

Alexander P. Ji

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RESEARCH INTERESTS: NEAR-FIELD COSMOLOGY

The first stars and galaxies: metal-free stars, first galaxy relics, reionization
The origin of the elements, especially the rapid neutron-capture process
Milky Way halo substructure and the nature of dark matter
Stellar spectroscopy and physics of stellar atmospheres

EDUCATION AND APPOINTMENTS

| | |
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| Assistant Professor , University of Chicago, Astronomy & Astrophysics | Jul 2021 – now |
| Senior Member , University of Chicago, Kavli Institute for Cosmological Physics | Jul 2021 – now |
| Senior Personnel , NSF-Simons SkAI Institute | Oct 2025 – now |
| Carnegie Fellow , Observatories of the Carnegie Institution for Science | Aug 2020 – Jun 2021 |
| Hubble Fellow , Observatories of the Carnegie Institution for Science | Aug 2017 – Jul 2020 |
| Ph. D. Physics , Massachusetts Institute of Technology Advised by Anna Frebel, Astrophysics division | Jun 2017 |
| M.S. Statistics , Stanford University Focus on Applied Statistics and Machine Learning | Jun 2012 |
| B. S. Physics , Stanford University Minor in Computer Science | Jun 2011 |

HONORS AND AWARDS

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| Scialog Fellow: Early Science with the LSST | Nov 2024 |
| Stromlo Distinguished Visitor | Apr-May 2024 |
| Carnegie Fellowship | 2020–2021 |
| Hubble Fellowship | 2017–2020 |
| Thacher Research Award in Astronomy | Jun 2020 |
| Carnegie Institution P^2 Grant | Apr 2019 |
| APS DAP Cecilia Payne-Gaposchkin Thesis Award Finalist | Apr 2019 |
| Martin Deutsch Award for Excellence in Experimental Physics, MIT | Sep 2016 |
| Young Scientist at 66th Lindau Nobel Laureate Meeting, Germany | Jun 2016 |
| Best Poster Prize, Nuclei in the Cosmos XIV, Japan | Jun 2016 |
| Henry Kendall Teaching Award, MIT | Sep 2014 |
| Whiteman Fellow, MIT | 2012–2013 |
| Outstanding Learning Assistant, American Association of Physics Teachers | Jun 2012 |

GRANTS

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| A Global Stellar Metallicity Scale for Resolved Dwarf Galaxies, NASA ADAP (PI) | 2025-2028 |
| Metallicity Distributions of the Faintest Dwarf Galaxies, NSF AAG (PI) | 2023-2026 |
| Galactic Archaeology from Careful Modeling of Old Stars, NSF AAG (PI) | 2022-2025 |
| NASA/JPL Keck: Ursa Major III/UNIONS 1: the lowest mass galaxy known? (PI) | 2025 |
| NASA/JPL Keck: The Formation History of the Most Primitive Galaxy Known (PI) | 2023 |
| JWST Cycle 1: Synthesis of the Heaviest Elements with Kilonova Photometry (Co-I) | 2021-2022 |

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| KICP Workshop Support | 2022/2023/2024 |
| IReNA Network Workshop Support | 2021/2023 |
| University of Chicago DSI, AI in Science, Workshop Support | 2023 |
| University of Chicago DSI, AI in Science, Visitor Support | 2023 |

