Stephanie M. Urbano Stawinski

Astrophysics Ph.D. Candidate · University of California, Irvine

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Research Interests

Galaxy Evolution · Emission- & Absorption-line Spectroscopy · Chemical Evolution

Education

University of California, Irvine *2019 – 2025 (expected)*
PH.D. IN PHYSICS
Advisor: Dr. Michael Cooper
Dissertation: *From Cosmic Noon to the Edge of Reionization: Studying Galaxy Formation with Deep Spectroscopy*

San Diego State University *2017 – 2019*
M.S. IN ASTRONOMY
Advisor: Dr. Kate Rubin
Thesis: *Probing the Circumgalactic Medium at $z \sim 2$ using Close Quasar Pairs*

Arizona State University *2013 – 2017*
B.S. IN ASTROPHYSICS, B.S. IN PHYSICS
Minor: Spanish
Advisors: Dr. Sangeeta Malholtra, Dr. Evan Scannapieco, Dr. Rogier Windhorst
Major Thesis: *Measuring the Ratio of Dust to Metals in Damped Lyman-α Systems*
Honors College Thesis: *Investigating Spectral Indices of Radio Galaxies at 140 MHz with LOFAR*

Professional Positions

Graduate Student Researcher: University of California, Irvine *2019-Present*
Diversity, Equity, and Inclusion Fellow: University of California, Irvine *2021-2022*
Graduate Student Researcher: San Diego State University *2018*
NASA Space Grant Intern: Arizona State University *2016-2017*

Awards, Fellowships, and Honors

AAS National Osterbrock Leadership Fellow *Aug 2021-Present*
UCI Physics Diversity, Equity, and Inclusion Fellow *2021-2022*
Ruth and Clifford Smith Astronomy Fellowship *Aug 2018-May 2019*
Reginald F. Buller Endowment Scholarship *Aug 2018-May 2019*
William F. Lucas San Diego Astronomy Association Memorial Scholarship *Aug 2018-May 2019*
Barrett, the Honors College Graduate *May 2017*
College of Liberal Arts and Sciences Student Leader *Oct 2016*

Collaborations

WERLS: The Webb Epoch of Reionization Lyman-alpha Team *2021-Present*
MAGAZ3NE: The Massive Ancient Galaxies at $z > 3$ NEar-infrared Team *2021-Present*

Scientific Talks and Presentations

galFRESCA at Carnegie, Contributed Talk *Sept 2024*
Spectroscopic Survey of Ultra-Massive Galaxies at z>4

Keck Science Meeting at Caltech, Contributed Talk *Sept 2024*
MAKING A MONSTER: Spectroscopic Confirmation of an Ultra-Massive Galaxy at z ∼ 4.9 using Keck/DEIMOS

243th Meeting of the American Astronomical Society, Contributed Poster *Jan 2024*
Making Monsters: Spectroscopic Confirmation of an Ultra-Massive Galaxy in a z ∼ 4.9 Protocluster

galFRESCA at UCR, Contributed Talk *Sept 2023*
MAKING MONSTERS: Spectroscopic Confirmation of an Ultra-Massive Galaxy in a z ∼ 4.9 Protocluster

COSMOS 2022 Meeting (Invited), Research Talk *July 2022*
Making Monsters: Unraveling the Formation of Ultra-Massive Galaxies at z > 4

240th Meeting of the American Astronomical Society, Contributed Talk *July 2022*
Spectroscopic Survey of Rare Ultra-Massive Galaxies at z > 4

The Local Group Astronomy Club Meeting (Invited), Virtual Science Talk *Aug 2020*
The Dark Space Between Galaxies

SDSU Astronomy Department Colloquium *April 2018*
Probing the Circumgalactic Medium at z∼2 using Close Quasar Pairs

SDSU Student Research Symposium, Contributed Poster *March 2018*
Probing the Circumgalactic Medium at z∼2 using Close Quasar Pairs

2017 NASA Space Grant Symposium, Research Talk *April 2017*
Studying the Spectral Index of Radio Galaxies

ASU NSF Research Symposium, Research Talk *April 2017*
Cleaning and Imaging a Field Using LOFAR

Barrett, the Honors College Thesis Symposium, Research Poster *April 2017*
Studying the Spectral Index of Radio Galaxies

NASA Undergraduate Research Symposium, Research Poster *Feb 2017*
Studying Galaxy Magnetism with the LOFAR Telescope

