

# M. Katy Rodriguez Wimberly

NSF MPS ASCEND POSTDOCTORAL FELLOW · UNIVERSITY OF CALIFORNIA, RIVERSIDE

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## 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

CSU Long Beach

Instructor on Record

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](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),  $\text{\LaTeX}$ (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 130<sup>th</sup> Annual Meeting

September 2018

## Recent Contributed Presentations

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

## Highlighted Service Activities

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

## Highlighted Media Pieces

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

## References

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