Dhanesh Krishnarao (DK)

Assistant Professor of Physics · Colorado College

Interstellar & Circumgalactic Medium · Ionized Gas · Galactic Structure & Dynamics

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$1.54M	**36**	**16**	**27**	**4**
in funding	**papers**	**student researchers**	**invited talks**	**PI-led awards**
$1.18M at Colorado College	7 first-author, 29 co-author	undergraduates mentored	of 48 talks given	NSF, HST, SDSS FAST

RESEARCH

I study how gas is energized and moves through galaxies, from the Milky Way's bar and Fermi Bubbles to the Magellanic Clouds' halo, using optical emission-line mapping (WHAM, SDSS-V Local Volume Mapper), HST UV absorption spectroscopy, and galaxy surveys (MaNGA).

SIGNATURE RESULTS

2022 **Observations of the Magellanic Corona**, *Nature*
A "protective shield of hot supercharged gas" around the XMCs keeps the Milky Way from siphoning off their gas, so they can keep forming stars.

2022 **Photometric signature of ultraharmonic resonances in barred galaxies**, *ApJ*
"Dark gaps" in barred-galaxy images trace the 4:1 ultraharmonic resonance, not bar corotation, in simulations and 578 observed galaxies.

2020 **LI(N)ER-like diffuse emission from the inner Galaxy**, *Science Advances*
Twenty years of WHAM data reveal a large, previously unseen ionized-gas component at the Galactic center, making the Milky Way a LINER-type galaxy.

2020 **High-velocity Hα emission toward the Fermi Bubble**, *ApJL*
First visible-light measurements of the Fermi Bubbles; with Hubble UV data they give the gas density, pressure and temperature to test formation models.

FUNDING HIGHLIGHTS

2025 **HST GO-17757** (Co-I) : 29 orbits
HST/COS observations of the never-before-probed front side of the LMC's circumgalactic medium, testing how the Magellanic Corona shields it.

2024 **NSF PAARE** AST-2425222 (PI) : $701K
FAST 4ward partners minority-serving institutions with R1 universities in SDSS-V, supporting research and peer mentoring for historically marginalized undergraduates.

2022 **HST Theory** AR-17060 (PI) : $217K
Builds a realistic radiation field for the inner Milky Way, a LI(N)ER-like system, to model how gas is ionized in UV absorption studies and in other galaxies.

2020 **NSF Astronomy & Astrophysics Postdoctoral Fellowship** : $300K
Optical spectral lines trace gas flowing from the Milky Way's bar into the Fermi Bubbles and Tilted Disk, plus podcast-based audio courses for outreach.

LEADERSHIP

2026– **Core Team**, Mellon "Generative Futures" (Colorado College)
Three-year initiative on language and generative AI : faculty development, class convergences, and decolonizing higher education across the humanities and STEM.

2026– **Architect**, Sloan Digital Sky Survey V (SDSS-V)
Recognizes a year+ of survey-infrastructure work; carries authorship rights.

2021– **FAST Coordinator**, Sloan Digital Sky Survey V (SDSS-V)
Brings small-institution faculty and students into SDSS with mentors, data and funding.

2023– **Instructional Coach**, Crown Center for Teaching (Colorado College)
Confidential peer coaching cycles (observation and debrief) for faculty.

2024–25 **Faculty Fellow**, Crown Center for Teaching (Colorado College)
Built a learning community testing alternative assessment strategies in STEM.

APPOINTMENTS

2022– Assistant Professor, Colorado College

2021–22 NSF AAPF, Johns Hopkins

2021 Postdoc, STScI

2020–21 Postdoc, UW–Madison

EDUCATION

2020 Ph.D. Astronomy, UW–Madison

2017 M.S. Astronomy, UW–Madison

2015 B.S. Physics & B.S. Math, American University

MENTORSHIP

16 undergraduate researchers mentored since 2023

12 student-led AAS abstracts (AAS 243–247)

6 students co-authoring papers (LMC winds, SDSS DR20)

5 mentees now in physics, data science, or law programs

CITATIONS

3,460 citations (h-index 14, i10 19)

114 citations to first-author papers

SELECT HONORS

2025 Excellence in Teaching Award, Colorado College

2022 AAS Doxsey Prize, Hon. Mention

2021 NSF AAPF

2017 NSF GRFP, Hon. Mention; AAS Chambliss Award

CODE (GitHub Deech08)

whampy (JOSS), **pyonized**, **dk_lvm_tools**, **galrad**, **modspectra**

Appointments

8/2022 - Current	Assistant Professor - Colorado Springs, CO	**Colorado College (CC)**
7/2021 - 8/2022	NSF Astronomy & Astrophysics Postdoctoral Fellow - Baltimore, MD	**Johns Hopkins University**
1/2021 - 7/2021	Postdoctoral Fellow - Baltimore, MD	**Space Telescope Science Center**
8/2020 - 1/2021	Postdoctoral Fellow - Madison, WI	**University of Wisconsin-Madison**

Education

2020 Ph.D. Astronomy, University of Wisconsin-Madison
Thesis Title : *The Impact of Galactic Structure on the Distribution and Ionization of Gas in Galaxies*
Thesis Advisors : Christy Tremonti, Robert A. Benjamin, L. Matthew Haffner

