

# JAKOB M. HELTON

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Department of Astronomy and Astrophysics, The Pennsylvania State University

## SCHOLARLY IDENTITY

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**Research Interests** – galaxy formation and evolution; high-redshift galaxies and galaxy clusters; the large-scale structure of the Universe; observational extragalactic astronomy.

**Professional Expertise** – infrared imaging and spectroscopy with the James Webb Space Telescope (JWST), which includes designing and optimizing observing strategies, developing data reduction pipelines, and implementing analysis techniques.

**Collaborations** – one of the key members of two of JWST's Instrument Science Teams (the Mid-Infrared Instrument [MIRI] and the Near Infrared Camera [NIRCam]); key member of the JWST Advanced Deep Extragalactic Survey (JADES) as the working group lead for grism science, including the large-scale environment.

## EMPLOYMENT

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**The Pennsylvania State University**

Position – Evolving Universe Postdoctoral Scholar

*August 2025 - Present*

*[Mentor – Joel Leja]*

## EDUCATION

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**The University of Arizona**

Degree – M.S. and Ph.D. in Astronomy and Astrophysics

*August 2021 - July 2025*

Thesis – [\*At the Break of Cosmic Dawn: Identifying and Understanding the Most Distant Galaxies and Galaxy Clusters with JWST\*](#) [Advisors – Marcia Rieke and Kevin Hainline]

**Princeton University**

*September 2017 - May 2021*

Degree – A.B. in Astrophysical Sciences with High Honors

Thesis – [\*The Nebular Properties of Star-Forming Galaxies at Intermediate Redshifts from the Large Early Galaxy Census \(LEGA-C\)\*](#) [Advisors – Allison Strom and Jenny Greene]

## PUBLICATIONS

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[Link to SciX Public Library](#)

*Last Updated: 29 October 2025*

**Summary of All Publications**

number: 73; citations: 6760; h-index: 39

**Summary of Refereed Publications**

number: 53; citations: 5950; h-index: 37

### First-Author

- [6] **J. M. Helton**, S. Alberts, G. H. Rieke, et al., *The Stellar Populations and Rest-Frame Colors of Star-Forming Galaxies at  $z \approx 8$ : Exploring the Impact of Filter Choice and Star Formation History Assumption with JADES*, 2025, [arXiv:2506.02099](https://arxiv.org/abs/2506.02099)

- [5] **J. M. Helton**, G. H. Rieke, S. Alberts, et al., *Photometric detection at 7.7  $\mu$ m of a galaxy beyond redshift 14 with JWST/MIRI*, 2025, [Nature Astronomy](#), [9](#), [729](#)
- [4] **J. M. Helton**, F. Sun, C. Woodrum, et al., *Identification of High-Redshift Galaxy Overdensities in GOODS-N and GOODS-S*, 2024, [ApJ](#), [974](#), [41](#)
- [3] **J. M. Helton**, F. Sun, C. Woodrum, et al., *The JWST Advanced Deep Extragalactic Survey: Discovery of an Extreme Galaxy Overdensity at  $z = 5.4$  with JWST/NIRCam in GOODS-S*, 2024, [ApJ](#), [962](#), [124](#)
- [2] **J. M. Helton**, A. L. Strom, J. E. Greene, et al., *The nebular properties of star-forming galaxies at intermediate redshift from the Large Early Galaxy Astrophysics Census*, 2022, [ApJ](#), [934](#), [81](#)
- [1] **J. M. Helton**, S. D. Johnson, J. E. Greene, et al., *Discovery and origins of giant optical nebulae surrounding quasar PKS0454-22*, 2021, [MNRAS](#), [505](#), [5497](#)

