

Abigail J. Lee

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EDUCATION

University of Chicago <i>Ph.D. Student, Astronomy & Astrophysics</i> Advised by Wendy Freedman	Chicago, IL 2019 – Present
University of Pennsylvania <i>B.A., Physics; Minors in Mathematics and Classical Studies, summa cum laude</i> Advised by Gary Bernstein	Philadelphia, PA May 2019

AWARDS & FELLOWSHIPS

Korean Descendants Award <i>Seoul National University Alumni Association</i>	2020
McCormick Fellowship <i>University of Chicago</i>	2019 – 2021
Elaine K. Bernstein Women in Science Award <i>University of Chicago</i>	2019
Graduated with Departmental Honors <i>University of Pennsylvania</i>	2019
NASA Pennsylvania Space Grant Undergraduate Scholarship <i>NASA</i>	2018
University Scholars Research Grant <i>University of Pennsylvania</i>	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) <i>An Independent Appraisal of the Cepheid Distance</i>	2020
Co-I: HST (PI: Wendy Freedman) <i>Absolute Magnitude Calibration of Type Ia SNe at 1%</i>	2020

TEACHING EXPERIENCE

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

CONTRIBUTED TALKS

<i>Characterizing the temporal variability of backscatter in prep. for the NISAR mission</i> , AGU Fall Meeting	2017
<i>Characterizing Backscatter Variability using UAVSAR</i> , Gulf Coast Undergraduate Research Symposium	2017
<i>Improved Performance in Graphene & MoS₂ FETs using a BN Isolation Layer</i> , STEM ERN Conference	2017

SERVICE & OUTREACH

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