

Charles J. Law – Curriculum Vitae
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PROFESSIONAL APPOINTMENTS

Assistant Professor	Aug 2026 – Present
University of Minnesota, Minnesota Institute for Astrophysics (Minneapolis, MN)	
NASA Hubble Fellowship Program (NHFP) Sagan Fellow	Sept 2023 – Aug 2026
University of Virginia, Department of Astronomy (Charlottesville, VA)	
Postdoctoral Researcher	June 2023 – July 2023
Center for Astrophysics Harvard & Smithsonian (Cambridge, MA)	

EDUCATION

Ph.D., Astronomy and Astrophysics (Harvard University, Cambridge, MA)	2018 – 2023
Thesis: Zooming in on the Chemistry of Star and Planet Formation	Advisors: Prof. Karin Öberg & Dr. Qizhou Zhang
M.A., Astronomy and Astrophysics (Harvard University, Cambridge, MA)	2021
B.A., Physics and Astrophysics (Harvard University, Cambridge, MA)	2013 – 2017
Thesis: Carbon Chain Molecules Toward Embedded Low-Mass Protostars	Advisor: Prof. Karin Öberg

RESEARCH INTERESTS

Planet Formation, Protoplanetary Disks, Exoplanets, Interstellar Medium, Molecular Astrophysics, Radio Interferometry

AWARDS

IAU Division H: Interstellar Matter and Local Universe, 2023 PhD Thesis Prize	2024
NASA Hubble Fellowship Program, Sagan Fellowship	2023 – Present
AAS Rodger Doxsey Travel Prize (241 st AAS meeting)	2023
ALMA Ambassador	2022
NSF Graduate Research Fellowship	2019
Smithsonian Astrophysical Observatory Research Fellowship	2017
Leo Goldberg Prize in Astronomy (Harvard University)	2017
Thomas Temple Hoopes Prize (Harvard University)	2017
Phi Beta Kappa (Harvard University)	2017
USRA Frederick Tarantino Memorial Scholarship Award	2016
PRISE Undergraduate Research Fellowship (Harvard University)	2016
Detur Book Prize (Harvard University)	2014
John Harvard Scholar (Harvard University)	2014

PUBLICATIONS

Author of **108 publications** (published / under review). See a full listing at the end of CV and [ADS](#) library for more details.

TELESCOPE OBSERVING & PROPOSALS

PI of **24 programs** – with *JWST*, *ALMA*, *VLA*, *SMT*, *SMA*, *Magellan*, *LBT* (full list at end) – & Co-I on an additional **103 programs**.

Total Awarded Time: **ALMA** (1189 hrs), **ACA** (358 hrs), **SMA** (824 hrs), **VLA** (224 hrs), **VLBA** (72 hrs), **GBT** (14 hrs), **VLT** (53 hrs), **IRAM 30m** (50 hrs), **NOEMA** (64 hrs), **JWST** (90 hrs), **Chandra** (260 ks), **HST** (3 orbits), **SMT** (68 hrs), **Shane** (10 nights), **Gemini** (5 hrs), **WIYN** (1.5 nights), **MMT** (0.5 nights), **HET** (7 hrs), **LBT** (14 hrs), **Magellan** (12.5 nights)

Observing Experience: **SMT** (10m single dish | 2023 – 2024): 17 nights; **Magellan** (6.5m | 2019, 2021, 2022): 7.5 nights
SMA (sub-mm interferometer | 2016 – 2018): 15 nights; **MMT** (6.5m | 2016): 1 night

Major Collaborations: **ALMA Large Programs** : CHEER, DiskStrat (Cycle 11), DECO (Cycle 9), MAPS (Cycle 6)
SMA Large Scale Program : SMA-SPEC (2022B)
Chandra Large Program : N132D Legacy Team (Cycle 20)
MORYSEF*, Multi-Telescope : Chandra + JWST + ALMA + VLBA + HET (multi-cycle / coordinated)

*Multi-observatory Study of Young Stellar Energetic Flares

TEACHING

Instructor

Introduction to Scientific Programming in Python (Harvard Pre-College Program)	Summer 2021, 2022, 2023
Scientific Computing with SciPy, Python Workshop (SAO Latino Initiative Program)	Summer 2021, 2022, 2023
Unveiling the Cosmos (Beacon Hill Seminars)	Spring, Fall 2021

