

CURRICULUM VITAE

Sabrina Appel

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CURRENT AFFILIATION

Ph.D. Candidate
Rutgers, The State University of New Jersey,
Department of Physics & Astronomy
136 Frelinghuysen Rd.
Piscataway, NJ 08854
E-mail: appel@physics.rutgers.edu
Phone: (503) 931-1725

EDUCATION

Rutgers, The State University of New Jersey, Piscataway, NJ
Fall 2018 to present
Graduate Courses Completed:

- Electricity & Magnetism I
- Classical Mechanics
- Quantum Mechanics
- First Year Seminar
- Radiative Processes
- General Theory of Relativity
- Cosmology
- Interstellar Matter
- Data Science in Astrophysics

Reed College, Portland, OR
B.A. in Physics, 2017

South Salem High School, Salem, OR
International Baccalaureate Diploma, Valedictorian, 2013

RESEARCH EXPERIENCE

Rutgers, The State University of New Jersey
Research Assistant *since December 2018*
Advisor: Dr. Blakesley Burkhart

Reed College
Senior Thesis *Fall 2016 to Spring 2017*
Advisor: Dr. Andrew Larkoski

American Museum of Natural History
NSF Funded REU Participant *Summer 2016*
Advisor: Dr. Dave Zurek

Rutgers, The State University of New Jersey
NSF Funded REU Participant *Summer 2015*
Advisor: Dr. Andrew Baker

SCHOLARSHIPS, HONORS, AND AWARDS

Boyd Scholarship, awarded by the Rutgers University Physics and Astronomy Department, Summer 2019

Travel Award, awarded by the Rutgers University Physics and Astronomy Department for travel to the “Advancing Theoretical Astrophysics Summer School” in July 2019

Phi Beta Kappa, inducted to the Reed College Chapter May 15, 2017

NSF Scholar, awarded by Reed College for the 2014/15, 2015/16, and 2016/17 academic years

President’s Commendation for Academic Excellence, awarded by Reed College for academic performance in the 2013/14, 2014/15, 2015/16 and 2016/17 academic years

Reed College Grant, awarded by the Reed College Financial Aid Office for the 2013/14, 2014/15,

2015/16, and 2016/17 academic years

Benjamin Gerling Leadership and Service Memorial Scholarship, awarded by the South Salem High School Drama Department upon graduation, May 2013

SERVICE

Officer in the Women in Physics and Astronomy group, Rutgers, the State University of New Jersey, Piscataway, NJ (Summer 2019 to present)

Co-President of the Physics and Astronomy Graduate Student Organization, Rutgers, the State University of New Jersey, Piscataway, NJ (Elected for 2019-2020)

Co-Founder and Leader of ScienceChat, a group for interdisciplinary science discussion, Reed College, Portland, OR, (2015-2017)

MEMBERSHIPS AND
ACTIVITIES
(SELECTED)

Women in Physics and Astronomy (WiPA), Rutgers, the State University of New Jersey, Piscataway, NJ, Member Fall 2018 to present

American Physical Society (APS), Member Fall 2015 to Fall 2018

American Astronomical Society (AAS), Junior Member Fall 2015 to Fall 2017

ScienceChat, a group for interdisciplinary science discussion, Reed College, Portland, OR, Member 2015-2017

Astronomy reading group, an informal journal club at Reed College, Member Spring 2014 to April 2017

STEMGeMs, a group for the promotion of women and gender minorities in the sciences, Reed College, Member Spring 2014 to May 2017

OUTREACH,
TEACHING, AND
MENTORING

Near Peer Mentor for a fellow graduate student, Physics and Astronomy Department, Rutgers, The State University of New Jersey (Summer 2019 to Present)

Private Math Tutor for middle and high school students, Highland Park, NJ (Fall 2018 to Present)

Volunteer Instructor, The Academy at Rutgers for Girls in Engineering and Technology (TARGET): Observatory Tour and Astronomy Demo Session, Rutgers, The State University of New Jersey, Piscataway, NJ (August 1, 2019)

Teaching Assistant, Extended Analytical Physics II, Rutgers, The State University of New Jersey, Piscataway, NJ (Spring 2019)

Teaching Assistant, Extended Analytical Physics I, Rutgers, The State University of New Jersey, Piscataway, NJ (Fall 2018)