### Second-Author

- [5] K. N. Hainline, **J. M. Helton**, B. E. Miles, et al., *JADES: An Abundance of Ultra-Distant T- and Y-Dwarfs in Deep Extragalactic Data*, 2025, [arXiv:2510.00111](#)
- [4] F. D'Eugenio, **J. M. Helton**, K. Hainline, et al., *JADES and SAPPHIRES: galaxy metamorphosis amid a huge, luminous emission-line region*, 2025, [MNRAS](#), [542](#), [960](#)
- [3] Y. Fudamoto, **J. M. Helton**, X. Lin, et al., *SAPPHIRES: A Galaxy Over-Density in the Heart of Cosmic Reionization at  $z = 8.47$* , 2025, [arXiv:2503.15597](#)
- [2] K. N. Hainline, **J. M. Helton**, B. D. Johnson, et al., *Brown Dwarf Candidates in the JADES and CEERS Extragalactic Surveys*, 2024, [ApJ](#), [964](#), [66](#)
- [1] F. Sun, **J. M. Helton**, E. Egami, et al., *JADES: Resolving the Stellar Component and Filamentary Overdense Environment of Hubble Space Telescope (HST)-dark Submillimeter Galaxy HDF850.1 at  $z = 5.18$* , 2024, [ApJ](#), [961](#), [69](#)

### Third-Author

- [2] S. Alberts, C. C. Williams, **J. M. Helton**, et al., *To high redshift and low mass: exploring the emergence of quenched galaxies and their environments at  $3 < z < 6$  in the ultra-deep JADES MIRI F770W parallel*, 2024, [ApJ](#), [975](#), [85](#)
- [1] L. Sandles, F. D'Eugenio, **J. M. Helton**, et al., *JADES: deep spectroscopy of a low-mass galaxy at redshift 2.3 quenched by environment*, 2023, [arXiv:2307.08633](#)

### Co-Author

*Continues Later, Starting on Page 5*

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## TELESCOPE ALLOCATIONS

<b>JWST/MIRI</b>	62.8 Hours [Principal Investigator (PI); <a href="#">PID – 8544</a> ]
<b>JWST/NIRCam</b> & JWST/MIRI in parallel	19.6 Hours [Co-PI; <a href="#">PID – 4549</a> ]

JWST/NIRSpec	71.7 Hours	[Co-Investigator (I); PID – 8018]
JWST/NIRSpec	36.3 Hours	[Co-I; PID – 7935]
JWST/NIRSpec	14.2 Hours	[Co-I; PID – 7335]
JWST/NIRCam & JWST/MIRI in parallel	37.2 Hours	[Co-I; PID – 4540]
JWST/NIRSpec	24.5 Hours	(Co-I; PID – 3659)
JWST/NIRCam	27.6 Hours	[Co-I; PID – 3577]
JWST/NIRCam & JWST/NIRSpec in parallel	135.6 Hours	[Co-I; PID – 3215]
JWST/NIRSpec	24.3 Hours	[Co-I; PID – 2959]
JWST/NIRCam & JWST/NIRISS in parallel	42.5 Hours	[Co-I; PID – 2883]
MMT/Binospec		2.0 Nights (PI)
Keck/MOSFIRE		0.5 Nights (Co-I)
Magellan/IMACS		5.0 Nights (Co-I)
Magellan/FIRE		6.5 Nights (Co-I)
MMT/Binospec		3.0 Nights (Co-I)

## TEACHING, MENTORING, & ADVISING

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<b>The Pennsylvania State University</b>	<i>August 2025 - Present</i>
Primary advisor of a first-year graduate student who will be investigating the impact of $\alpha$ -enhanced abundance patterns when interpreting observations of distant galaxies.	
<b>The University of Arizona</b>	<i>June 2023 - June 2025</i>
Co-organizer for the Early Universe/REionization Conversations at Arizona (EURECA) at the Department of Astronomy and Steward Observatory.	
<b>Carnegie Observatories</b>	<i>June 2020 - June 2025</i>
Mentor for the Carnegie Astrophysics Summer Student Internship (CASSI) Program.	
<b>Princeton University</b>	<i>January 2018 - May 2021</i>
Head Tutor for Single-Variable Calculus, Multi-Variable Calculus, and Linear Algebra at the McGraw Center for Teaching and Learning.	
<b>Princeton University</b>	<i>January 2020 - August 2020</i>
Co-organizer for the Galactic/Extragalactic Reading Group (Galread) at the Department of Astrophysical Sciences.	
<b>Princeton University</b>	<i>January 2019 - January 2020</i>
Undergraduate Teaching Assistant for Introductory Mechanics and Electromagnetism at the Department of Physics.	

