Anna Lorraine Rosen, Ph.D.

Computational Astrophysicist

CONTACT

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AT A GLANCE

34
PUBLICATIONS

55+
INVITED TALKS

9
GRADUATE STUDENTS MENTORED

5
COURSES DEVELOPED / TAUGHT

TECHNICAL SKILLS

Languages

`C++` `Python/JAX` `TypeScript` `HTML` `MPI` `Mathematica` `Fortran` `IDL` `R`

Simulation Codes

`Quokka` `ORION2` `GIZMO` `MESA`

Analysis Codes

`yt` `RADMC-3D` `SKIRT`

RESEARCH INTERESTS

Star Formation
Stellar Feedback
Radiation Hydrodynamics
Multi-wavelength Observations
Computational Astrophysics
GPU-native Simulations
HPC/Machine Learning

Employment

Assistant Professor, Dept. of Astronomy, San Diego State University	2023–Present
UC Chancellor's Postdoctoral Fellowship, UC San Diego	2022–2023
NSF Astronomy & Astrophysics Postdoctoral Fellowship, UC San Diego	2022–2023
ITC Postdoctoral Fellowship, Harvard University	2020–2022
NASA Einstein Postdoctoral Fellowship, Harvard University	2017–2020

Education

Ph.D., Astronomy & Astrophysics, UC Santa Cruz — 2017
The Destructive Birth of Massive Stars & Massive Star Clusters

M.S., Astronomy & Astrophysics, UC Santa Cruz — 2012

B.A., Physics & Astrophysics (double major), UC Berkeley — 2009

Community College Transfer Student, Los Angeles Pierce College — 2007

Awards

Assigned Time for Research (Fall 2026), SDSU Div. of Research & Innovation — 2026
gravax: *Population-Scale Star Cluster Inference with Differentiable Dynamics*

ATHENA Faculty Champion (athenastemwomen.org SDSU) — 2024

DRI GREW Fellowship, Div. of Research and Innovation, SDSU — Fall 2024

Rodger Doxsey Dissertation Prize, American Astronomical Society — 2017

ARCS Foundation Fellowship — 2016

AAUW American Dissertation Year Fellowship — 2016

Excellence in Mentoring Award, UC Santa Cruz Astro. Dept. — 2015

AAS International Travel Grant — 2014, 2016, 2017

NSF Graduate Research Fellowship Program — 2011

NASA Minority Initiatives Internship, NASA JPL — 2008

Daniel Edward Wark Memorial Scholarship, UC Berkeley — 2009

NASA MUST Internship, NASA JPL	2008
NASA MUST Scholarship	2007–2008
NSF REU Internship, UC Davis Physics Dept.	2007
Alexander Frolich Award, Los Angeles Pierce College	2007
NASA JPL Undergraduate Scholars Award, LAPC	2007
Thomas McCutcheon Award, Los Angeles Pierce College	2006

Successful Proposals

Total grants obtained as PI: **$174,825**

Co-I, Chandra Observation, Cycle 21 (awarded 100 ks) 2019

A Super Star Cluster is Born: Probing the X-ray Emission of H72.97-69.39 in LMC-N79

PI, Chandra Theory, Cycle 16 2014

To Leak or Not to Leak: Where are the Missing X-ray Photons from Massive Star Clusters?

PI, Hubble Archival, Cycle 21 2013

Simulating the Birth of Massive Star Clusters: Is Destruction Inevitable?