TEACHING

| | |
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| Instructor* ASTR 29901-29902: Field Course | 2025 |
| Instructor* ASTR 49910: Colloquium | 2024 |
| Instructor* ASTR 30100: Stars | 2021-2023 |
| Professional Development Program* ISEE (as team leader, with A. Lanz, S. Uddin) | 2019 |
| Lecturer “Cosmology and First Stars”, JINA Frontiers Summer School, MSU | 2019 |
| Professional Development Program* ISEE (with R. McGurk, D. French) | 2018 |
| Workshop Carnegie, Scientific Writing Workshop for Undergraduates (with J. Teske) | 2017 |
| Teaching Assistant MIT, 8.282/8.284: Intro to Astronomy/Modern Astrophysics | 2014/2016/2017 |
| Head Teaching Assistant Stanford, Physics 25/26: Modern Physics | 2012 |
| Teaching Assistant Stanford, Physics 63: Electricity, Magnetism, and Waves | 2012 |
| Teaching Assistant* Stanford, Physics 62: Classical Mechanics Laboratory | 2010/2011 |
| Instructor* Stanford, Physics 91SI: Practical Computing for Scientists | 2011 |
| Teaching Assistant Stanford, Physics 24: Electricity and Optics Laboratory | 2011 |
| Resident Tutor Stanford CTL, Math, science, and engineering tutoring | 2009 - 2010 |
| Section Leader Stanford, CS 106A/B: Programming Methods/Abstractions | 2008 - 2009 |

* Led or assisted in curriculum development

CONFERENCE AND WORKSHOP ORGANIZATION

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|---|-----------|
| Co-organizer FALCON Science Workshop, KICP | Mar 2025 |
| Lead organizer Dwarf Galaxies, Star Clusters, and Streams in the LSST Era, KICP | Jul 2024 |
| Lead organizer Nuclear Astrophysics with NLTE Radiative Transfer, IReNA and KICP | May 2023 |
| Committee Multi-messenger observations for nuclear astrophysics, CeNAM Frontiers | May 2023 |
| Lead organizer Gaia DR3 Chicago Sprint, KICP | Jun 2022 |
| Co-organizer IReNA Origin of the Isotopes Online Workshop | 2021-2022 |
| Working Group Co-Organizer JINA Horizons, Explosive nucleosynthesis | Dec 2020 |
| Co-Organizer JINA-CEE Chemical Evolution Workshop | Mar 2020 |
| Program Committee for JINA First Frontiers Summer School | May 2019 |

SELECTED OUTREACH AND OTHER SERVICE

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| Referee for Nature, Nature Astronomy, ApJ, ApJL, MNRAS, A&A | |
| Panelist/Reviewer for NSF, NASA, and international funding proposals | |
| Panelist/Reviewer for NASA, Canada TAC, China TAP telescope proposals | |
| Co-Chair SDSS-V Galactic Genesis Working Group | 2024-present |
| Co-Chair SDSS-V Milky Way Halo Working Group | 2020-present |
| Science Advisor FALCON Instrument at Magellan | 2024-present |
| Public Talk “The First Stars”, Ryerson Astronomical Society | Jan 2024 |
| Public Talk “The Messy Milky Way”, Life-long Learning | Jan 2023 |
| Climate Survey Working Group Carnegie Institution for Science | 2019–2021 |

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| Speaker Aspen Physics Cafe | Mar 2022 |
| Public Talk “The Messy Milky Way”, Carnegie Lunch with an Astronomer | Feb 2021 |
| Public Talk “The First Stars”, San Diego Astronomy Association | Dec 2020 |
| Public Talk “The First Stars, Like, Ever”, Caltech Astronomy on Tap | Aug 2020 |
| Public Talk “Glimpses of the Cosmic Dawn”, Pasadena City College Lectures | Sep 2019 |
| Public Talk “Glimpses of the Cosmic Dawn”, Huntington Library Astronomy Lectures | Mar 2019 |
| Public Talk “Searching for the First Stars”, Carnegie Open House | Oct 2017 |
| Public Talk “Glimpses of the Cosmic Dawn”, Whittin Observatory at Wellesley | Apr 2017 |
| Einstein in the Classroom Instructor Cambridge Science Festival | Apr 2015 |
| Public Talks “The Universe in a Box” and “The First Stars”, MIT IAP | 2014/2015/2017 |

