

# Casey Y. Lam

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## Current appointment

Carnegie and Harrison Postdoctoral Fellow, Carnegie Observatories, 08/2023 – present.

## Research interests

Finding and characterizing stellar-mass black holes using photometric and astrometric microlensing, radial velocities, and astrometric orbits.

## Education

- Ph.D. Astrophysics, University of California, Berkeley, 08/2023.  
*Understanding the Galactic Black Hole Population with Gravitational Microlensing*  
Advisor: Prof. Jessica R. Lu
- M.A. Astrophysics, University of California, Berkeley, 05/2019.
- S.B. Mathematics and Physics, Massachusetts Institute of Technology, 06/2017.

## Grants and Awards

- Carnegie Observatories Thacher Award (2025)  
*For excellence in postdoc research.*
- As PI: HST GO-17820 Grant (\$71,626, 2025 – 2028)  
*First mass measurement of black holes in a globular cluster*
- UC Berkeley Astronomy Department Uhl Prize (2023)  
*For outstanding scholarly achievement by a finishing grad student.*
- NASA FINESST Research Grant (\$90,000; 2021 – 2023)
- As PI: HST GO-16760 Grant (\$54,438; 2021 – 2023)  
*First detection of an isolated stellar mass black hole with astrometric microlensing*
- H2H8 Research Grant (\$10,000; 2021)
- UC Berkeley Astronomy Department Trumpler Award (2021)  
*For academic excellence and outstanding involvement in department/astro community.*
- UC Berkeley Outstanding Graduate Student Instructor (2019)
- NSF Graduate Research Fellowship Program Honorable Mention (2017, 2019)

## Professional Memberships, Activities and Service

As part of the broader community:

- Roman Science Collaboration (2025 – present)
- Roman Galactic Exoplanet Survey (RGES) Project Infrastructure Team (2023 – present)  
*Infrastructure in support of the Roman Galactic Bulge Time Domain Survey (GBTDS).*
  - Working Group 8: Contemporaneous and Precursor Observations  
*Write proposals/white papers to coordinate efforts with other facilities.*
  - Working Group 10: Microlensing Mini-Courses (Co-Lead)  
*Design and deliver lectures for 2025 REU and upcoming 2026 Sagan workshop.*
  - Working Group 13: Astrometry (Lead)  
*Coordinate astrometry efforts across different science cases relevant to the GBTDS.*
- Magellan/MIKE proposal tutorial for Stanford/KIPAC (9/24)
- American Astronomical Society member (2023 – present)
- RGES Science Investigation Team member (2021)
- Journal referee (AAS, MNRAS, A&A; 4 manuscripts since 2021)
- Graduate student mentor, CalBridge peer mentoring program (2019 – 2020)
- Local co-organizer for CalBridge Scholars Python Workshop (11/17, 1/19)
- Telescope proposal reviewer (Gemini Fast Turnaround)
- Conference SOC, New Frontiers to Explore with Roman (Spring 2026)
- Proposal review panel (details confidential)

To Carnegie Observatories (2023 – present):

- Carnegie Science Day organizer (11/24, 9/25)  
*Solicit and schedule ~ 25 talks for a 1-day internal symposium designed to share research in progress and encourage collaboration.*
- CASSI summer student intern Tea series organizer (Summer 2024, 2025)  
*Lead “how to read a scientific paper” tutorial, schedule volunteers to lead weekly discussion, facilitate and encourage student questions.*
- CASSI summer student intern Intro to Python TA (6/24)
- Daily arXiv Tea organizing committee (8/23 – present)  
*Ensure schedule is filled with volunteers, coordinate external visitors, perform tech setup, solicit feedback on format, maintain high community engagement.*
- 1-minute “lightning introductions” organizer (9/23, 11/24, 9/25)  
*Solicit and schedule ~ 70 short introductions of scientists, engineers, and administrators on campus to welcome new members and build community.*
- CASSI summer student intern poster judge (8/23)

To the UC Berkeley Astronomy Department (2017 – 2023):

- Weekly arXiv Discussion Organizer (2022 – 2023)
- Grad student rep to Faculty Search (2021)
- Grad Wiki Master (2019 – 2022)

