

Jorge A. Zavala

UNIVERSITY OF MASSACHUSETTS AMHERST - DEPARTMENT OF ASTRONOMY

710 N. Pleasant St., Amherst, MA 01003

☎ (+1) 413-315-1980 | ✉ jzavala@umass.edu | 🏠 ORCID: 0000-0002-7051-1100

Academic Positions

Assistant Professor

UNIVERSITY OF MASSACHUSETTS AMHERST

US

Jan. 2025 -

Project Assistant Professor

NATIONAL ASTRONOMICAL OBSERVATORY OF JAPAN (NAOJ)

Japan

June 2021 - Jan. 2025

Postdoctoral Fellow

THE UNIVERSITY OF TEXAS AT AUSTIN

US

Sept. 2017 - June 2021

Visiting Researcher

UNIVERSITY OF EDINBURGH, ROYAL OBSERVATORY

UK

Summer 2016

Education

Ph.D., Astrophysics

INSTITUTO NACIONAL DE ASTROFÍSICA, ÓPTICA Y ELECTRÓNICA (INAOE)

National Prize for the best PhD thesis in Astronomy and Astrophysics 2017-2018.

Mexico

Sept. 2013 - Aug. 2017

M.Sc., Astrophysics

INSTITUTO NACIONAL DE ASTROFÍSICA, ÓPTICA Y ELECTRÓNICA (INAOE)

Magna Cum Laude equivalent

Mexico

Sept. 2011 - Jul. 2013

B. Sc., Engineering Physics

INSTITUTO TECNOLÓGICO Y DE ESTUDIOS SUPERIORES DE MONTERREY (ITESM)

Mexico

Aug. 2006 - May 2011

Honors, Grants, & Awards

2023	NASA/JWST , Solicitation Observing Grant for MIRI, Cycle 2 (PI)	\$235,180
2023	JSPS , KAKENHI Grant-in-Aid for Early-Career Scientists (PI)	~¥3,700,000
2022	IAU Travel Grant , XXIX General Assembly	€1,200
2021	NASA/JWST , Solicitation Observing Grant, Cycle 1, 2021 (Co-I)	\$1,681,750
2019	National Prize for the best PhD thesis in Astronomy 2017-2018 , Mexico	-
2019	NASA/HST , Solicitation Observing Grant, Cycle 27, 2017 (Co-I)	\$126,000
2019	The 69th Lindau Nobel Laureate Meeting , selected participant & travel grant awarded	
2019	NRAO ALMA Ambassadors Program ,	\$5,000
2019	NASA/SOFIA , General Observing Grant, Cycle 7 (Co-I)	\$108,900
2018	NASA/Keck , Solicitation Observing Grant for NIRES, 2019A (PI)	\$10,625
2018	NASA/HST , Solicitation Observing Grant, Cycle 25, 2017 (Co-I)	\$155,372
2018	IAU Travel Grant , XXIX General Assembly	€500
2013	Ph.D. Grant Holder , Consejo Nacional de Ciencia y Tecnología (CONACyT)	~\$32,000
2013	MSc Academic Excellence Award , Magna Cum Laude equivalent, INAOE	-
2011	M.Sc. Grant Holder , Consejo Nacional de Ciencia y Tecnología (CONACyT)	~\$15,000

Collaborations

JWST/COSMOS-Web survey , Leading FIR/mm surveys, redshift campaigns, and key papers.	2021-
Keck/WERLS , Involved in sample selection, observations, and data analysis.	2021-

JWST/CEERS , Leading FIR/mm surveys in the field and key papers (1 first-author published).	2020-
COSMOS team , Leading FIR-to-mm surveys in the field and spectroscopic campaigns.	2018-

Professional Service and Memberships

Grant Reviewer , Webb Fellowship – Science and Technology Facilities Council (STFC, UK)	2021
Grant Reviewer , FINESST: Future Investigators in NASA Earth and Space Science and Technology	2019, 2020
Grant Reviewer , FONDECYT 2019 grants of the Chilean National Science Commission (CONICYT)	2018
IAU member , Junior member	Since 2018
Referee , Astronomy & Astrophysics (A&A), The Astrophysical Journal (ApJ), Nature Astronomy, Monthly Notices of the Royal Astronomical Society (MNRAS), and Publications of the Astronomical Society of Japan (PASJ)	Since 2017
Proposal Reviewer (TAC) , JCMT 18A and 23B; ALMA distributed review (cycles 8, 9, and 10); Subaru S23A; JWST Director's Discretionary Time (2022); JWST cycles 2 and 3 (external); JWST cycle 4 (expert reviewer); LMT 2024-S1 (external)	Since 2017

