

Eileen C. Gonzales

PhD Candidate

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Education

08/2015–present	CUNY Graduate Center, New York, NY PhD in Physics Advisor: Dr. Jackie Faherty
08/2011–12/2014	San Francisco State University, San Francisco, CA M.S. Physics concentration in Astronomy Advisor: Dr. Adrienne Cool
08/2006–05/2010	Michigan State University, East Lansing, MI B.S. Astrophysics (Dual Major in German)

Related Work Experience

2018–2019	Non-Teaching Adjunct , College of Staten Island, Staten Island, NY
2017–2019	Research Mentor , American Museum of Natural History New York, NY
Fall 2017	Adjunct Lecturer , Hunter College New York, NY
Spring 2016	Physics Tutor , Self Employed
Spring 2015	Lecturer , San Francisco State University San Francisco, CA
2011–2014	Graduate Teaching Associate , San Francisco State University San Francisco, CA
2013–2014	Telescope Workshop Instructor , San Francisco State University San Francisco, CA
Sum. 2008	Intern , Institute for Experimental and Applied Physics, University of Kiel, Kiel, Germany

Honors and Awards

2019	Mina Rees Dissertation Fellowship in the Sciences , City University New York Graduate Center (Dissertation Year support, \$25,000)
2019	Ford Dissertation Fellowship Honorable Mention , Ford Foundation
2018	Beth Brown Memorial Award , National Society of Black Physicists 2018 Conference (Best oral presentation in astronomy: <i>Is TRAPPIST-1 a Unique M-dwarf Host Star</i>)
2018	Third Place Prize Graduate Student Poster Competition , Cool Stars 20
2018	Graduate Student Prize , Astronomical Society of New York
2018	Chambliss Honorable Mention , AAS 231 st Meeting (Poster: <i>Examining Cloud, Metallicity, and Gravity signatures in Brown Dwarfs</i>)
2017	NSF AGEP , National Science Foundation Supplemental Award (\$36,000/year salary support, renewed for a total of 3 years)
2017	LSSTC Data Science Fellow , Large Synoptic Survey Telescope Corporation Two year program of 6 week-long intensive data science workshops
2016	NIGMS RISE Fellowship , National Institute of Health (\$30,000/year salary, \$1,500/year travel funds, \$1,500/year research allowance, full tuition)
2015	CUNY Science Scholar , City University of New York Graduate Center (AY 2016-2017, AY 2017-2018 - tuition, AY 2015-2016 - \$25,000 stipend and tuition)
2014	Honorable Mention , College of Science and Engineering Showcase San Francisco State Uni. (Poster: <i>Calibration and first images from the refurbished Leuschner 30-inch Telescope</i>)

Refereed Publications

- Faherty, J.K, Goodman, S., Caselden, D., Colin, G., Kuchner, M. J., Meisner, A. M., Gagné, J., Schneider, A. C., **Gonzales, E. C.**, Bardalez Gagliuffi, D., Logdson, S. E., Allers, K., Burgasser, A.J., The Backyard Worlds: Planet 9 Collaboration, *WISE2150-7250AB: A very low mass, wide co-moving brown dwarf system discovered through the citizen science project Backyard Worlds: Planet 9*. Submitted to ApJ.
- **Gonzales, E.C.**, Faherty, J. K., Gagné, J., Teske, J., McWilliam, A. *A Reanalysis of the Fundamental Parameters and Age of TRAPPIST-1*. Submitted to ApJ.
- **Gonzales, E.C.**, Faherty, J. K., Gagné, J., Artigau, É., & Bardalez Gagliuffi, D. *Understanding Fundamental Properties and Atmospheric features of subdwarfs via a case study of SDSS J125637.13-022452.4*. ApJ, 2018, 864, 100. [arXiv:1807.04794](https://arxiv.org/abs/1807.04794)
- Jacqueline Faherty, Jonathan Gagne, Adam Burgasser, Eric Mamajek, **Eileen Gonzales**, Daniella Bardalez Gagliuffi, and Federico Marocco. *A Late-type L Dwarf at 11 pc Hiding in the Galactic Plane Characterized Using Gaia DR2*. ApJ, 2018, 868, 44. [arXiv:1805.01573](https://arxiv.org/abs/1805.01573)

Non-refereed Publications

- **Gonzales, E.C.**, Faherty, J. K., Burningham, B., Cleary, C. *Retrieval of the d/sdL7+T7.5p binary 2MASS 14162408+1348263AB*, In prep.
- Jonathan Gagné, **Eileen Gonzales**, and Jacqueline Faherty. *A Gaia DR2 Confirmation that 2MASS J12074836-3900043 is a Member of the TW HYA Association*. RN AAS, 2018, 2, 2. [arXiv:1804.09625](https://arxiv.org/abs/1804.09625)