## SELECTED MEDIA COVERAGE

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<b>The University of Arizona</b>   13 March 2025
<a href="#">James Webb Space Telescope reveals unexpected complex chemistry in primordial galaxy</a>
<b>The University of Arizona</b>   3 October 2024
<a href="#">Eyes on the Universe   How University of Arizona Researchers Confirmed Farthest Galaxy with JWST</a>

**Space.com** | 15 July 2024

[Can the James Webb Space Telescope see galaxies over the universe's horizon?](#)

**Astronomy Magazine** | 6 June 2024

[Webb discovers the earliest known galaxy – for now](#)

**Big Think** | 3 June 2024

[5 big lessons from JWST's new record-setting galaxy](#)

**Space.com** | 30 May 2024

[James Webb Space Telescope spots the most distant galaxy ever seen](#)

**NASA Webb Mission Team** | 30 May 2024

[NASA's James Webb Space Telescope Finds Most Distant Known Galaxy](#)

**The University of Arizona** | 30 May 2024

[Webb Telescope spots the two most distant galaxies ever seen at cosmic dawn](#)

**University of Cambridge** | 30 May 2024

[Earliest, most distant galaxy discovered with James Webb Space Telescope](#)

**JADES** | 30 May 2024

[Earliest, most distant galaxy discovered with James Webb Space Telescope Galaxy dates back to 300 million years after the Big Bang](#)

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## SELECTED PRESENTATIONS

- [10] **Invited outreach talk** at the North Houston Astronomy Club in Humble, TX (August 2025). *Understanding the Most Distant Galaxies and Galaxy Clusters with the James Webb Space Telescope (JWST)*.
- [9] **Invited science talk** at the NIRCam Instrument Science Team Meeting in Tucson, AZ (March 2025). *JWST/NIRCam and JWST/MIRI at the Highest Redshifts*.
- [8] **Invited science talk** at the MIRI Instrument Science Team Meeting in Tucson, AZ (October 2024). *JWST/MIRI at the Highest Redshifts*.
- [7] **Invited science talk** at the “Cosmic Dawn Revealed by JWST: Physics of the First Stars, Galaxies, and Black Holes” Conference in Santa Barbara, CA (August 2024). *Identification of High-Redshift Galaxy Overdensities in GOODS-N and GOODS-S*.
- [6] **Invited outreach talk** at the Sun City Oro Valley Astronomy Club in Oro Valley, AZ (March 2024). *Understanding the Most Distant Galaxies and Galaxy Clusters with the James Webb Space Telescope (JWST)*.
- [5] **Contributed science poster** at the 242th American Astronomical Society (AAS) Meeting in Albuquerque, NM (June 2023). *The JWST Advanced Deep Extragalactic Survey: Discovery of an Extreme Galaxy Overdensity at  $z = 5.4$  with JWST/NIRCam in GOODS-S*.
- [4] **Contributed science talk** at the “100 Years of Astronomy at the University of Arizona” Celebration in Tucson, AZ (April 2023). *The JWST Advanced Deep*

*Extragalactic Survey: Discovery of an Extreme Galaxy Overdensity at  $z = 5.4$  with JWST/NIRCam in GOODS-S.*

- [3] **Contributed science talk** at the “Early Results from the James Webb Space Telescope” Conference in Cambridge, United Kingdom (March 2023). *The JWST Advanced Deep Extragalactic Survey: Discovery of an Extreme Galaxy Overdensity at  $z = 5.4$  with JWST/NIRCam in GOODS-S.*
- [2] **Invited outreach talk** at the Canyon del Oro High School in Oro Valley, AZ (December 2022). *An Overview of the James Webb Space Telescope (JWST).*
- [1] **Contributed science poster** at the International Astronomical Union’s (IAU’s) Symposium 373 in Busan, South Korea (August 2022). *The Spatially Resolved Star-Formation Histories of Post-Starburst Galaxies in SDSS-IV MaNGA.*

