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EDUCATION

2019 - **Yale University** **Ph.D. Astronomy**

Advisor: Prof. Pieter van Dokkum

2015 - 2019 **The University of Texas at Austin** **B.S.A. Astronomy and Physics**

Cumulative unweighted GPA: 4.0/4.0

[Polymathic Scholars Honors](#) Thesis: *Falsifiability of the Multiverse*

PEER-REVIEWED PUBLICATIONS ([Full list on ADS](#))

First-author:

Shen, Z., Bowman, W. P., van Dokkum, P., et al., 2024, *ApJ* Submitted, [arXiv: 2407.05200](#):
*First Results from the Dragonfly Ultrawide Survey: the Largest Eleven Quenched Diffuse Dwarf
 Galaxies in 3100 deg² with Spectroscopic Confirmation*

Shen, Z., van Dokkum, P., Danieli, S., 2023, *ApJL*, **957**: L6, [arXiv: 2309.08592](#):
*Confirmation of an anomalously low dark matter content for the galaxy NGC1052-DF4 from
 deep, high resolution continuum spectroscopy*

Shen, Z., Danieli, S., van Dokkum, P., et al., 2021, *ApJ*, **914**: L12, [arXiv: 2104.03319](#):
*A Tip of the Red Giant Branch Distance of 22.1 ± 1.2 Mpc to the Dark Matter Deficient Galaxy
 NGC 1052-DF2 from 40 Orbits of Hubble Space Telescope Imaging*

Shen, Z., van Dokkum, P., & Danieli, S., 2021, *ApJ*, **909**: 179, [arXiv: 2010.07324](#):
*A Complex Luminosity Function for the Anomalous Globular Clusters in NGC1052-DF2 and
 NGC1052-DF4*

Shen, Z., Diercke, A., Denker, C. 2018, *Astronomische Nachrichten*, **339**: 661, [arXiv: 1812.04404](#):
Calibration of Full-disk HeI 10830 Å Filtergrams of the Chromospheric Telescope

Second-author:

van Dokkum, P., **Shen, Z.**, et al., 2022, *ApJL*, **940**: L9, [arXiv: 2207.07129](#):
*Monochromatic globular clusters as a critical test of formation models for the dark matter defi-
 cient galaxies NGC1052-DF2 and NGC1052-DF4*

van Dokkum, P., **Shen, Z.**, et al., 2022, *Nature*, **605**: 7910, [arXiv: 2205.08552](#):
A Trail of Dark-Matter-free Galaxies from a Bullet-Dwarf Collision

Cannon, J., **Shen, Z.**, McQuinn, K. B. W. et al., 2018, *ApJ*, **864**: L14, [arXiv: 1808.07108](#):
Delayed Stellar Mass Assembly in the Low Surface Brightness Dwarf Galaxy KDG215

Other co-author:

van Dokkum, P., et al. (*Incl* **Shen, Z.**), 2023, *ApJ*, **946**: L50, [arXiv: 2302.04888](#):
A candidate runaway supermassive black hole identified by shocks and star formation in its wake
 ... and six more, see [ADS list](#)

NON-PEER REVIEWED PUBLICATIONS

Asali, Y., Gerbig, K., Ghosh, A., et al. (*Incl* **Shen, Z.**, equal contribution), 2022, *Bulletin of the American Astronomical Society*, **54**: 091, [arXiv: 2212.01456](#): *A Standardized Framework for Collecting Graduate Student Input in Faculty Searches*

INVITED TALKS

May 2023	Special seminar, Tsinghua University, Beijing, China
May 2023	Special seminar, Kavli Institute of Astronomy and Astrophysics, Peking University, Beijing, China
Apr 2023	Thunch, Princeton University, NJ
Mar 2023	Galaxy and AGN Journal Club, STScI/Johns Hopkins University, MD
Oct 2022	Astrophysics Seminar, University of Notre Dame, IN,
Aug 2022	Near Field Cosmology Journal Club, University of Chicago, IL

