Nikko J. Cleri

Eberly Postdoctoral Fellow
The Pennsylvania State University

Summary

Research:	Galaxy Evolution, High-Redshift Galaxies, Emission-Line Galaxies, Interstellar Medium, Active Galactic Nuclei, Black Hole Seeds, Population III Stars, Star Formation, Dust Attenuation
Techniques:	UV/Optical/Near-IR Spectroscopy, Photoionization Modeling
Proposals:	As PI: 1 JWST, 1 HST, >300k USD awarded As Co-I: 11 JWST, 1 Gemini, >700 hours total awarded
Publications:	7 lead/co-lead author, 4 significant author, 81 coauthor, 6190 citations, 40 h-index
Presentations:	21 research, 13 outreach and professional development

Academic and Professional Appointments

2024-	Eberly Postdoctoral Fellow	Penn State
2021-24	Graduate Student (Advisor: Prof. Casey Papovich)	Texas A&M
2019-21	Graduate Student (Advisor: Prof. Jonathan Trump)	UConn
2017-20	Research Assistant (Advisor: Prof. Gerald Dunne)	UConn
2018	NSF REU Student (Advisor: Prof. Louis Strigari)	Texas A&M

Education

Ph.D. Astronomy — Texas A&M University — 2021 - 2024

Advisor: Casey Papovich
Thesis: *Spectroscopic Studies of Stars and Black Holes Across Cosmic Time*

M.S. Physics — University of Connecticut — 2019 - 2021

Advisor: Jonathan R. Trump
Thesis: *CLEAR: Paschen-β Star Formation Rates and Dust Attenuation in Low Redshift Galaxies*

B.S. Physics | *Mathematics Minor* — University of Connecticut — 2015 - 2019

Advisor: Gerald V. Dunne
Undergraduate Research: *Resurgent trans-series for generalized Hastings-McLeod solutions*

Awarded Proposals and Grants

Principal Investigator — 2

2024	JWST-AR-5558: *A Census of Optical Diagnostics of Ionizing Sources Across Cosmic Time*	∼$174k
2021	HST-AR-16609: *Peering Through the Dust: Paschen-beta Indicators of Star Formation and Dust Attenuation*	∼$136k

Co-Investigator 13

2025	HET-PSU26-1-021: *The Hobby-Eberly Telescope Void Galaxy Sample* (PI: O. Curtis)	26 hours
2025	JWST-GO-8047: *Extremely massive galaxies in the early universe? Confirming the nature of the most model-breaking object by hunting for stellar absorption features* (PI: B. Wang and E. Nelson)	19.6 hours
2025	JWST-GO-7488: *Echoes of Silence: Absorption Line Spectroscopy of a Massive Quiescent Galaxy at z=7.3* (PI: A. Weibel)	14.1 hours
2025	JWST-GO-8559: *SPAM: Star-formation from Photometry through the Addition of Medium-bands* (PI: K. Davis and R. Larson)	62.8 hours
2025	JWST-GO-8410: *A Census of Galaxy Kinematics and Outflows to $z \sim 7$* (PI: R. Simons)	110.0 hours
2025	JWST-GO-8204: *Give me a break: the search for stars in a prototypical Little Red Dot* (PI: J. Greene and I. Labbe)	17.4 hours
2024	JWST-GO-5718: *A Spectroscopic Census of Faint, Broad-Line AGN at z>5* (PI: D. Kocevski and J. Guo)	20.49 hours
2024	JWST-GO-5943: *What really are the Physical Properties of Galaxies in the Epoch of Reionization?* (PI: C. Papovich and W. Hu, T. Hutchison)	61.83 hours
2024	JWST-GO-5407: *MEOW: The MIRI Early Obscured-AGN Wide Survey* (PI: G. Leung and R. Endsley, S. Finkelstein)	73.95 hours
2024	JWST-GO-5507: *Deep Spectroscopy of Galaxies at z=4-14: Uncovering Drivers of Early Galaxy Formation and Black Hole Growth* (PI: T. Hutchison and R. Larson)	23.29 hours
2024	JWST-GO-6368: *The CANDELS-Area Prism Epoch of Reionization Survey (CAPERS)* (PI: M. Dickinson)	293.21 hours
2023	JWST-GO-3703: *Breaking the z=10 barrier with MIRI: redshift confirmation and detection of rest-frame optical emission lines* (PI: J. Zavala)	24.33 hours
2023	GS-2023A-Q-136: *Optical Spectroscopy of JWST ERO Galaxies* (PI: B. Backhaus)	20 hours

