

# 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, synthetic data

## EDUCATION

---

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

## EXPERIENCE

---

|  |                               |
|--|-------------------------------|
| <b>Assistant Research Scientist</b><br><i>Johns Hopkins University</i>                   | Baltimore, MD<br>2020–Present |
| <b>Graduate Research Assistant</b><br><i>Rutgers, the State University of New Jersey</i> | Piscataway, NJ<br>2014–2020   |
| <b>Undergraduate Research Assistant</b><br><i>Rice University</i>                        | Houston, TX<br>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>         | 2019–2022 |

## SERVICE

---

|   |              |
|---|--------------|
| Poster Judge, <i>AAS Chambliss Student Achievement Award</i>                        | 2023         |
| 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)

|   |      |
|---|------|
| †Colloquium, <i>University of Massachusetts (scheduled)</i>                                       | 2023 |
| †Seminar, <i>University of Connecticut (scheduled)</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/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

---

|           |              |
|-----------|--------------|
| tangos    | 2022-Present |
| yt        | 2021-Present |
| Enzo      | 2020-Present |
| Powderday | 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.