Advising Experience

Graduate Students

Surinder Singh Chhabra (Masters Student, SDSU) 2025–Present

orbit-rag: Orchestrated Retrieval with Balanced Iteration & Termination for Astrophysics Research

Aisling Ascuna (Masters Student, SDSU) 2024–Present

Lead Developer, Sim2SKIRT: a RMHD simulation-to-synthetic observation pipeline with skirt

Zoe Bozich (Masters Student, SDSU) 2023–2024

Modeling the Evolution of Accreting Protostars with mesa

Paarmita Pandey (PhD Student, OSU) ⋆ 2022–Present

Fermi *Observations of the Diffuse γ-ray Emission of Young Massive Star Clusters*

Jennifer Rodriguez (PhD Student, OSU) ⋆ 2022–Present

Tracing the Impact of Stellar Wind Feedback in N79 & 30 Doradus in the LMC with Chandra

Sabrina Appel (PhD Student, Rutgers; Postdoc, AMNH) ⋆ 2020–2023

Effects of B-fields and Feedback on the Shape and Evolution of the Density PDF in Star Formation

Grace Olivier (PhD Student, OSU; Postdoc, Texas A&M) ⋆ 2020–2023

Evolution of Stellar Feedback in H_{II} Regions

Michael Foley (PhD Student, Harvard) 2018–2019

Blowing Bubbles around Intermediate-Mass Stars: Stellar Wind Feedback is not Enough

Hope Chen (PhD, Harvard; Postdoc, UT Austin) 2018–2019

Effects of an Embedded B-Star Wind in Ophiuchus

Undergraduate Students

Victor Del Rio (SDSU) Summer 2025

STARTAstro Program (community college transfer student)

Edwin Sarabia (SDSU) Summer 2025

STARTAstro Program (community college transfer student)

Alex Escamilla (SDSU) ⋆ 2024–2026

Bridging Theory and Observation: Synthetic FIR Insights into Star Formation Efficiency

Kate Gonzalez (SDSU) 2024

Initial developer of the Sim2SKIRT synthetic observation pipeline with skirt

Trinity Webb (OSU) ⋆ 2023–2024

Tracing the Impact of Stellar Wind Feedback in N79 & 30 Doradus in the LMC with Chandra

Mikayla Wilson (grad student, UCSC; Banneker Intern, Harvard) 2020

Tracing the Evolution of Molecular Outflows in Massive Star Formation with Synthetic Observations

Monica Gallegos-Garcia (grad student, Northwestern; Banneker Intern, Harvard) ⋆ 2018–2020

Winds in Star Clusters Drive Kolmogorov Turbulence

Courtney Bishop (College of William & Mary; SAO NSF REU) 2018

Comparing Molecular Line Tracers in Outflows Generated by Massive Star Formation

Evan Carter (UCSC; astro masters, Wesleyan) 2014–2016

Synthetic Observations of Low-Mass Star Formation: Implications for Current SED-Fitting Methods

⋆ Denotes students whose project or contribution led to a refereed publication

Service Experience

At SDSU (2023–Present)

Curriculum Committee 2024–Present

UCSD-SDSU Joint Astronomy Colloquium 2024–Present

SOC Member, *Ensenada-San Diego Astronomical Meeting* 2024

Executive Committee Member, STARTastro Program (NSF-funded) 2024–Present

Cal-Bridge *CSU Physics & Astronomy* Mentor 2024–Present

National & International Service

NASA JWST Cycle 5 Panelist 2026

Reviewer, NASA FINESST Graduate Fellowship Program 2025

Reviewer, NASA Postdoctoral Fellowship Program	2024
Reviewer & Panelist, NSF Career Award (Astronomical Sciences Div.)	2023
Co-Editor, *Frontiers in Astronomy and Space Sciences* Research Topics collection on *Star Formation: Numerical Simulations and What They Teach Us*	2023–2024
SOC co-chair, Olympian Symposium 2023: Star Formation in the Era of JWST	2022–2023
Science Working Group Member, *PRIMA Far-IR Probe Mission Concept*	2022–
NASA JWST Cycle 1 Panelist	2021
Referee for A&A, ApJ, MNRAS, & RAA	

