

ANNA C. WRIGHT

Center for Computational Astrophysics
Flatiron Institute

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RESEARCH INTERESTS

dwarf galaxies, low surface brightness galaxies, stellar halos, galaxy mergers, cosmological simulations, synthetic data

EDUCATION

Ph.D. in Physics & Astronomy <i>Rutgers, the State University of New Jersey</i>	Piscataway, NJ 2014–2020
M.S. in Physics & Astronomy <i>Rutgers, the State University of New Jersey</i>	Piscataway, NJ 2014–2019
B.S. in Astrophysics <i>Rice University</i>	Houston, TX 2010–2014

APPOINTMENTS

Flatiron Research Fellow <i>Flatiron Institute</i>	New York, NY 2024–
Assistant Research Scientist <i>Johns Hopkins University</i>	Baltimore, MD 2020–2024
Instructor for Exploring the Universe with Space Telescopes <i>Johns Hopkins University Pre-College Program</i>	Baltimore, MD 2024
Graduate Research Assistant <i>Rutgers, the State University of New Jersey</i>	Piscataway, NJ 2014–2020
Lab Instructor for Observational Radio Astronomy <i>Rutgers, the State University of New Jersey</i>	Piscataway, NJ 2019, 2020
Teaching Assistant for Extended Analytical Physics I/II <i>Rutgers, the State University of New Jersey</i>	Piscataway, NJ 2015–2016

GRANTS & AWARDS

Co-I on Hubble Space Telescope Cycle 33 Program GO-18076	2025–2026
Co-I on NASA Astrophysics Theory Program 23-ATP23-0138	2024–2027
PI on Hubble Space Telescope Cycle 31 Program AR-17549	2024–2025
ACM SIGHPC Computational & Data Science Fellowship	2016–2020
Robert A. Schommer Prize	2019
AAS International Travel Grant	2018
Noemie Koller Endowed Scholarship	2015
NSF Graduate Research Fellowships Program Honorable Mention	2015
Graduate Assistance in Areas of National Need Fellowship	2014–2015
Alexander J. & Lorraine H. Dessler Award in Space Physics	2014
Rice University Trustee Distinguished Scholarship	2010–2014
Rice University Department of Physics & Astronomy Summer Research Fellowship	2013
Rice Space Institute Prize	2013

ADVISING & MENTORING

Career mentor, <i>Lyniya Edwards</i> (<i>CUNY Masters Student</i>)	2025–
Advisor, <i>Minyong Jung</i> (<i>CCA Predoctoral Student</i>)	2026
Advisor, <i>Jeffrey Rhenius Jebakumar</i> (<i>Astro Scholars Student</i>)	2025
Advisor, <i>Emily Webber</i> (<i>Astro Scholars Student</i>)	2025
Near-peer mentor, <i>Nicole Crumpler</i> (<i>JHU Graduate Student</i>)	2023–2024
Near-peer mentor, <i>Maya Skarbinski</i> (<i>JHU Graduate Student</i>)	2023–2024
Co-advisor, <i>Hyeonmin Eugene Lee</i> (<i>STScI Space Astronomy Summer Program Student</i>)	2023
Advisor, <i>Nguyen Binh</i> (<i>STScI Space Astronomy Summer Program Student</i>)	2022
Near-peer mentor, <i>Lana Eid</i> (<i>Rutgers University Graduate Student</i>)	2019–2022
Co-mentor, <i>Nami Nishimura</i> (<i>STScI Space Astronomy Summer Program Student</i>)	2021

SERVICE

Journal Reviewer, <i>Nature Astronomy, MNRAS, AAS Journals</i>	
Organizer, <i>Women's N-Body Shop Meetings</i>	2024–
SOC Member, <i>EAS Special Session on LSB Galaxies</i>	2026
SOC Chair, <i>Accretion at the Disk-Halo Interface Workshop</i>	2025
Session Moderator, <i>Galactic Frontiers II</i>	2025
Application Reviewer, <i>Astro Scholars</i>	2024
Committee Member, <i>JHU Near-Peer Mentorship Program</i>	2022–2024
Senate Member, <i>JHU Women in Physics</i>	2022–2024
Discussion Panel Member, <i>HST Cycle 32 Extragalactic TAC</i>	2024
Discussion Panel Member, <i>National Science Foundation</i>	2023
Poster Judge, <i>AAS Chambliss Student Achievement Award</i>	2023
Committee Member, <i>N-Body Shop Code of Conduct Committee</i>	2021–2023
Application Reviewer, <i>ACM SIGHPC Computational & Data Science Fellowship</i>	2021–2023
Application Reviewer, <i>STScI Space Astronomy Summer Program</i>	2021–2023
Panelist, <i>What Life is Like in Graduate School (Rutgers Summer REU Program)</i>	2017
Time Allocation Committee, <i>SALT 2017-1 Rutgers TAC</i>	2017
Committee Member, <i>Rutgers Physics & Astronomy Graduate Student Life Committee</i>	2016–2017
Panelist, <i>Succeeding in HPC: My Journey (Supercomputing 2016)</i>	2016
Student Organizer, <i>Rutgers Physics & Astronomy Graduate Student Recruitment Committee</i>	2016
Treasurer, <i>Rutgers Physics & Astronomy Graduate Student Organization</i>	2015–2016
Student Organizer, <i>APS CUWiP at Rutgers</i>	2015