Guest Lectures

Astronomy 1210: Introduction to the Sky and the Solar System (UVA)	Apr 2025
Astronomy 1610: Introduction to Astronomical Research for Potential Astronomy Majors (UVA)	Apr 2025
Astronomy 201: Descriptive Astronomy (Harry S Truman College, City Colleges of Chicago)	Oct 2023, Apr 2024

Teaching Fellow

Interstellar Medium and Star Formation (Graduate, Harvard University)	Spring 2021
Stellar and Planetary Astronomy (Undergraduate, Harvard University)	Spring 2020
Introduction to Scientific Programming in Python (Harvard Pre-College Program)	Summer 2019, 2020
Physics I (Lab): Mechanics, Elasticity, Fluids, and Diffusion (Undergraduate, Harvard University)	Fall 2017

Pedagogy Training & Teaching Awards

Creating Inclusive and Accessible Learning Faculty Community (University of Virginia)	Spring 2024
Science Education Undergraduate Mentoring Workshop Series (Harvard University)	Spring 2022
Derek Bok Teaching Certificate (Harvard University)	2021
Derek Bok Certificate of Excellence and Distinction in Teaching (Harvard University)	Spring 2021

LEADERSHIP

Working Group Chair, Shapley Lecture Series, AAS Education Committee	2025 – Present
Co-Organizer, Astronomy Mentoring Program for Upcoming Postdocs (AMP-UP)	2024 – Present
Subcommittee Chair, AAS Education Committee (Outreach, Community Engagement & Informal Education)	2024 – 2025
Postdoc Representative (UVA)	2024 – 2025
Co-Organizer, Journal Club (UVA)	2024 – 2025
Co-Organizer, Postdoc Orientation & Symposium (UVA)	Fall 2024
Workshop Leader, ALMA data reduction workshop (IAU meeting, Traverse City, MI)	July 2023
Organizer, ALMA Data Reduction Workshop (CfA)	Fall 2022
Co-Organizer, CfA Star Formation Journal Club	2022 – 2023
Member, CfA APS-IDEA, Accessibility Subcommittee	2021 – 2023
Peer Mentor, Harvard Astronomy Department	2021 – 2022
Co-Organizer, Graduate School Visitation Days (Harvard)	Spring 2020
Co-Organizer, Student-Faculty Lunch Series (Harvard)	Spring 2020

SERVICE

Referee (A&A, A&A Letters, ApJ, ApJL, ApJS)	2018 – Present
Chair and panelist, NASA Astrophysics Review Panel [*redacted]	202*
External panelist, HST Time Allocation Committee / Planets & Planet Formation, Cycle [*redacted]	202*
Member, AAS Education Committee	2024 – Present
Reviewer, NRAO/GBO, Science Review Panel / ISM	2024 – Present
Organizing Volunteer, AAS Chambliss Competition (2x)	2025
AAS Chambliss Competition Poster Judge (4x)	2022 – 2025
Editor, BAAS Solar Eclipse Special Issue	Spring, Fall 2024
SOC, NHFP Symposium (Cambridge, MA)	2023
Poster Judge, National Collegiate Research Conference	Jan 2023
Reviewer, ALMA Archival Student Observing Support awards	Spring 2022

OUTREACH

Guest, Starts With A Bang Podcast	Apr 2026
Subject Matter Expert, NASA Community College Network	2022 – Present
AAS Astronomy Ambassador	2019 – Present
Local School Visits, IAU GA, Cape Town, South Africa	Aug 2024
Guest, Down to Earth with Terry Virts, Podcast	Feb 2022
Subject Matter Expert, NASA JWST Community Events	2021 – 2022
Contributing Author, <i>astrobites</i> [link]	2018 – 2020
Astronomy Advisor, Harvard Undergraduate Science Olympiad	2018 – 2020
Volunteer, CfA Public Observatory Nights	2017 – 2020
Presenter, Flipped Science Fair, John F. Kennedy School	June 2018, May 2019

MENTORING

I have served as a mentor to **17 students** for independent research projects and mentorship-focused programs.

