

MACY HUSTON

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EDUCATION

PhD Astronomy and Astrophysics, Pennsylvania State University Anticipated Spring 2023
Thesis: *Needles in the Milky Way Haystack: Searching for Dim Stars, Distant Planets, & Extraterrestrial Technology*
Advisor: Jason Wright

BS Engineering Physics, Ohio State University May 2018
Thesis: *Making Microlensing Predictions with a New Galactic Model*
Advisors: Matthew Penny & B. Scott Gaudi

TEACHING

Astronomy Communication, co-instructor, Penn State 2022
The Search for Extraterrestrial Intelligence, teaching assistant, Penn State 2021
Introductory Astronomy, Observational Astronomy, teaching assistant, Penn State 2019-20
Introductory Astronomy Lab, instructor, Penn State 2018-19

SCIENCE WRITING

Freelance astronomy writer 2022-
- *Signatures of alien technology could be how humanity first finds extraterrestrial life*, The Conversation, Oct. 2022
- *Breadcrumbs Lead to Baby Planet*, Sky & Telescope, Sep. 2022

Astrobites writer 2021-
- Posting [summaries of recent astro-ph papers](#) for an astronomy undergraduate audience
- Live-blogging and tweeting sessions of AAS meetings: AAS #238 & #239, DPS #53
- Committee participation: administrative; scheduling; hiring; diversity, equity, and inclusion

Nexus for Exoplanet System Science: Science Communication Working Group member 2021-

SCIENCE MANAGEMENT

Conference organizer 2021-
- The Penn State SETI Symposium (2022, 2023)
- Emerging Researchers in Exoplanet Science VII (2022)
- The Assembly of the Order of the Octopus (OotO, early-career SETI researchers, 2021)

Penn State Extraterrestrial Intelligence (PSETI) Center Research Assistant 2020-
- Inviting speakers and organizing meetings for the weekly PSETI Seminar and Journal Club
- Developing and maintaining the [PSETI Center website](#) & [Twitter account](#)

OUTREACH ACTIVITIES

Logistics volunteer, ENVISION: STEM Career Day Supporting Young Women, Penn State 2023
Volunteer, Conference for Undergraduate Women in Physics, Penn State 2023
American Astronomical Society Astronomy Ambassador workshop 2022
Demo leader: comets and craters, ENVISION: STEM Career Day Supporting Young Women, Penn State 2020
Developing inclusive AstroFest activities, including tactile and auditory representations of various astronomical objects and datasets 2020
Pointing telescopes and discussing the department's work with visitors at Penn State Astronomy Department outreach events, including AstroFest and AstroNight 2018-

DIVERSITY, EQUITY & INCLUSION

Macy Huston

Graduate Student Representative, Climate and Diversity Committee, Department of Astronomy and Astrophysics, Penn State (2019-)

Leader, Toward A More Inclusive Astronomy (TaMIA), Penn State (2018-)

HONORS

NASA Pennsylvania Space Grant Consortium Graduate Fellowship, Penn State (2022-23)

Homer F. Braddock and Nellie H. and Oscar L. Roberts Fellowship, Penn State (2018)

Tom and Bunny Clark Scholarship, Department of Physics, Ohio State (2018)

Funds for Astronomical Meetings: Outreach to Underrepresented Scientists Travel Grant (2018)

Undergraduate Research Scholarship, Department of Engineering, Ohio State (2017)

Smith Junior Award, Department of Physics, Ohio State (2017)

Smith Sophomore Award, Department of Physics, Ohio State (2016)

Helen Cowan Book Award, Department of Physics, Ohio State (2015)

Honda-OSU Partnership Math Medal Scholarship, Ohio State (2014-2018)

Maximus Scholarship, Ohio State (2014-2018)

FIRST AND CO-FIRST AUTHORED PUBLICATIONS

Tusay, N. & **Huston, M. J.**, et al., *A Search for Radio Technosignatures at the Solar Gravitational Lens Targeting Alpha Centauri*, 2022, AJ, 164(3), 116.

