

Megan T. Tillman

Department of Physics & Astronomy
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Education	Rutgers University , Piscataway, NJ <i>PhD Candidate</i>	2020 - present
	Texas A&M University , College Station, TX <i>Bachelor of Science in Physics (Honors) – Minors in Math and Astrophysics</i>	Class of 2020
Awards and Honors	National Science Foundation Graduate Research Fellowship Program Honorable mention.	2022
	Faculty Student Achievement Award Department of Physics and Astronomy Texas A&M	2020
	CIERA Undergraduate Research Fellow Northwestern University 10-week funded research work – continuing projects from the CIERA REU.	2019 & 2020
	Department of Physics and Astronomy Undergraduate Travel Grant \$500 Funded by the Phillip and Doris Moses Ranch Fund.	2019
	Mitchell Institute Travel Grant \$500 Funded by the Mitchell Institute.	2019
	Philip and Doris Moses Fund Honors Scholarship \$1000 yearly scholarship awarded for Departmental Honors in Physics and Astronomy program (total of \$2000).	2018 & 2019
	CIERA Research Experience for Undergraduates Northwestern University NSF funded 10-week REU.	2018
Outreach & Teaching Experience	MiPA Web Master - Rutgers University Minorities in Physics and Astronomy web master.	2023
	Graduate Teaching Assistant - Rutgers University Department of Physics and Astronomy teaching assistant.	2020 - 2022
	Undergraduate Teaching Fellow - Texas A&M University Department of Physics and Astronomy teaching assistant.	2019 - 2020
	Discover, Explore, and Enjoy Physics and Engineering (DEEP) - Undergraduate demonstrator and demonstration designer – physics education and outreach at Texas A&M University.	2017 - 2019
Talks & Presentations	Max Planck Institute for Astrophysics Cosmology Seminar “The effects of AGN and stellar feedback on the low-z Lyman- α forest.” Max Planck Institute, Garching, Germany	June 2023
	Modelling of Multiphase Astrophysical Media “AGN Feedback Effects on the Low Redshift Lyman- α Forest in Simba” Aspenstein Castle, Lake Kochel, Germany	June 2023
	Simba Collaboration Workshop “AGN Feedback Effects on the Low Redshift Lyman- α Forest in Simba”	

Flatiron Institute, Simons Foundation, NYC *May 2023*

Galaxy Formation and Evolution in the Data Science Era

“Too Hot to Handle: The Role of Supermassive Black Holes in Heating the Low Redshift Intergalactic Medium”

Kavli Institute for Theoretical Physics, UC Santa Barbara, CA *March 2023*

Joint KITP-CCA Workshop

“AGN Feedback Effects on the Low Redshift Lyman- α Forest”

Flatiron Institute, Simons Foundation, NYC *January 2023*

CAMELS Workshop

“AGN Feedback Effects on the Low Redshift Lyman- α Forest”

Flatiron Institute, Simons Foundation, NYC *December 2022*

American Physical Society Mid-Atlantic Section Meeting

“Supermassive Black Holes and the Low Redshift Lyman- α Forest.”
(poster presentation)

Rutgers University *December 2021*

American Astronomical Society Meeting 235

“Running Late: The observable implications of delayed supermassive black hole growth.”
(10-minute talk)

Honolulu Convention Center *January 2020*

Society of Physics Students Meeting

“Developing the Quasar Luminosity Function for FIRE Simulations”

Texas A&M University - College Station *February 2019*

Conference for Undergraduate Women in Physics (CUWiP)

“Testing Models of Supermassive Black Hole Evolution with the Quasar Luminosity Function” (poster)

Texas A&M University - Corpus Christi *January 2019*

American Astronomical Society Meeting 233

“Testing Models of Supermassive Black Hole Evolution with the Quasar Luminosity Function” (poster)

Washington State Convention Center *January 2019*

Texas Astronomy Undergraduate Research Symposium

“The Quasar Luminosity Function From FIRE Simulations”

University of Texas at Austin *October 2018*

CIERA Research Experience for Undergraduates

“Testing Models of Supermassive Black Hole Evolution with the Quasar Luminosity Function” (poster)

Northwestern University & Adler Planetarium, Chicago Illinois *August 2018*

Publications

Megan Tillman, Blakesley Burkhart, Stephanie Tonnesen, Simeon Bird, Greg L. Bryan, Daniel Anglés-Alcázar, Sultan Hassan, Rachel S. Somerville, Romeel Davé, Federico Marinacci, Lars Hernquist, and Mark Vogelsberger 2023. “*An Exploration of AGN and Stellar Feedback Effects in the Intergalactic Medium via the Low Redshift Lyman- α Forest*”, submitted to ApJ, arXiv:2307.06360

Megan Tillman, Blakesley Burkhart, Stephanie Tonnesen, Simeon Bird, Greg L. Bryan, Daniel Anglés-Alcázar, Romeel Davé, Shy Genel, 2023. “*Efficient long-range active galactic nuclei feedback affects the low redshift Lyman- α forest*”, ApJL, 945, L17, arXiv:2210.02467

Amanda Butler Contreras, Erwin T. Lau, Benjamin D. Oppenheimer, Ákos Bogdán, **Megan Tillman**, Daisuke Nagai, Orsolya E. Kovács, Blakesley Burkhart, 2022. “*X-ray absorption lines in the warm-hot intergalactic medium: probing Chandra observations with the CAMEL simulations*”, MNRAS, Volume 519, Issue 2, Pages 2251-2261, arXiv:2211.15675

Blakesley Burkhart, **Megan Tillman**, Alexander B. Gurvich, Simeon Bird, Stephanie Tonnesen, Greg L. Bryan, Lars E. Hernquist, Rachel S. Somerville, 2022. “*The low redshift Lyman- α Forest as a constraint for models of AGN feedback.*”, ApJL, 933, L46, arXiv:2204.09712.

Francisco Villaescusa-Navarro et. al. including **Megan Tillman**, 2022. “*The CAMELS project: public data release*”, arXiv:2201.01300.

Megan Tillman, Sarah Wellons, Claude-André Faucher-Giguère, Luke Zoltan Kelley, and Daniel Anglés-Alcázar, 2022. “*Running Late: Testing Delayed Supermassive Black Hole Growth Models Against the Quasar Luminosity Function*”, MNRAS, Volume 511, Issue 4, Pages 5756–5767, arXiv:2109.14647.

Jonathan H. Cohn, Joel Leja, Kim-Vy H. Tran, Ben Forrest, Benjamin D. Johnson, **Megan Tillman**, Leo Alcorn, Charlie Conroy, Karl Glazebrook, Glenn G. Kacprzak, Daniel D. Kelson, Themiya Nanayakkara, Casey Papovich, Pieter G. van Dokkum, Tiantian Yuan, 2018. “*ZFOURGE Extreme 5007Å Emission May Be a Common Early-lifetime Phase for Star-forming Galaxies at $z > 2.5$* ”, ApJ, 86, 141C, arXiv:1811.00025.