

Allyson Bieryla

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Professional Experience

- Sept. 2008 – Present 📖 **Astronomy Lab and Telescope Manager** Harvard University
- Sept. 2009 – Present 📖 **Astronomer** Smithsonian Astrophysical Observatory
- Summer 2021 – Present 📖 **Instructor** Harvard University Summer School
- Oct. 2007 – Aug. 2008 📖 **Geometry Technician** Tricon Geophysics
- May 2005 – Oct. 2007 📖 **Research Assistant** Southwest Research Institute

Education

- Expected 2026 📖 **Ph.D., University of Southern Queensland** in Astrophysics.
Thesis title: *The Obliquity of Warm Jupiters Orbiting Early-type Stars.*
- May 2022 📖 **Master of Liberal Arts, Harvard University Extension School** in Software Engineering.
Thesis title: *Extending the Tillinghast Reflector Echelle Spectrograph (TRES) Pipeline and Analysis Tools.*
- June 2019 📖 **Graduate Level Certificate, Harvard University Extension School** in Data Science.
- May 2005 📖 **Bachelor of Arts, University of Colorado at Boulder** in Astrophysics, Physics, and Fine Arts; minor in Geology.

Management and Teaching

- 📖 Manage laboratory inventory and maintain instruments and telescope
- 📖 Train graduate students and new users on equipment and lab materials
- 📖 Work closely with faculty on course lab development
- 📖 Run (and co-founded) the Harvard Observing Project (HOP) which gives students opportunities to learn about observational astronomy
- 📖 Advise undergraduate students on research projects
- 📖 Lead observing sessions and course laboratory sessions
- 📖 Advisor the undergraduate astronomy club, Student Astronomers at Harvard-Radcliffe (STAHR) and concentrator club, AstroSoc
- 📖 Organize and analyze large amounts of data from space- and ground-based telescope
- 📖 Co-teach Harvard Summer School course – The Life and Death of Stars
- 📖 PI of The LightSound Project solar eclipse sonification device for blind and low-vision

Computer Skills




- Coding and Data Analysis 📖 IDL, IRAF, Unix, Python, C, Java, PHP, R, \LaTeX , MaximDL and AstroImageJ
- Web Dev 📖 HTML, CSS, JavaScript, Dreamweaver, Photoshop, and Illustraor
- Operating System 📖 Linux, Mac, and Windows environments

Computer Skills (continued)







Microsoft Office  Word, Powerpoint, and Excel

Miscellaneous

Awards

- 2019  **Dean's Distinction**, Harvard University.
- 2013  **Impact Award**, Harvard University.
- 2011  **Impact Award**, Harvard University.




Telescope Time

- 2019a-2024a  **FLWO KeplerCam 1.2m, Follow-up of TESS Objects of Interest**. Awarded by 1117 nights.
- 2023a-2024a  **FLWO TRES 1.5m, Measuring the Obliquities of Warm Jupiters**. Awarded by 15 nights.
- 2023a  **CHIRON 1.5m, Measuring the Obliquities of High-mass Planets, Low-mass Stars, and Brown Dwarfs**. Awarded by 4 nights.
-  **PFS Magellan 6.5m, Stellar Obliquity Measurements of the Proto-hot Jupiter**. Awarded by 1 night.
- 2018c-2019a  **FLWO KeplerCam 1.2m, Harvard Observing Project**. Awarded by 16 nights.
- 2014a-2018c  **FLWO KeplerCam 1.2m, HATNet Follow-up Observations**. Awarded by 401 nights.

Grants

- 2023  **The LightSound Project**. Awarded by Simons Foundation In the Path of Totality.
-  **The LightSound Project**. Awarded by National Science Foundation.
-  **The LightSound Project**. Awarded by International Astronomical Union Office of Astronomy for Development.
- 2022  **The LightSound Project**. Awarded by American Astronomical Society EPD mini-grant.
- 2020  **The LightSound Project**. Awarded by American Astronomical Society EPD mini-grant.
- 2018  **The LightSound Project**. Awarded by International Astronomical Society 100 Special Projects.

Memberships

- 2017 – Present  **Coordinating Member**. American Astronomical Society Working Group on Accessibility and Disabilities (WGAD).
- 2018 – Present  **Member**. International Astronomical Union Working Group on Astronomy for Equity and Inclusion.
- 2005 – Present  **Member**. American Astronomical Society.

