Abigail Lee

CONTACT INFORMATION

E-mail: abbyl@uchicago.edu
Website: https://abiglee7.github.io

UChicago Astronomy & Astrophysics
ERC 534

EDUCATION

University of Chicago, Chicago, Illinois

Ph.D. Student in Astronomy & Astrophysics — 2019 – Present

- Advisor: Wendy Freedman

University of Pennsylvania, Philadelphia, PA

B.A. in Physics, *summa cum laude* — Class of 2019

- Minors: Mathematics, Classical Studies
- Thesis Title: *Reconstructing Log-normal Density Fields using Hamiltonian Monte Carlo Techniques*; Advisor: Gary Bernstein

RESEARCH INTERESTS

Observational cosmology, Hubble constant, dark energy, dark matter, lensing and galaxy surveys

AWARDS

McCormick Fellowship, UChicago	2019 – 2021
Elaine K. Bernstein Women in Science Award, UChicago	2019
Graduated with Departmental Honors (Physics), Penn	2019
University Scholar Research Grant, Penn	2016 – 2018
NASA Pennsylvania Space Grant Undergraduate Scholarship	2018

RESEARCH POSITIONS

Graduate Research Assistant, UChicago	2019 – Present
Undergraduate Research Assistant, Penn	2016 – 2019
Summer Undergraduate Research Assistant, Stanford	2018
Summer Research Assistant, Max Planck Institute for Gravitational Physics	2017
Summer Intern, NASA Jet Propulsion Laboratory	2017

TEACHING EXPERIENCE

Teaching Assistant, ASTR 12700, *Stars*, UChicago	Fall 2019
Lab Teaching Assistant, ASTR 001, *Survey of the Universe*, Penn	Fall 2018, Spring 2019
SAIL Teaching Assistant, PHYS 150, *Principles of Physics I*, Penn	Spring 2019
Teaching Assistant, PHYS 102, *E&M, Optics, and Modern Physics*, Penn	Spring 2018
Lab Teaching Assistant, PHYS 101, *General Physics*, Penn	Fall 2017
Physics Tutor, Penn	Fall 2016, Spring 2017

JOURNAL PUBLICATIONS

[1] R. Vishnubhotla, J. Ping, Z. Gao, **A. Lee**, O. Saouaf, A. Vrudhula, A. T. Johnson. Scalable Graphene Aptasensors for Drug Quantification. *AIP Advances 7, 115111 (2017).*

ORAL & POSTER PRESENTATIONS

[1] **A. Lee.** Dark Matter Subhalo Disruption. *Stanford Summer Research Program Undergraduate Talks*, Stanford, CA. August 2018.

[2] M. Lavalle, G. Shiroma, **A. Lee**, P. Rosen. Characterizing the temporal variability of L-band backscatter using dense UAVSAR time-series in preparation for the NISAR mission. *2017 AGU Fall Meeting*, New Orleans, LA, December 2017 (could not attend).

[3] **A. Lee**. Characterizing Backscatter Variability using UAVSAR. *2017 Gulf Coast Undergraduate Research Symposium*, 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 MoS2 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
	Member, Inclusion, Diversity and Equity in Astronomy, UChicago	2019 – Present
	Astronomy Observing Nights Organizer, Penn	2018-2019
	Astronomy Tutor, Veterans Upward Bound Training, Penn	2018-2019

SKILLS

Computer Languages: PYTHON, MATHEMATICA, SQL, LaTeX, bash, git
Data Analysis: DAOPhot, ALLFrame, TOPCAT
Language: English (native), Spanish (conversational)