Honors and Awards

2024	Dean's Climate and Diversity Award (Group)	Penn State
2022	Texas Space Grant Consortium Graduate Fellow - $5K	Texas A&M
2018	NSF REU - $5K	Texas A&M
2016	Dean's List - College of Liberal Arts and Sciences	UConn
2015-19	Governor's Scholarship - $8.5K/yr	UConn
2015	Community Service Scholarship - $1K	UConn

Teaching Experience

Instructor of Record

ASTRO 6: Stars, Galaxies, and the Universe	Penn State

Guest Lecturer

ASTRO 502: Fundamental Astrophysics	Penn State

Teaching Assistant/Course Assistant

PHYS 1501: Physics for Engineers I — UConn
PHYS 1025: Introduction to Astronomy — UConn

Service

Physics & Astronomy Community

Referee – Astronomy & Astrophysics (A&A)
Referee – Astrophysical Journal (ApJ)

College

Astronomy Representative – Eberly College of Science Postdoctoral Council — Penn State

Department

Founder/Organizer – ExGal Journal Club — Penn State
Member – Climate and Diversity Committee — Penn State
Graduate Representative — Texas A&M
Organizer – Astronomy Journal Club — Texas A&M

Mentoring

Students Supervised

Primary mentor for 3 undergraduates at Penn State — 2024-

Other Mentoring Activities

Co-Founder – Preparing the Emerging Next Generation Using Inclusive Networking (PENGUIN)
Primary Mentor – Penn State-Nanjing Exchange Program — Penn State
Coordinator – Mentoring and Advising Graduates in an Inclusive Community (MAGIC) — Texas A&M
Mentor – Mentoring and Advising Graduates in an Inclusive Community (MAGIC) — Texas A&M
Mentor – UConn Undergraduate Peer Mentoring — UConn

Outreach

Volunteer – Gateway to Graduate School — Texas A&M
Demonstrator – Physics and Engineering Festival — Texas A&M
High School Research Reviewer – Lumiere — Texas A&M
Presenter – Astronomy on Tap BCS ‘In the News’ — Texas A&M
Treasurer – Astronomy on Tap BCS — Texas A&M
Pen-Pal – Letters to a Pre-Scientist — Texas A&M
Volunteer – Mitchell Institute Star Party Group — Texas A&M

Press

A Week Downeast, Challenging Assumptions about Galaxy Evolution, Astrobites, O. Cooper et al. 2025

Collaborations and Survey Membership

Co-Investigator

SPAM: Star-formation from Photometry through the Addition of Medium-bands	JWST
CAPERS: The CANDELS-Area Prism Epoch of Reionization Survey	JWST
THRILS: The High [Redshift+Ionization] Line Search	JWST

Contributing Member

LEGGOS: Lensing and Galaxy Growth: Observing Subtructures	JWST
POPPIES: The Public Observation Pure Parallel Infrared Emission-Line Survey	JWST
RUBIES: Red Unknowns: Bright Infrared Extragalactic Survey	JWST
NGDEEP: The Next Generation Deep Exploratory Public Survey	JWST
CEERS: The Cosmic Evolution Early Release Science Survey	JWST
CLEAR: The CANDELS Lyα Emission at Reionization Survey (inactive)	HST

Technical Skills and Programming Languages

Programming	Fluent: Python, LaTeX
	Familiar: SQL, Julia, C, C++, R, IDL, perl, Mathematica, MATLAB, HTML, CSS
Software	Fluent: Cloudy, PyNeb, LiMe
	Familiar: grizli, DS9, IRAF, sbatch, slurm

Website Architect

Personal Website: njcleri.github.io
Mentoring and Advising Graduates in an Inclusive Community (MAGIC) (co-author): tx.ag/tamumagic
Preparing the Emerging Next Generation Using Inclusive Networking (PENGUIN): penguin-mentoring.github.io

Publications

A current list of my papers can be found on SciX here.

