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EDUCATION	Georgia State University (GSU) , Atlanta, GA. 2023–Present <ul style="list-style-type: none"> • M.Sc., Astronomy. GPA: 3.98. Georgia State University (GSU) , Atlanta, GA. 2019–2023 <ul style="list-style-type: none"> • B.Sc., Physics, conc. Astronomy. <i>Magna Cum Laude</i>. Minor in Philosophy. • Honors College student. 	
TECHNICAL SKILLS	Programming Languages: Python, R, ROOT (C++ based), Bash, Fortran. Technical Software: LaTeX, IRAF, TOPCAT, DS9, Linux, MacOS, HPC clusters. Astrophysical Codes: MUSIC, MESA, MIST, REBOUND, AstroPy, Cloudy.	
RESEARCH EXPERIENCE	AGN Outflows of Seyfert Galaxy NGC 3516 2023–Present <ul style="list-style-type: none"> ◦ Advisor: Dr. Mike Crenshaw, Georgia State University. ◦ Key ideas: Observational extragalactic astronomy, 2D spectroscopy, kinematic modeling. ◦ Modeling outflows of Seyfert 1 galaxy NGC 3516, using long-slit spectroscopic data from Apache Point Observatory and Hubble Space Telescope. Hydrodynamic Simulations of Stellar Convection 2023–2024 <ul style="list-style-type: none"> ◦ Advisor: Dr. Jane Pratt, Lawrence Livermore National Lab. ◦ Key ideas: Theoretical/computational astrophysics, fluid dynamics, big data. ◦ Investigating stellar convection of pre-main-sequence stars using hydrodynamic simulations with MUSIC. Looking at boundary layer flow of inner radiative zone and convective envelope. N-Body Simulations of Planetary Systems 2023–2024 <ul style="list-style-type: none"> ◦ Advisor: Dr. Idan Ginsburg, Georgia State University. ◦ Key ideas: Astrobiology, theoretical/computational astrophysics, big data. ◦ Simulated paths of ejecta from Ceres to determine impact rates on other planets to study the potential spread of life. Also simulated compact planetary systems to determine the orbital stability of exomoons. Used N-Body integrator REBOUND. sPHENIX Hadronic Calorimeter Tile Testing 2019–2023 <ul style="list-style-type: none"> ◦ Advisor: Dr. Megan Connors, Georgia State University. ◦ Key ideas: High energy nuclear physics, instrumentation, large international collaboration. ◦ Characterized the performance of 16,000+ scintillating tiles, now installed in sPHENIX's hadronic calorimeter at the Relativistic Heavy Ion Collider and measuring the energy of quark-gluon plasma. After testing concluded, determined aging characteristics of tiles and aided in calibration of the hadronic calorimeter system. 	
PUBLICATIONS	<i>The Shape of AGN-Driven Winds in the Seyfert Galaxy NGC 3516</i> , J. Tutterow , N. Ferree, D. M. Crenshaw, J. Falcone, et al. <ul style="list-style-type: none"> ◦ Submitted to ApJ. <i>Modified Convective Boundary Mixing due to Boundary Layer Flows in Stellar Interiors</i> , J. Tutterow , J. Pratt, M. G. Dethero, M. Stuck, I. Baraffe, et al. <ul style="list-style-type: none"> ◦ In prep, to be submitted to A&A. <i>An Analysis of AGN Feedback in the Compact Galaxy Group Stephan's Quintet</i> , M. Shea, D. M. Crenshaw, T. Fischer, J. Falcone, [...], J. Tutterow , et al. <ul style="list-style-type: none"> ◦ Submitted to ApJ. <i>An Analysis of AGN-Driven Outflows in the Seyfert 1 Galaxy NGC 3227</i> , J. Falcone, D. M. Crenshaw, T. Fischer, [...], J. Tutterow , et al. The Astrophysical Journal, May 2024. doi: 10.3847/1538-4357/ad5283 <ul style="list-style-type: none"> ◦ https://ui.adsabs.harvard.edu/abs/2024arXiv240520162F/abstract <i>Broad-band Photometric Monitoring of 1226 Golia and 6349 Acapulco</i> , M. Bentz, [...], J. Tutterow , et al., The Minor Planet Bulletin, October 2022. Bibcode: 2022MPBu...49..255B. <ul style="list-style-type: none"> ◦ https://ui.adsabs.harvard.edu/abs/2022MPBu...49..255B/abstract 	

TALKS & POSTERS	J. Tutterow , “ <i>Quantifying the AGN-Driven Winds in the Seyfert Galaxy NGC 3516</i> ,” Space Telescope Science Institute Galaxies and AGN Journal Club, Baltimore, MD, Talk, Virtual, Spring 2025.	
	J. Tutterow , “ <i>The Shape of AGN-Driven Winds in the Seyfert Galaxy NGC 3516</i> ,” American Astronomical Society Winter Meeting, National Harbor, MD, Poster, Spring 2025.	
	J. Tutterow , “ <i>Dynamics of the Convective Boundary Layer in Stellar Interiors</i> ,” Staraganza Department Talk, Georgia State University, Atlanta, GA, Talk, Fall 2024.	
	J. Tutterow , “ <i>Dynamics of the Convective Boundary Layer in Stellar Interiors</i> ,” Galaxies to Gluons Summer Lunch Talk Series, Georgia State University, Atlanta, GA, Talk, Summer 2024.	