OUTREACH

Assistant Organizer, <i>Astro Scholars</i> (<i>JHU/STScI</i>)	2022, 2024
Guest Lecturer, <i>The Evolving Universe</i> (<i>Yale</i>)	2022
Speaker, <i>Astro Scholars</i> (<i>JHU/STScI</i>)	2022, 2025
Speaker, <i>STScI Space Astronomy Summer Program</i>	2022
Coordinator, <i>Rutgers Traveling Science Show at Camden Street Elementary School</i>	2018–2019
Presenter, <i>Rutgers Traveling Science Show at Camden Street Elementary School</i>	2015–2019
Guest Speaker, <i>Rutgers Young Scholars Program in Discrete Mathematics</i>	2015, 2016, 2019
Guest Speaker, <i>Redshaw Elementary School</i>	2018
Speaker, <i>Friends of Rutgers Astronomy</i>	2017

TALKS, SEMINARS, COLLOQUIA & TUTORIALS (†INVITED)

†Seminar, <i>Institute for Theory and Computation at the CfA Harvard & Smithsonian</i>	2026
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†Colloquium, <i>Institute for Theory and Computation at the CfA Harvard & Smithsonian</i>	2026
Talk, <i>Accretion at the Disk-Halo Interface Workshop</i>	2025
†Seminar, <i>Yale University</i>	2025
†Seminar, <i>University of Notre Dame</i>	2025
Talk, <i>Galactic Frontiers II</i>	2025
†Seminar, <i>Columbia University</i>	2024
Seminar, <i>Flatiron Institute, CCA</i>	2024
†Seminar, <i>Rutgers University</i>	2024
†Seminar, <i>University of Connecticut</i>	2023
†Colloquium, <i>University of Massachusetts</i>	2023
Talk, <i>Galactic Frontiers: Dwarf Galaxies in the Local Volume and Beyond</i>	2023
†Talk, <i>Streams across Simulations/CCA</i>	2023
†Seminar, <i>European Space Agency</i>	2023
†Talk, <i>AAS 241: Nearby Galaxies under a New Light with Roman</i>	2023
†Seminar, <i>American Museum of Natural History</i>	2022
†Colloquium, <i>George Mason University</i>	2022
Seminar, <i>STScI/JHU HotSci Talk Series</i>	2022
Talk, <i>N-Body Shop Workshop/CCA</i>	2022
Tutorial (powderday), <i>N-Body Shop Workshop/Center for Computational Astrophysics</i>	2022
†Seminar, <i>University of California, Riverside</i>	2022
†Seminar, <i>The Center for Astrophysics Harvard & Smithsonian</i>	2021
Talk, <i>N-Body Shop Excellence Conference</i>	2021
Seminar, <i>Johns Hopkins University</i>	2020
Talk, <i>Galaxy Formation & Evolution in the Era of the Nancy Grace Roman Space Telescope</i>	2020
†Seminar, <i>Princeton University</i>	2020
Talk, <i>235th Meeting of the American Astronomical Society</i>	2020
†Seminar, <i>Vanderbilt University</i>	2019
†Seminar, <i>STScI</i>	2019
†Seminar, <i>The Ohio State University CCAPP</i>	2019
†Seminar, <i>Yale University</i>	2019
Talk, <i>Small Galaxies, Cosmic Questions</i>	2019
†Seminar, <i>Max Planck Institute for Astrophysics</i>	2018
Talk, <i>15th Annual Potsdam Thinkshop</i>	2018
Talk, <i>New York Area Computational Astrophysics Meeting</i>	2017

OPEN-SOURCE PROJECTS CONTRIBUTED TO

[tangos](#)
[yt](#)
[Enzo](#)
[Powderday](#)
[pynbody](#)

