Anirudh Chiti

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Education & Appointments

Stanford University Sep 2025 – Present
Brinson Prize Fellow

Kavli Institute for Cosmological Physics, University of Chicago Sep 2021 – Aug 2025
Brinson Prize Fellow (Sep 2024 - Aug 2025)
Inaugural Brinson Prize Fellow in Observational Astrophysics (through Aug 2024)

Massachusetts Institute of Technology May 2021
Ph.D. in Physics
Thesis: *Mapping the Ancient Milky Way and its Relic Dwarf Galaxies*
Advised by Anna Frebel

Cornell University May 2014
B.A. in Physics *Magna Cum Laude* and B.A. in Mathematics *with Distinction*
Minor in Astronomy

Awards & Honors

IAU Division H PhD Prize, Thesis award from the International Astronomical Union 2022
Henry Kendall Teaching Award, Graduate teaching award in the MIT Physics Department 2016
Honorable Mention, NSF Graduate Research Fellowship Program 2016
Whiteman Fellow, First-year fellowship at MIT 2014 – 2015
Cranston and Edna Shelley Award, Undergraduate research award in Astronomy at Cornell 2014
Dean's List, Cornell University, GPA-based award Fall 2010 – Fall 2013

Competitively Obtained Telescope Time (Selected)

PI, 60 nights on CTIO/DECam – Imaging (2023A, 23B–2026A– PI: the DECam MAGIC Survey)
PI, 10.5 nights on Magellan/IMACS – Imaging (2020A–2022A)
PI, 11 nights on Magellan/IMACS – Multi-slit spectroscopy (2015B–16B, 18A, 2023B, 2026A)
PI, 15 nights on Magellan/MagE – Single-slit spectroscopy (2016B, 18A–19B, 24A–2025B)
PI, 1 night on Magellan/M2FS – Multi-fiber spectroscopy (2016A)
PI, 12.5 nights on Magellan/MIKE – Single-slit spectroscopy (2020B–21B, 22B, 23A, 24A–2025A)
PI, 55.9 hours on VLT/XShooter – Single-slit spectroscopy (2025A, 2026)
Co-I, 10 nights on CTIO/DECam – Imaging (2024A–2025A)
Co-I, 2 nights on Magellan/M2FS – Multi-fiber spectroscopy (2015A)
Co-I, 25 hours on Gemini/GHOST – Single-object Spectroscopy (2024A)
Co-I, 6 hours on Gemini/GMOS – Single-object Spectroscopy (2024A)
Co-I, 30 hours on SkyMapper – Imaging (2017B, 2018A)

Professional Service & Leadership

Principal Investigator, DECam MAGIC Survey Aug 2023 – Present
Management Committee, DECam Local Volume Exploration Survey Aug 2023 – Present
Referee for ApJ, A&A, MNRAS, PASJ 2019 – Present
Organizer, KIPAC Magellan Data Sessions Oct 2025 – Present

SOC/LOC member, KIPAC Workshop: Rubin 2036 Aug 2026
SOC member, EAS Session: UFDs– the Final Frontier? Jun 2026
Co-organizer, KIPAC Workshop: Roman x Rubin synergies Jan 2026
KIPAC Magellan Time Allocation Committee member Nov 2025, May 2026
Organizer, UChicago/Northwestern Galaxy Observers Meeting Series Jun 2024 – Jul 2025
NOIRLab Time Allocation Committee member May 2023, 2024, 2025
SOC member, Magellan Science Meeting May 2025
SOC/LOC member, Dwarf Galaxies, Star Clusters, and Streams in the LSST era Jul 2024
External Panelist/Subject matter reviewer in four NASA peer reviews 2023 – 2024
Co-organizer, KICP Seminar Series Sep 2022 – May 2023
Co-organizer, KICP Postdoc Symposium May 2023
Co-organizer, UChicago/KICP Gaia DR3 Sprint Jun 2022
Co-organizer, KICP Postdoc Jamboree Apr 2022
Co-organizer, UChicago/KICP Friday astro-ph discussions Sep 2021 – Jun 2022
External Reviewer for Gemini Telescope Proposal Nov 2021
LOC member, JINA-CEE Frontiers in Nuclear Astrophysics Meeting May 2018

