

# Dr. Kendall Sullivan (they/them)

- ✉ [ksulliv4@ucsc.edu](mailto:ksulliv4@ucsc.edu)
- 🌐 [kendallsullivan.github.io](https://kendallsullivan.github.io)
- 🌐 ORCID: 0000-0001-6873-8501
- 🌐 Click to access an ADS library with all first- and co-authored publications

## Employment History

- |                        |  |
|------------------------|--|
| Jan. 2026 – present    | ■ <b>Postdoctoral Scholar</b> , Mullard Space Science Laboratory, University College London<br>Supervisor: Prof. Vincent Van Eylen               |
| Sept. 2023 – Dec. 2025 | ■ <b>Postdoctoral Scholar</b> , Department of Astronomy & Astrophysics, University of California Santa Cruz<br>Supervisor: Prof. Natalie Batalha |
| Sept. 2020 – Aug. 2023 | ■ <b>NSF Graduate Research Fellow</b> , Department of Astronomy, University of Texas at Austin<br>Thesis Advisor: Prof. Adam Kraus               |
| Jan. 2018 – Aug. 2018  | ■ <b>Post-Baccalaureate Researcher</b> , Lowell Observatory<br>Supervisor: Dr. Lisa Prato  |

## Education

- |           |   |
|-----------|---|
| Aug. 2023 | ■ <b>Ph.D., Astronomy</b> University of Texas at Austin<br><i>Revealing Star and Planet Formation With Stellar Multiplicity</i>   |
| Feb. 2018 | ■ <b>B.S., Physics/Astronomy, cum laude</b><br>University of Massachusetts Amherst<br>Commonwealth Honors College Scholar with Great Distinction<br>Departmental Honors in Astronomy<br><i>S and VV Coronae Australis: Two Extreme Young Binary Systems</i> |

## Awards and Fellowships

- |      |   |
|------|---|
| 2023 | ■ <b>Roger Doxsey Dissertation Award</b> , American Astronomical Society                    |
| 2020 | ■ <b>Board of Visitors Second Year Defense Award</b> , University of Texas at Austin        |
|      | ■ <b>Graduate Research Fellowship (5 years)</b> , National Science Foundation               |
| 2018 | ■ <b>Dean's Unrestricted Fellowship (5 years)</b> , University of Texas at Austin           |
|      | ■ <b>Astronomy Dept. Recruitment Fellowship (2 summers)</b> , University of Texas at Austin |

## Selected Invited and Contributed Talks

- |            |   |
|------------|---|
| Nov. 2025  | ■ Bay Area Exoplanet Meeting (contributed talk)                                     |
| Oct. 2025  | ■ University of California Santa Cruz (seminar)                                     |
| Sept. 2025 | ■ University of Texas at Austin (seminar)   |
| Oct. 2024  | ■ University of Wisconsin – Madison (invited seminar)                               |
| Sept. 2024 | ■ Yale University (invited seminar)<br>■ Keck Science Meeting (contributed plenary) |
| June 2024  | ■ Cool Stars 22 (contributed plenary)   |
| April 2024 | ■ Penn State/Center for Exoplanets and Habitable Worlds (invited seminar)           |
| March 2024 | ■ Extreme Solar Systems V (contributed plenary)                                     |
| Feb. 2023  | ■ Jet Propulsion Lab Exoplanet Seminar (invited seminar)                            |

## Selected Invited and Contributed Talks (continued)

- Jan. 2023
- Dissertation Talk, AAS 241 (contributed)
  - NASA ExoPAG 27 Early Career Symposium (contributed plenary)
- Oct. 2022
- University of Hawai'i/IfA (invited seminar)
- 2018-2022
- 4 UT Austin Stars, Planets, and ISM Seminar talks

## PI Observing Programs

- NOIRLab/NN-Explore
- **WIYN 3.5m/NEID - 7h**, 2025A
- Lick Observatory
- **Shane 3-m/ShaneAO + ShARCS - 18 nights**, 2024A+B, 2026A
  - **Automated Planet Finder - 100 hours**, 2024B
  - **Nickel 1-m/CCD-C2 - 20 nights**, 2024A
- McDonald Observatory
- **Hobby-Eberly Telescope/LRS2 - 254 hours**, 6 trimesters over 2021-2023 (PI; 163 h); 2025-2,-3, 2026-1 (science PI; 91 h)
- NOIRLab/NOAO
- **Gemini South/GMOS - 2.2 hours**, 2021B
  - **IRTF/iSHELL - 4 half nights**, 2019B
  - **KPNO/WIYN 0.9m telescope - 2 nights**, 2017/2018