2017 M.S. Astronomy, University of Wisconsin-Madison

2015 B.S. Physics, American University

2015 B.S. Mathematics, American University

Grants & Funding

Total : $\sim \$1,545,000$ **Total @CC :** $\$1,180,731$

2027	**Dean of Faculty Research Grant (Matching Funds)**, Colorado College	$\$3,200$
2026	**Dean of Faculty Research Grant (Matching Funds)**, Colorado College	$\$15,200$
	SEGway Research Grant - Student International Conference, Colorado College	$\$4,510$
	Natural Science R&D Fund, Colorado College	$\$5,850$
	Student Collaborative Research Grant (SCoRe), Colorado College	$\$5,400$
	Faculty Development Block Award (Teaching Release), Colorado College	$\$7,200$
	Hubble Space Telescope GO-18375 - Co-I, NASA STScI (travel; award pending)	$\$6,068$
2025	**Hubble Space Telescope GO-17757 - Co-I**, NASA STScI (29 Orbits)	$\$8,824$
	Dean of Faculty Research Grant (Matching Funds), Colorado College	$\$15,500$
	SEGway Research Grant - Galactic Winds, Colorado College	$\$6,000$
	Natural Science R&D Fund, Colorado College	$\$5,850$
	Student Collaborative Research Grant (SCoRe), Colorado College	$\$5,400$
2024	**Partnerships in Astronomy & Astrophysics R & E (PAARE) - PI**, NSF AST-2425222	$\$701,118$
	Dean of Faculty Research Grant (Matching Funds), Colorado College	$\$9,200$
	Community-Engaged Learning (CEL) Curriculum Support Grants, Colorado College	$\$500$
	Education & Professional Development Mini-Grant - Co-I, AAS	$\$3,162$
	Dean of the Faculty Research Grant, Colorado College	$\$4,800$
	Student Collaborative Research Grant (SCoRe), Colorado College	$\$5,400$
2023	**Dean of Faculty Research Grant (Matching Funds)**, Colorado College	$\$6,000$
	Natural Science R&D Fund, Colorado College	$\$6,370$
	Sloan Digital Sky Survey FAST Faculty Liaison - PI, ARC-SDSS	$\$22,835$
2022	**SEGway Research Grant - Galactic Center**, Colorado College	$\$4,500$
	SEGway Research Grant - Cataloging the Universe, Colorado College	$\$5,000$
	Student Collaborative Research Grant (SCoRe), Colorado College	$\$4,500$
	Natural Science R&D Fund, Colorado College	$\$5,000$
	Hubble Space Telescope Theory AR-17060 - PI, NASA STScI	$\$216,940$
	Hubble Space Telescope AR-17053 - Co-I, NASA STScI	$\$11,201$
	Sloan Digital Sky Survey FAST Faculty Liaison - PI, ARC-SDSS	$\$18,203$
2021	**Hubble Space Telescope Legacy AR-16602 - Co-I**, NASA STScI	$\$67,000$
	Grants Held at Colorado College are above.	↑

2020	**Astronomy and Astrophysics Postdoctoral Fellowship**, National Science Foundation	$\$300,000$
	International Travel Grant, American Astronomical Society (unused; COVID-19)	$\sim \$1,500$
2019	**Student Research Travel Grant**, UW-Madison	$\$2,400$
	International Travel Grant, American Astronomical Society	$\sim \$1,500$
2018	**Student Research Travel Grant**, UW-Madison	$\$1,200$
	International Travel Grant, American Astronomical Society	$\sim \$3,000$
2017	**Fluno Family Graduate Fellowship**, UW-Madison Astronomy	$\sim \$50,000$
	Bautz Fellowship [Travel Grant], UW-Madison Astronomy	$\$1,500$

Student Research Travel Grant, UW-Madison $1,200
International Travel Grant, American Astronomical Society ~ $1,500

Paper Publications

Since Start at CC

Stone, Z., Shen, Y., Anderson, S. F., ..., **Krishnarao, D.** (19th Author), et al., **2026**, The SDSS-V Black Hole Mapper Reverberation Mapping Project : Short Lags in the COSMOS Field, ApJ, in review

Singh, A., Blanc, G. A., Kreckel, K., ..., **Krishnarao, D.** (20th Author), & Kollmeier, J. A., **2026**, SDSS-V LVM : Mapping of plasma temperatures in the Lagoon Nebula reveals the origin of long-standing chemical abundance discrepancies, ApJ, accepted

Lucey, M., Hackshaw, Z., Sanderson, R., ..., **Krishnarao, D.** (9th Author), et al., **2026**, Mapping the Milky Way with SDSS-V : Galactic Genesis Selection Function and Mock Catalog, MNRAS, in review

Blanc, G. A., Drory, N., Sánchez, S. F., ..., **Krishnarao, D.** (47th Author), et al., **2026**, The SDSS-V Local Volume Mapper (LVM) : Technical Overview, AJ, in review

Poudel, S., Horton, A., ... **Krishnarao, D.** (10th Author), **Catalano, S., **Ripley, A., **Yuan, W., **Van Tol, N., et al., **2026**, Tracing Winds through the Fog : A Comprehensive Survey of LMC's Galactic Outflows with ULLYSES, in review

Horton, A., Poudel, S., ... **Krishnarao, D.** (6th Author), **Catalano, S., **Ripley, A., **Yuan, W., **Van Tol, N., et al., **2026**, The Legacy of N11 : Probing Galactic Winds from an Evolved Star Formation Region Using ULLYSES, ApJ, 1006, 198

SDSS Collaboration, ..., **Driscoll, E., ..., **Krishnarao, D.**, ..., **Lam, S., ..., **2026**, The Twentieth Data Release of the Sloan Digital Sky Survey : First All-Sky BOSS Spectra, eROSITA-SDSS-V Mapper Coordinated Observations, and a Preview of the Local Volume Mapper, ApJS, in review

SDSS Collaboration, ..., **Krishnarao, D.**, ..., **2026**, The Nineteenth Data Release of the Sloan Digital Sky Survey, ApJS, 285, 95

Kollmeier, J. A., ... **Krishnarao, D.**, et al., **2026**, Sloan Digital Sky Survey-V : Pioneering Panoptic Spectroscopy, AJ, 171, 52

Horton, A., Poudel, S., ... **Krishnarao, D.** (10th Author), et al., **2025**, New Interpretation for the Orientation of the LMC's Gas using ULLYSES, ApJ, 993, 195

McCallum, L., Wood, K., ... **Krishnarao, D.** (4th Author), et al., **2025**, A three-dimensional, multi-wavelength view and time-dependent analysis of the Milky Way's local ionized gas, MNRAS, 541, 2324

McCallum, L., Wood, K., ... **Krishnarao, D.** (4th Author), et al., **2025**, The Hα sky in three dimensions, MNRAS, 540L, 21M

Cashman, F., Fox, A. J., ... **Krishnarao, D.**, et al., **2025**, Ultraviolet Observations of Multi-phase Gas in the Inner-Galaxy Spiral Arms, ApJ, 987, 95

Poudel, S., Horton, A., ... **Krishnarao, D.** (9th Author), et al., **2025**, The Gaseous Blowout of the 30 Doradus Starburst Region, ApJ, 984, 161

McCallum, L., ... **Krishnarao, D.** (4th Author), et al., **2024**, Time-dependent metal ionization in the diffuse ionized gas of star forming galaxies, MNRAS, 535, 2889M

Mishra, S., Fox, A. J., **Krishnarao, D.**, et al., **2024**, The Truncated Cool Circumgalactic Medium of the LMC, ApJL, 976L, 28M

Kreckel, K., ..., **Krishnarao, D.**, ..., **2024**, SDSS-V Local Volume Mapper (LVM) : A Glimpse into Orion, A&A, 689, 352

