John F. Wu — CV

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Research interests

Galaxy formation and evolution, galaxy–halo–environment connection, the multiphase ISM and CGM, scientific machine learning, interpretable artificial intelligence, large language models

Appointments

Associate Astronomer — Baltimore, MD
Space Telescope Science Institute — *2025 – Present*

Assistant Astronomer — Baltimore, MD
Space Telescope Science Institute — *2022 – 2025*

Associate Research Scientist — Baltimore, MD
Center for Astrophysical Sciences, Johns Hopkins University — *2022 – Present*
Department of Computer Science, Johns Hopkins University — *2024 – Present*

Postdoctoral Researcher — Baltimore, MD
Space Telescope Science Institute — *2020 – 2021*
Center for Astrophysical Sciences, Johns Hopkins University — *2019 – 2020*

Graduate Research Assistant — Piscataway, NJ
Rutgers, The State University of New Jersey — *2013 – 2019*

Undergraduate Research Assistant — Pittsburgh, PA
McWilliams Center for Cosmology, Carnegie Mellon University — *2012 – 2013*

Research Intern — Pittsburgh, PA
Carnegie Mellon University CyLab — *2011*

Education

Ph.D. in Physics and Astronomy — Piscataway, NJ
Rutgers, The State University of New Jersey — *2013 – 2019*

B.Sc. in Physics/Astrophysics, with MCS Honors — Pittsburgh, PA
Carnegie Mellon University — *2009 – 2013*

Professional Memberships

American Astronomical Society — *2015 – Present*
International Astronomical Union — *2021 – Present*

Grants and Awards as PI

STScI, *Director's Discretionary Research Funding, $77,758* — *2025*
Maryland Academy of Sciences, *Outstanding Young Scientist award, $5,000* — *2024*
NSF, *Explore ACCESS GPU allocation, equivalent to $1,386* — *2023*
STScI, *Director's Discretionary Research Funding, $68,110* — *2022*
Google, *GCP Research Credits Program, $5,000* — *2019*
Rutgers, *Robert A. Schommer Prize, $500* — *2018*
USAID, *Research and Innovation Fellowship, $11,636* — *2016*

Rutgers, *Special Study Award, $1,350* *2014*

Rutgers, *Claud Lovelace Graduate Fellowship & Excellence Fellowship Supplement, $1,000* *2013*

CMU, *Senior Leadership Recognition* *2013*

Advising and Mentorship

Rotation advisor, *Chuanyi Wang (JHU/PhD student in Physics and Astronomy)* *2025 – Present*

Primary advisor, *Mikaeel Yunus (JHU/PhD student in Physics and Astronomy)* *2023 – Present*

Primary advisor, *Harish Krishnakumar (Princeton/Undergrad)* *2022 – Present*

Primary advisor, *Nikhil Garuda (Arizona/Undergrad)* *2024 – 2025*

Co-advisor, *Sophia Rivera (JHU/Undergrad)* *2024*

Primary advisor, *Kiera McCormick (Loyola/STScI SASP & JHU JSALT Intern)* *2024*

Primary advisor, *Christine Ye (Stanford/JHU JSALT Intern)* *2024*

Primary advisor, *Charles O'Neill (ANU/JHU JSALT Intern)* *2024*

Primary advisor, *Alina Hyk (Oregon State/JHU JSALT Intern)* *2024*

Co-advisor, *Austin Larson (JHU/Masters in CS)* *2024*

Primary advisor, *Phani Velicheti (Arizona/STScI SASP Intern)* *2022*

Primary advisor, *Ziting Guo (Yale-NUS/Undergraduate capstone project)* *2021 – 2022*

Mentor, *Kamonte Johnson (Frostburg State University/CollegeBound Foundation CCP)* *2020 – 2022*

Co-advisor, *Antoine Washington (Rutgers University/Undergraduate senior thesis)* *2017 – 2020*

Co-advisor, *Marcell Howard (Case Western Reserve University/REU)* *2018*

Co-advisor, *Manuel Perez III (University of Redlands/REU)* *2017*

Seminars and Talks (†Invited)