Telescope Time Awarded as PI

ALMA	2023, <i>CHAMPS: A Wide-Area Comprehensive Survey of the Dusty Universe</i> (large program; co-PI), ~140 h
ALMA	2023, <i>On the formation of cosmic DUNES: The first dusty galaxies of the universe</i> , ~35 h
JWST	2023, <i>Breaking the z=10 barrier with MIRI</i> , ~25 h
NOEMA	2023, <i>IMAGER: An Interstellar Medium Appraisal of Galaxies at the Epoch of Reionization</i> (co-PI), ~30 h
ALMA	2022, <i>A comprehensive study of the most massive proto-cluster in the COSMOS field</i> , ~20 h
ALMA	2022, <i>Revealing overdensities and early-stage mergers in the Submillimeter Galaxy population</i> , ~10 h
JCMT	2022, <i>Confirming and Characterizing Galaxy Proto-Clusters in the Early Universe</i> , ~11 h
NOEMA	2022, <i>Characterizing the Submillimeter Galaxy population: a NOEMA-JWST synergy</i> , ~15 h
NOEMA	2020, <i>Properties of Faint Submillimeter Galaxies: paving the way for JWST</i> , ~31 h
SMA	2020, <i>Revealing early-stage (pre-coalescence) mergers in the Submillimeter Galaxy population</i> , ~16 h
VLA	2019, <i>CO(2-1) observations in DSFGs at z≈6</i> , ~40 h
NOEMA	2019, <i>Properties of Faint Submillimeter Galaxies: paving the way for JWST</i> , ~30 h
ALMA	2019, <i>On the Spectral Energy Distribution of DSFGs: the nature of the dust temperature evolution</i> , ~26 h
ALMA	2019, <i>The first complete redshift distribution of 3mm-selected sources</i> , ~10 h
ALMA	2018, <i>On the nature of 3mm-selected sources: the highest redshift dusty star-forming galaxies?</i> , ~19 h
Keck	2018, <i>Taking census of the Highest-redshift Massive Galaxies I. Spitzer-IRAC/ALMA 3mm Sources</i>
SMA	2017, <i>A dusty star-forming galaxy at z=6: revealing an unreachable population of galaxies - DDT proposal</i> , ~8 h
GTC	2016, <i>Understanding the nature of faint submillimetre galaxies</i> , ~5 h
LMT	2015, <i>A search of very high-redshift submillimetre galaxies through high-redshift galaxy clusters observations</i>
	2014, <i>Formation of dust in the early Universe</i>
	2014, <i>A spectroscopic survey of SCUBA-2 lensed galaxies</i>
Co-I	Multiple accepted proposals as co-I for ALMA, APEX, GTC, HST, JCMT, JWST, LMT, NOEMA, SOFIA , and VLA .

Observational experience: Support scientist at the East Asian ALMA Regional Center (from June, 2021). Lead Scientist for the ALMA OT Software in East Asia. More than 60 nights observing at the Large Millimeter Telescope (serving as support astronomer/telescope operator). 20 nights observing at the James Clerk Maxwell Telescope (JCMT). 7 days shifts at ALMA. 1 night at Keck. And other experience with remote observations from Earth and Space.

Teaching and Mentoring

Mentoring of PhD students:	Mexico
INSTITUTO NACIONAL DE ASTROFÍSICA, ÓPTICA Y ELECTRÓNICA (INAOE)	2021-
Co-supervisor of Marianela Quirós Rojas (Main supervisor: Dr. Alfredo Montaña at INAOE)	

Mentoring of undergraduate students:

TAURUS - THE UNIVERSITY OF TEXAS AT AUSTIN

Research Supervisor to Luna Urias (Texas Tech University undergraduate) – see *Research note*, 2019
Research Supervisor to Oscar Cantua (UT San Antonio undergraduate), 2018

