

M. Katy Rodriguez Wimberly

NSF MPS ASCEND POSTDOCTORAL FELLOW · UNIVERSITY OF CALIFORNIA, RIVERSIDE

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Current Employment

University of California, Riverside

Riverside, California

NSF MPS Ascend Postdoctoral Research Fellow

Jan 2021 - Present

- Research Advisor: Prof. Laura Sales
- Near Field Cosmology Research and Peer Mentorship Programming for Undergraduate and Graduate Students

California State University, San Bernardino

San Bernardino, California

Assistant Professor

starting August 2023

Education

University of California, Irvine

Irvine, California

Ph.D. in Physics

Sep 2016 - Dec 2021

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

California State University, Long Beach

Long Beach, California

M.S. in Physics

Aug 2015 - May 2016

- Transferred to Ph.D. Program

California State University, Long Beach

Long Beach, California

B.S. in Physics

Jan 2011 - May 2015

- Minor: Math

Mount San Antonio College

Walnut, California

A.A.

Jan 2004 - June 2009

- Majors: Fine Arts, Natural Science & Math, Social & Behavioral Sciences

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

Teaching Experience

ASTR002: Introduction to Galaxies and Cosmology

Lecturer — Course materials can be viewed in [this Google Drive Folder](#).

Pomona College

Jan - May 2023

ASTR110L: Introduction to Astronomy Lab

Instructor on Record — Sample syllabi can be viewed [here](#).

CSU Long Beach

Aug 2015 - May 2016

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.
- 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

4 Nights **Keck Observatory**, Mass-Metallicity Relation for UFDs

LRIS, Lead Co-I

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.

Invited Talks

Lamat Institute Summer Speaker, University of California, Santa Cruz, Department of Astronomy

upcoming Aug'23

Astronomy Colloquium, University of Texas, Austin, Department of Astronomy

Apr 2023

First Friday Astronomy, Boise State University, Department of Physics

Mar 2023

241st Meeting of the American Astronomical Society, NSF AAPF Symposium Mentorship Panelist

Jan 2023

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

CCAPP Little Galaxies Meeting, The Ohio State University

October 2021

Lunchtime Seminar, The Carnegie Observatories

September 2021

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

September 2018

Highlighted Contributed Presentations

241st Meeting of the American Astronomical Society , NSF AAPF Symposium Contributed Oral Presentation and Lightening Talk	upcoming Jan'23
Astronomical Society of the Pacific 2022: A Virtual Conference , Contributed Oral Presentation	December 2022
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

2023 National Diversity in STEM SACNAS Meeting Invited Panelist: "How to Navigate the Path from Community College to an Astrophysics Ph.D."	upcoming Oct'23
Cal-Bridge Program Doctoral Summer Institute Co-I of Pedagogy Training, PI of NSF Conference Grant to include doctoral participants from outside the UC system.	upcoming Jul'23
American Astronomical Society Early Career Task Force Invited Early Career Task Force Member	2022 - Present
Cal-Bridge Mentorship Committee Chair Cal-Bridge Program: A bridge program assisting undergraduate STEM students into graduate programs • Directs Peer Mentorship Program and led revision of program's mentorship handbook	2020 - Present
Astronomical Society of the Pacific Board of Directors Member Diversity Committee Co-Chair & Jr. Board Fellow Selection Committee Co-Chair	2019 - Present
UCI Physics & Astronomy Community Excellence Co-Creator of Graduate Student Peer Mentoring Program; Our 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
Ultra-Faint Dwarf Galaxies: Cosmic Fossils? AstronoMouse 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