†Talk, *University of Maryland CTC Seminar* *2025*

†Talk, *Simulation Based Inference Workshop, University of Bristol* *2025*

†Talk, *NASA Cosmic Origins Galaxies SIG (virtual)* *2025*

†Colloquium, *MIT Kavli Institute Astronomy Colloquium* *2025*

†Seminar, *Fermilab AI Seminar (virtual)* *2025*

†Colloquium, *University of Louisville Physics & Astronomy* *2025*

Talk, *Flatiron CCA, Cosmology and Galaxy Astrophysics with [...]* *2024*

†Seminar, *Rutgers University Astronomy Seminar* *2024*

†Talk, *HWO Generative AI Task Group* *2024*

†Talk, *ESA Space Science and Machine Learning (virtual)* *2024*

Talk, *Flatiron CCA, Tri-State Cosmology X ML* *2024*

†Talk, *NOIRLab, Rare Gems in Big Data* *2024*

†Talk, *LSST-DA Informatics & Statistics Science Collaboration meeting* *2024*

Talk, *Aspen Center for Physics, Diffuse Cosmic Backgrounds [...]* *2024*

†Colloquium, *Swarthmore Physics & Astronomy* *2024*

†Seminar, *Roman Virtual Lecture Series (virtual)* *2024*

Poster, *ICML, Machine Learning for Astrophysics* *2023*

Talk, *STScI, Roman Science Inspired by Emerging JWST Results* *2023*

Poster, *Flatiron CCA, Cosmic Connections Symposium* *2023*

†Talk, *KITP, Galaxy Formation and Evolution in the Data Science Era* *2023*

†Seminar, *University of Helsinki Astrophysics Seminar (virtual)* *2022*
†Seminar, *Carnegie Observatories Lunch Talks* *2022*
†Seminar, *UMBC Astrophysics Seminar* *2022*
†Special Talk, *STScI* *2021*
Talk, *JHU/STScI HotSci Series* *2021*
†Seminar, *Université de Montréal, Astrophysics Seminar (virtual)* *2021*
†Seminar, *University of Toronto, Statistics and Machine Learning Journal Club (virtual)* *2021*
†Seminar, *Western Sydney University, Machine Learning in Astronomy* *2021*
Seminar, *Space Telescope Science Institute, Galaxies Journal Club* *2021*
†Seminar, *Fermilab, Cosmic Physics Center Seminar (virtual)* *2021*
Poster, *NeurIPS, Machine Learning for the Physical Sciences workshop (virtual)* *2020*
†Talk, *NCSA – Accelerated Artificial Intelligence for Big-Data Experiments (virtual)* *2020*
†Seminar, *NOIRLab, Flash Seminar (virtual)* *2020*
†Seminar, *Wayne State University, Particle/Astro/Nuclear Physics Seminar (virtual)* *2020*
†Talk, *The ISM in the Era of Big Data (AAS 236, virtual)* *2020*
Talk, *JHU Astro Coffee* *2020*
†Talk, *Astronomers Turned Data Scientists Meeting (AAS 235)* *2020*
Poster, *AAS 235th Meeting* *2020*
Seminar, *STScI, Science Coffee Seminar* *2019*
Seminar, *JHU, CAS Wine & Cheese Seminar* *2019*
†Deep learning workshop, *MIAPP – Galaxy Evolution in a New Era of HI Surveys* *2019*
Talk, *ESO — Nine Billion Years of Gas Evolution* *2019*
†Seminar, *Rutgers Statistics, Foundations of Probability Seminar* *2019*
Dissertation talk, *AAS 233rd Meeting* *2019*
†Seminar, *Princeton, Galread Seminar* *2018*
†Seminar, *Princeton, Data Science/COMPASS Seminar* *2018*
†Seminar, *University of Cape Town, Lunch Seminar* *2018*
Poster, *École Normale Supérieure – Galaxy Evolution Across Time* *2017*
Talk, *Princeton-Rutgers Extragalactic Science Day* *2016*
Talk, *AAS 227th Meeting* *2016*
†Seminar, *Australian Astronomical Observatory* *2015*

