

Daniel R. Piacitelli

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EDUCATION

- Ph.D. Student – Physics: Astrophysics** 2022 - Current
Rutgers University – Piscataway, NJ
- B.S. – Astronomy & Physics; Minor – Applied Mathematics** 2018 - 2022
University of Washington – Seattle, WA

RESEARCH EXPERIENCE & PUBLICATIONS

- Characterizing the Circumgalactic Metal Distribution of Simulated Dwarf Galaxies** 2023 - Current
Rutgers University – Piscataway, NJ
- Impact of Density Fluctuations and Mixing Gas on Photoionization Modeling** 2022 - 2023
University of Washington – Seattle, WA
3. Faerman, Y., Piacitelli, D. R., & McQuinn, M. 2023 (in prep)
- Absorption-based Circumgalactic Medium Line Emission Estimates** 2021 - 2022
University of Washington – Seattle, WA
2. Piacitelli, D. R., Solhaug, E., Faerman, Y., & McQuinn, M. 2022, MNRAS, 516, 3049, doi: [10.1093/mnras/stac2390](https://doi.org/10.1093/mnras/stac2390)
- The Impact of Cosmic Rays on the Kinematics of the Circumgalactic Medium** 2019 - 2021
University of Washington – Seattle, WA
1. Butsky, I. S., Werk, J. K., Tchernyshyov, K., Fielding, D., Breneman, J., Piacitelli, D. R., Quinn, T., Sanchez, N., Cruz, A., Hummels, C., et al. 2022, ApJ, 935, 69, doi: [10.3847/1538-4357/ac7ebd](https://doi.org/10.3847/1538-4357/ac7ebd)

CONFERENCES & SCHOOLS

- “Galactic Frontiers: Dwarf Galaxies in the Local Volume and Beyond”** 05/2021
Center for Computational Astrophysics, Flatiron Institute – New York, NY
- “The Circum-Galactic Medium across cosmic time”** 05/2021
52nd “Saas-Fee Advanced Course,” Swiss Society for Astrophysics – Les Diablerets, SWITZ

RESEARCH TALKS

- Mary Gates Undergraduate Research Symposium (Virtual)** 05/2021
University of Washington – Seattle, WA
“The Impact of Cosmic Rays on the Kinematics of the Circumgalactic Medium”
- Research Exposed! (Virtual)** 03/2021
University of Washington – Seattle, WA
“The Impact of Cosmic Rays on the Kinematics of the Circumgalactic Medium”
- UW Astronomy Department’s Astrofest (Virtual)** 09/2020
University of Washington – Seattle, WA
“Synthetic Spectroscopy and Cosmic Rays”
- Mary Gates Undergraduate Research Symposium** 05/2019
University of Washington – Seattle, WA
“Ram Pressure Stripping & Tail Structures of Jellyfish Galaxies”

HONORS & AWARDS

- Baer Prize, University of Washington** 05/2021
A nomination-based award that recognizes three UW astronomy undergraduates for excellence in research, academics, and public outreach.

Astronomy Departmental Honors, University of Washington 2019 - 2022

An honor given to students who maintain a cumulative GPA of 3.7+ in astronomy courses and complete 6 academic credits of research.

Dean's List Status, University of Washington 2018 - 2022

An honor given to students who attain a quarterly GPA of 3.5 or higher.

MENTORSHIP

Honors College Grads Giving Back 2023 - Current

Rutgers University – Piscataway, NJ

- Mentoring honors college undergraduates on crafting graduate school applications personal statement, engaging in research endeavors, honing research presentation skills, and more

Department of Physics Near-Peer Mentor 2023 - Current

Rutgers University – Piscataway, NJ

- Supporting and guiding an incoming graduate student up to their qualifying exam

Astronomy Undergraduate Peer Mentoring 2021 - 2022

University of Washington – Seattle, WA

- Supporting and guiding fellow undergraduates through academic and professional challenges in biweekly collaborative meetings

TEACHING

Teaching Assistant 2022 - Current

Rutgers University – Piscataway, NJ

- Courses:
 - **PHYS203: General Physics Recitation** (Fall Semester 2022)
 - **PHYS206: General Physics Laboratory** (Spring Semester 2023)
 - **PHYS229: Analytical Physics II Laboratory** (Fall Semester 2023)

Grader for Upper-Level Astronomy Courses 2020 - 2022

University of Washington – Seattle, WA

- Courses:
 - **ASTR 322: The Contents Of Our Galaxy** (Fall Quarters 2020 & 2021)
 - **ASTR 323: Extragalactic Astronomy And Cosmology** (Winter Quarters 2021 & 2022)
 - **ASTR 321: The Solar System** (Spring Quarters 2021 & 2022)
 - **ASTR 480: Introduction to Astronomical Data Analysis** (Spring Quarter 2022)

LEADERSHIP, INVOLVEMENT, & OUTREACH

Asynchronous Student Peer Instruction & Review Experience (ASPIRE) 2023 - Current

Rutgers University – Piscataway, NJ

- Independently organizing a review experience for undergraduates to receive feedback from graduate students, post-docs, and faculty on their applications to REUs and Ph.D. programs
- Hosting panels and presentations to classes on applying to REUs and Ph.D. programs

Minorities in Physics and Astronomy Treasurer 2023 - Current

Minorities in Physics and Astronomy Member 2022 - 2023

Rutgers University – Piscataway, NJ

- Advancing the concerns of, and nurturing a sense of community among, individuals who self-identify as part of historically underrepresented and marginalized communities
- Writing and managing the budget and initiating reimbursements

Physical Sciences Curriculum Lead, Synbio For Everyone 2021 - 2022

University of Washington – Seattle, WA

- Organizing and managing the physical sciences curriculum team in creating activities to that teach physical sciences topics and aim to improve accessibility of K-12 STEM education materials

- Working alongside students with disabilities to complete our activities and assess their efficacy in the classroom

Undergraduate Research Leader

2020 - 2022

University of Washington – Seattle, WA

- Motivating fellow undergraduates to engage in research through panel discussions and presenting my research projects and research experiences to undergraduate classes
- Reviewing Mary Gates Undergraduate Research Symposium abstracts for scientific clarity