Before SDSU

Harvard Astronomy DEI Committee	2021–2022
CfA-IDEA Committee	2020–2021
Organizer, CfA Galaxies & Cosmology Seminar	2019–2021
Panelist, NASA Theory Astrophysics Program	2019
Reviewer, NASA NESSF	2019
Organizer, Equity & Inclusion Journal Club, Harvard-Smithsonian CfA	2018–2019
Proposal Reviewer, Czech Science Foundation	2018
ITC Postdoctoral Fellowship Committee Member, Harvard-Smithsonian CfA	2017
SOC/LOC Member (Chair 2019), Harvard-Heidelberg Star Formation Meeting, CfA	2017, 2019
Organizer, Diverse Topics in Astronomy Lecture Series, Lamat REU, UCSC	2015, 2016
Organizer, Space Telescope Proposal Writing Workshop, UCSC Astro. Dept.	2015
Member, LAMAT Research Internship Admissions Committee	2014
Undergraduate Student Mentor, UCSC Women in Physics Group	2013–2017
Graduate Student Mentor, UCSC Astro. & Astroph. Dept.	2012–2013, 2016–2017
Astronomy Grad Student Representative, UCSC GSA	2012–2013
Organizer, Applying to the NSF GRFP Workshop, UCSC Astro. Dept.	2012–2016

Teaching Experience

`ASTR 596` **Modeling the Universe** NEW COURSE DEVELOPMENT — Fall 2025

Build glass-box computational models — from stellar dynamics to cosmology — using Python/JAX

`COMP 536` **Computational Modeling for Scientists** COURSE MODERNIZATION — Spring 2025, 2026

Think computationally: solve differential equations, fit models to data, and write maintainable scientific code

`ASTR 201` **Astronomy for Science Majors** — Spring 2024, 2025, 2026

Observe. Model. Infer. A quantitative approach to decoding what starlight tells us about the universe

`ASTR 101` **Principles of Astronomy** — Spring 2026

How do we know what we know? A guided tour of the universe through the lens of scientific reasoning

COMP 521 **Introduction to Computational Science** COURSE MODERNIZATION Fall 2024

From scratch to professional practice: numerical methods, data science, and software engineering — all in Python

Developer & Designer, **Cosmic Playground** — Interactive Astronomy Demos Platform 2025–Present

Predict. Play. Explain. — Play with the universe. Learn the physics.

UCSD Transfer Student Workshop Series, Introduction to Python Programming 2022

Guest Lecture, UT Austin Computational Astrophysics & UCSD Radiative Processes 2022

"Modeling Radiative Feedback in (Massive) Star Formation Simulations"

Co-Instructor, Python Programming Bootcamp, Lamat Program, UCSC 2015

Activity Designer/Facilitator, ISEE PDP, Hartnell College 2011

Teaching Assistant, "Astronomy 2: Overview of the Universe," UCSC 2010

Undergraduate Student Instructor, "Astronomy C10: Intro to Astronomy," UC Berkeley 2009

Professional Development

AI Ready Course Design Workshop, SDSU Center for Teaching and Learning 2026

Diversity & Inclusion Certificate Program, UCSC Office for DEI 2017

ISEE PDP for Inquiry-based Education, UCSC 2011

Astronomy 300: Instruction Techniques in General Astronomy, UC Berkeley 2009

Refereed Publications

34 **Confidently Wrong: Why Ignoring Binaries Biases IMF Inference at Large Sample Sizes**
Rosen, A.L.
The Astrophysical Journal SUBMITTED NASA ADS

33 **Bridging Theory and Observation: Synthetic Far-infrared Insights into Star Formation Efficiency**
Escamilla, A., Grudić, M.Y., **Rosen, A.L.**
2026, *The Astrophysical Journal*, 1004, 14 NASA ADS

32 **Investigating the γ-Ray Emission from Explosive Dispersal Outflows with Fermi-LAT**
Pandey, P., Lenker, S.C., Lopez, L.A., **Rosen, A.L.**, Linden, T., Thompson, T.A., Offner, S.S.R., Auchettl, K., Hirata, C.M.
2026, *The Astrophysical Journal*, 1000, 102 NASA ADS