Service

Journal Reviewer for *AJ*, *ApJ*, *A&A*, *JOSS*, *MNRAS*, *PASA*, *PNAS*, and *RASTI*,
Machine Learning conference/workshop paper reviewer for *NeurIPS* and *ICML*

Executive Council Member, *LSST ISSC* *2025 – Present*
Vice Chair, *ADS Users Group* *2025 – Present*
Member, *ADS Users Group* *2024 – Present*
Member, *STScI Honors Committee* *2024 – Present*
Member, *STScI Prize Fellowship Committee* *2024 – 2025*
Reviewer, *NSF Review Panel* *2025*
Member, *NOIRLab Data Science Advisory Sub-committee* *2022 – 2024*
Member, *JHU/STScI Joint Colloquium Committee* *2023 – 2024*

Panel Moderator, *NeurIPS, Machine Learning and the Physical Sciences* *2023*
Reviewer, *NASA Astrophysics Data Analysis Program (ADAP)* *2023*
Reviewer, *NASA Postdoctoral Program (NPP)* *2023*
Member, *NRAO Science Review Panel (SRP)* *2022 – 2023*
Founder/Organizer, *STScI Machine Learning Reading Group (MLRG)* *2022 – 2023*
Guest Editor, *Annual Reviews of Astronomy and Astrophysics (ARA&A Vol. 63)* *2023*
Program Coordinator (& Diversity Lead), *KITP Program - galevo23* *2023*
Coordinator, *STScI Science Staff Retreat* *2022*
Leveler, *JWST Cycle 1 Panel* *2021*
Co-organizer, *Low Density Universe (LDU) Meetings* *2020 – 2021*
STScI Liason, *JHU Physics and Astronomy Postdocs + Research Scientists* *2020*
Session Chair, *AAS 236 ISM-BIG meeting-in-meeting* *2020*
Co-organizer, *JHU CAS Astro Coffee* *2020*
Co-organizer, *Rutgers Gaia DR2 Hackathon* *2018*
Co-organizer, *Rutgers SPS/RAS Astro Hack Sessions* *2018*
Webmaster, *Rutgers Physics GSO and SSPAR* *2014 – 2017*
Time Allocation Committee Member, *SALT 2015-2 Rutgers TAC* *2015*
Local Organizing Committee Member, *2015 PHISCC Workshop* *2015*
Organizer, *Student Seminars in Physics and Astronomy at Rutgers (SSPAR)* *2014 – 2015*
Vice President, *Rutgers Physics Graduate Student Organization (GSO)* *2014 – 2015*

Teaching and Outreach

Speaker, *STScI – Roman Science Writer's Workshop* *2025*
Speaker, *PREP-KC – "How Do I Become an Astronomer?"* *2025*
Guest Lecturer, *NAACL and CLSP Summer School* *2024*
Podcast Guest Speaker, *Where What If Becomes What's Next* *2024*
Guest Lecturer, *Swarthmore College, Introduction to Radio Astronomy* *2024*
Ingenuity Speaker Series, *Ingenuity Project (Baltimore Polytechnic Institute)* *2023*
Guest Lecturer, *LSST Data Science Fellowship Program (DSFP)* *2023*
Speaker, *Linda Hall Library - "How Do I Become an Astronomer?"* *2023*
Speaker, *Astronomy on Tap Baltimore* *2023*
Podcast Guest Speaker, *Times Higher Education (THE) Campus Podcast* *2022*
Guest Speaker, *Marymount School of New York, Independent Science Research* *2021*
Teaching Assistant, *STScI ML Office Hours* *2021*
Guest Lecturer, *Rutgers Byrne Seminar: The Poetry of Astronomy* *2016, 2019*
Certificate, *Seminar In Graduate Mentoring in Astronomy and Physics (SIGMA-P)* *2018*
Plenary Talk, *Friends of Rutgers Astronomy* *2017*
Leadership Team, *Parsons Community Outreach* *2015 – 2016*
Volunteer, *Parsons Community Outreach* *2013 – 2016*
Teaching Assistant, *Rutgers 343: Observational Radio Astronomy* *2015*
Public Talk, *Rutgers Astronomical Society* *2014*
Certificate, *Developing Educational Leaders among TAs in Physics (DELTA-P)* *2013*

