

# Eileen C. Gonzales

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## Education

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08/2015–08/2020	PhD in Physics, CUNY Graduate Center, NY, Advisor: Dr. Jackie Faherty <i>Understanding Atmospheres Across the Stellar-Substellar Boundary</i> (M.A. 2019- Hunter College, MPhil 2019- Graduate Center)
08/2011–12/2014	M.S. Physics concentration in Astronomy, San Francisco State University, CA Advisor: Dr. Adrienne Cool, Thesis: <i>Commissioning the refurbished 30-inch Leuschner telescope and its capabilities to detect transiting exoplanets</i>
08/2006–05/2010	B.S. Astrophysics (Dual Major in German), Michigan State University, MI Advisor: Horace Smith, Senior Thesis: <i>RR Lyrae and the Blazhko Effect</i>

## Related Work Experience

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2023–present	<b>Assistant Professor</b> , San Francisco State University, San Francisco, CA
2020–2023	<b>51 Pegasi b Postdoctoral Fellow</b> , Cornell University, Ithaca, NY
2019–2020	<b>Non-Teaching Adjunct</b> , Macaulay Honors College, New York, NY
2018–2019	<b>Non-Teaching Adjunct</b> , College of Staten Island, Staten Island, NY
2017–2019	<b>Research Mentor</b> , American Museum of Natural History, New York, NY
Fall 2017	<b>Adjunct Lecturer</b> , Hunter College, New York, NY
Spring 2016	<b>Physics Tutor</b> , Self Employed, New York, NY
Spring 2015	<b>Lecturer</b> , San Francisco State University, San Francisco, CA
2011–2014	<b>Graduate Teaching Associate</b> , San Francisco State University, San Francisco, CA
2013–2014	<b>Telescope Workshop Instructor</b> , San Francisco State University, San Francisco, CA
Sum. 2008	<b>Intern</b> , Institute for Experimental and Applied Physics, University of Kiel, Kiel, Germany

## Honors and Awards

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2025	<b>Vera Rubin Distinguished Visiting Professor</b> 2024–25AY, University of California Santa Cruz
2023	<b>SF State Faculty Hub Fellow</b> , San Francisco State University
2023	<b>CSU Equity Fellow</b> , CSU Chancellor's Office
2022	<b>Postdoc Achievement Award for Excellence in Leadership</b> , Cornell University
2021	<b>ExoExplorer</b> , NASA ExoExplorers Program inaugural cohort
2020	<b>51 Pegasi b Fellowship in Planetary Astronomy</b> , Heising-Simons Foundation (Three-year, \$375,000 grant)
2019	<b>Mina Rees Dissertation Fellowship in the Sciences</b> , City University New York Graduate Center (Dissertation Year support, \$25,000)
2019	<b>Ford Dissertation Fellowship Honorable Mention</b> , Ford Foundation
2018	<b>Beth Brown Memorial Award</b> , National Society of Black Physicists 2018 Conference (Best oral presentation in astronomy: <i>Is TRAPPIST-1 a Unique M-dwarf Host Star</i> )
2018	<b>Third Place Prize Graduate Student Poster Competition</b> , Cool Stars 20
2018	<b>Graduate Student Prize</b> , Astronomical Society of New York
2018	<b>Chambliss Honorable Mention</b> , AAS 231 <sup>st</sup> Meeting (Poster: <i>Examining Cloud, Metallicity, and Gravity signatures in Brown Dwarfs</i> )
2017	<b>NSF AGEP</b> , National Science Foundation Supplemental Award (\$36,000/year salary support, renewed for a total of 3 years)
2017	<b>LSSTC Data Science Fellow</b> , Large Synoptic Survey Telescope Corporation

- Two-year program of 6 week-long intensive data science workshops
- 2016 **NIGMS RISE Fellowship**, National Institute of Health  
(\$30,000/year salary, \$1,500/year travel funds, \$1,500/year research allowance, full tuition)
- 2015 **CUNY Science Scholar**, City University of New York Graduate Center  
(AY 2015-2016: \$25,000 stipend and tuition, AY16-17, AY 17-18, AY 18-19, AY19-20: tuition)
- 2014 **Honorable Mention**, College of Science and Engineering Showcase San Francisco State Uni.  
(Poster: *Calibration and first images from the refurbished Leuschner 30-inch Telescope*)

## Refereed Publications

\* Denotes Advisee

1. Lacy, B., Suarez, G., Beiler, S.A., (several authors), **Gonzales, E.C.** et al., *The Diversity of Cold Worlds: Mapping Non-equilibrium Chemistry Across the T/Y Transition*, submitted to ApJ, under review
2. Kiman, R., Beichman, C.A., Ruiz Dias, A., (several authors), **Gonzales, E.C.** et al., *The Diversity of Cold Worlds: Age and Characterization of the COCONUTS-2 T9 Brown Dwarf*, submitted to ApJ, under review
3. Suarez, G., Faherty, J.K., Burningham, B., (several authors), **Gonzales, E.C.** et al., *Diversity of Cold Worlds: Predicted Near- to Mid-infrared Spectral Signatures of a Cold Brown Dwarf with Potential Auroral Activity*, accepted to ApJ, 2025 in press, [arXiv:2509.26505](https://arxiv.org/abs/2509.26505)
4. Rothermich, A., Faherty, J.K., Burningham, B., (several authors), **Gonzales, E.C.** et al., *The Buddy System: Characterizing the benchmark system containing the T0 brown dwarf CWISEP J210640.16+250729.0 using JWST*, submitted to ApJ, under review.
5. Meynardie, W.W., Meyer, M.R., MacDonald, R.J., Calissendorff, P., Mullens, E., Munoz Zarazua, G.\*, Roy, A.\*, Ganta, G.\*, **Gonzales, E.C.** et al., *Ross 458C: Gas Giant or Brown Dwarf?*, accepted to ApJ, in press, [arXiv:2509.22803](https://arxiv.org/abs/2509.22803)
6. Whiteford, N., Faherty, J.K., Burningham, B., (several authors), **Gonzales, E.C.** et al., *The JWST Early Release Science Program for Direct Observations of Exoplanetary Systems VI: Cloudy Retrieval Analysis of VHS 1256 b, lessons learned and outlook to the future*, submitted to ApJL, under review.
7. De Furio, M., Faherty, J.K., Bardalez Gagliuffi, D.C., Gagné, J., **Gonzales, E.C.** et al., *Discovery of the Second Y+Y Dwarf Binary System: CWISEP J193518.19-154620.3*, ApJL, 2025, 990, L63 [IOPScience OALink](https://iopscience.iop.org/article/10.1086/7700000)
8. Nasedkin, E., Schrader, M., Vos, J., Biller, B., Burningham, B., Cowan, N.B., Faherty, J.K., **Gonzales, E.C.** et al., *The JWST Weather Report: Retrieving Temperature Variations, Aroual Heating, and Static Cloud Coverage on SIMP-0316*, A&A, 2025, in press, [arXiv:2507.07772](https://arxiv.org/abs/2507.07772)
9. Burgasser, A., **Gonzales, E.C.**, Beiler, S.A. et al., *Observation of Undepleted Phosphine in the Atmosphere of a Low-Temperature Brown Dwarf*, Science, 2025, 10.1126/science.adu0401 <https://www.science.org/doi/10.1126/science.adu0401>
10. Faherty, J. K., Meisner, A.M., Burningham, B., (several authors), **Gonzales, E.C.** et al., *Detection of the Silicate Precursor Silane in a Cold, Low-Metallicity Brown Dwarf*, Nature, 2025, 645, 62-66, <https://doi.org/10.1038/s4586-025-09369-1>, [share link](#)
11. Hoch, K.W., Rowland, M., Petrus, S., (several authors), **Gonzales, E.C.** et al., *Silicate Clouds and a circumplanetary disk in the YSES-1 exoplanet system*, Nature, 2025, 643, 983-942, <https://doi.org/10.1038/s41586-025-09174-w>, [share link](#)
12. Alejandro, S., Faherty, J. K., Suárez, G., Cruz, K.L., Burgasser, A.J., Gagné, J., Hood, C.E., **Gonzales, E.C.** et al., *Diversity of Cold Words: A Near Complete Spectral energy Distribution for 2MASS J01451954-0935066 using JWST*, accepted in ApJ, in press., [arXiv:2505.24591](https://arxiv.org/abs/2505.24591)

