

Isabella Trierweiler

University of California Los Angeles
Department of Physics and Astronomy

isabella.trierweiler@astro.ucla.edu
612-963-8232

EDUCATION

University of California, Los Angeles (UCLA) Los Angeles, CA	Expected June 2024
PhD Candidate in Astronomy & Astrophysics	
M.S. Astronomy & Astrophysics, June 2020	
Yale University New Haven, CT	2018
B.S. Astrophysics	

HONORS AND AWARDS

Future Investigators in NASA Earth & Space Science & Technology (FINESST)	2023
Michael A. Jura Research Fellowship	2023
NASA ExoExplorers Cohort Member	2023
UCLA Physics & Astronomy Department Award for Outstanding Teaching	2021
UCLA Physics & Astronomy Department Award for Service in Diversity, Equity, and Inclusion	2020
Yale's George Beckwith Prize for Undergraduate Astronomy Thesis	2018
National Science Foundation Research Experience for Undergraduates at Harvard CfA	2016

RESEARCH EXPERIENCE

Graduate Student Researcher , <i>University of California, Los Angeles</i>	2018-Present
Advisor: Edward Young	
• Analyzing the geochemistry of exoplanets using polluted white dwarfs	
Advisor: Hilke Schlichting	
• Calculating atmosphere erosion caused by small projectiles	
Undergraduate Researcher , <i>Yale University</i>	2014-2018
Advisor: Gregory Laughlin	
• Exploring role of collisional cascades in planet formation using N-body simulations	
Advisor: Louise Edwards	
• Characterizing stellar populations in Brightest Cluster Galaxies and Intracluster Light	
Summer Research Intern , <i>Harvard Center for Astrophysics</i>	2016
Advisor: Yuanyuan Su	
• Testing correlation of galaxy entry profiles with cluster environments using X-ray data	
• Co-Investigator on approved <i>Chandra</i> proposal	

PUBLICATIONS

1st Author:

- Trierweiler I.L., Doyle A.E., Young E.D. (2023) A Chondritic Solar Neighborhood. *Accepted to PSJ*.
- Trierweiler I.L., Doyle A.E., Melis C., Walsh K.J. and Young E.D. (2022) Exomoons as Sources of White Dwarf Pollution. *ApJ*, 936(1). [10.3847/1538-4357/ac86d5](https://doi.org/10.3847/1538-4357/ac86d5)
- Trierweiler I.L. and Schlichting H.E. (2022) Atmosphere Loss by Aerial Bursts. *MNRAS*, 513(3), 3650-3659. [10.1093/mnras/stac1509](https://doi.org/10.1093/mnras/stac1509)

Nth Author:

- A. E. Doyle, B. L. Klein, P. Dufour, C. Melis, B. Zuckerman, S. Xu, A. J. Weinberger, I. L. Trierweiler, N. N. Monson, M. J. Jura, E. D. Young. New chondritic bodies identified in eight oxygen-bearing white dwarfs. *Accepted to ApJ*. [10.48550/arXiv.2303.00063](https://arxiv.org/abs/10.48550/arXiv.2303.00063)
- Sarkar A., Su Y., Randall S., Gastaldello F., Trierweiler I., White R., Kraft R., Miller E. (2021) Joint Suzaku and Chandra observations of the MKW4 galaxy group out to the virial radius. *MNRAS*, 501(3), 3767-3780. [10.1093/mnras/staa3858](https://doi.org/10.1093/mnras/staa3858)

- Edwards L.O.V., Salinas M., Stanley S., Holguin West O.E., Trierweiler I., Alpert H., Coelho P., Koppaka S., Tremblay G.R., Martel H., Li Y. (2021) Clocking the formation of today's largest galaxies: wide field integral spectroscopy of brightest cluster galaxies and their surroundings. *MNRAS*, 491(2), 2617-2638. [10.1093/mnras/stz2706](https://doi.org/10.1093/mnras/stz2706)
- Edwards L.O.V., Alpert H.S., Trierweiler I., Abraham T., Beizer V.G. (2016) Stellar populations of BCGs, close companions and intracluster light in Abell 85, Abell 2457 and IIZw108. *MNRAS* 461(1), 230-239. [10.1093/mnras/stw1314](https://doi.org/10.1093/mnras/stw1314)

PRESENTATIONS

Contributed Talk, <i>Aspen Winter Conference</i>	March 2023
Poster Presentation, <i>Lunar and Planetary Science Conference</i>	March 2023
Conference Presentation, <i>AAS 240</i>	June 2022
Conference Presentation, <i>AAS DPS</i>	October 2021
Public Talk, <i>Mount Diablo Astronomical Society</i>	November 2020
Poster Presentation, <i>AAS 231</i>	January 2018
Poster Presentation, <i>AAS 229</i>	January 2017

TEACHING EXPERIENCE

Teaching Assistant , UCLA	2018-Present
Stellar Evolution, Galaxies, and Cosmology	
Gravity and Black Holes	
Introductory Physics Lab	
Introductory Astronomy: Life in the Universe	
Introductory Astronomy: Nature of the Universe, Lead TA	
Lead Instructor , Yale Young Global Scholars	2019
Designed seminar series for high school students on astronomy and science communication	

OUTREACH AND COMMUNICATION

Author for Astrobites , an international grad-student run astronomy blog	2022-Present
• Summarize astronomy research for undergraduates and the public; provide press coverage at major astronomy conferences through live tweeting and blogging	
• <i>Chair of Diversity, Equity, and Inclusion Committee</i> , interview and promote work by scientists of diverse backgrounds	
Volunteer for Letters to a Pre-Scientist	2021-Present
Organizer and teacher for UCLA's Astronomy Summer Observing Workshop	2019-2022
• Design lessons in astronomy and coding for high school students and teach students to take data at Lick Observatory; mentor 12 students through introductory research projects	
Coordinator for Astronomy Live! , UCLA's astronomy outreach program	2020-2022
• Trained volunteers in presenting science demos and set up events at schools around Los Angeles; created new programming to allow for online school visits	
Organizer for Astronomy on Tap , a public science cafe	2018-2022
Co-chair for UCLA's Marginalized Identities in Physics & Astronomy group	2020-2022
• Facilitated grad/undergrad mentoring program; obtained fee waivers and conference funding for grad students of marginalized identities	
Mentor , UCLA Women in Physics/Marginalized Identities in Physics & Astronomy	2018-2022
Yale Academic Strategies Mentor	2017-2018
• Hosted workshops and provided 1-1 academic counseling to undergraduate students through the Center for Teaching and Learning	