PUBLICATIONS

View my papers on [ADS](#)

PRIMARY REFEREEED PUBLICATIONS

8. *Disk Formation and the Size-sSFR Relation of Dwarf Galaxies*

Geda, R., Cruz, A., **Wright, A.C.**, Greene, J.E., Brooks, A., Quinn, T., Wadsley, J., & Keller, B., 2025, submitted to *ApJ*

7. *The Merger-Driven Formation of Classical Low Surface Brightness Galaxies in ROMULUS25*
Wright, A. C., Brooks, A. M., Tremmel, M., Young, J. E., Munshi, F., & Quinn, T., 2025, submitted to *ApJ*
6. *Figuring Out Gas & Galaxies in Enzo (FOGGIE) VII: The (Dis)Assembly of Stellar Halos*
Wright, A. C., Tumlinson, J., Peebles, M. S., O'Shea, B. W., Lochhaas, C., Corlies, L., Smith, B. D., Binh, N., Augustin, R., & Simons, R. C., 2024, *ApJ*, 970(1):70
5. *What's in a Name? Quantifying the Interplay between Definition, Orientation and Shape of UDGs using the ROMULUS Simulations*
Van Nest, J. D., Munshi, F., **Wright, A. C.**, Tremmel, M., Brooks, A. M., Nagai, D. & Quinn, T., 2022, *ApJ*, 926(1):92.
4. *The Formation of Isolated Ultra-Diffuse Galaxies in ROMULUS25*
Wright, A. C., Tremmel, M., Brooks, A. M., Munshi, F., Nagai, D., Sharma, R. S., & Quinn, T. R., 2021, *MNRAS*, 502(4):5370.
3. *The Formation of Ultra-Diffuse Galaxies in the ROMULUSC Galaxy Cluster Simulation*
Tremmel, M., **Wright, A. C.**, Brooks, A. M., Munshi, F., Nagai, D., & Quinn, T. R., 2020, *MNRAS*, 497(3):2786.
2. *Reignition of Star Formation in Dwarf Galaxies*
Wright, A. C., Brooks, A. M., Weisz, D. R., & Christensen, C. R., 2019, *MNRAS*, 482(1):1176.
1. *A New Diagnostic of Magnetic Field Strengths in Radiatively Cooled Shocks*
Hartigan, P. & **Wright, A.**, 2015, *ApJ*, 811(1):12.

OTHER REFERRED PUBLICATIONS

14. *Figuring Out Gas & Galaxies In Enzo (FOGGIE) XIV: The Observability of Emission from Accretion and Feedback in the Circumgalactic Medium with Current and Future Instruments*
Saeedzadeh, V., Tumlinson, J., Peebles, M.S., O'Shea, B.W., Lochhaas, C., Corlies, L., Trapp, C.W., Smith, B.D., Werk, J.K., Acharyya, A., Augustin, R., Fox, A.J., Lehner, N., & **Wright, A.C.**, 2025, submitted to *ApJ*
13. *Figuring Out Gas & Galaxies In Enzo (FOGGIE) XIII: On the Observability of Extended HI Disks and Warps*
Trapp, C.W., Peebles, M.S., Tumlinson, J., O'Shea, B.W., **Wright, A.C.**, Acharyya, A., Smith, B.D., Saeedzadeh, V., & Augustin, R., 2025, submitted to *ApJ*
12. *Figuring Out Gas & Galaxies In Enzo (FOGGIE) XII: The Formation and Evolution of Extended HI Galactic Disks and Warps with a Dynamic CGM*
Trapp, C.W., Peebles, M.S., Tumlinson, J., O'Shea, B.W., Lochhaas, C., **Wright, A.C.**, Smith, B.D., Saeedzadeh, V., Acharyya, A., Augustin, R., & Simons, R.C., 2025, submitted to *ApJ*
11. *Figuring Out Gas & Galaxies In Enzo (FOGGIE) XI: Circumgalactic O VI Emission Traces Clumpy Inflowing Recycled Gas*

Lochhaas, C., Peebles, M.S., O’Shea, B.W., Tumlinson, J., Corlies, L., Saeedzadeh, V., Lehner, N., **Wright, A.C.**, Werk, J.K., Trapp, C.W., Augustin, R., Acharyya, A., & Smith, B.D., 2025, accepted to *ApJ*