13. Bardalez-Gagliuffi, D., Faherty, J. K., Suárez, G., (several authors), **Gonzales, E.C.** et al., *The Diversity of Cold Worlds: a blended-light binary straddling the T/Y transition*, ApJ, 2025, 984, 74B. [arXiv:2503.02025](#)
14. Ray, S., Sallum, S., Hinkley, S., (several authors), **Gonzales, E.C.** et al., *The JWST Early Release Science Program for Direct Observations of Exoplanetary Systems III: Aperture Masking Interferometric Observations of the star HIP 65426 at 3.8  $\mu$ m*, ApJL, 2025, 983, 25. [arXiv:2310.11508](#)
15. McCarthy, A.M., Vos, J.M., Muirhead, P.S., (several authors), **Gonzales, E.C.** et al., *The JWST Weather Report from the Isolated Exoplanet Analog SIMP 01360933: Pressure-Dependent Variability Driven by Multiple Mechanisms*, ApJL, 2025, 981, 22. [arxiv:2411.16577](#)
16. Phillips, C.L., Faherty, J. K., Burningham, B., Vos, J., **Gonzales, E.C.** et al., *Retrieving Young Cloudy L-Dwarfs: A Nearby Planetary-Mass Companion BD+60 1417B and Its Isolated Red Twin W0047*, ApJ, 2024, 972, 172. [arXiv:2407.01694](#)
17. Petrus, S., Whiteford, N., Patapis, P., (several authors), **Gonzales, E.C.** et al., *The JWST Early Release Science Program for Direct Observations of Exoplanetary Systems V: Do Self-Consistent Atmospheric Models Represent JWST Spectra? A Showcase with VHS 1256-1257 b*, ApJL, 2024, 966, L11. [arXiv:2312.03852](#)
18. Faherty, J. K., Burningham, B., Gagné, J., (several authors), **Gonzales, E.C.** et al., *Methane Emission in one of the Coldest Brown Dwarfs*, Nature, 2024, 628, 511F. [arXiv:2404.10977](#)
19. Kirkpatrick, J.D., Marco, F., Gelino, C.R., (several authors), **Gonzales, E.C.** et al., *The Initial Mass Function Based on the Full 20-pc Census of ~3600 Stars and Brown Dwarfs*, ApJS, 2024, 271, 55. [arXiv:2312.03639](#)
20. Sallum, S., Ray, S., Kammerer, J., (several authors), **Gonzales, E.C.** et al., *The JWST Early Release Science Program for Direct Observations of Exoplanetary Systems IV: NIRISS Aperture Masking Interferometry Performance and Lessons Learned*, ApJL, 2024, 963, 2S. [arXiv:2310.11499](#)
21. Hom, J., Patience, J., Chen, C.H., Duchêne, G., Mayzoyer, J., Millar-Blanchaer, M.A., Esposito, T.M., Kalas, P., Crotts, K.A., **Gonzales, E.C.** et al., *A Uniform Analysis of Debris Disks with the Gemini Planet Imager II: Constraints on Dust Density Distribution Using Empirically-Informed Scattering Phase Functions*, MNRAS, 2024, 528, 4. [arXiv:2402.00214](#)
22. Katie Crotts, K.A., Matthews, B.C., Duchêne, G., (several authors), **Gonzales, E.C.** et al., *A Uniform Analysis of Debris Disks with the Gemini Planet Imager I: An Empirical Search for Perturbations from Planetary Companions in Polarized Light Images*, ApJ, 2024, 961, 245. [arXiv:2311.14599](#)
23. Hood, C., E., (several authors), **Gonzales, E.C.** et al., *High-Precision Atmospheric Constraints for a Cool T Dwarf from JWST Spectroscopy*, in review, Nature Astronomy. [arXiv:2402.05345](#)
24. Theissen, C.A., Bardalez Gagliuffi, D., Newton, E., (several authors), **Gonzales, E.C.** et al., *The 30 Parsec Project (30PP) I: Near-Infrared Spectra of Ultracool Dwarfs—Sample Definition, Spectral Characterization, and Data Release I*, submitted, AJ
25. Thompson, W., Laurence, J., Blakely, D., (several authors), **Gonzales, E.C.** et al., *Octofitter: Fast Flexible, and Accurate Orbit Modeling to Detect Exoplanets*, AJ, 2023, 166, 164. [arXiv:2402.01971](#)
26. Vos, J., Burningham, B., Faherty, J. K., Alejandro, S., **Gonzales, E.C.**, Calamari, E., Bardalez Gagliuffi, D., Visscher, C., Tan, X., Morley, C.V., Marley, M., Gemma, M.E., & Whiteford, N. *Patchy Forsterite Clouds in the Atmospheres of Two Highly Variable Exoplanet Analogs*, ApJ, 2023, 944, 138. [arXiv:2212.07399](#)
27. Calamari, E., Faherty, J.K., Burningham, B., **Gonzales, E.C.**, Bardalez-Gagliuffi, D., Vos, J., Whiteford, N., Gaarn, J., & Gemma, M. *An Atmospheric Retrieval of the Brown Dwarf Gliese 229B*, ApJ, 2022, 940, 164. [arXiv:2210.13614](#)
28. **Gonzales, E.C.**, Burningham, B., Faherty, J. K., Lewis, N.K., Visscher, C., & Marley, M. *A Comparative L-dwarf Sample Exploring the Interplay Between Atmospheric Assumptions and Data Properties*, ApJ, 2022, 938, 56. [arXiv:2209.02754](#)