Research

— Shantanu Parmar (Marwadi University, India, Undergraduate)	Spring 2025 – Present
— Cole Wampler (NRAO, Data Analyst) Now a Master's Student in Astronomy at UVA	Spring 2025 – Present
— Deryl Long (UVA, Graduate) Now an Engagements Postdoctoral Fellow at UVA	Fall 2024 – Present
— Kyle Gresko (UVA, Undergraduate Senior Thesis) Now a PhD student at University of Texas at San Antonio / Southwest Research Institute	Summer 2024 – Present
— TJ Maher (UVA, Undergraduate Senior Thesis) Now a PhD student at the University of Miami	Spring 2024 – Fall 2024
— Arielle Frommer (Harvard, Undergraduate) Now a PhD student / NSF GRFP at Yale [expected]	Summer 2022 – Spring 2023
— Sarai Rankin (Morgan State, SAO REU, Undergraduate) Now a PhD student at Harvard University	Summer 2022
— Sage Crystian (Harvard, Undergraduate)	Summer 2021
— Prabidhik KC (Harvard, Undergraduate) Now a PhD student at the University of Chicago	Spring 2020 – Spring 2022
— Devin Sullivan (Harvard, Undergraduate Junior Thesis / co-supervised with K. Öberg) Now a PhD student at Boston University	Fall 2019

Non-Research

— Caleb Tobey (APS NMC, Westmont College, Undergraduate)	Fall 2025 – Present
— Nazar Budaiev (AMP-UP, University of Florida, Graduate)	Fall 2025 – Present
— Sheila Sagar (AMP-UP, University of Florida, Graduate)	Fall 2025 – Present
— Charlie Mpetha (AMP-UP, University of Edinburgh, Graduate) Now a NASA Postdoctoral Program (NPP) Fellow at Goddard	Fall 2024 – Spring 2025
— Rayna Rampalli (AMP-UP, Dartmouth, Graduate) Now a 51 Peg b Fellow at UC San Diego	Fall 2024 – Spring 2025
— Everett McArthur (APS NMC, KIPAC, Pre-Doctoral Student) Now a PhD student at the Ohio State University	Spring 2024
— Stephen DiKerby (AMP-UP, Penn State, Graduate) Now a postdoc at Michigan State University	Fall 2023 – Spring 2024

SELECTED TALKS

I have given over **85 talks**, including *20+ public talks* (see a full listing [here](#)).

Seminars, Colloquium, and Invited

University of Massachusetts Dartmouth, Astronomy Seminar (Dartmouth, MA)	Oct 2025
University of Maryland, Astronomy Colloquium (College Park, MD)	Feb 2025
Symposium on Next Generation Astrochemistry (Tokyo, Japan)	Oct 2024
UVA-NRAO Joint Colloquium (Charlottesville, VA)	Oct 2024
2023 PhD Prize Talk, Division H Days, IAU GA (Cape Town, South Africa)	Aug 2024
Harlow Shapley Lecture Series (Chattanooga State Community College, TN)	Apr 2024
Celebrating 30 Years of Protoplanetary Disk Chemistry (Schloss Ringberg, Germany)	Feb 2024
Leiden Astrochemistry Seminar (Leiden, The Netherlands)	Sept 2022

Conference Contributed

Extreme Solar Systems V (Christchurch, New Zealand)
Kavli-IAU Astrochemistry Symposium (Traverse City, MI)
From Clouds to Planets II (Berlin, Germany)
Science with the SMA: Present and Future (Taipei, Taiwan)

Mar 2024
July 2023
Oct 2022
Oct 2019

PUBLICATIONS

Statistics from [ADS](#): 108 papers (published / in review), 17 as first author; significant student mentorship marked in [red](#)
2920 citations (569 first-author citations), h-index = 30, ORCID: 0000-0003-1413-1776.