Mentoring & Outreach Experience

Research Projects with undergraduate/graduate students:
Alice Luna (A Metallicity Map of the Milky Way with MAGIC) Jan 2025 – Present
Lucas Rayder (Exploring the SMCNOD with MAGIC and APOGEE) Sep 2024 – Present
Ha Do (Narrow-band CaHK imaging of the Jet Stream spur) Jan 2024 – Present
Fabricia Barbosa (Photometric metallicities of the Sculptor dSph in MAGIC) Apr 2024 – Aug 2025
(Metallicity signatures in the outskirts of dSphs) Aug 2025 – Present
Snehil Vidyarthy (Searching for z$\sim$ 2.2 quasars with narrow-band photometry) May 2025 – Aug 2025
Kiyan Tavangar (Tidal tails and halos around globular clusters) Oct 2021 – Aug 2025
Xiaowei Ou (Chemistry of the lowest metallicity stars in the Sagittarius dSph) & May 2024 – Mar 2025
(Signatures of tidal disruption in the Hercules dwarf galaxy) Sep 2022 – Mar 2024
Yue Pan (Stellar metallicities from DECam *u*-band photometry) Oct 2022 – May 2024
Charlie Walsh (Deriving surface gravities from narrow-band photometry) May 2023 – Aug 2023
Kylie Hansen (Chemical abundances of stars in classical dwarf galaxies) May 2019 – May 2020
Tatsuya Daniel (Developing a low-metallicity map of the Milky Way) Aug 2019 – May 2020

Co-organizer, Lifelong learning talk series Sep 2022 – May 2023
Organized twice monthly talks at local libraries and retirement centers

Public Talk: "Searching for the First Stars", Lifelong learning series Mar, Dec 2022, 2023

Public Talk: "Searching for the First Stars", Art of Science series Dec 2022

Co-director & Founding member, MIT Sidewalk Astronomy Club Fall 2017 – Aug 2020
Organized 10+ sidewalk stargazing sessions, serving over 400 members of the public

Guest presenter, STEAM Ahead Learning Academy Summer 2019
Helped organize a hands-on spectroscopy demonstration and a solar observing session for rising 5th graders in the STEAM Ahead summer camp, affiliated with Boston Public Schools.

Volunteer, Cambridge Science Festival Spring 2019
Helped organize a hands-on telescope exhibit and solar observing booth as part of the "Science Carnival & Robot Zoo" event of the Cambridge Science Festival.

Volunteer, Latino STEM Alliance Science Festival Spring 2019

Online Project Course Instructor, MIT MOSTEC Summers 2015 – 2018
Instructed an online astrophysics course for rising high school seniors, largely from under-represented or under-resourced communities. Responsibilities included running the course (e.g., curriculum development, administration, developing interactive online

teaching sessions), and mentoring students to build toward a final presentation of their independent research projects at MIT. Taught and mentored over 60 high school students over four summers in this program.

Conference Workshop Co-Instructor, MIT MOSTEC August 2015, 2017, 2018
Helped design and lead astrophysics workshops in which rising high school seniors analyzed images of a star to derive properties (e.g., orbit, size) of its transiting exoplanet. Held six of these sessions over three summers for groups of 10 to 30 students.

Public Talk: "Searching for the First Stars", MIT IAP January 2018

Selected Media Coverage

Enrichment by the First Stars in a Relic Dwarf Galaxy (Chiti et al. 2026), featured on Space.com, Gizmodo, Science News, Yahoo News, UChicago News, NOIRLab Press, and 35 other outlets.

Enrichment by Extragalactic First Stars in the LMC (Chiti et al. 2024), featured on Universe Today, MSN, physics.org, UChicago News, and 58 other outlets.