31 **Taming the Tarantula: How Stellar Wind Feedback Shapes Gas and Dust in 30 Doradus**
Rodriguez, J.A., Lopez, L.A., Lancaster, L., **Rosen, A.L.**, Nayak, O., Lopez, S., Holland-Ashford, T., Webb, T.L.
2026, *The Astrophysical Journal*, 998, 318 NASA ADS

30 **The HADES Simulations: I. Impact of Protostellar Magnetic Fields on the Accretion Modes**
Gaches, B.A.L., Tan, J.C., **Rosen, A.L.**, Kuiper, R.
2024, *Astronomy & Astrophysics*, 692, A219 NASA ADS

29 **FORGE'd in FIRE III: The IMF in Quasar Accretion Disks from STARFORGE**
Hopkins, P.F., Grudić, M.Y., Kremer, K., Offner, S.S.R., Guszejnov, D., **Rosen, A.L.**
2024, *The Open Journal of Astrophysics*, 7, 71 NASA ADS

28 **Constraining the Diffusion Coefficient and Cosmic-Ray Acceleration Efficiency Using Gamma-Ray Emission from RCW 38**
Pandey, P., Lopez, L.A., **Rosen, A.L.**, Thompson, T.A., Linden, T., Blackstone, I.
2024, *The Astrophysical Journal*, 976, 98 NASA ADS

27 **Detection of Diffuse Hot Gas Around the Young, Potential Superstar Cluster H72.97-69.39**
Webb, T.L., Rodriguez, J.A., Lopez, L.A., **Rosen, A.L.**, Lancaster, L., Nayak, O., McLeod, A.F., Pandey, P., Olivier, G.M.
2024, *The Astrophysical Journal*, 977, 45 NASA ADS

26 **Stellar populations in STARFORGE: the origin and evolution of star clusters and associations**
Farias, J.P., Offner, S.S.R., Grudić, M.Y., Guszejnov, D., **Rosen, A.L.**
2024, *MNRAS*, 527, 6732 NASA ADS

25 **What Sets the Star Formation Rate of Molecular Clouds? The Density Distribution as a Fingerprint of Compression and Expansion Rates**
Appel, S.M., Burkhart, B., Semenov, V.A., Federrath, C., **Rosen, A.L.**, Tan, J.C.
2023, *The Astrophysical Journal*, 954, 93 NASA ADS

24 **The TEMPO Survey I: Predicting Yields of Transiting Exosatellites, Moons, and Planets from a 30-day Survey of Orion with Roman**
Limbach, M.A., Soares-Furtado, M., Vanderburg, A., Best, W.J., Cody, A.M., D'Onghia, E., Heller, R., Hensley, B.S., Kounkel, A., Kraus, A., Mann, A.W., Robberto, M., **Rosen, A.L.**, Townsend, R., Vos, J.M.
2023, *PASP*, 135, 1043 NASA ADS

23 **Effects of the environment on the multiplicity properties of stars in the STARFORGE simulations**
Guszejnov, D., Raju, A.N., Offner, S.S.R., Grudić, M.Y., Faucher-Giguère, C., Hopkins, P.F., **Rosen, A.L.**
2023, *MNRAS*, 518, 4693 NASA ADS

22 **A Massive Star is Born: How Feedback from Stellar Winds, Radiation Pressure, and Collimated Outflows Limits Accretion onto Massive Stars**
Rosen, A.L.
2022, *The Astrophysical Journal*, 941, 202 NASA ADS

21 **Dust in the Wind with Resonant Drag Instabilities: I. The Dynamics of Dust-Driven Outflows in GMCs and H II Regions**
Hopkins, P.F., **Rosen, A.L.**, Squire, J., Panopoulou, G.V., Soliman, N.H., Seligman, D., Steinwandel, U.P.
2022, *MNRAS*, 517, 1491 NASA ADS

20 **Effects of the environment and feedback physics on the IMF of stars in the STARFORGE simulations**
Guszejnov, D., Grudić, M.Y., Offner, S.S.R., Faucher-Giguère, C., Hopkins, P.F., **Rosen, A.L.**
2022, *MNRAS*, 515, 4929 NASA ADS