First Author

1. **Law, C. J.**, Lawrence, J., Teague, R., et al., 2026. in press.
"The ALMA View of the Edge-on Gomez's Hamburger System: A Highly-Dynamic, Asymmetric Protoplanetary Disk Reveals the Earliest Phases of Giant Planet Formation"
2. **Law, C. J.**, Le Gal, R., Öberg, K. I., et al., 2026. ApJ, 997, 91 [\[link\]](#)
"A Submillimeter Survey of CS Excitation in Protoplanetary Disks: Evidence of X-ray-Driven Sulfur Chemistry"
3. **Law, C. J.**, Le Gal, R., Yamato, Y., et al., 2025. ApJ, 985, 84 [\[link\]](#)
"A Multi-line Analysis of the Distribution and Excitation of CS and H₂CS in the HD 163296 Disk"
4. **Law, C. J.**, Zhang, Q., [Frommer, A. C.](#), et al., 2025. ApJS, 276, 54 [\[link\]](#)
"A Wideband Chemical Survey of Massive Star-forming Regions at Subarcsecond Resolution with the Submillimeter Array"
5. **Law, C. J.**, Benisty, M., Facchini S., et al., 2024. ApJ, 964, 190 [\[link\]](#)
"Mapping the Vertical Gas Structure of the Planet-hosting PDS 70 Disk"
6. **Law, C. J.**, Alarcón, F., Cleeves, L. I., et al., 2023. ApJL, 959, L27 [\[link\]](#)
"C I Traces the Disk Atmosphere in the IM Lup Protoplanetary Disk"
7. **Law, C. J.**, Booth, A. S., & Öberg, K. I. 2023. ApJL, 952, L19 [\[link\]](#)
"SO and SiS Emission Tracing an Embedded Planet and Compact ¹²CO and ¹³CO Counterparts in the HD 169142 Disk"
8. **Law, C. J.**, Teague, R., Öberg, K. I., et al., 2023. ApJ, 948, 60 [\[link\]](#)
"Mapping Protoplanetary Disk Vertical Structure with CO Isotopologue Line Emission"
9. **Law, C. J.**, [Crystian, S.](#), Teague, R., et al., 2022. ApJ, 932, 114 [\[link\]](#)
"CO Line Emission Surfaces and Vertical Structure in Mid-Inclination Protoplanetary Disks"
10. **Law, C. J.**, Loomis, R. A., Teague, R., et al., 2021. ApJS, 257, 3 [\[link\]](#)
"MAPS. III. Characteristics of Radial Chemical Substructures"
11. **Law, C. J.**, Teague, R., Loomis, R. A., et al., 2021. ApJS, 257, 4 [\[link\]](#)
"MAPS. IV. Emission Surfaces and Vertical Distribution of Molecules"
12. **Law, C. J.**, Zhang, Q., Öberg, K. I., et al., 2021. ApJ, 909, 214 [\[link\]](#)
"Subarcsecond Imaging of the Complex Organic Chemistry in Massive Star-Forming Region G10.6-0.4"
13. **Law, C. J.**, Milisavljevic, D., Patnaude, D. J., et al., 2020. ApJ, 894, 73 [\[link\]](#)
"3D Kinematic Reconstruction of the Optically-Emitting, High-Velocity, Oxygen-Rich Ejecta of Supernova Remnant N132D"
14. **Law, C. J.**, Zhang, Q., Ricci, L., et al., 2018. ApJ, 865, 17 [\[link\]](#)
"Submillimeter Array Observations of Extended CO (J = 2 – 1) Emission in Interacting Galaxy NGC 3627"
15. **Law, C. J.**, Öberg, K. I., Bergner, J. B., et al., 2018. ApJ, 863, 88 [\[link\]](#)
"Carbon Chain Molecules Toward Embedded Low-Mass Protostars"
16. **Law, C. J.**, Ricci, L., Andrews, S. M., et al., 2017. AJ, 154, 255 [\[link\]](#)
"An SMA Continuum Survey of Circumstellar Disks in the Serpens Star-Forming Region"
17. **Law, C. J.**, Milisavljevic, D., Crabtree, K. N., et al., 2017. MNRAS, 470, 3 [\[link\]](#)
"TRES Survey of Variable Diffuse Interstellar Bands"

Second or Third Author

1. Keyte, L., **Law, C. J.**, Artur de la Villarmois, E., et al., 2026. A&A, subm.
"DEC/O #: The CS/SO ratio as a thermochemical probe of C/O in planet-forming disks"

