The University of Texas at Austin Department of Astronomy 2515 Speedway, Stop C1400 Austin, TX, 78712

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DANIELLE BERG ASSISTANT PROFESSOR

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Expertise

Research Bridging the local and high-redshift universe through chemical and stellar evolution of star-forming galaxies, using X-ray, UV, optical, and IR spectra. Observations probe the feedback between ionizing stellar populations and their surroundings by measuring the properties of metal-poor massive stars, high-mass X-ray binaries, resonantly scattered emission, galactic-scale feedback, interstellar medium absorption, and nebular emission.

Summary

Highlights of UT Faculty Position (2020 – present; unless noted otherwise):

Funding: \$2,137,036 in external awards

Papers: H-index: 29 | **2500+** total citations | **12** 1st author papers

3 1st author papers w/100+ citations | 57 co-author papers

6 decadal white papers | 1 inclusive design white paper (in prep.) **Invited talks:** 33 total: 16 international (12 in past 5 years) | 5 review talks Leadership & Service:

- Project management: Pl of The COS Legacy Archive Spectroscopic Survey: Lead of HST large treasury program (135 new + 177 archival orbits) w/an international team of 45 experts to build a far-UV atlas of 45 star-forming galaxies & deliver high-level data products to the community.
- Co-I of the NASA Ultraviolet Explorer (UVEX): Team lead of Objective 2 of the Low-Mass, Low-Metallicity Frontier pillar of UVEX -- a NASA medium-class explorer.
- Co-Organizer of 2023 Beyond Astronomy Conference: UV Galaxies: Co-designed+organized conference with a holistic approach to improving the field by simultaneously focusing on science, personal networking & interactions (e.g., via affinity groups), and social justice issues.
- Leadership for the NASA Diffuse Gas in Cosmic Ecosystems (DGCE) Science Interest Group (SIG):

Leadership team member of the DGCE SIG, which is part of the NASA Cosmic Origins Program Analysis Group (COPAG).

Chair of IAU 2022 General Assembly Focus Meeting 4:

UV Insights to Massive Stars and Young Stellar Clusters

Chair of Galaxies Panel | Cycle 29 HST Time Allocation Committee

Advising: 7 undergrad. students, 7 graduate students, 4 postdocs, 9 women; principal advisor of 3 student-led papers and 3 advisee-led proposals

Observing experience:

- Space-based: X-ray+UV+Opt+IR: Chandra, HST, & JWST telescopes.
- Ground-based: Opt+IR: Very Large Array, Green Bank Telescope, Very Large Telescope, Palomar Telescope, Large Binocular Telescope, Keck, Gemini South; including 600+ hours of on-site spectroscopy & photometry.
- **Teaching:** 8 undergraduate-level course preps (since 2013); designed astrophysics project course for majors and general critical thinking course. 1 graduate-level course prep.

Academic Appointments

2020-Present	The University of Texas at Austin · Assistant Professor
2018-2020	The Ohio State University · CCAPP Fellow
	Mentor: Richard W. Pogge
2014-2017	University of Wisconsin Milwaukee · Postdoctoral Research Associate
	Advisor: Dawn K. Erb
2013-2014	Gustavus Adolphus College · Visiting Professor of Physics

Education

- July 2013 **University of Minnesota** | Ph.D. Astrophysics Thesis: "True Chemical Abundances of Galaxies in the Nearby Universe" Advisor: Evan D. Skillman
- June 2008 Gustavus Adolphus College | B.A. Physics, B.A. Mathematics

Funded Observing Programs

Summary Total External Funding Awarded (to UT): \$1,494,659

PI Awards Total PI program funding (to UT): \$940,764

2023	Hubble Space Telescope Proposal 17494 COS Resolving the Abundance Discrepancy Problem with HST/COS	\$64,586 20 orbits
	Hubble Space Telescope Proposal 17430 COS Pulling Back the Curtain Veiling Extreme UV Galaxies: Revealing the Mysterious Sources of Hell Emission	\$77,319 25 orbits
2022	Hubble Space Telescope Proposal 17102 COS Anchoring CNO with Extremely Metal Deficient Galaxies	\$116,829 16 orbits
2021	Hubble Space Telescope Proposal 16643 COS Mapping the Escape of Ionizing Photons Across the Full Ionizing Continuum Using High-Resolution Ly α & CIV Observations. Co-PI: Simon Gazagnes	\$236,509 34 orbits
2020	Hubble Space Telescope Proposal 15840 COS The COS Legacy Archive Spectroscopic SurveY (CLASSY): A UV Treasury of Star-Forming Galaxies 312 total orbits (135 new + 177 archival)	\$1,296,028 135 orbits (\$338,904 to UT)
	Hubble Space Telescope Proposal 15465 COS Resolving Extreme High-Ionization UV Emission-Line Diagnostics in Prep for JWST	\$10,298 10 orbits



