

Ethan D Jahn, PhD

Computational Astrophysicist | Science Educator | DEI Advocate | HPC Facilitator
ejahn@arizona.edu | ejahn003@ucr.edu | [LinkedIn](#) | 610-945-5481

Education

- PhD** – Physics and Astronomy – University of California, Riverside 2021
- BS** – Physics – Minors: Mathematics, Computer Science –
Indiana University of Pennsylvania, *magna cum laude* 2016

Professional Experience

- Computing Sciences Researcher II** – *University of Arizona* 2023 - pres
- Research Facilitator for the High Performance Computing Center
 - Support and training for computational researchers
 - Wrote and organized documentation for the HPC system
 - Develop(ing) inter-departmental/disciplinary/institutional initiatives for education, outreach, and research
- Community College Adjunct Faculty** – [RCC](#); [MSJC](#); [MtSAC](#); [CHC](#) 2021 - 2023
- Mostly 1st – 3rd semester calculus-based physics courses with labs
 - Developed all lectures and exam materials, plus many experiments
 - Inquiry-based lecture style with discussion and active learning exercises
 - Provided informal mentorship and professional development
- Educator** – *Innovative Learning Technology Initiative – UC Riverside* 2020
- Wrote, filmed & edited educational videos on physics topics
- Graduate Student Researcher** – *UC Riverside* 2016 - 2021
- PI: Dr. Laura Sales – Computational astrophysics/cosmology
 - “*Small Scale Structure: A Local and Cosmological View of Dwarf Galaxies and Their Satellites*”
- Graduate Teaching Assistant** – *UC Riverside* 2016 - 2021
- Discussion section TA for lower through upper division physics and astronomy courses
- Science Camp Instructor** – *Great Valley Nature Center* 2016
- Ran science camps for 100+ children ages 5-12
- Undergraduate Researcher**
- UC Davis – NSF REU Award* 2015
- PI: Dr. Mani Tripathi – Large Xenon experiment for dark matter detection
- University of Chicago – NSF MRSEC REU Award* 2014
- PI: Dr. Mike Gladders – Galaxy morphology survey
- University of Delaware – Summer Scholars Award* 2013
- PI: Dr. Lars Gundlach – Ultrafast spectroscopy of nanomaterials

Service Experience

Research Bazaar Arizona – <i>University of Arizona</i> <ul style="list-style-type: none"> - Data science conference - Organizing committee; designed logos & flyers; organized topics & speakers 	2024 - pres
Deep Learning for Astrophysics Hackathon – <i>University of Arizona</i> <ul style="list-style-type: none"> - Organizing Committee, HPC consulting 	2024 - pres
RMACC DEI Committee – <i>Rocky Mountain Advanced Computing Consortium</i> <ul style="list-style-type: none"> - Discuss DEI initiatives relevant to research computing at institutions in the Rocky Mountain region 	2023 - pres
Salon – <i>Interdisciplinary Research in Science and Humanities Reading Group</i> <ul style="list-style-type: none"> - Participant – Riverside chapter - Founder, organizer & facilitator – Tucson chapter 	2022 - pres
Peer Reviewer – <i>Nature</i> <ul style="list-style-type: none"> - Provided comments and suggestions to submitted manuscript 	2022
Vice Chancellor's DEI Climate Committee – <i>UC Riverside</i> <ul style="list-style-type: none"> - Discussed & strategized to address DEI issues facing the university - Provided perspective as a graduate student to committee of mostly faculty and admin 	2020 - 2021
Inclusion, Diversity, and Equity Alliance (IDEA) – <i>American Physical Society</i> <ul style="list-style-type: none"> - Discussed DEI issues with allies at other physics departments nationwide 	2020 - 2021
Science and Society Book Club – <i>UC Riverside</i> <ul style="list-style-type: none"> - Graduate student book club aimed at understanding the role of society in science - Founder, organizer 	2020 - 2021
Community Building Equity Workshops – <i>UCR Dept. of Phys & Astro</i> <ul style="list-style-type: none"> - Workshops and town hall-style discussions to build community and investment in student well-being - Co-founder, organizer, facilitator 	2020 - 2021
Inclusivity Seminar Series – <i>UC Riverside</i> <ul style="list-style-type: none"> - Seminars from experts around campus relevant to social sciences and understanding the principles and practices of DEI work - Founder, organizer 	2019 - 2021
Making Excellence Inclusive – Certificate – <i>UC Riverside</i> <ul style="list-style-type: none"> - Graduate student certificate course covering literature from humanities and social sciences designed to emphasize commitment to diversity and inclusion 	2019
Physics Organization for Women and the Under-Represented (POWUR) – <i>UC Riverside</i> <ul style="list-style-type: none"> - Student organization advocating initiatives to increase wellbeing of under-represented groups in physics and astronomy - President, Vice President, Member 	2018 - 2021
Community Outreach Volunteer – <i>Dept. of Physics and Astronomy</i> <ul style="list-style-type: none"> - Coordinated outreach events, including lectures, demonstrations, and star parties 	2017 - 2021