2. [Long, D. E.](#), Cleeves, L. I., **Law, C. J.**, et al., 2026. ApJL, subm. [expected]
"N₂H⁺ and DCO⁺ Rings as Tracers of CO Freeze-out in Protoplanetary Disks"
3. [Wampler, S. C.](#), **Law, C. J.**, Cleeves, L. I., et al., 2026. A&A, subm.
"DECO. Shock Chemistry in the Dynamic DG Tau A Disk"
4. [Long, D. E.](#), Cleeves, L. I., **Law, C. J.**, et al., 2026. ApJ, subm.
"Mapping Molecular Ion Distributions in a Diverse Sample of Protoplanetary Disks"
5. [Gresko, K.](#), **Law, C. J.**, Long, D. E., et al., 2026. ApJ, in press
"SMA Observations Reveal Abundant HNC Chemistry in Transition Disks"
6. [Parmar, S.](#), & **Law, C. J.**, 2025. RNAAS, 9, 330 [not refereed] [\[link\]](#)
"An SMA Survey of UV-driven Chemical Tracers in Transition Disks"
7. [Maher, T.](#), **Law, C. J.**, & Cleeves, L. I. 2025. RNAAS, 9, 205 [not refereed] [\[link\]](#)
"Radially-Extended C I Emission in the IM Lup Protoplanetary Disk Uncovered with Matched Filtering"
8. Yoshida, T., Nomura, H., **Law, C. J.**, et al., 2024. ApJL, 971, L15 [\[link\]](#)
"Outflow Driven by a Protoplanet Embedded in the TW Hya Disk"
9. Booth, A. S., **Law, C. J.**, Temmink, M., et al., 2023. A&A, 678, 146 [\[link\]](#)
"Tracing snowlines and C/O ratio in a planet-hosting disk: ALMA molecular line observations towards the HD 169142 disk"
10. Sturm, J. A., McClure M. K., **Law, C. J.**, et al., 2023. A&A, 677, 17 [\[link\]](#)
"The edge-on protoplanetary disk HH 48 NE. I. Modeling the geometry and stellar parameters"
11. Romero-Mirza, C. E., Öberg, K. I., **Law, C. J.**, et al., 2023. ApJ, 943, 35 [\[link\]](#)
"Cold Deuterium Fractionation in the Nearest Planet-Forming Disk"
12. Teague, R., **Law, C. J.**, Huang, J., et al., 2021. JOSS, 6, 67 [\[link\]](#)
"disksurf: Extracting the 3D Structure of Protoplanetary Disks"
13. Zhang, K., Booth, A. S., **Law, C. J.**, et al., 2021. ApJS, 257, 5 [\[link\]](#)
"MAPS. V. CO Gas Distributions"
14. Guzmán, V. V., Bergner, J. B., **Law, C. J.**, et al., 2021. ApJS, 257, 6 [\[link\]](#)
"MAPS. VI. Distribution of the Small Organics HCN, C₂H, and H₂CO"

Other Co-Authored Publications

1. Anderson, A. et al. (incl. **Law, C. J.**), 2026. A&A, subm.
"DEC/O xx: NIRSPA0 High-resolution Spectroscopy Reveals Inner-disk CO and H₂O Winds in Taurus"
2. Maucó, K. et al. (incl. **Law, C. J.**), 2026. A&A, subm.
"DEC/O III: The dust continuum demographics of protoplanetary disks in the solar neighborhood."
3. Pegues, J. et al. (incl. **Law, C. J.**), 2026. A&A, subm.
"DEC/O X: Clusters and Distributions of Protoplanetary Disk Chemistry across Star-Forming Regions"
4. Diop, A. et al. (incl. **Law, C. J.**), 2026. A&A, subm.
"DEC/O X: Constraining C/O and C/H Ratios in Protoplanetary Disks"
5. Colmenares, M. J. et al. (incl. **Law, C. J.**), 2026. A&A, subm.
"DEC/O X: JWST and ALMA Reveal a Connection Between Inner- and Outer-Disk Carbon Chemistry"
6. Anderson, D. E. et al. (incl. **Law, C. J.**), 2026. A&A, subm.
"DEC/O #: Benchmarking Protoplanetary Disk Chemistry Codes for C/H and C/O Retrievals"
7. Villenave, M. et al. (incl. **Law, C. J.**), 2026. A&A, subm.
"DEC/O #: Enhanced Dust Induced Suppression of CO in Young Disks - A Potential Barrier to Early Planet Formation"
8. Gupta, A. et al. (incl. **Law, C. J.**), 2026. A&A, subm.
"DEC/O xx: Evidence of widespread interactions between planet-forming disks and their surrounding clouds"
9. Zallio, L. et al. (incl. **Law, C. J.**), 2026. A&A, subm.
"DEC/O xx. CO Visibility Modeling of Protoplanetary Disks: Gas Disk Sizes, Stellar Ages, and Radial Drift Signatures"
10. Fukui, Y. et al. (incl. **Law, C. J.**), 2026. ApJL, in press.

