

# Abigail Lee

CONTACT INFORMATION	<i>E-mail:</i> <a href="mailto:abbyl@uchicago.edu">abbyl@uchicago.edu</a> <i>Website:</i> <a href="https://abiglee7.github.io">https://abiglee7.github.io</a>	UChicago Astronomy & Astrophysics ERC 534
EDUCATION	<b>University of Chicago</b> , Chicago, Illinois  Ph.D. Student in Astronomy & Astrophysics • Advisor: Wendy Freedman  <b>University of Pennsylvania</b> , Philadelphia, PA  B.A. in Physics, <i>summa cum laude</i> • Minors: Mathematics, Classical Studies • Thesis Title: <i>Reconstructing Log-normal Density Fields using Hamiltonian Monte Carlo Techniques</i> ; Advisor: Gary Bernstein	2019 – Present       Class of 2019
RESEARCH INTERESTS	Observational cosmology, Hubble constant, dark energy, dark matter, lensing and galaxy surveys	
AWARDS	McCormick Fellowship, UChicago Elaine K. Bernstein Women in Science Award, UChicago Graduated with Departmental Honors (Physics), Penn University Scholar Research Grant, Penn NASA Pennsylvania Space Grant Undergraduate Scholarship	2019 – 2021 2019 2019 2016 – 2018 2018
RESEARCH POSITIONS	Graduate Research Assistant, UChicago Undergraduate Research Assistant, Penn Summer Undergraduate Research Assistant, Stanford Summer Research Assistant, Max Planck Institute for Gravitational Physics Summer Intern, NASA Jet Propulsion Laboratory	2019 – Present 2016 – 2019 2018 2017 2017
TEACHING EXPERIENCE	Teaching Assistant, ASTR 12710, <i>Galaxies</i> , UChicago Teaching Assistant, ASTR 12700, <i>Stars</i> , UChicago SAIL Teaching Assistant, PHYS 150, <i>Principles of Physics I</i> , Penn Lab Teaching Assistant, ASTR 001, <i>Survey of the Universe</i> , Penn Teaching Assistant, PHYS 102, <i>E&amp;M, Optics, and Modern Physics</i> , Penn Lab Teaching Assistant, PHYS 101, <i>General Physics</i> , Penn Physics Tutor, Penn	Winter 2020 Fall 2019 Spring 2019 Fall 2018, Spring 2019 Spring 2018 Fall 2017 Fall 2016, Spring 2017
PUBLICATIONS	[1] R. Vishnubhotla, J. Ping, Z. Gao, <b>A. Lee</b> , O. Saouaf, A. Vrudhula, A. T. Johnson, "Scalable Graphene Aptasensors for Drug Quantification," arXiv:1712.04525. AIP Advances 7, 115111 (2017).	
ORAL & POSTER PRESENTATIONS	[1] <b>A. Lee</b> . Dark Matter Subhalo Disruption. <i>Stanford Summer Research Program Undergraduate Talks</i> , Stanford, CA. August 2018.  [2] M. Lavalley, G. Shiroma, <b>A. Lee</b> , P. Rosen. Characterizing the temporal variability of L-band backscatter using dense UAVSAR time-series in preparation for the NISAR mission. <i>2017 AGU Fall Meeting</i> , New Orleans, LA, December 2017 (could not attend).  [3] <b>A. Lee</b> . Characterizing Backscatter Variability using UAVSAR. <i>2017 Gulf Coast Undergraduate Research Symposium</i> , Rice University, Houston, Texas. November 2017.	

[4] **A. Lee.** Characterizing Backscatter Variability using UAVSAR. *NASA Jet Propulsion Lab Final Presentation*, NASA JPL, Pasadena, CA. July 2017.

[5] **A. Lee.** Improved Performance in Graphene and MoS<sub>2</sub> Field-Effect Transistors using a Boron Nitride Isolation Layer. *2017 Emerging Researchers National Conference in STEM*, Washinton D.C. February 2017.

PROFESSIONAL SERVICE & OUTREACH	Mentor, Society of Women in Physics Peer Mentorship Program, UChicago	2019 – Present
	Faculty Meeting Representative, UChicago	2019 – Present
	Instructor, <a href="#">Space Explorers Winter Institute</a> , UChicago	Jan 2020
	Astronomy Observing Nights Organizer, Penn	2018-2019
	Astronomy Tutor, <a href="#">Veterans Upward Bound Training</a> , Penn	2018-2019
SKILLS	Computer Languages: PYTHON, MATHEMATICA, SQL, L <sup>A</sup> T <sub>E</sub> X, bash, git	
	Data Analysis: DAOPhot, ALLFrame, TOPCAT	
	Language: English (native), Spanish (conversational)	