Drory, N., ..., **Krishnarao, D.**, ..., **2024**, The SDSS-V Local Volume Mapper (LVM) : Scientific Motivation and Project Overview, AJ, 168, 198

Luisi, M., **Krishnarao, D.**, Butterfield, N., et al., **2024**, Radio Recombination Line Observations towards the Fermi Bubbles, RNAAS, 8, 186

McCallum, L., ..., **Krishnarao, D.** (5th Author), et al., **2024**, The persistence of high altitude non-equilibrium diffuse ionized gas in simulations of star forming galaxies, MNRAS, 530, 2548

Cashman, F.H., ..., **Krishnarao, D.** (7th Author), et al. **2023**, Caught in the Act : A Metal-Rich High-Velocity Cloud in the Inner Galaxy, ApJ, 944, 65C

Smart, B., ..., **Krishnarao, D.** (6th Author), et al. **2023**, The Diffuse Ionized Gas Halo of the Large Magellanic Cloud, ApJ, 948, 118

SDSS Collaboration, ..., **Krishnarao, D.**, ..., **2023**, The Eighteenth Data Release of the Sloan Digital Sky Surveys : Targeting and First Spectra from SDSS-V, ApJS, 267, 44

Krishnarao, D., Fox, A. J., D'Onghia, E., et al., **2022b**, Observations of the Magellanic Corona,

Nature

****Undergraduate Student Author**

Before Joining CC

Krishnarao, D., Pace, Z. A., D'Onghia, E., et al., **2022a**, Photometric Signature of Ultraharmonic Resonances in Barred Galaxies, ApJ, 929, 112

SDSS Collaboration, ..., **Krishnarao, D.**, ..., **2022**, The Seventeenth Data Release of the Sloan Digital Sky Surveys : Complete Release of MaNGA, MaStar, and APOGEE-2 Data, ApJS, 259, 35

Cashman, F.H., ..., **Krishnarao, D.** (5th Author), et al. **2021**, Molecular Gas within the Milky Way's Nuclear Wind, ApJL, 923, L11

Masters, K. L., ..., **Krishnarao, D.** (10th Author), et al. **2021**, Galaxy Zoo : 3D - crowdsourced bar, spiral, and foreground star masks for MaNGA target galaxies, MNRAS, 507, 3923M

Boardman, N., ..., **Krishnarao, D.** (9th Author), et al. **2020**, Are the Milky Way and Andromeda unusual? A comparison with Milky Way and Andromeda Analogs, MNRAS, 498, 4943B

Krishnarao, D., Benjamin, R. A., Haffner, L. M., **2020c**, Discovery of High-velocity Hα Emission in the Direction of the Fermi Bubble, ApJL, 899, L11

Krishnarao, D., Tremonti, C., Fraser-McKelvie, A., et al., **2020b**, The Effect of Bars on the Ionized ISM : Optical Emission Lines from Milky Way Analogs, ApJ, 898, 116

Krishnarao, D., Benjamin, R. A., Haffner, L. M., **2020a**, Discovery of diffuse optical emission lines from the inner Galaxy : Evidence for LI(N)ER-like gas, SciA, 6, 9711

Fraser-McKelvie, A., ..., **Krishnarao, D.** (8th Author), et al. **2020**, SDSS-IV MaNGA : The Gas Properties of Barred Galaxies, MNRAS, 495, 4158

SDSS Collaboration, ..., **Krishnarao, D.**, ..., **2020**, The 16th Data Release of the Sloan Digital Sky Surveys : First Release from the APOGEE-2 Southern Survey and Full Release of eBOSS Spectra, ApJS, 249, 3

Krishnarao, D., **2019**, whampy : Python Package to Interact with, Visualize, and Analyze the Wisconsin H-Alpha Mapper - Sky Survey, JOSS, 4(44), 1940

Krishnarao, D., Haffner, L. M., Benjamin, R. A., et al., **2017**, A Study of the Warm ionized Medium throughout the Sagittarius-Carina Arm, ApJ, 838, 43

In Prep

Krishnarao, D., Soler, J. D., Wenger, T. B., Star-formation-driven outflows in the Milky Way, **(in prep.)**

Talks & Seminars

(Talks given after starting at CC are shown in purple)

Invited Conference

Star Formation Feedback and Outflows in Milky Way Spiral Arms?, Interstellar Institute 8, Pascal Institute, Paris, France, (October, **2026**)

***FAST 4ward : Summary and Progress, SDSS Collaboration Meeting, Leuven, Belgium, (July, **2026**)

***FAST into FAST 4ward : Updates and New Funding, SDSS Collaboration Meeting, Heidelberg, Germany, (June, **2025**)

***SDSS-V FAST (Faculty And Student Teams) & FAST 4Ward, SDSS-V Collaboration Meeting, Las Cruces, NM, (June, **2024**)

The Diffuse Gas in the Milky Way : The Warm/Hot Ionized Medium across the Milky Way, AAS - Diffuse Gas in the Milky Way, AAS, 244, Madison, WI, (June, **2024**)

Ionizing Radiation Escaping Galactic Center, Interstellar Institute 6, Pascal Institute, Paris, France, (July, **2023**)

***SDSS-V FAST (Faculty And Student Teams), SDSS-V Collaboration Meeting, New York, NY, (August, **2023**)

High-Ion Absorption around the LMC : The Magellanic Corona, Interstellar Institute - With Two Eyes, Pascal Institute, Paris, France, (July, **2022**)

Anomalous Velocity Gas near Galactic Center, Galactic and Extragalactic High Velocity Clouds, Green Bank Telescope, WV, USA, (June, **2022**)

Identifying the Effects of Resonances in Galaxies using Photometry, Interstellar Institute - The Grand Cascade, Pascal Institute, Paris, France, (July, **2021**)

Effects of Bars on Galaxies : Gas Ionization and Stellar Distributions, SDSS Milky Way as A Galaxy Symposium Series I, (Virtual : June, **2021**)

Bars in Galaxies : A Galactic/Extragalactic Review of Stars and Gas, Joint Plenary Talk with Sten Hasselquist, SDSS Collaboration Meeting, New York, NY, (Virtual : June, **2020**)

Discovery of Optical Line Emission Towards the Fermi Bubbles, AAS - The Fermi Bubbles : Progress and Prospects, AAS, 236, Madison, WI, (Virtual : June, **2020**)

The Ionized ISM Around Bars : Using galaxies to Understand The Galaxy, Ψ^2 The Self Organized Star Formation Process, Pascal Institute, Paris, France, (September, **2019**)