## MISCELLANEOUS

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**Programming Languages** – Python; IDL; Java; Javascript; HTML/CSS

**Packages, Software, & Tools** – Unix; L<sup>A</sup>T<sub>E</sub>X; Prospector; BAGPIPES; Cloudy; JWST’s Pipeline, Exposure Time Calculator (ETC), and Astronomer’s Proposal Tool (APT)

**Observational Experience** – JWST/MIRI (using the Low Resolution Spectroscopy, or LRS, observing mode); JWST/NIRCam (using the wide field slitless spectroscopy, or WFSS, observing mode); Keck/MOSFIRE; Magellan/IMACS; Magellan/LDSS3

**Invited Peer Reviewer** – The Astrophysical Journal (ApJ); Monthly Notices of the Royal Astronomical Society (MNRAS); Astronomy & Astrophysics (A&A); Astronomy and Computing

**Soft Skills** – academic research; problem solving; public speaking; technical writing

## REFERENCES

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Prof. Joel Leja	The Pennsylvania State University	<a href="mailto:joel.leja@psu.edu">joel.leja@psu.edu</a>
Prof. Kevin Hainline	The University of Arizona	<a href="mailto:kevinhainline@arizona.edu">kevinhainline@arizona.edu</a>
Prof. Daniel Eisenstein	Harvard University	<a href="mailto:deisenstein@cfa.harvard.edu">deisenstein@cfa.harvard.edu</a>
Prof. Marcia Rieke	The University of Arizona	<a href="mailto:mrieke@gmail.com">mrieke@gmail.com</a>

## PUBLICATIONS (CONTINUED)

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[Link to SciX Public Library](#)

*Last Updated: 29 October 2025*

**Summary of All Publications**

number: 73; citations: 6760; h-index: 39

**Summary of Refereed Publications**

number: 53; citations: 5950; h-index: 37

**Co-Author with Major Contributions**

- [24] F. D'Eugenio, E. J. Nelson, et al., including **J. M. Helton**, *JADES Dark Horse: demonstrating high-multiplex observations with JWST/NIRSpec dense-shutter spectroscopy in the JADES Origins Field*, 2025, [arXiv:2510.11626](#)
- [23] Y. Zhu, E. Egami, et al., including **J. M. Helton**, *Quasar Radiative Feedback May Suppress Galaxy Growth on Intergalactic Scales at  $z = 6.3$* , 2025, [arXiv:2509.00153](#)
- [22] Y. Zhu, S. Alberts, et al., including **J. M. Helton**, *SMILES: Potentially Higher Ionizing Photon Production Efficiency in Overdense Regions*, 2025, [ApJ, 986, 18](#)
- [21] X. Lin, E. Egami, et al., including **J. M. Helton**, *The Large-scale Environments of Low-luminosity AGNs at  $3.9 < z < 6.0$  and Implications for Their Host Dark Matter Halos from a Complete NIRCam Grism Redshift Survey*, 2025, [arXiv:2505.02896](#)
- [20] X. Lin, E. Egami, et al., including **J. M. Helton**, *The Luminosity Function and Clustering of  $H\alpha$  Emitting Galaxies at  $z \approx 4 - 6$  from a Complete NIRCam Grism Redshift Survey*, 2025, [arXiv:2504.08028](#)
- [19] J. Witstok, P. Jakobsen, et al., including **J. M. Helton**, *Witnessing the onset of reionization through Lyman- $\alpha$  emission at redshift 13*, 2025, [Nature, 639, 897](#)
- [18] F. Sun, Y. Fudamoto, et al., including **J. M. Helton**, *Slitless Areal Pure-Parallel High-Redshift Emission Survey (SAPPHIRES): Early Data Release of Deep JWST/NIRCam Images and Spectra in MACS J0416 Parallel Field*, 2025, [arXiv:2503.15587](#)
- [17] K. N. Hainline, R. Maiolino, et al., including **J. M. Helton**, *An Investigation into the Selection and Colors of Little Red Dots and Active Galactic Nuclei*, 2025, [ApJ, 979, 138](#)
- [16] J. Witstok, R. Maiolino, et al., including **J. M. Helton**, *JADES: Primaeval Lyman- $\alpha$  emitting galaxies reveal early sites of reionization out to redshift  $z \sim 9$* , 2025, [MNRAS, 536, 27](#)
- [15] S. Alberts, J. Lyu, et al., including **J. M. Helton**, *SMILES Initial Data Release: Unveiling the Obscured Universe with MIRI Multiband Imaging*, 2024, [ApJ, 976, 224](#)
- [14] K. N. Hainline, F. D'Eugenio, et al., including **J. M. Helton**, *Searching for Emission Lines at  $z > 11$ : The Role of Damped Ly $\alpha$  and Hints About the Escape of Ionizing Photons*, 2024, [ApJ, 976, 160](#)