	Hubble Space Telescope Proposal 15422 COS Anchoring C/O With An Extremely Metal Deficient Galaxy	\$16,440 3 orbits
	Hubble Space Telescope Proposal 15126 COS Resolving the Abundance Discrepancy with HST/COS	\$49,249 13 orbits
	Hubble Space Telescope Proposal 14628 COS The Evolution of C/O in Low Metallicity Dwarf Galaxies	\$30,630 20 orbits
Co-I Awards	Co-I Funding: \$553,895 (Grant funds managed by Berg)	
2023	James Webb Space Telescope Proposal 4278 MIRI Tracing Molecular Gas in Nearby Metal-Poor Systems: The Keys to Unlocking Star-Formation in the Early Universe (PI Mingozzi)	\$24,022 24 hrs
	James Webb Space Telescope Proposal 4297 MIRI The Novel MIR Abundance Diagnostic Ne23 (PI Rogers)	\$24,022 23 hrs
	James Webb Space Telescope Prop. 3290 NIRSpec A Complete Spectroscopic Census of the Faintest Galaxies & AGN at the Dawn of Galaxy Formation (PIs Scarlatta & Hayes)	\$70,372 49 hrs
	James Webb Space Telescope Prop. 3293 NIRCam JWST's GLIMPSE: Gravitational Lensing & Imaging to Probe Early galaxy Formation & Sources of Reionization (PIs Chisholm & Atek)	\$123,686 148 hrs
2022	Hubble Space Telescope Proposal 17106 COS A Novel View of Local Star-Forming Galaxies with COS (PI: Leitherer)	\$55,882 42 orbits
	Hubble Space Telescope Proposal 17125 COS Sharpening our High-Z Toolset: Spatially Resolving UV Emission Line Diagnostics Throughout Pristine Gas (PI: James)	\$35,141 37 orbits
2021	Hubble Space Telescope Proposal 16767 COS A Family Portrait of O Stars in the Extremely Metal-Poor Galaxy Sextans A (PI Telford)	\$25,218 32 orbits
	Hubble Space Telescope Proposal 16692 COS [CII], A High-z Diagnostic Diamond in the Rough (PI James)	\$14,971 12 orbits
	Hubble Space Telescope Proposal 16763 COS Tracking Down the Origin of UV Photons in Local High-z Analogues with FUV Emission Line Imaging (PI Mingozzi)	\$20,787 32 orbits
	Hubble Space Telescope Proposal 16677 COS Massive Stellar Populations at Reionization Metallicities: Anchoring Stellar Population Models for the JWST Era (PI Stark)	\$11,160 54 orbits
	Hubble Space Telescope Proposal 16697 COS Establishing the C/O Gas-Phase Abundance Scale: A Critical Need for Galaxy Evolution Studies from z=0 Into the Epoch of Reionization (PI Sanders)	\$5,579 18 orbits
	James Webb Space Telescope Proposal 1701 MIRI Dissecting the Prototypical Starbursts NGC 253 and M82 and Their Cool Galactic Winds (PI Bolatto)	\$22,783 42.8 hrs



James Webb Space Telescope Prop. 2079 | NIRSpec

The Webb Deep Extragalactic Exploratory Public (WDEEP) Survey: Feedback in Low-Mass Galaxies from Cosmic Dawn to Dusk (Pl Finkelstein)

James Webb Space Telescope Proposal 2424 | MIRI

\$53,851 | 24.5 hrs

\$116,421 | 121.7 hrs

Revealing the Ionizing Spectrum of Low-Metallicity Galaxies with MIRI (PI Jaskot)

2020 Hubble Space Telescope Proposal 16048 | WFC3 \$8,541 | 13 orbits Extremely Metal-Poor Galaxies: Understanding the Boundaries of Galaxy Evolution (Pl McQuinn)

Hubble Space Telescope Proposal 15941 | COS

\$21,014 | 18 orbits

UV Emission Line Spectra of $z\sim0.3-0.4$ Lyman Continuum Emitters: A Key Reference to Uncover the Sources of Cosmic Reionization (PI Schaerer)