- Graduate student peer mentor (2019 – 2020)
- Prospective graduate student visit committee (2018)
- Undergraduate events (2018 – 2021)  
*Q&A panelist ×3, graduate application feedback ×2, poster judge.*

## Outreach

At Carnegie Observatories (2023 – present):

- Volunteer at 9 different public outreach events.  
*School visits, public lectures, hands-on demonstrations.*
- Built a demonstration explaining how telescopes use mirrors to focus light

At UC Berkeley (2017 – 2023):

- UC Berkeley Astronomy Outreach Coordinator (2019 – 2022)  
*Respond to external requests, coordinate volunteers for events, improve demos.*
- Community Resources for Science “Be A Scientist” Mentor (×4)  
*Guided 4-5 7th graders through a science project of their own design over 6 weeks.*
- Volunteer/speaker at 18 different public outreach events.  
*Stargazing, hands-on demonstrations for kids/families, public lectures.*

## Research Mentorship

- Burke Banner (UCLA undergrad, 2025 – present): Radial velocities to measure the eccentricity of Kepler eclipsing binaries

Primary graduate student advisor for UC Berkeley undergrads advised by Prof. Jessica Lu:

- Samantha Rose (2019 – 2022, now Caltech Astro grad): The Impact of Initial-Final Mass Relations on Black Hole Microlensing (published in ApJ)
- Angela Cheng (2019 – 2020): Microlensing maps with PopSyCLE

Also acted as a secondary advisor for other UC Berkeley undergraduates working on microlensing ( $\sim 3$ /year) and non-microlensing ( $\sim 2$ /year) projects advised by Prof. Lu.

## Workshops and professional development

- Advancing Inclusive Mentoring training program (2025)
- Alan Alda Workshop for Communicating Science (2023)
- Kraft Observational Astronomy Workshop, Lick Observatory (2017)

## Teaching

- Lecture, Microlensing mini-course for Vanderbilt REU students (May 2025)  
*Slides: [https://rges-pit.org/\\_pages/outreach.mini.chapter2.html](https://rges-pit.org/_pages/outreach.mini.chapter2.html)*
- Graduate Student Instructor, Introduction to Astrophysics I (UCB, Fall 2018)
- Graduate Student Instructor, Introduction to Astrophysics II (UCB, Spring 2018)
- Graduate Student Instructor, Introduction to Astronomy (UCB, Fall 2017)
- Undergraduate Teaching Assistant, Electricity and Magnetism (MIT, Spring 2017)

## Scientific software development

*Fluent (8+ years experience) in Python, LaTeX, Bash, Git. Familiar with HTML.*

- PopSyCLE (<https://github.com/jluastro/PopSyCLE>), Microlensing simulation that includes a realistic population of compact objects; original developer.
- BAGLE ([https://github.com/MovingUniverseLab/BAGLE\\_Microlensing](https://github.com/MovingUniverseLab/BAGLE_Microlensing)), Modeling software to fit photometry and astrometry of microlensing events; major contributor.
- FlyStar (<https://github.com/MovingUniverseLab/flystar>), Software for precision relative astrometry; major contributor.
- SPISEA (<https://github.com/astrophy/SPISEA>), Simple stellar population synthesis modeling package; contributor.

## Competitively Awarded Telescope Time

*PI: Magellan (26 nights), HST (14 orbits); Gemini (11 hrs).*

*Major Co-I: Keck (15.5 nights), APF (102.5 nights), Magellan (8 nights), HST (44 orbits).*

*Co-I: JWST (14.9 hrs); HST (195 orbits), APF (21 nights), Keck (1.5 nights).*

As PI:

- 23 nights, Magellan/MIKE (2024A – 2026A)  
*Uncovering the quiet population of black hole binaries*
- 3 nights, Magellan/MagE (2025A)  
*Searching for black holes with metal-poor stellar companions*
- 10 orbits, HST/WFC3-UVIS (Cycle 32)  
*First mass measurement of black holes in a globular cluster*
- 7 hours, Gemini North/MAROON-X (Fast Turnaround February 2024, June 2024)  
*Precise and accurate eccentricities from radial velocities of eclipsing binaries*
- 4 hours, Gemini South/GMOS (Fast Turnaround November 2025)  
*Confirmation of two black hole candidates in NGC 3201*
- 4 orbits, HST/WFC3-UVIS (Cycle 29)  
*First detection of an isolated stellar mass black hole with astrometric microlensing*

