

Arianna S. Long

University of Texas at Austin - Department of Astronomy

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RESEARCH INTERESTS	Charting massive galaxy growth and evolution in the first two billion years of cosmic time. Combining multiwavelength observations to probe the stellar, gas, and dust content of large samples of high-redshift galaxies. Connecting baryonic properties to dark matter halos to understand galaxy growth, structure, and quenching. Building inclusive STEM spaces and mentorship frameworks.
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POSITIONS HELD	Assistant Professor at The University of Washington NASA Hubble Fellow at The University of Texas at Austin	Starting Fall 2024 2022-present
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EDUCATION	University of California – Irvine, CA PhD Physics Advisor: Asantha Cooray	May 2022
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	California State University – Los Angeles, CA M.S. Physics Advisors: Susan Terebey & Asantha Cooray	May 2017
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	Towson University, MD B.S. Applied Mathematics	May 2014
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AWARDS, GRANTS & FELLOWSHIPS	ALMA Ambassador, \$10k	2023
	National Academies of Science: Excellence in Science Communication	2022
	NASA Hubble Postdoctoral Fellowship: Hubble Fellow	2022-2025
	NSF Astronomy & Astrophysics Postdoctoral Fellowship (declined)	2022
	Ford Foundation Dissertation Fellowship, \$28k	2021-2022
	AAS National Osterbrock Leadership Program Grant, \$100k	2020
	UCI School of Physical Sciences: Women in Natural Sciences Award	2020
	UCI Physics & Astronomy: Outstanding Contributions to the Dept.	2019
	UCI Tom Angell Fellowship for Excellence in Mentorship	2019
	Honorable Mention: Ford Foundation Predoctoral Fellowship	2019
	UCI Eugene Cota-Robles Graduate Fellowship	2017-2022
	UCI-NSF Machine Learning & Physical Sciences Program	2017-2019
	UCI Doctoral Diversity Fellowship	2017
	Travel Grant: Women in Astronomy IV	June 2017
	Cal State L.A. Emeriti Association Fellowship	2016-2017
	NASA DIRECT-STEM Scholarship Program & Research Internship	2015-2017

OBSERVING EXPERIENCE	ALMA Observatory: 29h, Cycle 10 2023.1.00885.S (PI)	2023
	ALMA Observatory: 8h, Cycle 10 2023.A.00003.S (Co-I)	2023
	ALMA Observatory: 25h, Cycle 10 2023.1.01571.S (Co-I)	2023
	ALMA Observatory: 14h, Cycle 10 2023.1.00430.S (Co-I)	2023
	W.M. Keck Observatory: MOSFIRE, 5 nights	2022A
	W.M. Keck Observatory: LRIS, 5 nights	2022A, 2022B
	ALMA Observatory: 36h, Cycle 9 2021.1.00225.S (Co-I)	2021
	JWST: COSMOS-Web, 200h, Cycle 1 ID 1727 (Co-I)	2021
	ALMA Observatory: 25h, Cycle 7 2019.1.01257.S (Co-I)	2019

W.M. Keck Observatory: NIRC2 LGS/AO, 2 nights	2019B
<i>Hubble Space Telescope: 8 orbits, Cycle 25 GO-15464, \$64.3k (PI)</i>	2018
W.M. Keck Observatory: NIRC2 LGS/AO, 1 night	2017A