US

2018 - 2019

Talks, Conferences, Workshops, and Seminars

2024, XXXII General Assembly International Astronomical Union (<i>Invited talk</i>)	Cape Town, SA
2024, Extreme Galaxies and Environments at Extreme Early Epochs. (<i>Invited talk</i>)	RVK, Iceland
2024, Colloquium, Institute of Science and Technology Austria. (<i>Invited Talk</i>)	Virtual
2023, NECO summer school: Science and methods for wide-field surveys. (<i>Invited lecture</i>)	Kyoto, Japan
2023, East-Asian ALMA Science Workshop	Taipei, Taiwan
2022, Lorentz Center Workshop: Mapping the Invisible Universe. (<i>Invited talk</i>)	Virtual
2022, XXXI General Assembly International Astronomical Union	Busan, Korea
2022, COSMOS 2022 team meeting	Paris, France
2022, EA ALMA workshop	Virtual
2021, Colloquium, ALMA JAO/ESO. (<i>Invited Talk</i>)	Virtual
2021, ALMA-J seminar, NAOJ. (<i>Invited Talk</i>)	Virtual
2021, Colloquium, University of Massachusetts Amherst. (<i>Invited Talk</i>)	Virtual
2021, EURECA seminar, University of Arizona. (<i>Invited Talk</i>)	Virtual
2021, Colloquium, Instituto de Radioastronomía y Astrofísica, UNAM. (<i>Invited Talk</i>)	Virtual
2020, The Rise of Metals and Dust in Galaxies through Cosmic Time	Virtual
2020, Colloquium, Universidad Católica del Norte, Chile. (<i>Invited Talk</i>)	Virtual
2020, Protoclusters: Galaxies in Confinement. (<i>Invited Talk</i>)	Virtual
2020, SAZERAC: Summer All Zoom Epoch of Reionization Astronomy Conference	Virtual
2020, Harvard Galaxy Evolution Meeting. (<i>Invited Talk</i>)	Virtual
2019, ALMA2019 Science Meeting: science results and cross-facility synergies	Cagliari, Italy
2019, The 69th Lindau Nobel Laureate Meeting	Lindau, Germany
2019, Uncovering early galaxy evolution in the ALMA and JWST era	Portugal
2019, Dusting the Universe	Az, US
2018, CANDELS Meeting & TolTEC Workshop	Ma, US
2018, XXXth General Assembly of the IAU	Vienna, Austria
2018, SnowCluster 2018: The Physics of Galaxy Clusters	Utah, US
2017, Plumbing Star Formation Rates in the Age of JWST. (<i>Invited Talk</i>)	Tx, US
2017, 229th AAS Meeting, Splinter Session. (<i>Invited Talk</i>)	Tx, US
2016, UK JCMT Users meeting: Current and Future Science with the JCMT	Cardiff, UK
2016, Cosmic dawn of galaxy formation: linking observations with spectral models	Paris, France
2015, ALMA summer school	Canada
2014, XXVI Canary Islands Winter School in Astrophysics	Tenerife, Spain
2014, The formation and growth of galaxies in the young universe	Austria
2013, Massive Young Star Clusters: From the Milky Way to Re-ionization	Puebla, Mexico
2013, 7th IRAM 30m Summer School 2013	Spain

Media & Press Releases of PI projects

Nature cover , First-author paper featured on the cover of <i>Nature Astronomy</i> , Volume 9, Issue 1.	2025
e-news , First-author paper highlighted in international media: AAS NOVA, ALMA Observatory, among others.	2025
e-news , First-author paper highlighted in several international media: AAS NOVA, SPACE.com, Sky&Telescope.com, among others.	2022
SMA Newsletter , <i>On the detection of a Dusty Star-Forming Galaxy in the early Universe</i> , No. 26	2018

Nature cover, First-author paper featured on the cover of *Nature Astronomy* Volume 2 Issue 1, 2018. Also featured in NSF news, UMass news, Phys.org, Smithsonian, Science Daily, USA Today, and many other international media 2017-2018

INAOE press release, *Studying distant galaxies with the Large Millimeter Telescope* (Spanish) 2015

Publications (ADS)

Around 80 published papers (13 as first-author) in journals like A&A, ApJ, ApJL, Nature, Nature Astronomy, MNRAS, PASJ with around 4,500 citations (source: ADS - Feb 2025). See attached publication list for more details.