29. Carter, A.L., Hinkley, S., Kammerer, J., (several authors), **Gonzales, E.C.** et al., *The JWST Early Release Science Program for Direct Observations of Exoplanetary Systems I: High Contrast Imaging of the Exoplanet HIP 65426 b from 2-16  $\mu$ m*, ApJL, 2023, 951, 20. [arXiv:2208.14990](https://arxiv.org/abs/2208.14990)
30. Gaarn, J., Burningham, B., Faherty, J. K., Visscher, C., Marley, M., **Gonzales, E.C.**, Bardalez-Gagliuffi, D., Lupu, R., & Freedman, R. *The Puzzle of the formation of T8 dwarf Ross-458c*, MNRAS, 2023, 521, 4 [arXiv:2303.16863](https://arxiv.org/abs/2303.16863)
31. Miles, B.E., Biller, B.A., Patapis, P., (several authors), **Gonzales, E.C.** et al., *The JWST Early Release Science Program for Direct Observations of Exoplanetary Systems II: A 1 to 20 Micron Spectrum of the Planetary-Mass Companion VHS 1256-1257 b*, ApJL, 2023, 946, 6. [arXiv:2209.00620](https://arxiv.org/abs/2209.00620)
32. **Gonzales, E.C.**, Burningham, B., Faherty, J. K., Visscher, C., Marley, M., Lupu, R., Freedman, R. , & Lewis, N.K. *The first retrieval of a substellar subdwarf: A cloud-free SDSS J125637.13-022452.4*, ApJ, 2021, 923, 19. [arXiv:2109.11000](https://arxiv.org/abs/2109.11000)
33. Faherty, J. K., Gagné, J., Popinchalk, M., (several authors), **Gonzales, E.C.** et al., *A Wide Planetary Mass Companion Discovered Through the Citizen Science Project Backyard Worlds: Planet 9*, ApJ, 2021, 923, 48. [arXiv:2112.04678](https://arxiv.org/abs/2112.04678)
34. Schneider, A. C., Meisner, M.A., Gagné, J., (several authors), **Gonzales, E.C.** et al., *Ross 19B: An Extremely Cold Companion Discovered via the Backyard Worlds: Planet 9 Citizen Science Project*, ApJ, 2021, 921, 140. [arXiv:2108.05321](https://arxiv.org/abs/2108.05321)
35. Burningham, B., Faherty, J. K., **Gonzales, E. C.**, Marley, M., Visscher, C., Lupu, R., Gaarn, J., Bieger, M.F., Freedman, R., & Saumon, D. *Cloud Busting: enstatite and quartz clouds in the atmosphere of 2M2224-0158*, MNRAS, 2021, 506, 1944. [arXiv:2105.0426](https://arxiv.org/abs/2105.0426)
36. Cubillos, P. E.; Keating, D.; Cowan, N. B.; Vos, J. M.; Burningham, B.; Ygouf, M.; Karalidi, T.; Zhou, Y.; **Gonzales, E. C.** *Longitudinally Resolved Spectral Retrieval (ReSpect) of WASP43b*, ApJ, 2021, 915, 45. [arXiv:2105.06353](https://arxiv.org/abs/2105.06353)
37. Kirkpatrick, J.D., Gelino, C.R., Faherty, J.K., (several authors), **Gonzales, E.C.** et al., *The Field Substellar Mass Function Based on the Full-sky 20 pc Census of 525 L, T, and Y Dwarfs*, ApJS, 2021, 253, 7. [arXiv:2011.11616](https://arxiv.org/abs/2011.11616)
38. **Gonzales, E.C.**, Burningham, B., Faherty, J. K., Cleary, C., Visscher, C., Marley, M., Lupu, R., & Freedman, R. *Retrieval of the d/sdL7+T7.5p binary SDSS J14162408+1348263AB*, ApJ, 2020, 905, 46. [arXiv:2010.01224](https://arxiv.org/abs/2010.01224)
39. Faherty, J.K., Goodman, S., Caselden, D., Colin, G., Kuchner, M. J., Meisner, A. M., Gagné, J., Schneider, A. C., **Gonzales, E. C.**, Bardalez Gagliuffi, D., Logdson, S. E., Allers, K., Burgasser, A.J., & The Backyard Worlds: Planet 9 Collaboration, *WISE2150-7250AB: A very low mass, wide co-moving brown dwarf system discovered through the citizen science project Backyard Worlds: Planet 9*. ApJ, 2020, 889,176. [arXiv:1911.04600](https://arxiv.org/abs/1911.04600)
40. **Gonzales, E.C.**, Faherty, J. K., Gagné, J., Teske, J., McWilliam, A., & Cruz, K. L. *A Reanalysis of the Fundamental Parameters and Age of TRAPPIST-1*. ApJ, 2019, 886, 131. [arXiv:1909.13859](https://arxiv.org/abs/1909.13859)
41. **Gonzales, E.C.**, Faherty, J. K., Gagné, J., Artigau, É., & Bardalez Gagliuffi, D. *Understanding Fundamental Properties and Atmospheric features of subdwarfs via a case study of SDSS J125637.13-022452.4*. ApJ, 2018, 864, 100. [arXiv:1807.04794](https://arxiv.org/abs/1807.04794)
42. Faherty, J.K., Gagné, J., Burgasser, A.J., Mamajek, E.E., **Gonzales, E.C.**, Bardalez Gagliuffi, D. C., & Marocco, F. *A Late-type L Dwarf at 11 pc Hiding in the Galactic Plane Characterized Using Gaia DR2*. ApJ, 2018, 868, 44. [arXiv:1805.01573](https://arxiv.org/abs/1805.01573)

### Non-refereed Publications

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43. 2030STEM Collaboration: Jennifer D. Adams, Carlotta A. Berry, Ruth Cohen, Alonso Delgado, Jacqueline K. Faherty, **Eileen Gonzales**, Mandë Holford, Ariangela J Kozik, Lydia Jennings, Alfred



Mays, Louis J. Muglia, Nikea Pittman, and Patricia Silveryra. *#Change: How Social Media is Accelerating STEM Inclusion*. <https://arxiv.org/abs/2212.03245>

44. Brown, C.D. & **Gonzales, E.** *Excellence and power in the Black physics community*. Nature Physics. 17, 3-4 (2021). <https://doi.org/10.1038/s41567-020-01140-9> Equal co-authors.
45. Gagné, J., **Gonzales, E.C.**, & Faherty, J.K. *A Gaia DR2 Confirmation that 2MASS J12074836–3900043 is a Member of the TW HYA Association*. RN AAS, 2018, 2, 2. [arXiv:1804.09625](https://arxiv.org/abs/1804.09625)