An Extended Halo around an Ancient Dwarf Galaxy (Chiti et al. 2021), featured on CNN, the Guardian, Sky & Telescope, MIT News, German National Radio, Gizmodo, and 35 other outlets.

Discovery of 18 stars with $-3.10 <$ [Fe/H] < -1.45 in the Sagittarius dwarf galaxy (Chiti, Hansen & Frebel 2020), featured on phys.org.

Teaching Experience

Guest lecturer, UChicago, ASTR49920: Proposal and Fellowship Writing Spring 2024, 2025

Guest lecturer, UChicago, ASTR298: Undergraduate Research Seminar Spring 2022, 2023, 2025

Guest lecturer, UChicago, ASTR133: Introduction to Astrophysics Spring 2022

Graduate Teaching Assistant, MIT, 8.02: Physics II – Electricity & Magnetism Spring 2020

Graduate Teaching Assistant, MIT, 8.287: Techniques of Optical Astronomy Fall 2018
Student rating: **7.0/7.0**

Graduate Teaching Assistant, MIT, 8.287: Techniques of Optical Astronomy Fall 2017
Student rating: **6.7/7.0**

Graduate Teaching Assistant, MIT, 8.01: Physics I – Mechanics Fall 2016
Student rating: **6.6/7.0**

Graduate Teaching Assistant, MIT, 8.01: Physics I – Mechanics Fall 2015
Student rating: **6.4/7.0**

Grader, MIT, 8.902: Astrophysics II Fall 2015

Undergraduate TA, Cornell University, Fundamentals of Physics II Spring 2012

Seminars & Colloquia (* = invited)

36. ***Signatures of the First Stars and Galaxies in the Local Group.** Carnegie Observatories Colloquium, USA, Mar 2026.

35. ***Signatures of the First Stars and Galaxies in the Local Group.** OSU CCAPP Seminar, USA, Feb 2026.

34. ***Signatures of the First Stars and Galaxies in the Local Group.** SFSU Physics & Astronomy Colloquium, USA, Feb 2026.

33. *Signatures of the First Stars and Galaxies in the Local Group.* NOIRLab South Colloquium, Chile, Jan 2026.

32. *Enrichment by the First Stars in a Relic Dwarf Galaxy.* Universidad de Tarapaca/IAI Seminar, Chile, Jan 2026.

31. ***Uncovering the ancient Milky Way with the DECam MAGIC survey.* Harvard ITC Luncheon Talk, USA, Nov 2025.

30. ***Uncovering the ancient Milky Way.* NOIRLab/Steward Observatory Colloquium, USA, Oct 2025.

29. *Uncovering the ancient Milky Way.* UPenn Astronomy Seminar, USA, Sep 2025.

28. ***Uncovering the ancient Milky Way with the DECam MAGIC survey.* University of Maryland Center for Theory and Computation Seminar, USA, Oct 2024.

27. ***Uncovering the ancient Milky Way.* University of Michigan Astronomy Colloquium, USA, Sep 2024.

26. ***Uncovering the ancient Milky Way.* University of Pittsburgh AstroLunch Seminar, USA, Sep 2024.

25. *Uncovering extended halos around the smallest galaxies.* Columbia Thursday Astronomy Seminar, USA, Nov 2023.

24. ***Enrichment by extragalactic first stars in the Large Magellanic Cloud.* STScI Galaxy Journal Club Talk, USA, Nov 2023.

23. *Uncovering the ancient Milky Way.* University of Notre Dame Astronomy Seminar, USA, Nov 2023.

22. ***Uncovering extended halos around the smallest galaxies.* KIPAC Tea Talk, USA, Oct 2023.

21. ***Uncovering the ancient Milky Way.* Texas A&M Astronomy Seminar, USA, Oct 2023.

20. ***Uncovering the ancient Milky Way.* Yale Astronomy Colloquium, USA, Oct 2023.

19. *Uncovering extended halos around ancient dwarf galaxies.* Northwestern/CIERA Observational Group Meeting, USA, May 2023.

