

# Anna Y. Q. Ho

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## PRIMARY RESEARCH INTERESTS

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Stellar death (supernovae, gamma-ray bursts), transients, time-domain astronomy, high-energy astrophysics, radio and sub-millimeter observations, large surveys

## EDUCATION & APPOINTMENTS

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2022–Present	Assistant Professor, Astronomy Department, Cornell
2020–2022	Miller Postdoctoral Fellow, Astronomy Department, U.C. Berkeley
2020–2022	Affiliate, Lawrence Berkeley National Laboratory
2020	Ph.D., California Institute of Technology, Astrophysics <ul style="list-style-type: none"><li>• <a href="#">Thesis</a> Advisor: Shri Kulkarni</li></ul>
2017	M.S., California Institute of Technology, Astrophysics
2014–2015	Fulbright Scholar, Max Planck Institute for Astronomy, Heidelberg, Germany <ul style="list-style-type: none"><li>• Host: Hans-Walter Rix</li></ul>
2014	B.S., Massachusetts Institute of Technology, Physics

## AWARDS & HONORS

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2024	Packard Fellowship for Science and Engineering <i>Awarded annually to 20 early-career scientists and engineers in the U.S.</i>
2024	Scialog Fellow, Research Corporation for Science Advancement: <i>Early Science with the LSST</i>
2024	Alfred P. Sloan Research Fellow in Physics <i>Annual award for early career researchers in recognition of distinguished performance and a unique potential to make substantial contributions to their field.</i>
2021	Springer Thesis Prize, <i>In recognition of outstanding Ph.D. research in the physical sciences.</i>
2020	AAS Rodger Doxsey Travel Prize
2014–9	National Science Foundation Graduate Research Fellowship
2019	Keck Institute for Space Studies Affiliate
2017	TA Award, Caltech, <i>For being one of the highest rated TAs for the Spring 2017 term.</i>
2017	France Cordova Graduate Fellowship—Gordon Garmire Scholarship, Caltech <i>Annual award for an outstanding graduate student in Physics, Math, and Astronomy.</i>
2014	MIT Karl Taylor Compton Prize <i>The highest awards presented by the Institute to students...in recognition of excellent achievements in citizenship and devotion to the welfare of MIT.</i>
2014	MIT Ida M. Green Fellowship (declined), <i>For the MIT Graduate Program in Science Writing</i>
2013	First Place, MIT DeWitt Wallace Prize for Science Writing for the Public
2012	MIT Burchard Scholar

## SELECTED PUBLICITY

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2025	<b>BBC</b> , <a href="#">The bizarre space explosions scientists can't explain</a>
2025	Wrote the <b>Griffith Observer</b> article, <a href="#">Chasing Cosmic Flashes</a>
2024	<b>MIT News</b> , <a href="#">Alum first spots cosmic explosion</a>
2024	<b>Cornell Chronicle</b> , <a href="#">Cornell astronomers on newly approved UVEX NASA mission</a>
2024	<b>National Geographic</b> , <a href="#">What is causing these massive, mysterious explosions in space?</a>

- 2023 **Nature News**, *Mysterious Tasmanian devil space explosion baffles astronomers*
- 2023 **CNN**, *Stellar corpse called ‘Tasmanian devil’ reveals phenomenon astronomers have never seen*
- 2023 **Cornell Chronicle**, *NASA selects Cornell astronomer for ULTRASAT observatory*
- 2023 **The New York Times**, *A Cow, a Camel and a Finch Exploded in Space. What Is Going On?*
- 2021 **Quanta**, *New Kind of Space Explosion Reveals the Birth of a Black Hole*
- 2020 Wrote the **Scientific American** cover article, *Extreme Supernovae*
- 2020 **Science News**, *A weird cosmic flare called the Cow now has company*
- 2020 **Science Daily**, *Astronomers discover new class of cosmic explosions*
- 2020 **Sky & Telescope**, *Two New Beasts for an Explosive Zoo*
- 2019 Wrote article for the **Submillimeter Array Newsletter**, *SMA Observations of AT2018cow: A Prototype for Millimeter Time-domain Astronomy*
- 2019 **Science News**, *The cosmic Cow may be a strange supernova*
- 2019 **The Washington Post**, *Scientists had never seen anything like this supernova*
- 2019 **WIRED**, *We may have finally spotted a star turning into a black hole*
- 2018 **Nature News**, *Holy Cow! Astronomers agog at mysterious new supernova*

## PUBLICATIONS

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*h-index*: first author 12; total 42

*Total # publications*: 92

<sup>†</sup>Projects for which I played a significant mentoring or advising role.