PROFESSIONAL TALKS	* = invited, all are talks unless otherwise noted	
	* ALMA as a High-z Powerhouse: the Impact of the WSU - AAS 243	Jan 2024
	Resolving the Exgal Universe with ALMA & JWST, Waseda U, JP	Nov 2023
	* Bash Symposium on New Horizons in Astronomy at UT Austin	Oct 2023
	Participant: Aspen Summer Workshop on Early Galaxies with JWST	Aug 2023
	COSMOS Collaboration Conference - RIT	May 2023
	CEERS Collaboration Conference - UT	May 2023
	Early Results from JWST at Kavli Institute, Cambridge, UK	Mar 2023
	*University of Virginia Astronomy Colloquium	Mar 2023
	*IAU Symposium 377: Early Disk Galaxy Formation	Feb 2023
	*Lancaster University Astrophysics Seminar	Dec 2022
	*Cal State Los Angeles Physics Colloquium	Nov 2022
	*Exploring the Universe with NASA at the SACNAS Conference	Oct 2022
	Tuesday UVA / NRAO Astronomy (TUNA) Seminar	Sep 2022
	Lorentz Center Workshop: Mapping the Invisible Universe	Aug 2022
	COSMOS Collaboration Conference - Institut d'Astrophysique de Paris	Jul 2022
	*University of Kansas Astronomy & Space Physics Seminar	Apr 2022
	*Kavli Institute for Cosmological Physics at U. Chicago Seminar	Oct 2021
	*Cosmic Dawn Center (DAWN), Copenhagen	Sep 2021
	*JHU & Space Telescope Galaxies and AGN Seminar	Sep 2021
	*UW Madison Astronomy Seminar	May 2021
	*UC Davis Astronomy Seminar	May 2021
	*Harvard CfA Galaxy Cluster Seminar	Apr 2021
	National Society of Black Physicists	Nov 2020
	*UC Berkeley Astronomy Lunch Seminar	Oct 2020
	*Protoclusters: Galaxies in Confinement Workshop	Sep 2020
	NOAO Dusting the Universe Conference (poster)	Mar 2019
	UCI Reines Lecturer Student Seminar	Mar 2019
	*UCI-NSF Machine Learning and Physical Sciences Conference	June 2018
	NASA DIRECT-STEM Annual Conference	May 2018
	UCI Summer Research Symposium (talk)	Aug 2017
	*MIRO Principal Investigator Meeting	May 2017
	CSU Statewide Student Research Competition	Apr 2017
	CSULA Annual Student Research Symposium (1st place)	Feb 2017
	Satellites & Education Conference XXIX	Aug 2016
	CSU Statewide Student Research Competition	Apr 2016
	CSULA Annual Student Research Symposium (1st place)	Feb 2016

ADVISING, LEADERSHIP, & DEI	Advising:	
	Rachel Nere - TAURUS Summer Scholar	2022
	Amy Ralston - UCI grad	2020-2021
	LeAnn Liu - UCI undergrad	2020-2021
	Alyssa Chan - UCI undergrad, now grad student at USC	2020-2021
	Hunter Connors - UCI undergrad	2019-2020

Program Development & Leadership:

Chief Programming Officer - VanguardSTEM	Jan 2022-current
Manage programming, incl. development, funding, & impact analysis.	
Guerilla Mentoring Director - VanguardSTEM	2021
An online mentoring program for women of color in STEM.	
Program Coordinator - League of Underrepresented Minorities	2021
An online peer mentoring and professional development program for women of color academics in astronomy. Website: sites.bu.edu/luma/	
Co-Founder - UCI Physics & Astronomy Community Excellence	2018-∞
A multifaceted peer mentoring program for undergrads, grads, and postdocs. <i>We're funded now!</i> Website: uci-pace.github.io	

Diversity, Equity, & Inclusion Workshops & Seminars: * = invited

* Panelist: AAS CSMA: Astronomy's Poverty Problem - AAS 243	Jan 2024
Workshop - SACNAS NDiSTEM	Oct 2022, 2023
Workshop Title: <i>Decolonize Your Mentoring Relationships</i>	
Workshop - U Texas Career Engagement Center	Mar 2023
Workshop Title: <i>Black in STEM: Building Mentor Support Networks</i>	
* Panelist - Exploring the Universe with NASA - SACNAS 2022	Oct 2022
Workshop - TAURUS at UT Austin	June 2022
Workshop Title: <i>Building a Mentor Network for Intersectional Identities</i>	
Workshop - TAURUS at UT Austin	July 2021
Workshop Title: <i>Building a Mentor Network for Intersectional Identities</i>	
*Speaker - AGEPS-Graduate Research Supplement Conference	Aug 2021
*Speaker - KU Multicultural Scholars Program	Apr 2021
*Workshop - APS National Mentoring Community Conference	Feb 2021
Workshop Title: <i>Building a Mentor Network for Intersectional Identities</i>	
*Writer - #VanguardSTEM National Mentoring Month	Jan 2021
*Workshop - UCI LEADS Undergraduate Program	Oct 2020
Workshop Title: <i>Methods for Mitigating Imposter Syndrome</i>	
*Workshop - UCI Competitive Edge Graduate Student Program	Aug 2020
Workshop Title: <i>Building A Mentor Network</i>	
UCI Inclusive Excellence Inaugural Cohort Certificate Program	Aug 2020
*Workshop - APS National Mentoring Community Conference	Feb 2020
Workshop Title: <i>Departmental Inclusivity Resources</i>	
Lead & Panelist - APS Conference for Undergrad. Women in Physics	2020
Poster Presentation - Inclusive Astronomy 2 Conference	Oct 2019
Grad. Student Rep - UCI P&A Inclusive Excellence Committee	2018-2020
Grad. Student Rep - UCI P&A Graduate Admissions Task Force	2018-2020

