

# Abigail J. Lee

Email: [abbyl@uchicago.edu](mailto:abbyl@uchicago.edu) • Website: [abiglee7.github.io](https://abiglee7.github.io)

## EDUCATION

---

### University of Chicago

*Ph.D. Student, Astronomy & Astrophysics*

Advised by Wendy Freedman

Chicago, IL

2019 – Present

### University of Pennsylvania

*B.A., Physics (with Honors); Minors in Mathematics and Classical Studies, summa cum laude*

Advised by Gary Bernstein

Philadelphia, PA

May 2019

## AWARDS & FELLOWSHIPS

---

### McCormick Fellowship

*University of Chicago*

2019 – 2021

### Elaine K. Bernstein Women in Science Award

*University of Chicago*

2019

### NASA Pennsylvania Space Grant Undergraduate Scholarship

*NASA*

2018

### University Scholars Research Grant

*University of Pennsylvania*

2016, 2017

## RESEARCH POSITIONS

---

Graduate Research Assistant, UChicago

2019 – Present

Undergraduate Research Assistant, Penn

2016 – 2019

Summer Undergraduate Research Assistant, Stanford KIPAC

2018

Summer Undergraduate Research Assistant, Max Planck Institute for Gravitational Physics

2017

Summer Intern, NASA Jet Propulsion Laboratory

2017

## PUBLICATIONS

---

1. **Lee, A. J.**, Freedman, W. L., Madore, B. F., Monson, A. J., Owens, K. A., *The Astrophysical Distance Scale IV: Distance to the Local Group Galaxy WLM using Multi-Wavelength Observations of the Tip of the Red Giant Branch, Cepheids, and JAGB Stars*, submitted to ApJ.
2. Porth, L., **Lee, A. J.**, Bernstein, G. M., *Reconstructing the Initial Power Spectrum using Hamiltonian Monte Carlo Techniques*, in prep.
3. Vishnubhotla, R., Ping, J., Gao, Z., **Lee, A.**, et al., *Scalable Graphene Aptasensors for Drug Quantification*, 2017, AIP Advances 7, 115111.

## TELESCOPE ALLOCATIONS

---

### Co-I: HST (PI: Wendy Freedman)

*An Independent Appraisal of the Cepheid Distance Scale*

2020

### Co-I: HST (PI: Wendy Freedman)

*Absolute Magnitude Calibration of Type Ia SNe at 1%*

2020

## TEACHING EXPERIENCE

---

<b>Guest Lecturer</b> , UChicago, ASTR 12710, <i>Galaxies</i>	2020
<b>Teaching Assistant</b> , UChicago, ASTR 12710, <i>Galaxies</i>	2020
<b>Teaching Assistant</b> , UChicago, ASTR 12700, <i>Stars</i>	2019
<b>Teaching Assistant</b> , Penn, PHYS 150, <i>Classical Mechanics</i>	2019
<b>Observing Labs Teaching Assistant</b> , Penn, ASTR 001, <i>Survey of the Universe</i>	2018, 2019
<b>Teaching Assistant</b> , Penn, PHYS 102, <i>E&amp;M, Optics, and Modern Physics</i>	2018
<b>Lab Teaching Assistant</b> , Penn, PHYS 101, <i>Classical Mechanics</i>	2017
<b>Tutor</b> , Penn Physics Department	2016, 2017

## CONTRIBUTED TALKS

---

<b>Characterizing the temporal variability of backscatter in prep. for the NISAR mission</b> <i>2017 AGU Fall Meeting</i>	2017
<b>Characterizing Backscatter Variability using UAVSAR</b> <i>2017 Gulf Coast Undergraduate Research Symposium</i>	2017
<b>Improved Performance in Graphene &amp; MoS<sub>2</sub> FETs using a BN Isolation Layer</b> <i>2017 Emerging Researchers National Conference in STEM</i>	2017

## SERVICE & OUTREACH

---

<b>Advising &amp; Mentorship Program Leader</b> <i>UChicago Astronomy &amp; Astrophysics Department</i>	2020 – Present
<b>Inclusion, Diversity and Equity in Astronomy Club Member</b> <i>UChicago Astronomy &amp; Astrophysics Department</i>	2019 – Present
<b>Graduate Student Peer Mentor</b> <i>Society of Women in Physics</i>	2019 – Present
<b>Instructor</b> <i>Space Explorers Institute</i>	2019 – Present
<b>Faculty Meeting Graduate Student Representative</b> <i>UChicago Astronomy &amp; Astrophysics Department</i>	2019 – 2020
<b>Board Member</b> <i>Penn Society of Physics Students</i>	2018 – 2019
<b>Observing Nights Organizer</b> <i>Penn Physics &amp; Astronomy Department</i>	2018 – 2019
<b>Astronomy Tutor</b> <i>Veterans Upward Bound</i>	2018 – 2019