### First or Second Author

- [1] <sup>†</sup>Schroeder, G., **Ho, A. Y. Q.** et al. 2025, *A Late-time Radio Search for Highly Off-axis Jets from PTF Broad-lined Ic Supernovae in GRB-like Host Galaxy Environments*, submitted to ApJ ([arXiv:2507.15928](#))
- [2] **Ho, A. Y. Q.** et al. 2025, *A Luminous Red Optical Flare and Hard X-ray Emission in the Tidal Disruption Event AT2024kmg*, accepted for publication in ApJ ([arXiv:2502.07885](#))
- [3] <sup>†</sup>Li, M. L., **Ho, A. Y. Q.** et al. 2025, *The Nature of Optical Afterglows Without Gamma-ray Bursts: Identification of AT2023lcr and Multiwavelength Modeling*, ApJ, **985**, 124 ([arXiv:2411.07973](#))
- [4] Perley, D. A., **Ho, A. Y. Q.** et al. 2025, *AT2019pim: A Luminous Orphan Afterglow from a Moderately Relativistic Outflow*, MNRAS, **537**, 2362 ([arXiv:2401.16470](#))
- [5] **Ho, A. Y. Q.** et al. 2023, *Minutes-duration Optical Flares with Supernova Luminosities*, Nature, **623**, 927 ([arXiv:2311.10195](#))
- [6] Corsi, A., **Ho, A. Y. Q.** et al. 2023, *A search for relativistic ejecta in a sample of ZTF broad-lined Type Ic supernovae*, ApJ, **953**, 179 ([arXiv:2210.09536](#))
- [7] **Ho, A. Y. Q.** et al. 2023, *A Search for Extragalactic Fast Blue Optical Transients in ZTF and the Rate of AT2018cow-like Transients*, ApJ, **949**, 120 ([arXiv:2105.08811](#))
- [8] **Ho, A. Y. Q.** et al. 2022, *Cosmological Fast Optical Transients with the Zwicky Transient Facility: A Search for Dirty Fireballs*, ApJ, **938**, 85 ([arXiv:2201.12366](#))
- [9] <sup>†</sup>Yao, Y., **Ho, A. Y. Q.**, et al. 2022, *The X-ray and Radio Loud Fast Blue Optical Transient AT2020mrf: Implications for an Emerging Class of Engine-Driven Massive Star Explosions*, ApJ, **934**, 104 ([arXiv:2112.00751](#))
- [10] **Ho, A. Y. Q.** et al. 2022, *Luminous Millimeter, Radio, and X-ray Emission from ZTF20acigmel (AT2020xnd)*, ApJ, **932**, 116 ([arXiv:2110.05490](#))
- [11] Perley, D. A., **Ho, A. Y. Q.** et al. 2021, *Real-time discovery of AT2020xnd: a fast, luminous ultraviolet transient with minimal radioactive ejecta*, MNRAS, **508**, 5138 ([arXiv:2103.01968](#))