Additional Obs. Programs (Not including internal institutional proposals)

PI Programs

2021	Green Bank Telescope 21B-216	32 hours
	How do LyC Photons Escape From Galaxies that Reionized the Uni	verse?
2020	Green Bank Telescope Director's Discretionary Time	4 hours
	HI in Reionization-Era Analogs: Finding the Paths of Ionizing Photon	Escape

Co-I Programs

2024 NRAO VLA Telescope Proposal 24B-394 Hunting for Black Holes in Low-Mass Star-Forming Galaxies (PI: Jurlin)	18.5 hours
NRAO VLA Telescope Proposal 24B-443 Deep Radio Continuum Observations of Abel \$1063 (PI: Jurlin)	10.5 hours

Curriculum Vitae



2023	ALMA Proposal 2023.1.01290.S	19.4 hours
	CLASSY&CO: Revealing the Molecular Gas Fueling Metal-Poor Star-Forming	High-z
	Analogs in the Loca Universe (PI: Mingozzi)	
2022	Hubble Space Telescope Proposal 17198 COS	7 orbits
	First Look at High-Ionization UV Nebular Emission Powered by the Youn	
	Populations Below 5% Solar Metallicity: The Missing Link to the Reionization E (PI: Senchyna)	Era?
	Hubble Space Telescope Proposal 17042 COS	Archival
	Are Galactic Outflows Seen in Absorption+Emission Lines Tracing the Sam Xu)	ne Gas? (PI:
	Hubble Space Telescope Proposal 17169 COS	34 orbits
2021	Revealing the Link Between Strong LyC Emitters and Enigmatic CIV E Schaerer)	Emitters (PI:
	James Webb Space Telescope Proposal 1914 NIRSpec	63.8 hrs
	The AURORA Survey: First Direct Metallicity Calibrations at High Redshift (PI S	,
	James Webb Space Telescope Proposal 1871 NIRSpec	22.2 hrs
2020	The First Observations of the Ionizing Luminosity of Galaxies within the Epoch Reionization (PI Chisholm)	n of
	NASA Keck Proposal 66/2020B_N194 KCWI	1 night
	Constraining the Stellar Astrophysics that Powered Cosmic Reionization wit Chisholm	h KCWI (PI
	Hubble Space Telescope Proposal 16464 WFC3	15 orbits
	Mapping the Porous Neutral Gas Reservoirs in an Extremely High Ion. Chisholm)	Galaxy (Pl
	Hubble Space Telescope Proposal 16209 ACS	17 orbits
	Highly Ionized Gas in Extreme Starburst Galaxies: High Resolution Hell and († Emission Imaging (PI Hayes)	he first) CIV
		Archival
	A Census of Metals in Low-Mass Galaxies: Quantifying the Metal Rete Function of Mass (PI McQuinn)	ention as a

Talks & **Presentations Recent Invitations**

2024 34. STScI Spring Symposium: Recipes to Regular Star Formation at All Scales Review Talk: "The Relationship Between Star Formation and Chemical Evolution" Space Telescope Science Institute

33. Astronomy Colloquium

"TBD"

University of Maryland

32. Astronomy Colloquium

"TBD"

NASA Goddard



31. Where The Sea Meets The Stars Wolfe Symposium "Tracing the CGM with Resonant Lines"

University of California, San Diego

30. The Chronology of the Very Early Universe According to JWST: The First Billion Years Breakthrough Workshop

International Space Science Institute, Bern, Switzerland

- 29. The Growth of Galaxies in the Early Universe IXI: The Physics of Galaxies "Extreme Emission Line Galaxies with JWST" Sexten Center of Astrophysics, Sexten, Italy
- 28. NASA Cosmic Origins Program Analysis Group (COPAG) Meeting "UV Diagnostics of the Starburst ISM" 243rd Winter AAS Meeting, New Orleans, LA

2023 27. ELT Science in Light of JWST Conference

"Building the Foundations of Galaxy Evolution with Rest-Frame UV & Optical Spectra"

UCLA, Los Angeles, CA

26. Beyond Astronomy Conference: UV Galaxies

"The CLASSY Survey" "The Future of UV Astronomy with UVEX" "Neurodivergence in Academia" Reykjavík, Iceland