Lead/Co-Lead/Student-Led Papers

† = Undergraduate-led papers

7. †Ge, S.-R., **Cleri, N. J.**, et al. 2025, *JWST/NIRSpec Reveals a Small Population of Dominant Dust-Obscured Ionizing Sources in Galaxies at 1 < z < 3*, arXiv e-prints, arXiv:2511.08671 (submitted to ApJ)
6. **Cleri, N. J.**, Olivier, G. M., Backhaus, B. E., et al. 2025, *Optical Strong Line Ratios Cannot Distinguish Between Stellar Populations and Accreting Black Holes at High Ionization Parameters and Low Metallicities*, ApJ, 994, 146,
5. Backhaus, B. E., **Cleri, N. J.**, et al. 2025, *Emission-Line Diagnostics at z>4: [O III]λ4364/Hγ versus [Ne III]λ3870/[O II]λ3730*, ApJ, 994, 125
4. **Cleri, N. J.**, Olivier, G. M., Hutchison T. A., et al. 2023, *Using [Ne V]/[Ne III] to Understand the Nature of Extreme-Ionization Galaxies*, ApJ, 953, 10
3. **Cleri, N. J.**, Yang, G., Papovich, C., et al. 2023, *CLEAR: High-Ionization [Ne V] λ3426 Emission-line Galaxies at* $1.4 < z < 2.3$, ApJ, 948, 112
2. **Cleri, N. J.**, Trump, J. R., Backhaus, B. E., et al. 2022, *CLEAR: Paschen-β Star Formation Rates and Dust Attenuation of Low Redshift Galaxies*, ApJ, 929, 3
1. **Cleri, N. J.**, Dunne, G. V., 2020, *Resurgent trans-series for generalized Hastings-McLeod solutions*, Journal of Physics A: Mathematical General, 53, 355203

Significant Author

4. Larson, R. L., Finkelstein, S. L., Kocevski, D. D., Hutchison, T. A., Trump, J. R., Arrabal Haro, P., Bromm, V., **Cleri, N. J.**, et al. 2023, *A CEERS Discovery of an Accreting Supermassive Black Hole 570 Myr after the Big Bang: Identifying a Progenitor of Massive z > 6 Quasars*, ApJL, 953, L29
3. Backhaus, B. E., Bridge J. S., Trump, J. R., **Cleri, N. J.**, et al. 2023, *CLEAR: Detecting Low-Luminosity Active Galactic Nuclei at* $0.6 < z < 1.3$ *via Spatially Resolved Hubble Space Telescope Grism Emission Line Ratios*, ApJ, 943, 37
2. Prescott, M. K. M., Finlator, K. M., **Cleri, N. J.**, et al. 2022, *Using Multiple Emission Line Ratios to Constrain the Slope of the Dust Attenuation Law*, ApJ, 928, 71
1. Backhaus, B. E., Trump, J. R., **Cleri, N. J.**, et al. 2022, *CLEAR: Emission Line Ratios at Cosmic High Noon*, ApJ, 926, 161

Co-Author: Published

66. Hviding, R. E., et al. 2025, *RUBIES: A Spectroscopic Census of Little Red Dots; All V-Shaped Point Sources Have Broad Lines*, A&A, 702, A57
65. Mascia, S., et al. 2025, *Little impact of mergers and galaxy morphology on the production and escape of ionizing photons in the early Universe*, A&A, 701, A122,
64. Leung, G. C. K., et al. 2024, *Exploring the Nature of Little Red Dots: Constraints on AGN and Stellar Contributions from PRIMER MIRI Imaging*, ApJ, 992, 26
63. Setton, D. J., et al. 2025, *A Confirmed Deficit of Hot and Cold Dust Emission in the Most Luminous Little Red Dots*, ApJL, 991, L10
62. Katz, H., et al. 2025, *21 Balmer Jump Street: The Nebular Continuum at High Redshift and Implications for the Bright Galaxy Problem, UV Continuum Slopes, and Early Stellar Populations*, The Open Journal of Astrophysics, 8, 104