FIRST & SECOND-AUTHOR REFEREED PAPERS:

- 79- Zavala, J. A.**; Bakx, T.; Mitsuhashi, I. et al., “*Detection of ionized hydrogen and oxygen from a very luminous and young galaxy 13.4 billion years ago*”, 2025, *Nature Astronomy*, 9, 155.
- 78- Mitsuhashi, I.; Zavala, J. A.**; Bakx, T.; et al., “*Low dust mass and high star-formation efficiency at $z > 12$ from deep ALMA observations*”, submitted (arXiv:2501.19384).
- 77- Zavala, J. A.**; Castellano, M.; Akins, H. et al., “*ALMA Detection of [O III] 88 μ m at $z = 12.33$: Exploring the Nature and Evolution of GHZ2 as a Massive Compact Stellar System*”, 2024, *ApJL*, 977, 9.
- 76- Zavala, J. A.**; and the CEERS collaboration (120 more authors) “*Dusty starbursts masquerading as ultra-high redshift galaxies in JWST CEERS observations*”, 2023, *ApJL*, 943, L9.
- 75- Bakx, T.; Zavala, J. A.***; Mitsuhashi, I.; Treu, T.; Fontana, A.; Tadaki, K.; Casey, C.; Castellano, M.; Glazebrook, K.; Hagimoto, M.; Ikeda, R.; Jones, T.; Leethochawalit, N.; Mason, C.; Morishita, T.; Nanayakkara, T.; Pentericci, L.; Roberts-Borsani, G.; Santini, P.; Serjeant, S.; Tamura, Y.; Trenti, M.; Vanzella, E.; “*Deep ALMA redshift search of a $z \sim 12$ GLASS-JWST galaxy candidate*”, 2022, *MNRAS*, 519, 5076. ***Corresponding author.**
- 74- Zavala, J. A.**; Casey, C.; Manning, S.; Spilker, J.; Tadaki, K.; Tsujita, A.; Champagne, J.; Iono, D.; Kohno, K.; Manning, S.; Montaña, A., “*Probing Cold Gas in a Massive, Compact Star-forming Galaxy at $z = 6$* ”, 2022, *ApJ*, 933, 242.
- 73- Casey, C. M.; Zavala, J. A.**; Manning, S.; Aravena, M.; Béthermin, M.; Caputi, K.; Champagne, J.; Clements, D.; Drew, P.; Finkelstein, S.; Fujimoto, S.; Hayward, C.; Koekemoer, A.; Kokorev, V.; Lagos, C.; Long, A.; Magdis, G.; Man, A. Mitsuhashi, I.; Popping, G.; Spilker, J.; Staguhn, J.; Talia, M.; Toft, S.; Treister, E.; Weaver, J.; Yun, M.; “*Mapping Obscuration to Reionization with ALMA (MORA): 2mm Efficiently Selects the Highest-Redshift Obscured Galaxies*”, 2021, *ApJ*, accepted.
- 72- Zavala, J. A.**; Casey, C.; Manning, S.; Aravena, M.; Béthermin, M.; Caputi, K.; Clements, D.; da Cunha, E.; Drew, P.; Finkelstein, S.; Fujimoto, S.; Hayward, C.; Hodge, J.; Kartaltepe, J.; Knudsen, K.; Koekemoer, A.; Long, A.; Magdis, G.; Man, A.; Popping, G.; Sanders, D.; Scoville, N.; Sheth, K.; Staguhn, J.; Toft, S.; Treister, E.; Vieira, J.; Yun, M.; “*The Evolution of the IR Luminosity Function and Dust-obscured Star Formation in the Last 13 Billion Years*”, 2021, *ApJ*, 909, 165.
- 71- Montaña, A.; Zavala, J. A.**; Aretxaga, A.; Hughes, D.; Ivison, R.; Pope, A.; Sanchez-Arguelles, D.; Wilson, G.; Yun, M.; Cantua, O.; McCrackan, M.; Michalowski, M.; Valiante, E.; Arumugam, V.; Case, C.; Chavez, R.; Colin-Beltra, E.; Dannerbauer, H.; Dunlop, J.; Dunne, L.; Eales, S.; Ferrusca, D.; Gomez-Rivera, V.; Gomez-Ruiz, A.; de la Luz, V.; Maddox, S.; Narayanan, G.; Omont, A.; Serjeant, S.; Schloerb, P.; Ventura-Gonzales, S.; Velazquez, M.; van der Werf, P.; Zeballos, M.; “*Early Science with the Large Millimeter Telescope: A 1.1 mm AzTEC Survey of Red-Herschel dusty star-forming galaxies*”, 2021, *MNRAS*, 505, 5260.
- 70- Jimenez-Andrade, E.; Zavala, J. A.**; Magnelli, B.; Casey, C.; Liu, D.; Romano-Diaz, E.; Schinnerer, E.; Harrington, K.; Aretxaga, I.; Karim, A.; Staguhn, J.; Burnham, A. D.; Montana, A.; Smolcic, V.; Yun, M.; Bertoldi, F.; Hughes, D., “*The redshift and star formation mode of AzTEC2: a pair of massive galaxies at $z = 4.63$* ”, 2019, *ApJ*, 890, 171.
- 69- Rybak, M.; Zavala, J. A.**; Hodge, J. A.; Casey, C. M.; van der Werf, P. “*First detection of the [OI] 63- μ m emission from a redshift 6 dusty galaxy*”, 2019, *ApJL*, 889, 11.
- 68- Zavala, J. A.**; Casey, C.; Scoville, N.; Champagne, J.; Chiang, Y.; Dannerbauer, H.; Drew, P.; Fu, H.; Spilker, J.; Spitler, L.; Tran, K.; Treister, E.; Toft, S., “*On the Gas Content, Star Formation Efficiency, and Environmental Quenching of Massive Galaxies in Proto-Clusters at $z \approx 2.0 - 2.5$* ”, 2019, *ApJ*, 887, 183.