18. *Characteristics of the SkyMapper u-band filter and implications for calibration.* LSST Photometric Calibrations Working Group Meeting, USA, Apr 2023.

17. *Uncovering low metallicity stars in the Large Magellanic Cloud.* UChicago Survey Science Seminar, USA, Apr 2023.

16. *Uncovering the most metal-poor stars in the Milky Way's dwarf galaxies– Insights on small-scale galaxy evolution.* NAOJ Subaru/HDS Seminar Series, Japan, Feb 2023.

15. *Mapping the ancient Milky Way.* UChicago Society of Physics Students Seminar Series, Jan 2023.

14. ***The most metal-poor stars in the Milky Way's Ultra-faint Dwarf Galaxies.* NASA Cosmic Origins, Stars Science Interest Group Seminar, Oct 2022.

13. *Mapping the ancient stellar populations of the Milky Way and its relic dwarf galaxies.* University of Chicago Astronomy Tuesday Seminar, Sep 2021.

12. ***An extended halo around an ancient dwarf galaxy.* IAS astro-coffee, Dec 2020.

11. *A halo of chemically primitive stars around an ancient dwarf galaxy.* University of Chicago Astronomy Tuesday Seminar, Nov 2020.

10. *An extended halo around an ancient dwarf galaxy.* UCSC Friday Lunchtime Astrophysics Seminar, Oct 2020.

9. *An extended halo around an ancient dwarf galaxy.* Yale Galaxy Lunch Talk, Oct 2020.

8. ***Discovering the most metal-poor stars in the Milky Way's dwarf galaxies.** SFSU Physics & Astronomy Colloquium, Oct 2020.

7. ***A halo of chemically primitive stars around an ancient dwarf galaxy.** University of Michigan Galaxy Group Talk, Oct 2020.

6. *An extended halo around an ancient dwarf galaxy.* Steward/NOAO Galaxy Group Lunch Talk, Sep 2020.

5. *A halo of chemically primitive stars around an ancient dwarf galaxy.* IReNA Online Seminar, Jun 2020.

4. *What did the first galaxies look like?* MIT Physics Department Talk Series, Apr 2020.

3. *Finding the most metal-poor stars in the Milky Way's dwarf galaxies.* STScI Galaxy Journal Club Talk, Nov 2019.

2. *Finding the most metal-poor stars in the Milky Way's dwarf galaxies.* Caltech Astronomy Tea Talk, Oct 2019.

1. *Finding the most metal-poor stars in the Milky Way's dwarf galaxies.* Carnegie Lunch Talk, Oct 2019.

Conference Talks & Posters (* = invited)

**No conferences April 2020 to Winter 2021 due to covid-19*

29. **Talk**. *Enrichment by the first stars in a relic dwarf galaxy.* The Metal-Poor Frontier Symposium, USA, Scheduled May 2026.

28. **Talk**. *Early Science from the DECam MAGIC Survey: Mapping the Ancient Galaxy in CaHK.* IAUS 403, Spain, Oct 2025.

27. **Talk**. *Early Science from the DECam MAGIC Survey: Mapping the Ancient Galaxy in CaHK.* Galactic Frontiers II Meeting, USA, Jun 2025.

26. **Talk**. *Early Science from the DECam MAGIC Survey: Mapping the Ancient Galaxy in CaHK.* IAUS 395, Brazil, Nov 2024.

25. **Talk**. *Signatures of Extragalactic First Stars in the Large Magellanic Cloud.* IAU General Assembly, South Africa, Aug 2024.

24. **Talk**. *Signatures of Extragalactic First Stars in the Large Magellanic Cloud.* Small Galaxies, Cosmic Questions II, UK, Aug 2024.

23. **Flash Talk**. *Signatures of Extragalactic First Stars in the Large Magellanic Cloud.* First Stars VII, USA, May 2024.

22. **Talk**. *Signatures of Extragalactic First Stars in the Large Magellanic Cloud.* Galactic Frontiers: Dwarf Galaxies in the Local Volume and Beyond, USA, Jul 2023.