Physical Conditions of Ionized Gas in the Inner Galaxy, Ψ^2 The Milky Way in the Age of Gaia, Institut d'Astrophysique Spatiale, Paris, France, (October, **2018**)
Distribution of the Warm Ionized Medium in Spiral Arms, Ψ^2 The Interstellar Medium Beyond 3D, Institut d'Astrophysique Spatiale, Paris, France, (July, **2017**)

Invited Seminar / Colloquium

Does the Milky Way Host Star Formation Driven Outflows?, Green Bank Observatory, Green Bank, WV (March 26, **2026**)
Star Formation Driven Outflows in the Milky Way?, Carnegie Observatories, Pasadena, CA (December 2, **2025**)
Tracing Ionized Gas and Ionizing Radiation Surrounding Galactic Center, Green Bank Observatory, Green Bank, WV (March 28, **2024**)
Escape from the Galactic Center : Gas and the Radiation Field from the Milky Way Nucleus, Villanova University, Villanova, PA, (September, **2023**)
Hunt for the Magellanic Corona and Feedback Driven Winds, University of Utah, Salt Lake City, UT, (October 20, **2022**)
High-Ion Absorption around the LMC : A Magellanic Corona , Space Telescope Science Institute / Johns Hopkins University - CoolSci, (Virtual : Feb, **2022**)
The Inner Milky Way : Gas Flows in the Bar and Fermi Bubbles, University of Hertfordshire, Hatfield, United Kingdom, (Virtual : June 9, **2021**)
The Inner Milky Way : Ionized Gas in the Bar and Fermi Bubbles, Indiana University Lunch Talk, Bloomington, Indiana, (Virtual : March 5, **2021**)
An Optical View of Galactic Center : Ionized Gas in the Bar and Fermi Bubbles , Dominion Radio Astrophysical Observatory, Penticton, British Columbia, Canada, (Virtual : October 14, **2020**)
Optical Emission from the Inner Milky Way : Ionized Gas in the Bar and Fermi Bubbles, Green Bank Telescope, Green Bank, West Virginia, (Virtual : September 3, **2020**)
The Inner Milky Way : Our New Closest LI(N)ER, Kavli Institute for Cosmological Physics, University of Chicago, Chicago, Illinois, (February 28, **2020**)

Contributed Conference

Star Formation Driven Outflows in the Milky Way's Spiral Arms?, Star Formation Fields, Crete, Greece, (September, **2026**)
***Multi-Day Assessment : A Formative Tool for Summative Evaluation, AAS 246, Anchorage, AK, (June, **2025**)
***Building a Morally Responsible Physics and Astronomy Curriculum , AAS 246, Anchorage, AK, (June, **2025**)
The SDSS-V Local Volume Mapper : Early Data and Science, AAS 245, National Harbor, MD, (January, **2025**)
***FAST 4ward : an SDSS Partnership-Forging Mechanism for Long-Term Undergraduate Growth, AAS 245, National Harbor, MD, (January, **2025**)
Optical and Radio Emission Line Observations of the Fermi Bubbles, ESO SKA 2024 : Cosmic Ecosystems in Radio & Optical, Busselton, Australia, (December, **2024**)
Multiphase LMC CGM : Extended Corona and Truncated Cool CGM, ESO Resolving the Cicumgalactic Medium and its Impact on Galaxy Evolution, Santa Cruz, Colchagua, Chile (November, **2024**)
***Solo-Tutorial Extensions : Formative Assessments in Upper Level Undergraduate Astrophysics, AAS 244, Madison, WI, (June, **2024**)
***Towards an Antiracist Physics Classroom, AAS 243, New Orleans, LA, (January, **2024**)
Observations of the Magellanic Corona, New Views on Feedback & the Baryon Cycle in Galaxies, Healesville, Australia, (July, **2023**)
Dark Gaps are the the inner 4:1 UHR, Galactic Bars 2023, Granada, Spain, (July, **2023**)
New Observations of the Fermi Bubbles : in-situ Conditions and Galactic Center Workshop, Granada, Spain, (April, **2023**)
Diffuse Gas and Galactic Structure : New Insight from the Milky Way and Beyond, AAS 241, Seattle, WA, (January, **2023**)
***Cataloging the Universe - An Audio-Course for 5th Grade Science, NSF Symposium, AAS 241, Seattle, WA, (January, **2023**)
Finding the Ultra-Harmonic Resonance from Photometry Alone, AAS Division on Dynamical Astronomy Meeting 52, (Virtual : May, **2021**)
Using Faint Optical Emission to Study Ionization Around Galactic Center, CHANGE-ES Collaboration Meeting, Albuquerque, NM, (Virtual : July, **2020**)
The Relation Between LI(N)ERs and WIM : New Results from the Inner Galaxy, Warm Ionized Medium in Galaxies - Workshop, Green Bank, WV, (October, **2019**)
Diagnostics of Diffuse Ionized Gas in the Milky Way Galaxy and Milky Way Analogs, SDSS MaNGA Team Meeting, Oxford, UK, (April, **2019**)
Using MaNGA to Understand Milky Way Diffuse Ionized Gas Near Galactic Center and at Large Heights, SDSS Collaboration Meeting, Seoul, South Korea, (June, **2018**)
Evidence for a Tilted Elliptical Ionized Gas Disk in Galactic Center, The Role of Gas in Galaxy Dynamics,

Valletta, Malta, (October, **2017**)
Students' Feedback - Forecasting Space Weather (with Michelangelo Romano), 7th Community Coordinated Modeling Center Community Workshop, Research and Education Support, Annapolis, MD, (March, **2014**)
***Education/Outreach focus**