229th Meeting of the American Astronomical Society, Contributed Poster *Jan 2017*
Dust to Metal Ratios in Quasar Absorption Line Systems from 1.9 < z < 3.3

Contributed AAS Splinter Sessions

Reimagining the PhD Program in Astronomy, 243th AAS *Jan 2024*

National Osterbrock Leadership Program: Cultivating the Next Generation of Leaders, 240th AAS *July 2022*

Observing Experience

Keck Observatory/LRIS	*13 nights*	WERLS Survey	*Lead*
Keck Observatory/LRIS	*7 nights*	UMGs at $z > 4$	*Lead*
Keck Observatory/MOSFIRE	*2 nights*	WERLS Survey	*Co-I*
Keck Observatory/MOSFIRE	*9 nights*	UMGs at $z > 3$	*Co-I*
Keck Observatory/DEIMOS	*8 nights*	LAEs in the EGS	*Lead*
Keck Observatory/KCWI	*2 nights*	Gas around Galaxies	*Co-I*
Mount Laguna Observatory/40 inch	*12 nights*	Novae/Supernovae	*Lead*
Mt Wilson Observatory/CHARA	*1 night*	Binary system	*Co-I*
Kitt Peak Observatory/Mayall	*2 nights*	High- LAEs	*Co-I*

Mentor & Leadership Experience

UCI Physics & Astronomy Community Excellence (PACE) *Sept 2020-Present*
Program Leadership Chair

- Trained over 120 mentors for graduate mentees and 5 leadership team members

UCI Physics & Astronomy Physics Graduate Caucus (PGC) *Sept 2021-Present*
PACE/Blog Representative

- Leads collaboration between the department and graduate students

UCI Astronomy Journal Club *Sept 2022-May 2023*
Co-lead Facilitator

- Organized and ran weekly journal club meetings

SDSU Astronomy Lead Teaching Associate *Sept 2018-May 2019*
Leader of 6 Graduate Teaching Associates

- Oversaw and trained 6 teaching associates

ASU SESE Undergraduate Peer Mentorship *Aug 2014-May 2017*
Volunteered as peer mentor for incoming undergraduate class

- Advised incoming students in the department about research and coursework

Teaching Experience

University of California, Irvine Sept 2019-Present
P20E Life in the Universe (TA)
P20A Introduction to Astronomy (TA)
P61C Introduction to Astrophysics (TA)
P20B Cosmology (TA)
P3LC Basic Physics Laboratory - Optics (TA)
P3A Basic Physics I (TA)

San Diego State University Aug 2017-May 2019
ASTR 109 Astronomy Lab (Course Instructor)
ASTR 101 Introduction to Astronomy (Guest Lecturer)

Arizona State University Jan 2016-May 2017
AST 113/114 Astronomy Lab (Course Instructor)

Outreach and Science Communication

UCI Physics and Astronomy Blog team member *Fall 2019-Present*
University of California, Irvine, California

- In charge of graduate student spotlight articles
- Write other science articles for undergraduate+
- Works on educational astronomy videos (elementary+)

Community Astronomy Lecturer *2017-2020*
Lancaster Woodland Preserve, California

- Created interactive presentations about astronomy for children of all ages
- Conducted night sky tours for families

Planetarium Show Presenter (10+ shows) *2018-2019*
San Diego State University, California

- Created and performed planetarium shows for the community
- Trained others to run planetarium shows

Astronomy Night at Clay Elementary School Presenter *Nov 2018*
San Diego, California

- Gave presentation about meteorites to elementary school students

Mount Laguna Observatory Summer Visitors Program (+10 nights) *July 2018/2019*
Mount Laguna Observatory, California

- Operated telescopes (21 inch Buller Telescope), performed a night sky tour, and gave lecture to the public

High School Camping Trip Sky Tour Presenter *April 2018*
Mt Palomar, California

- Conducted a night sky tour/telescope viewing for high school students in San Diego

SDSU Telescope Nights Volunteer Presenter (+5 nights) *April 2018*
San Diego State University, California

- Setup and ran telescopes and answered questions about the night sky for college students

Earth and Space Exploration Day *Fall 2015, 2016*
Arizona State University, Arizona

- Set up event, hosted tables with information about rockets and spectroscopy for the public

SESE/ASU Open House Telescope Operator (+10 nights) *Nov 2014, 2015, 2016*
Arizona State University, Arizona