## Service

- AAS Journals; A&A; Nature
- **Referee**, 2023 – present
- NASA
- **ExoPAG SIG2 on Exoplanet Demographics**, 2023–present
  - **Grant Review Panel Executive Secretary**, 2 years
  - **Time Allocation Committee**, multiple semesters
  - **Graduate-Undergraduate Mentoring Program co-lead**, 2021–2023
  - **TAURUS/REU weekly seminar lead organizer**, 2 years
- UC Observatories, NOIRLab
- UT Austin

## Outreach

- Nature
- **News and Views author:** *Dying stars give a second wind to exoplanet formation*, May 2025
- UC Santa Cruz
- **New Discoveries About Planets Outside our Solar System**, Public Talk, Orwell Free Library, Orwell VT, Dec. 2025
  - **Astronomy on Tap speaker**, May 2025
  - **Ask an Astronomer**, 2024–2025

## Teaching Experience

- UC Santa Cruz
- **ASTR 112 (Physics of Stars) instructor**, Spring 2025
  - **ASTR 19 (Introduction to Python) guest lecturer**, Feb. 2024
- UT Austin
- **Graduate Student Observing Seminar lecturer**, Feb. 2023
  - **TAURUS/REU Introduction to Astronomy Jargon Seminar developer and lead**, 2 summers

## Mentored Students

- UC Santa Cruz
- **Bridget Gale**, undergraduate research, Oct. 2025 – present

## Mentored Students (continued)

- **Astrophel Fong**, Lamat scholar, June 2025 – Aug. 2025
- **Nina Carrillo**, undergraduate research, senior thesis, Oct. 2024 – present
- **Ira Gupta**, undergraduate research, Oct. 2024 – June 2025
- **2 ASTR 9 groups**, 4-6 students, Winter + Spring quarters 2024 + 2025
- **Max Clark**, Lamat scholar, University of Wisconsin - Madison undergraduate, June 2024 – Dec. 2024
- UT Austin ■ **Nathanael Burns-Watson**, UT REU, Case Western Reserve University senior thesis, UT graduate student, June 2023 – present
- **Hunter Brooks**, Northern Arizona University undergraduate, Jan. 2022 – Feb. 2023

## Publications (First-author = 13; \* shows a student publication.)

- 1 E. Evans, T. Dupuy, and K. **Sullivan**, et al., “Orbital Architectures of Planet-Hosting Binaries IV. Mutual Inclinations Between Planetary and Stellar Orbits Across Different Binary Properties”, In review (2026).
- 2 J. Levine, C. Manea, K. Hawkins, and K. **Sullivan** et al., “Barium Stars Across the Milky Way: Probing Their Origins via the GALAH Survey”, In review (2026).
- 3 K. **Sullivan**, A. Dattilo, and N. M. Batalha, “The First Direct Occurrence Rate Estimates for Kepler Exoplanets in Small-separation Binary Star Systems: Planet Occurrence Is Suppressed in Binary Stars”, *AJ* **171**, 53, 53 (2026).
- 4 K. **Sullivan** and G. J. Gilbert, “Planetary Architectures of Kepler Compact Multis with Binary Star Companions”, In review (2026).
- 5 K. **Sullivan**, M. Soares-Furtado, and A. Núñez, “Evidence for Separation-Dependent X-ray Emission of Young Binary Stars in the Upper Scorpius Star-Forming Region”, In review (2026).
- 6 N. Burns-Watson\*, K. **Sullivan**, and A. L. Kraus, “Determining the Host Stars of Planets in Binary Star Systems with Asterodensity Profiling: Investigating the Canonical Radius Gap”, In review (2025).
- 7 R. B. Fernandes, S. Johnson, G. J. Bergsten, S. Bhure, K. M. Boley, A. P. Boss, S. Bryson, W. DeRocco, J. Dietrich, A. Duck, S. Giacalone, A. F. Gupta, M. Y. He, M. Kunimoto, K. Ment, S. Sagear, M. L. Silverstein, **Sullivan**, Kendall<sup>1</sup>, E. H. Vrijmoet, K. Wagner, R. F. Wilson, L. Brefka, R. Belikov, A. Chakrabarty, J. L. Christiansen, D. R. Ciardi, A. Dattilo, E. Fitzmaurice, E. B. Ford, A. Hotnisky, S. Jones, A. Kar, R. Kopparapu, N. Lawson, E. E. Mamajek, B. Mennesson, M. R. Meyer, S. Millholland, G. D. Mulders, S. E. Mullally, A. Murlidhar, I. Pascucci, D. Ragozzine, P. Robertson, K. Stapelfeldt, and J. Wright, “Are We There Yet? Challenges in Quantifying the Frequency of Earth Analogs in the Habitable Zone”, *PASP* **137**, 121001, 121001 (2025).
- 8 K. **Sullivan**, A. L. Kraus, T. A. Berger, and D. Huber, “Quantifying the Contamination from nearby Stellar Companions in Gaia DR3 Photometry”, *AJ* **169**, 29, 29 (2025).
- 9 M. Clark\*, K. **Sullivan**, and M. Soares-Furtado, “Moderate-separation Binary Companions May Influence Young Stellar X-Ray Luminosity”, *Research Notes of the American Astronomical Society* **8**, 318, 318 (2024).
- 10 E. L. Evans, T. J. Dupuy, K. **Sullivan**, A. L. Kraus, D. Huber, M. J. Ireland, M. Ansdel, R. L. Kuruwita, R. A. Martinez, and M. L. Wood, “Orbital architectures of planet-hosting binaries - III. Testing mutual inclinations of stellar and planetary orbits in triple-star systems”, *MNRAS* **534**, 575–607 (2024).
- 11 E. Gaidos, C. A. Clark, and K. **Sullivan**, “The Mass–Radius Relation for Planets in Binary Systems”, *Research Notes of the American Astronomical Society* **8**, 319, 319 (2024).
- 12 K. **Sullivan** and A. L. Kraus, “Starspots and Undetected Binary Stars Have Distinct Signatures in Young Stellar Associations”, *ApJ* **969**, 117, 117 (2024).
- 13 K. **Sullivan**, A. L. Kraus, T. A. Berger, T. J. Dupuy, E. Evans, E. Gaidos, D. Huber, M. J. Ireland, A. W. Mann, E. A. Petigura, P. C. Thao, M. L. Wood, and J. Zhang, “Revising Properties of Planet–Host Binary Systems. IV. The Radius Distribution of Small Planets in Binary Star Systems Is Dependent on Stellar Separation”, *AJ* **168**, 129, 129 (2024).