DEPARTMENT COMMITTEES AND RESPONSIBILITIES

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| Deputy Chair for Equity, Diversity and Inclusion | 2024-present |
| Climate Survey and Recommendation Committee (Chair 2024-2025) | 2021-present |
| SkAI Fellowship Committee | 2024-2025 |
| KICP Fellow Mentoring Committee (Chair) | 2024-2025 |
| Candidacy Committee | 2024-2025 |
| Magellan Time Allocation Committee | 2021-2024 |
| Graduate Admissions Committee | 2020-2024 |
| KICP Colloquium Committee (Chair) | 2023-2024 |
| Astronomy & Astrophysics Colloquium Committee | 2022-2023 |
| KICP Fellowship Committee | 2022-2023 |
| KICP Thursday Seminar Committee | 2021-2022 |
| Brinson Lecture Selection Committee | 2021-2022 |
| Margaret Burbidge Fellowship Committee | 2021-2022 |
| Faculty Mentor for 4 PhD students | 2021-present |

TELESCOPE AND COMPUTING ALLOCATIONS

As PI (over 60 nights on large ground-based telescopes and 4M CPU hours):

Magellan/MIKE High-resolution spectroscopy
Magellan/M2FS Multi-object spectroscopy
Magellan/IMACS Multi-object spectroscopy
Magellan/MegaCam Imaging
Keck/LRIS Multi-object spectroscopy
Keck/DEIMOS Multi-object spectroscopy
VLT/FLAMES Multi-object spectroscopy
Gemini/GRACES High-resolution spectroscopy
Du Pont/Echelle High-resolution spectroscopy
CTIO/DECam Wide-field imaging
UChicago/Midway High Performance Computing

As Co-I:

Keck/HIRES High-resolution spectroscopy
DCT/EXPRES High-resolution spectroscopy
VLT/UVES High-resolution spectroscopy
Gemini/GHOST High-resolution spectroscopy

Gemini/GMOS Low-resolution spectroscopy and imaging
Hubble/ACS Optical imaging
Hubble/COS UV spectroscopy
JWST/NIRCam IR imaging and grism spectroscopy
XSEDE/Stampede, Stampede2, Comet High Performance Computing

STUDENT AND POSTDOCTORAL COLLABORATORS/MENTEES

Postdoctoral Researchers (4) Anirudh Chiti (Brinson Fellow UChicago, 2021-present); Guilherme Limberg (KICP Fellow UChicago, 2024-present), Sanjana Curtis (UChicago, 2022-2023 → NSF AAPF UC Berkeley → Faculty at Oregon State in 2025); Katy Rodriguez-Wimberly (NSF Ascend Fellow UC Riverside, 2020-2023 → Faculty at CSU SB)

Graduate Students (9) Samantha Usman (UChicago PhD, 2021-present), Alice Luna (UChicago PhD, 2021-present), Pierre Thibodeaux (UChicago PhD, 2022-present), Daisy Bissonette (UChicago PhD, 2023-present), Hillary Andales (UChicago PhD, 2024-present), Yupeng Yao (UChicago MS, 2022-2023 → CS PhD Student North Texas), Shuyu Wang (UChicago MS, 2021 → PhD Student Leiden), Guilherme Limberg (USP PhD, visiting student 2022-2023 → UChicago), Kaley Brauer (MIT PhD, 2017-2023 → NSF AAPF Harvard)

Undergraduate Students (20) Ha Do (UChicago, 2024-present); Selenna Meijas-Torres (UChicago, 2024-present); Naomi Carl (ASU, 2024); Ananya Kaalva (UT Austin, 2024-present); Benjamin Cohen (UChicago, 2023-present); Jarvis Zhang (UChicago, 2023-present); Charlie Walsh (UChicago, 2023); Kaia Atzberger (OSU, 2023-2024 → NSF GRFP UVirginia); Noah Geller (UChicago, 2022 → MS Data Science, UChicago); Morgan Lee (UWisconsin, 2022 → NSF GRFP Brown); Hillary Andales (MIT, 2022 → PhD Student UChicago); Jandrie Rodriguez (ELAC/CSU Long Beach, 2020-2021 → PhD Student Syracuse); Allen Marquez (ELAC/CSU LA, 2019-2020 → Northrop Grumman); Mimi Truong (ELAC/CSU Northridge, 2020); Fernando Barceló (Pomona, 2019); Jose Arizmendi (ELAC, 2019); Sergio Escobar (Caltech, 2018); Maude Gull (MIT, 2016-2018); Madelyn Cain (MIT, 2016-2018); Lizhou Sha (MIT, 2016-2017)