### Invited Talks, Seminars, and Panels

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Oct. 2025	<i>Clouds and Chemistry: Retrieving the Atmospheres of Brown Dwarfs</i> , <b>Vera Rubin Distinguished Visiting Professor Colloquium</b> , UC Santa Cruz, Santa Cruz, CA
Oct. 2025	<i>Clouds and Chemistry: Retrieving the Atmospheres of Brown Dwarfs</i> , UC Berkeley Astronomy Colloquium, UC Berkeley, Berkeley, CA
Jan. 2025	<i>Unlocking Spectral Mysteries: Retrieving Brown Dwarf Atmospheres</i> , UC Santa Cruz Astronomy Colloquium, UC Santa Cruz, Santa Cruz, CA
Dec 2024	<i>Finding Solidarity and Support in Affinity Groups</i> , New York Academy of Science Inclusion in STEM Series Panel, virtual
July 2024	<i>Interpreting Photometry &amp; Spectroscopy From A Modeling Perspective</i> , 2024 Sagan Summer Workshop on Advances in Direct Imaging, Pasadena, CA
June 2024	<i>Clouds and Chemistry of Small Nearby Worlds</i> , California Academy of Sciences, Benjamin Dean Astronomy Lecture, San Francisco, CA
Feb. 2024	Speaker at <i>Stanford Black In Physics Black History Month Panel</i> , Stanford University, Palo Alto, CA
Mar. 2023	<i>Read Between the Spectral Lines: Characterizing Substellar Atmospheres</i> , University of Colorado Boulder, Department of Astrophysical & Planetary Sciences Colloquium, Boulder, CO
Feb. 2023	<i>Read Between the Spectral Lines: Characterizing Substellar Atmospheres</i> , Cornell, Department of Astronomy Colloquium, Ithaca, NY
Feb. 2023	<i>Peering Through the Clouds: Investigating Substellar Atmospheres</i> , San Francisco State University, Department of Physics & Astronomy Colloquium, San Francisco, CA
Feb. 2023	<i>Read Between the Spectral Lines: Characterizing Substellar Atmospheres</i> , University of Washington, Department of Astronomy Colloquium, Seattle, WA
Jan. 2023	Review Talk: <i>Cloud Models in Brown Dwarf* Retrievals (*and Directly-Imaged Exoplanets)</i> , Cloud Zwei Con, Ringberg Castle, Tegernsee, Germany
Dec. 2022	<i>Peering Through the Clouds: Investigating Substellar Atmospheres</i> , Wellesley College, Department of Astronomy Colloquium, Wellesley, MA
Oct. 2022	<i>Read Between the Spectral Lines: Characterizing Substellar Atmospheres</i> , San Francisco State University, Physics & Astronomy Department Colloquium, San Francisco, CA
Sept. 2022	<i>Read Between the Spectral Lines: Characterizing Substellar Atmospheres</i> , The Ohio State University, Astrophysics Colloquium, Columbus, OH
June 2022	Speaker on <i>Astroworld: Grad School/ Postdoc Panel</i> , #BlackInAstro/ #BlackInSpaceWeek 2022, Virtual
June 2022	Speaker on <i>UCSD Black Studies Project Panel</i> , University of California, San Diego, Virtual
May 2022	<i>Read Between the Spectral Lines: Characterizing Substellar Atmospheres</i> , NASA Goddard, Astrophysics Colloquium, Virtual

Apr. 2022 *Read Between the Spectral Lines: Characterizing Substellar Atmospheres*, University of Michigan, **Beth Brown Memorial Award Colloquium**, Ann Arbor, MI

Feb. 2022 *Peering Through the Clouds: Investigating Substellar Atmospheres*, University of Maryland, Astronomy Colloquium, Virtual

Feb. 2022 *Peering Through the Clouds: Investigating Substellar Atmospheres*, Amherst College, Physics & Astronomy Colloquium, Amherst, MA

Jan. 2022 *Black In Physics: From Movement to Organization*, STEM2030 Salon- How Social Media is Accelerating STEM Inclusion, Virtual

Dec. 2021 *Investigating Substellar Atmospheres*, Boston University Astronomy Colloquium, Boston, MA

Aug. 2021 *Read Between the Lines: Retrievals of Substellar Objects*, 51 Pegasi b Virtual Summit

June 2021 *Why Brown Dwarfs Should Be Your Friends: Lessons Learned From Their Atmospheric Retrievals*, ExoExplorers Science Series Talk, Virtual

May 2021 *Characterizing Atmospheres of Low-Metallicity Brown Dwarfs*, University of California San Diego-San Diego State University Astronomy Seminar, Virtual

Apr. 2021 Speaker on *Answering the Call for Diverse & Inclusive Voices in STEM* panel, Advanced Science Research Center, The Graduate Center City University of New York, Virtual

Apr. 2021 *A Deep Dive into Exploring Substellar Atmospheres*, University of Washington, Astronomy Colloquium, Virtual

Apr. 2021 Speaker on *Coll-G 133-STEM Careers Panel*, Group Scholars Program, Indiana University Bloomington, Virtual

Mar. 2021 *Characterizing Atmospheres of Ultracool Subdwarfs*, Howard University, **Beth Brown Award Physics Colloquium**, Virtual

Mar. 2021 *Understanding Atmospheres Across the Stellar-Substellar Boundary*, Rochester Institute of Technology, Astronomy Colloquium, Virtual

Feb. 2021 *Understanding Atmospheres Across the Stellar-Substellar Boundary*, University of Delaware Department of Physics and Astronomy Seminar, Virtual

Dec. 2020 *Understanding Atmospheres Across the Stellar-Substellar Boundary*, JILA/ University of Colorado Boulder Astrophysics Seminar, Virtual

Nov. 2020 *Understanding Atmospheres Across the Stellar-Substellar Boundary*, Cornell Planetary Lunch Seminar, Ithaca, NY

Oct. 2020 Speaker on the *How to Organize a Movement* Panel, Yale, Virtual panel

Aug 2020 Speaker on the *Women+ of Color Project 2019 Reunion: The Path to Graduate School* Panel, Virtual panel

Feb. 2020 *Understanding Atmospheres Across the Stellar-Substellar Boundary*, Center for Space & Habitability (CSH) Symposium, University of Bern, Bern Switzerland

Jan. 2019 *A Reanalysis of the Age of TRAPPIST-1*, **Beth Brown Memorial Prize talk**, AAS 233, Seattle, WA

Dec. 2018 *Is TRAPPIST-1 A Unique M-dwarf Host Star?*, Queensborough Community College Physics department Seminar, New York, NY

Nov. 2018 Speaker on Women and Gender Minorities Panel Session at National Society of Black Physicists 2018 Conference, Columbus, OH

July 2018 *Understanding Atmospheres of Subdwarfs via SDSS J1256-0224*, **Graduate Student Prize Talk**, Astronomical Society of New York 50th Meeting, New York, NY

Feb. 2017 *Understanding Atmospheres of Subdwarfs via a case study of SDSS J1256-0224*, Harvard CfA Planets and Stars Seminar, Cambridge, MA

Nov. 2017      *Understanding Atmospheres of Low-mass Stars, Brown Dwarfs, and Giant Exoplanets*, SACNAS, Salt Lake City, UT