- [13] K. N. Hainline, F. D'Eugenio, et al., including **J. M. Helton**, *JADES: Spectroscopic Confirmation and Proper Motion for a T-Dwarf at 2 kpc*, 2024, [ApJ, 975, 31](#)
- [12] S. Carniani, K. Hainline, et al., including **J. M. Helton**, *Spectroscopic confirmation of two luminous galaxies at a redshift of 14*, 2024, [Nature, 633, 318](#)
- [11] Z. Ji, C.C. Williams, et al., including **J. M. Helton**, *Extended hot dust emission around the earliest massive quiescent galaxy*, 2024, [arXiv:2409.17233](#)
- [10] S. Lim, S. Tacchella, et al., including **J. M. Helton**, *The FLAMINGO simulation view of cluster progenitors observed in the epoch of reionization with JWST*, 2024, [MNRAS, 532, 4551](#)
- [9] B. Robertson, B.D. Johnson, et al., including **J. M. Helton**, *Earliest Galaxies in the JADES Origins Field: Luminosity Function and Cosmic Star-Formation Rate Density 300 Myr after the Big Bang*, 2024, [ApJ, 970, 31](#)
- [8] K. N. Hainline, B.D. Johnson, et al., including **J. M. Helton**, *The Cosmos in its Infancy: JADES Galaxy Candidates at  $z > 8$  in GOODS-S and GOODS-N*, 2024, [ApJ, 964, 71](#)
- [7] Y. Sun, G.-H. Lee, et al., including **J. M. Helton**, *Evolution of gas flows along the starburst to post-starburst to quiescent galaxy sequence*, 2024, [MNRAS, 682, 5783](#)
- [6] J. Witstok, R. Smit, et al., including **J. M. Helton**, *Inside the bubble: exploring the environments of reionization-era Lyman- $\alpha$  emitting galaxies with JADES and FRESCO*, 2024, [A&A, 682, A40](#)
- [5] Z. Li, Z. Cai, et al., including **J. M. Helton**, *MAGNIF: A Tentative Lensed Rotating Disk at  $z = 8.34$  detected by JWST NIRCam WFSS with Dynamical Forward Modeling*, 2023, [arXiv:2310.09327](#)
- [4] S. Tacchella, D.J. Eisenstein, et al., including **J. M. Helton**, *JADES Imaging of GN-z11: Revealing the Morphology and Environment of a Luminous Galaxy 430 Myr After the Big Bang*, 2023, [ApJ, 952, 74](#)
- [3] E. Curtis-Lake, S. Carniani, et al., including **J. M. Helton**, *Spectroscopic confirmation of four metal-poor galaxies at  $z = 10.3 - 13.2$* , 2023, [Nature Astronomy, 7, 622](#)
- [2] B.E. Robertson, S. Tacchella, et al., including **J. M. Helton**, *Identification and properties of intense star-forming galaxies at redshifts  $z > 10$* , 2023, [Nature Astronomy, 7, 611](#)
- [1] S. Aiola, E. Calabrese, et al., including **J. M. Helton**, *The Atacama Cosmology Telescope: DR4 Maps and Cosmological Parameters*, 2020, [JCAP, 12, 047](#)

