

Nicholas S. Kern

CONTACT INFORMATION	UC Berkeley Astronomy Department 501 Campbell Hall Berkeley, CA, 94720	<i>E-mail:</i> nkern@berkeley.edu <i>Web:</i> nkern.github.io
EDUCATION	University of California, Berkeley Pursuing a Ph.D. in Astronomy, expected 2021 M.A. in Astronomy	August 2015 – present May, 2017
	University of Michigan, Ann Arbor B.S. in Physics and B.S. in Astronomy & Astrophysics	May 2015
RESEARCH FOCUS	I explore the frontiers of the distant universe through radio frequency observations of primordial hydrogen. My research connects these observations to cosmological models to learn about how the first generation of stars and galaxies formed and how this was tied to the large-scale structure of the universe.	
FIRST AND SECOND AUTHOR PUBLICATIONS	<ol style="list-style-type: none">3. Kern, N., Liu, A., Parsons, A. R., Mesinger, A., & Greig, B. (2017) <i>Emulating Simulations of Cosmic Dawn for 21cm Power Spectrum Constraints on Cosmology, Reionization, and X-Ray Heating</i>, ApJ 848 232. Gifford, D., Kern, N., & Miller, C. (2016) <i>Stacking Caustic Masses from Galaxy Clusters</i>, ApJ 834 2041. Kern, N. S., Keown, J. A., Tobin, J. J., Mead, A., & Gutermuth, R. (2016) <i>Radio Properties of Young Stellar Objects in the Serpens South Infrared Dark Cloud</i>, AJ 151 42	
PUBLICATIONS AS A SIGNIFICANT CONTRIBUTOR	<ol style="list-style-type: none">3. Miller, C. J., Stark, A., Gifford D., & Kern, N. (2016) <i>Inferring Gravitational Potentials from Mass Densities in Cluster-Sized Halos</i>, ApJ 822 412. Stark, A., Miller, C. J., Kern, N., Gifford, D., et al. (2016) <i>Probing Theories of Gravity with Phase Space-Inferred Potentials of Galaxy Clusters</i>, Phys. Rev. D 93, 0840361. Gifford, D., Miller, C. J., & Kern, N. (2013) <i>ApJ</i>, 773, 116: <i>A Systematic Analysis of Caustic Methods for Galaxy Cluster Masses</i>, ApJ 773 116	
HONORS & AWARDS	Teaching Effectiveness Award, UC Berkeley Outstanding Graduate Student Instructor Award, UC Berkeley Graduated with Highest Honors and Distinction, University of Michigan Excellence in Astrophysics Research Award, University of Michigan Foreign Language & Area Studies (FLAS) Fellow, University of Michigan International Institute Fellow, University of Michigan Upper-Level Writing Prize in the Natural Sciences, University of Michigan	2017 2017 2015 2015 2014 2014 2014
TEACHING EXPERIENCE	UC Berkeley, Department of Astronomy Head Instructor <ul style="list-style-type: none">• Astro 9: Python Programming in Astronomy Graduate Student Instructor	Summer 2017

- Astro 7A: Introduction to Astrophysics Fall 2016
- Astro 160: Stellar Structure & Evolution Fall 2015

University of Michigan, Department of Physics
Undergraduate Learning Assistant

- Physics 140: Introduction to Mechanics Spring 2015

TALKS AND PRESENTATIONS

JILA Astrophysics Seminar, Invited Talk October 2017
University of Colorado, Boulder, CA

NASA Machine Learning Workshop, Invited Talk August 2017
NASA Ames, Mountain View, CA

Science at Low Frequencies III, Contributed Talk December 2016
California Institute of Technology, Pasadena, CA

225th American Astronomical Society Meeting, Contributed Poster January 2015
Seattle, WA

Astronomy Undergraduate Research Session, Contributed Poster April 2014
University of Michigan, Ann Arbor, MI

223rd American Astronomical Society Meeting, Contributed Poster January 2014
Washington, D.C.

Cyber Infrastructure Days, Contributed Poster November 2013
University of Michigan, Ann Arbor, MI