### Contributed Talks and Posters

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Aug 2025	Talk: <i>Look we found Phosphine in Wolf 1130C!</i> , 51 Pegasi b Summit 2025, Half Moon Bay, CA
June 2024	Poster: <i>Retrieving the Atmosphere of WISE 2150AB, a rare widely-separated L+T binary system</i> , Cool Stars 22, San Diego, CA
Aug. 2022	Talk: <i>Highlighting the Past Year of Black In Physics</i> , 51 Pegasi b Summit 2022, Cavallo Point, CA
Aug. 2022	Talk: <i>Peering Through the Clouds: Comparative Retrievals of L-dwarfs</i> , 51 Pegasi b Summit 2022, Cavallo Point, CA
July 2022	Talk: <i>Lessons Learned From Comparative Retrievals of Brown Dwarfs</i> , OWL Exoplanet Summer Program, University of California, Santa Cruz, Santa Cruz, CA
May 2022	Talk: <i>Lessons Learned From Comparative Retrievals of Brown Dwarfs</i> , Exoplanets IV, Brown Dwarf to Exoplanet Commotion in the Era of JWST Splinter, Las Vegas, NV
Jan. 2021	Talk: <i>Insights Discovered From Comparative Retrievals of Substellar Objects</i> , AAS 237, id. 314.04, Virtual
Jan. 2021	Poster: <i>The Atmospheric Retrieval of the Brown Dwarf Gl229B</i> , co-author, AAS 237, id. 339.10, Virtual
Aug. 2020	Talk: <i>Brewster Retrievals: From Brown Dwarfs and Directly-Imaged Exoplanets</i> , 51 Pegasi b Virtual Summit 2020
Jan. 2020	Talk: <i>Understanding Atmospheres Across the Stellar-Substellar Boundary</i> , Dissertation Talk, AAS 235, Honolulu, HI
Nov. 2019	Talk: <i>Spectral Retrieval of the binary 2MASS J1416+1348AB</i> , National Society of Black Physicists 2019, Providence, RI
Oct. 2019	Talk: <i>Atmospheric Retrieval of the d/sdL7+T7.5p binary 2MASS J1416+1348AB</i> , BDEXOCON III, Newark, DE
Sept. 2019	Talk: <i>Atmospheric Retrieval of the d/sdL7+T7.5p binary 2MASS J1416+1348AB</i> , Center for Computational Astrophysics GothamFest, New York, NY
June 2019	Talk: <i>A Reanalysis of the Age of TRAPPIST-1</i> , TRAPPIST-1 Toward the comparative study of temperate terrestrial worlds- Liège, Belgium
Jan. 2019	Poster: <i>Is TRAPPIST-1 a Unique M-dwarf Host Star?</i> , AAS 233, id#259.01, Seattle, WA
Nov. 2018	Talk: <i>Is TRAPPIST-1 a Unique M-dwarf Host Star?</i> , National Society of Black Physicists 2018, Columbus, OH
July 2018	Poster: <i>Is TRAPPIST-1 a Unique M-dwarf Host Star?</i> , Cool Stars 20, Poster #111, Cambridge, MA, DOI: <a href="https://doi.org/10.5281/zenodo.1420451">10.5281/zenodo.1420451</a>
July 2018	Poster: <i>The BDNYS Database of low-mass stars, brown dwarfs, and planetary mass companions</i> , co-author, Cool Stars 20, Cambridge, MA, DOI: <a href="https://doi.org/10.5281/zenodo.1478145">10.5281/zenodo.1478145</a>
Jan. 2018	Poster: <i>Examining Cloud, Metallicity, and Gravity signatures in Brown Dwarfs</i> , AAS 231 id.#347.37, National Harbor, MD
Jan. 2018	Poster: <i>The BDNYS Database of low-mass stars, brown dwarfs, and planetary mass companions</i> , co-author, AAS 231, id.#349.33, National Harbor, MD
Nov. 2017	Talk: <i>Understanding Atmospheres of Low-mass Stars, Brown Dwarfs, and Giant Exoplanets</i> , National Society of Black Physicists 2017, Moorehouse College, Atlanta, GA
Oct. 2017	(Nov) and BDEXOCON II, University of Delaware, Newark, DE (Oct)

Sept. 2017	Talk: <i>Understanding Atmospheres of Low-mass Stars, Brown Dwarfs, and Giant Exoplanets</i> , Astrofest, Columbia University, New York, NY
June 2017	Poster: <i>Examining Cloud, Metallicity, and Gravity signatures in Brown Dwarfs</i> , Women in Astronomy IV, Austin TX and ERES III, Yale University, New Haven, CT
Oct. 2016	Poster: <i>Examining gravity, clouds and metallicity signatures in young and old brown dwarfs</i> , National Society of Black Physicists Fall Workshop, Femi Lab
Feb. 2015 Jan. 2015	Poster: <i>Testing the refurbished Leuschner 30-inch Telescope and its capabilities to detect transiting exoplanets</i> , AAS 225, id.#258.04, Seattle, WA (Jan) and National Society of Black Physicists 2015, Baltimore, MD (Feb)
May 2014 Apr. 2014	Poster: <i>Testing the refurbished Leuschner 30-inch Telescope and its ability to detect planets around other stars</i> , San Francisco State University College of Science and Engineering (COSE) Project Showcase (May) and San Francisco State University Graduate Research and Creative Works Showcase (April), San Francisco, CA
May 2014	Poster: <i>Calibration and first images from the refurbished Leuschner 30-inch Telescope</i> , co-author, COSE Showcase, San Francisco State University, San Francisco, CA
Dec. 2008	Poster: <i>TNS - A compact, light-weight sensor for thermal neutrons</i> , co-author, AGU Fall 2008 Meeting, id.#P53C-1458

## Grants and Telescope Proposals

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Raised over 4 million dollars to support research over the last 10 years.

2025	<b>NASA ROSES RIA- \$300,000, (PI)</b> <i>A Symphony of Silicates: Quantifying the Silicate Feature Diversity Across Age, Metallicity, and Composition</i>
2025	<b>Gilead Innovation Initiative Summer Research Award- \$6,000, (PI)</b> <i>Probing the Formation History of Ross 458C: Is it a Gas Giant or a Brown Dwarf?</i> To support faculty mentorship (\$1K) and student stipend (\$5K)
2024	<b>APS-Simons Travel and Profession Development Award \$8400</b> To support NCFDD Faculty Bootcamp and support student travel funds to the annual NSBP/NSHP conference
2024	<b>JWST Cycle 3- \$1,052,507, 59.3 hours, (Co-I, PI: Adam Burgasser), ID# 4668</b> <i>Arcana of the Ancients: A Spectral Metallicity Survey of the Lowest-Mass Stars and Brown Dwarfs (Co-I budget: \$281,105 to support SF State lead portion)</i>
2024	<b>JWST Cycle 3- \$TBD, 23.9 hours, (Co-I, PI: Yifan Zhou)</b> <i>From Day to Season: Constraining the Rotation Period and Obliquity of Beta Pic b with Time-resolved High-contrast Imaging</i>
2023	<b>Heising-Simons Foundation Grant- \$1,499,943, (Co-I, PI Adrienne Cool).</b> <i>Renovating San Francisco State's Planetarium to Fuel STEM Education &amp; Outreach in the Bay Area</i>
2023	<b>AAPT Travel Grant, \$1000</b> To support attendance to AAPT Faculty Teaching Institute
2023	<b>Heising-Simons Foundation Grant- \$130,726, (PI)</b> <i>Walk This Way: Brown Dwarfs and Directly Imaged Exoplanets as Stepping Stones to the Next Blue Dot</i>
2023	<b>JWST Cycle 2- \$TBD, 19 hours, (Co-I, PI Ben Burningham), ID. #3670</b> <i>Sinking Silicates: Tracing Rainout Across the LT Transition</i>
2023	<b>JWST Cycle 2- \$TBD, 8.99 hours, (Co-I, PI Johanna Vos), ID. #3548</b> <i>Exometeorology: Weather on an Isolated World Beyond Our Own</i>



