

CURRICULUM VITÆ
NORA SHIPP

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EDUCATION & EXPERIENCE **University of Washington**, Seattle, WA *September 2024 -*
Assistant Professor of Astronomy

Carnegie Mellon University, Pittsburgh, PA *August 2023 - July 2024*
NSF Astronomy and Astrophysics Postdoctoral Fellow

MIT Kavli Institute for Astrophysics
and Space Research, Cambridge, MA *September 2021 - July 2023*
Postdoctoral Associate

University of Chicago, Chicago, IL *August 2021*
Ph.D., Astronomy & Astrophysics
Schramm Graduate Fellow, Harper Dissertation Fellow

- Thesis: *Discovery & Modeling of Milky Way Stellar Streams*
- Advisor: Alex Drlica-Wagner

LSSTC Data Science Fellow *2016-2018*

NASA Goddard Space Flight Center, Greenbelt, MD *2014-2015*
Postbaccalaureate Researcher

- Project: *Exploring Evidence for Cosmic Ray Acceleration in Westerlund 1*
- Advisor: Terri J. Brandt

Brown University, Providence, RI *May 2014*
Sc.B., with honors in Astrophysics

- Thesis: *Fermi Unidentified Sources: Dark Matter or Astrophysics*
- Advisor: Savvas M. Koushiappas

HONORS & AWARDS

- Princeton Rising Stars in Physics *2022*
- MIT Infinite Expansion Award *2021*
- Schramm Graduate Student Fellowship *2020 - 2021*
- William Rainey Harper Dissertation Fellowship *2020 - 2021*
- Yoichiro Nambu Fellowship *2019*
- University Research Association Visiting Scholars Program *2018 - 2020*
- Department of Energy SCGSR Fellowship *2018 - 2019*
- Illinois Space Grant Consortium Graduate Fellowship *2018 - 2019*
- McCormick Fellowship *2015 - 2017*
- NASA Rhode Island Space Grant Scholarship *2012 - 2013*
- Brown University Undergraduate Teaching and Research Award *2012 - 2013*

PRESENTATIONS *Seminars*

- Dartmouth Astronomy Seminar *May 2023*
- Johns Hopkins Theory Seminar *May 2023*
- University of Washington Astronomy Colloquium *March 2023*
- Texas A&M Mitchell Institute Seminar *September 2022*
- Carnegie Mellon Astro Lunch *September 2022*

- CITA Seminar *August 2022*
- NASA Star Science Interest Group Seminar *April 2022*
- Cambridge Milky Way Group *September 2021*
- Michigan Galaxy Group *February 2021*
- Carnegie Lunch Talk *January 2021*
- CCAPP Seminar *November 2020*
- Yale Galaxy Lunch *September 2020*
- KIPAC Tea Talk *September 2020*
- STScI Galaxies Journal Club *September 2020*
- Fermilab Astrophysics Seminar *February 2018*

Invited Conference Talks

- Northeastern Regional Meeting on Low-Mass Galaxies *July 2023*
- DES Collaboration Meeting Plenary Talk *May 2021*
- LSST Dark Matter Workshop *August 2019*
- Fermilab New Perspectives *June 2019*
- DECam Community Science Workshop *May 2018*

Contributed Conference Talks

- IAUS379: Dynamical Masses of Local Group Galaxies *March 2023*
- 241th Meeting of the American Astronomical Society *January 2023*
- Towards Real-Time Galactic Dynamics *July 2022*
- Satellites and Streams in the Framework of Cosmological Models at EAS *June 2022*
- 53rd Meeting of the AAS Division on Dynamical Astronomy *April 2022*
- Streams 21: Constraints on Dark Matter *February 2021*
- 237th Meeting of the American Astronomical Society *January 2021*
- STScI Symposium, The Local Group: Assembly and Evolution *August 2020*
- Small Galaxies, Cosmic Questions *July 2019*
- KICP Near-field Cosmology Workshop *June 2018*
- American Physical Society April Meeting *April 2018*
- 231st Meeting of the American Astronomical Society *January 2018*

Poster Presentations

- Stasis and Disequilibrium in the Milky Way *April 2019*
- 233rd Meeting of the American Astronomical Society *January 2019*
- 225th Meeting of the American Astronomical Society *January 2015*