COLLABORATION MEMBERSHIP

The Southern Stellar Stream Spectroscopic Survey (S^5 , <https://s5collab.github.io/>, Project Builder, High-Resolution/Chemical Abundances Lead)
SDSS-V, Galactic Genesis and Milky Way Halo Working Group co-chair, <https://www.sdss.org/>
The *Caterpillar* Project (<https://www.caterpillarproject.org/>, Project Builder)
DECam Local Volume Exploration Survey (DELVE, <https://delve-survey.github.io/>)
Mapping the Ancient Galaxy in CaHK Survey (MAGIC)
The Magellanic Satellites Survey (MagLiteS)
Joint Institute for Nuclear Astrophysics (JINA-CEE)
International Research Network for Nuclear Astrophysics (IReNA)

INVITED TALKS

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| Colloquium University of Chicago | Oct 2024 |
| Colloquium University of Toronto | Sep 2024 |
| Review Talk Cosmic Dawn Revealed by JWST, KITP | Aug 2024 |
| Review Talk Small Galaxies Cosmic Questions, Durham | Jul 2024 |
| Seminar University of Sydney | May 2024 |

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| Seminar Monash University | Apr 2024 |
| Colloquium Australian National University | Apr 2024 |
| Seminar University of New South Wales | Apr 2024 |
| Seminar Macquarie University | Apr 2024 |
| Seminar Lund University Group Meeting | Apr 2024 |
| Seminar Michigan State University | Mar 2024 |
| Seminar Weinberg Institute at the University of Texas at Austin | Jan 2024 |
| Seminar Geneva Stellar Seminar | Jan 2024 |
| Colloquium Massachusetts Institute of Technology | Sep 2023 |
| Colloquium Texas A&M University | Sep 2023 |
| Colloquium Princeton University/Institute of Advanced Study | Apr 2023 |
| Talk MANIFEST Science Workshop | Apr 2023 |
| Colloquium Johns Hopkins University/Space Telescope Science Institute | Mar 2023 |
| Colloquium Columbia University | Feb 2023 |
| Colloquium UC Berkeley | Jan 2023 |
| Colloquium University of Minnesota | Dec 2022 |
| Colloquium University of Illinois Urbana-Champaign | Sep 2022 |
| Talk JINA Frontiers Meeting | May 2022 |
| Colloquium Durham University | May 2022 |
| Colloquium Center for Computational Astrophysics | Apr 2022 |
| Seminar American Museum of Natural History | Apr 2022 |
| Colloquium The Ohio State University | Apr 2022 |
| Seminar Notre Dame | Feb 2022 |
| Colloquium Illinois State University | Oct 2021 |
| Review Talk European Astronomical Society Symposium | Jun 2021 |
| Colloquium Carnegie Observatories | Jun 2021 |
| Seminar Northwestern/CIERA | Apr 2021 |
| Colloquium University of Indiana, Bloomington | Jan 2021 |
| Seminar Minnesota Institute for Astrophysics Cosmology Seminar | Jan 2021 |
| Seminar Rutgers | Dec 2020 |
| Colloquium Australian National University | Sep 2020 |
| Colloquium Max Planck Institute for Astrophysics | Aug 2020 |
| Colloquium UC Berkeley | Jun 2020 |
| Talk First Stars VI, Concepcion, Chile | Mar 2020 |
| Colloquium University of Texas Austin | Feb 2020 |
| Colloquium Stanford | Feb 2020 |
| Colloquium University of Chicago | Jan 2020 |
| Talk Chemical Evolution of Galaxies: the Next 25 Years, Sesto, Italy | Jan 2020 |
| Seminar JINA Online Seminar | Nov 2019 |
| Colloquium Caltech | Oct 2019 |
| Talk Hubble Symposium | Oct 2019 |
| Talk Dwarf Galaxy Cosmology, Durham | Jul 2019 |
| Talk APS Cecilia Payne-Gaposchkin Doctoral Dissertation Award in Astrophysics Finalist | Apr 2019 |
| Talk Hubble Symposium | Mar 2019 |
| Talk Stellar Archaeology, Tokyo | Dec 2018 |