As Co-I with major contributions to proposal and execution of observations:

- 2 nights, Keck/KPF (2024B, PI: Kareem El-Badry)  
*An unbiased eccentricity distribution from Kepler eclipsing binaries*
- 23.5 nights, Lick/APF (2024B – 2025A, PI: Howard Isaacson)  
*Precise and accurate eccentricities from radial velocities of eclipsing binaries*
- 79 nights, Lick/APF (2024A – 2026A, PI: Jessica Lu)  
*Finding Black Holes in Gaia's Astrometric Accelerators*
- 8 nights, Magellan/IFU-M (2024A – 2025B, PI: Kyle Kremer, Newlin Weatherford)  
*Finding and confirming black hole binaries in globular clusters*
- 40 orbits, HST/WFC3-UVIS (PI: Jessica Lu, Cycle 28 – 31)  
*Hunting for Black Holes with Astrometric Microlensing*

- 13.5 nights, Keck/NIRC2, OSIRIS w/ LGS AO (PI: Jessica Lu, 2019A – 2023A)  
*Finding Black Holes with Astrometric Microlensing*
- 4 orbits, HST/WFC3-UVIS (Mid-Cycle 28, PI: Sean Terry)  
*Detection of the Astrometric Microlensing Signal by the Binary Black Hole Candidate MOA-2019-BLG-284*

As Co-I:

- 10.8 hr, JWST/NIRCam (Cycle 4, PI: Jessica Lu)  
*Confirming a Black Hole Candidate through Gravitational Microlensing*
- 4.1 hours, JWST/NIRCam (Cycle 3 DDT, PI: Jessica Lu)  
*Finding Black Holes through Gravitational Microlensing*
- 177 orbits, HST/WFC3-UVIS, ACS-WFC (Cycle 32, PI: Sean Terry)  
*A Precursor Survey of the Roman Galactic Bulge Time Domain Fields*
- 12 orbits, HST/WFC3-UVIS (Cycle 30 – 32, PI: David Bennett)  
*Mass Measurement of a Candidate Black Hole Microlens with Systematic Error Control*
- 6 orbits, HST/WFC3-UVIS (Cycle 28 DDT, PI: David Bennett)  
*Mass Measurement of Isolated Black Hole Candidate MOA-2019-BLG-284L via Lensed Image Separation*
- 21 nights, Lick/APF (2023A – 2023B, PI: Jessica Lu)  
*Searching for Non-Interacting Compact Object Companions in Spectroscopic Binaries*
- 1.5 nights, Keck/OSIRIS (2024B, PI: Jessica Lu)  
*Finding Black Holes with Astrometric Microlensing*

## Scientific Presentations

*12 invited talks, 26 contributed talks, 3 posters, 8 public talks.*

\* denotes invited presentations

<sup>R</sup> denotes presentations given remotely over Zoom at online meetings/events

1. Roman Virtual Lecture Series (2/26, IPAC<sup>R</sup>)
2. \* UCSD+SDSU Astronomy Colloquium (2/26, UCSD)
3. UCSB Astro Lunch Seminar (12/25, UCSB)
4. The Lifecycle of Stellar Black Holes (11/25, KITP)
5. StellarBH25 workshop (11/25, KITP, joint talk with Reed Essick, Tom Maccarone)
6. \* Caltech Astronomy Tea Talk (5/25, Caltech)
7. \* Stellar Black Hole Formation and Detection (3/25, Kyoto University YITP, Japan)
8. \* Caltech/IPAC Lunch Seminar (2/25, IPAC)
9. Challenging Theory with Roman: From Planet Formation to Cosmology (7/24, IPAC)
10. 26th International Microlensing Conference (2/24, LLNL)
11. RGEs PIT Meeting (10/23, OSU<sup>R</sup>; joint presentation with Jessica Lu)
12. UC Berkeley Astronomy, Dissertation Seminar (5/23, UC Berkeley)

