

# Evan Latham Sneed

he/him or they/them

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## EDUCATION

### DOCTORATE OF PHILOSOPHY IN EARTH AND PLANETARY SCIENCES

University of California, Riverside

› **Advisors:** Edward W. Schwieterman & Timothy W. Lyons

SEPTEMBER 2022 – PRESENT

### BACHELOR OF SCIENCE IN ASTRONOMY AND ASTROPHYSICS

Pennsylvania State University

› **Minors:** Astrobiology, Mathematics, and Physics

› **Certificate:** Science Research Distinction

› **Thesis:** *A Climatic Investigation of Ammonia as a Remote Biosignature on Cold Haber Worlds*

› **Advisor:** James F. Kasting

AUGUST 2016 – AUGUST 2020

## RESEARCH & OBSERVING EXPERIENCE

### GRADUATE RESEARCHER

University of California, Riverside

› **Advisors:** Edward W. Schwieterman & Timothy W. Lyons

› Researching the probability and detectability of Archean analogues throughout the habitable zone

SEPTEMBER 2022 – PRESENT

### GREEN BANK TELESCOPE OBSERVER

University of California, Berkeley

› **Advisor:** Steve Croft

› 150+ hours as observer on-call

APRIL 2022 – PRESENT

### POSTBACCALAUREATE RESEARCHER

Pennsylvania State University, University Park

› **Advisor:** Jason T. Wright

› Searched for “spillover” radio signals originating from systems with known planet-planet occultations using N-body modeling

JANUARY 2021 – AUGUST 2022

### UNDERGRADUATE RESEARCHER

Pennsylvania State University, University Park

› **Advisor:** James F. Kasting

› Researched the habitability of terrestrial planets with hydrogen-dominated atmospheres using a one-dimensional climate model

SEPTEMBER 2017 – MAY 2020

### PLANETARY CHEMISTRY & ASTROBIOLOGY INTERN

NASA Jet Propulsion Laboratory

› **Advisor:** Yuk L. Yung

› Modeled atmospheric concentrations of sulfur isotopes using ice core data and a one-dimensional photochemical model

JUNE – AUGUST 2018

## TEACHING EXPERIENCE

### APPOINTMENTS

#### TEACHING ASSISTANT

University of California, Riverside

› Astrobiology: The Search for Life in the Universe [GEO 080] (Stephen Kane & Charles Diamond)

› Oceanography [GEO 009] (Maryjo Brounce)

SEPTEMBER 2023 - PRESENT

SPRING 2024

FALL 2023

#### UPWARD BOUND INSTRUCTOR

Pennsylvania State University, University Park

› Astronomy: The Search for Exoplanets, The Search for Life

JUNE - JULY 2019

#### TEACHING ASSISTANT

Pennsylvania State University, Erie, The Behrend Campus

› General Physics: Mechanics [PHYS 211] (Michael A. Zarger)

JANUARY - MAY 2017

## GUEST LECTURES

- 2024 An Infinity of Worlds: Planets and the Search for Life in the Universe [Williams: ASTR 16] (Rob Wittenmyer)  
2023 Oceanography [UC Riverside: GEO 009] (Maryjo Brounce)  
Freshman Advising Seminar in the Natural and Agricultural Sciences [UC Riverside: NASC 093] (Stephen Kane)  
2018 Planets and Planetary System Formation [Penn State: ASTRO 420W] (Eric Feigelson)

## PUBLICATIONS

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### REFEREED JOURNAL ARTICLES

6. Barnes, R., *et al.* (in prep.). [REDACTED].
5. **Sneed, E. L.**, *et al.* (in prep.). [REDACTED].
4. Tusay, N., Sheikh, S. Z., **Sneed, E. L.**, Farah, W., Pollak, A. W., Siemion, A., Wright, J. T. (submitted). [REDACTED].
3. Schwieterman, E. W., Fauchez, T. J., Haqq-Misra, J., Kopparapu, R. K., Angerhausen, D., Pidhorodetska, D., Leung, M., **Sneed, E. L.** (submitted). [REDACTED].
2. Li, M. G., Sheikh, S. Z., Gilbertson, C., He, M. Y., Isaacson, H., Croft, S., **Sneed, E. L.** (2023). Developing a Drift Rate Distribution for Technosignature Searches of Exoplanets. *The Astronomical Journal*, vol. 166(5), pg. 182. doi:10.3847/1538-3881/acf83d.
1. Tusay, N., Huston, M.J., Dedrick, C.M., Kerby, S., III, M.L.P., Croft, S., Wright, J.T., Robertson, P., Sheikh, S., Duffy, L., Foote, G., Hyde, A., Lafond, J., Mullikin, E., Parts, W., Sandhaus, P., Smith, H.H., **Sneed, E.L.**, Czech, D., Gajjar, V. (2022). A Search for Radio Technosignatures at the Solar Gravitational Lens Targeting Alpha Centauri. *The Astronomical Journal*, vol. 164(3), pg. 116. doi:10.3847/1538-3881/ac8358.