Huston, M. J. & Wright, J. T., *SETI in 2021*, 2022, Acta Astronaut., 199, 166–173

Huston, M. J. & Wright, J. T., *Evolutionary and Observational Consequences of Dyson Sphere Feedback*, 2022, ApJ, 924, 78.

Huston, M. J. & Luhman, K. L., *The Initial Mass Function of Low-mass Stars and Brown Dwarfs in the W3 Complex*, 2021, AJ, 161, 138.

CO-AUTHORED PUBLICATIONS

Lingam, M., Haqq-Misra, J., Wright, J. T., **Huston, M. J.**, Frank, A., & Kopparapu, R., *Technosignatures: Frameworks for their assessment*. AJ, 2023, 943(1), 27.

Suazo, M., Zackrisson, E., Wright, J., Korn, A., & **Huston, M.** *Project Hephaistos I. Upper limits on partial Dyson spheres in the Milky Way*, MNRAS, 2022, 512(2), 2988–3000.

LaFond, J., Wright, J. T., & **Huston, M. J.**, *Furthering a Comprehensive SETI Bibliography*, 2021, JBIS, 74, 252
Shvartzvald, Y. and 10 other authors, including **Huston, M. J.**, *UKIRT-2017-BLG-001Lb: A Giant Planet Detected through the Dust*, 2018, ApJL, 857, L8

TALKS & POSTERS

iPoster: **AAS Meeting 241**, remote, 01/2023, *The Roman Microlensing Survey in a Galactic Context with SynthPop*

Public talk: **iTelescope Webinar**, remote, 11/2022, *How Astronomers Search for Technological Life in the Universe*

Talk: **ERES VII**, State College, PA, 08/2022, *The Roman Microlensing Survey in a Galactic Context with SynthPop*

Invited review talk: **SETI Symposium**, State College, PA, 07/2022, *Waste Heat & Megastructures*

Talk: **AAS Meeting 240**, Pasadena, CA, 06/2022, *Earth Detecting Earth: Human Baselines for Technosignatures*

Public talk: **Astro on Tap**, State College, PA, 04/2022, *Microlensing with Roman: The Hunt for Cold & Distant Exoplanets*

Public talk: **ASP Astro Cafe**, remote, 04/2022, *Finding Exoplanets: Direct Imaging and Microlensing*

Talk: **PSETI Seminar**, remote, 03/2022, *A Search for Radio Technosignatures at the Solar Gravitational Lens Targeting Alpha Centauri*

Talk: **CHAMPS ECR Highlight Seminar**, remote, 01/2022, *Evolutionary and Observational Consequences of Dyson Sphere Feedback*

Talk: **PSETI Seminar**, remote, 12/2021, *Evolutionary and Observational Consequences of Dyson Sphere Feedback*

Talk: **OotO 2021**, remote, 07/2021, *Evolutionary and Observational Consequences of Dyson Sphere Feedback*

Public talk: **Astro on Tap State College**, remote, 02/2021, *Dyson Spheres and Swarms*

Talk: **PSU Astro Lunch Talk**, State College, PA, 01/2020, *Substellar Membership of the W3 Complex*

Poster: **OSU Natural & Mathematical Sciences Undergraduate Forum**, Columbus, OH, 04/2018, *Making Microlensing Predictions with a New Galactic Model*

Poster: **CUWIP**, Toledo, OH, 01/2018, *Making Microlensing Predictions with a New Galactic Model*

Talk: **WFIRST MicroSIT Meeting**, Columbus, OH, 10/2017, *Galactic Modelling for Microlensing Observables*

Poster: **Denman Forum**, Columbus, OH, 03/2017, *A New Milky Way Model for Microlensing Predictions*

Talk: **OSU Astro Undergraduate Research Symposium**, Columbus, OH, 08/2016, *A New Milky Way Model for Microlensing Predictions*