13. 2023 Aspen Winter Conference: eXtreme Black Holes (3/23, Aspen Center for Physics)
14. \* Lawrence Livermore National Lab, Seminar (2/23, LLNL)
15. Roman Virtual Lecture Series (1/23, IPAC<sup>R</sup>)
16. AAS 241 Dissertation Talk (1/23, Seattle<sup>R</sup>)
17. \* KIPAC Tea Talks (11/22, Stanford<sup>R</sup>)
18. UCLA Astronomy Tuesday Lunch Seminar (10/22, UCLA)
19. \* Caltech TAPIR Seminar (10/22, Caltech)
20. IfA Astrocoffee Talks (10/22, UH Manoa<sup>R</sup>)
21. NSF NOIRLab-Tucson Friday Lunch Astrophysics Seminar (9/22, NOIRLab<sup>R</sup>)
22. MIT Kavli Brown Bag Lunch Talks (9/22, MIT<sup>R</sup>)
23. 25th International Microlensing Conference (8/22, Paris<sup>R</sup>)
24. \* Princeton Coffee (2/22, Princeton<sup>R</sup>)
25. \* UCLA Galactic Center Group Journal Club (2/22, UCLA<sup>R</sup>)
26. \* Carnegie Tea (2/22, Carnegie Observatories<sup>R</sup>)
27. \* CCAPP Seminar (2/22, Ohio State University<sup>R</sup>)
28. Exploring the Transient Universe with the Roman Space Telescope (2/22, Caltech<sup>R</sup>)
29. UC Berkeley Astronomy Thursday Short Talks (10/21, UC Berkeley)
30. UC Berkeley Astronomy Thursday Short Talks (3/21, UC Berkeley<sup>R</sup>)
31. UC Berkeley Astronomy Thursday Lunch Talks (11/20, UC Berkeley<sup>R</sup>)
32. Poster, Keck Science Meeting 2020 (9/20, Caltech<sup>R</sup>)
33. UC Berkeley Astronomy Thursday Lunch Talks (4/20, UC Berkeley<sup>R</sup>)
34. UC Berkeley Astronomy Thursday Lunch Talks (11/19, UC Berkeley)
35. TMT Science Forum 2019 (11/19, Xiamen University, China)
36. \* Lawrence Livermore National Lab, Physical and Life Sciences Seminar (10/19, LLNL)
37. Poster, Keck Science Meeting 2019 (9/19, UCLA)
38. Exploring the Galaxy and the Local Group with WFIRST (6/19, Caltech)
39. 23rd International Microlensing Conference (1/19, Flatiron CCA)
40. UC Berkeley Astronomy Thursday Lunch Talks (11/18, UC Berkeley)
41. Poster, Keck Science Meeting 2018 (9/18, Caltech)

Public outreach, fundraising, or student talks

42. CASSI summer intern seminar series (6/25, Carnegie Observatories)
43. CASSI summer intern seminar series (6/24, Carnegie Observatories)
44. H2H8 Association YouTube Research Talks<sup>R</sup> (1/23, H2H8)
45. 2020 Bay Area Science Festival<sup>R</sup> (10/20, SF Bay Area)
46. UC Berkeley Astrophysics Roundtable (11/19, UC Berkeley)
47. UC Berkeley Compass Lecture Series for Undergraduates (10/19, UC Berkeley)
48. Berkeley Public Library Claremont (7/19, Berkeley)
49. MIT Parents Weekend Physics Department Reception (10/16, MIT)

## Publications

Abstracts can be accessed at my public ADS library: <https://ui.adsabs.harvard.edu/public-libraries/ARVK9m02QBiU0x1k08Tu0Q>

- 27 refereed/in review publications (6 as first author, 1 as primary research mentor).
- 12 non-refereed/white papers (2 as first author).

† = directly supervised student.

