Brian W. Mulligan
Curriculum Vitae

Academic Positions

2025 - Assistant Professor of Instruction, Texas State University, San Marcos, TX
2021 - 2025 Adjunct Associate Professor, Austin Community College, Austin TX
2019 - 2025 Adjunct Professor, St. Edward's University, Austin, TX

Non-Academic Positions

2001 - 2011 Senior Software Engineer, Aerosim Technologies, Inc., Burnsville, MN
1999 - 2001 Software Engineer, Aerosim Technologies, Inc., Burnsville, MN

Education

Ph.D., University of Texas at Austin, 2018
Astronomy
Dissertation: A compact circumstellar shell model as a source of high velocity features in Type Ia supernovae

B.S., University of Minnesota, Twin Cities, 2011
Physics

Teaching Experience

Instructor of Record

Texas State University

2025 General Physics I
2025 General Physics I for Life Sciences
2025 General Physics I Lab

Austin Community College

2024	Conceptual Physics I
2024	Conceptual Physics II
2025	General Physics I
2024 - 2025	General Physics II
2025	General Physics I Lab
2024 - 2025	General Physics II Lab
2023 - 2024	Engineering Physics I
2021 - 2025	Engineering Physics II
2023 - 2025	Engineering Physics I Lab
2021 - 2025	Engineering Physics II Lab
2022 - 2024	Introduction to the Solar System
2021 - 2024	Introduction to Stars and Galaxies

St. Edward's University

2020	Physics for Future Presidents
2021 - 2024	College Physics I
2019	College Physics II
2021 - 2025	College Physics I Lab
2021 - 2025	College Physics II Lab
2020	University Physics II
2020	University Physics II Lab
2020 - 2021	Introduction to Astronomy

Professional Memberships

American Astronomical Society
American Association of Physics Teachers
Sigma Pi Sigma
Phi Theta Kappa

Publications

ADS Search:
https://ui.adsabs.harvard.edu/#search/q=orcid%3A0000-0003-3347-0554&sort=date%20desc%2C%20bibcode%20desc&p_=0

ORCID:
https://orcid.org/0000-0003-3347-0554

Refereed, First Author

Mulligan, B. W., & Wheeler, J. C. (2018) A Compact Circumstellar Shell as the Source of High-Velocity Features in SN 2011fe, Monthly Notices of the Royal Astronomical Society, Vol 476, Iss. 1

Mulligan, B. W., & Wheeler, J. C. (2017) High-Velocity Features in Type Ia Supernovae from a Compact Circumstellar Shell Monthly Notices of the Royal Astronomical Society, Vol 467, Iss. 1

Mulligan, B. W., Zhang, K., & Wheeler, J. C. (2019) Exploring the shell model of high-velocity features of Type Ia supernovae using TARDIS, Monthly Notices of the Royal Astronomical Society, Vol 484, Iss. 4

The calcium abundance of high-velocity material in Type Ia supernovae, Monthly Notices of the Royal Astronomical Society, Vol 476, Iss. 1

Refereed, Other Author

Mace, G. N., Mann, A. W., Skiff, B. A., Sneden, C., Kirkpatrick, J. D., Schneider, A. C., Kidder, B., Gosnell, N. M., Kim, H., Mulligan, B. W., Prato, L., Jaffe, D., (2018) Wolf 1130: A Nearby Triple System Containing a Cool, Ultramassive White Dwarf, The Astrophysical Journal, Vol 854, Issue 2

Silverman, J. M., Vinkó, J., Marion, G. H., Wheeler, J. C., Barna, B., Szalai, T., Mulligan, B. W., Filippenko, A. V., (2015) High-velocity features of calcium and silicon in the spectra of Type Ia supernovae, Monthly Notices of the Royal Astronomical Society, Vol 451, Issue 2

Daghigh, Ramin G., Green, Michael D., Mulligan, Brian W. (2011) Asymptotic spectrum of Kerr black holes in the small angular momentum limit, Physical Review D, Vol. 83, Iss. 4

Service

Department

Austin Community College, Department of Physics, Astronomy, and Engineering

2024 - 2025 ACC Hands On Science (ACChaos) Organizer
2022 - 2025 Astronomy Outreach Committee

2021 - 2022 Evaluation Committee

University of Texas at Austin Astronomy Department

2012 - 2017 Graduate Student Recruiting Visiting Student Host
2017 Department External Review - Graduate Student Committee Member
2014 – 2013 Admissions Committee Graduate Student Representative
2014 – 2013 Graduate Student Recruiting Graduate Student Organizer
2014 – 2013 Faculty Meeting Graduate Student Representative
2014 – 2013 Graduate Student Assembly Representative
2013 – 2012 Computing Committee Graduate Student Representative

Public Outreach

2024 - Astronomy Uncorked, Organizer, Austin, TX
2016 - Astronomy on Tap ATX Executive Committee Member Austin, TX
2015 - Astronomy on Tap ATX Volunteer Austin, TX