19 **Cluster assembly and the origin of mass segregation in the STARFORGE simulations**
Guszejnov, D., Markey, C., Offner, S.S.R., Grudić, M.Y., Faucher-Giguère, C., **Rosen, A.L.**, Hopkins, P.F.
2022, *MNRAS*, 515, 167 NASA ADS

18 **The dynamics and outcome of star formation with jets, radiation, winds, and supernovae in concert**
Grudić, M.Y., Guszejnov, D., Offner, S.S.R., **Rosen, A.L.**, Raju, A.N., Faucher-Giguère, C., Hopkins, P.F.
2022, *MNRAS*, 512, 216 NASA ADS

17 **Less wrong: a more realistic initial condition for simulations of turbulent molecular clouds**
Lane, H.B., Grudić, M.Y., Guszejnov, D., Offner, S.S.R., Faucher-Giguère, C., **Rosen, A.L.**
2022, *MNRAS*, 510, 4767 NASA ADS

16 **ORION2: A magnetohydrodynamics code for star formation**
Li, P.S., Cunningham, A.J., Gaches, B.L., Klein, R.I., Krumholz, M.R., Lee, A.T., McKee, C.F., Offner, S.S.R., **Rosen, A.L.**, Skinner, M.A.
Journal of Open Source Software NASA ADS

15 **The Effects of Magnetic Fields and Outflow Feedback on the Shape and Evolution of the Density PDF in Turbulent Star-Forming Clouds**
Appel, S.M., Burkhart, B., Semenov, V.A., Federrath, C., **Rosen, A.L.**
2022, *The Astrophysical Journal*, 927, 75 NASA ADS

14 **Observations of the Ag(3×1) Phase on Ge(111)**
Mullet, C.H., **Rosen, A.L.**, Chiang, S.
2021, *Journal of Vacuum Science & Technology A*, 39, Issue 5 NASA ADS

13 **Evolution of Stellar Feedback in H II Regions**
Olivier, G.M., Lopez, L.A., **Rosen, A.L.**, Nayak, O., Reiter, M., Krumholz, M.R., Bolatto, A.D.
2021, *The Astrophysical Journal*, 908, 68 NASA ADS

12 **Continuity of Accretion from Clumps to Class 0 High-Mass Protostars**
Avison, A., Fuller, G.A., Peretto, N., Duarte-Cabral, A., **Rosen, A.L.**, Traficante, A., Pineda, J.E., Güsten, R., Cunningham, N.
2021, *Astronomy & Astrophysics*, 645, A142 NASA ADS

11 **Winds in Star Clusters Drive Kolmogorov Turbulence**
Gallegos-Garcia, M., Burkhart, B., **Rosen, A.L.**, Naiman, J.P., Ramirez-Ruiz, E.
2020, *ApJ Letters*, 899, 30 NASA ADS

10 **The Role of Outflows, Radiation Pressure, and Magnetic Fields in Massive Star Formation**
Rosen, A.L., Krumholz, M.R.
2020, *Astronomical Journal*, 160, 78 NASA ADS

9 **Zooming in on Individual Star Formation: Low- and High-mass Stars**
Rosen, A.L., Offner, S.S.R., Sadavoy, S.I., Bhandare, A., Vázquez-Semadeni, E., Ginsburg, A.
2020, *Space Science Reviews*, 216, 62 NASA ADS

8 **Formation and Evolution of Disks Around Young Stellar Objects**
Zhao, B., Tomida, K., Hennebelle, P., Tobin, J.J., Maury, A., Hirota, T., Sánchez-Monge, Á., Kuiper, R., **Rosen, A.**, Bhandare, A., Padovani, M., Lee, Y.
2020, *Space Science Reviews*, 216, 43 NASA ADS