21. **Talk**. *The most metal-poor stars in the Large Magellanic Cloud.* University of Chicago NLTE Workshop, USA, Jun 2023.

20. **Poster**. *Signatures of the First Stars in the Large Magellanic Cloud.* JINA-CEE Frontiers in Nuclear Astrophysics Meeting, USA, May 2023.

19. **Talk**. *High-resolution spectroscopy of stars in the outskirts of the Tucana II dwarf galaxy.* IAUS 379, Germany, Mar 2023.

18. **Talk**. *Detailed chemical abundances of stars in the outskirts of an ancient dwarf galaxy.* IAUS 377, Malaysia, Feb 2023.

17. **Talk**. *Detailed chemical abundances of stars in the outskirts of an ancient dwarf galaxy.* AAS 241st meeting, USA, Jan 2023.

16. **Talk**. *Exploring the outskirts of the Milky Way's ultra-faint dwarf galaxies.* DELVE Collaboration Meeting, USA, Oct 2022.

15. ***Talk**. *Mapping the ancient Milky Way and its relic dwarf galaxies.* International Astronomical Union General Assembly, South Korea, Aug 2022.

14. **Talk**. *A halo of chemically primitive stars around an ancient dwarf galaxy.* JINA-CEE Frontiers in Nuclear Astrophysics Meeting, USA, May 2022.

13. **Talk**. *Detection of a spatially extended population of extremely metal-poor stars in the Tucana II ultrafaint dwarf galaxy.* First Stars VI, Chile, March 2020.

12. **Talk**. *Chemical characterization of dwarf galaxies using SkyMapper photometry.* Stellar Archaeology as a Time Machine to the First Stars Meeting, Japan, Dec 2018.

11. ***Talk**. *Overview talk – Measuring stellar chemical abundances to trace the origin of elements.* JINA-CEE Frontiers in Nuclear Astrophysics Junior Workshop, USA, May 2018.

10. **Talk**. *Detection of a Population of Carbon-enhanced metal-poor stars in the Sculptor dwarf galaxy.* IAU Symposium 334: Rediscovering the Milky Way, Germany, Jul 2017.

9. **Poster**. *Chemical characterization of the Tucana II and Tucana III dwarf galaxies using SkyMapper photometry.* JINA-CEE Frontiers in Nuclear Astrophysics Meeting, USA, May 2018.

8. **Poster**. *Chemical characterization of dwarf galaxies using SkyMapper photometry.* Small Galaxies, Cosmic Questions Conference, UK, Aug 2019.

7. **Poster**. *Photometric searches for metal-poor stars in the Sculptor and Tucana II dwarf galaxies.* JINA Forging Connections Meeting, USA, Jun 2017.

6. **Poster**. *Chemical Abundances of Stars in the Sculptor Dwarf Spheroidal Galaxy.* First Stars V Meeting, Germany, Aug 2016.

5. **Poster**. *Chemical Abundances of Stars in the Sculptor Dwarf Spheroidal Galaxy.* Joint Institute for Nuclear Astrophysics Frontiers Meeting, USA, Apr 2016.

4. **Poster**. *Chemical Abundances of Stars in the Sculptor Dwarf Spheroidal Galaxy.* 3rd Annual GMT Community Science Meeting, USA, Oct 2015.

3. **Poster**. *Transient Events in Archival VLA Observations of the Galactic Center.* 223rd American Astronomical Society Meeting, USA, Jan 2014.

2. **Poster**. *Volcanic Effects in the Upper Atmosphere.* American Geophysical Union Fall Meeting, USA, Dec 2013.

1. **Poster**. *Infrared Properties of Single-Walled Carbon Nanotubes.* Mid-InfraRed Technologies for Health and the Environment Summer Workshop, USA, Aug 2010.

10+ additional internal journal club, lunch talks across MIT, UChicago, and KIPAC

Publication Record

Summary: 56 total publications; 15 first author papers; 14 second or third author papers; 27 nth author papers. > 2400 total citations (ref: google scholar).