Workshops and Other Experience (*Lead/SOC/LOC)

***Flatiron Institute Workshop** — New York, NY
Foundation Models for Astronomy — *May 2025*

***JSALT: Frederick Jelinek Memorial Summer Workshop** — Baltimore, MD
Evaluating Large Language Models for Research Astronomy — *June – Aug 2024*

Aspen Winter Meeting — Aspen, CO
Diffuse cosmic backgrounds and the low surface brightness universe — *Mar 2024*

Galaxy Formation Meeting (Biosphere 2) — Tucson, AZ
Wide-Field Spectroscopy meets Galaxy Formation Theory — *Mar 2023*

***Kavli Institute of Theoretical Physics** — Santa Barbara, CA
Building a Physical Understanding of Galaxy Evolution with Data-driven Astronomy — *Jan – Mar 2023*

Pascal Institute — Paris, France
The Self-Organized Star Formation Process — *Sept 2019*

MIAPP Topical Workshop — Munich, Germany
Nine Billion Years of Gas Evolution — *July 2019*

USAID Research & Innovation Fellowship — Cape Town, South Africa
Improving the LADUMA Pipeline Using MeerKAT Early Science Data — *Sept – Nov 2016*

SKA Pathfinders HI Science Coordination Committee — Piscataway, NJ
2015 PHISCC Workshop: HI Surveys Get Real — *Mar 2015*

Vatican Observatory Summer School — Castel Gandolfo, Italy
Galaxies, Near and Far, Young and Old — *June 2014*

NRAO Synthesis Imaging Workshop — Socorro, NM
14th Synthesis Imaging Workshop — *May 2014*

Professional Collaborations

4MOST Wide Area Vista Extragalactic Survey (WAVES/ORCHIDSS): *Member*

ALMA Lensing Cluster Survey (ALCS): *Member*

Dark Energy Spectroscopic Instrument (DESI): *External Collaborator (LOWZ Program)*

DECam Local Volume Exploration (DELVE): *WIDE Survey WG Member*

Deep Skies Lab: *Contributor*

HWO AI/ML WG: *Data Processing; Gen AI; Mission Ops Task Forces*

LADUMA: *Pipeline & Calibration WG, Source-finding WG, and Ancillary Data WG Member*

LSST-DA Galaxies Science Collaboration: *Member*

LSST-DA Informatics & Statistics Science Collaboration: *Member, Executive Committee*

UniverseTBD: *Member*

Telescope Observing Proposals

Anglo-Australian Telescope (AAT)

CoI, *N0331 (5 nights), N0334 (4 nights)* — *2015, 2017*

Atacama Large Millimeter/submillimeter Array (ALMA)

PI, *one proposal (9.4 hrs – partially observed in Cycle 7)* — *Cycles 7, 8*

CoI, *four proposals (120.9 hrs)* — *Cycles 2, 6, 7, 8*

CTIO Blanco/DECam

CoI, *2023B-646244 (54 nights)* — *2023B*

Gemini South/Flamingo2

CoI, *Fast Turnaround (5.8 hrs)* — *2021B*

Green Bank Telescope

CoI, *24B-384 (60 hrs)* — *2024B*

Southern African Large Telescope (SALT)

PI, *2016-1-SCI-040 (3.9 hrs), 2015-2-SCI-052 (3.9 hrs), DDT (1.6 hrs)* — *2015-1 — 2016-1*

CoI, *2017-1-MLT-014 (11.3 hrs), 2016-2-SCI-051 (20.4 hrs)* — *2016-2 — 2017-1*

Very Large Array (VLA)

CoI, *19A-433 (10 hrs)* — *2019A*

John F. Wu — Publication List

Names of students for whom I am the primary supervisor are underlined. Refereed machine learning papers are demarcated with a † symbol. For an up-to-date list of my publications, please see my ADS Library or my ORCID.