10. *Survivors and Zombies: The Quenching and Disruption of Satellites around Milky Way Analogs*
Pathak, D., Christensen, C.R., Brooks, A.M., Munshi, F., **Wright, A.C.**, & Carter, C., 2025, *ApJ*, 989(2):178
9. *Are Gas-rich Ultra-diffuse Galaxies and Field Dwarfs Distinct?*
Motiwala, K., Karunakaran, A., Spekkens, K., Arora, N., Di Cintio, A., **Wright, A.C.**, Zaritsky, D., & Macciò, A.V., 2025, *ApJ*, 989(1):86
8. *Figuring Out Gas & Galaxies in Enzo (FOGGIE) X: Characterizing the Small-Scale Structure of the CGM and its Imprint on Observables*
Augustin, R., Tumlinson, J., Peebles, M.S., O’Shea, B.W., Smith, B.D., Lochhaas, C., **Wright, A.C.**, Acharyya, A., Werk, J.K., Lehner, N., Howk, J.C., Corlies, L., Simons, R.C., & O’Meara, J.M., 2025, *ApJ*, 993(1):52
7. *Figuring Out Gas & Galaxies in Enzo (FOGGIE) IX: The Angular Momentum Evolution of Milky Way-like Galaxies and their Circumgalactic Gas*
Simons, R.C., Peebles, M.S., Tumlinson, J., O’Shea, B.W., Lochhaas, C., **Wright, A.C.**, Acharyya, A., Augustin, R., Hamilton-Campos, K.A., Smith, B.D., Lehner, N., Werk, J.K., & Zheng, Y., 2024, *ApJ*, 988(2):250
6. *Figuring Out Gas & Galaxies in Enzo (FOGGIE) VIII: Complex and Stochastic Metallicity Gradients at $z > 2$*
Acharyya, A., Peebles, M. S., Tumlinson, J., O’Shea, B. W., Lochhaas, C., **Wright, A.C.**, Simons, R. C., Augustin, R., Smith, B. D., & Hyeonmin Lee, E., 2025, *ApJ*, 979(2):129
5. *Figuring Out Gas & Galaxies in Enzo (FOGGIE) VI: CGM Supported in Emergent, Non-Hydrostatic Equilibrium*
Lochhaas, C., Tumlinson, J., Peebles, M. S., O’Shea, B. W., Werk, J. K., Simons, R. C., Juno, J., Kopenhafer, C. E., Augustin, R., **Wright, A. C.**, Acharyya, A., & Smith, B. D., 2022, *ApJ*, 948(1):43.
4. *Star Formation Histories from SEDs and CMDs Agree: Evidence for Synchronized Star Formation in Local Volume Dwarf Galaxies over the Past 3 Gyr*
Olsen, C., Gawiser, E., Iyer, K., McQuinn, K. B. W., Johnson, B. D., Telford, G., **Wright, A. C.**, Broussard, A., & Kurczynski, P., 2021, *ApJ*, 913(1):45.
3. *An Excess of Globular Clusters in UDGs Formed Through Tidal Heating*
Carleton, T., Guo, Y., Munshi, F., Tremmel, M., & **Wright, A.**, 2021, *MNRAS*, 502(1):398.
2. *Black Hole Growth and Feedback in Isolated ROMULUS25 Dwarf Galaxies*
Sharma, R., Brooks, A., Somerville, R. S., Tremmel, M., Bellovary, J., **Wright, A.**, & Quinn, T. R., 2020, *ApJ*, 897(1):103.
1. *Simulating Radiative Magnetohydrodynamical Flows with ASTROBEAR: Implementation and Applications of Non-Equilibrium Cooling*
Hansen, E., Hartigan, P., Adams, A., **Wright, A.**, & Raymond, J. C., 2018, *MNRAS*, 481(3):3098.

UNREFEREED PUBLICATIONS

3. *Evolution of Galaxy Size in the FOGGIE Simulations*
Hyeonmin Lee, E., Acharyya, A., **Wright, A. C.**, Augustin, R., Lochhaas, C., Peebles, M. S., & Tumlinson, J., 2023, *RNAAS*, 7(9):202.
2. *Snowmass2021 Cosmic Frontier White Paper: Cosmological Simulations for Dark Matter Physics*
Banerjee, A., Boddy, K. K., Cyr-Racine, F., Erickcek, A. L., Gilman, D., Gluscevic, V., Kim, S., Lehmann, B. V., Mao, Y., Mocz, P., Munshi, F., Nadler, E. O., Necib, L., Parikh, A., Peter, A. H. G., Sales, L., Vogelsberger, M., & **Wright, A. C.**, 2022, *Snowmass2021 Cosmic Frontier White Paper*
1. *Ultra-Diffuse Galaxies on the Run*
Wright, A. C., 2021, *Nature Astronomy News & Views*, 5:1208.