61. Kokorev, V., et al. 2025, *CAPERS Observations of Two UV-Bright Galaxies at z>10. More Evidence for Bursting Star Formation in the Early Universe*, ApJL, 988, L10

60. Burgarella, D., et al. 2025, *CEERS: Possibly forging the first dust grains in the universe: A population of galaxies with spectroscopically derived extremely low dust attenuation (GELDA) at 4.0 < z < 11.4*, A&A, 699, A336

59. Taylor, A. J., et al. 2025, *Broad-line AGNs at 3.5 < z < 6: The Black Hole Mass Function and a Connection with Little Red Dots*, ApJ, 986, 165

58. Llerena, M. et al. 2025, *The ionizing photon production efficiency of star-forming galaxies at* $z \sim 4-10$, A&A, 698, A302

57. Brooks, M., et al. 2024, *Here There Be (Dusty) Monsters: High-redshift Active Galactic Nuclei Are Dustier than Their Hosts*, ApJ, 986, 177

56. Kocevski, D. D., et al. 2025, *The Rise of Faint, Red Active Galactic Nuclei at z > 4: A Sample of Little Red Dots in the JWST Extragalactic Legacy Fields*, ApJ, 986, 126

55. Wang, B., et al. 2025, *RUBIES: JWST/NIRSpec Confirmation of an Infrared-luminous, Broad-line Little Red Dot with an Ionized Outflow*, ApJ, 984, 121

54. de Graaff, A., et al. 2025, *RUBIES: a complete census of the bright and red distant Universe with JWST/NIRSpec*, A&A, 697, A189,

53. Finkelstein, S. L., et al. 2025, *The Cosmic Evolution Early Release Science Survey (CEERS)*, ApJL, 983, L4

52. Weibel, A., et al. 2025, *RUBIES Reveals a Massive Quiescent Galaxy at z=7.3*, ApJ, 983, 11

51. Cooper, O. R., et al. 2025, *RUBIES: JWST/NIRSpec resolves evolutionary phases of dusty star-forming galaxies at* $z \sim 2$, ApJ, 982, 125

50. de Graaff, A., et al. 2025, *Efficient formation of a massive quiescent galaxy at redshift 4.9*, Nature Astronomy 9, 280

49. Shen, L., et al. 2025, *NGDEEP: The Star Formation and Ionization Properties of Galaxies at* $1.7 < z < 3.4$, ApJL, 980, L45

48. Cole, J. W., et al. 2025, *CEERS: Increasing Scatter along the Star-forming Main Sequence Indicates Early Galaxies Form in Bursts*, ApJ, 979, 193

47. Zavala, J., et al. 2025, *A luminous and young galaxy at z = 12.33 revealed by a JWST/MIRI detection of H*α *and [O III]*, Nature Astronomy, 9, 155

46. Cheng, Y., et al. 2025, *Unveiling the Dark Side of UV/Optical Bright Galaxies: Optically Thick Dust Absorption*, ApJ, 979, 71

45. Bisigello, L., et al. 2025, *Spectroscopic confirmation of a dust-obscured, metal-rich dwarf galaxy at z*$\sim$*5*, A&A, 693, L18

44. Rose, C., et al. 2024, *CEERS Key Paper. IX. Identifying Galaxy Mergers in CEERS NIRCam Images Using Random Forests and Convolutional Neural Networks*, ApJL, 976, L8

43. Llerena, M., et al. 2024, *Physical properties of extreme emission-line galaxies at* $z \sim 4-9$ *from the JWST CEERS survey*, A&A, 691, A59

42. Gupta, A. R., et al. 2024, *Emission-Line Ratios and Ionization Conditions of CEERS Star-Forming Galaxies with JWST/NIRSpec*, Research Notes of the American Astronomical Society, 8, 266

41. Davis, K., et al. 2024, *A Census from JWST of Extreme Emission-line Galaxies Spanning the Epoch of Reionization in CEERS*, ApJ, 974, 42

40. Calabró, A., et al. 2024, *The evolution of the star formation rate and* Σ_{SFR} *of galaxies in cosmic morning (*$4 < z < 10$*)*, A&A, 690, A290

39. Chworowsky, K., et al. 2024, *Evidence for a Shallow Evolution in the Volume Densities of Massive Galaxies at $z = 4$ to 8 from CEERS*, AJ, 168, 113