Journal Articles – First Author and Major Contributions (N=22)

42. †*From Queries to Criteria: Understanding How Astronomers Evaluate LLMs*
Hyk, A.*, McCormick, K.*, Zhong, M., et al., 2025, COLM 2025, arXiv:2507.15715.
*Joint first authorship.

41. *Learning Galaxy Astrophysics from Interpretable Sparse Feature Networks*
Wu, J. F., 2025, *ApJ*, 980, 135.

40. pathfinder: A Semantic Framework for Literature Review and Knowledge Discovery in Astronomy
Iyer, K. G., Yunus, M., O'Neill, C., Ye, C., et al. 2024, ApJS, 275, 38.

39. †*Towards Interpretable Scientific Foundation Models: Sparse Autoencoders for Disentangling Dense Embeddings of Scientific Concepts*
O'Neill, C., Ye, C., Iyer, K., **Wu, J. F.**, 2024, *NeurIPS: FM4Science workshop*, oral.

38. †*Sparse autoencoders for dense text embeddings reveal hierarchical feature sub-structure*
Ye, C., O'Neill, C., Iyer, K., **Wu, J. F.**, 2024, *NeurIPS: Sci4DL workshop*, poster.

37. †*Estimating Dark Matter Halo Masses in Simulated Galaxy Clusters with Graph Neural Networks*
Garuda, N., **Wu, J. F.**, Nelson, D., Pillepich, A., 2024, *NeurIPS: ML4PS workshop*, poster, arXiv:2411.12629.

36. †*Conditional Diffusion Models for Generating Images of SDSS-Like Galaxies*
Yunus, M., **Wu, J. F.**, Heckman, T. M., Holwerda, B. W., 2024, *NeurIPS: ML4PS workshop*, poster.

35. *How the Galaxy–Halo Connection Depends on Large-Scale Environment*
Wu, J. F., Jespersen, C., Wechsler, R. H., 2024, *ApJ*, 976, 37.

34. *Predicting dark matter halo masses from simulated galaxy images and environments*
Larson, A., **Wu, J. F.**, Jones, C., 2024, *ICML: AI4Science workshop*.

33. *Deep Learning Cosmic Ray Transport from Density Maps of Simulated, Turbulent Gas*
Bustard, C., **Wu, J. F.**, 2024, *MLS&T*, 5, 1, 015028.

32. †*Learning the galaxy-environment connection with graph neural networks*
Wu, J. F., Jespersen, C., 2023, *ICML: ML4astro workshop*, poster, arXiv:2306.12327.

31. *Target Selection and Sample Characterization for the DESI LOW-Z Secondary Target Program*
Darragh-Ford, E., **Wu, J. F.**, Mao, Y.-Y., Wechsler, R. H., et al. 2023, *ApJ*, 954, 149.

30. *Identification of Galaxy-Galaxy Strong Lens Candidates in the DECam Local Volume Exploration Survey Using Machine Learning*
Zaborowski, E., Drlica-Wagner, A., Ashmead, F., **Wu, J. F.**, et al., 2023, *ApJ*, 954, 68.

29. *Quantifying Roman WFI Dark Images with the Wavelet Scattering Transform*
Velicheti, P. D., **Wu, J. F.**, Petric, A. O., 2023, *PASP*, 135, 1050.

28. †*Identifying AGN host galaxies with convolutional neural networks*
Guo, Z., **Wu, J. F.**, Sharon, C. E., 2022, *NeurIPS: ML4PS workshop*, 63, poster, arXiv:2212.07881.

27. *Extending the SAGA Survey (xSAGA). I. Satellite Radial Profiles as a Function of Host-galaxy Properties*
Wu, J. F., Peek, J. E. G., Tollerud, E. J., et al, 2022, *ApJ*, 927, 121.

26. *Predicting the Spectrum of UGC 2885, Rubin's Galaxy with Machine Learning*
Holwerda, B. W., **Wu, J. F.**, Keel, W. C., Young, J., et al., 2021, *ApJ*, 914, 142.

25. †*Predicting galaxy spectra from images with hybrid convolutional neural networks*
Wu, J. F., Peek, J. E. G., 2020, *NeurIPS: ML4PS workshop*, 3, arXiv:2009.12318.

