LINDSEY S. WISER

lindsey.wiser@asu.edu
lindsey.wiser@spacegeneration.org

lindseywiser
LindsLikesSpace
0000-0002-3295-1279

EDUCATION

Arizona State University *Expected 2026*
Ph.D. Astrophysics

Johns Hopkins University *Graduated May 2020*
B.S. Engineering Mechanics & Earth and Planetary Science *with Honors*

SCIENCE

2020 – Present **Arizona State University - School of Earth and Space Exploration**
Graduate Research Assistant
- Exoplanet atmosphere modeling and characterization, advised by Dr. Michael Line (primary PhD research)
- Additional projects in space policy/law and mission design

2023 – Present **Pandora SmallSat, NASA Pioneers Mission**
Student Shadow to the Science Leadership Team
- Developing a commissioning plan and learning about the design and management of space missions
- Spearheading comms and outreach initiatives

2023 **NASA/JPL Astrophysics Mission Design School**
Exoplanet Objective Lead, Telecommunications Chair
- Collaborated with 18 researchers and mentors to formulate a probe-class UV telescope mission

2020 **NASA HQ Science Mission Directorate**
Summer Intern, Astrophysics Division
- Longitudinal review the Astrophysics Research and Analysis Program (APRA) for timelines and student engagement

Space Telescope Science Institute (STScI)
2019 – 2020 Mechanical Engineering Capstone Project
- Designed a mirror for optics research on the LUVOIR telescope concept to study precision for Earth-like exoplanet observations

2018 – 2019 Exoplanet Research Intern with the STARGATE collaboration
- Studied JWST's capabilities to characterize exoplanet atmospheres, focusing on the NIRISS instrument pre-launch

2019 **Smithsonian National Air and Space Museum**
Planetary Science Research Intern *as a Brooke Owens Fellow*
- Mapped pit chains on the surface of Enceladus

SPACE POLICY, LEADERSHIP & VOLUNTEERING

Space Generation Advisory Council (SGAC)

2021 – Present Lead, NCAC Task Force, Advocacy and Policy Platform (SGAPP)

- Providing a platform for the young space to discuss space policy and law. Leading a team that advocates on behalf of SGAC in the NCAC region (North America, Central America, and the Caribbean). The NCAC Task Force was previously the US Task Force, through 2023.

2023 – Present National Point of Contact, United States

- Serving as a resource to SGAC members in the United States. Fostering the US community and representing US members in the SGAC network

2022 – 2023 Space Generation Fusion Forum, Organizing Team and Working Group Subject Matter Expert

- Planned science speakers for an annual three-day young professional's conference in Colorado Springs, CO
- Served as a space policy expert for working groups

2020 – 2022 Space Law & Policy Project Group

- Worked with an international team to research, write, and advocate for national and international space policy

2020 **Aerospace Industries Association**
Space Policy Intern

- Wrote background material related to space and aviation policy, among other tasks

2018 – 2020 **Students for the Exploration and Development of Space (SEDS)**
Johns Hopkins Chapter President & Space Policy Team Lead

- Facilitated student engagement with the space sector through speakers and project teams: policy, space engineering, citizen science, and telescope club

2016 – 2020 **AIAA Design, Build, Fly**
Johns Hopkins Chapter President, Technical Advisor

- Led a team designing remote controlled planes for the AIAA intercollegiate and international competition

TEACHING, OUTREACH, & MENTORSHIP

2020 – Present **Brooke Owens Fellowship**
Alumni Mentor, 2019 Fellow

2020 – Present **Skype A Scientist**
Scientist, meeting with kids to talk about space exploration.

2018 – 2020 **Destination Imagination**
Mentor, engineering team of elementary school girls.

2018 – 2019 **Johns Hopkins University**
Teaching Assistant, intro mechanical engineering lab (2 semesters) and lecture (1 semester).

AWARDS & HONORS

2023 **SGAC Space Generation Leadership Award & Grant (SGLA)** – Awarded to exceptional volunteers and leaderships with SGAC to fund travel to the International Astronautical Congress.