First-author publications (15 publications):

15. **Chiti, A**, Drlica-Wagner, A., Pace, A. B., Cerny, W., Atzberger, K. R. et al. *The DECam MAGIC Survey – Mapping the Ancient Galaxy in CaHK: Overview and Summary of Early Science.* 2026, submitted to OJAp, arxiv:2605.26581.

14. **Chiti, A.**, Placco, V. M., Pace, A. B., Ji, A. P., Prabhu, D. S. et al. *Enrichment by the first stars in a relic dwarf galaxy.* 2025, **Nat Astron**, https://doi.org/10.1038/s41550-026-02802-z.

13. **Chiti, A.***, Tavangar, K.*, Ferguson, P. S., Carballo-Bello, J. A., Senkevich, A. M. et al., *DELVE-ing into the Milky Way's Globular Clusters: Assessing extra-tidal features in NGC 5897, NGC 7492, and testing detectability with deeper photometry.* 2025, **AJ**, 170, 294 . * = co-first authors

12. **Chiti, A.**, Mardini, M. K., Limberg, G., Frebel, A., Ji, A. P., Reggiani, H., Ferguson, P., Andales, H. D., Brauer, K. V., Li, T. S., Simon, J. D., *Signatures of Extragalactic First Stars in the Large Magellanic Cloud.* 2024, **Nat Astron**, 8, 637.

11. **Chiti, A.**, Frebel, A., Ji, A. P., Mardini, M. K., Ou, X., Simon, J. D., Jerjen, H., Kim, D., Norris, J. E., *Detailed Chemical Abundances of Stars in the Outskirts of the Tucana II ultra-faint dwarf galaxy.* 2023, **AJ**, 165, 55.

10. **Chiti, A.**, Simon, J. D., Frebel, A., Pace, A. B., Ji, A. P., Li, T. S., *Magellan/IMACS Spectroscopy of Grus I: A low metallicity ultra-faint dwarf galaxy.* 2022, **ApJ**, 939, 41.

9. **Chiti, A.**, Mardini, M. K., Frebel, A., Daniel, T., *The Metal-Poor Metallicity Distribution of the Ancient Milky Way.* 2021, **ApJL**, 911, L23.

8. **Chiti, A.**, Frebel, A., Mardini, M. K., Daniel, T., Ou, X., Uvarova, A. V. *Stellar metallicities from SkyMapper photometry II: Precise Photometric metallicities of ∼280,000 giant stars with [Fe/H] < −0.75 in the Milky Way from SkyMapper DR2.* 2021, **ApJS**, 254, 31.

7. **Chiti, A.**, Frebel, A., Simon, J. D., Erkal, D., Chang, L. J., Necib, L., Ji, A. P., Jerjen, H., Kim, D., Norris, J., *An extended halo around an ancient dwarf galaxy.* 2021, **Nat Astron**, 5, 392.

6. **Chiti, A.**, Hansen, K. Y., Frebel, A., *Discovery of 18 stars with* $-3.10 <$ *[Fe/H]* < -1.45 *in the Sagittarius dwarf galaxy.* 2020, **ApJ**, 901, 164.

5. **Chiti, A.**, Frebel, A. L., Jerjen, H., Kim, D., Norris, J., *Stellar metallicities from SkyMapper photometry I: A study of the Tucana II ultra-faint dwarf galaxy.* 2020, **ApJ**, 891, 8.

4. **Chiti, A.** & Frebel, A. L., *Four Metal-poor Stars in the Sagittarius Dwarf Spheroidal Galaxy.* 2019, **ApJ**, 875, 112.

3. **Chiti, A.**, Frebel, A. L., Ji, A. P., Jerjen, H., Kim, D., Norris, J., *Chemical Abundances of new member stars in the Tucana II dwarf galaxy.* 2018, **ApJ**, 857, 74.