24. *Connecting Optical Morphology, Environment, and HI Mass Fraction for Low-Redshift Galaxies Using Deep Learning*
Wu, J. F., 2020, *ApJ*, 900, 148.

23. *The Star-Forming Interstellar Medium of Lyman Break Galaxy Analogs*
Wu, J. F., Baker, A. J., Heckman, T. M., et al., 2019, *ApJ*, 887, 251.

22. *Using convolutional neural networks to predict galaxy metallicity from three-colour images*
Wu, J. F., Boada, S., 2019, *MNRAS*, 484, 4683.

21. *Herschel and ALMA Observations of Massive SZE-selected Clusters*
Wu, J. F., Aguirre, P., Baker, A. J., et al., 2018, *ApJ*, 853, 195.

Other Journal Articles and Refereed Papers (N=20)

20. Looking At the Distant Universe with the MeerKAT Array: the HI Mass Function in the Local Universe
Kazemi-Moridani, A., Baker, A. J., Verheijen, M., et al. 2025, *ApJ*, 981, 208.

19. ALMA Lensing Cluster Survey: Dust mass measurements as a function of redshift, stellar mass, and star formation rate from z = 1 to z = 5
Jolly, J-B.; Knudsen, K.; Laporte, N., et al. 2025, *A&A*, 693, 190.

18. †*The Multimodal Universe: Enabling Large-Scale Machine Learning with 70TBs of Astronomical Scientific Data*
Angeloudi, E., Angeloudi, J., Bowles, M., et al., 2024, *NeurIPS: Datasets and Benchmarks*, poster, arXiv:2412.02527.

17. *The SAGA Survey. V. Modeling Satellite Systems around Milky Way-mass Galaxies with Updated UniverseMachine*
Wang, Y., Nadler, E. O., Mao, Y.-Y., et al. 2024, ApJ, 917, 119.

16. *The SAGA Survey. IV. The Star Formation Properties of 101 Satellite Systems around Milky Way-mass Galaxies*
Geha, M., Mao, Y.-Y., Wechsler, R. H., et al. 2024, ApJ, 917, 118.

15. *The SAGA Survey. III. A Census of 101 Satellite Systems around Milky Way-mass Galaxies*
Mao, Y.-Y., Geha, M., Wechsler, R. H., et al. 2024, ApJ, 976, 117.

14. Photometric redshifts probability density estimation from recurrent neural networks in the DECam local volume exploration survey data release 2
Teixeira, G., Bom, C. R., Santana-Silva, L., et al. 2024, A&C, 49, 100886.

13. ALMA Lensing Cluster Survey: Physical characterization of near-infrared-dark intrinsically faint ALMA sources at $z = 2 - 4$
Tsujita, A., Kohno, K., Huang, S., et al. 2024, arXiv::2406.09890

12. PHANGS-ML: Dissecting Multiphase Gas and Dust in Nearby Galaxies Using Machine Learning
Baron, D., Sandstrom, K. M., Rosolowsky, E., et al. 2024, 968, 24.

11. The cold interstellar medium of a normal sub-L^* galaxy at the end of reionization
Valentino, F., Fujimoto, S., Giménez-Arteaga, C., et al. 2024, A&A, 485, 138.

10. *Katachi: Decoding the Imprints of Past Star Formation on Present Day Morphology in Galaxies with Interpretable CNNs*
Alfonzo, J. P., Iyer, K. G., Akiyama, M., et al. 2024, ApJ, 967, 152.

9. *JWST constraints on the UV luminosity density at cosmic dawn: implications for 21-cm cosmology*
Hassan, S., Lovell, C. C., Madau, P., et al. 2023, ApJL, 958, 3.

8. *Identification of galaxy shreds in large photometric catalogs using Convolutional Neural Networks*
Di Teodoro, E. M., Peek, J. E. G., **Wu, J. F.**, 2023, *AJ*, 165, 123.

7. *A variable active galactic nucleus at $z = 2.06$ triply-imaged by the galaxy cluster MACS J0035.4-2015*
Furtak, L., Mainali, R., Zitrin, A., et al. 2023, *MNRAS*, 522, 5142.