- [12] **Ho, A. Y. Q.** et al. 2020, *ZTF20aajnksq (AT2020blt): A Fast Optical Transient at  $z \approx 2.9$  With No Detected Gamma-Ray Burst Counterpart*, ApJ, **905**, 98 ([arXiv:2006.10761](#))
- [13] **Ho, A. Y. Q.** et al. 2020, *SN2020bvc: a Broad-lined Type Ic Supernova with a Double-peaked Optical Light Curve and a Luminous X-ray and Radio Counterpart*, ApJ, **902**, 86 ([arXiv:2004.10406](#))
- [14] Duffell, P. C. & **Ho, A. Y. Q.** 2020, *How Dense a CSM is Sufficient to Choke a Jet?*, ApJ, **900**, 193
- [15] **Ho, A. Y. Q.** et al. 2020, *The Koala: A Fast Blue Optical Transient with Luminous Radio Emission from a Starburst Dwarf Galaxy at  $z = 0.27$* , ApJ, **895**, 1 ([arXiv:2003.01222](#))
- [16] **Ho, A. Y. Q.** et al. 2020, *The Broad-lined Ic Supernova ZTF18aaqjovh (SN 2018bvw): An Optically-discovered Engine-driven Supernova Candidate with Luminous Radio Emission*, ApJ, **893**, 132 ([arXiv:1912.10354](#))
- [17] **Ho, A. Y. Q.** et al. 2019, *Evidence for Late-stage Eruptive Mass-loss in the Progenitor to SN2018gep, a Broad-lined Ic Supernova: Pre-explosion Emission and a Rapidly Rising Luminous Transient*, ApJ, **887**, 169H ([arXiv:1904.11009](#))
- [18] Casey, A.R., **Ho, A. Y. Q.**, et al. 2019, *Tidal interactions between binary stars drives lithium production in low-mass red giants*, ApJ, **880**, 125 ([arXiv:1902.04102](#))
- [19] **Ho, A. Y. Q.** et al. 2019, *AT2018cow: a luminous millimeter transient*, ApJ, **871**, 73 ([arXiv:1810.10880](#))
- [20] **Ho, A. Y. Q.** et al. 2018, *iPTF Archival Search for Fast Optical Transients*, ApJL, **854**, 13 ([arXiv:1712.00949](#))
- [21] **Ho, A. Y. Q.** et al. 2017, *Masses and Ages for 230,000 LAMOST Giants, via Their Carbon and Nitrogen Abundances*, ApJ, **841**, 40 ([arXiv:1609.03195](#))
- [22] **Ho, A. Y. Q.** et al. 2017, *Label Transfer from APOGEE to LAMOST: Precise Stellar Parameters for 450,000 LAMOST Giants*, ApJ, **836**, 5 ([arXiv:1602.00303](#))

#### Selected Co-author

- [1] Ofek, E. O., et al. 2025, *A search for minute-time-scale flares from the transient AT2024wpp*, submitted to ApJ
- [2] <sup>†</sup>Srinivasaragavan, G. P., et al. 2025, *EP250108a/SN 2025kg: A Broad-Line Type Ic Supernova Associated with a Fast X-ray Transient Showing Evidence of Extended CSM Interaction*, accepted for publication in ApJL ([arXiv:2504.17516](#))
- [3] Fryer, C. L., Burns, E., **Ho, A. Y. Q.** et al. 2025, *Explaining Non-Merger Gamma-Ray Bursts and Broad-Lined Supernovae with Close Binary Progenitors with Black Hole Central Engines*, ApJ, **986**, 185 ([arXiv:2410.10378](#))
- [4] <sup>†</sup>Srinivasaragavan, G. P., Perley, D. A., **Ho, A. Y. Q.** et al. 2025, *Multi-Wavelength Analysis of AT 2023sva: a Luminous Orphan Afterglow With Evidence for a Structured Jet*, MNRAS, **538**, 351 ([arXiv:2501.03337](#))
- [5] Soumagnac, M. T., Nugent, P., Knop, R. A., **Ho, A. Y. Q.** et al. 2024, *The MOST Hosts Survey: spectroscopic observation of the host galaxies of  $\sim 40,000$  transients using DESI*, ApJS, **275**, 22 ([arXiv:2405.03857](#))
- [6] <sup>†</sup>Srinivasaragavan, G. P. et al. 2024, *Optical and Radio Analysis of Systemically Classified Broad-lined Type Ic Supernovae from the Zwicky Transient Facility*, ApJ, **976**, 71 ([arXiv:2408.14586](#))
- [7] Hervías-Caimapo et al. 2024, *The Atacama Cosmology Telescope: Flux Upper Limits from a Targeted Search for Extragalactic Transients*, MNRAS, **529**, 3 ([arXiv:2301.07651](#))