2. **Chiti, A.**, Simon, J. D., Frebel, A. L., Mateo, M., Bailey, J. I., Crane, J., Shectman, S., Thompson, I., Walker, M., *Detection of a Population of Carbon-enhanced Metal-poor stars in the Sculptor dwarf galaxy.* 2018, **ApJ**, 856, 142.

1. **Chiti, A.**, Chatterjee, S., Wharton, R. S., Cordes, J., Lazio, T. J. W., Kaplan, D. L., Bower G. C., Croft, S., *Transient Events in Archival Very Large Array Observations of the Galactic Center*, 2016, **ApJ**, 833, 11.

Second or third-author publications (14 publications):

14. Do, H. Q., **Chiti, A.**, Ferguson, P.S., Ji, A. P., Limberg, G. et al. *The DECam MAGIC Survey: Investigating the Jet Stellar Stream with Photometric Metallicities.* 2026, AAS Journals submitted, arXiv:2604.13374.

13. Wheeler, V., Kravtsov, A., **Chiti, A.**, Katz, H., Semenov, V. *What Sets the Metallicity of Ultra-Faint Dwarfs?.* 2025, **OJAp**, 8, 151.

12. Placco, V. M., Limberg, G., **Chiti, A.**, Prabhu, D. S., Ji, A. P. et al. *The DECam MAGIC Survey: Spectroscopic Follow-up of the Most Metal-Poor Stars in the Distant Milky Way Halo.* 2025, **ApJ**, 991, 101.

11. Luna, A. M., Ji, A. P., **Chiti, A.**, Simon, J. D., Kelson, D. D. et al. *A Bimodal Metallicity Distribution Function in the Ultra-Faint Dwarf Galaxy Reticulum II.* 2025, **OJAp**, 847696.

10. Barbosa, F. O., **Chiti, A.**, Limberg, G., Pace, A. B., Cerny W. et al. *The DECam MAGIC Survey: A Wide-field Photometric Metallicity Study of the Sculptor Dwarf Spheroidal Galaxy.* 2025, **ApJ**, 993, 77.

9. Ou, X., Yelland, A., **Chiti, A.**, Frebel, A., Limberg, G., Mardini, M. K. *Early r-process Enrichment and Hierarchical Assembly Across the Sagittarius Dwarf Galaxy.* 2025, **AJ**, 169, 279.

8. Cerny, W., **Chiti, A.**, Geha, M., Mutlu-Pakdil, B., Drlica-Wagner, A., Tan, C. Y., Adamow, M., Pace, A. B., Simon, J. D., Sand, D. J. et al. *Discovery and Spectroscopic Confirmation of Aquarius III: A Low-Mass Milky Way Satellite Galaxy.* 2025, **ApJ**, 979, 164.

7. Pan, Y., **Chiti, A.**, Drlica-Wagner, A., Ji, A. P., Li, T. S., Limberg, G., Tucker, D. L., Allam, S., *Stellar Metallicities from DECam u-band Photometry: A Study of Milky Way Ultra-Faint Dwarf Galaxies.* 2025, **ApJ**, 978, 39.

6. An, D., Beers, T. C., **Chiti, A.**, *A Blueprint for the Milky Way's Stellar Populations. V. Three-Dimensional Local Dust Extinction.* 2024, **ApJS**, 272, 20.

5. Ou, X., **Chiti, A.**, Shipp, N., Simon, J. D., Geha, M., Frebel, A., Mardini, M. K., Erkal, D., Necib, L., *Signatures of tidal disruption of the Hercules ultra-faint dwarf galaxy.* 2024, **ApJ**, 966, 33

4. Mardini, M. K., Frebel, A., **Chiti, A.**, *An Sr rich ultra metal-poor star in the Atari disc component.* 2024, **MNRAS**, 529, L60.

3. Mardini, M. K., Frebel, A., **Chiti, A.**, Meiron, Y., Brauer, K. V., Ou, X., *The Atari Disk, a Metal-poor Stellar Population in the Disk System of the Milky Way.* 2022, **ApJ**, 936, 78.