### REPORTS & WHITE PAPERS

6. Davenport, J. R. A., *et al.* (in prep.). [REDACTED].
5. Kerins, E., Awiphan, S., Edmondson, K., Garrett, M., Heller, R., Huston, M., Kipping, D., Kopparapu, R., Haqq-Misra, J., Price D. C., Siemion, A., Sharma, S., **Sneed, E. L.**, Socas-Navarro, H., Wilson, R., Wright, J. (2023). RoSETZ: Roman Survey of the Earth Transit Zone - A SETI-Optimized Survey for Habitable-Zone Exoplanets. *NASA Roman Core Community Survey*. arXiv:2306.10202.
4. Haqq-Misra, J., Ashtari, R., Benford, J., Carroll-Nellenback, J., Döbler, N.A., Farah, W., Fauchez, T.J., Gajjar, V., Grinspoon, D., Huggahalli, A., Kopparapu, R.K., Lazio, J., Profitiliotis, G., **Sneed, E.L.**, Varghese, S.S., Vidal, C. (2022). Opportunities for Technosignature Science in the Planetary Science and Astrobiology Decadal Survey. *The First Penn State SETI Symposium*. arXiv:2209.11685.
3. Strauss, B.E., Borges, S.R., Faridani, T., Grier, J.A., Kiihne, A., Maier, E.R., Olsen, C., O'Neill, T., Rivera-Valentin, E.G., **Sneed, E.L.**, Waller, D., Zamloot, V. (2020). Nonbinary Systems: Looking Towards the Future of Gender Equity in Planetary Science. *Planetary Science and Astrobiology Decadal Survey 2023-2032*. doi:10.3847/25c2cfcb.3dda24c5.
2. Sheikh, S.Z., Berea, A., Davis, R., de la Torre, G.G., DeMarines, J., Fisher, T., Foote, S., Gelino, D., Grinspoon, D., Profitiliotis, G., Sessa, A.M., Singam, C., **Sneed, E.L.**, Vidal, C., Wright, J.T. (2020). Technosignatures as a Priority in Planetary Science. *Planetary Science and Astrobiology Decadal Survey 2023-2032*. doi:10.3847/25c2cfcb.93bdf43.
1. Kopparapu, R., Arney, G., Domagal-Goldman, S., Schwieterman, E., Hartnett, H.E., Kiang, N.Y., **Sneed, E.L.**, Reinhard, C.T., Dong, C., Hébrard, E., Anbar, A., Santos, N.C., Turner, N. (2020). Strange New Worlds: Comparative Planetology of Exoplanets and the Solar System. *Planetary Science and Astrobiology Decadal Survey 2023-2032*. doi:10.3847/25c2cfcb.479f6cc8.

# PRESENTATIONS & CONFERENCES

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## CONTRIBUTED TALKS

- 2023 A Continued Search for Technosignatures During Planet-Planet Occultations, The Second Penn State SETI Symposium, *University Park, Pennsylvania*  
An Archival Search for Technosignatures During Planet-Planet Occultations, Astrobiology Graduate Conference 2023, *La Jolla, California*  
An Archival Search for Technosignatures During Planet-Planet Occultations, 241<sup>st</sup> Meeting of the American Astronomical Society, *Seattle, Washington*
- 2022 An Archival Search for Technosignatures During Planet-Planet Occultations, The First Penn State SETI Symposium, *University Park, Pennsylvania*  
An Archival Search for Technosignatures During Planet-Planet Occultations, Astrobiology Science Conference 2022, *Atlanta, Georgia*
- 2021 Exoplanet Occultations as Technosignature Targets, The 2021 Assembly of the Order of the Octopus, *Virtual*
- 2020 Eavesdropping During Planet-Planet Occultations, PSETI Center Journal Club and Seminar, *Virtual*

## POSTERS

- 2023 Archean Analogue Photochemistry Across the Habitable Zone, ExSoCal 2023, *Pasadena, California*  
Archean Analogue Photochemistry Across the Habitable Zone, 2023 Sagan Exoplanet Summer Workshop, *Pasadena, California*
- 2020 A Climatic Investigation of Ammonia as a Remote Biosignature III, Exoplanets III, *Virtual*  
A Climatic Investigation of Ammonia as a Remote Biosignature II, 2020 Penn State Undergraduate Exhibition, *Virtual*
- 2019 A Climatic Investigation of Ammonia as a Remote Biosignature, 9<sup>th</sup> Annual oSTEM Conference, *Detroit, Michigan*