- [8] Berger, E. et al. 2023, *Millimeter Observations of the Type II SN 2023ixf: Constraints on the Proximate Circumstellar Medium*, ApJL, 951, L31 ([arXiv:2306.09311](#))
- [9] Vink, J., Thomas, B. P., Wheeler, J. C., **Ho, A. Y. Q.** et al. 2023, *Searching for Supernovae in HETDEX Data Release 3*, ApJ, **946**, 31V ([arXiv:2212.08444](#))
- [10] Andreoni, I. et al. 2022, *A very luminous jet from the disruption of a star by a massive black hole*, Nature, **612**, 7940 ([arXiv:2211.16530](#))
- [11] Martsen, A. R. et al. 2022, *Radio Pulse Profiles and Polarization of the Terzan 5 Pulsars*, ApJ, **941**, 22 ([arXiv:2204.06158](#))
- [12] <sup>†</sup>Yurk, N., Ravi, V., & **Ho, A. Y. Q.** 2022, *Models of Millimeter and Radio Emission from Interacting Supernovae*, ApJ, **934**, 5 ([arXiv:2206.03518](#))
- [13] Margalit, B., Quataert, E., & **Ho, A. Y. Q.** 2022, *Optical to X-Ray Signatures of Dense Circumstellar Interaction in Core-collapse Supernovae*, ApJ, **928**, 122 ([arXiv:2109.09746](#))
- [14] Dong, D. Z., et al. 2021, *A transient radio source consistent with a merger-triggered core collapse supernova*, Science, 373, 1125 ([arXiv:2109.01752](#))
- [15] Andreoni, I., et al. 2021, *Fast-transient Searches in Real Time with ZTFReST: Identification of Three Optically Discovered Gamma-Ray Burst Afterglows and New Constraints on the Kilonova Rate*, ApJ, 918, 63 ([arXiv:2104.06352](#))
- [16] De, K., et al. 2020, *The Zwicky Transient Facility Census of the Local Universe I: Systematic search for Calcium rich gap transients reveal three related spectroscopic sub-classes*, ApJ, **905**, 58 ([arXiv:2004.09029](#))
- [17] Perley, D. A., et al. 2020, ApJ, *The Zwicky Transient Facility Bright Transient Survey. II. A Public Statistical Sample for Exploring Supernova Demographics*, ApJ, **904**, 35 ([arXiv:2009.01242](#))
- [18] Szkody, P., Diczynski, B., **Ho, A. Y. Q.**, et al. 2020, *Cataclysmic Variables from the First Year of the Zwicky Transient Facility*, AJ, **159**, 198 ([arXiv:2002.08447](#))
- [19] Graham, M. J. et al. 2019, *The Zwicky Transient Facility: Science Objectives*, PASP, 131, 078001 ([arXiv:1902.01945](#))
- [20] Bellm, E. C. et al. 2019, *The Zwicky Transient Facility: System Overview, Performance, and First Results*, PASP, 131, 018002 ([arXiv:1902.01932](#))
- [21] Ness, M., et al. 2015, *The Cannon: A data-driven approach to stellar label determination*, ApJ, **808**, 16 ([arXiv:1501.07604](#))

## White Papers, Science Books

- [1] [The Simons Observatory: Science Goals and Forecasts for the Enhanced Large Aperture Telescope](#) (Time-domain Section)
- [2] Burns, E. et al. 2025, *Multidisciplinary Science in the Multimessenger Era* ([arXiv:2502.03577](#)) (FBOT Section)
- [3] [Gamma-ray Transient Network Science Analysis Group Report](#) (Dirty Fireballs, FBOTs)
- [4] CfA Decadal White Paper, *Time-domain Astrophysics with the Submillimeter Array*
- [5] DSA-2000 [Community Science Book](#) (Relativistic Stellar Explosions)
- [6] [PRIMA General Observer Science Book](#) (Relativistic Stellar Explosions)

## FUNDING

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2025–2026	Research Corporation for Science Advancement Scialog Award ( <b>\$60,000</b> )
2024–2029	Packard Fellowship for Science and Engineering ( <b>\$875,000</b> )
2024	PCCW Frank H.T. Rhodes Leadership Grant and Mission Grant ( <b>\$5,000</b> )
2024–2026	HST Cycles 31 & 32 ( <b>\$37,593</b> )
2024–2026	Sloan Fellowship ( <b>\$75,000</b> )
2023–2026	NASA Ultraviolet Transient Astronomy Satellite Participating Scientists Program (PI; <b>\$210,000</b> )
2023–2024	NASA <i>Swift</i> Cycle 19 (PI; <b>\$36,000</b> )
2023	Cornell Roger and Mary Lou West Undergraduate Research Fellowship (for undergraduate mentee Maggie Li; <b>\$6,500</b> )