25. New Views on Feedback & the Baryon Cycle in Galaxies

"Tracing the Baryon Cycle with CNO Abundance" ASTRO3D, Victoria, Australia

24. NASA Diffuse Gas in Cosmic Ecosystems Science Interest Group (SIG) Talks "Calibrating the FUV Diagnostic Emission-Line Toolbox" NASA

23. Fake Light Workshop

"Observational Benchmarks of Chemical Evolution for Next Generation Simulations"

Center for Computational Astrophysics, Flatiron Institute

22. CGCA Public Talk

"A Window onto Extreme and Early Galaxies with the Webb Telescope" UWM Center for Gravitation, Cosmology, & Astrophysics

- 21. First UVEX Community Workshop: Synergies and New Opportunities "Calibrating the FUV Diagnostic Emission-Line Toolbox with UVEX" Caltech
- 20. A New Era in Extragalactic Astronomy: Early Results from the JWST "Revealing the Ionizing Spectrum of Low-Metallicity Galaxies with MIRI" Kavli Institute for Cosmology, University of Cambridge, UK
- 19. The Growth of Galaxies in the Early Universe VIII: JWST First Results: "Revealing the Ionizing Spectrum of Low-Metallicity Galaxies with MIRI" Sexten Center of Astrophysics, Sexten, Italy

2022 18. Astronomy Colloquium

Australian National University

- 17. Instituto de Astrofísica de Andalucía Severo Ochoa Excellence Colloquia Andalucía, Spain
- 16. 8th Annual GMT Community Science Meeting: Black Holes at All Scales

Sedona, AZ

- 15. Science w/HST & JWST VI: Entering a Golden Age for UV-Opt-IR Astronomy Stockholm, Sweden
- **14. IAU Symposium 361: Massive Stars Near and Far** Ballyconnell, Ireland
- 13. NASA Galaxies Science Interest Group (SIG) Talk:

"Calibrating the FUV Diagnostic Emission-Line Toolbox w/UVEX: Probing Evolution of the Lowest-Mass Galaxies" NASA

- **12. Galaxy Group Meeting:** "The CLASSY Survey" University of Geneva, Geneva, Switzerland
- 11. 121: Linking Galaxy Physics from ISM to IGM: "The CLASSY Survey" Sexten Center of Astrophysics, Sexten, Italy
- 10. The Growth of Galaxies in the Early Universe VII: "The CLASSY Survey" Sexten Center of Astrophysics, Sexten, Italy
- **9. Astronomy Colloquium:** "The CLASSY Survey" University of California, Los Angeles
- 2021 8. Astronomy Colloquium: "The CLASSY Survey" University of California, Berkeley
 - 7. III Workshop on Chemical Abundances in Gaseous Nebulae: Review talk: UV Spectroscopic Surveys Uniersidade do Vale do Paraíba, São José dos Campos, Brazil
 - 6. Galaxies & Cosmology & Stars & Planets Seminar: "Bridging Galaxy Evolution Across Cosmic Time" Center for Astrophysics, Harvard & Smithsonian
 - 5. Astronomy Seminar: "Bridging Galaxy Evolution Across Cosmic Time" San Diego State University
 - 4. Astronomy Seminar: "Bridging Galaxy Evolution Across Cosmic Time" Texas A&M
 - 3. Astronomy Colloquium: "Bridging Galaxy Evolution Across Cosmic Time" Caltech
 - 2. Astronomy Colloquium: "Bridging Galaxy Evolution Across Cosmic Time" University of California Santa Cruz
 - **1. Astrophysics Colloquium:** "Bridging Galaxy Evolution Across Cosmic Time" Arcetri Astrophysical Observatory, Florence, Italy

Press

2022

Scientific American: Featured in the April 2022 "<u>Women Are Creating a New Culture</u> for Astronomy" article by Ann Finkbeiner

Astronomy.com: Featured in the April 2022 "<u>New CLASSY Atlas Provdes Clues About</u> <u>Galaxy Evolution</u>" article by Mara Johnson-Groh

STSCI Article: Featured in the STSCI Newsletter Volume 39 Issue 01: "<u>HST's CLASSY</u> Survey of Local Extreme Star-Forming Galaxies Paves the Way for Early Universe Discovery"

McDonald Press Release: "Galaxies Pump Out Contaminated Exhaust"



Service

Departmental

2021-present
 Graduate Admissions Recruiter
 Graduate Admissions Committee | Member
 Postdoc Mentoring Program | Chair
 ExGal Coffee / arXiv discussion | Organizer
 DEI Club | Member and Participant
 Association of Women in Astronomy Research and Education (AWARE) |
 Member
 2020-2021
 Faculty Search Committee | Member
 Graduate Admissions Committee DEI Subcommittee | Member