## ATTENDED

- 2023 The Third VPlanet Developer's Workshop, *Virtual*  
Astrobiology 2023: Oxygen in Planetary Biospheres, *Green Bank, West Virginia*  
Allen Telescope Array Observing School, *Hat Creek, California*  
SETI with LSST Workshop, *Seattle, Washington*
- 2021 The First VPlanet Developer's Workshop, *Virtual*  
Winter 2021 Green Bank Telescope Remote Observer Training Workshop, *Virtual*
- 2020 2020 Sagan Exoplanet Summer Workshop, *Virtual*
- 2019 Inclusive Astronomy 2, *Baltimore, Maryland*
- 2018 8<sup>th</sup> Annual oSTEM Conference, *Houston, Texas*  
42<sup>nd</sup> COSPAR Scientific Assembly, *Pasadena, California*
- 2017 7<sup>th</sup> Annual oSTEM Conference, *Chicago, Illinois*

## AWARDS & HONORS

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- 2023 AAS FAMOUS (Funds for Astronomical Meetings: Outreach to Underrepresented Scientists) Travel Grant
- 2022 University of California, Riverside Chancellor's Distinguished Fellowship
- 2020 Norman Freed Undergraduate Research Award  
John Sr. and Kimlyn Patishnock Undergraduate Research Award
- 2019 Out in STEM Leadership Development Program Graduate  
Out in STEM Leadership Persistence Award
- 2018 Penn State Behrend Honors Program Graduate

## ACADEMIC SERVICE

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2024	Scientific Organizing Committee [Co-Chair]: The 2024 Assembly of the Order of the Octopus
2023	Executive Secretary: NASA Planetary Science Division Review Panel
2022	Local Organizing Committee: The First Penn State SETI Symposium
2021	Organizing Committee: The 2021 Assembly of the Order of the Octopus
2020	Global Organizing Committee: Exoplanets III Equal Opportunity Planning Committee: Penn State Astronomy Department

## COMMUNITY SERVICE & OUTREACH

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### SCIENCE OUTREACH

› Camp Instructor: Camp Highlander	JULY 2023 - PRESENT
› Committee Member: Geology Education Outreach Program (GEOP)	JANUARY 2023 - PRESENT
› Volunteer: Penn State Department of Astronomy	AUGUST 2017 – AUGUST 2021
› Contributed Talk for AstroFest: <i>How to Make a (Habitable) Planet</i>	AUGUST 2020
› Contributed Talk for AstroFest: <i>Fly Me to (Saturn’s) Moon</i>	JULY & OCTOBER 2019
› Invited Speaker: Astronomy on Tap State College	SEPTEMBER 2020
› Podcast Guest: “Assigned Scientist at Bachelor’s”	SEPTEMBER 2020
› Volunteer: Penn State Center for Sexual & Gender Diversity	AUGUST 2017 – MAY 2020
› Mentor: Nate Anderson (High School Student, now UMich Engineering Undergrad)	JULY 2019 – MARCH 2020
› Judge: Mars 2020 Name The Rover Contest	NOVEMBER 2019 – MARCH 2020
› Volunteer: Science U “Life in Space!” Day Camp	JULY 2019
› Planetarium Assistant: Yahn Planetarium at Penn State Behrend	MAY – AUGUST 2017
› Volunteer: Penn State Behrend School of Science	AUGUST 2016 – AUGUST 2017

### ORGANIZATIONAL INVOLVEMENT & LEADERSHIP

› Queer Graduate Student Association	NOVEMBER 2022 - PRESENT
› Vice President	OCTOBER 2023 – PRESENT
› SciComm @ UCR	OCTOBER 2022 - PRESENT
› Secretary	OCTOBER 2023 – PRESENT
› Towards a More Inclusive Astronomy (TaMIA)	JANUARY 2019 – AUGUST 2021
› Out in STEM (oSTEM) at Penn State	FEBRUARY 2019 – MAY 2020
› President	FEBRUARY 2019 – MAY 2020
› Secretary	MARCH 2018 – FEBRUARY 2019
› Webmaster	SEPTEMBER 2017 – MARCH 2018
› Penn State Astronomy Club	APRIL 2019 – MAY 2020
› Treasurer	APRIL 2019 – MAY 2020
› Webmaster	SEPTEMBER 2018 – APRIL 2019

## AFFILIATIONS & MEMBERSHIP

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- › Alternative Earths Astrobiology Center (AEAC)
- › American Astronomical Society (AAS) [Graduate Student Member]
  - › Division on Dynamical Astronomy (DDA)
  - › Division for Planetary Sciences (DPS)
- › Committee on Space Research (COSPAR) [Associate Member]
- › International Society of Nonbinary Scientists (ISNBS)
- › Nexus for Exoplanet System Science (NEXSS) [Affiliate Member]
- › Out in Science, Technology, Engineering, and Mathematics, Incorporated (oSTEM)
- › Penn State Extraterrestrial Intelligence Center (PSETI) [Affiliate Member]
- › Scientific Society for Astrobiology (SSA) [Student Member]
- › University of California, Berkeley SETI Research Center (BSRC)