### Co-Author with Minor Contributions

- [36] A.L. Danhaive, S. Tacchella, et al., including **J. M. Helton**, *The dawn of disks: unveiling the turbulent ionized gas kinematics of the galaxy population at  $z \sim 4 - 6$  with JWST/NIRCam grism spectroscopy*, 2025, [MNRAS, 543, 3249](#)

- [35] Z. Wu, D. J. Eisenstein, et al., including **J. M. Helton**, *JADES-GS-z14-1: A Compact, Faint Galaxy at  $z \approx 14$  with Weak Metal Lines from Extremely Deep JWST MIRI, NIRCam, and NIRSpec Observations*, 2025, [ApJ, 992, 212](#)
- [34] P. Rinaldi, N. Bonaventura, et al., including **J. M. Helton**, *Not Just a Dot: The Complex UV Morphology and Underlying Properties of Little Red Dots*, 2025, [ApJ, 992, 71](#)
- [33] L. Whitler, D. P. Stark, et al., including **J. M. Helton**, *The  $z \geq 9$  Galaxy UV Luminosity Function from the JWST Advanced Deep Extragalactic Survey: Insights Into Early Galaxy Evolution and Reionization*, 2025, [ApJ, 992, 63](#)
- [32] K. Ormerod, J. Witstok, et al., including **J. M. Helton**, *Detection of the  $2175 \text{ \AA}$  UV Bump at  $z > 7$ : evidence for rapid dust evolution in a merging reionization-era galaxy*, 2025, [MNRAS, 542, 11360](#)
- [31] C. Woodrum, I. Shivaei, et al., including **J. M. Helton**, *JADES: The Star Formation and Dust Attenuation Properties of Galaxies at  $3 < z < 7$* , 2025, [arXiv:2510.00235](#)
- [30] Y. Zhu, N. Bonaventura, et al., including **J. M. Helton**, *SMILES Data Release II: Probing Galaxy Evolution during Cosmic Noon and Beyond with NIRSpec Medium-Resolution Spectra*, 2025, [arXiv:2508.12599](#)
- [29] C. Simmonds, S. Tacchella, et al., including **J. M. Helton**, *Bursting at the seams: the star-forming main sequence and its scatter at  $z = 3 - 9$  using NIRCam photometry from JADES*, 2025, [arXiv:2508.04410](#)
- [28] Z. Ji, S. Alberts, et al., including **J. M. Helton**, *The Importance of Dust Distribution in Ionizing-photon Escape: NIRCam and MIRI Imaging of a Lyman Continuum-emitting Galaxy at  $z \sim 3.8$* , 2025, [ApJ, 988, 69](#)
- [27] J. Witstok, R. Smit, et al., including **J. M. Helton**, *On the origins of oxygen: ALMA and JWST characterize the multi-phase, metal-enriched, star-bursting medium within a ‘normal’  $z > 11$  galaxy*, 2025, [arXiv:2507.22888](#)
- [26] S. Tacchella, W. McClymont, et al., including **J. M. Helton**, *Resolving the nature and putative nebular emission of GS9422: an obscured AGN without exotic stars*, 2025, [MNRAS, 540, 851](#)
- [25] Y. Zhu, M. J. Rieke, et al., including **J. M. Helton**, *A Systematic Search for Galaxies with Extended Emission Lines and Potential Outflows in JADES Medium-band Images*, 2025, [ApJ, 986, 162](#)
- [24] T. Y.-Y. Hsiao, F. Sun, et al., including **J. M. Helton**, *SAPPHIRES: Extremely Metal-Poor Galaxy Candidates with  $12 + \log(O/H) < 7.0$  at  $z \sim 5 - 7$  from Deep JWST/NIRCam Grism Observations*, 2025, [arXiv:2505.03873](#)
- [23] J. Zhang, E. Egami, et al., including **J. M. Helton**, *Abundant Population of Broad  $H\alpha$  Emitters in the GOODS-N Field Revealed by CONGRESS, FRESCO, and JADES*, 2025, [arXiv:2505.02895](#)