## PRINCIPAL INVESTIGATOR TELESCOPE PROPOSALS

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Millimeter	35 proposals: 14 SMA (459 hr), 14 NOEMA (172.1 hr), 7 ALMA (22.4 hr; 2 joint VLA) <ul style="list-style-type: none"><li>• SMA Regular: 11 (18B, 19A&amp;B, 20A&amp;B, 21A&amp;B, 22A&amp;B, 24B, 25A), 48 tracks (<math>\approx 243</math> hrs)</li><li>• SMA DDT: three (2<math>\times</math>18A, 21B), 36 tracks (<math>\approx 216</math> hrs)</li><li>• NOEMA Regular: 11 (19B, 20B, 21A&amp;B, 22B, 23A, 23B, 2 <math>\times</math> 24B, 2 <math>\times</math> 25A), 143.3 hrs</li><li>• NOEMA DDT: three (2<math>\times</math>20A, 24B), 14.8 hrs</li><li>• ALMA Regular: one (Cycle 7), 9.7 hr; two (Cycle 10, 11), 6.9 hr<math>\times</math>2 through joint VLA</li><li>• ALMA DDT: four (Cycles 5 &amp; 9<math>\times</math>3), 2.6 hr, 5.6 hr, 2.4 hr, 2.4 hr</li></ul>
Radio	26 proposals: 22 VLA (260.5 hr), 2 VLBA (48 hr), 1 GMRT (3 hr), 1 ATCA (40 hr) <ul style="list-style-type: none"><li>• VLA Regular: 13 (13A, 19A, 2<math>\times</math>20A, 20B, 21A, 21B, 22B, 23A, 23B, 24B, 25A<math>\times</math>2) totaling 230.74 hrs</li><li>• VLA DDT: 9 (17A, 17B, 19B, 23A<math>\times</math>3, 24A<math>\times</math>2, 2<math>\times</math>25A) totaling 29.75 hrs</li><li>• VLBA DDT: 2 (18A, 20A) totaling 48 hrs</li><li>• GMRT DDT: 1 (Cycle 36), totaling 3 hrs</li></ul>
UV/Optical	12 proposals: 1 HST (6 orb.), 8 Gemini (45.0 hrs), 2 P60 (11.95 hrs), 1 P48 (3 nights) <ul style="list-style-type: none"><li>• HST: 6 orbits (Cycle 32 DDT)</li><li>• Gemini: 8 (21A, 22A, 22B, 24A, 24B, 25A<math>\times</math>2, 25B), 30.0 hr GMOS-S &amp; 15.0 hr GMOS-N</li><li>• Palomar 60-inch (P60): two (2019, 2020), totaling 11.95 hrs</li><li>• P48: 3-night high-cadence observations of ULTRASAT high-cadence field</li></ul>
X-ray	4 <i>Chandra</i> DDT proposals (Cycle 21, 22, 23, 26) totaling 120 ksec <i>Swift</i> GI proposal (Cycle 19, 42 ks) > 57 <i>Swift</i> ToO observations (each 3–5 ks; total $\approx 220$ ks)

## LEADERSHIP & PROFESSIONAL SERVICE

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*Scientific leadership and membership roles; WG=Working Group*

2024–Present	BlackCAT X-ray CubeSat (Science Team Member)
2024–Present	Africa Millimetre Telescope (Science Team Member)
2024–Present	South Pole Telescope (Provisional Senior Member)
2023–Present	Ultraviolet Transient Astronomy Satellite (ULTRASAT; Participating Scientist) <ul style="list-style-type: none"><li>• (2023–Present) <b>Co-chair, Gamma-ray Bursts (GRB) WG</b></li></ul>
2023–Present	Atacama Cosmology Telescope (Senior Member)
2023–Present	Simons Observatory (Senior Member)
2022–Present	CCAT Observatory

- (2022–Present) **Co-lead, Time-domain Astrophysics WG**
- 2022–Present CMB-S4 (Senior Member)
- (2021–2023) Co-chair, Sources & Transients WG
- 2021–Present UltraViolet EXplorer (UVEX) Mission (Co-I). *NASA MIDEX: launch 2030*
- 2018–Present Zwicky Transient Facility (ZTF; Member)
- (2025–Present) **Co-chair, Supernova & Relativistic Explosions WG**