Publications (Total of 197 refereed publications, H-index=43)

First Author

- 1 A. Bieryla, G. Zhou, J. García-Mejía, *et al.*, “TOI-4641b: an aligned warm Jupiter orbiting a bright ($V=7.5$) rapidly rotating F-star,” vol. 527, no. 4, pp. 10 955–10 964, Feb. 2024. [DOI: 10.1093/mnras/stad3785](#). arXiv: 2312.03971 [astro-ph.EP].
- 2 A. Bieryla, W. Diaz-Merced, D. Davis, *et al.*, “LightSound: The Sound of An Eclipse,” *Communicating Astronomy with the Public Journal*, vol. 28, p. 38, Apr. 2020.
- 3 A. Bieryla, K. Collins, T. G. Beatty, *et al.*, “KELT-7b: A Hot Jupiter Transiting a Bright $V = 8.54$ Rapidly Rotating F-star,” vol. 150, no. 1, 12, p. 12, Jul. 2015. [DOI: 10.1088/0004-6256/150/1/12](#). arXiv: 1501.05565 [astro-ph.EP].
- 4 A. Bieryla, J. D. Hartman, G. Á. Bakos, *et al.*, “HAT-P-49b: A $1.7 M_J$ Planet Transiting a Bright $1.5 M_{\odot}$ F-star,” vol. 147, no. 4, 84, p. 84, Apr. 2014. [DOI: 10.1088/0004-6256/147/4/84](#). arXiv: 1401.5460 [astro-ph.EP].
- 5 A. Bieryla, J. W. Parker, E. F. Young, *et al.*, “A Search for Satellites around Ceres,” vol. 141, no. 6, 197, p. 197, Jun. 2011. [DOI: 10.1088/0004-6256/141/6/197](#). arXiv: 1104.2028 [astro-ph.EP].

Co-author (most recent 20 articles)

- 1 B. K. Capistrant, M. Soares-Furtado, A. Vanderburg, *et al.*, “TESS Hunt for Young and Maturing Exoplanets (THYME). XI. An Earth-sized Planet Orbiting a Nearby, Solar-like Host in the 400 Myr Ursa Major Moving Group,” vol. 167, no. 2, 54, p. 54, Feb. 2024. [DOI: 10.3847/1538-3881/ad1039](#). arXiv: 2401.04785 [astro-ph.EP].
- 2 T. R. Fairnington, E. Nabbie, C. X. Huang, *et al.*, “TOI-5126: a hot super-Neptune and warm Neptune pair discovered by TESS and CHEOPS,” vol. 527, no. 3, pp. 8768–8783, Jan. 2024. [DOI: 10.1093/mnras/stad3036](#). arXiv: 2310.08890 [astro-ph.EP].
- 3 N. Yamaguchi, K. El-Badry, J. Fuller, *et al.*, “Wide post-common envelope binaries containing ultramassive white dwarfs: evidence for efficient envelope ejection in massive asymptotic giant branch stars,” vol. 527, no. 4, pp. 11 719–11 739, Feb. 2024. [DOI: 10.1093/mnras/stad4005](#). arXiv: 2309.15905 [astro-ph.SR].
- 4 J. Dong, S. Wang, M. Rice, *et al.*, “TOI-1859b: A 64 Day Warm Jupiter on an Eccentric and Misaligned Orbit,” vol. 951, no. 2, L29, p. L29, Jul. 2023. [DOI: 10.3847/2041-8213/acd93d](#). arXiv: 2305.16495 [astro-ph.EP].
- 5 D. Hiramatsu, D. Tsuna, E. Berger, *et al.*, “From Discovery to the First Month of the Type II Supernova 2023ixf: High and Variable Mass Loss in the Final Year before Explosion,” vol. 955, no. 1, L8, p. L8, Sep. 2023. [DOI: 10.3847/2041-8213/acf299](#). arXiv: 2307.03165 [astro-ph.HE].
- 6 S. Hyman, W. González-Espada, A. Bieryla, and D.-M. Wanda, “Sounds in Sunlight,” *The Science Teacher*, vol. 90, no. 7, pp. 46–51, Sep. 2023. [DOI: 10.1080/00368555.2023.12315969](#).
- 7 E. Incha, A. Vanderburg, T. Jacobs, *et al.*, “Kepler’s last planet discoveries: two new planets and one single-transit candidate from K2 campaign 19,” vol. 523, no. 1, pp. 474–487, Jul. 2023. [DOI: 10.1093/mnras/stad1049](#). arXiv: 2305.18516 [astro-ph.EP].
- 8 M. Kunimoto, A. Vanderburg, C. X. Huang, *et al.*, “TOI-4010: A System of Three Large Short-period Planets with a Massive Long-period Companion,” vol. 166, no. 1, 7, p. 7, Jul. 2023. [DOI: 10.3847/1538-3881/acd537](#). arXiv: 2306.05308 [astro-ph.EP].
- 9 Z. Lin, T. Gan, S. X. Wang, *et al.*, “Three low-mass companions around aged stars discovered by TESS,” vol. 523, no. 4, pp. 6162–6185, Aug. 2023. [DOI: 10.1093/mnras/stad1745](#). arXiv: 2210.13939 [astro-ph.SR].