6. *A Machine Learning Approach to Enhancing eROSITA Observations*
Soltis, J., Ntampaka, M., **Wu, J. F.**, et al., 2022, *ApJ*, 940, 60.

5. *The DECam Local Volume Exploration Survey Data Release 2*
Drlica-Wagner, A., Ferguson, P. S., Adamów, M., et al. 2022, *ApJS*, 261, 38.

4. *LADUMA: The First Untargeted Detection of an OH Megamaser at $z > 0.5$*
Glowacki, M., Collier, J. D., Kazemi-Moridani, A., et al., 2022, *ApJL*, 931, 7.

3. *The DECam Local Volume Exploration Survey: Overview and First Data Release*
Drlica-Wagner, A., Carlin, J. L., Nidever, D. L., et al., 2021, *ApJS*, 256, 2.

2. *ALMA Lensing Cluster Survey: an ALMA galaxy signposting a MUSE galaxy group at z=4.3 behind "El Gordo"*
Caputi, K. I., Caminha, G. B., Fujimoto, S., et al., 2021, *ApJ*, 908, 146.

1. *Galaxy Candidates at $z \sim 10$ in Archival Data from the Brightest of Reionizing Galaxies (BORG[z8]) Survey*
   Bernard, S. R., Carrasco, D., Trenti, M., Oesch, P. A., **Wu, J. F.**, et al., 2016, *ApJ*, 827, 76.

Technical Reports – Major Contributions (N=2)

13. *An Introduction to the Roman Data Monitoring Tool*
    Schultz, W., Otor, O. J., **Wu, J. F.**, et al. 2024, *Roman Technical Report*, Roman-STScI-000704.

12. *Simulating Cosmic Rays for the Roman Wide Field Instrument*
    Wu, J. F., Sanchez, J., Casertano, S., Desjardins, T., 2023, *Roman Technical Report*, Roman-STScI-000502.

Unrefereed Conference Papers and White Papers (N=10)

11. The Multimodal Universe: 100 TB of Machine Learning Ready Astronomical Data
    Angeloudi, E., Audenaert, J., Bowles, M., et al. 2024, *RNAAS*, 8, 301.

10. *Disentangling Dense Embeddings with Sparse Autoencoders*
    O'Neill, C., Ye, C., Iyer, K., **Wu, J. F.**, 2024, arXiv:2408.00657.

9. *Designing an Evaluation Framework for Large Language Models in Astronomy Research*
   Wu, J. F., Hyk, A., McCormick, K., Ye, C., et al. 2024, arXiv:2405.20389.

8. Constructing Impactful Machine Learning Research for Astronomy: Best Practices for Researchers and Reviewers
   Huppenkothen, D., Ntampaka, M., Ho, M., Fouesneau, M., et al. 2023, arXiv:2310.12528.

7. *NANCY: Next-generation All-sky Near-infrared Community surveY*
   Han, J. J. ; Dey, A. ; Price-Whelan, A. M. et al., 2023, *Roman Core Community Survey White Papers*.

6. *Optical, Radio Continuum and HI Deep Spectroscopic Survey (ORCHIDSS)*
   Duncan, K., Baker, A., Best, P., et al., *The Messenger*, 190, 25.

5. *Roman Ultra Deep Field*
   Koekemoer, A. M. et al. 2021, *Roman Early-Definition Astrophysics Survey Opportunity*.

4. *Obscured AGN – Hiding High Growth at the Cosmic Noon*
   Petric, A. et al. 2021, *Roman Early-Definition Astrophysics Survey Opportunity*.

3. *Herschel And ALMA Observations Of The ISM In Massive High-Redshift Galaxy Clusters*
   Wu, J. F. et al. 2017, *Galaxy Evolution Across Time*, 51.

2. *LADUMA: Looking at the Distant Universe with the MeerKAT Array*
   Blyth, S. et al. 2016, *Proceedings of MeerKAT Science: On the Pathway to the SKA*, 4.

Popular Science and Other (N=1)

1. *Effective use of machine learning to empower your research*
   Wu, J. F., 2022, *Times Higher Education – Campus*, Feature Article.