38. Seillé, L.-M., et al. 2024, *Physical properties of strong 1 < z < 3 Balmer and Paschen lines emitters observed with JWST*, A&A, 689, A102

37. Hu, W., et al. 2024, *Characterizing the Average Interstellar Medium Conditions of Galaxies at $z \sim$ 5.6-9 with UV and Optical Nebular Lines*, ApJ, 971, 21

36. Napolitano, L., et al. 2024, *'Peering into cosmic reionization: the Lyα visibility evolution from galaxies at z = 4.5-8.5 with JWST*, A&A, 688, A106

35. Ronayne, K., et al. 2024, *CEERS: 7.7 μm PAH Star Formation Rate Calibration with JWST MIRI*, ApJ, 970, 61

34. Wang, B., et al. 2024, *RUBIES: Evolved Stellar Populations with Extended Formation Histories at $z \sim 7-8$ in Candidate Massive Galaxies Identified with JWST/NIRSpec*, ApJL, 969, L13

33. Finkelstein, S. L., et al. 2024, *The Complete CEERS Early Universe Galaxy Sample: A Surprisingly Slow Evolution of the Space Density of Bright Galaxies at $z \sim 8.5-14.5$*, ApJL, 969, L2

32. Pirzkal, N., et al. 2024, *The Next Generation Deep Extragalactic Exploratory Public Near-Infrared Slitless Survey Epoch 1 (NGDEEP-NISS1): Extra-Galactic Star-formation and Active Galactic Nuclei at 0.5 < z < 3.6*, ApJ, 969, 90

31. Jung, I., et al. 2024, *CEERS: Diversity of Lyman-Alpha Emitters during the Epoch of Reionization*, ApJ, 967, 73

30. Mascia, S. et al. 2024 *New insight on the nature of cosmic reionizers from the CEERS survey* A&A, 685, A3

29. Morales, A. M., et al. 2024, *Rest-Frame UV Colors for Faint Galaxies at $z \sim 9-16$ with the JWST NGDEEP Survey*, ApJL, 964, L24

28. Cheng, Y., et al. 2024, *Exploring the Gas-Phase Metallicity Gradients of Star-forming Galaxies at Cosmic Noon*, ApJ, 964, 94

27. Shen, L., et al. 2024, *NGDEEP Epoch 1: Spatially Resolved Hα Observations of Disk and Bulge Growth in Star-Forming Galaxies at $z \sim$ 0.6-2.2 from JWST NIRISS Slitless Spectroscopy*, ApJL, 963, L49

26. Barro, G., et al. 2024, *Extremely Red Galaxies at z = 5–9 with MIRI and NIRSpec: Dusty Galaxies or Obscured Active Galactic Nuclei?*, ApJ, 963, 128

25. Backhaus, B. E., et al. 2024, *CEERS Key Paper. VIII. Emission-line Ratios from NIRSpec and NIRCam Wide-Field Slitless Spectroscopy at z > 2*, ApJ, 962, 195

24. Kirkpatrick, A., et al. 2023, *CEERS Key Paper VII: JWST/MIRI Reveals a Faint Population of Galaxies at Cosmic Noon Unseen by Spitzer*, ApJL, 959, L7

23. Calabró, A., et al. 2023, *Near-infrared emission line diagnostics for AGN from the local Universe to redshift 3*, A&A, 679, A80

22. Fujimoto, S., et al. 2023, *ALMA FIR View of Ultra High-redshift Galaxy Candidates at $z \sim$ 11-17: Blue Monsters or Low-z Red Interlopers?*, ApJ, 955, 130

21. Kocevski, D. D., et al. 2023, *Hidden Little Monsters: Spectroscopic Identification of Low-Mass, Broad-Line AGN at $z > 5$ with CEERS*, ApJL, 954, L4

20. Arrabal Haro, P., et al. 2023, *Spectroscopic confirmation of CEERS NIRCam-selected galaxies at $z \simeq 8-10$*, ApJL, 951, L22

19. Estrada-Carpenter, V., et al. 2023, *CLEAR: The Morphological Evolution of Galaxies in the Green Valley*, ApJ, 951, 115