- PUBLIC PRESS
- Rivers in the Sky, Symmetry Magazine
 - Dark Energy Survey finds remains of 11 galaxies eaten by the Milky Way, UChicago News
 - Dark Energy Survey Reveals That The Milky Way Has Devoured 11 Other Galaxies, IFL Science

- MENTORING
- **Rutong Pei** (Undergrad at Carnegie Mellon) *2023-present*
supervision of undergrad project, 1 publication in prep.
 - **Adriana Dropulic** (PhD student at Princeton) *2021-present*
co-supervision of PhD project, 2 publications in prep.
 - **Nondh Panithanpaisal** (Former PhD student at UPenn; Postdoctoral fellow at Carnegie Observatories) *2021-2022*
co-supervision of PhD project, contributed to 1 publication.
 - **Kiyan Tavangar** (Former undergrad at UChicago; PhD student at Columbia) *2019-2021*
co-supervision of undergrad project, 1 publication, and contributed to 1 publication.

OUTREACH,
EQUITY &
INCLUSION

- Co-founder, UChicago IDEA (Inclusion, Diversity, and Equity in Astronomy) 2017 - 2021
- Co-lead organizer, Working Groups to Support Black Astronomers at UChicago 2020-2021
- Member, UChicago Graduate Admissions Working Group 2020-2021
- Member, UChicago Graduate Advising and Mentoring Working Group 2020-2021
- Presenter, Life Long Learning Chicago 2019
- Founder, UChicago Astronomy & Astrophysics Graduate Mentoring Program 2018
- Co-chair, Astrobites Diversity Committee 2019 - 2020
- Research Coordinator, Astrobites in the Classroom Study 2017 - 2018
- [Writer for Astrobites](#) 2016 - 2018
- Presenter, Astronomy Conversations at Adler Planetarium 2015 - 2017
- Founding Member, Astronomy on Tap Chicago 2015 - 2017

PROFESSIONAL
SERVICE &
LEADERSHIP

Collaboration Leadership

- Co-convenor, LSST DESC Dark Matter Working Group 2023 - present
- Proper Motion Coordinator, S⁵ Collaboration 2018 - present

Collaboration Membership

- Member, Dark Energy Survey (DES)
- Member, DECam Local Volume Exploration Survey (DELVE)
- Builder, Southern Stellar Stream Spectroscopic Survey (S⁵)
- Member, LSST Dark Energy Science Collaboration (DESC)
- Member, Feedback in Realistic Environments (FIRE)

Workshops and Seminars Organized

- LSST DESC Sprint Week, Carnegie Mellon October 2023
- Streams Across Simulations Workshop, CCA April 2023
- MIT Milky Way Journal Club 2021 - present
- UChicago Milky Way Discussion Group 2019 - 2021
- [IDEA \(Inclusion, Diversity, and Equity in Astronomy\) Week](#) August 2020
- KICP LSST Dark Matter Workshop August 2019
- [IDEA \(Inclusion, Diversity, and Equity in Astronomy\) Day](#) May 2019

Reviewer for Astrophysical Journal, Nature Astronomy, MNRAS 2019 - present

Observing

- Dark Energy Survey (DES)
- DECam Local Volume Exploration (DELVE) Survey

Department Committees, University of Chicago

- Graduate Admissions Committee 2020 - 2021
- Diversity Committee 2017 - 2020
- Undergraduate Education Committee 2016 - 2017

TEACHING

Lead Instructor

University of Chicago

- [Space Explorers KICP Summer Institute](#) Summer 2018

Guest Lecturer

MIT

- [Gaia DR3 Hackathon](#) June 2022

University of Chicago

- ASTR13300: Introduction to Astrophysics
- ASTR11901: Physics of Stars

Spring 2020
Summer 2018

Teaching Assistant

University of Chicago

- ASTR018200: The Origin and Evolution of the Universe
- PHSC12620: The Big Bang
- PHSC12610: Black Holes
- PHSC12600: Matter, Energy, Space, and Time

Winter 2018
Spring 2016
Winter 2016
Fall 2015

Brown University

- PHYS0270: Introduction to Astronomy
- PHYS0220: Astronomy

Spring 2012, 2014
Fall 2012, 2013, 2014

REFERENCES **Prof. Alex Drlica-Wagner**, Fermilab and UChicago, kadrlica@fnal.gov

Prof. Denis Erkal, University of Surrey, d.erkal@surrey.ac.uk

Prof. Lina Necib, MIT, lnecib@mit.edu

Prof. Ting Li, University of Toronto, ting.li@astro.utoronto.ca

Dr. Brian Yanny, Fermilab, yanny@fnal.gov

PUBLICATIONS

Primary Contributor

Papers where I was a primary contributor to analysis and/or writing.