MEDIA COVERAGE

The 2022 Best American Science and Nature Writing Book	2022
Starts With A Bang Podcast: The Cosmos, James Webb, and Beyond	Apr 2022
Scientific American - Featured Article authored by Arianna Long	Jan 2021
Title: Ancient Galaxy Clusters Offer Clues about the Early Universe	
Parsing Science Podcast: Early Galaxies' Formation - Arianna Long	Nov 2020
Astrobites: The starry, dusty origin of a galaxy cluster at $z = 4$!	Aug 2020

TEACHING & OUTREACH

Guest Lecturer - AST 358 Galaxies and the Universe at UT Austin	May 2022
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University of Kansas: Intro to Astronomy - Guest Speaker	Nov 2020
UCI Physics 7LD / Electricity & Magnetism Teaching Assistant	Summer 2020
ISEE PDP Pedagogy Program (*canceled due to COVID-19)	2020
Contributing Writer - <i>MERCURY</i> by the Astronomical Society of the Pacific	2019
Invited Judge & Speaker - CSULA Student Research Symposium	Feb 2018
Graduate Panelist - CalBRIDGE Workshop	Feb 2018
Co-Organizer & Co-Host - UCI Eclipse Party	Aug 2017
Invited Keynote - Satellites & Education Conference XXX	July 2017
Virtual Speaker - DreamWakers	2017-2022
Physics II Curriculum Developer - Journal of Visualized Experiments	2016-2017
Volunteer & Technical Instructor - Black Girls Code, Los Angeles	2016-2018

PROFESSIONAL SERVICE	NASA ADAP Proposal Reviewer	Aug 2023
	ALMA SOS Proposal Review Panel	June 2023
	NASA New Great Observatories SAG Member	Apr 2023 - current
	ALMA Proposal Preparation Workshop Lead at UT	Apr 2023
	Session Chair - Hubble Symposium	Sep 2022
	Session Chair - Lorentz Center MIU Workshop	Aug 2022
	Member - CEERS Collaboration	June 2022 - current
	Spectroscopy Group Lead - COSMOS-Web Collaboration	June 2022 - current
	LOC Member - APS Conference for Undergraduate Women in Physics	Jan 2020
	Grad. Student Representative - UCI Inclusive Excellence Committee	2017-2020
	Professional Development Chair - UCI Physics Grad Caucus	2017-2019
Co-I & Discussion Lead - UCSC Osterbrock Sierra Conference	2017-2018	

PUBLICATIONS Cooper, O. R., et al. incl. **Long, Arianna S.**, (2023). *The Web Epoch of Reionization Lyman- α Survey (WERLS) I. MOSFIRE Spectroscopy of $z \sim 7 - 8$ Lyman- α Emitters.* [ArXiv e-print 2309.06656](#)

Chworowsky, K., et al. incl. **Long, Arianna S.**, (2023). *Evidence for a Shallow Evolution in the Volume Densities of Massive Galaxies at $z = 4$ to 8 from CEERS.* [ArXiv e-print 2311.14804](#)

McKinney, J., et al. incl. **Long, Arianna S.**, (2023). *A Near-infrared-faint, Far-infrared-luminous Dusty Galaxy at $z \sim 5$ in COSMOS-Web.* [ApJ, 956, 72](#)

Akins, H. B., et al. incl. **Long, Arianna S.**, (2023). *Two Massive, Compact, and Dust-obscured Candidate $z \sim 8$ Galaxies Discovered by JWST.* [ApJ, 956, 61](#)

Fujimoto, S., et al. incl. **Long, Arianna S.**, (2023). *ALMA FIR View of Ultra-high-redshift Galaxy Candidates at z 11-17 : Blue Monsters or Low- z Red Interlopers ?.* [ApJ, 955, 130](#)

Casey, C. M., et al. incl. **Long, Arianna S.**, (2023). *COSMOS-Web : An Overview of the JWST Cosmic Origins Survey.* [ApJ, 954, 31](#)

Weaver, J. R., et al. incl. **Long, Arianna S.**, (2023). *COSMOS2020 : The galaxy stellar mass function. The assembly and star formation cessation of galaxies at $0.2 < z \leq 7.5$.* [A&A, 677, 39](#)

Gómez-Guijarro, C., et al. incl. **Long, Arianna S.**, (2023). *JWST CEERS probes the role of stellar mass and morphology in obscuring galaxies*. [A&A, 677, 34](#)

Lambrides, E., Chiaberge, M., **Long, Arianna S.**, et al. (2023). *Uncovering a Massive $z \sim 7.7$ Galaxy Hosting a Heavily Obscured Radio-Loud QSO Candidate in COSMOS-Web*. [ArXiv e-print 2308.12823](#)

Casey, C. M., et al. incl. **Long, Arianna S.**, (2023). *COSMOS-Web : Intrinsically Luminous z_{10} Galaxy Candidates Test Early Stellar Mass Assembly*. [ArXiv e-print 2308.10932](#)