- [22] S. Carniani, F. D'Eugenio, et al., including **J. M. Helton**, *The eventful life of a luminous galaxy at  $z = 14$ : metal enrichment, feedback, and low gas fraction?*, 2025, [A&A, 696, A87](#)
- [21] F. D'Eugenio, A. J. Cameron, et al., including **J. M. Helton**, *JADES Data Release 3: NIRSpec/Microshutter Assembly Spectroscopy for 4000 Galaxies in the GOODS Fields*, 2025, [ApJS, 277, 4](#)
- [20] F. D'Eugenio, R. Maiolino, et al., including **J. M. Helton**, *JWST/NIRSpec WIDE survey: a  $z = 4.6$  low-mass star-forming galaxy hosting a jet-driven shock with low ionization and solar metallicity*, 2025, [MNRAS, 536, 51](#)
- [19] Y. Sun, J. Lyu, et al., including **J. M. Helton**, *No Evidence for a Significant Evolution of  $M_{\bullet} - M_*$  Relation in Massive Galaxies up to  $z \sim 4$* , 2025, [ApJ, 978, 98](#)
- [18] W. M. Baker, S. Tacchella, et al., including **J. M. Helton**, *A core in a star-forming disc as evidence of inside-out growth in the early Universe*, 2025, [Nature Astronomy, 9, 141](#)
- [17] Z. Ji, C. C. Williams, et al., including **J. M. Helton**, *JADES+JEMS: A Detailed Look at the Buildup of Central Stellar Cores and Suppression of Star Formation in Galaxies at Redshifts  $3 < z < 4.5$* , 2024, [ApJ, 974, 135](#)
- [16] A. J. Bunker, A. J. Cameron, et al., including **J. M. Helton**, *JADES NIRSpec initial data release for the Hubble Ultra Deep Field: redshifts and line fluxes of distant galaxies from the deepest JWST Cycle 1 NIRSpec multi-object spectroscopy*, 2024, [A&A, 690, A288](#)
- [15] C. Woodrum, M. J. Rieke, et al., including **J. M. Helton**, *JADES: Using NIRCam photometry to investigate the dependence of stellar mass inferences on the IMF in the early Universe*, 2024, [PNAS, 121, 42](#)
- [14] R. Endsley, D. P. Stark, et al., including **J. M. Helton**, *The star-forming and ionizing properties of dwarf  $z \sim 6 - 9$  galaxies in JADES: insights on bursty star formation and ionized bubble growth*, 2024, [MNRAS, 533, 1111](#)
- [13] C. C. Williams, S. Alberts, et al., including **J. M. Helton**, *The Galaxies Missed by Hubble and ALMA: The Contribution of Extremely Red Galaxies to the Cosmic Census at  $3 < z < 8$* , 2024, [ApJ, 968, 34](#)
- [12] A. Saxena, A. J. Bunker, et al., including **J. M. Helton**, *JADES: The production and escape of ionizing photons from faint Lyman-alpha emitters in the epoch of reionization*, 2024, [A&A, 684, A84](#)
- [11] M. Curti, R. Maiolino, et al., including **J. M. Helton**, *JADES: Insights into the low-mass end of the mass-metallicity-SFR relation at  $3 < z < 10$  from deep JWST/NIRSpec spectroscopy*, 2024, [A&A, 684, A75](#)
- [10] R. Maiolino, J. Scholtz, et al., including **J. M. Helton**, *A small and vigorous black hole in the early Universe*, 2024, [Nature, 627, 59](#)

- [9] Z. Ji, C. C. Williams, et al., including **J. M. Helton**, *JADES: Rest-frame UV-to-NIR Size Evolution of Massive Quiescent Galaxies from Redshift  $z = 5$  to  $z = 0.5$* , 2024, [arXiv:2401.00934](https://arxiv.org/abs/2401.00934)
- [8] M. J. Rieke, B. Robertson, et al., including **J. M. Helton**, *JADES Initial Data Release for the Hubble Ultra Deep Field: Revealing the Faint Infrared Sky with Deep JWST NIRCam Imaging*, 2023, [ApJS, 269, 16](https://apjs.aps.org/abstract/ApJS/v269/i16)
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