2023	<b>JWST Cycle 2-</b> \$TBD, 7.66 hours, (Co-I, PI Aaron Meisner), ID. #3558 <i>The First Spectrum of the Coldest Halo Brown Dwarf</i>
2021	<b>NASA ROSES XRP-</b> \$513,931, ( <b>Science-PI</b> , PI Jackie Faherty) <i>Read Between the Lines: Determining Atmosphere and Bulk Compositions for Planetary Mass Objects Using Special Retrievals</i>
2021	<b>HST Cycle 29-</b> \$121,592, 6 orbits, (Co-I, PI Johanna Vos) <i>Atmospheric Structure and Spin Axis Alignment of an Overlooked Planetary-Mass Companion</i>
2021	<b>JWST Cycle 1-</b> \$TBD, 5.2 Hours, (Co-I, PI Kielan Wilcomb), ID. #2044 <i>Direct Imaging Spectroscopy of two Jovian Exoplanets: Characterization of the TYC 8998-760-1 Multi-Planetary System</i>
2021	<b>JWST Cycle 1-</b> \$440,080, 24.6 Hours, (Co-I, PI Jackie Faherty), ID. #2124 <i>Explaining the Diversity of Cold Worlds</i>
2020	<b>51 Pegasi b Fellowship-</b> Heising-Simons Foundation three-year, <b>PI</b> , \$375,000 grant
2019	<b>Amie James Science Travel Award-</b> \$1000 to support presentation at Cloud Academy II
2019	<b>Physics Tithe Fellowship-</b> \$509 AY 2019–2020 support at CUNY Graduate Center
2019	<b>Mina Rees Dissertation Fellowship in the Sciences-</b> Dissertation Year support, \$25,000
2019	<b>Cool Stars Travel Grant-</b> Covered registration (\$500) for Cool stars 20 conference
2019	<b>Doctoral Student Research Grant Round 13-</b> \$900 to attend Cool Stars 20 Conference
2017–2019	<b>NSF AGEP-</b> \$36,000/year salary support, supplemental award to PI:Emily Rice’s NSF
2018	<b>Physics Tithe Fellowship-</b> \$374 AY 2018–2019 support at CUNY Graduate Center
2018	<b>Sigma Xi Grant-In-Aid of Research-</b> \$3178 travel funds for observing run
2018	<b>AAS FAMOUS Travel Grant -</b> \$500 toward the attendance of the 231 <sup>st</sup> AAS Meeting
2018A–2019	<b>NOAO Observing Proposal-</b> <i>Weather and aurorae on one of the Sun’s nearest neighbours</i> , (PI: J. Faherty), Co-I, 1 Night on SOAR Spartan
2017	<b>PSC-CUNY Research Award 2017-</b> (PI: Emily Rice), \$6,000 for observing trips
2016	<b>NIGMS RISE Fellowship-</b> \$30,000/year salary, \$1,500/year travel funds, \$1,500/year research allowance, full tuition
2015	<b>CUNY Science Scholar-</b> AY 2015–2016: \$25,000 stipend and full tuition AY 2016–2017, AY 2017–2018, AY 2018–2019, and AY 2019–2020: full tuition
2015	<b>AAS FAMOUS Travel Grant-</b> \$1000 toward the attendance of the 225 <sup>th</sup> AAS Meeting

### Observing Experience

2019	IRTF/SpeX	1/2 night
2016–2018	Magellan/FIRE	9 nights
2016–2018	Magellan/ FOURSTAR	9 nights
2017	DuPont/CAPScam	1 night

### Scientific Collaborations

- Backyard Worlds: Planet 9 extended science team
- Gemini Planet Imager Collaboration
- ERS Direct Imaging Science Team

## Teaching Experience

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Courses Taught at San Francisco State since Fall 2023:

**ASTR 115-** Introduction to Astronomy, general education lecture course

**ASTR 116-** Astronomy Lab for non-majors, general education lab course

**PHYS 200-** Success In the Major, a class for physics and astronomy major first year and transfer students

Fall 2017	<b>Adjunct Lecturer</b> , Astro 102 (Laboratory Experiments in Astronomy), Hunter College Taught one section of introductory astronomy lab for non-science majors, 20 students.
Spring 2015	<b>Lecturer</b> , ASTR 116 (Astronomy Laboratory), San Francisco State University Taught one section of Introductory Astronomy Lab for non-science majors, ~30 students Prepared short lectures and activities to be done in the SFSU planetarium. Developed and graded quizzes, homework, and exams.
Spring 2015	<b>Lecturer</b> , PHYS 112 (General Physics I Laboratory), San Francisco State University Taught one section of Introductory Physics Lab for science majors, ~30 students. Developed and graded quizzes and homework.
2013–2014	<b>Leuschner Telescope Workshop Instructor</b> , San Francisco State University San Francisco, CA. Taught students how to operate the Leuschner 30-inch Telescope
Fall 2011– Fall 2014	<b>Graduate Teaching Associate</b> , ASTR 116 (Astronomy Laboratory), San Francisco State University. Taught two sections per semester of Introductory Astronomy Lab for non-science majors, ~30 students. Prepared short lectures and activities to be done in the SFSU planetarium. Developed and graded quizzes, homework, and exams. Part of group rewriting labs to be inquiry based.

## Advising/Mentoring Experience

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2025-present	Advisor of Gillis Lowry, SF State, M.S. Astronomy expected May 2027
2025-present	Advisor of Nico Gentile, SF State, M.S. Astronomy expected May 2027
2025-present	Thesis Advisor of Ember Vosmek-Park, SF State, M.S. Astronomy expected May 2027
Fall 2024	Emily Saechao, SFSU, B.S. Phys/Astro, Cal-Bridge mentee
2024-present	Thesis Advisor of Efrain Alvarado, SF State, M.S. Astronomy expected May 2026
Spring 2024	Advisor of Darren Brodowy (SF State graduate student) on a brown dwarf project
2024- present	Thesis Advisor of Hansica Ganta, SF State, M.S. Astronomy expected Fall 2025
Spring 2024	Advisor of Spencer Kirkman (SF State undergraduate) on a brown dwarf SED project
2023- present	Thesis Advisor of Gabriel Munoz Zarazua SF State, M.S. Astronomy expected Fall 2025
2023- 2025	Advisor of Anuranj Roy, SF State, B.S. Astronomy, May 2025
2023	Mentored Kiresten Boley (OSU grad student, now Hubble Fellow) and Quang Tran (UT Austin grad student, now 51 Pegasi b Fellow) on Postdoctoral Fellowship applications
2021- present	Mentor to Caprice Phillips (OSU grad student, now Hubble Fellow ) on Atmospheric Retrievals projects
2021–2022	Research Advisor of Celia Toral (Cornell Undergraduate, now Vanderbilt Grad Student)
2021–2022	Cornell Astronomy REU Co-Advisor for Jasmine Ramirez (UConn undergrad, now CUNY GC PhD student)
2020-2021	Mentor to a small cohort of students in Cornell Multicultural Academic Council (MAC) Mentoring Program
2019–2022	Mentored Emily Calimari (CUNY GC graduate student, now NSF Fellow) on atmospheric retrievals of brown dwarfs

