

# Sean K. Terry

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PERSONAL	Department of Astronomy 501 Campbell Hall #3411 Berkeley, CA 94720	Email: sean.terry@berkeley.edu Github: skterry <a href="http://w.astro.berkeley.edu/~sean.terry">http://w.astro.berkeley.edu/~sean.terry</a>
APPOINTMENTS	<b>Postdoctoral Scholar</b> , University of California, Berkeley	October 2020 – Present
EDUCATION	<b>The Catholic University of America</b> , Ph.D., Astrophysics <b>The Catholic University of America</b> , M.S., Astrophysics <b>George Mason University</b> , B.S., Astronomy/Physics <b>Northern Virginia Community College</b> , A.S., Gen. Science	2020 2018 2015 2012
RESEARCH AREAS	Gravitational microlensing by exoplanets Astrometric microlensing Galactic bulge stellar kinematics and populations Computational astrophysics Adaptive optics	
SERVICE & PROFESSIONAL ACTIVITIES	Project Scientist – Keck All-Sky Precision Adaptive Optics (KAPA) Member – American Astronomical Society (AAS) Member – Society for Personality and Social Psychology (SPSP) Representative (student scientist) – Annual GSFC Administrator’s Congressional Visits Local Organizing Committee – 19th International Conference on Microlensing	2020–present 2015–present 2017–2020 2016 2015
TEACHING EXPERIENCE	Guest Lecturer (American U.), <i>Complex Problems Seminar: Exoplanets in Fact &amp; Fiction</i> Teaching Assistant (GMU), <i>Astronomy for non-STEM Majors</i> Teaching Assistant (GMU), <i>Introduction to Astrophysics</i>	2019 2014 2013
MENTORING	<b>NASA Goddard Summer Interns</b> Ishaan Gandhi – current: Harvey Mudd College Anshula Gandhi – MIT (graduated) Mackenzie Kynoch – Dartmouth (graduated)	2016 2015 2015
OUTREACH	Guest Speaker, STEM-Day, Garfield High School, Woodbridge, VA CUA Booth, Annual Astronomy Festival on the Mall, Washington, DC Proctor, GMU Public Observing Nights, Fairfax, VA MATHCOUNTS ambassador & judge, TJ High School, VA	2017 2015–2017 2013–2015 2013–2014
OBSERVING	<i>Confirmation of a Massive Black Hole Candidate</i> , Keck 10m, assisted 3 nights <i>Astrometric Microlensing of Black Hole Candidates</i> , Keck 10m, assisted 1 night <i>Development of the WFIRST Mass Measurement Method</i> , Keck 10m, assisted 2 nights	2020B 2020A 2019A

TALKS &  
PROCEEDINGS

14 talks (3 invited<sup>†</sup>, 11 public)

14. <sup>†</sup>“A Sub-Saturn Exoplanet Inside the Mass Desert Predicted by Core Accretion”, University of Maryland, November 2020
13. “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
12. Dissertation Talk – “Direct Mass Measurements for Planets Discovered by Microlensing”, AAS 235, January 2020
11. <sup>†</sup>“Comparing HST Observations of Bulge Stars to Galactic Population Synthesis Models in Preparation for the WFIRST Microlensing Survey”, NASA GSFC, November 2019
10. <sup>†</sup>“Probing the Galactic Bulge Stellar Population as Precursor Science for WFIRST”, University of Maryland, May 2018
9. “Preparing for the WFIRST Microlensing Survey: Stellar Populations in the Galactic Bulge”, George Mason University, November 2017
8. “Precursor Science for the WFIRST Mission”, Sagan Exoplanet Summer Workshop, Caltech, August 2017
7. “A Deep Study of the Stanek Field as Precursor Science for the WFIRST Microlensing Field of Regard”, George Washington University, July 2017
6. “Bayesian Modeling of Gravitational Microlensing Events”, George Washington University, June 2016
5. “A New Toolkit for Modeling Gravitational Microlensing Events”, The College of William & Mary, March 2016
4. “Exoplanet Detection with WFIRST”, The Catholic University of America, July 2015
3. “A New Near-IR Luminosity Function in the WFIRST Microlensing Fields”, 19th International Conference on Gravitational Microlensing, January 2015
2. “Preliminary Research for WFIRST: Near-IR Luminosity Function in Galactic Bulge Fields”, AAS Meeting 225, January 2015
1. “Light Curve Analysis of HD 189733b, WASP-33b and KELT-1b”, George Mason University, November 2013

PUBLICATIONS

9 total (4 first author)

<sup>†</sup> = unrefereed publications

9. **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”, 2020, *in prep*
8. **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”, 2020, *submitted to AJ*
7. 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”, 2020, *submitted to AJ*
6. Blackman, J., Beaulieu, J., Bennett, D. P., & 11 coauthors including **Terry, S. K.**, “A Planetary Survivor of Its Host Star’s Demise”, 2020, *submitted to Nature*
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. <sup>†</sup>**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. <sup>†</sup>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                      Fortran, Python, gnu, IDL, Git, Bash

REFERENCES              Available upon request.