- 67-** Casey, C. M.; **Zavala, J. A.**; Aravena, M.; Béthermin, M.; Caputi, Karina I.; Champagne, J.; Clements, D.; da Cunha, E.; Drew, P.; Finkelstein, S.; Hayward, C.; Kartaltepe, J.; Knudsen, K.; Koekemoer, A.; Magdis, G.; Man, A.; Manning, S.; Scoville, N.; Sheth, K.; Spilker, J.; Staguhn, J.; Talia, M.; Taniguchi, Y.; Toft, S.; Treister, E.; Yun, M., *“Physical characterization of an unlensed dusty star-forming galaxy at $z = 5.85$ ”*, 2019, *ApJ*, 887, 55.
- 66-** **Zavala, J. A.**; Casey, C. M.; da Cunha, E.; Spilker, J.; Staguhn, J.; Hodge, J.; Drew, P. M., *“Constraining the Volume Density of Dusty Star-Forming Galaxies through the First 3mm Number Counts from ALMA”*, 2018, *ApJ*, 869, 71.
- 65-** Casey, C.; **Zavala, J. A.**; Spilker, J.; da Cunha, E.; Hodge, J.; Hung, C.; Staguhn, J.; Finkelstein, S.; Drew, P., *“The Brightest Galaxies in the Dark Ages: Galaxies’ Dust Continuum Emission during the Reionization Era”*, 2018, *ApJ*, 862, 77.
- 64-** **Zavala, J. A.**; Montaña, A.; Hughes, D. H.; Yun, M. S.; Ivison, R. J.; Valiante, E.; Wilner, D.; Spilker, J.; Aretxaga, I.; Eales, S.; Avila-Reese, V.; Chávez, M.; Cooray, A.; Dannerbauer, H.; Dunlop, J. S.; Dunne, L.; Gómez-Ruiz, A. I.; Michałowski, M. J.; Narayanan, G.; Nayyeri, H.; Oteo, I.; Rosa González, D.; Sánchez-Argüelles, D.; Schloerb, F. P.; Serjeant, S.; Smith, M. W. L.; Terlevich, E.; Vega, O.; Villalba, A.; van der Werf, P.; Wilson, G. W.; Zeballos, M., *“A dusty star-forming galaxy at $z = 6$ revealed by strong gravitational lensing”*, 2018, *Nature Astronomy*, 2, 56.
- 63-** **Zavala, J. A.**; Aretxaga, I.; Dunlop, J. S.; Michałowski, M. J.; Hughes, D. H.; Bourne, N.; Chapin, E.; Cowley, W.; Farrah, D.; Lacey, C.; Targett, T.; van der Werf, P., *“The SCUBA-2 Cosmology Legacy Survey: The EGS deep field II - Multi-wavelength properties of faint submillimetre galaxies detected at 450 and 850 μ m”*, 2018, *MNRAS*, 475, 5585.
- 62-** **Zavala, J. A.**; Aretxaga, I.; Geach, J. E.; Hughes, D. H.; Birkinshaw, M.; Chapin, E.; Chapman, S.; Chen, Chian-Chou; Clements, D. L.; Dunlop, J. S.; Farrah, D.; Ivison, R. J.; Jenness, T.; Michałowski, M. J.; Robson, E. I.; Scott, Douglas; Simpson, J.; Spaans, M.; van der Werf, P., *“The SCUBA-2 Cosmology Legacy Survey: The EGS deep field I - Deep number counts and the redshift distribution of the recovered CIB at 450 and 850 μ m”*, 2017, *MNRAS*, 464, 3369.
- 61-** **Zavala, J. A.**; Yun, M. S.; Aretxaga, I.; Hughes, D. H.; Wilson, G. W.; Geach, J. E.; Egami, E.; Gurwell, M. A.; Wilner, D. J.; Smail, Ian; Blain, A. W.; Chapman, S. C.; Coppin, K. E. K.; Dessauges-Zavadsky, M.; Edge, A. C.; Montaña, A.; Nakajima, K.; Rawle, T. D.; Sánchez-Argüelles, D.; Swinbank, A. M.; Webb, T. M. A.; Zeballos, M., *“Early science with the large millimeter telescope: observations of dust continuum and CO emission lines of cluster-lensed submillimetre galaxies at $z = 2.0 - 4.7$ ”*, 2015, *MNRAS*, 452, 1140.
- 60-** **Zavala, J. A.**; Michałowski, M. J.; Aretxaga, I.; Wilson, G. W.; Hughes, D. H.; Montaña, A.; Dunlop, J. S.; Pope, A.; Sánchez-Argüelles, D.; Yun, M. S.; Zeballos, M., *“Early science with the Large Millimeter Telescope: dust constraints in a $z \sim 9.6$ galaxy”*, 2015, *MNRAS Letters*, 453, 88.
- 59-** **Zavala, J. A.**; Aretxaga, I.; Hughes, D. H., *“The redshift distribution of submillimetre galaxies at different wavelengths”*, 2014, *MNRAS*, 443, 2348.

