

# Ricardo Yarza

ryarza@ucsc.edu | ryarza.github.io

## EDUCATION

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- PhD, Astronomy and Astrophysics, University of California, Santa Cruz (expected) 2025  
Advisor: Professor Enrico Ramirez-Ruiz
- BS, Engineering Physics, Tecnológico de Monterrey 2019
- Study abroad, University of Illinois at Urbana–Champaign Fall 2017–2018  
Advisor: Professor Charles Gammie

## PUBLICATIONS

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Lists: NASA ADS, Google Scholar, ORCID. Underline indicates mentored student

7. Capistrant, B. K., Soares-Furtado, M., Vanderburg, A., et al., incl. **Yarza, R.** 2024, AJ, 167, 54  
*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*
6. **Yarza, R.**, Razo-López, N. B., Murguía-Berthier, A., Everson, R. W., et al. 2023, ApJ, 954, 176  
*Hydrodynamics and Survivability during Post-main-sequence Planetary Engulfment*
5. Aleo, P. D., Malanchev, K., Sharief, S., et al., incl. **Yarza, R.** 2023, ApJS, 266, 9  
*The Young Supernova Experiment Data Release 1 (YSE DR1): Light Curves and Photometric Classification of 1975 Supernovae*
4. Liu, C., Mockler, B., Ramirez-Ruiz, E., **Yarza, R.**, et al. 2023, ApJ, 944, 184  
*Tidal Disruption Events from Eccentric Orbits and Lessons Learned from the Noteworthy ASASSN-14ko*
3. Wong, G. N., Prather, B. S., Dhruv, V., et al., incl. **Yarza, R.** 2022, ApJS, 259, 64  
*PATOKA: Simulating Electromagnetic Observables of Black Hole Accretion*
2. **Yarza, R.**, Wong, G. N., Ryan, B. R., & Gammie, C. F. 2020, ApJ, 898, 50  
*Bremsstrahlung in GRMHD Models of Accreting Black Holes*
1. Tovmassian, G., Szkody, P., **Yarza, R.**, & Kennedy, M. 2018, ApJ, 863, 47  
*K2 Study of the Magnetic Precataclysmic Variable V1082 Sagittarius*

## AWARDS

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- Future Investigators in NASA Earth and Space Science and Technology 2022–2025  
NASA
- Doctoral Fellowship 2020–2025  
University of California Institute for Mexico and the United States

Raynor L. Duncombe Student Research Prize Division on Dynamical Astronomy, American Astronomical Society	2023
Frontera Computational Science Fellowship Texas Advanced Computing Center, The University of Texas at Austin	2022–2023
Regents Fellowship UC Santa Cruz	2019

## TALKS

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<i>The hydrodynamics of post-main-sequence planetary engulfment</i> 54th meeting of the AAS Division on Dynamical Astronomy	May 2023
Exoplanet Systems and Stellar Life Cycles, Aspen Center of Physics	Mar 2023
Friday Lunch Time Astrophysics Seminar (FLASH), UC Santa Cruz	Dec 2022
Seminar in Geophysical and Astrophysical Fluid Dynamics, UC Santa Cruz	Nov 2022
Exoplanet Summer Program, Other Worlds Laboratory	July 2022
240th meeting of the American Astronomical Society	June 2022
<i>Interactions between stars and their companions using GPU hydrodynamics</i> Texas Advanced Computing Center, The University of Texas at Austin	May 2023
<i>Planetary engulfment and GPU hydrodynamics</i> Texas Advanced Computing Center, The University of Texas at Austin	July 2022

## SERVICE

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Referee for <i>Astronomy &amp; Astrophysics</i>	
Executive Secretary, NASA Astrophysics Theory Program review panel	2023
Designed and led workshops: <i>Analyzing volumetric data using the yt package</i> , Lamat program	June 2023
<i>Stellar evolution using Gaia</i> , University of Guadalajara	Mar 2022

## MENTORING

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Lamat program:	
– Brooke Kotten, physics senior at the University of Wisconsin, Madison	2023
– Richard Truong, physics junior at San Francisco State University	2023
– Valeriia Rohoza, physics junior at Northwestern	2022
– Alejandra Meza, high school senior at Pacific Collegiate School Now physics undergraduate at UC Berkeley	2022
– Alejandra Roselli-Calderon, physics MS student at Brown University Now astronomy and astrophysics PhD student at UC Santa Cruz	2021

Society of Physics Students Mentoring Program 2021  
Young Scholars Program: Derek Davis, junior at Urbana High School Summer 2018

## OUTREACH

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Volunteer, *Climate Justice Leaders: Voices from the Pajaro Valley* Oct 2023  
Panelist, Society of Physics Students undergrad-grad meet and greet Nov 2021  
Volunteer, University of Illinois Astronomical Observatory open house Fall 2017

## TEACHING

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Teaching assistant, UC Santa Cruz:  
Astronomy 118: *Physics of planetary systems* Spring 2022  
Taught one lecture; wrote and gave final exam  
Astronomy 116: *Physics of stars* Spring 2021  
Astronomy 119: *Introduction to scientific computing* Fall 2020  
Astronomy 16: *Astrobiology: life in the universe* Spring 2020  
Astronomy 6: *The space-age solar system* Winter 2020

## PRESS

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*The Juicy Secrets of Stars That Eat Their Planets* Aug 2022  
Becky Ferreira, The New York Times  
*Astronomers Reveal New Details of How Stars Devour Planets* Aug 2022  
Nola Taylor Tillman, Scientific American