

M. Katy Rodriguez Wimberly

NSF MPS ASCEND POSTDOCTORAL FELLOW · UNIVERSITY OF CALIFORNIA, RIVERSIDE

✉ mwimb002@ucr.edu | 🏠 mkrodriguezvimberly.github.io | 🐦 @astronomouse | ORCID: 0000-0003-1848-5571

Education

University of California, Irvine

Ph.D. in Physics

Irvine, California

Sep 2016 - Dec 2021

- Thesis Advisor: Prof. Michael Cooper
- Thesis: Ultra-Faint Dwarf Galaxies: Investigating the Evolution of Our Universe & Those Who Study It

University of California, Irvine

M.S. in Physics

Irvine, California

Sep 2016 - June 2019

- GPA: 3.34 out of possible 4.00

California State University, Long Beach

M.S. in Physics

Long Beach, California

Aug 2015 - May 2016

- GPA: 4.00 out of possible 4.00
- Transferred to Ph.D. Program

California State University, Long Beach

B.S. in Physics

Long Beach, California

Jan 2011 - May 2015

- Minor: Math
- Overall GPA: 3.15 out of possible 4.00
- Major GPA: 3.20 out of possible 4.00

Mount San Antonio College

A.A.

Walnut, California

Jan 2004 - June 2009

- Majors: Fine Arts, Natural Science & Math, Social & Behavioral Sciences
- Overall GPA: 3.32 out of possible 4.00

Publications

A Model of Mentorship for Students from Historically Underrepresented Groups in STEM

Understanding Interventions

Rodriguez Wimberly, M.K., et al.

2022

- Under Review
- arXiv: 2209.03395

Sizing from the Smallest Scales: The Mass of the Milky Way

MNRAS, 513, 4968

Rodriguez Wimberly, M.K., et al.

2022

Characterizing the Infall Times and Quenching Timescales of the Milky Way Satellites with *Gaia* Proper Motions

MNRAS

Fillingham, S.P. et al.

2019

- Under Review
- arXiv: 1906.04180

Suppressing Star Formation on the Smallest Scales: What Role Does Environment Play?

MNRAS, 483, 4031

Rodriguez Wimberly, M.K., et al.

2019

SETI Observations of Exoplanets with the Allen Telescope Array

AJ, 152.6 (2016b): 181

Harp, G.R. et al.

2016

Highlighted Awards

NSF MPS Ascend Postdoctoral Fellow, 2021 - Current

AAS National Osterbrock Fellow, 2020 - 2021

NSF Graduate Research Fellow, 2016 - 2021

Eugene Cota-Robles Fellow, 2016 - 2021

Teaching Experience

ASTR110L: Introduction to Astronomy Lab

Instructor on Record

CSU Long Beach

Aug 2015 - May 2016

- Duties included creating and implementing syllabi based off the department's experiment schedule, homework assignments, exams and final projects (sample syllabi can be viewed at https://mkrodriguezvimberly.github.io/outreach_service/astro100Lsyllabus.html).
- CSULB Official Instructor Evaluations were given after each term and I was guided on how to interpret the feedback and implement desired improvements by the CSULB Physics & Astronomy Department Chair.

Highlighted Mentorship

Cal-Bridge Mentorship Handbook

Revision Team Lead

June 2021

- Led team of 4 other Cal-Bridge Alumni in rewriting the program's mentorship handbook with the guidance of the program's director.
- Revisions focus on reciprocal mentor-mentee relationships (especially in that as much as students need to adapt to academia, mentors and academia need to adapt to students), highlighting hurdles specific to many underrepresented groups within STEM, and mental health
- Publicly available at <https://tinyurl.com/CBMentorshipHandbook>

Cal-Bridge Mentor Map

Author

Aug 2020

- Created a Mentor/Support Network Map designed specifically for undergraduate STEM students.
- Publicly available at <https://tinyurl.com/CBMentorshipMap>

Observing Experience

1.5 Nights **Keck Observatory**, Chemical Abundances in UFD, Willman 1

DEIMOS, Lead Co-I

15 Nights **Keck Observatory**, Extragalactic Star Formation Quenching Survey

DEIMOS, Co-I

Oct 2015 **UCO/Lick Observatory**, Robert P. Kraft Observational Astronomy Workshop

Skills

Programming

Python (Pandas, SciPy, NumPy, Scikit-learn, AstroPy), IRAF (DEIMOS Mask Design, Wavelength Calibration), MySQL, Fortran95, Mathematica, HTML, Certified LabVIEW Associate Developer

Tools

Unix, Shell (Bash/Zsh), \LaTeX (Overleaf/R Markdown), Pypelt, Aladin, DS9, Gwyddion, Git, Atomic & Magnetic Force Microscopy.