RESEARCH FELLOWSHIPS, AWARDS, & GRANTS

2023	Yale Center for Research Computing, AWS Cloud Credit for Research program PI, \$9000 awarded
2023	Third Place, Yale 3-Minute Thesis Competition
2019 - 2021	Gruber Science Fellowship , Yale University
2020	Yale University Nathan Hale Associates Scholar
2019	UT Austin Deans Honored Graduate with Research Distinction
2019	University Co-op George H. Mitchell Award Semifinalist
2019	UT Austin Department of Astronomy Outstanding Senior Award
2018	Research Internship in Science and Engineering (RISE) , German Academic Exchange Service (DAAD)
2018, 2017	UT Austin College of Natural Sciences Distinguished College Scholar
2018	Kevin E. Underhill Memorial Endowed Presidential Scholarship
2018	First place, Physics Department Open House Poster Competition Title: ‘ <i>Can Starbursts Flatten Mass Distribution in the Centers of Dwarf Galaxies?</i> ’

COMMUNITY SERVICE

2022 -	ApJ, MNRAS, A&A	Reviewer
2021 -	Yale Graduate Writing Lab	Graduate Writing Fellow <i>Scientific writing consultant for Yale graduate students and postdocs. Led writing workshops and conducted one-on-one consulting sessions for abstracts, fellowship proposals, and other academic writing.</i>
2021 - 2023	Astronomy Students Council	Member <i>Liaison between the graduate student body and department faculty.</i>

2021 - 2022	Yale University Graduate Student Assembly <i>Graduate student advocate and member of the Public Relations Committee.</i>	Astronomy Representative
2020 - 2021	Yale Astronomy Climate and Diversity Committee	Subcommittee Chair
2019 - 2021	Yale Astro Sibs Program	Undergraduate Mentor
2017 - 2018	UT Austin Astronomy Students Association	Secretary

OBSERVING EXPERIENCE

Keck I/LRIS (10m): 12 nights.
 Keck II/KCWI (10m): 6 nights.
 Palomar/TripleSpec (5m): 2 nights.
 McDonald Observatory Harlan J. Smith Telescope / Tull Coudé Spectrograph (2.7m): 5 nights.

TEACHING EXPERIENCE

Conducted weekly review sessions, graded homework and held office hours in the following classes:

Yale University

ASTR 180: Introduction to Relativity and Black Holes	Fall 2020
ASTR 120: Galaxies and the Universe	Spring 2020
ASTR 110: Planets and Stars	Fall 2021, Fall 2019

Supervised lab safety and facilitated group projects and weekly discussion sessions in:

University of Texas at Austin

UGS 303: Originality in Arts and Sciences	Fall 2016, 2017
M 427J: Differential Equations with Linear Algebra Honors	Spring 2015

CONFERENCE & POSTERS

Jul 2024	Dwarf Galaxies, Star Clusters, and Streams in the LSST Era, Chicago, IL, Nearby ultra-diffuse galaxies in the Dragonfly Ultrawide Survey
Jun 2023	Hiking through the unexplored universe: the sunrise of ultra-diffuse galaxies, Sexten, Italy
Mar 2022	Aspen Winter Conference: Globular Clusters , Aspen, CO, <i>'Globular Clusters in Dark Matter Deficient Galaxies'</i>
Jan 2019	233 rd AAS Meeting, Seattle, WA, Jan 10th 10 AM, Abstract ID 401.01, <i>'Calibration of full-disk He I 10830 Å filtergrams of the Chromospheric Telescope'</i>
Oct 2018	Texas Astronomy Undergraduate Research Symposium, UT Austin, <i>'Delayed Stellar Mass Assembly in the Dwarf Galaxy KDG 215'</i>
Oct 2018	Gulf Coast Undergraduate Research Symposium , Rice University, Houston, <i>'Delayed Stellar Mass Assembly in the Dwarf Galaxy KDG 215'</i>
Jul 2018	DAAD RISE Meeting, Heidelberg, Germany, <i>'Stargazing at Noon: Observations of Solar Filaments'</i>

Mar 2017 Undergraduate Research Forum, UT Austin,
‘Observing Eclipsing Binaries’

OUTREACH AND MEDIA

Yale Poorvu Center Public Communication Certificate

[Astrobites](#) Author

[Astronomy on Tap Austin](#) Speaker

May 2023

Jan 2021 - Jan 2023

May 2019