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| Talk The Metal-Poor Galaxy, Ringberg | Jul 2018 |
| Talk American Astronomical Society Denver | Jun 2018 |
| Talk Hubble Symposium | Mar 2018 |
| Colloquium University of Virginia (Joint Physics/Astronomy) | Feb 2018 |
| Seminar CCAPP/Ohio State University | Oct 2016 |
| Highlight Talk First Stars V, Heidelberg | Aug 2016 |
| Talk American Physical Society Hot Topics Session, April Meeting | Apr 2016 |
| Colloquium University of Toledo | Jan 2016 |

CONTRIBUTED TALKS AND POSTERS

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| Talk AAS 243, New Orleans | Jan 2024 |
| Talk SDSS-V Collaboration Conference, CCA New York | Aug 2023 |
| Talk Dwarf Galaxies, CCA New York | Jul 2023 |
| Talk Dynamical Masses of Local Dwarf Galaxies, Potsdam | Mar 2023 |
| Talk Ancient Globular Clusters, Aspen | Mar 2022 |
| Talk YITP Nuclear Burning Online Workshop | Jul 2021 |
| Talk Streams 21 Online Workshop | Feb 2021 |
| Talk Local Group Online Symposium, StSci | Sep 2020 |
| Session Lead Near/Far Age Workshop, Napa, CA | Dec 2019 |
| Talk GalFRESKA, UC Irvine | Aug 2019 |
| Talk ASU r -process workshop | Mar 2019 |
| Talk UC Irvine | May 2018 |
| Talk JINA Frontiers | May 2018 |
| Talk JINA Forging Connections | Jun 2017 |
| Talk The Galactic Renaissance | Feb 2017 |
| Poster SDSS Collaboration Meeting | Jun 2020 |
| Poster GMT Science Meeting | Sep 2017 |
| Poster Nuclei in the Cosmos XIV | Jun 2016 |
| Poster Local Group Astrostatistics, University of Michigan | Jun 2015 |
| Poster Near-Field Far-Field Conference, UC Irvine | Feb 2014 |

PUBLICATIONS

35 refereed or submitted first and second author papers, >1600 total citations, h -index = 19.

106 total refereed or submitted papers + 6 unrefered manuscripts, >4500 total citations, h -index = 37.

As of Jan 2025 (via NASA ADS). * indicates papers written with students I supervised or co-supervised.