18. Yang, G., et al. 2023, *CEERS Key Paper VI: JWST/MIRI Uncovers a Large Population of Obscured AGN at High Redshifts*, ApJL, 950, L5

17. Papovich, C., et al. 2023, *CEERS Key Paper IV: Galaxies at $4 < z < 9$ are Bluer than They Appear – Characterizing Galaxy Stellar Populations from Rest-Frame ~ 1 micron Imaging*, ApJL, 949, L18
16. Simons, R. C., et al. 2023, *CLEAR: Survey Overview, Data Analysis and Products*, ApJS, 266, 13
15. Constantin, L. et al. 2023, *Expectations of the size evolution of massive galaxies at $3 \leq z \leq 6$ from the TNG50 simulation: the CEERS/JWST view*, ApJ, 946, 71
14. Perez-Gonzalez, P. G., et al. 2023, *CEERS Key Paper V: A triality on the nature of HST-dark galaxies*, ApJL, 946, L16
13. Kocevski, D. D., et al. 2023, *CEERS Key Paper II: The Resolved Host Properties of AGN at 3 < z < 5 with JWST*, ApJL, 946, L14
12. Finkelstein, S. L., et al. 2023, *CEERS Key Paper I: An Early Look into the First 500 Myr of Galaxy Formation with JWST*, ApJL, 946, L13
11. Guo, Y. et al. 2023, *First Look at z > 1 Bars in the Rest-Frame Near-Infrared with JWST Early CEERS Imaging*, ApJL, 945, L10
10. Trump, J. R. et al. 2023, *The Physical Conditions of Emission-Line Galaxies at Cosmic Dawn from JWST/NIRSpec Spectroscopy in the SMACS 0723 Early Release Observations*, ApJ, 945, 35
9. García-Argumánez, A. et al. 2023, *Probing the earliest phases in the formation of massive galaxies with simulated HST+JWST imaging data from Illustris*, ApJ, 944, 3
8. Zavala, J. et al. 2023, *Dusty starbursts masquerading as ultra high redshift galaxies in JWST observations*, ApJL, 943, L9
7. Rose, C. et al. 2023, *Identifying Galaxy Mergers in Simulated CEERS NIRCam Images using Random Forests*, ApJ, 942, 54
6. Finkelstein, S. L. et al. 2022, *A Long Time Ago in a Galaxy Far, Far Away: A Candidate $z \sim$ 14 Galaxy in Early JWST CEERS Imaging*, ApJL, 940, L55
5. Papovich, C. et al. 2022, *CLEAR: The Ionization and Chemical-Enrichment Properties of Galaxies at $1.1 < z < 2.3$* ApJ, 937, 22
4. Matharu, J. et al. 2022, *CLEAR: The Evolution of Spatially Resolved Star Formation in Galaxies between $0.5 \leq z \leq 1.7$ using Hα Emission Line Maps*, ApJ, 937, 16
3. Jung, I. et al. 2022, *CLEAR: Boosted Lyα Transmission of the Intergalactic Medium in UV bright Galaxies*, ApJ, 933, 87
2. Simons, R. C. et al. 2021, *CLEAR: The Gas-Phase Metallicity Gradients of Star-Forming Galaxies at $0.6 < z < 2.6$*, ApJ, 923, 203
1. Estrada-Carpenter, V. et al. 2020, *CLEAR II: Evidence for Early Formation of the Most Compact Quiescent Galaxies at High Redshift*, ApJ, 880, 2

Co-Author: Submitted

15. Lewis, Z., et al. 2025, *The Mass-Metallicity Relation and its Observational Effects at z$\sim$3-6*, arXiv e-prints, arXiv:2512.03134
14. Hutchison, T. A., et al. 2025, *Little Red Dots host Black Hole Stars: A unified family of gas-reddened AGN revealed by JWST/NIRSpec spectroscopy*, arXiv e-prints, arXiv:2512.02000
13. de Graaff, A., et al. 2025c, *Little Red Dots host Black Hole Stars: A unified family of gas-reddened AGN revealed by JWST/NIRSpec spectroscopy*, arXiv e-prints, arXiv:2511.21820
12. Brooks, M., et al. 2025b, *Beyond the Monsters: A More Complete Census of Black Hole Activity at Cosmic Dawn*, arXiv e-prints, arXiv:2511.19609