Undergraduate Research Mentees @CC

Essie Lamar	Effect of sdOB stars on diffuse ionized gas	Summer 2026 - current
Ethan Driscoll	Diffuse Ionized Gas as seen with the Local Volume Mapper	Summer 2025 - current
Quintin Falk	Diagnosing Asymmetries in Barred Galaxies	Summer 2025 - current
Sean Lam	Optical emission in the context of 3D dust maps	Spring 2024 - current
Sabra Catalano	UV Absorption line fitting to search for Winds from the LMC.	Summer 2024 - Spring 2026
Aliana Istanbullu	Dynamical effects of spirals and bars on distribution of galaxy parameters. *Now : Law student, University of San Diego School of Law*	Summer 2024 - Winter 2025
Patrick Loos	Mapping azimuthal variations of physical conditions in barred galaxies.	Summer 2024 - Spring 2025
Joshua McFeeters	Separating atmospheric and Galactic [NII] emission from WHAM. *Now : Physics graduate student (particle physics)*	Summer 2023 - Spring 2025
Anders Ripley	Diagnosing LMC winds in relation to LMC disk properties.	Summer 2023 - Spring 2025
Owen Cox	Do sdOB stars lead to LI(N)ER-like emission in galaxies? *Now : Physics graduate student, Montana State University*	Summer 2023 - Spring 2024
Wanyan Yuan	Mapping UV absorption line results alongside star formation tracers *Now : Master's student, data science*	Summer 2023 - Spring 2024
Natalie Van Tol	UV Absorption line fitting for cool gas outflowing from the LMC.	Summer 2023 - Spring 2024
Katie Joslyn	Synthetic Observations of Ionized Gas in the Milky Way. *Now : Physics graduate student, Montana State University*	Spring 2024, Block 8
Will Taylor	Ionization Sources in the Milky Way.	Spring 2024, Block 8
Dominic Schwein	Stellar & Gas Kinematic Offsets in Low-mass Galaxies.	Spring 2024, Block 8
Andrew Biesiada	Large Astronomical Dataset Analysis & Visualization.	Spring 2024, Block 8

</> Software

DK_LVM_TOOLS — github.com/deech08/dk_lvm_tools

Python Package for Visualizing and Analyzing SDSS-V LVM Data

Student Led Code Development [Ethan Driscoll] | Will be used with SDSS-V LVM Projects

PYONIZED — github.com/deech08/pyonized

Python Package for Modeling Ionized Gas in 4D (3D Space + Velocity)

Student Led Code Development [Sean Lam ; Katie Joslyn] | Will be used with SDSS-V LVM Project

GALRAD — github.com/deech08/galrad

Provides an easy way to estimate the Ionizing photon flux around the CGM environment of Milky Way and Magellanic Clouds.

Used in Nature Paper on LMC Corona.

WHAMPY — github.com/deech08/whampy

ReadTheDocs : https://whampy.readthedocs.io/ PyPi : https://pypi.org/project/whampy/
Provides an easy way to load, view, and do science with the Wisconsin H-Alpha Mapper (WHAM) Sky Survey.

JOSS DOI : 10.21105/joss.01940

MODSPECTRA — github.com/deech08/modspectra

ReadTheDocs : https://modspectra.readthedocs.io/
Provides an easy way to create synthetic 3D data cubes of HI and H-Alpha spectra in the Galaxy.

Used in Science Advances Paper on Tilted Disk.

Posters

(Posters given after starting at CC are shown in purple)

Presenter

Krishnarao, D., Observations of LMC Coronal Gas and a Multiphase CGM, IAU GA 2024, Cape Town, South Africa, (August, **2024**)

Krishnarao, D., New Observations of the Fermi Bubbles : Tracing Nuclear Feedback and in-situ Conditions, IAU GA 2024, Cape Town, South Africa, (August, **2024**)

Krishnarao, D., How Well do Dark Gaps Track the Location of Bar Resonances?, Galactic Bars 2023, Granada, Spain, (July, **2023**)

***Krishnarao, D.**, Cataloging the Universe - An Audio-Course for 5th Grade Science, AAS, 241, Seattle, WA, (January, **2023**)

Krishnarao, D., Tremonti, C., Fraser-McKelvie, A., et al., Optical Emission, Bars, LI(N)ERS and Beyond : Bridging the Milky Way with Extragalactic Surveys, AAS, 235, Honolulu, HI (January, **2020**)

Krishnarao, D., Tremonti, C., Benjamin, R. A., Haffner, L. M., Ionized Gas Near Galactic Center : LI(N)ER Emission Close to Home, New Horizons in Galactic Center Astronomy and Beyond, Yokohama, Japan (October, **2019**)

Krishnarao, D., Tremonti, C., Benjamin, R. A., Haffner, L. M., Observational Comparisons of Diffuse Ionized Gas in the Milky Way Galaxy with Milky Way Analogs, Linking the Milky Way and Nearby Galaxies, Helsinki, Finland (June, **2019**)

Krishnarao, D., Benjamin, R. A., Haffner, L. M., Ionized Gas Near Galactic Center : Physical Parameters and Mass Estimates, AAS, 233, Seattle, WA (January, **2019**)

***Krishnarao, D.**, Townsend, R. H. D., Heinz, S., Online Astronomy Education at the University of Wisconsin-Madison, AAS, 233, Seattle, WA (January, **2019**)

Krishnarao, D., Benjamin, R. A., Haffner, L. M., A Modified Kinematic Model of Neutral and Ionized Gas in Galactic Center, Hendrik van de Hulst Centennial Symposium : The Interstellar Medium of Galaxies, Leiden, Netherlands (November, **2018**)

Krishnarao, D., Benjamin, R. A., Haffner, L. M., New Insight on the Physical Conditions near Galactic Center, The Olympian Symposium 2018, Paralia Katerini, Greece (June, **2018**)

Krishnarao, D., Benjamin, R. A., Haffner, L. M., A Modified Kinematic Model of Neutral and Ionized Gas in Galactic Center, AAS, 231, National Harbor, MD (January, **2018**)

Krishnarao, D., Haffner, L. M., Benjamin, R. A., Interplay Between the Vertical Structure of Halo Gas and the Galactic Disk, 6 years of ISM-SPP, Cologne, Germany (February, **2017**)

Krishnarao, D., Haffner, L. M., Benjamin, R. A., The Vertical Structure of Diffuse Ionized Gas in Galactic Spiral Arms, AAS, 229, Grapevine, TX (January, **2017**) [Chambliss Poster Award]

Krishnarao, D., Haffner, L. M., Benjamin, R. A., The Vertical Extent of Ionized Gas in the Sagittarius-Carina Arm, ViaLactea : The Milky Way as a Star Formation Engine, Rome, Italy (September, **2016**)

Krishnarao, D., Haffner, L. M., Benjamin, R. A., WHAM Observations of Ionized Gas in the Carina Arm, Star Formation, Magnetic Fields, and Diffuse Matter in the Galaxy, Madison, WI (May, **2016**)

Krishnarao, D., Smart, B., Haffner, L. M., Barger, K., Madsen, G. J., Hill, A. S., Gaensler, B. M., The Extended Ionized Halos and Bridge of the Magellanic Clouds, AAS, 227, ID : 136.13, Kissimmee, FL (January, **2016**)