2018–2019	Co-Advisor of AMNH Helen Fellow (postbac) Colleen Cleary on subdwarf retrievals
2018–2019	Advisor of Makenzi Fischbach (HS Senior), Science Mentoring Research Program
2018–2019	Advisor of Dillion Murugesan (HS Junior), Science Mentoring Research Program
2018–2019	Advisor of Summer Williams (HS Junior), Science Mentoring Research Program
2017–2018	Advisor of Tony Zhu (HS Senior), Science Mentoring Research Program
2017–2018	Advisor of Nina Christenson (HS Junior), Science Mentoring Research Program
2017–2018	Advisor of Zephan D’Cruz (HS Junior), Science Mentoring Research Program
2017	Mentored Danya AbdelHameid (undergraduate), GradSpark Accelerator Program

### **Masters Degree Committee Membership**

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2025	<b>Shvetha Chynoweth</b> , <i>Automation for Radial Velocity Based Exoplanet Candidate Selection</i>
2025	<b>Gabriel Munoz Zarazua (chair)</b> , <i>Decoding Brown Dwarfs: A Brewster Exploration of Ross 458c’s Atmosphere</i>
2025	<b>Hansica Ganta (chair)</b> , <i>Unveiling the atmosphere of Ross 458C: A brown Dwarf in Virgo</i>
2025	<b>Claire Komori</b> , <i>The Effects of Sunspots on Spectral Line Shapes in the Visible</i>
2024	<b>Kameron Gausling</b> , <i>A Calibrated Macroturbulence Relationship for Precise Stellar Properties</i>

### **K-12 Teaching and Mentoring Experience**

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2017–2019	<b>Research Mentor</b> , Science Research Mentoring Program, American Museum of Natural History New York, NY. Advised high school students during a year-long research project.
2018	<b>Instructor</b> , American Museum of Natural History, New York, NY. Co-taught two sessions of Wonderful Universe, an after school introductory astronomy class for sophomore, junior, and senior high school students.
2014–2015	<b>Lego Engineer Instructor</b> , Play-Well TEKnologies, San Francisco/ San Mateo Area, CA Taught K-5 <sup>th</sup> graders engineering through play with Legos as an after school program or birthday party. Created lesson plans to cover engineering concepts and building skills.
Summers	<b>Lead Science Instructor</b> , Camp Galileo, Woodside, CA
2012–2014	Taught 3 <sup>rd</sup> -5 <sup>th</sup> graders science projects related to weekly camp themes. Helped campers to develop inquiry based learning skills using Galileo Innovation Approach.
2010–2011	<b>Guest Experience Team Member</b> , Impression 5 Science Center Lansing, MI Taught science workshops for general public, school groups and birthday parties. Engaged with visitors on the floor by answering questions about exhibits and running small activities.
2008–2010	<b>America Reads Tutor</b> , Woodcreek Elementary, Lansing, MI Worked with Kindergarten, 1 <sup>st</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup> graders to improve their reading and math skills. Read aloud in small groups and worked on math worksheets.

### **Professional Development and Trainings**

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Summer 2025, Summer 2024	<b>LA Faculty Training Workshop</b> . Attended workshop to learn how to better utilize LAs in the classroom.
Spring 2025	<b>NCFDD Faculty Success Program</b> . Completed weekly homework assignments and attended small group mentoring circles to develop skills and habits to increase research and writing productivity and achieve a better work-life balance.
Spring 2024	<b>Faculty Career Development Workshop Series</b> . Monthly professional development workshop on time management and other skills for faculty.

AY2023-24	<b>NSF ADVANCE Hub Fellow.</b> Attended monthly Hub fellow meetings to develop professional scholarship and community, navigate career challenges, and create community to support advancement amongst new faculty at SF State
Nov. 2023	<b>AAPT Faculty Teaching Institute.</b> Attended the AAPT Faculty Teaching Institute which focused on numerous active learning techniques for teaching physics and astronomy courses, inclusive teaching, building community to improve teaching beyond the institute
Fall 2023	<b>CEETL Equity Fellow.</b> A 5 module Equity-Minded Pedagogy Professional Development course from the Center for Equity and Excellence in Teaching and Learning
AY2023-24	<b>Learning Assistant Program Learning Community.</b> A bi-weekly learning community of faculty focused on the LA program. Discussions on teaching professional development, pedagogy best practices and how to utilize LAs in the classroom.
AY2023-24	<b>CEETL New Faculty Professional Learning Community.</b> A monthly learning community of first and second-year tenure track faculty focused on discussing issues related to teaching.
Oct. 2022	<b>Combating Misinformation and Disinformation Training Series.</b> A three session series by Spitfire Strategies focusing on 1) Disinformation and the News Media, 2) Disinformation and Audience Analysis, and 3) Analyst, then Activate.
June 2022	<b>Teaching and Learning in the Diverse Classroom.</b> A four-week, online course through the Cornell Center for Teaching and Learning that explore strategies for inclusive course design, social identity and self-reflection, and pedagogical practices that effectively support student engagement and a sense of belonging across difference. Paired with optional weekly Learning Community discussion group.
Winter 2022	<b>Culturally Mindful Mentoring Workshop.</b> A three-part workshop series by Kelly Mack for 51 Pegasi b fellows on developing tools to mentor marginalized students.
July 2021	<b>Sagan Summer Workshop.</b> Focused on Circumstellar Disks and Young Planets.
Spring 2021	<b>Building Mentorship Skills for Academic Careers Training series.</b> Develop essential research mentoring skills, learn best practices for mentoring undergraduate, graduate, and postdoctoral researchers, and develop advising and communication skills needed to lead a research team.
2020-2021	<b>NextGen Professor Program.</b> 2020-2021 Cohort. Engaged in monthly meetings on topics related to professional and career development. Culminated in the Future Professors Institute.
2017-2019	<b>LSSTC Data Science Fellowship Program.</b> Two-year program of 6 week-long intensive data science workshops on topics of (1) Bayesian statistics, (2) image processing, (3) time-domain analysis and interactive visualizations, (4) machine learning and software engineering, and (5) scalable software and data storage with a focus on software engineering and databases.