- Set up and operated telescopes (8 inch Meades) for public outreach nights

Skills

Programming Languages	Python, Linux/Unix, HTML, SQL, Fortran, C
Tools	`PypeIt`, `BAGPIPES`, `EAZYpy`, `FAST++`, `astropy`, `Ds9`, Git, `Linetools`, `Pyigm`, `Specdb`, LaTeX, Excel, TOPCAT
Soft Skills	Mentorship, Project Management/Leadership, Teaching at various levels/backgrounds

Workshops

`PypeIt` Data Reduction Workshop *August 2020, February 2022*

JWST Proposal Training Workshop at UCI *February 2020*

Farmer-Trimble Observational Astronomy Workshop at UCO/Lick *October 2019*

References

Dr. Michael C. Cooper
Professor at University of California, Irvine
cooper [at] uci.edu | 1-949-824-6485

Dr. Kate H. R. Rubin
Professor at San Diego State University
krubin [at] sdsu.edu | 1-619-594-2623

Dr. Caitlin M. Casey
Professor at University of Texas, Austin
cmcasey [at] utexas.edu | 1-512-471-6449

Publications

Total 13 publications with +225 citations. H-index of 6
Number of refereed 1st author papers: 3
Number of refereed co-author papers: 8

1st-author

1. **Stephanie M. Urbano Stawinski**, et al., *Spectroscopic Confirmation of an Ultra-Massive Galaxy in a Protocluster at $z \sim 4.9$*, 2024, OJA, 7, 46
2. **Stephanie M. Urbano Stawinski**, et al., *Deeper than DEEP: A Spectroscopic Survey of $z>$ 3 Lyα Emitters in the Extended Groth Strip*, 2024, MNRAS, 528, 4
3. **Stephanie M. Urbano Stawinski**, et al., *On the Metallicities and Kinematics of the Circumgalactic Media of Damped Lyα Systems at $z \sim$2*, 2023, ApJ, 951, 135

Nth-author

1. Ian McConachie, et al. including **Stephanie M. Urbano Stawinski**, *MAGAZ3NE: Evidence for Galactic Conformity in $z > 3$ Protoclusters*, Accepted to ApJ
2. Ben Forrest, et al. including **Stephanie M. Urbano Stawinski**, *Environmental Effects on the Stellar Mass Function in a $z \sim 3.3$ Overdensity of Galaxies in the COSMOS Field*, 2024, ApJ, 971, 169
3. Olivia R. Cooper, et al. including **Stephanie M. Urbano Stawinski**, *The Web Epoch of Reionization Lyα Survey (WERLS). I. MOSFIRE Spectroscopy of $z \sim$ 7–8 Lyα Emitters*, 2024, ApJ, 970, 50
4. Ben Forrest, et al. including **Stephanie M. Urbano Stawinski**, *MAGAZ3NE: Massive, Extremely Dusty Galaxies at $z \sim$2 Lead to Photometric Overestimation of Number Densities of the Most Massive Galaxies at $3 < z < 4$*, 2024, Accepted to ApJ
5. Ben Forrest, et al. including **Stephanie M. Urbano Stawinski**, *Elentári: a massive proto-supercluster at $z \sim 3.3$ in the COSMOS field*, 2023, MNRAS, 526, 56
6. Casey Papovich, et al. including **Stephanie M. Urbano Stawinski**, *CEERS Key Paper IV: Galaxies at $4 < z < 9$ are Bluer than They Appear – Characterizing Galaxy Stellar Populations from Rest-Frame $\sim$1 micron Imaging*, 2023, ApJ, 949, 18
7. Ben Forrest, et al. including **Stephanie M. Urbano Stawinski**, *MAGAZ3NE: High Stellar Velocity Dispersions for Ultra-Massive Quiescent Galaxies at $z \gtrsim 3$*, 2022, ApJ, 938, 109
8. Karen Olsen, et al. including **Stephanie M. Urbano Stawinski**, *SÍGAME Simulations of the [CII], [OI], and [OIII] Line Emission from Star-forming Galaxies at $z \simeq 6$*,

2017, ApJ, 846, 105

Non-referred Publications

1. Jake Magee, et al. including **Stephanie M. Urbano Stawinski**, *Rotation Curve Measurement of Dark Matter Content of a $z \sim 0.5$ Galaxy*, 2023, RNAAS, 7, 5
2. P. A. Wysocki, Q. Socia, M. A. Engesser, M. Yenawine, **S. M. Stawinski**, and A. W. Shafter, *Additional Multicolor Photometric Observations of the Latest Eruption of the Recurrent Nova M31N 2008-12a*, 2018, ATel, 12190, 1