Invited Talks

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| Jan. 2019 | <i>A Reanalysis of the Age of TRAPPIST-1</i> , Beth Brown Memorial Prize talk , AAS 233, Seattle, WA |
| Dec. 2018 | <i>Is TRAPPIST-1 A Unique M-dwarf Host Star?</i> , Queensborough Community College Physics department seminar, New York, NY |
| June 2018 | <i>Understanding Atmospheres of Subdwarfs via SDSS J1256-0224</i> , Graduate Student Prize Talk , Astronomical Society of New York 50th Meeting, New York, NY |
| Feb. 2017 | <i>Understanding Atmospheres of Subdwarfs via a case study of SDSS J1256-0224</i> , Harvard CfA Planets and Stars Seminar, Cambridge, MA |
| Nov. 2017 | <i>Understanding Atmospheres of Low-mass Stars, Brown Dwarfs, and Giant Exoplanets</i> , SACNAS, Salt Lake City, UT |

Contributed Talks and Posters

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| June 2019 | Talk: <i>A Reanalysis of the Age of TRAPPIST-1</i> , TRAPPIST-1 Toward the comparative study of temperate terrestrial worlds- Liège, Belgium |
| Jan. 2019 | Poster: <i>Is TRAPPIST-1 a Unique M-dwarf Host Star?</i> , AAS 233, Seattle, WA (Jan) and |
| June 2018 | <i>Cool Stars 20</i> , Cambridge, MA (June) |
| Nov. 2018 | Talk: <i>Is TRAPPIST-1 a Unique M-dwarf Host Star?</i> , National Society of Black Physicists 2018, Columbus, OH |
| Jan 2018 | Poster: <i>Examining Cloud, Metallicity, and Gravity signatures in Brown Dwarfs</i> , AAS 231 National Harbor, MD |
| Jan 2018 | Poster: <i>The BDNYS Database of low-mass stars, brown dwarfs, and planetary mass companions</i> , co-author, AAS 231, National Harbor, MD |
| Nov. 2017 | Talk: <i>Understanding Atmospheres of Low-mass Stars, Brown Dwarfs, and Giant</i> |
| Oct. 2017 | <i>Exoplanets</i> , National Society of Black Physicists 2017, Moorehouse College, Atlanta, GA (Nov) and BDEXOCON II, University of Delaware, Newark, DE (Oct) |

Sept. 2017	Talk: <i>Understanding Atmospheres of Low-mass Stars, Brown Dwarfs, and Giant Exoplanets</i> , Astrofest, Columbia University, New York, NY
June 2017	Poster: <i>Examining Cloud, Metallicity, and Gravity signatures in Brown Dwarfs</i> , Women in Astronomy IV, Austin TX and ERES III, Yale University, New Haven, CT
Oct. 2016	Poster: <i>Examining gravity, clouds and metallicity signatures in young and old brown dwarfs</i> , National Society of Black Physicists Fall Workshop, Femi Lab
Feb 2015 Jan. 2015	Poster: <i>Testing the refurbished Leuschner 30-inch Telescope and its capabilities to detect transiting exoplanets</i> , AAS 225, Seattle, WA (Jan) and National Society of Black Physicists 2015, Baltimore, MD (Feb)
May 2014 Apr. 2014	Poster: <i>Testing the refurbished Leuschner 30-inch Telescope and its ability to detect planets around other stars</i> , San Francisco State University College of Science and Engineering (COSE) Project Showcase (May) and San Francisco State University Graduate Research and Creative Works Showcase (April), San Francisco, CA
May 2014	Poster: <i>Calibration and first images from the refurbished Leuschner 30-inch Telescope</i> , co-author, COSE Showcase, San Francisco State University, San Francisco, CA
Dec. 2008	Poster: <i>TNS - A compact, light-weight sensor for thermal neutrons</i> , co-author, AGU Fall 2008 Meeting

Grants and Telescope Proposals

2019	Cool Stars Travel Grant- Covered registration for Cool stars 20 conference
2019	Doctoral Student Research Grant Round 13- \$900 to attend Cool Stars 20 Conference
2018	Sigma Xi Grant-In-Aid of Research- \$3178 travel funds for observing run
2018	AAS FAMOUS Travel Grant - \$500 toward the attendance of the 231 st AAS Meeting
2018A–2019	NOAO Observing Proposal- <i>Weather and aurorae on one of the Sun's nearest neighbours</i> , (PI: J. Faherty), Co-I, 1 Night on SOAR Spartan
2017	PSC-CUNY Research Award 2017- Co-wrote grant (PI: Emily Rice), \$6,000
2015	AAS FAMOUS Travel Grant- \$1000 toward the attendance of the 225 th AAS Meeting

Observing Experience

2019	IRTF/SpeX	1/2 night
2016–2018	Magellan/FIRE	9 nights
2016–2018	Magellan/ FOURSTAR	9 nights
2017	DuPont/CAPScam	1 night