11. Llerena, M., et al. 2025, *Extreme equivalent width-selected low-mass starbursts at $z = 4 - 9$: insights into their role in cosmic reionization*, arXiv e-prints, arXiv:2510.25647

10. Perry, M. N., et al. 2025, *The Prevalence of Bursty Star Formation in Low-Mass Galaxies at z=1-7 from Hα-to-UV Diagnostics*, arXiv e-prints, arXiv:2510.05388

9. McConachie, I., et al. 2025, *Where Galaxies Go to Die: The Environments of Massive Quiescent Galaxies at $3 < z < 5$*, arXiv e-prints, arXiv:2510.25024

8. Jones, B. L., et al. 2025, *The $M_{\rm BH} - M_*$ Relationship at $3 < z < 7$: Big Black Holes in Little Red Dots*, arXiv e-prints, arXiv:2510.07376

7. Lambrides, E., et al. 2025, *Discovery of Multiply Ionized Iron Emission Powered by an Active Galactic Nucleus in a $z \sim 7$ Little Red Dot*, arXiv e-prints, arXiv:2509.09607

6. Gandolfi, G., et al. 2025, *Mysteries of Capotauro - investigating the puzzling nature of an extreme F356W-dropout*, arXiv e-prints, arXiv:2509.01664

5. Wang, B., et al. 2025, *The Missing Hard Photons of Little Red Dots: Their Incident Ionizing Spectra Resemble Massive Stars*, arXiv e-prints, arXiv:2508.18358

4. Zhang, Y., et al. 2025, *RUBIES spectroscopically confirms the high number density of quiescent galaxies from $2 < z < 5$*, arXiv e-prints, arXiv:2508.08577

3. Papovich, C., et al. 2025, *Galaxies in the Epoch of Reionization Are All Bark and No Bite – Plenty of Ionizing Photons, Low Escape Fractions*, arXiv e-prints, arXiv:2505.08870

2. Setton, D. J., et al. 2024, *Little Red Dots at an Inflection Point: Ubiquitous "V-Shaped" Turnover Consistently Occurs at the Balmer Limit*, arXiv e-prints, arXiv:2411.03424

1. Jung, I, et al. 2022, *New $z > 7$ Lyman-alpha Emitters in EGS: Evidence of an Extended Ionized Structure at $z \sim 7.7$*, arXiv e-prints, arXiv:2212.09850

Presentations

Research Presentations (**bold** = invited)