*Invited positions for service external to Cornell*

- 2026 Ambassador, Aspen Center workshop on “Physics and Astrophysics of Neutrino-Dense Environments”
- 2025 NSF Review Panel
- 2025 SOC, NASA’s 4th TDAMM Workshop
- 2025 Internal Reviewer, Simons Observatory time-resolved pipeline
- 2025 External Examiner, Viva at University College Dublin
- 2023–Present Member, ZTF Publication Board
- 2023–Present Member, ZTF Science Steering Committee
- 2022–Present Member, Science Advisory Council, DSA-2000
- 2019–Present Referee/reviewer for ApJ, ApJL, MNRAS, Nature Astronomy, Science, A&A, PASP
- 2023–2024 Member, SOC, Workshop on Fast Extragalactic Transients, Bormio, Italy
- 2023 Review Panelist, NASA ROSES Program
- 2023 Reviewer, James Webb Space Telescope DD proposal
- 2023 Reviewer, Hubble Space Telescope DD proposal
- 2023 Member, SOC, CMB-S4 Collaboration Meeting
- 2022–2023 Member, Science Organizing Committee, “Scientific Frontiers and Synergies for the DSA-2000 Radio Camera” Conference
- 2022 Member, Miller Annual Symposium Organizing Committee
- 2022 Member, SOC, CMB-S4 Collaboration Meeting
- 2022 Member, SOC, Workshop on “Astrophysics with the CMB-S4 Survey”

*Other external service*

- 2021–2022 Co-organizer, Theoretical Astrophysics Center Seminar Series, UC Berkeley
- 2021–2022 Organizer, Explosive Astronomy Seminar Series, UC Berkeley
- 2021 Co-organizer, Session on Transients with CMB-S4, CMB-S4 Summer Workshop
- 2021 Reviewer, NASA FINESST Program
- 2021 Time Allocation Committee: Gemini, Chandra
- 2021 Peer Reviewer, ALMA proposals
- 2021 Co-organizer, Cal-URSA Research Program
- 2021 Organizer, Workshop on Status of Millimeter-Transient Searches (virtual)

## TEACHING: CLASSROOM & WORKSHOPS

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*UG=Undergraduate, G=Graduate*

- Fall 2025 ASTRO 2211: Stars, Galaxies, and Cosmology (UG course)
- Spring 2025 ASTRO 4432/6530: Astrophysical Processes (joint UG+G course)
- 17 students. Course rating: 5.00/5. Instructor rating: 4.92/5
- Fall 2024 ASTRO 2211: Stars, Galaxies, and Cosmology (UG course)
- 34 students. Course rating: 4.52/5. Instructor rating: 4.72/5
- Spring 2024 ASTRO 6530: Astrophysical Processes (G course)
- 10 students. Course rating: 5.00/5. Instructor rating: 4.90/5

	ASTRO 4940: Independent Study (UG; 1 student)
	PHYS 4499: Senior Thesis (UG; 1 student)
Fall 2023	ASTRO 2211: Stars, Galaxies, and Cosmology (UG course) <ul style="list-style-type: none"> <li>• 41 students. Course rating: 4.79/5. Instructor rating: 4.87/5</li> </ul>
	PHYS 2298: Independent Study (UG; 1 student)
	PHYS 4498: Senior Thesis (UG; 1 student)
Spring 2023	ASTRO 7683: Seminal Papers in Astronomy and Planetary Science (G course) <ul style="list-style-type: none"> <li>• 10 students. Course rating: 5.00/5. Instructor rating: 5.00/5</li> </ul>
Fall 2022	ASTRO 4940: Independent Study (UG; 2 students)
2018	ASTRO 4940: Independent Study (UG; 2 students)
	Instructor, ZTF Summer School
2016	Lead Instructor, Gemini Observatory Workshop on Data-Driven Modeling of Spectra

## ADVISING AND MENTORING

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### Postdoctoral Scholar Mentoring

Fall 2025–	K-Ryan Hinds (joint with Caltech): fast transients with ZTF & LSST
Fall 2025–	Rahul Jayaraman, Cornell Klarman Fellow: fast transients with TESS
Fall 2024–	Genevieve Schroeder: radio observations of GRBs and engine-driven supernovae

### Graduate Students

Spring 2025–	Gokul Srinivasaragavan (4th year at UMD, serving as external committee member)
Fall 2024–	Michael Camilo (1st year): synchrotron modeling for trans-relativistic explosions
Fall 2023–	Cassie Sevilla (2nd year): fast blue optical transients with ZTF & ULTRASAT