### *1st author, Refereed/in review*

1. **Lam, C. Y.**, Simon, J. D., El-Badry, K., Isaacson, H., Kelson, D. D., and Lu, J. R. “A search for black holes with metal-poor stellar companions: I. Survey sample selection and single epoch radial velocity follow-up”. *ApJ* **1000** 148, Mar 2026.
2. **Lam, C. Y.**, El-Badry, K., and Simon, J. D. “A Fast Analytic Empirical Model of the *Gaia* Data Release 3 Astrometric Orbit Catalog Selection Function”. *ApJ* **987** 215, Jul 2025.
3. **Lam, C. Y.** and Lu, J. R. “A re-analysis of the isolated black hole candidate OGLE-2011-BLG-0462/MOA-2011-BLG-191.” *ApJ* **955** 116, Sep 2023.
4. **Lam, C. Y.**, Lu, J. R., Udalski, A., Bond, I., Bennett, D. P., Skowron, J., Mróz, P., Poleski, R., and 37 additional authors. “An Isolated Mass-gap Black Hole or Neutron Star Detected with Astrometric Microlensing.” *ApJL* **933** L23, Jul 2022.
5. **Lam, C. Y.**, Lu, J. R., Udalski, A., Bond, I., Bennett, D. P., Skowron, J., Mróz, P., Poleski, R., and 37 additional authors. “Supplement: “An Isolated Mass-gap Black Hole or Neutron Star Detected with Astrometric Microlensing” (2022, ApJL, 933, L23)” *ApJS* **260** 55, Jul 2022.
6. **Lam, C. Y.**, Lu, J. R., Hosen Jr., M. W., Dawson, W. A., and Golovich, N. R. “PopSyCLE: A New Population Synthesis Code for Compact Object Microlensing Events.” *ApJ* **889** 31, Jan 2020.

### *2nd/3rd author*

7. Simon, J. D., **Lam, C. Y.**, El-Badry, K., Reggiani, H., Chakrabarti, S., Guhathakurta, P., Thompson, I. B., Morrell, N., Huber, D., Fulton, B. J., and Weiss, L. M. “Radial Velocity Orbital Solutions for Candidate Black Hole and Neutron Star Binary Systems in the *Gaia* Data Release 3 Catalog”. Submitted to AAS Journals, Mar 2026. <https://arxiv.org/abs/2603.20371>
8. Lu, J. R., Medford, M., **Lam, C.Y.**, Bhadra, T. D., Huston, M. J., Abrams, N. S., Broadberry, E., Chen, J., Terry, S.K. Arredondo, N., and Scharf, A. “The BAGLE Python Package for Bayesian Analysis of Gravitational Lensing Events”. Submitted to ApJ, Dec 2025. <https://arxiv.org/abs/2512.03364>

9. Abrams, N., Lu, J., **Lam, C. Y.**, Medford, M., Hosek, M., and Rose, S. “Assessing the Impact of Binary Systems on Microlensing Using SPISEA and PopSyCLE Population Simulations”. *ApJ* **980** 103, Feb 2025.
10. El-Badry, K., **Lam, C.**, Holl, B., Halbwachs, J.-L., Rix, H.-W., Mazeh, T., and Shahaf, S. “A Generative Model for *Gaia* Astrometric Orbit Catalogs: Selection Functions for Binary Stars, Giant Planets, and Compact Object Companions”. *OJAp* **7** 100, Nov 2024.
11. Jurado, C., Naoz, S., **Lam, C. Y.**, and Hoang, B.-M. “Natal Kicks from the Galactic Center and Implications on their Environment and the Roman Space Telescope”. *ApJ* **971** 95, Aug 2024.
12. Nagarajan, P., El-Badry, K., **Lam, C.**, and Reggiani, H. “The Symbiotic X-ray Binary IGR J16194-2810: A Window on the Future Evolution of Wide Neutron Star Binaries From Gaia”. *PASP* **136** 074202, Jul 2024.
13. Rose, S.<sup>†</sup>, **Lam, C. Y.**, Lu, J. R., Medford, M., Hosek, M. W. Jr., Abrams, N., Ramey, E., and Vasylyev, S. “The Impact of Initial-Final Mass Relations on Black Hole Microlensing.” *ApJ*, **941** 116, Dec 2022.
14. Hosek Jr., M. W., Lu, J. R., **Lam, C. Y.**, Gautam, A. K., Lockhart, K. E., Kim, D., and Jia, S. “SPISEA: A Python-Based Simple Stellar Population Synthesis Code for Star Clusters.” *AJ* **160** 143, Aug 2020.