REFEREED PAPERS AS CONTRIBUTING AUTHOR:

- 58-** Kalita, B.; Suzuki, T.; Kashino, D. and 31 more authors (including **Zavala, J. A.**), *“Crimson Behemoth: A massive clumpy structure hosting a dusty AGN at $z=4.91$ ”*, 2025, *MNRAS*, 536, 3090.
- 58-** Tanaka, T.; Silverman, J.; Nakazato, Y. and 40 more authors (including **Zavala, J. A.**), *“Crimson Behemoth: A massive clumpy structure hosting a dusty AGN at $z=4.91$ ”*, 2024, *PASJ*, 76, 1323.
- 57-** Bakx, T.; Amvrosiadis, A.; Bendo, G. and 32 more authors (including **Zavala, J. A.**), *“A novel high- z submm galaxy efficient line survey in ALMA Bands 3 through 8 - an ANGELS pilot”*, 2024, *MNRAS*, 535, 1533.
- 56-** Calabro, A.; Castellano, M.; **Zavala, J. A.**; and 19 more authors, *“Evidence of Extreme Ionization Conditions and Low Metallicity in GHZ2/GLASS-Z12 from a Combined Analysis of NIRSpec and MIRI Observations”*, 2024, *ApJ*, 975, 245.
- 55-** Quiros-Rojas, M.; Montana, A.; **Zavala, J. A.**; Aretxaga, I. and Hughes, D., *“ALMA follow-up of 3000 red-Herschel galaxies: the nature of extreme submillimetre galaxies”*, 2024, *MNRAS*, 533, 2966.
- 54-** Castellano, M.; Napolitano, L.; Fontana, A. and 28 more authors (including **Zavala, J. A.**), *“JWST NIRSpec Spectroscopy of the Remarkable Bright Galaxy GHZ2/GLASS-z12 at Redshift 12.34”*, 2024, *ApJ*, 972, 143.

