

Sean K. Terry

PERSONAL	Department of Astronomy 4296 Stadium Drive College Park, MD 20742	Email: skterry@umd.edu Github: skterry http://skterry.github.io
APPOINTMENTS	Postdoctoral Associate , University of Maryland, College Park Postdoctoral Scholar , University of California, Berkeley	2023 – Present 2020 – 2023
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 stars, exoplanets, & black holes, adaptive optics, instrumentation, galactic bulge stellar populations	
SERVICE & PROFESSIONAL ACTIVITIES	Professional Activities <i>Roman</i> Galactic Exoplanet Survey (RGES) Project Infrastructure Team (PIT) Lead Organizer – KAPA Annual Science Meeting (KASM) UC Berkeley Astronomy Climate Advisory Committee Collaborator – UCLA Galactic Center Group Project Science Team – Keck All-Sky Precision Adaptive Optics (KAPA) Representative – Annual GSFC Administrator’s Congressional Visits	2023– 2021,2022 2022–2023 2020–2023 2020–2023 2016
	Professional Memberships Member – American Astronomical Society (AAS) Member – Society for Personality and Social Psychology (SPSP) Member – Seers Exoplanet Environments Collaboration (SEEC)	2015– 2017–2020 2016–2020,2023–
	Panels & Reviews <i>HST</i> , <i>TESS</i> , <i>NSF</i> Referee for <i>ApJ</i> , <i>AJ</i> , <i>A&A</i>	
	Outreach Guest Speaker, <i>Physics Club</i> , Berkeley High School, Berkeley, CA Instructor, <i>AstroTech</i> , University of California Berkeley, Berkeley, CA Guest Scientist, STEM-Day, Garfield High School, Woodbridge, VA CUA Booth, Annual Astronomy Festival on the Mall, Washington, DC Proctor, GMU Public Observing Nights, Fairfax, VA	2023 2021,2022 2017 2015–2017 2013–2015
TEACHING	<i>Introduction to Astrophysics</i> – UC Berkeley <i>Exoplanets in Fact & Fiction</i> – American University <i>Astronomy for non-STEM Majors</i> – George Mason University (TA) <i>Introduction to Astrophysics</i> – George Mason University (TA)	2023 2019 2014 2013

ADVISING	High School Students	
	Viveka Chaudry – current: Sidwell Friends School	2022
	Undergraduates	
	Allen Chen – UC Berkeley	2022–2023
	Theo Pedapolu – UC Berkeley	2021
	Ishaan Gandhi – Harvey Mudd College (current: securities industry)	2016
GRANTS AWARDED	Anshula Gandhi – MIT (current: University of British Columbia M.Sc.)	2016
	Mackenzie Kynoch – Dartmouth (current: software industry)	2015
	Lead or Co-lead	
	Hubble Space Telescope Multi-Cycle #17081, #17404– “ <i>Mass Measurement of a Candidate Balck Hole Microlens with Systematic Error Control</i> ”	
	Principle Investigator: D. P. Bennett/S. K. Terry (co-PI)	
	October 01, 2022 – November 30, 2025	
	Hubble Space Telescope Cycle 28 #16509	
	“ <i>Detection of the Astrometric Microlensing Signal by the Binary Black Hole Candidate MOA-2019-BLG-284</i> ”	
	Principle Investigator: S. K. Terry	
	April 05, 2021 – September 30, 2021	
	Notable Co-Investigator	
	James Webb Space Telescope Cycle 3 #6078	
	“ <i>Confirmation of a Jovian Planet Analog Orbiting a White Dwarf, Rare Low-mass Neutron Star or Black Hole</i> ”	
	Principle Investigator: J. Blackman	
	March 1, 2024 – November 1, 2024	
	NASA/Roman Project Infrastructure Team (PIT)	
	“ <i>Roman Galactic Exoplanet Survey</i> ”	
	Principle Investigator: S. Gaudi	
	October 01, 2023 – September 30, 2028	
	Keck Semester 2021B 2023B	
	“ <i>Finding Black Holes with Astrometric Microlensing</i> ”	
	Principle Investigator: J. R. Lu	
	August 03, 2021 – September 03, 2021 May 18, 2023 – July 16, 2023	
	Keck Semester 2021A	
	“ <i>Testing Core Accretion with Microlens Planet Host Star Masses</i> ”	
	Principle Investigator: D. P. Bennett	
	May 17, 2021 – July 13, 2021	
	Hubble Space Telescope Cycle 27 #16067	
	“ <i>Mass Measurement of Isolated Black Hole Candidate MOA-2019-BLG-284L via Lensed Image Separation</i> ”	
	Principle Investigator: D. P. Bennett	
	March 13, 2020 – September 14, 2020	
OBSERVING	<i>JWST</i> (NIRCam), 13.08 hours	2024–
	<i>HST</i> (WFC3), 27 orbits	2021–
	Keck (NIRC2/OSIRIS), 14 nights	2019–

TALKS

Selected invited talks

6. “Measuring the Masses of Exoplanets and Compact Objects with the Roman Galactic Bulge Time Domain Survey”, *Roman* Virtual Lecture Series, Caltech/IPAC, April 2023
5. “Directly Measuring the Mass of Microlensing Exoplanets with the Roman Space Telescope”, University of California San Diego, January 2022
4. “Discovering and Characterizing Exoplanets”, Universidad Nacional Autónoma de Honduras, December 2021
3. “PSF-Reconstruction, AIROPA, and the KAPA Project”, University of California Los Angeles, June 2021
2. “Comparing HST Observations of Bulge Stars to Galactic Population Synthesis Models in Preparation for the WFIRST Microlensing Survey”, NASA GSFC, November 2019
1. “Probing the Galactic Bulge Stellar Population as Precursor Science for WFIRST”, University of Maryland, May 2018