### Undergraduate Students

2024–	Harlan Phillips (REU student): A catalog of all ZTF extragalactic transients
2024–	Marquice Sanchez-Fleming (Cornell junior, physics): SN mm-wave counterparts
2024–	Jack Pope (Cornell senior, physics & data science): SN cm-wave counterparts
2023–	Jada Vail (Cornell physics → Epic Systems): Ic-BL SN optical light curves <ul style="list-style-type: none"> <li>• McNair Scholar; 2023 Nexus Scholar</li> </ul>
2022–2024	Maggie Li (Cornell physics → PhD student at Caltech): orphan afterglow modeling <ul style="list-style-type: none"> <li>• 2023 Roger &amp; Mary Lou West Fellow; 2024 AAS Chambliss Award; 2024 Shelley Undergraduate Research Award in Astronomy; 2024 Bethe Thesis Prize in Physics</li> </ul>
Summer 2023	Joshua Grajales (REU student, Columbia senior): ML identification of FBOTs
2022–2023	Kailai Wang (Cornell physics): photometry of early GRB optical afterglows
2022–2023	William Hohensee (UC Berkeley astrophysics): DESI observations of ZTF host galaxies
Summer 2022	Mary Gerhart (UC Berkeley astrophysics): FBOT identification in survey data
Summer 2021	Alexis Andersen, Autumn Awbrey, Ruby Wong (UC Berkeley physics/astrophysics): DESI observations of transient host galaxies (co-advised with Peter Nugent)
Summer 2021	Caitlin King (Northern Arizona University): orphan afterglow model predictions DOE Science Undergraduate Laboratory Internship (SULI) program

## SELECTED RECENT INVITED TALKS

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2026	Plenary, IAU Symposium on “Future landscape of astrophysical transients: novel approaches in theory and observations,” Turku, Finland
2026	Plenary, “Multi-Messenger Astrophysics in the Dynamic Universe” Workshop, Kyoto, Japan
2025	Astronomy & Astrophysics Seminar, New York University, New York USA
2025	Plenary, Science Meeting for the Black Hole Explorer (virtual)



- 2025 Lecturer, Center for Computational Astrophysics LSST Summer School, NY, USA
- 2025 Plenary, “Shaping the Future of Time-Domain Astronomy with LSST” Conference, Rio de Janeiro, Brazil
- 2025 Talk on landscape of sub-mm discovery engines, “PRIMA and the Future of Far-IR Science” Workshop, Caltech, Pasadena CA, USA
- 2025 Colloquium, Goddard Space Flight Center, Greenbelt MD, USA
- 2025 Trottier Space Institute Astronomy Seminar, McGill University, Montreal QC, Canada
- 2025 Colloquium, Syracuse University, Syracuse NY, USA
- 2025 Seminar, University College Dublin, Dublin, Ireland
- 2025 Colloquium, Herzberg Astronomy and Astrophysics Research Centre, Victoria BC, Canada
- 2025 Colloquium, University of British Columbia, Vancouver BC, Canada
- 2024 Plenary, “MAXI 15 Year Workshop for the Time Domain Astronomy,” Tokyo, Japan
- 2024 Colloquium, Pennsylvania State University, College Park PA, USA
- 2024 Colloquium, Aspen Center for Physics, Aspen CO, USA ([recording](#))
- 2024 Plenary, Current Themes Workshop, Niels Bohr Institute, Copenhagen, Denmark
- 2024 Plenary, “Cosmic Transients in the Era of Large Surveys” Symposium, Swedish Royal Academy of Sciences, Stockholm, Sweden
- 2024 Plenary on Transient Science, CMB-S4 Spring Collaboration Meeting (virtual)
- 2024 Colloquium, Princeton/IAS, Princeton NJ, USA
- 2023 Plenary, 32nd Texas Symposium on Relativistic Astrophysics, Shanghai, China
- 2023 Colloquium, MIT Astrophysics, Cambridge MA, USA
- 2023 Colloquium, UVA/NRAO, Charlottesville VA, USA
- 2023 Plenary, The Transient and Variable Universe Conference, UIUC, Illinois, USA
- 2023 Talk, CMB-S4 Spring Collaboration Meeting (virtual)
- 2023 Colloquium, Columbia University, New York NY, USA
- 2023 Review, MIAPbP “Interacting Supernovae” Workshop, Garching, Germany
- 2023 Colloquium, University of Toronto, Toronto ON, Canada
- 2022 Colloquium, Caltech, Pasadena CA, USA
- 2022 Talk, Time Domain and Multi-Messenger Astrophysics NASA Workshop (virtual)
- 2022 Plenary, CMB-S4 Collaboration Meeting (virtual)
- 2022 Talk, AAS Special Session on “An Update on Astrophysics and Cosmology from Cosmic Microwave Background Measurements in the Next Decade”
- 2022 Colloquium, Radboud University, Nijmegen, Netherlands
- 2022 Colloquium, Carnegie Observatories, Pasadena CA, USA
- 2022 Talk, APS April Meeting, Cecilia Payne-Gaposchkin Dissertation Award Finalist
- 2022 CCAT-Prime/FYST Collaboration Meeting (virtual)
- 2022 Tor Vergata Astrophysics Seminar (virtual)
- 2022 Special Physics & Astronomy Seminar, Northwestern University, Evanston IL, USA
- 2022 Colloquium, U.T. Austin, Austin TX, USA
- 2022 Colloquium, Cornell University, Ithaca NY, USA
- 2021 Colloquium, Max Planck Institute for Astronomy, Heidelberg, Germany (virtual)
- 2021 Colloquium, U.C. Santa Cruz, USA
- 2021 Talk, SuperVirtual (virtual)
- 2021 Seminar, Kavli Institute for Cosmological Physics, U. Chicago, USA
- 2021 Astro Seminar, Center for Cosmology and Particle Physics, NYU, USA
- 2021 Colloquium, Jodrell Bank Centre for Astrophysics (virtual)
- 2021 Seminar, Princeton Gravity Initiative (virtual)
- 2021 Colloquium, Centre of Astrophysics and Supercomputing, Swinburne Univ. of Tech. (virtual)

