

# ANNA C. WRIGHT

Center for Astrophysical Sciences  
Johns Hopkins University

Email: [acwright@jhu.edu](mailto:acwright@jhu.edu)  
Website: [anchwr.github.io](https://anchwr.github.io)

## RESEARCH INTERESTS

---

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

## EDUCATION

---

<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

## EXPERIENCE

---

<b>Assistant Research Scientist</b> <i>Johns Hopkins University</i>	Baltimore, MD 2020–Present
<b>Graduate Research Assistant</b> <i>Rutgers, the State University of New Jersey</i>	Piscataway, NJ 2014–2020
<b>Undergraduate Research Assistant</b> <i>Rice University</i>	Houston, TX 2012–2014

## GRANTS & AWARDS

---

Rutgers, <i>Robert A. Schommer Prize</i> , \$500	2019
AAS, <i>International Travel Grant</i> , \$1,500	2018
ACM & Intel, <i>ACM SIGHPC Computational &amp; Data Science Fellowship</i> , \$60,000	2016–2020
Rutgers, <i>Noemie Koller Endowed Scholarship</i> , \$7,000	2015
NSF, <i>Graduate Research Fellowships Program Honorable Mention</i>	2015
Rutgers, <i>Graduate Assistance in Areas of National Need Fellowship</i> , \$23,000	2014–2015
Rice, <i>Alexander J. &amp; Lorraine H. Dessler Award in Space Physics</i> , \$1,000	2014
Rice, Department of Physics & Astronomy Summer Research Fellowship, \$4,500	2013
Rice, Rice Space Institute Prize, \$200	2013
Rice, Rice University Trustee Distinguished Scholarship, \$83,000	2010–2014

## ADVISING & MENTORING

---

Mentor, <i>Binh Nguyen (STScI Space Astronomy Summer Program Student)</i>	2022
Co-mentor, <i>Nami Nishimura (STScI Space Astronomy Summer Program Student)</i>	2021
Near-peer mentor, <i>Lana Eid (Rutgers University Graduate Student)</i>	2019–Present

## SERVICE

---

Coordinator, <i>JHU Women in Physics Mentorship Program</i>	2022–Present
Senate Member, <i>JHU Women in Physics</i>	2022–Present
Committee Member, <i>N-Body Shop Code of Conduct Committee</i>	2021–Present
Journal Reviewer, <i>Nature Astronomy</i>	2021
Application Reviewer, <i>ACM SIGHPC Computational &amp; Data Science Fellowship</i>	2021, 2022
Application Reviewer, <i>STScI Space Astronomy Summer Program</i>	2021, 2022

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

#### TEACHING & OUTREACH

Guest Lecturer, <i>The Evolving Universe (Yale)</i>	2022
Co-organizer, <i>Astro Scholars (JHU/STScI)</i>	2022
Speaker, <i>Astro Scholars (JHU/STScI)</i>	2022
Speaker, <i>STScI Space Astronomy Summer Program</i>	2022
Lab Instructor, <i>Observational Radio Astronomy (Rutgers)</i>	2019, 2020
Coordinator, <i>Rutgers Traveling Science Show at Camden Street Elementary School</i>	2018–2019
Guest Speaker, <i>Redshaw Elementary School</i>	2018
Speaker, <i>Friends of Rutgers Astronomy</i>	2017
Teaching Assistant, <i>Extended Analytical Physics I/II (Rutgers)</i>	2015–2016
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

#### TALKS, SEMINARS, & TUTORIALS (†INVITED)

†Seminar, <i>European Space Agency (scheduled)</i>	2023
†Talk, <i>AAS 241: Nearby Galaxies under a New Light with Roman (scheduled)</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/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>	2021
Talk, <i>N-Body Shop Excellence Conference</i>	2021
Seminar, <i>Johns Hopkins University</i>	2020
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>	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>15<sup>th</sup> Annual Potsdam Thinkshop</i>	2018
Talk, <i>New York Area Computational Astrophysics Meeting</i>	2017

#### OPEN-SOURCE PROJECTS CONTRIBUTED TO

<a href="#">tangos</a>	2022–Present
<a href="#">yt</a>	2021–Present
<a href="#">Enzo</a>	2020–Present

## PUBLICATIONS

View my papers on [ADS](#)PRIMARY REFEREED PUBLICATIONS

---

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 REFEREED PUBLICATIONS

---

5. *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, submitted to *ApJ*
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.

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.