DEI Graduate Program Evaluation Special Committee | Member

University

	Disabled Faculty Committee Member
2022, 2023	Prospective Student's Day Participant
2023-present	University Resource Group Member

National

2023	Panel member James Webb Space Telescope time allocation
2023-present	NASA Diffuse Gas in Cosmic Ecosystems (DGCE) SIG Leadership team
2021-present	UVEX - NASA MIDEX Concept Mission Co-Investigator & Team lead of
	Objective 2 of the Low-Mass, Low-Metallicity Frontier pillar
2022	Galaxy Evolution Workshop Chair & Organizer
June 2021	Galaxies Panel Chair Hubble Space Telescope Time Allocation Committee
2017-2021	Panel member Hubble Space Telescope time allocation
2017-2021	Committee reviewer National Science Foundation panel
Ongoing	Member The American Astronomical Society

International

2024	Workshop on Chemical Abundances in Gaseous Nebulae IV SOC
2023	Beyond Astronomy Conference: UV Galaxies 2023 Chair & Organizer
2020-2022	IAU GA FM Co-Chair Busan, South Korea
2020-present	Member The International Astronomical Union
2013-present	Article Referee ApJ, A&A, MNRAS, Galaxies Review, Nature Astronomy

Mentoring

DANIELLE BERG ASSISTANT PROFESSOR

Postdoc Scholars	
2023-present	Lauren Biddle The University of Texas at Austin
	 Mentor for the Provost Early Career Fellowship
2022-present	Nika Jurin The University of Texas at Austin
2021-present	Simon Gazagnes The University of Texas at Austin
	 1st author paper submitted in 2022
	 Mentored Summer 2022 REU student Zurita Martinez
	Harlan J. Smith Fellow
	 Co-PI of HST program 16643
2020-2023	Karla Arellano-Córdova The University of Texas at Austin
	 Awarded postdoc fellow position at Edinburgh University
	 Published 2—1st author papers in 2022
	 Arellano-Códova, K., Berg, D.A., et al. 2022, 940, 23
	o Arellano-Códova, K., Berg, D.A., et al. 2022, ApJ, 935, 74
	 Mentored Summer 2022 REU student Mabel Stephenson
	 Awarded multiple McDonald Observatory programs
	 Funded by Berg's HST program 15840 grant

Graduate Students

2023-present	Zorayda Martinez PhD student in Astronomy University of Texas at Austin • Scientific & Academic Advisor for the Dean's Strategic Mentoring Fellowship
2022-present	Resherle Verna PhD student in Astronomy University of Texas at Austin• Academic Advisor for the Dean's Strategic Mentoring Fellowship
2021-present	 Marvin Morgan PhD student in Astronomy University of Texas at Austin Academic Advisor for the Dean's Strategic Mentoring Fellowship
2021-present	 Kaelee Parker PhD student in Astronomy University of Texas at Austin 2021 Successful McDonald Proposal 2023 Saas Fee Winter School Attendee Pl of successful Hubble Space Telescope Cycle 31 Proposal
2019-2022	 Grace Olivier PhD student in Astronomy The Ohio State University Currently a Texas A&M Postdoctoral Fellow Advisor of PhD 2nd year project Funded by Berg's HST program 15465 grant Presenter in 2019 Cloudy Workshop Principal advisor of student-led paper: Olivier, G., Berg, D.A., et al. 2022
2019-2023	 Noah Rogers PhD student in Astronomy University of Minnesota Awarded postdoc fellow position at Northwestern University Co-advisor of PhD thesis Co-advisor of student-led paper: Rogers, N., Berg, D.A., et al. 2021 Co-advisor of student-led paper: Rogers, N., Berg, D.A., et al. 2022

Undergraduate

Students

2023 Stefan Langshur | The University of Texas at Austin



• UT Summer REU co-advisor: Radio Signatures of AGN

2022-present Alexander Menchaca | Astronomy Major | The University of Texas at Austin

- Awarded 2023 DoD Summer Internship
 - Presented research poster at the 239th AAS Meeting Winter 2023
 - Awarded 2022 Astronomy Department Summer Undergraduate Research Fellowship

2022-present Micah Marks | Astronomy Major | The University of Texas at Austin

- Awarded 2023 Astronomy Department Summer Undergraduate Research Fellowship
- Awarded 2022 Astronomy Department Summer Undergraduate Research Fellowship