### *Co-author*

15. Huston, M.J., Crisp, A. L., Newman, M., Patlak, R., Penny, M. T., and 16 additional authors, incl. **Lam, C.** “An Updated SynthPop Model for Microlensing Simulations I: Model Description, Evaluation, and Microlensing Event Rates Near the Galactic Center”. Submitted to AAS Journals, April 2026. arxiv:2603.12219
16. Saggese, V., Bachelet, E., Calchi Novati, S. Bozza, V., Covone, G., Zohrabi, F., and 32 additional authors, incl. **Lam, C.** “Predictions of the Nancy Grace Roman Space Telescope Galactic Exoplanet Survey. V. Detection Rates of Multiplanetary Systems in High Magnification Microlensing Events”. Submitted to A&A, Dec 2025. arxiv:2512.05182
17. Bhadra, T. D., Lu, J. R., Abrams, N. S., Scharf, A., Broadberry, E., **Lam, C.**, and Huston, M. J. “Modeling Binary Lenses and Sources with the BAGLE Python Package.” Submitted to ApJ, Dec 2025. arxiv:2512.03392
18. Terry, S. K., Bachelet, E., Verma, H., Zohrabi, F., Crisp, A., Huston, M., McGee, C., Penny, M., and 53 additional authors, incl. **Lam, C.** “Predictions of the Nancy Grace Roman Space Telescope Galactic Exoplanet Survey. IV. Lens Mass and Distance Measurements”. Submitted to AJ, Oct 2025. <https://arxiv.org/abs/2510.13974>
19. Nagarajan, P., El-Badry, K., Reggiani, H., **Lam, C. Y.**, Simon, J. D., Müller-Horn, J., Seeburger, R., Rix, H.-W., Isaacson, H., Lu, J. Chandra, V., and Andrae, R. “Spectroscopic Search for Dormant Black Holes in Low-Metallicity Binaries”. *PASP* **137** 094202, Sep 2025.

20. Zhai, R., Rodriguez, A. C., Mao, S., **Lam, C. Y.**, Bellm, E. C., Purdum, J., Masci, F. J., and Wold, A. “Microlensing Events in Five Years of Photometry from the Zwicky Transient Facility”. *ApJ* **978** 76, Jan 2025.
21. Pruett, K., Dawson, W., Medford, M. S., Lu, J. R., **Lam, C.**, Perkins, S., McGill, P., Golovich, N., and Chapline, G. “Primordial Black Hole Dark Matter Simulations Using PopSyCLE.” *ApJ* **970** 169, Jul 2024.
22. Rowan, D. M., Jayasinghe, T., Tucker, M. A., **Lam, C. Y.**, Thompson, T. A., Kochanek, C. S., Abrams, N. S., Fulton, B. J., Ilyin, I., Issacson, H., Lu, J., Martin, D. V., and Nicholson, B. “A hidden population of massive white dwarfs: two spotted K+WD binaries”. *MNRAS* **529** 587, Feb 2024.
23. Perkins, S. E., McGill, P., Dawson, W., Abrams, N. S., **Lam, C. Y.**, Ho, M.-F., Lu, J. R., Bird, S., Pruett, K., Golovich, N., and Chapline, G. “Disentangling the Black Hole Mass Spectrum with Photometric Microlensing Surveys”. *ApJ*, **961** 179, Feb 2024.
24. Medford, M. S., Abrams, N. S., Lu, J. R., Nugent, P. and **Lam, C. Y.** “60 Microlensing Events from the Three Years of Zwicky Transient Facility Phase One.” *ApJ*, **947** 24, Apr 2023.
25. Golovich, N., Dawson, W., Bartolić, F., **Lam, C. Y.**, Lu, J. R., Medford, M. S., Schneider, M. D., Chapline, G., Schlafly, E. S., Drlica-Wagner, A., and Pruett, K. “A Reanalysis of Public OGLE-III and IV Gravitational Microlensing Events.” *ApJS* **260** 2, Apr 2022.
26. Zhang, K., Bloom, J. S., Gaudi, B. S., Lanusse, F., **Lam, C.**, and Lu, J. “Real-Time Simulation-Based Inference of *Roman* Binary Microlensing Events with Amortized Neural Posterior Estimation.” *AJ* **161** 262, May 2021.
27. Medford, M. S., Lu, J. R., Dawson, W. A., **Lam, C. Y.**, Golovich, N. R., Schlafly, E. F., and Nugent, P. “Gravitational Microlensing Event Statistics for the Zwicky Transient Facility.” *ApJ* **897** 144, Jul 2020.