Soft Skills

Time Management, Teamwork, Problem-solving, Documentation, Engaging Presentation.

Society Memberships

Astronomical Society of the Pacific, Board of Directors Member, Diversity Committee Co-Chair

2017 - Present

American Astronomical Society, Member

2015 - Present

American Physical Society, Member

2015 - 2017

Society of Physics Students - CSULB, CSULB Chapter Secretary (2013-2015), Member

2011 - 2015

Invited Talks

Astronomy Colloquium, University of Michigan, Department of Astronomy

September 2022

Conversations in Equity & Inclusion, University of Michigan, Department of Astronomy

September 2022

Astronomy Brown Bag Lunch, MIT

May 2022

Physics & Astronomy Colloquium, Pomona College

April 2022

Cosmology & Astronomy Seminar, University of California, Davis

October 2021

Cosmology & Astronomy Seminar, University of California, Davis

October 2021

CCAPP Little Galaxies Meeting, The Ohio State University

October 2021

Lunchtime Seminar, The Carnegie Observatories

September 2021

Lunchtime Seminar, The Carnegie Observatories

February 2020

Barriers to Equity, Inclusion & Diversity in Astronomy, Plenary Speaker, Presented on Imposter Syndrome, Astronomical Society of the Pacific 130th Annual Meeting

September 2018

Recent Contributed Presentations

Keck Science Meeting , Oral Presentation	September 2022
GalFESCA Conference , Oral Presentation	September 2022
240th Meeting of the American Astronomical Society , Dissertation Contributed Oral Presentation	June 2022
Science by Diverse Scientists: A Cal-Bridge Physics & Astronomy Seminar , Oral Presentation	April 2022
Galaxy Formation & Evolution in the Era of the Roman Space Telescope , Oral Presentation	October 2020
Space Telescope Science Institute's 2020 Spring Symposium — The Local Group: Assembly & Evolution , Poster Presentation	September 2020

Highlighted Service Activities

Cal-Bridge Mentorship Committee Co-Chair Cal-Bridge Program: A bridge program assisting undergraduate STEM students into graduate programs <ul style="list-style-type: none">Led revision of program's mentorship handbookLed creation and execution of professional development workshop focused on relational mentoring using the revised mentorship handbook	2020 - Present
Astronomical Society of the Pacific Board of Directors Member Diversity Committee Co-Chair	2019 - Present
Cal-Bridge Director of Peer Mentoring Program Creator & Organizer of Peer Mentoring Program for Cal-Bridge Scholars	2019 - Present
APS-IDEA Network: UCI Team Member Network creating equitable, inclusive and diverse communities	2020-2021
UCI Physics & Astronomy Community Excellence <ul style="list-style-type: none">Co-Creator of Peer Mentoring Programs for 1st Year Physics Graduate StudentsGroup Sessions & 1-on-1 Mentoring with Trained Peer MentorsOur Website: uci-pace.github.io	2018-2021

Highlighted Media Pieces

Mercury Magazine Contributor (Research Focus) Astronomical Society of the Pacific	2018 - Present Author: Katy Rodriguez Wimberly
Road to Happiness: Featured Alumni Story California State University STEM Network	August 2022 Author: Monica Alarcon
The Reionization of Katy Rodriguez Wimberly UC Irvine School of Physical Sciences Features	September 2021 Author: Lucas Van Wyk Joel
Ultra-Faint Dwarf Galaxies: Cosmic Fossils? Astronomer YouTube SciComm Playlist	2018-2020 Creator: Katy Rodriguez Wimberly
Katy Rodriguez Wimberly: Changing My Life for Science The Story Collider: True, Personal Stories About Science	May 2017 Speaker: Katy Rodriguez Wimberly

References

Dr. Laura Sales lsales@ucr.edu - 951.827.7037	Professor - UC Riverside
Dr. Michael Cooper cooper@uci.edu - 949.824.6485	Professor - UC Irvine
Dr. Alex Ji alexji@uchicago.edu - 773.702.8203	Professor - University of Chicago
Dr. Alex Rudolph alrudolph@cpp.edu - 909.717.1851	Professor - Cal Poly Pomona