2. Ji, A. P., Frebel, A. L., **Chiti, A.**, Simon, J. D., *R-process enrichment from a single event in an ancient dwarf galaxy*, 2016, **Nature**, 10.1038, 1476-4687.

1. Frebel, A. L., **Chiti, A.**, Ji, A. P., Jacobson H. R., Placco, V. M., *SD 1313-0019 – Another second-generation star with [Fe/H] = –5.0, observed with the Magellan Telescope*, 2015, **ApJL**, 810, L27.

Nth-author publications (27 publications):

27. Bissonette, D., Ji, A. P., Simon, J. D., Bland-Hawthorn, J., **Chiti, A.**, Geha, M., Li, T. S., Frebel, A., Luna, A. M. *The Metallicity Distribution of the Ultra-Faint Dwarf Galaxy Segue 1.* 2026, submitted to OJAp, arxiv:2605.12810.

26. Simon, J. D., Rodriguez, J. E., Yana Galarza, J., Latham, D. W., DiTomasso, V., Collins, K. A., Schulte, J., **Chiti, A.**, et al. *TOI-7169 b: A Hot Jupiter Transiting a Metal-Poor Star.* 2026, submitted to AAS Journals, arXiv:2603.25787.

25. Tan, C. Y., et al. (inc. **Chiti, A.**). *Ultra-faint Milky Way Satellites Discovered in Carina, Phoenix, and Telescopium with DELVE Data Release 3.* 2026, **ApJ**, 1000, 46.

24. Atzberger, K. R., Pace, A. B., Kallivayalil, N., **Chiti, A.**, Erkal, D., Cerny, W., Limberg, G., Placco, V. M., Prabhu, D. S., et al. *The DECam MAGIC Survey: Uncovering the Tidal Tails of the Crater II Dwarf Galaxy.* AAS Journals submitted, arXiv:2602.21283.

23. Cerny, W., Bissonette, D., Ji, A. P., Geha, M. C., **Chiti, A.**, Smith, S. E., Simon, J. D., Pace, A. B., Kirby, E. N., Venn, K., Li, T. S., Luna, A. M. *No Observational Evidence for Dark Matter Nor a Large Metallicity Spread in the Extreme Milky Way Satellite Ursa Major III/UNIONS 1.* 2026, **ApJL**, 999, 8.

22. Cerny, W., et al. (inc. **Chiti, A.**). *A Chemodynamical Census of the Milky Way's Ultra-Faint Compact Satellites. I. A First Population-Level Look at the Internal Kinematics and Metallicities of 19 Extremely-Low-Mass Halo Stellar Systems.* 2026, AAS Journals submitted, arXiv:2602.17652.

21. Tan, C. Y., et al. (inc. **Chiti, A.**). *DELVE Milky Way Satellite Census I: Satellite Population and Survey Selection Function.* 2025, AAS Journals submitted, arxiv:2509.12313.

20. Heiger, M., et al. (inc. **Chiti, A.**). *Not-so-heavy metal(s): Chemical Abundances in the Ultra-faint Dwarf Galaxies Eridanus IV and Centaurus I.* 2025, ApJ submitted, arxiv:2508.11012

19. Limberg, G., Placco, V. M., Ji, A. P., Yao, Y., **Chiti, A.**, Mardini, M. K., Frebel, A., Rossi, S. *Discovery of an [Fe/H] ~ -4.8 Star in Gaia XP Spectra.* 2025, **ApJL**, 989, 18.

18. Pace, A. B. et al. (inc. **Chiti, A.**). *Spectroscopic Analysis of Pictor II: a very low metallicity ultra-faint dwarf galaxy bound to the Large Magellanic Cloud.* 2025, **OJAp**, 8, 112.

17. Hansen, T. T. et al. (inc. **Chiti, A.**). *The R-Process Alliance: Hunting for gold in the near-UV spectrum of 2MASS J05383296-5904280.* 2025, **A&A**, 697, 127.

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