- 10 C. R. Mann, P. A. Dalba, D. Lafrenière, *et al.*, “Giant Outer Transiting Exoplanet Mass (GOT ’EM) Survey. III. Recovery and Confirmation of a Temperate, Mildly Eccentric, Single-transit Jupiter Orbiting TOI-2010,” vol. 166, no. 6, 239, p. 239, Dec. 2023. [DOI: 10.3847/1538-3881/ad00bc](#). arXiv: 2311.10232 [astro-ph.EP].
- 11 E. Martioli, G. Hébrard, L. de Almeida, *et al.*, “TOI-1736 and TOI-2141: Two systems including sub-Neptunes around solar analogs revealed by TESS and SOPHIE,” vol. 680, A84, A84, Dec. 2023. [DOI: 10.1051/0004-6361/202347744](#). arXiv: 2311.07011 [astro-ph.EP].
- 12 I. Mireles, D. Dragomir, H. P. Osborn, *et al.*, “TOI-4600 b and c: Two Long-period Giant Planets Orbiting an Early K Dwarf,” vol. 954, no. 1, L15, p. L15, Sep. 2023. [DOI: 10.3847/2041-8213/aceb69](#). arXiv: 2308.15572 [astro-ph.EP].
- 13 P. Mistry, K. Pathak, A. Prasad, *et al.*, “VaTEST. II. Statistical Validation of 11 TESS-detected Exoplanets Orbiting K-type Stars,” vol. 166, no. 1, 9, p. 9, Jul. 2023. [DOI: 10.3847/1538-3881/acd548](#). arXiv: 2301.09865 [astro-ph.EP].
- 14 H. P. Osborn, G. Nowak, G. Hébrard, *et al.*, “Two warm Neptunes transiting HIP 9618 revealed by TESS and Cheops,” vol. 523, no. 2, pp. 3069–3089, Aug. 2023. [DOI: 10.1093/mnras/stad1319](#). arXiv: 2306.04450 [astro-ph.EP].
- 15 E. V. Quintana, E. A. Gilbert, T. Barclay, *et al.*, “Two Warm Super-Earths Transiting the Nearby M Dwarf TOI-2095,” vol. 166, no. 5, 195, p. 195, Nov. 2023. [DOI: 10.3847/1538-3881/acfa9f](#). arXiv: 2304.09189 [astro-ph.EP].
- 16 S. P. Schmidt, K. C. Schlaufman, K. Ding, *et al.*, “Verification of Gaia Data Release 3 Single-lined Spectroscopic Binary Solutions With Three Transiting Low-mass Secondaries,” vol. 166, no. 6, 225, p. 225, Dec. 2023. [DOI: 10.3847/1538-3881/ad0135](#). arXiv: 2310.07936 [astro-ph.SR].
- 17 N. Vowell, J. E. Rodriguez, S. N. Quinn, *et al.*, “HIP 33609 b: An Eccentric Brown Dwarf Transiting a $V = 7.3$ Rapidly Rotating B Star,” vol. 165, no. 6, 268, p. 268, Jun. 2023. [DOI: 10.3847/1538-3881/acd197](#). arXiv: 2301.09663 [astro-ph.EP].
- 18 Q. Yang, P. J. Green, C. L. MacLeod, *et al.*, “Probing the Origin of Changing-look Quasar Transitions with Chandra,” vol. 953, no. 1, 61, p. 61, Aug. 2023. [DOI: 10.3847/1538-4357/acdedd](#). arXiv: 2303.06733 [astro-ph.GA].
- 19 S. Yoshida, S. Vissapragada, D. W. Latham, *et al.*, “TESS Spots a Super-puff: The Remarkably Low Density of TOI-1420b,” vol. 166, no. 5, 181, p. 181, Nov. 2023. [DOI: 10.3847/1538-3881/acf858](#). arXiv: 2309.09945 [astro-ph.EP].
- 20 Q. Zhou, D. W. Latham, S. N. Quinn, *et al.*, “False Planets around Giant Stars: A Case Study of Sanders 364 in M67,” vol. 166, no. 4, 160, p. 160, Oct. 2023. [DOI: 10.3847/1538-3881/acf291](#).