## Professional Service

Ongoing	Reviewer for Nature and ApJ.
2025-present	<b>Charting Substellar Worlds' Atmospheres, Formation, &amp; Tools for Next Decade of Discovery Conference Organizer</b>
2024-present	<b>Chair of Astronomy Lab Curriculum Committee-</b> Updated ASTR 116 Curriculum to include post-knowledge checks into labs, supervising Jackson Morse and Gillis Lowry in the development of new labs during planetarium construction in Spring 2026
2023-2024	<b>Cool Stars 22 SOC member</b>
Fall 2023,	<b>SF State Physics &amp; Astronomy Department Colloquium organizer</b>

Spring 2025

- 2022–present **Advisory Board Member 2030STEM.** Provide input to drive the direction of the organizations goal to increase the representation of Black, Latino/a/x, Indigenous, and people of color in STEM. <https://2030stem.org/>
- 2020–present **Black In Physics Co-founder, Director, and Treasurer.** Lead organizer of #BlackInPhysics Week events yearly Oct. 25-31 with professional panels, social events, articles, and community engagement via Twitter [@BlackInPhysics](#) and [blackinphysics.org](http://blackinphysics.org). Head of fundraising. Helped raise \$8,000 for our 2020 events and ~\$85,000 for 2021 and 2022 events.
- 2025- present, 2020–2022 **NSBP ASTRO Committee Member,** NSBP 2020, 2021, and 2025 Conference session organization.
- 2018–2019 **Women and Gender Minorities Committee Member,** National Society of Black Physicists
- July 2019 **Executive Secretary,** NASA XRP Panel
- 2017–2019 **AMNH Astrophysics Department Seminar Committee,** New York, NY
- Jan. 2019 **Recruitment for CUNY Graduate Center Physics Program** at Undergraduate Women in Physics Conference, Amherst College, Amherst, MA.
- Nov. 2017 **Recruitment for CUNY Graduate Center Physics Program** at National Society of Black Physicists 2017 Conference, Atlanta, GA.
- Apr. 2017 **Bench Sciences Recruitment Video** (Physics), CUNY Graduate Center. New York, NY
- 2013–2015 **ASTR 116 Curriculum Revamp Committee,** San Francisco State University, San Francisco CA. Rewrote astronomy lab curriculum to have an inquiry based focus.

### Professional Service Grants and Awards

- 2025 **Heising-Simons Foundation Events and Gatherings Grant-** \$80,000 (Co-I, PI: C. Phillips) Grant to support hosting a conference entitled *Charting Substellar Worlds' Atmospheres, Formation, & Tools for Next Decade of Discovery.*
- 2022 **EXCEL-** Gold Award for Diversity & Inclusion Microsite #BlackInPhysics Week 2021 Essay Series in partnership with AIP (<https://siia.net/excel/2022-excel-winners/>)
- 2021 **Heising-Simons-** \$74,732, PI  
*#BlackInPhysicsWeek: A week dedicated to connecting, celebrating, and highlighting the work of Black Physicist,* Funding to support 2021 and 2022 #BlackInPhysicsWeek programing.

### Outreach

- Oct. 2024 Planetarium Show with Prof. Jenna Ekwealor for her Planet Ecology class BIOL 529
- June 2024 *Clouds and Chemistry of Small Nearby Worlds*, California Academy of Sciences, Benjamin Dean Astronomy Lecture, San Francisco, CA
- April & June 2023 BIP Leadership Workshop Series. Organized two leadership workshops hosted by the National Center for Faculty Development and Diversity on time management, goal setting and long term planning.
- Oct. 2022 #BlackInPhysicsWeek2022. Finance Lead for week. Provided advisement and training to other organizers.
- April–June 2022 Black In Physics Juneteenth Essay Contest. Hosted an essay contest in partnership with the American Institute of Physics and the National Girls Collaborative for middle school



	students to write about a notable Black physicist and how their contributions have shaped how they see themselves represented in STEM.
Mar. 2022	Black In Physics and Princeton University Press Book Publishing Workshop. Helped organize workshop
Jan. 2022	VanguardSTEM Guerrilla Mentoring. Mentored students on a speed rounds on mentoring.
Oct. 2021	#BlackInPhysics Week 2021. Partnerships Advisor and Lead organizer. Helped raise nearly \$85,000 for this year and the following year's events.
June 2021	APS and Black In Physics Juneteenth Freedom Day Edit-a-thon. Created Wikipedia pages to highlight Black physicists in partnership with the American Physical Society.
Feb. 2021	Black In Physics Wikithon. Created Wikipedia pages to highlight Black physicists in partnership with the American Institute of Physics.
Oct. 2020	#BlackInPhysics Week. Helped organizer professional and social events, as well as community engagement via Twitter.
Sept. 2020	Field Trip: Constellations. American Museum of Natural History's Youtube chat responder.
Aug. 2020	AAS Journal Author Series Chat on <i>Reanalysis of the Fundamental Parameters and Age of TRAPPIST-1</i> . Youtube presentation.
Aug. 2020	Morrison Planetarium "Cosmic Conversation", California Academy of Sciences. Virtual presentation on Morrison Planetarium's Facebook page.
Sept. 2019	Career Panel for Science Research Mentoring Program at the American Museum of Natural History. New York, NY
May 2019	Panel Presentation to Kingsbridge High School astronomy class. New York, NY
Jan. 2019	Astronaut Training, an adult comedy outreach game show at The Caveat. New York, NY
July 2018	Built solar powered cars with children and solar telescope observing at Bloomberg Summer Picnic. New York, NY
June 2018	Answered astronomy questions and Open Space planetarium software demonstrations at American Museum of Natural History ID Day. New York, NY
July 2017	Career Panel with American Museum of Natural History MEEP (college) and Saltz (high school) interns. New York, NY
June 2017	NRAO Facebook Live poster presentation at Women in Astronomy IV
Oct. 2014	Partial Solar Eclipse Event. Solar telescope observing and comet making with the general public. San Francisco State University, CA.
Fall 2012	Observatory Docent, San Francisco State University San Francisco, CA
Fall 2010	Volunteer, Impression 5 Science Center Lansing, MI
Fall 2009	Science Theatre Presenter, Michigan State University, East Lansing MI.

### **In the Media**

Oct. 2025	SF State: <a href="#">Gonzales, collaborators report phosphine in brown dwarf atmosphere in Science</a>
Oct. 2025	SF State: <a href="#">Gilead Innovation Initiative opens doors for SFSU student scientists</a>
Oct. 2025	New York Times: <a href="#">What a Signal in a Failed Star's Clouds Means for the Search for Life</a>
Oct. 2025	UC San Diego Today: <a href="#">Detection of Phosphine in a Brown Dwarf Atmosphere Raises More Questions</a>
June 2025	SF State: <a href="#">Gonzales, collaborators offer new insight about exoplanet atmospheres</a>

April 2024	SF State: <a href="#">Astronomer &amp; collaborators report methane emission from a brown dwarf</a>
April 2024	LSST Discovery Alliance: <a href="#">Former DSFP Graduate Student Fellows Join the Faculty Ranks</a>
Sept. 2022	Cornell: <a href="#">NASA releases first Webb Telescope image of exoplanet</a>
Jan. 2021	Nature Physics: <a href="#">Shining a Light on the Excellence and Power of the Black Physics Community</a>
Nov. 2020	Astrobites: <a href="#">#BlackInPhysics week — meet the organizers</a>
Oct. 2020	Physics Today: <a href="#">Meet the Organizers of #BlackInPhysics Week</a>
Oct. 2020	Physics World: <a href="#">#BlackInPhysics Week set to celebrate Black Physicists</a>
Oct. 2020	Symmetry Magazine: <a href="#">#BlackInPhysics week to build community, increase visibility</a>
Aug. 2020	AAS Journal Author Series Chat on <i>Reanalysis of the Fundamental Parameters and Age of TRAPPIST-1</i> . <a href="#">Youtube presentation</a> .