“ALMA Observations of DEM L241 LMC P3 in the Large Magellanic Cloud: Evidence for the Formation of Cool Molecular Jets Driven by a Microquasar”

11. Cugno, G., et al. (incl. **Law, C. J.**), 2026. ApJ, subm.
“JWST/MIRI Imaging Search for Kinematically Detected Protoplanetary Candidates”
12. Romero-Mirza, C. E., et al. (incl. **Law, C. J.**), 2026. ApJ, subm.
“JWST-DECO: Statistical Relationships Between Disk Properties and Water Vapor Masses”
13. Calahan, J. K., et al. (incl. **Law, C. J.**), 2026. ApJ, in press
“JWST-DECO: The Impact of Accretion on Mid-Infrared Observable Water in Planet-forming Disks”
14. Pezzotta, V., et al. (incl. **Law, C. J.**), 2026. A&A, in press
“Extending dynamical mass measurements: GI as the origin of dust spirals?”
15. Wampler, S. C., et al. (incl. **Law, C. J.**), 2026. ApJL, in press.
“First detection of HC₃N in a Class II source towards TW Hya”
16. Cusson, E., et al. (incl. **Law, C. J.**), 2026. ApJ, in press
“An SMA Molecular Inventory of the Edge-on Protoplanetary Disk Gomez’s Hamburger”
17. Yamato, Y., Aikawa, Y., Furuya, K., **Law, C. J.**, et al., 2026. ApJ, in press
“Compact Hydrogen Sulfide Emission Pointing to Sulfur-rich Ice Sublimation in the Inner Disk of HD 163296”
18. Zallio, L., et al. (incl. **Law, C. J.**), 2026. A&A Letters, in press
“Benchmarking Pre-main Sequence Stellar Evolutionary Tracks using Stellar Disk-based Dynamical Masses”
19. Yoshida, T., et al. (incl. **Law, C. J.**), 2026. ApJL, in press [\[link\]](#)
“A Protoplanet Candidate in the PDS 66 Disk Indicated by Silicon Sulfide Isotopologues”
20. Sameshima, N., et al. (incl. **Law, C. J.**), 2026. MNRAS, in press [\[link\]](#)
“JWST-DECO: Temporal Variations in the Mid-IR Silicate Features of Two T Tauri Disks Based on Spitzer & JWST Observations”
21. Jiang, S. D., et al. (incl. **Law, C. J.**), 2026. ApJ, in press [\[link\]](#)
“Physical and Chemical Characterization of GY 91’s Multi-ringed Protostellar Disk with ALMA”
22. Armitage, T., et al. (incl. **Law, C. J.**), 2026. ApJ, 998, 308 [\[link\]](#)
“Tracing Pebble Drift History in Two Protoplanetary Disks with CO Enhancement”
23. Booth, A. S., et al. (incl. **Law, C. J.**), 2026. AJ, 171, 128 [\[link\]](#)
“The Chemical Diversity of Giant-planet Nurseries as Revealed by ALMA”
24. Zallio, L., et al. (incl. **Law, C. J.**), 2026. A&A, 705, 49 [\[link\]](#)
“The ¹²CO Gas Structures of Protoplanetary Disks in the Upper Scorpius Region”
25. Long, X., et al. (incl. **Law, C. J.**), 2025. ApJ, 993, 136 [\[link\]](#)
“Chandra Large Project Observations of the Supernova Remnant N132D: Measuring the Expansion of the Forward Shock”
26. Romero-Mirza, C. E., et al. (incl. **Law, C. J.**), 2025. ApJ, 991, 128 [\[link\]](#)
“JWST-MIRI Observations of the Irradiated Chemistry in the Inner Disk Cavity of GM Aur”
27. Rampinelli, L., et al. (incl. **Law, C. J.**), 2025. A&A, 698, 115 [\[link\]](#)
“Radial variations in nitrogen, carbon, and hydrogen fractionation in the PDS 70 planet-hosting disk”
28. Booth, A. S., et al. (incl. **Law, C. J.**), 2025. ApJL, 986, 9 [\[link\]](#)
“Ice Sublimation in the Dynamic HD 100453 Disk Reveals a Rich Reservoir of Inherited Complex Organics”
29. Boyden, R. D., Emig, K. L., Ballering, N. P., **Law, C. J.**, et al., 2025. ApJ, 983, 81 [\[link\]](#)
“Discovery of Radio Recombination Line Emission from Propyds in the Orion Nebula Cluster”
30. Lewis, B. L., et al. (incl. **Law, C. J.**), 2025. Phys. Rev. Phys. Educ. Res. 21, 010124 [\[link\]](#)
“Improving undergraduate astronomy students’ skills with research literature via accessible summaries:
An exploratory case study with Astrobites-based reading assignments”
31. Getman, K. V., et al. (incl. **Law, C. J.**), 2025. ApJ, 980, 57 [\[link\]](#)
“MORYSEF: No Evidence for Abnormally Strong Stellar Magnetic Fields After Powerful X-ray Flares”
32. Evans, L., et al. (incl. **Law, C. J.**), 2025. ApJ, 982, 62 [\[link\]](#)
“ALMA Reveals Thermal and Nonthermal Desorption of Methanol Ice in the HD 100546 Protoplanetary Disk”