Private Physics Tutor for non-physics undergraduate student, Rutgers, Piscataway, NJ (Fall 2018)

Volunteer, Physics Lab & Featured Exhibits, Oregon Museum of Science and Industry, Portland, OR (2017-2018)

Teaching Assistant, Introductory Physics Laboratory, Reed College, Portland, OR (2014-2017)

Private Math and Physics Tutor for a high school student, Portland, OR (2015-2017)

Griffin Guide (peer mentoring for incoming students), Reed College, Portland, OR (2016-2017)

Telescope Operator, Reed College, Portland, OR (2016-2017)

Introductory Physics Drop-in Tutor, Reed College, Portland, OR (2014-2015)

Library Intern, Salem Public Library's Children's Desk, Salem, OR (Summer 2014)

Grout Elementary School Math and Reading Tutor, Portland, OR (2013-2014)

THESES

"Simulating the Gravitational Lensing of Massive Particles: An Exploration of Scattering Solutions

of the Schwarzschild Metric,” Senior thesis in Physics, Reed College, submitted April 28, 2017
Thesis Advisor: Andrew Larkoski (Visiting Assistant Professor at Reed College)

CONFERENCES, SUMMER SCHOOLS, AND WORKSHOPS	<p>“New England Star Formation Meeting,” University of Connecticut, Storrs, Connecticut, (January 17, 2020)</p> <p>“Gotham Fest 2019,” Simons Foundation Center for Computational Astrophysics, New York, New York, (September 6, 2019)</p> <p>“Torch Open Source Workshop: Introduction to Structure and Use,” Simons Foundation Center for Computational Astrophysics, New York, New York, (August 28-30, 2019)</p> <p>“Advancing Theoretical Astrophysics Summer School,” University of Amsterdam, Amsterdam, The Netherlands, (July 15-26, 2019)</p> <p>The 229th AAS Meeting, Grapevine, TX, (January 3-7, 2017)</p> <p>The 227th AAS Meeting, Kissimmee, FL, (January 4-8, 2016)</p>
POSTERS, TALKS ETC.	<p>“Investigating the Impact of Stellar Feedback on Models of Star Formation,” Gotham Fest 2019, Simons Foundation Center for Computational Astrophysics, New York, New York, (September 6, 2019)</p> <p>“Women in Physics: A Case Study of Equity Issues in Physics,” Student Seminar in Physics and Astronomy, Rutgers, The State University of New Jersey, March 14, 2019 (joint talk with Charlotte Olsen)</p> <p>“Simulating Gravitational Lensing,” Senior Thesis Oral Examination, Reed College, May 2, 2017 (2-hour exam before an interdisciplinary, 4-person board of faculty)</p> <p>“Simulating Gravitational Lensing,” Senior Thesis Talk, Reed College Physics Department, March 29, 2017</p> <p>“From the Ultraviolet to the Infrared: The Stars of M70,” Poster, 229th AAS Meeting, Jan. 6, 2017</p> <p>“From the Ultraviolet to the Infrared: The Stars of M70,” Reed College Physics Department, Sept. 28, 2016</p> <p>“From the Ultraviolet to the Infrared: The Stars of M70,” AMNH, Aug. 3, 2016</p> <p>“Star Formation in Nearby Analogues of Lyman Break Galaxies,” Poster, 227th AAS Meeting, Jan. 6, 2016</p> <p>“Star Formation in Nearby Analogues of Lyman Break Galaxies,” Reed College Physics Department, Sept. 16, 2015</p> <p>“Star Formation in Nearby Analogues of Lyman Break Galaxies,” Poster, Rutgers, The State University of New Jersey, Jul. 29, 2015</p> <p>“Star Formation in Nearby Analogues of Lyman Break Galaxies,” Rutgers Physics and Astronomy Department, Jul. 22, 2015</p>
OTHER EXPERIENCE	<p>Technical Consultant, Kolisch Hartwell, P.C., Portland, OR - July 10, 2017 to May 31, 2018</p> <p>Teacher, Discovery School of Dance, Salem, OR - September 2012 to May 2013</p> <p>Assistant Teacher, Discovery School of Dance, Salem, OR - September 2010 to May 2012</p>