Teaching Experience

Fall 2017	Adjunct Lecturer , Astro 102 (Laboratory Experiments in Astronomy), Hunter College Taught one section of introductory astronomy lab for non-science majors, 20 students.
Spring 2015	Lecturer , ASTR 116 (Astronomy Laboratory), San Francisco State University Taught one section of Introductory Astronomy Lab for non-science majors, ~30 students Prepared short lectures and activities to be done in the SFSU planetarium. Developed and graded quizzes, homework, and exams.
Spring 2015	Lecturer , PHYS 112 (General Physics I Laboratory), San Francisco State University Taught one section of Introductory Physics Lab for science majors, ~30 students. Developed and graded quizzes and homework.
2013–2014	Leuschner Telescope Workshop Instructor , San Francisco State University San Francisco, CA. Taught students how to operate the Leuschner 30-inch Telescope

Fall 2011–
Fall 2014 **Graduate Teaching Associate**, ASTR 116 (Astronomy Laboratory), San Francisco State University Taught one section of Introductory Astronomy Lab for non-science majors, ~30 students. Prepared short lectures and activities to be done in the SFSU planetarium. Developed and graded quizzes, homework, and exams. Part of group rewriting labs.

Mentoring Experience

2018–2019	Mentored AMNH Helen Fellow (postbacc) Colleen Cleary on subdwarf retrievals project
2018–2019	Advisor of Makenzi Fischbach (HS Senior), Science Mentoring Research Program
2018–2019	Advisor of Dillion Murugesan (HS Junior), Science Mentoring Research Program
2018–2019	Advisor of Summer Williams (HS Junior), Science Mentoring Research Program
2017–2018	Advisor of Tony Zhu (HS Senior), Science Mentoring Research Program
2017–2018	Advisor of Nina Christenson (HS Junior), Science Mentoring Research Program
2017–2018	Advisor of Zephan D'Cruz (HS Junior), Science Mentoring Research Program
2017	Mentored Danya Abdelhameid (undergraduate), Grad Spark Accelerator

K-12 Teaching and Mentoring Experience

2017–2019	Research Mentor , Science Research Mentoring Program, American Museum of Natural History New York, NY. Advised high school students during a year-long research project.
2018	Instructor , American Museum of Natural History, New York, NY. Co-taught Wonderful Universe, an after school introductory astronomy class for sophomore, junior, and senior high school students.
2014–2015	Lego Engineer Instructor , Play-Well TEKnologies, San Francisco/ San Mateo Area, CA Taught K-5 th graders engineering through play with Legos as an after school program or birthday party. Created lesson plans to cover engineering concepts and building skills.
Summers 2012–2014	Lead Science Instructor , Camp Galileo, Woodside, CA Taught 3 rd -5 th graders science projects related to weekly camp themes. Helped campers to develop inquiry based learning skills using Galileo Innovation Approach.
2010–2011	Guest Experience Team Member , Impression 5 Science Center Lansing, MI Taught science workshops for general public, school groups and birthday parties. Engaged with visitors on the floor by answering questions about exhibits and running small activities.
2008–2010	America Reads Tutor , Woodcreek Elementary, Lansing, MI Worked with Kindergarten, 1 st , 3 rd and 4 th graders to improve their reading and math skills. Read aloud in small groups and worked on math worksheets.

Outreach

May 2019	Panel Presentation to Kingsbridge High School astronomy class. New York, NY
Jan. 2019	Astronaut Training, an adult comedy outreach game show at The Caveat. New York, NY
July 2018	Built solar powered cars with children and solar telescope observing at Bloomberg Summer Picnic. New York, NY
June 2018	Answered astronomy questions and Open Space planetarium software demonstrations at American Museum of Natural History ID Day. New York, NY
July 2017	Career Panel with American Museum of Natural History MEEP (college) and Saltz (high school) interns. New York, NY
Oct. 2014	Partial Solar Eclipse Event. Solar telescope observing and comet making with the general public. San Francisco State University, CA.

Fall 2012	Observatory Docent, San Francisco State University San Francisco, CA
Fall 2010	Volunteer, Impression 5 Science Center Lansing, MI
Fall 2009	Science Theatre Presenter, Michigan State University, East Lansing MI.

Professional Service

2019	Executive Secretary, NASA Panel
Nov. 2018	Women and Gender Minorities Panel Session at National Society of Black Physicists 2018 Conference, Columbus, OH.
2017–2019	AMNH Astrophysics Department Seminar Committee, New York, NY
Jan. 2019	Recruitment for CUNY Graduate Center Physics Program at Undergraduate Women in Physics Conference, Amherst College, Amherst, MA.
Nov. 2017	Recruitment for CUNY Graduate Center Physics Program at National Society of Black Physicists 2017 Conference, Atlanta, GA.
Apr. 2017	Bench Sciences Recruitment Video (Physics), CUNY Graduate Center. New York, NY
2013–2015	ASTR 116 Curriculum Revamp Committee, San Francisco State University, San Francisco CA. Rewrote astronomy lab curriculum to have an inquiry based focus.