2022 Zurita Martinez | The University of Texas at Austin

• UT Summer REU co-advisor: Impact of Spectral Resolution on $Ly\alpha$ profiles

2022 Mabel Stephenson | The University of Texas at Austin

- UT Summer REU co-advisor: N/O Abundances in The CLASSY Sample
- 2023 AAS Chambliss Astronomy Achievement Award

2020-2022 Ilyse Clark | Astronomy Major | The University of Texas at Austin

- Awarded the 2021 TIDES Advanced Summer Research Fellowship
- Presented research poster #153.17 at the 237th AAS Meeting 2021
- PI of an approved 8 hour observing program on the 10-m Hobby Eberly Telescope
- Lead author of Clark, I., Berg, D.A., et al. 2024
- Currently a graduate student at University of California San Diego

2021 Jay Trevino | The University of Texas at Austin

• Research Experience for Undergraduates (REU) advisor: Uncovering the Ionizing Radiation Fields in Galaxies Using Detailed Photoionization Modeling

2021 Stefany Dubon | The University of Texas at Austin

• TX Astronomy Undergraduate Research Experience for Under-represented Students (TAURUS) advisor: Spatial Scales in Star-Forming Galaxies Observed in UV Spectra

Student Research

Committees

2023-present	Zorayda Martinez PhD student in Astronomy University of Texas at Austin
2023-present	Hollis Atkins PhD student in Astronomy University of Texas at Austin
2023-present	Hera Wiegand PhD student in Astronomy University of Texas at Austin
2022-present	Alexa Morales PhD student in Astronomy University of Texas at Austin
2022-2023	Wichahpi King PhD student in Astronomy University of Texas at Austin
2022-present	Kaelee Parker PhD student in Astronomy University of Texas at Austin
2022-present	James Mang PhD student in Astronomy University of Texas at Austin
2021-present	Olivia Cooper PhD student in Astronomy University of Texas at Austin
2021-present	Kay Guo PhD student in Astronomy University of Texas at Austin
2020-2022	Adam McCarron PhD student in Astronomy University of Texas at Austin

Teaching Experience



2020-present	The University of Texas at Austin Assistant Professor
Fall 2023	 Practical Intro to Research (AST-376R 48365) – in-person
	Upper level undergraduate astronomy course for majors (14 students)
Spring 2023	 Galaxies, Quasars, & The Universe (AST-309R 47895) – in-person introductory
	undergraduate astronomy course for non-majors (180 students)
	• Extragalactic/Cosmology Seminar (AST-309G 48060) – mixed-modality (in-person
	+
Fall 2022	web-based) seminar course for astronomy graduate students (13 students)
	Survey of the Interstellar Medium (AST-393F 48070) – in-person
	graduate astronomy course (21 students)
	• Extragalactic/Cosmology Seminar (AST-309G 48060) – mixed-modality (in-person
Spring 2022	+
	web-based) seminar course for astronomy graduate students (13 students)
	 Galaxies, Quasars, & The Universe (AST-309R 47025) – mixed-modality (simultaneous)
Fall 2021	in-person + web-based) introductory undergraduate astronomy course for
	non-majors
	(~85 students)
Spring 2021	• Galaxies, Quasars, & The Universe (AST-309R 48295) – mixed-modality
	(simultaneous
	in-person + web-based) introductory undergraduate astronomy course for
Fall 2020	non-majors
	(~180 students)
	 Extragalactic/Cosmology Seminar (AST-309G 48110) – web-based seminar
	course for astronomy graduate students (12 students)
	• Galaxies, Quasars, & The Universe (AST-309R 46585) – web-based
	introductory undergraduate astronomy course for non-majors (163 students)
	• Extragalactic/Cosmology Seminar (AST-309G 46658) – web-based seminar
	course for astronomy graduate students (5 students)

Outreach

May 2023	CGCA Great Public Talk University of Wisconsin Milwaukee
Feb 2021	Guest speaker Board of Visitors Winter Meeting

Awards

- 2023 Accessibility Champion Award | Accessibility and Disability Office | UT CNS Faculty Travel Grant | \$1,400
- 2022 Board of Visitors Teaching Excellence Award CNS Faculty Travel Grant | \$1,400 Rom Rhome International Professional Development Fund | \$1,200
- 2021 AAS International Travel Grant | \$1,200



Curriculum Vitae