Franco, M., et al. incl. **Long, Arianna S.**, (2023). *Unveiling the distant Universe : Characterizing $z \geq 9$ Galaxies in the first epoch of COSMOS-Web*. [ArXiv e-print 2308.00751](#)

Champagne, J. B., et al. incl. **Long, Arianna S.**, (2023). *A Mixture of LBG Overdensities in the Fields of Three $6 < z < 7$ Quasars: Implications for the Robustness of Photometric Selection*. [ApJ, 952, 99](#)

Papovich, C., et al. incl. **Long, Arianna S.**, (2023). *CEERS Key Paper. V. Galaxies at $4 < z < 9$ Are Bluer than They Appear-Characterizing Galaxy Stellar Populations from Rest-frame $1 \mu\text{m}$ Imaging*. [ApJL, 949, 18](#)

Long, Arianna S., et al. 2023. *Efficient NIRCam Selection of Quiescent Galaxies at $3 < z < 6$ in CEERS*. [Submitted, ArXiv e-print 2305.04662](#)

Long, Arianna S., et al. 2023. *Missing Giants: Predictions on Dust-Obscured Galaxy Stellar Mass Assembly Throughout Cosmic Time*. [ApJ, 953, 11](#)

McKinney, J., et al. incl. **Long, Arianna S.**, (2023). *Broad Emission Lines in Optical Spectra of Hot, Dust-obscured Galaxies Can Contribute Significantly to JWST/NIRCam Photometry*. [ApJL, 946, 39](#)

Pérez-González, P. G., et al. incl. **Long, Arianna S.**, (2023). *CEERS Key Paper. IV. A Triality in the Nature of HST-dark Galaxies*. [ApJL, 946, 16](#)

Kocevski, D. D., et al. incl. **Long, Arianna S.**, (2023). *CEERS Key Paper III: The Resolved Host Properties of AGN at $3 < z < 5$ with JWST*. [ApJL, 946, 14](#)

Finkelstein, S. L., et al. incl. **Long, Arianna S.**, (2023). *CEERS Key Paper. I. An Early Look into the First 500 Myr of Galaxy Formation with JWST*. [ApJL, 946, 13](#)

Zavala, J. A., et al. incl. **Long, Arianna S.**, (2023). *Dusty Starbursts Masquerading as Ultra-high Redshift Galaxies in JWST CEERS Observations*. [ApJL, 943, 9](#)

Cooper, O. R., et al. incl. **Long, Arianna S.**, 2022. *Searching Far and Long. I. Pilot ALMA 2 mm Follow-up of Bright Dusty Galaxies as a Redshift Filter*. [ApJ, 930, 32](#)

Casey, C. M., et al. incl. **Long, Arianna S.**, 2021. *Mapping Obscuration to Reionization with ALMA (MORA): 2 mm Efficiently Selects the Highest-Redshift Obscured*

Galaxies. [ApJ, 923, 215](#)

Lambrides, E, et al. incl. **Long, Arianna S.**, 2020. *Merger or Not: Quantifying Human Biases in Identifying Galactic Merger Signatures*. [ApJ, 919, 43](#)

Chan, A., **Long, Arianna S.**, and Cooray, A. 2021, *Characteristics of an Extreme Dusty Star-forming Galaxy at $z = 4.5$* , [RNAAS, 5, 5](#)

Champagne, J., et al. incl. **Long, Arianna S.** 2021. *Comprehensive Gas Characterization of a $z = 2.5$ Protocluster : A Cluster Core Caught in the Beginning of Virialization ?* [ApJ, 913, 110](#)

Zavala, J, et al. incl. **Long, Arianna S.** 2021, *The Evolution of the IR Luminosity Function and Dust-obscured Star Formation in the Past 13 Billion Years*. [ApJ, 909, 165](#)

Long, Arianna S., et al. 2020, *Emergence of an Ultra-Red, Ultra-Massive Galaxy Cluster Core at $z = 4$* . [ApJ, 898, 133L](#)

Ma, J., Cooray, A., Nayyeri, H., **Brown, Arianna S.**, et al. 2019, *Spitzer Catalog of Herschel-Selected Ultrared Dusty, Star-Forming Galaxies*. [ApJS, 244, 30](#)

Brown, Arianna S., et al. 2019, *Infrared Contributions of X-Ray Selected Active Galactic Nuclei in Dusty Star-Forming Galaxies*. [ApJ, 871, 87](#)

Ma, J., **Brown, Arianna S.**, et al. 2018, *SOFIA/HAWC+ Detection Of A Gravitationally Lensed Starburst Galaxy at $z = 1.03$* . [ApJ, 864, 60](#)