FIRST AND SECOND AUTHOR PUBLICATIONS

35. Katz, H., **Ji, A. P.**, Telford, O. G., Senchyna, P., *Early Bright Galaxies from Helium Enhancements in High-Redshift Star Clusters*, 2024, OJAp, 7E, 106, arXiv:2410.14846
34. Nugent, A. E., **Ji, A. P.**, Fong, W.-F., Shah, H., van de Voort, F., *Where has all the r -process gone? Timescales for GRB-Kilonovae to Enrich their Host Galaxies*, AAS subm, arXiv:2410.00095
33. Ting, Y.-S. & **Ji, A. P.**, *Quantifying Bursty Star Formation in Dwarf Galaxies*, OJAp accepted, arXiv:2408.06807
32. Thibodeaux, P. N.*, **Ji, A. P.**, Cerny, W., Kirby, E. N., Simon, J. D., *LAMOST J1010+2358 is not a Pair-Instability Supernova Relic*, 2024, OJAp, 7E, 66, arXiv:2404.17078
31. Ou, X.*, **Ji, A. P.**, Frebel, A., Naidu, R. P., Limberg, G., *The Rise of the R -Process in the Gaia-Sausage/Enceladus Dwarf Galaxy*, 2024, ApJ, 974, 232
30. **Ji, A. P.**, Curtis, S., Storm, N., Chandra, V., Schlaufman, K. C., Stassun, K. G., Heger, A., Pignatari, M., . . . , *Spectacular nucleosynthesis from early massive stars*, 2024, ApJL, 961, 41
29. Usman, S. A.*, **Ji, A. P.**, Li, T. S., Pace, A. B., Cullinane, L. R., . . . , *Multiple Populations and a CH Star Found in the 300S Globular Cluster Stellar Stream*, 2024, MNRAS, 529, 2413
28. Limberg, G.*, **Ji, A. P.**, Naidu, R. P., Chiti, A., Rossi, S., Usman, S. A., . . . , *Extending the Chemical Reach of the H3 Survey: Detailed Abundances of the Dwarf-galaxy Stellar Stream Wukong/LMS-1*, 2024, MNRAS, 531, 2512
27. Kirby, E. N., **Ji, A. P.**, Kovalev, M., *r -process Abundance Patterns in the Globular Cluster M92*, 2023, ApJ, 958, 45
26. Yao, Y.*, **Ji, A. P.**, Koposov, S. E., Limberg, G., *200,000 Candidate Very Metal-poor Stars in Gaia DR3 XP Spectra*, 2024, MNRAS, 527, 10937
25. Frebel, A. & **Ji, A. P.**, 2022, *Observations of R -Process Stars in the Milky Way and Dwarf Galaxies*, in Handbook of Nuclear Physics (eds Tanihata, I., Toki H., Kajina, T.), Springer, arXiv:2302.09188
24. **Ji, A. P.**, Naidu, R. P., Brauer, K., Ting, Y.-S., Simon, J. D., *Chemical Abundances of the Typhon Stellar Stream*, 2023, MNRAS, 519, 4467
23. **Ji, A. P.**, Simon, J. D., Roederer, I. U., Magg, E., . . . , *Metal Mixing in the R -Process Enhanced Ultra-Faint Dwarf Galaxy Reticulum II*, 2023, AJ, 165, 100
22. Reggiani, H., **Ji, A. P.**, Schlaufman, K. C., Frebel, A., . . . , *The Chemical Composition of Extreme-Velocity Stars*, 2022, AJ, 163, 252
21. Naidu, R. P., **Ji, A. P.**, Conroy, C., Bonaca, A., Ting, Y.-S., et al., *Evidence from Disrupted Halo Dwarfs that r -process Enrichment via Neutron Star Mergers is Delayed by $\gtrsim 500$ Myrs*, 2022, ApJL, 926, 36
20. Li, T. S., **Ji, A. P.**, Pace, A. B., Erkal, D., Koposov, S. E., Shipp, N., et al., *S^5 : The Orbital and Chemical Properties of One Dozen Stellar Streams*, 2022, ApJ, 928, 30