Robinson, M., **Krishnarao, D.**, Analyzing Wireless Communication Network Vulnerability with Homological Invariants, 2nd IEEE Global Conference on Signal and Information Processing, Atlanta, GA (December **2014**)

Krishnarao, D., Pulkkinen, A., STEREO EUVI as X-Ray Proxy, European Space Weather Week, Open Session on Space Weather Applications and Engineering Concerns, Liege, Belgium (November, **2014**)

Krishnarao, D., Zheng, Y, Maddox, M., Schiewe, T., Development of the Spacecraft Environmental Anomalies Expert System (SEAES) at NASA, Spacecraft Operations and Space Weather, Liege, Belgium (November, **2014**)

Krishnarao, D., Zheng, Y. Maddox, M., Schiewe, T., Development of the Spacecraft Environmental Anomalies Expert System (SEAES) at NASA, APS Mid-Atlantic Section, ID : F1.60, State College, PA (October, **2014**)

Krishnarao, D., Sofia, U. J., The Effect of Sulfur on Interstellar Extinction, APS April Meeting, ID : L1.012, Savannah, GA (March, **2014**)

Co-Author

Catalano, S., **Krishnarao, D., Gone with the Wind : Finding Outflowing Gas in the LMC, AAS, 247, Phoenix, AZ (January, **2026**)

Schwein, D., **Krishnarao, D., Monsters and Misalignment : Do AGN influence counter-rotation in low-mass galaxies ?, AAS, 247, Phoenix, AZ (January, **2026**)

Driscoll, E., **Krishnarao, D., Exploring LVM for Faint Signatures of the Warm Ionized Medium, AAS, 247, Phoenix, AZ (January, **2026**)

Horton, A., ..., **Krishnarao, D.**, Swept into the Arms of a Galaxy : Tracing Stellar-Driven Gas Flows in the LMC, AAS, 247, Phoenix, AZ (January, **2026**)

Poudel, S., ..., **Krishnarao, D.**, Tracing Stellar-Driven Winds from the Large Magellanic Cloud (LMC) while Disentangling Foreground MW's HVCs with ULLYSES, AAS, 247, Phoenix, AZ (January, **2026**)

Falk, Q., **Krishnarao, D., Barhopping, The Sequel ; Asymmetries of Gas and Stellar Population in Barred Galaxies, AAS, 247, Phoenix, AZ (January, **2026**)

Istanbullu, A., **Loos, P., **Krishnarao, D., Barhopping between Galaxies : Azimuthal Variations in Barred MaNGA Galaxies, AAS, 245, National Harbor, MD (January, **2025**)

Ripley, A., **Catalano, S., **Krishnarao, D., **Yuan, W., **VanTol, N., Pass the Gas : Mapping Galactic Winds from the LMC, AAS, 245, National Harbor, MD (January, **2025**)

Cashman, F., ..., **Krishnarao, D.**, Ultraviolet Observations of Multi-phase Gas in the Inner-Galaxy Spiral Arms, AAS, 245, National Harbor, MD (January, **2025**)

Schwein, D., Witherspoon, C., **Krishnarao, D., Investigating the Source of Counter-Rotation in Low-Mass Galaxies, AAS, 245, National Harbor, MD (January, **2025**)

Lam, S., **Krishnarao, D., pyonized : Modeling Ionized Gas in Four Dimensions, AAS, 245, National Harbor, MD (January, **2025**)

Poudel, S., ..., **Krishnarao, D.**, Racing with the Wind : The Fast and Furious Outflows of the LMC's 30 Doradus Region, AAS, 245, National Harbor, MD (January, **2025**)

McFeeters, J., **Krishnarao, D., Mapping [NII] Emission Across the Milky Way, But We Have Preliminary Analysis So Its Different, AAS, 245, National Harbor, MD (January, **2025**)

McFeeters, J., **Krishnarao, D., Mapping [NII] Emission in the Milky Way with the Wisconsin H-Alpha Mapper (WHAM), AAS, 243, New Orleans, LA (January, **2024**)

Cox, O., **Krishnarao, D., Could sdOB or white dwarf stars be responsible for causing LI(N)ER-like emission ?, AAS, 243, New Orleans, LA (January, **2024**)

Yuan, W., Ripley, A., Van Tol, N., **Krishnarao, D., A Stellar Feedback Odyssey : Galactic Winds in the Large Magellanic Cloud as seen through ULYSSES, AAS, 243, New Orleans, LA (January, **2024**)

Horton, April, ..., **Krishnarao, D.**, et al. A Tale of Winds and Tides : Characterizing the Properties of the Magellanic Stream, AAS, 243, New Orleans, LA (January, **2024**)

Gebhart, Stone, ..., **Krishnarao, D.**, et al. Explosive galactic weather : Winds from the largest cloud in the local group, AAS, 243, New Orleans, LA (January, **2024**)

Horton, April, ..., **Krishnarao, D.**, et al. Blowing in the Galactic Winds : Surveying the Stellar-Driven Outflows of the LMC, AAS, 243, New Orleans, LA (January, **2024**)

Horton, April, ..., **Krishnarao, D.**, et al. Our Windy Neighbor : Characterizing the Galactic Winds Generated by Supernovae Explosions in the Large Magellanic Cloud Galaxy, AAS, 243, New Orleans, LA (January, **2024**)

***Morris, M. **Krishnarao, D.**, Lopez, A., et al., University of Wisconsin-Madison Astronomers Promoting Lasting Equity (UW-MAPLE), AAS, 235, Honolulu, HI (January, **2020**)

Benjamin, R. A., **Krishnarao, D.**, Haffner, L. M., An Investigation of the Ionization Structure of the Carina Spiral Arm with WHAM, AAS, 231, National Harbor, MD (January, **2018**)

Smart, B., Haffner, L. M., Barger, K., **Krishnarao, D.**, The WHAM Hα Magellanic Stream Survey : Progress and Early Results, AAS, 229, Grapevine, TX (January, **2017**)

***Education/Outreach focus **Undergraduate Student Author

Co-Author Talk Abstracts

Benjamin, Robert, ..., **Krishnarao, D.**, et al., Passage Through the Carina Spiral Arm as the Origin of Major Star Forming Complexes in the Solar Neighborhood, AAS 244, Madison, WI, (June, **2024**)

Poudel, Suraj, ..., **Krishnarao, D.**, et al., Exploring the Gaseous Eruption in the 30-Doradus Starburst Region, AAS 243, New Orleans, LA, (January, **2024**)

Smart, Brianna, ..., **Krishnarao, D.**, et al., The Diffuse Ionized Gas of the Large Magellanic Cloud , AAS 241, Seattle, WA, (January, **2023**)

