surface Densities in a Low Latitude Bulge Field to Galactic Population Synthesis Models”, 2020, *ApJ*, 889, 126
4. Bennett, D. P., Bhattacharya, A., Beaulieu, J., & 9 coauthors including **Terry, S. K.**, “Keck Observations Confirm a Super-Jupiter Planet Orbiting M-dwarf OGLE-2005-BLG-071L”, 2020, *AJ*, 159, 68
3. [†]**Terry, S. K.**, “Direct Mass Measurements for Planets Discovered by Gravitational Microlensing”, 2020, *American Astronomical Society*, 235, 402.01
2. Bennett, D. P., Bhattacharya, A., Anderson, J., & 15 coauthors including **Terry, S. K.**, “Confirmation of the Planetary Microlensing Signal and Star and Planet Mass Determinations for Event OGLE-2005-BLG-169”, 2015, *ApJ*, 808, 169
1. [†]Gilbert, E., **Terry, S. K.**, Pfeifle, R., “A New Luminosity Function for Stars in the Galactic Bulge”, 2015, *American Astronomical Society*, 225, 102.02

SKILLS

Python, IDL, Fortran, gnu, Git, Bash

REFERENCES

Available upon request.