33. Temmink, M., et al. (incl. **Law, C. J.**), 2025. A&A, 693, 101 [\[link\]](#)
"Characterising the molecular line emission in the asymmetric Oph-IRS 48 dust trap:
Temperatures, timescales, and sub-thermal excitation"
34. Getman, K. V., et al. (incl. **Law, C. J.**), 2024. ApJ, 976, 195 [\[link\]](#)
"MORYSEF: X-ray Flare Related Phenomena and Multi-epoch Behavior"
35. Keyte, L., Kama, M., Booth, A. S., **Law, C. J.**, & Leemker, M. 2024. MNRAS, 534, 4 [\[link\]](#)
"Volatile composition of the HD 169142 disk and its embedded planet"
36. Bergner, J. B., et al. (incl. **Law, C. J.**), 2024. ApJ, 975, 166 [\[link\]](#)
"JWST Ice Band Profiles Reveal Mixed Ice Compositions in the HH 48 NE Disk"
37. Booth, A. S., et al. (incl. **Law, C. J.**), 2024. AJ, 975, 72 [\[link\]](#)
"Measuring the ^{34}S and ^{33}S Isotopic Ratios of Volatile Sulfur during Planet Formation"
38. Yamato, Y., et al. (incl. **Law, C. J.**), 2024, ApJ, 974, 83 [\[link\]](#)
"Detection of Dimethyl Ether in the Central Region of the MWC 480 Protoplanetary Disk"
39. Sturm, J. A., et al. (incl. **Law, C. J.**), 2024, A&A, 689, 92 [\[link\]](#)
"A JWST/MIRI analysis of the ice distribution and PAH emission in the protoplanetary disk HH 48 NE"
40. Rampinelli, L., et al. (incl. **Law, C. J.**), 2024, A&A, 689, 65 [\[link\]](#)
"ALMA high-resolution observations unveil planet formation shaping molecular emission in the PDS 70 disk"
41. Tanious, M., et al. (incl. **Law, C. J.**), 2024. A&A, 687, 92 [\[link\]](#)
"Anatomy of the Class I protostar L1489 IRS with NOEMA. I. Disk, streamers, outflow(s) and bubbles at 3 mm"
42. Yoshida, T. C., et al. (incl. **Law, C. J.**), 2024. ApJ, 966, 63 [\[link\]](#)
"The First Spatially Resolved Detection of ^{13}CN in a Protoplanetary Disk and Evidence for Complex Carbon
Isotope Fractionation"
43. Booth, A. S., et al. (incl. **Law, C. J.**), 2024. AJ, 167, 165 [\[link\]](#)
"An ALMA Molecular Inventory of Warm Herbig Ae Disks. II.
Abundant Complex Organics and Volatile Sulphur in the IRS 48 Disk"
44. Booth, A. S., et al. (incl. **Law, C. J.**), 2024, AJ, 167, 164 [\[link\]](#)
"An ALMA Molecular Inventory of Warm Herbig Ae Disks. I.
Molecular Rings, Asymmetries, and Complexity in the HD 100546 Disk"
45. Romero-Mirza, C. E., et al. (incl. **Law, C. J.**), 2024. ApJ, 964, 36 [\[link\]](#)
"JWST-MIRI Spectroscopy of Warm Molecular Emission and Variability in the AS 209 Disk"
46. Sano, H., et al. (incl. **Law, C. J.**), 2023. ApJ, 958, 53 [\[link\]](#)
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“MAPS. XV. Tracing Protoplanetary Disk Structure within 20 au”
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“MAPS. XVIII. Kinematic Substructures in the Disks of HD 163296 and MWC 480”
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“MAPS. XIX. Spiral Arms, a Tail, and Diffuse Structures Traced by CO around the GM Aur Disk”
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Possible Evidence for Shocked Molecular Clouds Illuminated by Cosmic-Ray Protons”