<sup>1</sup>Co-first-author

- 14 K. **Sullivan**, A. L. Kraus, D. Huber, E. A. Petigura, E. Evans, T. Dupuy, J. Zhang, T. A. Berger, E. Gaidos, and A. W. Mann, “Revising Properties of Planet-Host Binary Systems. III. There Is No Observed Radius Gap for Kepler Planets in Binary Star Systems”, *AJ* **165**, 177, 177 (2023).
- 15 K. **Sullivan** and A. L. Kraus, “Optical and Near-infrared Excesses are Correlated in T Tauri Stars”, *ApJ* **928**, 134, 134 (2022).
- 16 K. **Sullivan** and A. L. Kraus, “Revising Properties of Planet-Host Binary Systems. II. Apparent Near-Earth-analog Planets in Binaries Are Often Sub-Neptunes”, *AJ* **164**, 138, 138 (2022).
- 17 K. **Sullivan**, A. L. Kraus, and A. W. Mann, “Revising Properties of Planet-Host Binary Systems. I. Methods and Pilot Study”, *ApJ* **935**, 141, 141 (2022).
- 18 L. A. Nofi, C. M. Johns-Krull, R. López-Valdivia, L. Biddle, A. S. Carvalho, D. Huber, D. Jaffe, J. Llama, G. Mace, L. Prato, B. Skiff, K. R. Sokal, K. **Sullivan**, and J. Tayar, “Projected Rotational Velocities and Fundamental Properties of Low-mass Pre-main-sequence Stars in the Taurus-Auriga Star-forming Region”, *ApJ* **911**, 138, 138 (2021).
- 19 K. **Sullivan** and A. L. Kraus, “Undetected Binary Stars Cause an Observed Mass-dependent Age Gradient in Upper Scorpius”, *ApJ* **912**, 137, 137 (2021).
- 20 L. Flagg, C. M. Johns-Krull, L. Nofi, J. Llama, L. Prato, K. **Sullivan**, D. T. Jaffe, and G. Mace, “CO Detected in CI Tau b: Hot Start Implied by Planet Mass and  $M_K$ ”, *ApJL* **878**, L37, L37 (2019).
- 21 K. **Sullivan**, L. Prato, S. Edwards, I. Avilez, and G. H. Schaefer, “S and VV Corona Australis: Spectroscopic Variability in Two Young Binary Star Systems”, *ApJ* **884**, 28, 28 (2019).
- 22 J. A. Irwin, P. Schmidt, A. Damas-Segovia, R. Beck, J. English, G. Heald, R. N. Henriksen, M. Krause, J.-T. Li, R. J. Rand, Q. D. Wang, T. Wiegert, P. Kamieneski, D. Paré, and K. **Sullivan**, “CHANG-ES - VIII. Uncovering hidden AGN activity in radio polarization”, *MNRAS* **464**, 1333–1346 (2017).