Barger, Kathleen, ..., **Krishnarao, D.**, et al., The LMC's Galactic Feedback , AAS 241, Seattle, WA, (January, **2023**)

Fox, Andrew, **Krishnarao, D.**, et al., The Magellanic Corona , AAS 241, Seattle, WA, (January, **2023**)

Cashman, Frances, ..., **Krishnarao, D.**, et al., Caught in the Act : A Metal-Rich High-Velocity Cloud in the Inner Galaxy, AAS 241, Seattle, WA, (January, **2023**)

Benjamin, Robert, Clarke, Leonardo, **Krishnarao, D.**, Beyond the Break in the Galactic Stellar Disk : A Search for Red Clump Giants, AAS 237, Seattle, WA, (January, **2021**)

Haffner, L. M., Benjamin, R. A., **Krishnarao, D.**, Discovery of Ionized Gas Associated with the Tilted Inner Disk of the Milky Way, AAS, 231, National Harbor, MD (January, **2018**)

Select Press Content

LMC Corona
- Galactic Atmospheres - by **Krishnarao, D.**, Fox, A. J., & D'Onghia, E.,
- NASA Press Release (>760M Impressions after 1 month)
- Colorado College News Story
- Youtube Video (140K views)
- CNET
- Inverse
- IFL Science
- AltMetric Summary Info

Fermi Bubble
- UW-Madison Press Release
- ERAU Press Release
- Cosmos Magazine
- Science News
- Universe Today
- IFL Science

Tilted Disk
- UW-Madison Press Release
- ERAU Press Release
- Inverse
- Universe Today
- SpaceTime (Podcast)
- AltMetric Summary Info

Honors & Awards

2026-current Architect - Sloan Digital Sky Survey V (SDSS-V)

2025 **Dean of the Faculty Excellence in Teaching Award**, Colorado College

2022 **American Astronomical Society Rodger Doxsey Travel Prize - Honorable Mention**

2021 **NSF Astronomy and Astrophysics Postdoctoral Fellowship**

2017 **NSF Graduate Research Fellowship Program - Honorable Mention**
Chambliss Graduate Astronomy Achievement Award, American Astronomical Society

2016 **Stebbins Award**, UW-Madison Astronomy

2015 **Outstanding Community Service Award**, American University Physics
Outstanding Honors Senior, American University

2014 **Robert H. Goddard Customer Service Exceptional Achievement Award** [team Award], NASA Goddard
Outstanding TA of the Year, American University Physics
Jacob Kastner Memorial Scholarship, American University

2013 **Outstanding TA of the Year**, American University Physics
Jacob Kastner Memorial Scholarship, American University

2012 **Jacob Kastner Memorial Scholarship**, American University

Research Training

August 2022 – July 2021 **NSF Astronomy & Astrophysics Postdoctoral Fellow | Johns Hopkins University, (Baltimore, MD),**

- How have the Magellanic Clouds survived their tumultuous journey falling into the Milky Way?
- Can a diffuse, protective Magellanic Corona be directly observed surrounding the Large Magellanic Cloud?

HST | FUSE | Python | Optical/UV Spectroscopy | Machine Learning

July 2021 – January 2021 | **Postdoctoral Fellow | Space Telescope Science Institute, (Baltimore, MD), High-Velocity Ionized Gas**

- How has the ionizing radiation field escaping from the Galactic Center evolved over time?
- How can observations be used to constrain the hot halo of the Magellanic Clouds?
- How can stellar spectra observations in SDSS-V be used to map the ISM in 3D space and kinematics?

HST | WHAM | SDSS-V | Python | Optical/UV Spectroscopy | Machine Learning

January 2021 – August 2020 | **Postdoctoral Researcher | University of Wisconsin-Madison, Astronomy, Photoionization Modeling**

- What are the sources of ionization in the inner Milky Way and LI(N)ERs?
- How does the radiation field vary in the inner Milky Way?
- What photoionization models are necessary to predict the observed gas physical conditions?

HST | WHAM | SDSS-MaNGA | Python | IDL | Optical/UV Spectroscopy | Cloudy Photoionization

August 2020 – August 2015 | **Graduate Research Assistant | University of Wisconsin-Madison, Astronomy, Diffuse Gas in Galaxies**

- How does star formation in the disk of the Galaxy influence the diffuse halo gas?
- How does the vertical extent of diffuse ionized gas influence cold, dense gas and star formation?
- How do physical conditions and the distribution of diffuse gas change throughout the Galaxy?
- How is gas near the center of the Galaxy distributed, behave kinematically and interact with the bar?

WHAM | SDSS-MaNGA | Python | IDL | Optical Spectroscopy | Bayesian Statistics

September 2015 – June 2013 | **Space Weather Forecaster II+ / Researcher | NASA Goddard Space Flight Center, Heliophysics,**

- Advisors : Yihua Zheng, Antti Pulkkinen
- How can accurate forecasting models be built for solar flares using low cadence imaging?
- How can real-time space environment conditions be predicted for specific spacecraft orbits?
- How can spacecraft operators easily assess space weather conditions and risks in real-time?

SDO | IDL | WSA-ENLIL | SEA[5]

May 2015 – August 2014 | **Research Assistant | American University, Mathematics, Algebraic Topology**

- Advisor : Michael Robinson
- How can Algebraic Topology be used to analyze network strengths and weaknesses?

Python | Matlab | Wireless Networks

May 2014 – September 2013 | **Research Assistant | American University, Physics, Interstellar Extinction**

- Advisor : Ulysses J. (UJ) Sofia
- What is the chemical composition of interstellar dust : specifically the role of sulfur?
- Does sulfur preferentially distribute towards specific dust grain sizes?