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“A 3 mm Chemical Exploration of Small Organics in Class I YSOs”

LIST OF PI-LED OBSERVING PROGRAMS

1. Mapping the Vertical Dust Structure of an Exceptional Edge-on Circumstellar Disk	LBTO , 6.3 hrs, 2026B
2. Vertical Structure and Grain Properties of the Largest Edge-On Protoplanetary Disk	LBTO , 4 hrs, 2025B
3. An ALMA-JWST View of the Nested CW Tau Disk Wind	JWST + ALMA , A, 3.3 hrs + 8.4 hrs, Cycle 12
4. Sulfur Fractionation in the Giant Planet-Hosting HD 169142 Disk	SMA , 1 B track, 2024B/25A
5. Chemical Signatures of a Recently-Confirmed Giant Protoplanet in the HD 169142 Disk	ALMA , B, 21.8 hrs, Cycle 11
6. Witnessing Giant Planet Formation in the Act	ALMA , A, 5.2 hrs, Cycle 11
7. Detecting Free-free Emission around Embedded Protoplanets	ALMA , B, 14.3 hrs, Cycle 11
8. Searching for a Giant Protoplanet in a Massive, Edge-on Protoplanetary Disk	VLA , A, 22.5 hrs, 2024B
9. Characterizing Large-scale Gas Streamers around Planet-forming Disks	SMT , 43.0 hrs, 2024A
10. Detecting Free-free Emission around a Giant Protoplanet in the HD 169142 Disk	VLA , A, 20.0 hrs, 2024A
11. Searching for a Hidden Reservoir of Complex Nitrile Chemistry in Disks	SMT , 24.0 hrs, 2023B
12. Chemical Signatures of a Recently-Confirmed Giant Protoplanet in the HD 169142 Disk	ALMA , B, 21.8 hrs, Cycle 10
13. Witnessing Giant Planet Formation in the Act	ALMA , B, 5.2 hrs, Cycle 10
14. HNC as a Novel Tracer of Protoplanetary Disk Properties	SMA , 4 A + 6 B tracks, 2023A/23B
15. Linking Ice and Complex Molecule Inventories in MYSOs	ALMA , A, 5.4 hrs, Cycle 9
16. Witnessing Giant Planet Formation in the Act	ALMA , B, 6.0 hrs, Cycle 9
17. Search for a Surviving Stellar Companion of Nearby SNRs E0102 and N132D	Magellan , 2.5 nights, 2022B
18. Connecting Scaling Laws between Exoplanets and Young Disks	SMA , 8 B tracks, 2020B/21A
19. Jet-like, IR-bright Ejecta in O-rich LMC Supernova Remnant N132D	Magellan , 3 nights, 2021B
20. Jet-like, IR-bright Ejecta in O-rich LMC Supernova Remnant N132D	Magellan , 4 nights, 2020B
21. Ionized Accretion Flows around 0.1 pc Scale Clusters with O-Type Stars	ALMA , C, 14.8 hrs, Cycle 7
22. Jet-like, IR-bright Ejecta in O-rich LMC Supernova Remnant N132D	Magellan , 3 nights, 2019B
23. Formation of O Stars by Accretion of Ionized Gas	VLA , A, 11 hrs, 2019A
24. Ionized Accretion Flows around 0.1 pc Scale Clusters with O-Type Stars	SMA , 8 B tracks, 2018B/19A