7 **Circumbinary Disks: Accretion and Torque as a Function of Mass Ratio and Disk**
Duffell, P.C., D'Orazio, D., Derdzinski, A., Haiman, Z., MacFayden, A., **Rosen, A.L.**, Zrake, J.
2020, *The Astrophysical Journal*, 901, 25 NASA ADS

6 **Massive Star Formation via the Collapse of Subvirial and Virialized Turbulent Massive Cores**
Rosen, A.L., Li, P.S., Zhang, Q., Burkhart, B.
2019, *The Astrophysical Journal*, 887, 108 NASA ADS

5 **unyt: Handle, manipulate, and convert data with units in Python**
Goldbaum, N.J., ZuHone, J.A., Turk, M.J., Kowalik, K., **Rosen, A.L.**
2018, *Journal of Open Source Software*, 3, 28, 809 NASA ADS

4 **HARM^2: A Highly Parallel Method for Radiation Hydrodynamics on Adaptive Grids**
Rosen, A.L., Krumholz, M.R., Oishi, J.S., Lee, A.T., Klein, R.I.
2017, *Journal of Computational Physics*, 330, 924 NASA ADS

3 **An Unstable Truth: How Massive Stars get their Mass**
Rosen, A.L., Krumholz, M.R., McKee, C.F., Klein, R.I.
2016, *MNRAS*, 463, 2553 NASA ADS

2 **Gone with the Wind: Where is the Missing Stellar Wind Energy from Massive Star Clusters?**
Rosen, A.L., Lopez, L.A., Krumholz, M.R., Ramirez-Ruiz, E.
2014, *MNRAS*, 442, 2701 NASA ADS

1 **What Sets the Initial Rotation Rates of Massive Stars?**
Rosen, A.L., Krumholz, M.R., Ramirez-Ruiz, E.
2012, *The Astrophysical Journal*, 748, 97 NASA ADS

Scientific Presentations

55 invited talks **36** contributed talks

Selected presentations:

Invited Talk, *Star Formation, Stellar Feedback, and the Ecology of Galaxies*; Visegrad, Hungary	2025
Invited Talk, *TOSCA — Topical Overview on Star Cluster Astrophysics*; Siena, Italy	2024
Invited Talk, *The Fullness of Space: Celebrating the Career of Christopher F. McKee*; Berkeley, CA	2024
Invited Colloquium, Simons Center for Computational Astrophysics; New York, NY	2024
Keynote Speaker, Cal-Poly Pomona's Annual *Women in Physics* Seminar; Pomona, CA	2024
Invited Colloquium, University of Indiana Astronomy Colloquium	2024
Invited Colloquium, CSU Los Angeles Physics & Astronomy Colloquium	2023
Invited Talk, *Resolving Galaxy Ecosystems Across All Scales*; Sha Tin, NT, Hong Kong	2023
Invited Colloquium, Johns Hopkins University / STScI; Baltimore, MD	2023
Invited Colloquium, UC Davis Physics & Astronomy Colloquium; Davis, CA	2023
Invited Colloquium, University of Hawaii Manoa Institute of Astronomy; Honolulu, HI	2023