PUBLICATIONS

24 total (6 first author)

† = unrefereed publications

24. **Terry, S. K.**, Beaulieu, J.P., Bennett, D. P., Bhattacharya, A., et al. “MOA-2007-BLG-192: Resolving the Lowest Mass Microlens Star Hosting a Planet”, 2024, *in prep*
23. Nunota, K., Koshimoto, N., Suzuki, D., & 6 coauthors including **Terry, S. K.**, “Measurement of Dependence of Microlensing Planet Frequency on The Host Star Mass and Galactocentric Distance by Using a Galactic Model”, 2024, *submitted 3/24*
22. Bennett, D. P., Bhattacharya, A., Beaulieu, J.P., & 13 coauthors including **Terry, S. K.**, “Keck and Hubble Observations Show That MOA-2008-BLG-379Lb Is a Super-Jupiter Orbiting an M Dwarf”, 2023, *submitted 11/23*
21. Reksini, N., Batista, V., Ranc, C., Bennett, D. P., & 9 coauthors including **Terry, S. K.**, “Precise Mass Measurement of OGLE-2013-BLG-0132Lb: A Saturn Mass Planet Orbiting an M Dwarf”, 2023, *submitted 07/23*
20. Vandorou, A., Dang, L., Bennett, D. P., Koshimoto, N., & 11 coauthors including **Terry, S. K.**, “OGLE-2016-BLG-1195Lb: A Sub-Neptune Beyond the Snow Line of an M-dwarf Confirmed by Keck AO”, 2023, *submitted 05/23*
19. †**Terry, S. K.**, Hosek Jr, M., Lu, J. R., Lam, C., et al. “The Galactic Center with *Roman*”, 2023, *NASA/Roman White Paper*
18. †Lam, C. Y., Abrams, N., Andrews, J., & 34 coauthors including **Terry, S. K.**, “Characterizing the Galactic Population of Isolated Black Holes”, 2023, *NASA/Roman White Paper*
17. †Street, R. A., Gough-Kelly, S., Lam, C., & 12 coauthors including **Terry, S. K.**, “Maximizing Science Return by Coordinating the Survey Strategies of Roman with Rubin, and Other Major Facilities”, 2023, *NASA/Roman White Paper*
16. Bhattacharya, A., Bennett, D. P., Beaulieu, J., & 11 coauthors including **Terry, S. K.**, “Confirmation of Color-dependent Centroid Shift Measured After 1.8 Years with HST”, 2023, *AJ*, 165, 206
15. **Terry, S. K.**, Lu, J. R., Turri, P., Ciurlo, A., et al. “AIROPA IV: Validating Point Spread Function Reconstruction on Various Science Cases”, 2023, *JATIS*, 9(1), 019007

14. **Terry, S. K.**, Bhattacharya, A., Bennett, D. P., Bond, I.A., et al. “Adaptive Optics Imaging Can Break the Central Caustic Cusp Approach Degeneracy in High-magnification Microlensing Events”, 2022, *AJ*, 164, 217
13. Ciurlo, A., Turri, P., Witzel, G., & 12 coauthors including **Terry, S. K.**, “AIROPA II: Modeling Instrumental Aberrations for Off-Axis Point Spread Functions in Adaptive Optics”, 2022, *JATIS*, 8(3), 038007
12. Lu, J. R., **Terry, S. K.**, Turri, P., et al. “AIROPA: Off-axis adaptive optics PSF reconstruction in simulation, on-bench, and on-sky”, 2022, *SPIE Proc.*, 12185, 3Y
11. Wizinowich, P., Lu, J. R., Cetre, S., & 31 coauthors including **Terry, S. K.**, “Keck All sky Precision Adaptive optics program overview”, 2022, *SPIE Proc.*, 12185, 193-207
10. Chu, D., Ning, W., Do, T., & 8 coauthors including **Terry, S. K.**, “Evaluating the performance of the Keck Observatory adaptive optics systems on crowded field data using different adaptive optics configurations”, 2022, *SPIE Proc.*, 12185, 45
9. Turri, P., Lu, J. R., Witzel, G., & 7 coauthors including **Terry, S. K.**, “AIROPA III: Testing Simulated and On-Sky Data”, 2022, *JATIS*, 8(3), 039002
8. Lam, C., Lu, J. R., Udalski, A., & 44 coauthors including **Terry, S. K.**, “An Isolated Mass Gap Black Hole or Neutron Star Detected with Astrometric Microlensing”, 2022, *ApJL*, 933, L23
7. Lam, C., Lu, J. R., Udalski, A., & 44 coauthors including **Terry, S. K.**, “Supplement: An Isolated Mass Gap Black Hole or Neutron Star Detected with Astrometric Microlensing”, 2022, *ApJS*, 260, 55
6. Blackman, J., Beaulieu, J., Bennett, D. P., & 11 coauthors including **Terry, S. K.**, “A Jovian Analog Orbiting a White Dwarf Star”, 2021, *Nature*, 598, 272
5. 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
4. **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
3. **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
2. 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
1. 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