- 53-** Mitsuhashi, I.; Harikane, Y.; Bauer, F. and 15 more authors (including **Zavala, J. A.**), “*SERENADE. II. An ALMA Multi-band Dust Continuum Analysis of 28 Galaxies at $5 < z < 8$ and the Physical Origin of the Dust Temperature Evolution*”, 2024, ApJ, 971,161.
- 52-** Chworowsky, K.; Finkelstein, S.; Boylan-Kolchin, M.; McGrath, E. and 36 more authors (including **Zavala, J. A.**), “*Evidence for a Shallow Evolution in the Volume Densities of Massive Galaxies at $z = 4$ to 8 from CEERS*”, 2024, ApJ, 168, 113.
- 51-** Cooper, O.; Casey, C.; Akins, H. and 33 more authors (including **Zavala, J. A.**), “*The Web Epoch of Reionization Lyman- α Survey (WERLS) I. MOSFIRE Spectroscopy of $z \sim 7 - 8$ Lyman- α Emitters*”, 2024, ApJ, 970, 50.
- 50-** Franco, M.; Akins, H.; Casey, C. and 47 more authors (including **Zavala, J. A.**), “*Unveiling the distant Universe: Characterizing $z \geq 9$ Galaxies in the first epoch of COSMOS-Web*”, 2024, ApJ, 973, 23.
- 49-** Casey, C.; Akins, H.; Shuntov, M. and 39 more authors (including **Zavala, J. A.**), “*COSMOS-Web: Intrinsically Luminous $z \gtrsim 10$ Galaxy Candidates Test Early Stellar Mass Assembly*”, 2024, ApJ, 965, 98.
- 48-** Lambrides, E.; Chiaberge, M.; Long, A. and 42 more authors (including **Zavala, J. A.**), “*Uncovering a Massive $z \sim 7.65$ Galaxy Hosting a Heavily Obscured Radio-Loud QSO Candidate in COSMOS-Web*”, 2024, ApJL, 961, 25.
- 47-** Arrabal Haro, P.; Dickinson, M.; Finkelstein, S.; and 33 more authors (including **Zavala, J. A.**), “*Spectroscopic verification of very luminous galaxy candidates in the early universe*”, 2023, *Nature*, 622, 707.
- 46-** Akins, H. and the COSMOS-Web collaboration (58 more authors including **Zavala, J. A.**), “*Two massive, compact, and dust-obscured candidate $z \sim 8$ galaxies discovered by JWST*”, 2023, ApJL, 956, 61.
- 45-** Barro, G. and the CEERS collaboration (29 more authors including **Zavala, J. A.**), “*Extremely red galaxies at $z=5-9$ with MIRI and NIRSpec: dusty galaxies or obscured AGNs?*”, 2024, ApJ, 963, 128.
- 44-** Magnelli, G. and the CEERS collaboration (25 more authors including **Zavala, J. A.**), “*CEERS: MIRI deciphers the spatial distribution of dust-obscured star formation in galaxies at $0.1 < z < 2.5$* ”, 2023, A&A, 678, 83.
- 43-** Long, A.; Antwi-Danso, J.; Lambrides, E.; Lovell, C.; de la Vega, A.; Valentino, F.; **Zavala, J. A.**; Casey, C.; and 26 more authors, “*Efficient NIRCам Selection of Quiescent Galaxies at $3 < z < 6$ in CEERS*”, 2023, ApJ, 970, 68.
- 42-** McKinney, J.; Manning, S.; Cooper, O.; and 32 more authors (including **Zavala, J. A.**), “*A Near-Infrared Faint, Far-Infrared-Luminous Dusty Galaxy at $z \sim 5$ in COSMOS-Web*”, 2023, ApJ, 956, 72.
- 41-** Arrabal Haro, P. and the CEERS collaboration (47 more authors including **Zavala, J. A.**), “*Spectroscopic confirmation of CEERS NIRCам-selected galaxies at $z=8-10$* ”, 2023, ApJL, 951, 22.
- 40-** Larson, R. and the CEERS collaboration (49 more authors including **Zavala, J. A.**), “*A CEERS Discovery of an Accreting Supermassive Black Hole 570 Myr after the Big Bang: Identifying a Progenitor of Massive $z > 6$ Quasars*”, 2022, ApJ, 953, 29.
- 39-** Yang, G. and the CEERS collaboration (37 more authors including **Zavala, J. A.**), “*CEERS Key Paper VI: JWST/MIRI Uncovers a Large Population of Obscured AGN at High Redshifts*”, 2022, ApJ, 950, 5.
- 38-** Papovich, C. and the CEERS collaboration (48 more authors including **Zavala, J. A.**), “*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*”, 2023, ApJ, 949, 18L.
- 37-** Kartaltepe, J. and the CEERS collaboration (60 more authors including **Zavala, J. A.**), “*CEERS Key Paper. III. The Diversity of Galaxy Structure and Morphology at $z = 3-9$ with JWST*”, 2023, ApJ, 946, 15.
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