** indicates work led by a student I advised or co-advised.*

- [1] *Nguyen, T., *Ou, X., *Panithanpaisal, N., **Shipp, N.** et al. "*Synthetic Gaia DR3 surveys from the FIRE cosmological simulations of Milky-Way-mass galaxies*", 2023, submitted to ApJ, arXiv:2306.16475
- [2] **Shipp, N.**, *Panithanpaisal, N., Necib, L., et al. "*Streams on FIRE: Populations of Detectable Stellar Streams in the Milky Way and FIRE*", 2023, ApJ, 949, 44, arXiv:2208.02255
- [3] Li, T. S., Ji, A. P., Pace, A. B., Erkal, D., Koposov, S. E., **Shipp, N.**, et al. "*S⁵: The Orbital and Chemical Properties of One Dozen Stellar Streams*" 2022, ApJ, 928, 30, arXiv:2110.06950
- [4] *Tavangar, K., Ferguson, P. S., **Shipp, N.**, et al. "*From the Fire: A Deeper Look at the Phoenix Stream*" 2022, ApJ, 925, 118 arXiv:2110.03703
- [5] Ferguson, P. S., **Shipp, N.**, Drlica-Wagner, A., et al. "*DELVE-ing into the Jet: a thin stellar stream on a retrograde orbit at 30 kpc*" 2022, 163, 18, arXiv:2104.11755
- [6] **Shipp, N.**, Erkal, D., Drlica-Wagner, A., et al. "*Measuring the Mass of the LMC with Stellar Streams Observed by S⁵*", 2021, ApJ, 923, 149, arXiv:2107.13004
- [7] Li, T. S., Koposov, S., Erkal, D., Ji, A. P. **Shipp, N.**, et al. "*Broken into Pieces: ATLAS and Aliqa Uma as One Single Stream*" 2021, ApJ, 911, 194, arXiv:2006.10763
- [8] **Shipp, N.**, Price-Whelan, A., *Tavangar, K., et al. "*Discovery of Extended Tidal Tails Around the Globular Cluster Palomar 13*" 2020, AJ, 160, 244, arXiv:2006.12501
- [9] Li, T. S., Koposov, S., Zucker, D., Lewis, G. F., Kuehn, K., Simpson, J. D., Ji, A. P., **Shipp, N.**, et al. "*The Southern Stellar Stream Spectroscopic Survey (S⁵): Overview, Target Selection, Data Reduction, Validation, and Early Science*" 2019, MNRAS 490, 3508, arXiv:1907.09481

- [10] **Shipp, N.**, Li, T. S., Pace, A. B., et al. "*Proper Motions of Stellar Streams Discovered in the Dark Energy Survey*" 2019, ApJ, 885, 3, arXiv:1907.09488
- [11] Drlica-Wagner, A., Mao, Yao-Yuan, [...], **Shipp, N.**, et al. "*Probing the Fundamental Nature of Dark Matter with the Large Synoptic Survey Telescope*" 2019, arXiv:1902.01055
- [12] **Shipp, N.**, Drlica-Wagner, A., Balbinot, E., et al. "*Stellar Streams Discovered in the Dark Energy Survey*" 2018, ApJ, 862, 114, arXiv:1801.03097

