

# ANNA C. WRIGHT

Center for Computational Astrophysics  
Flatiron Institute

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## RESEARCH INTERESTS

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

## EDUCATION

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

## APPOINTMENTS

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

## GRANTS & AWARDS

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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

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Mentor, <i>Nicole Crumpler (JHU Graduate Student)</i>	2023–2024
Mentor, <i>Maya Skarbinski (JHU Graduate Student)</i>	2023–2024
Co-advisor, <i>Hyeonmin Eugene Lee (STScI Space Astronomy Summer Program Student)</i>	2023
Advisor, <i>Nguyen Binh (STScI Space Astronomy Summer Program Student)</i>	2022
Near-peer mentor, <i>Lana Eid (Rutgers University Graduate Student)</i>	2019–2022
Co-mentor, <i>Nami Nishimura (STScI Space Astronomy Summer Program Student)</i>	2021

SERVICE

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Coordinator, <i>JHU Women in Physics Mentorship Program</i>	2022–
Senate Member, <i>JHU Women in Physics</i>	2022–
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 &amp; Data Science Fellowship</i>	2021–2023
Application Reviewer, <i>STScI Space Astronomy Summer Program</i>	2021–2023
Journal Reviewer, <i>Nature Astronomy</i>	2021
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 &amp; Astronomy Graduate Student Life Committee</i>	2016–2017
Panelist, <i>Succeeding in HPC: My Journey (Supercomputing 2016)</i>	2016
Student Organizer, <i>Rutgers Physics &amp; Astronomy Graduate Student Recruitment Committee</i>	2016
Treasurer, <i>Rutgers Physics &amp; Astronomy Graduate Student Organization</i>	2015–2016
Student Organizer, <i>APS CUWiP at Rutgers</i>	2015

OUTREACH

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Co-organizer, <i>Astro Scholars (JHU/STScI)</i>	2022, 2024
Guest Lecturer, <i>The Evolving Universe (Yale)</i>	2022
Speaker, <i>Astro Scholars (JHU/STScI)</i>	2022
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, & TUTORIALS (†INVITED)

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†Seminar, <i>Rutgers University</i>	<b>2024</b>
†Seminar, <i>University of Connecticut</i>	<b>2023</b>
†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/Center for Computational Astrophysics</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>	<b>2022</b>
†Colloquium, <i>George Mason University</i>	2022
Seminar, <i>STScI/JHU HotSci Talk Series</i>	2022

Talk, <i>N-Body Shop Workshop/Center for Computational Astrophysics</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 &amp; Smithsonian</i>	<b>2021</b>
Talk, <i>N-Body Shop Excellence Conference</i>	2021
Seminar, <i>Johns Hopkins University</i>	<b>2020</b>
Talk, <i>Galaxy Formation &amp; Evolution in the Era of the Nancy Grace Roman Space Telescope</i>	2020
†Seminar, <i>Princeton University</i>	2020
Talk, <i>235<sup>th</sup> Meeting of the American Astronomical Society</i>	2020
†Seminar, <i>Vanderbilt University</i>	<b>2019</b>
†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>	<b>2018</b>
Talk, <i>15<sup>th</sup> Annual Potsdam Thinkshop</i>	2018
Talk, <i>New York Area Computational Astrophysics Meeting</i>	<b>2017</b>

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OPEN-SOURCE PROJECTS CONTRIBUTED TO

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

## PUBLICATIONS

View my papers on [ADS](#)

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PRIMARY REFEREED PUBLICATIONS

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.

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OTHER REFEREED PUBLICATIONS

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6. *Figuring Out Gas & Galaxies in Enzo (FOGGIE) VIII: Complex and Stochastic Metallicity Gradients at  $z > 2$*   
Acharyya, A., Peeples, M. S., Tumlinson, J., O’Shea, B. W., Lochhaas, C., **Wright, A.C.**, Simons, R. C., Augustin, R., Smith, B. D., & Hyeonmin Lee, E., 2024, submitted to *ApJ*
5. *Figuring Out Gas & Galaxies in Enzo (FOGGIE) VI: CGM Supported in Emergent, Non-Hydrostatic Equilibrium*  
Lochhaas, C., Tumlinson, J., Peeples, 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.

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UNREFEREED PUBLICATIONS

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3. *Evolution of Galaxy Size in the FOGGIE Simulations*  
Hyeonmin Lee, E., Acharyya, A., **Wright, A. C.**, Augustin, R., Lochhaas, C., Peeples, 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.