19. **Ji, A. P.**, Koposov, S. E., Li, T. S., Erkal, D., Pace, A. B., et al., *Kinematics of Antlia 2 and Crater 2 from The Southern Stellar Stream Spectroscopic Survey*, 2021, ApJ, 921, 32
18. Casey, A. R., **Ji, A. P.**, Hansen, T. T., Li, T. S., et al., *Signature of a massive rotating metal-poor star imprinted in the Phoenix stellar stream*, 2021, ApJ, 921, 67
17. Hansen, T. T., **Ji, A. P.**, Da Costa, G. S., Li, T. S., et al., *S⁵: The destruction of a bright dwarf galaxy as revealed by the chemistry of the Indus stellar stream*, 2021, ApJ, 915, 103
16. Brauer, K.*, **Ji, A. P.**, Drout, M. R., Frebel, A., *Collapsar R-Process Yields Can Reproduce [Eu/Fe] Abundance Scatter in Metal-Poor Stars*, 2021, ApJ, 915, 81
15. **Ji, A. P.**, Li, T. S., Hansen, T. T., Casey, A. R., et al., *The Southern Stellar Stream Spectroscopic Survey (S⁵): Chemical Abundances of Seven Stellar Streams*, 2020, AJ, 160, 181
14. **Ji, A. P.**, Li, T. S., Simon, J. D., et al., *Detailed Abundances in the Ultra-Faint Magellanic Satellites Carina II and III*, 2020, ApJ, 889, 27
13. **Ji, A. P.**, Drout, M. R., & Hansen, T. T., *The Lanthanide Fraction Distribution in Metal-poor Stars: a Test of Neutron Star Mergers as the Dominant r-process Site*, 2019, ApJ, 882, 1
12. Frebel, A., **Ji, A. P.**, Ezzeddine, R., Hansen, T. T., Chiti, A., Thompson, I. B., Merle, T. *Chemical abundance Signature of J0023+0307 – A Second-Generation Main-Sequence Star with [Fe/H] < -6*, 2019, ApJ, 871, 146
11. Brauer, K.*, **Ji, A. P.**, Frebel, A., Dooley, G. A., Gomez, F. A., O'Shea, B. W. *The Origin of r-process Enhanced Metal-Poor Halo Stars In Now-Destroyed Ultra-Faint Dwarf Galaxies*, 2019, ApJ, 871, 2
10. **Ji, A. P.**, Simon, J. D., Frebel, A., Venn, K. A., Hansen, T. T. *Chemical Abundances in the Ultra-Faint Dwarf Galaxies Grus I and Triangulum II: Neutron-Capture Elements as a Defining Feature of the Faintest Dwarfs*, 2019, ApJ, 870, 83
9. **Ji, A. P.** & Frebel, A. *From Actinides to Zinc: Using the full abundance pattern of the brightest star in Reticulum II to distinguish between different r-process sites*, 2018, ApJ, 856, 138
8. Safarzadeh, M., **Ji, A. P.**, Dooley, G., Frebel, A., Scannapieco, E., Gomez, F., O'Shea, B. W. *Selecting ultra-faint dwarf candidate progenitors in cosmological N-body simulations at high redshifts*, 2018, MNRAS, 476, 5006
7. **Ji, A. P.**, Frebel, A., Ezzeddine, R., Casey, A. R. *Chemical Diversity in the Ultra-faint Dwarf Galaxy Tucana II*, 2016, ApJL, 832, 1
6. **Ji, A. P.**, Frebel, A., Simon, J. D., Chiti, A. *Complete element abundances of nine stars in the r-process galaxy Reticulum II*, 2016, ApJ, 830, 93
5. **Ji, A. P.**, Frebel, A., Chiti, A., Simon, J. D. *R-process enrichment from a single event in an ancient dwarf galaxy*, 2016, Nature, 531, 610
4. Griffen, B. F., **Ji, A. P.**, Dooley, G. A., Gomez, F. A., Vogelsberger, M., O'Shea, B. W., Frebel, A., *The Caterpillar Project: A Large Suite of Milky Way Sized Halos*, 2016, ApJ, 818, 10
3. **Ji, A. P.**, Frebel, A., Simon, J. D., Geha, M., *High-resolution spectroscopy of extremely metal-poor stars in the least evolved galaxies: Bootes II*, 2016, ApJ, 817, 41
2. **Ji, A. P.**, Frebel, A., Bromm, V., *Preserving chemical signatures of primordial star formation in the first low-mass stars*, 2015, MNRAS, 454, 659

1. **Ji, A. P.**, Frebel, A., Bromm, V., *The chemical imprint of silicate dust on the most metal-poor stars*, 2014, ApJ, 782, 95