Publications

Jahn, Sales, Marinacci, et al. *"Real and counterfeit cores: how feedback expands haloes and disrupts tracers of inner gravitational potential in dwarf galaxies"*, MNRAS 520, 1, 461-479, March 2023

Jahn, Sales, Wetzel, et al. *"The effects of LMC-mass environments on their dwarf satellite galaxies in the FIRE simulations"*, MNRAS 513, 2, 2673-2688, June 2022

Jahn, Sales, Wetzel, et al. *"Dark and luminous satellites of LMC-mass galaxies in the FIRE simulations"*, MNRAS 489, 4, 5348-5364, November 2019

Talks, Workshops & Presentations

Artistic Expression of Original Research – UC Riverside 2024

- *"Surrealism and Science: Exploring Digital Collage for Science-Inspired Art"*

TIMESTEP – University of Arizona - timestep.arizona.edu 2024

- *"High Performance Computing - Research, Techniques, and Innovation"*

HPC Community Workshops – University of Arizona 2023 - 2024

- *"Introduction to High Performance Computing for Scientists"*
- *"Introduction to Parallel Computing Concepts and Techniques"*

Science Nights – UCR SciCom Community Event 2022

- *"Dark Matter: A Tour of the Visible and Invisible Universe"*

Graduate Student Professional Development Course – UC Riverside 2020 - 2021

- *"Inclusive Practices Create Better Science"*

Undergraduate Professional Development Course – UC Riverside 2019 - 2021

- *"Diversity in Physics Education"*

Inclusivity Seminar – UC Riverside 2020

- *"How Insight from Social Sciences Help Us Build Better Education"*

Community College Workshop – UC Riverside 2019

- *"Paths to Becoming a Scientist"*
- Seminar & Q+A on careers pathways in science

Graduate Student "Mini" Talks – UC Riverside 2019

- *"Symmetries in Music Theory and Mathematics"*

Making Excellence Inclusive - UC Riverside 2019

- *"The Leaky Pipeline: Deconstructing Barriers to Success in STEM"*

Graduate Student Workshop – UC Riverside 2019 - 2021

- *"Computational Techniques for Astrophysics Research"*

First Light: Advanced School on Stars, Galaxies, and Black Holes in the Epoch of Reionization	2019
- Instituto de Astronomia, Geofísica e Ciências Atmosféricas, USP, Brazil	
- <i>"Dark and Luminous Satellites of LMC-mass galaxies" (poster)</i>	
A synoptic view of the Magellanic Clouds: VMC, Gaia and beyond	2019
- European Southern Observatories, Garching, Germany	
- <i>"Dark and Luminous Satellites of LMC-mass galaxies"</i>	
Science In Our Own Backyard: Exploring the Galaxy with WFIRST – CalTech	2019
- <i>"Dark and Luminous Satellites of LMC-mass galaxies"</i>	
Galaxy Formation and Evolution in Southern CA (GalFRESKA) – CalTech	2019
- <i>"Dark and Luminous Satellites of LMC-mass galaxies"</i>	

Other Conferences Attended

Supercomputing – Denver CO	2023
California Water Data Challenge & Symposium – Online	2022
Galaxy Formation and Evolution in Southern CA (GalFRESKA) – CalTech	2017, 18

Awards

NSF Access-CI CCEP Training Award	2024
Innovative Learning and Technology Initiative , UC Riverside	2020
Graduate Research Mentorship Program , Honorable Mention, UC Riverside	2018, 19
Chancellor's Distinguished Fellowship , UC Riverside	2016
Provost's Scholar , Indiana University of PA	2015
NSF REU , UC Davis	2015
Dean's List , Indiana University of PA	2013 - 2016
NSF MRSEC Award , University of Chicago	2014
Daniel G. Reiber Memorial Scholarship , Indiana University of PA	2013, 14
Summer Scholars Program , University of Delaware	2013
Honors Merit Scholarship , University of Delaware	2011, 12

Mentors/Collaborators/Supervisors

Chris Reidy – Research Computing Manager, U of Arizona

chrisreidy@arizona.edu

James Cheney – Department Chair, Riverside City College

james.cheney@rcc.edu

Dr. Laura Sales – Primary PI for PhD research

lsales@ucr.edu

Dr. Andrew Wetzel – Co-PI on FIRE papers

awetzel@ucdavis.edu

Dr. Federico Marinacci – Co-PI on cores paper

federico.marinacci2@unibo.it

Dr. Mariam Lam – Vice Chancellor for Equity and Inclusion, UCR

mariam.lam@ucr.edu

Extra-Curriculars

Hiking, biking, rock climbing, learning about my natural environment, composing ambient synthesizer music, writing punk-rock songs about aliens, learning about history and philosophy, landscape film photography, traveling, watching/reading science fiction, making digital collages that explore connections between science and human experience, & more...