### *Unrefereed/white papers*

28. **Lam, C. Y.** “Understanding the Galactic Black Hole Population with Gravitational Microlensing.” UC Berkeley PhD Thesis, Aug 2023.
29. **Lam, C. Y.**, and 36 additional authors. “Roman CCS White Paper: Characterizing the Galactic population of isolated black holes.” arXiv:2306.12514 [astro-ph.IM], Jun 2023.
30. Street, R. A., Gough-Kelly, S., **Lam, C.**, Varela, A., Makler, M., and 11 additional authors. “Maximizing science return by coordinating the survey strategies of Roman with other major facilities.” Roman CCS White Paper, arXiv:2306.13792 [astro-ph.IM], Jun 2023.
31. Terry, S. K., Hosek Jr., M. W., Lu, J. R., **Lam, C.**, and 30 additional authors. “The Galactic Center with Roman.” Roman CCS White Paper, arXiv:2306.12485 [astro-ph.IM], Jun 2023.

32. Gaudi, B. S., Bennett, D. P., and 36 additional authors, incl. **Lam, C.** “The Roman Galactic Exoplanet Survey (RGES)”. Roman Core Community Survey White Paper, Jun 2023. [https://asd.gsfc.nasa.gov/roman\\_wp\\_2023/](https://asd.gsfc.nasa.gov/roman_wp_2023/)
33. Bahramian, A., Degenaar, N., Heinke C. O., **Lam, C.**, Maccarone, T. J., and Terry, S. K. “X-ray binaries, cataclysmic variables and transients in the Galactic bulge”. Roman Core Community Survey White Paper, Jun 2023. [https://asd.gsfc.nasa.gov/roman\\_wp\\_2023/](https://asd.gsfc.nasa.gov/roman_wp_2023/)
34. Gezari, S., and 30 additional authors, incl. **Lam, C.** “R2-D2: Roman and Rubin – From Data to Discovery.” AURA-commissioned White Paper, arXiv:2202.12311 [astro-ph.IM], Feb 2022.
35. Lu, J. R., **Lam, C.**, Dawson, W., Gaudi, B. S., Golovich, N., Medford, M., Abdurrahman, F., and Beaton, R. L. “Astro2020: From Stars to Compact Objects: The Initial-Final Mass Relation.” Astro 2020 Decadal White Paper, arXiv:1904.01773 [astro-ph.SR], Apr 2019.
36. Lu, J. R., **Lam, C. Y.**, Medford, M., Dawson, W., and Golovich, N. “Primordial Black Hole Microlensing: The Einstein Crossing Time Distribution.” *Res. Notes AAS* **3** 58, Apr 2019.
37. Bechtol, K., Drlica-Wagner, A., and 178 additional authors, incl. **Lam, C.** “Dark Matter Science in the Era of LSST.” Astro 2020 Decadal White Paper, arXiv:1903.04425 [astro-ph.CO], Mar 2019.
38. Drlica-Wagner, A., Mao, Y.-Y., and 97 additional authors, incl. **Lam, C. Y.** “Probing the Fundamental Nature of Dark Matter with the Large Synoptic Survey Telescope.” LSST Dark Matter Group White Paper, arXiv:1902.01055 [astro-ph.CO], Feb 2019.
39. Bloomfield, J. K., Face, S. H. P., Guth, A. H., Kalia, S., **Lam, C.**, and Moss, Z. “Number Density of Peaks in a Chi-Squared Field.” arXiv:1612.03890 [math-ph], Dec 2016.