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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

First- and 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 deficient 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

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 NGC1052-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

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

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

Other co-author:

Liu, Q., Abraham, R., Gilhuly, C., et al. (*Incl.* **Shen, Z.**), 2022, *ApJ*, **925**: 219, [arXiv: 2110.11598](#):

A Method To Characterize the Wide-Angle Point Spread Function of Astronomical Images

Keim, M. A., van Dokkum, P., Danieli, S., Lokhorst, D., Li, J., **Shen, Z.**, et al., *ApJ*, **935**:

160, [arXiv: 2109.09778](#): *Tidal Distortions in NGC1052-DF2 and NGC1052-DF4: Independent Evidence for a Lack of Dark Matter*

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

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,
‘What Ultra-Diffuse Galaxies tell us about galaxy formation’
Aug 2022 Near Field Cosmology Journal Club, University of Chicago, IL

RESEARCH FELLOWSHIPS, AWARDS, & HONORS

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: *‘Can Starbursts Flatten Mass Distribution in the Centers of Dwarf Galaxies?’*

COMMUNITY SERVICE

2022-	ApJ, MNRAS	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	Astronomy Representative
	<i>Graduate student advocate and member of the Public Relations Committee.</i>	
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

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	Golf 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, <i>'Observing Eclipsing Binaries'</i>

OUTREACH AND MEDIA

Astrobites Author	Jan 2021 - Jan 2023
Astronomy on Tap Austin Speaker	May 2019