21.	**Talk**: *Characterizing High-Redshift Sources with Optical Emission Line Ratios*, at the Space Telescope Science Institute, Baltimore, Maryland, USA	14 August 2025
20.	Talk: *Characterizing High-Redshift Objects with Optical Strong Line Ratios*, Winter Harbor, Maine, USA	28 July 2025
19.	Talk: *A Census of Optical Diagnostics of Ionizing Sources Across Cosmic Time*, Bergen, Netherlands	8 May 2025
18.	Talk: *High-Redshift Diagnostics of Star Formation and Active Galactic Nuclei*, The Pennsylvania State University, State College, Pennsylvania, USA	10 February 2025
17.	Talk: *High-Redshift Diagnostics of Star Formation and Active Galactic Nuclei*, The Pennsylvania State University, State College, Pennsylvania, USA	17 September 2024
16.	Talk: *High-Redshift Diagnostics of Ionizing Sources*, University of Wisconsin, Madison, Wisconsin, USA	17 July 2024
15.	Discussion Chair: *Active Galactic Nuclei and Little Red Dots*, San Lorenzo de El Escorial, Spain	13 May 2024
14.	Talk: *Diagnostics of Ionizing Sources at High-z using Models and Observations*, San Lorenzo de El Escorial, Spain	13 May 2024
13.	Talk: *Diagnostics of AGN, Black Hole Seeds, and Population III Stars with JWST* at the AAS 243rd Meeting, New Orleans, Louisiana, USA	10 January 2024
12.	Poster: *Emission Line Ratio Diagnostics of AGN, Black Hole Seeds and Population III Stars with JWST* at the First Year of JWST Science Conference, Space Telescope Science Institute, Baltimore, Maryland, USA	11 September 2023
11.	Talk: *Diagnostics of Exotic Ionizing Sources with JWST* at Texas A&M Astrosymposium, College Station, Texas, USA	17 August 2023
10.	Talk: *Diagnostics of Exotic Ionizing Sources Across Cosmic Time - High-Ionization Emission-Line Ratios: Ne53* at University of Texas, Austin, Texas, USA	10 May 2023
9.	Poster: *High-Ionization [Ne V] Emission-Line Galaxies at Cosmic Noon and the Epoch of Reionization* at AAS 241st Meeting, Seattle, Washington, USA	12 January 2023
8.	Talk: *Using [Ne V] to Constrain the Sources of Highly-Energetic Photoionization Across Cosmic Time: Exploring the "Mystery of Neon" with HST and JWST* at Texas A&M University, College Station, Texas, USA	2 December 2022
7.	Talk: *Extreme High-Ionization Emission-Line Galaxies at Cosmic Noon and the Epoch of Reionization: Exploring the "Mystery of Neon" with HST and JWST* at Texas A&M University, College Station, Texas, USA	18 August 2022
6.	Talk: *The Evolution of Spectroscopy from HST to JWST: Implications for the Epoch of Reionization* at Texas A&M University, College Station, Texas, USA	22 July 2022
5.	Poster: *HST Grism Observations of Paschen-Line Star-Formation and Dust Attenuation: A Precursor to the JWST Era* at AAS 240th Meeting, Pasadena, California, USA	14 June 2022
4.	Talk: *Paschen-β Star Formation Rates and Dust Attenuation with HST and JWST* at Texas A&M Astrosymposium, College Station, Texas, USA	27 August 2021

3. Poster: *CLEAR: Paschen-β Star Formation Rates and Dust Attenuation in Low Redshift Galaxies* at AAS 237th Meeting, Virtual — 13 January 2021
2. Poster: *Modeling ^{8}B Solar Neutrino Detection with CEνNS* at AAS 233rd Meeting, Seattle, Washington, USA — 9 January 2019
1. Poster: *Modeling ^{8}B Solar Neutrino Detection with CEνNS* at TAMU Undergraduate Research Poster Session, College Station, Texas, USA — 1 August 2018

Outreach Presentations

4. Talk: *Astronomy and You: The Impacts of Astronomy on Everyday Life* at Astronomy on Tap State College, State College, Pennsylvania, USA — 20 March 2025
3. Talk: *The Evolving Universe Through JWST's Eyes* at the Pennsylvania State University, State College, Pennsylvania — 1 February 2025
2. Talk: *The Origin of the Elements: Chemistry Across Cosmic Time* at Astronomy on Tap State College, State College, Pennsylvania, USA — 19 September 2024
1. Talk: *Beyond the Telescope: Unraveling Mysteries with AI in Astronomy* at Astronomy on Tap B/CS, Bryan, Texas, USA — 24 April 2024

Professional Development Presentations

9. Panel: *Applying to Postdocs* at The Pennsylvania State University, State College, Pennsylvania, USA — 24 March 2025
8. Panel: *GLASS Postdoc Panel* at Texas A&M University, College Station, Texas, USA — 8 March 2024
7. Talk: *How to Be A Referee* at Texas A&M University, College Station, Texas, USA — 10 November 2023
6. Panel: *How to Get Into Grad School* at Texas A&M University, College Station, Texas, USA — 28 July 2023
5. Talk: *Data Visualization in Astronomy: More Important than the Science Itself?* at Texas A&M University, College Station, Texas, USA — 11 November 2022
4. Panel: *How to Get Into Grad School* at Texas A&M University, College Station, Texas, USA — 29 July 2022
3. *Data Visualization in Astronomy: More Important than the Science Itself?* at Texas A&M University, College Station, Texas, USA — 2 June 2022
2. Workshop: *Matplotlib: The Champion of Plotting in Python* at Texas A&M University, College Station, Texas, USA — 2 June 2022
1. Workshop: *pandas: Your Best Friend for Data Analysis in Python* at Texas A&M University, College Station, Texas, USA — 1 June 2022

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