2022 **National Science Foundation Graduate Research Fellowship Program (NSF GRFP), Honorable Mention**

2021 **NASA / International Space Education Board Student Delegate** – Grant awarded to attend the International Astronautical Congress in Dubai (switched to virtual).

2020 **Summer Exploration Graduate Fellowship Research Award** – Awarded for promising scientific research progress.

2019 **Robert George Gerstmyer Award –** Awarded for outstanding undergraduate achievement in engineering.

2019 **Brooke Owens Fellowship Program –** Awarded to women and gender minorities with outstanding potential in space and aviation.

2019 **Mechanical Engineering Special Achievement Award –** Awarded for outstanding leadership through engineering clubs and societies.

2018 **Pi Tau Sigma –** Mechanical engineering honors society membership.

PUBLICATIONS

Science

Submitted **Wiser, L.,** Line, M., Mansfield, M., et al., *Self-Consistent Constraints on a Population of Hot Jupiter Emission Spectra*

2023 Bell, T., … **Wiser, L.,** *Methane Throughout the Atmosphere of the Warm Exoplanet WASP-80b*, Nature.

2023 Coulombe L.-P., … **Wiser, L.**, et al., *A broadband thermal emission spectrum of the ultra-hot Jupiter WASP-18b*, Nature (submitted).

2023 Martin, E.S., …, **Wiser, L.**, et al., *Measurements of regolith thicknesses on Enceladus: Uncovering the record of plum activity,* Icarus.

2022 Glidic, K., Schlawin, E., **Wiser, L.,** et al., *Atmospheric Characterization of Hot Jupiter CoRoT-1 b Using the Wide Field Camera 3 on the Hubble Space Telescope,* AJ.

2022 Mansfield, M., **Wiser, L.,** et al., *Confirmation of Water Absorption in the Thermal Emission Spectrum of Hot Jupiter WASP-77Ab with HST/WFC3,* AJ.

2021 Mansfield, M., Line, M., Bean, J., Fortney, J., Parmentier, V., **Wiser, L.,** et al. *A unique hot Jupiter spectral sequence with evidence for compositional diversity*. Nat Astron (2021).

Policy

2022 **Wiser, L.**, Aganaba, T., *An evolving space governance system: Balancing interests in five policy debates,* Acta Astronautica.

2022 **Wiser, L.,** Bromley, M., Walker, S., *Tracing the Evolving Science and Media Impact of Space Missions* (IAC-22,A7,1,7,x69117)

2021	Nasr, M., **Wiser, L.,** et al. *Planetary Protection and Martian ISRU* (GLEX-21-10.2.6x62312)
2022	SGAC Space Law & Policy, Human Rights Subteam, *Earth Observation Data, Climate Change, and Human Rights*, Jus Ad Astra, January 2022
Ongoing	SGAC NCAC Task Force (link), SGAC Space Law & Policy Blog (link)

Select Abstracts

2021	Wiser, L., Benford, D., *A Longitudinal Study of NASA's APRA Suborbital Program*, AAS Meeting Abstracts
2019	Wiser, L., Batalha, N., et al., *Optimizing JWST NIRISS SOSS Order 2 Precision for the Detection of K and Na*, AAS Meeting Abstracts.

SELECT PRESENTATIONS & WORKSHOPS

2024	American Astronomical Society (AAS) Congressional Visit Days
2021 – 2023	Space Generation Fusion Forum – *Organizing Team, Policy Subject Matter Expert, Delegate*
2022	OWL at UC Santa Cruz
2020 – 2022	International Astronautical Congress (IAC)
2022	Exoplanets IV
2022	CHAMPs Early Career Highlight Seminar
2021	Emerging Researchers in Exoplanet Science (ERES)
2021	STScI, Spring Symposium
2019 – 2022	AAS, Winter Meeting
2020	NASA HQ Intern Symposium
2020	AIAA Young Professionals Conference
2019	STScI, Space Astronomy Summer Program Symposium
2019	Citizens for Space Exploration – *student volunteer meeting with congressional offices*
2019	Future Space Leaders