Invited Colloquium, University of Arizona & Steward Observatory; Tucson, AZ	2023
Invited Colloquium, SDSU Computational Sciences Research Center; San Diego, CA	2023
Invited Keynote, Science with the Line Emission Mapper; Harvard-Smithsonian CfA	2023
Invited Colloquium, OSU Astronomy Department; Columbus, OH	2022 & 2023
Invited Colloquium, University of Oregon Physics Department; Eugene, OR	2023
Invited Talk, IAU Challenges & Innovations in Computational Astrophysics	2022
Invited Seminar, UC San Diego Astronomy Seminar; La Jolla, CA	2022
Invited Seminar, Canadian Institute for Theoretical Astrophysics; Toronto, Canada	2022
Invited Colloquium, Durham University Astronomy Department; Durham, UK	2022
Invited Colloquium, Carnegie Observatories; Pasadena, CA	2021
Invited NSF REU Colloquium, CfA | Harvard & Smithsonian; Cambridge, MA	2021
Invited Colloquium, Caltech Astronomy Colloquium; Pasadena, CA	2021
Invited Colloquium, Royal Observatory of Edinburgh; Edinburgh, Scotland	2021
Invited Colloquium, Rice University Physics & Astronomy Department; Houston, TX	2021
Invited Colloquium, University of Chicago Astronomy & Astrophysics Dept.; Chicago, IL	2021
Invited Review Talk, Radiation Hydrodynamics: Implementation & Application; RAS, London, UK	2020
Invited Review Talk, ISSI Star Formation Workshop; Bern, Switzerland	2019
Invited Talk, Gas Fueling of Galaxy Structures, Astro 3D; Barossa Valley, Australia	2018
Invited Colloquium, University of Florida Astronomy Department; Gainesville, FL	2018
Invited Review Talk, Stars Birth & Death: GMT Community Science Meeting; Honolulu, HI	2018
Invited Talk, Astrophysical Shocks Meeting, AIP Potsdam; Potsdam, Germany	2018
Invited Colloquium, Dept. of Astronomy, UMass Amherst; Amherst, MA	2017

Public Outreach

Speaker, Sharp Minds Public Lecture Series, Fleet Science Center, San Diego, CA	2025
Panelist/Speaker, NASA Community College Symposium, Fleet Science Center, San Diego, CA	2024
SDSU Astronomy Expert, Solar Eclipse Event, Fleet Science Center, San Diego, CA	2024
Speaker, “Women and Non-binary in STEM” Series, San Diego Miramar College (SDCCD)	2023
AAUW STEM Ambassador, AAUW STEMEd for Girls program	2022
Speaker, “How to Make Massive Stars on a (super)Computer,” Western Nevada College / NCCN	2022
Science Matter Expert, NASA Community College Network (NCCN)	2021–Present
Panelist, Astronomy Career Panel, Girls Inc., Lynn, MA	2021
Panelist, “Meet a Scientist” Panel for Women’s History Month, Marin Community College	2021
Panelist, “Writing an Effective Proposal” presented to Harvard Graduate Students	2020

Interviewee, "How to Make Stars on a (super)Computer," Astrochats / MicroObservatory YouTube	2020
Speaker, "How to Make Massive Stars on a (super)Computer," Astronomy on Tap Boston	2020
Presenter, "Visualizing Numerical Simulations with *yt*," CfA | Harvard & Smithsonian *Demofest*	2019
Speaker, "How to Make Stars on a (super)Computer," WiSE Science on Tap	2017
Speaker, "An Unstable Truth: How Massive Stars get their Mass," AAUW Monterey Peninsula	2017
Speaker, "How to Write an Effective Abstract," Lamat REU Program, UCSC	2016
Organizer/Panelist, "Astronomy Grad Student & Post-doc Panel," Lamat REU, UCSC	2016
Speaker, "Then and Now: From NHP to a Ph.D. in Astrophysics," North Hills Prep School	2016
Astronomy Outreach, Expanding Your Horizons Workshop for Young Girls, Hartnell College	2015
Speaker, "How to Make Stars on a (super)Computer," UCSC / Monterey Astro. Club / Scotts Valley HS	2015
Speaker, "Computational Astrophysics," Stanford Pre-collegiate Summer Courses	2015
Speaker, "Star Formation and Stellar Feedback," Lamat REU, UCSC	2015, 2016
Speaker, "Reading Scientific Literature," Lamat REU, UCSC	2015
Grad Student Panelist, AVID Program, Soquel HS	2015
WiSE Astronomy Education Outreach Talk, Seaside HS	2014
Panelist, STEM Diversity Professional Development Workshop Series, UCSC	2014
Author, astrobites.org (articles)	2011–2013
WiSE Education Outreach Presentation, Santa Cruz HS	2011
Panelist, Girl Scouts *Girls Go Tech* Event, NASA Ames, Moffett Field, CA	2011