	J. Tutterow , “ <i>Ceres: Seeding Life Across Our Solar System</i> ,” American Astronomical Society Winter Meeting, New Orleans, LA, Poster, Spring 2024.	
	J. Tutterow , “ <i>Ceres’s Contribution to Seeding Life Across the Solar System</i> ,” Georgia Regional Astronomy Meeting, Agnes Scott College, Poster, Fall 2023.	
	J. Tutterow , “ <i>Aging and Calibration Studies of sPHENIX Hadronic Calorimeter Scintillating Tiles</i> ,” Department of Nuclear Physics Conference Experience for Undergraduates, New Orleans, LA, Poster, Fall 2022.	
	J. Tutterow , “ <i>Aging and Calibration Studies of sPHENIX Hadronic Calorimeter Scintillating Tiles</i> ,” Georgia State University Department of Physics and Astronomy Summer Research Symposium, Georgia State University, Talk, Summer 2022.	
	J. Tutterow , “ <i>Performance Characterization of sPHENIX Hadronic Calorimeter Scintillating Tiles</i> ,” Georgia State Undergraduate Research Conference, Georgia State University, Poster, Virtual, Spring 2022.	
	J. Tutterow , “ <i>Performance Characterization of sPHENIX Hadronic Calorimeter Scintillating Tiles</i> ,” Department of Nuclear Physics Conference Experience for Undergraduates, Talk, Virtual, Fall 2021.	
	J. Tutterow , “ <i>Performance Characterization of sPHENIX Hadronic Calorimeter Scintillating Tiles</i> ,” Georgia State University Department of Physics and Astronomy Summer Research Symposium, Georgia State University, Talk, Virtual, Summer 2021.	
OBSERVING EXPERIENCE	H. Amedi, J. Tutterow , “ <i>Performance Characterization of sPHENIX Hadronic Calorimeter Scintillating Tiles</i> ,” Georgia State Undergraduate Research Conference, Georgia State University, Poster, Virtual, Spring 2021.	
	J. Tutterow , “ <i>Performance Characterization of sPHENIX Hadronic Calorimeter Scintillating Tiles</i> ,” Department of Nuclear Physics Conference Experience for Undergraduates, Poster, Virtual, Fall 2020.	
	J. Tutterow , “ <i>Performance Characterization of sPHENIX Hadronic Calorimeter Scintillating Tiles</i> ,” Georgia State University Department of Physics and Astronomy Summer Research Symposium, Georgia State University, Talk, Virtual, Summer 2020.	
OBSERVING EXPERIENCE	Apache Point Observatory ARC 3.5m Telescope	11 half-nights (~66 hours)
	<ul style="list-style-type: none"> Long slit spectroscopic observations using KOSMOS of low redshift AGN. 3 half-nights on-site in New Mexico, as part of certification training. 	
OBSERVING EXPERIENCE	Hard Labor Creek Observatory	3 nights (~30 hours)
	<ul style="list-style-type: none"> Photometric variability observations of the asteroids 1226 Golia and 6349 Acapulco. 	
TEACHING EXPERIENCE	Lab Instructor, Georgia State University	2023–Present
	<ul style="list-style-type: none"> ASTR1010: Astronomy of the Solar System 2 Sections ASTR1020: Stellar and Galactic Astronomy 7 Sections Independently taught, graded, and managed labs throughout the semester. Topics for ASTR1010 include surfaces of planets, Kepler’s laws, asteroids, etc. Topics for ASTR1020 include binary stars, Hubble’s law, black holes, the period-luminosity relation of cepheid variables, etc. 	
	Guest Lecture, Georgia State University	March 2024
TEACHING EXPERIENCE	<ul style="list-style-type: none"> ASTR1020: Stellar and Galactic Astronomy, <i>What is the Brightest Thing in the Universe?</i> 	
AWARDS	Georgia State University Graduate Travel Award	January 2025
	<ul style="list-style-type: none"> Grant of \$500 to travel to the 2025 AAS winter meeting. 	

	1913 Founder's Merit Scholarship recipient	2019-2023
	Georgia State University Summer Undergraduate Research Fellowship ◦ Summers of 2020, 2021, and 2022.	
	Georgia State University Dean's List Member	2019-2023
OUTREACH	Astronomy on Tap Public Lecture	October 2024
	◦ Spoke to 100+ people at Three Taverns in Decatur, GA about history/observations of dark matter.	
	Hard Labor Creek Observatory Public Open Night	June 2024, April 2025
	Solar Eclipse at Georgia State University Outreach Event	April 2024
MENTORING EXPERIENCE	Meenakshi Raj - Undergraduate Student, Georgia State University ◦ N-Body simulations of compact planetary systems.	2024–2025
	Damian Dacosta - Undergraduate Student, Georgia State University ◦ sPHENIX hadronic calorimeter tile performance characterization and aging tests.	2022–2023
	Jorge Escobar Cepero - Undergraduate Student, Georgia State University ◦ sPHENIX hadronic calorimeter tile performance characterization.	2021–2023
	Jingyu Zhang - Undergraduate Student, Agnes Scott College ◦ sPHENIX hadronic calorimeter tile performance characterization.	Summer 2021