Co-Author

- [13] Kogosov, S., Erkal, D., Li, T. S., [...], **Shipp, N.**, et al. "*S⁵ : Probing the Milky Way and Magellanic Clouds potentials with the 6-D map of the Orphan-Chenab stream*" 2022, submitted to MNRAS, arXiv:2211.04495
- [14] Lilleengen, S., Petersen, M. S., Erkal, D., [...], **Shipp, N.**, et al. "*The effect of the deforming dark matter haloes of the Milky Way and the Large Magellanic Cloud on the Orphan-Chenab stream*" 2022, MNRAS, arXiv:2205.01688
- [15] Bechtol, K., Birrer, S., Cyr-Racine, F., [...], **Shipp, N.**, et al. "*Snowmass2021 Cosmic Frontier White Paper: Dark Matter Physics from Halo Measurements*" 2022, arXiv:2203.07354
- [16] Ji, A. P., Kogosov, S. E., Li, T. S., [...], **Shipp, N.**, et al. "*Kinematics of Antlia 2 and Crater 2 from The Southern Stellar Stream Spectroscopic Survey (S5)*" 2021, ApJ, arXiv:2106.12656
- [17] Drlica-Wagner, A., Carlin, J. L., Nidever, D. L., [...], **Shipp, N.**, et al. "*The DECam Local Volume Exploration Survey: Overview and First Data Release*" 2021, ApJS, 256, 2 arXiv:2103.074762103.07476
- [18] Hansen, T. T., Ji, A. P., Da Costa, G. S., [...], **Shipp, N.**, et al. "*S5: The Destruction of a Bright Dwarf Galaxy as Revealed by the Chemistry of the Indus Stellar Stream*" 2021, ApJ, 915, 103, arXiv:2104.13883
- [19] Ji, A. P., Li, T. S., Hansen, T. T., [...], **Shipp, N.**, et al. "*The Southern Stellar Stream Spectroscopic Survey (S5): Chemical Abundances of Seven Stellar Streams*" 2020, ApJ, 60, 181, arXiv:2008.07568
- [20] Wan, Z., Lewis, G., Li, T. S., [...], **Shipp, N.**, et al. "*The tidal remnant of an unusually metal-poor globular cluster*" 2020, Nature, 583, 768, arXiv:2007.14577
- [21] Mau, S., Cerny, W., Pace, A. B., [...], **Shipp, N.**, et al. "*Two Ultra-faint Milky Way Stellar Systems Discovered in Early Data from the DECam Local Volume Exploration Survey*" 2020, ApJ, 80, 136, arXiv:1912.03301
- [22] Kogosov, S., Boubert, D., Li, T. S., [...], **Shipp, N.**, et al. "*The Great Escape: Discovery of a nearby 1700 km/s star ejected from the Milky Way by Sgr A**" 2020, MNRAS 491, 2465, arXiv:1907.11725
- [23] Bechtol, K., Drlica-Wagner, A., [...], **Shipp, N.**, et al. "*Dark Matter Science in the Era of LSST*" 2019, arXiv:1903.04425
- [24] Erkal, D., Li, T. S., Kogosov, S. E., [...], **Shipp, N.**, et al. "*Modeling the Tucana III stream - a close passage with the LMC*" 2018, MNRAS, 481, 3148, arXiv:1804.07762
- [25] Li, T. S., Simon, J. D., Kuehn, K., [...], **Shipp, N.**, et al. "*The First Tidally Disrupted Ultra-Faint Dwarf Galaxy? - Spectroscopic Analysis of the Tucana III Stream*" 2018, ApJ, 866, 22, arXiv:1804.07761
- [26] Abbott, T. M. C., Abdalla, F. B., Allam, S., [...], **Shipp, N.**, et al. "*The Dark Energy Survey Data Release 1*" 2018, ApJS, 239, 18, arXiv:1801.03181

- [27] Avva, J., Bechtol, K., Chesebro, T., [...], **Shipp, N.**, et al. "*Development toward a ground-based interferometric phased array for radio detection of high energy neutrinos*" 2017, Nucl. Inst. Meth. A, 869, 46, arXiv:1605.03525

Other

- [28] Thais, S., Leibowitz, S., Rios Gutierrez, A., Passarelli, A., Santo, S., **Shipp, N.**, "*Identifying At-Risk Communities and Key Vulnerability Indicators in the COVID-19 Pandemic*", 2021, medRxiv:2021.09.19.21263805
- [29] Khullar, G., Kohler, S., Konchady, T., [...], **Shipp, N.**, et al. "*Astrobites as a Community-led Model for Education, Science Communication, and Accessibility in Astrophysics*" 2019, Bulletin of the American Astronomical Society, 51, 230, arXiv:1907.09496