## COMMUNITY ENGAGEMENT

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- 2025 Lecturer, Warrior Scholars Program, Cornell
- 2025 Volunteer, Spacecraft Planetary Image Facility Open House, Cornell



2025	Guest Speaker, Ithaca High School
2025	Speaker, Ithaca Astro on Tap
2025	Interviewed for Diaries of the Cosmos, part of NASA's Universe of Learning
2025	Lecture for Astronomy Section, Rochester Academy of Science
2024	Interviewed for class project, Irvine Valley College
2024	Lecture for Cornell Friends of Astronomy
2024	Lecture for North Jersey Astronomical Society ( <a href="#">recording</a> )
2023	Interviewed for Hotel Mars CBS Eye On The World podcast
2023	Interviewed for Science Review magazine, American School in London
2023	Member, Career Panel, 4-H Camp at Cornell
2023	Interviewed for graduate student podcast <i>Cosmos Crusaders</i>
2022	Keynote Speaker, Annual Cray User Group Meeting, Monterey CA
2017–2022	Interviewer, MIT Admissions
2021	Compass Lecture, UC Berkeley
2021	Speaker, Riverside Astronomical Society (virtual)
2019	Speaker, Greenway Talk Series, Palomar Observatory
2019	Speaker, Owens Valley Radio Observatory Lecture Series
2019	Speaker, Caltech Graduate Research Spotlight
2019	Speaker, Ventura County Astronomical Society
2019	Speaker, Greenway Talk Series, Palomar Observatory
2018	Contributing Writer, Caltech Letters
2018	Speaker, College of the Canyons Star Party
2018	Visitor, 8th-grade class, St. Philip the Apostle School, Pasadena CA
2017	Volunteer, Orbit Deep Learning Days, Huntington Library, Pasadena CA
2017	Speaker, Astro on Tap, Pasadena CA
2017	Speaker, Riverside Astronomical Society
2017	Speaker, Ventura County Astronomical Society
2017	Speaker, High School Summer Camp, Culver City CA
2016	Speaker, Santa Monica Astronomy Club
2016	Volunteer, Field Trip, iChicas After-school Program
2015	Speaker, St. Philip Reverse Science Fair, Pasadena CA
2015	Volunteer, Webster Elementary Science and Stargazing Night, Pasadena CA
2015-2020	Volunteer, Caltech Astronomy Outreach program
2014–2015	Volunteer, Center for Astronomy Education and Outreach, Heidelberg, Germany
2014	AAS Astronomy Ambassadors Workshop, AAS 223rd Meeting
2012–2013	Volunteer, McCormick Public Observatory, Charlottesville VA