N-TH AUTHOR PUBLICATIONS

71. Casey, Q. O., Mutlu-Pakdil, B., Sand, D. J., ..., **Ji, A. P.**, ..., *Deep Photometric Observations of Ultra-Faint Milky Way Satellites Centaurus I and Eridanus IV*, ApJ subm, arXiv:2501.04772
70. Mead, J., Brauer, K., ..., **Ji, A. P.**, ..., *Aeos: Transport of metals from minihalos following Population III stellar feedback*, ApJ accepted, arXiv:2411.14209
69. Awad, P., Li, T. S., Erkal, D., ..., **Ji, A. P.**, ..., *S5: New insights from deep spectroscopic observations of the tidal tails of the globular clusters NGC 1261 and NGC 1904*, A&A accepted, arXiv:2411.08991
68. Brauer, K., Emerick, A., Mead, J., **Ji, A. P.**, Wise, J. H., ..., *AEOS: Star-by-Star Cosmological Simulations of Early Chemical Enrichment and Galaxy Formation*, ApJ accepted, arXiv:2410.16366
67. Atzberger, K. R.*, Usman, S. A.*, **Ji, A. P.**, ..., *Chemical Abundances in the Leiptr Stellar Stream: A Disrupted Ultra-faint Dwarf Galaxy?*, OJAp subm, arXiv:2410.17312
66. Naidu, R. P., Matthee, J., ..., **Ji, A. P.**, ..., *All the Little Things in Abell 2744: >1000 Gravitationalall Lensed Dwarf Galaxies at $z = 0 - 9$ from JWST NIRCам Grism Spectroscopy*, OJAp subm, arXiv:2410.01874
65. Cerny, W., Chiti, A., Geha, M., ..., **Ji, A. P.**, ..., *Discovery and Spectroscopic Confirmation of Aquarius III: A Low-Mass Milky Way Satellite Galaxy*, AAS accepted, arXiv:2410.00981
64. Tan, C. Y., Cerny, W., Drlica-Wagner, A., Pace, A. B., ..., **Ji, A. P.**, ..., *A Pride of Satellites in the Constellation Leo? Discovery of the Leo VI Milky Way Satellite Galaxy with DELVE Early Data Release 3*, AAS accepted, arXiv:2408.00865
63. Ness, M. K., Mendel, J. T., Buder, S., Wheeler, A., **Ji, A. P.**, ..., *ACACIAS I: Element abundance labels for 192 stars in the dwarf galaxy NGC 6822*, MNRAS subm, arXiv:2407.17661
62. Simon, J. D., Li, T. S., **Ji, A. P.**, Pace, A. B., ..., *Eridanus III and DELVE 1: Carbon-rich Primordial Star Clusters or the Smallest Dwarf Galaxies?*, 2024, ApJ, 976, 256
61. Pan, Y., Chiti, A., Drlica-Wagner, A., **Ji, A. P.**, ..., *Stellar Metallicities from DECam u-band Photometry: A Study of Milky Way Ultra-Faint Dwarf Galaxies*, AAS accepted, arXiv:2404.08054
60. Hilmi, T., Erkal, D., Koposov, S. E., ..., **Ji, A. P.**, ..., *Inferring dark matter subhalo properties from simulated subhalo-stream encounters*, MNRAS subm, arXiv:2404.02953
59. Chiti, A., Mardini, M., Limberg, G., ..., **Ji, A. P.**, ..., *Enrichment by Extragalactic First Stars in the Large Magellanic Cloud*, 2024, Nat Astron., 8, 637
58. Hansen, T. T., Simon, J. D., Li, T. S., Sharkey, D., **Ji, A. P.**, ..., *Chemical Diversity on Small Scales – Abundance Analysis of the Tucana V Ultra-Faint Dwarf Galaxy*, 2024, ApJ, 968, 21
57. Shah, S., Ezzeddine, R., Roederer, I. U., Hansen, T. T., ..., **Ji, A. P.**, ..., *The R-Process Alliance: Detailed Chemical Composition of an R-Process Enhanced Star with UV and Optical Spectroscopy*, 2024, MNRAS, 529, 1917
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