HST/STIS | IDL | UV Spectroscopy | Voigt-profile Fitting

Teaching Experience

August 2022 – Present | **Assistant Professor | Colorado College, Physics, ~ 25 students/class**

- Courses:Astronomy (PC133), Modern Physics (PC251), Electronics (PC261), Astrophysics (PC357), Observational Astronomy (PC362)
- Labs/lecture for intro astronomy (32 students/class)
- Lecture for intermediate/advanced physics for majors/minors (10-25 students/class)
- Lab-based intermediate electronics for majors/minors (15 students/class)
- Field-Trip based advanced observational astronomy for majors/minors (12 students/class)

Group Work | Project Based | Collaborative/Alternative Assessments | Field Trips | Self Grading | Ungrading

April 2022 – May 2022 | **Visiting Assistant Professor | Colorado College, Physics, ~ 30 students**

- Course:Astronomy (PC-133)
- Primary instructor of introductory astronomy course for Block 8 course (3.5 weeks)
- Designed collaborative worksheet based lectures with projects

Introductory Astronomy | Writing Intensive | Group Work

July 2018 – January 2018 | **Instructor / Course Developer | University of Wisconsin-Madison, Astronomy, $> 2,000$ total students**

- Course:Online–The Evolving Universe : Stars, Galaxies, and Cosmology (ASTRON 103).
- Built the departments first online only intro astronomy course and co-taught it (~ 30 students).
- Recorded $\sim$30 hours of educational videos, and designed writing assignments, discussion questions, projects, and exams.
- Course has been re-used annually since in summers and extensively during Spring 2020, Fall 2020 (> 2000 students).

Online | Introductory Astronomy | Writing Intensive

May 2017 – January 2017 | **Teaching Assistant | University of Wisconsin-Madison, Astronomy, ~ 100 students/course**

- Course:Planets and the Solar System (ASTRON 104)
- Designed and led 6 weekly discussion sections.

Introductory Astronomy

May 2015 – August 2013 | **Teaching Assistant | American University, Physics, $\sim 10 - 150$ students/course**

- Course (# of semesters) : Intro Astronomy (4), Modern Physics (2), General Physics II (1), E&M (1), Cosmology (1)

Introductory Physics | Advanced Undergraduate Physics

May 2013 – August 2012 | **Supplemental Instruction Leader / Trainer | American University, Academic Support and Access Center, $\sim 10 - 150$ students/course**

- Course (# of semesters) : General Physics I (1), General Physics II (1)

Introductory Physics

May 2015 – August 2012 | **Private Tutor / Learning Disability Student Tutor | American University, Academic Support and Access Center,**

- Relevant Topics:Intro Math, Calculus I - III, Statistics, All levels of Physics

Introductory Physics | Introductory Mathematics | Advanced Physics

Other Leadership Experience

Current – 2026 | **Core Team Member | Generative Futures : Critical Language Inquiry in the Age of AI, Colorado College (Mellon Foundation),**

- Core team for a three-year, campus-wide Mellon Foundation Humanities for All Times initiative on how language and generative AI are reshaping teaching, learning, and knowledge across the liberal arts.
- Support faculty development, course development, and Critical AI Literacy modules for use across the curriculum.

Critical AI Literacy | Faculty Development | Curriculum

2025 – September 2024 | **Crown Center Faculty Fellow | Alternative Assessment in STEM, Colorado College,**

- Build an Educator Learning Community at CC to discuss, develop, implement, and assess alternative assessment strategies in STEM courses.
- Gather data on select strategies in preparation for larger scale assessment and publication.

Faculty Development | Formative Assessment

December 2019 – September 2015 | **Volunteer Coach / Instructing Mentor | Hamilton Middle School, Science Olympiad, ~ 15 students**

- Coach students for written physics portions through interactive teaching methods.
- Students have placed 1st in multiple regional and state competitions - compete nationally

Middle School Students | High School Students | Introductory Physics | Physics Experiments

June 2017 – July 2015 | **Assistant A/V Manager | NewSpace Conference, Space Frontier Foundation, > 2000 participants**

- Coach students for written physics portions through interactive teaching methods.
- Students have placed 1st in multiple regional and state competitions - compete nationally

Middle School Students | High School Students | Introductory Physics | Physics Experiments

Service and Other

(Service after starting at CC is shown in purple)

2026-current	Core Team Member - Mellon Foundation “Generative Futures” Grant - Colorado College
2023-current	Instuctional Coach - Crown Center for Teaching - Colorado College
2021-current	SDSS-V FAST Program Coordinator & Liaison
2026-2027	Member of Committee on Financial Aid and Admissions - Colorado College
2026	Referee for Paper in *Astrophysical Journal*
	Referee for Paper in *Astronomy & Astrophysics*
	Co-Organized Education Workshop on Inclusive Teaching for Winter AAS, Phoenix, AZ
2025	Referee for Paper in *Astrophysical Journal*
	Referee for Paper in *Astronomy & Astrophysics*
	Co-Organized Education Workshop on Inclusive Teaching for Summer AAS, Anchorage, AK
	Co-Organized Education Workshop on Inclusive Teaching for Winter AAS, National Harbor, MD
2024-2025	CC Crown Center Faculty Fellow - Alternative Assessment in STEM
2024	Member of Search Committee - Creativity & Innovation Program Coordinator, Colorado College
	Referee for Paper in *Astrophysical Journal*
	Hubble Space Telescope Cycle 32 External Reviewer
	Session Chair for Summer American Astronomical Society Meeting, Madison, WI
	Co-Organized 2 Special Sessions on Education and SDSS-IV for Summer AAS, Madison, WI
2023-2025	Member of Committee on Financial Aid and Admissions - Colorado College
2023	Taught Mock Astronomy Course for CC Accepted/Admitted Students
	Session Chair for January American Astronomical Society Meeting, Seattle, WA
	Hubble Space Telescope Cycle 31 External Reviewer
	Invited Participant : Interstellar Institute - 6 (Paris, France)
	Referee for Publication in *Astrophysical Journal*
2022	Referee for Publication in *Astronomy & Astrophysics*
	Invited Participant : With Two Eyes - Interstellar Institute (Paris, France)
2020	Invited Participant : The Grand Cascade - Interstellar Institute (Paris, France)
2019	Invited Participant : Ψ^2 : SoStar (Paris, France)
	Graduate Student-Faculty Liaison - UW-Madison Department of Astronomy (AY 2018-2019)
2018	Invited Participant : Ψ^2 : The Milky Way in the Age of Gaia (Paris, France)
2017	Invited Participant : Ψ^2 : The Interstellar Medium Beyond 3D (Paris, France)
	Member of Graduate Admissions Committee, UW-Madison
2016	Member of Graduate Admissions Committee, UW-Madison
	Member of Local Organizing Committee : SDSS Collaboration Meeting (Madison, WI)
	Member of Local Organizing Committee : CHANGE-ES Collaboration Meeting (Madison, WI)
	Participated in American Astronomical Society Congressional Visits Day
2015	American Astronomical Society Astronomy Ambassador (2015 - Present)
2014	Nominated and Ran for American Physical Society Mid-Atlantic Section Student Board Member
	Featured in NASA Goddard Space Flight Center Intern Profile
	Featured in Connections, American University College of Arts of Sciences’ Magazine