Francisco J. Mercado, Ph.D.
CURRICULUM VITAE

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SUMMARY

Over $700K in awarded funding (includes all grants & scholarships)
26 papers (**7** lead author, **2** as significant contributor, **17** co-author; **400**+ citations)
28 invited talks (**19** colloquia/seminars, **3** conference talks, **6** outreach talks)
18 advised research students (**16** undergrads, **2** grads, **15** from marginalized backgrounds)
11 formally advised mentees (**6** grads, **5** undergrads)
21 courses taught (**10** as instructor of record, **9** new preps)

EMPLOYMENT

USC Postdoctoral Research Associate	2026 - Present
NSF MPS-Ascend Postdoctoral Fellow at Pomona College	2023 - 2026
Visiting Assistant Professor at Pomona College	Spring 2024
Adjunct Faculty at Southern California University of Health Sciences	2022-2023
Summer Physics Instructor at UC Irvine	2021-2022

APPOINTMENTS

Visitor in Theoretical Astrophysics at Caltech	2023 - 2024
National Osterbrock Leadership Fellow	2021 - 2022
Flatiron Institute CCA Summer Fellow	Summer 2021
University of California, Irvine Competitive Edge Scholar	Summer 2017
University of California, Irvine SURF Scholar	Summer 2016
Cal-Bridge Scholar at Cal Poly Pomona	2015 - 2016
CAMPARE Scholar at Harvard Center for Astrophysics	Summer 2015

EDUCATION

University of California, Irvine | Ph.D. Physics — Awarded 2023
Advisor: James S. Bullock

University of California, Irvine | M.S. Physics — Awarded 2019
Advisor: James S. Bullock

Cal Poly Pomona | B.S. Physics — Awarded 2017
Advisor: Jorge Moreno

RESEARCH INTERESTS

My research uses cosmological simulations to understand how internal feedback and environment shape the formation and evolution of low-mass galaxies. I study how these processes set galaxy structure and morphology, star formation histories, chemical evolution, dark matter content, and satellite quenching. I am especially interested in bursty star formation, including the temporarily quiescent galaxies that JWST now observes, and in connecting simulations directly to current and upcoming observations. I lead WildFIRE, a FIRE collaboration campaign of ∼300 high resolution zoom-in simulations designed to reveal the physical origins of the diversity of low-mass galaxies.

FUNDING

$8,400 – Pomona College: *Summer Undergrad Research Program 2026* (1 Research Assistant)

$3,800 – Pomona College: *Faculty-Student Research Travel Grant*

$14,500 – Pomona College: *Summer Undergrad Research Program 2025* (2 Research Assistants)

$57,000 – National Science Foundation: *23rd Annual Symposium of the NSF Astronomy and Astrophysics Postdoctoral Fellows* (Award# 2437597, PI: J. Moreno, co-PI: F. Mercado)

$16,500 – Pomona College: *Summer Undergrad Research Program 2024* (2 Research Assistants)

$300,000 – National Science Foundation: *Probing small galactic scales in large volumes with the Rubin Observatory* (Award# 2316748, PI: F. Mercado)

$140,000 – Heising-Simons Foundation: *Using Galaxy Scaling Relations to Test Galaxy Formation & Dark Matter Models* (declined)

$130,000 – University of California, Davis Chancellor's Fellowship: *Using Galaxy Scaling Relations to Test Galaxy Formation & Dark Matter Models* (declined)

AWARDS & SCHOLARSHIPS

$10,000 – UC Irvine National Osterbrock Leadership Fellowship	Spring 2022
$1,000 – UC Irvine Latino Excellence and Achievement Award	Spring 2021
$9,000 – UC Irvine Physical Sciences Diversity Fellowship	Spring 2021
$4,500 – UC Irvine Diversity Recruitment Fellowship	Fall 2017
$800 – President's Student Research Travel Scholarship	Winter 2016
$20,000 – Cal-Bridge Scholarship	2015 - 2017
$4,000 – TELACU Scholarship	2013-2017

PUBLICATIONS

LEAD AUTHOR/MAJOR CONTRIBUTOR

Mentees highlighted in ***bolded italics***

26. Napping Galaxies in FIREbox: The Abundance and Star Formation Histories of Temporarily Quiescent Low-mass Galaxies at z = 4–6:
F. J. Mercado, G. Khullar, FIRE collaboration; In prep; draft available upon request
25. Effects of Environment on stellar metallicity gradients in low-mass galaxies:
F. J. Mercado, ***Lauren Standifer***, J. Moreno, J. S. Bullock, P. F. Hopkins; In prep; draft available upon request
24. Effects of Environment on Stellar Assembly Histories and Shapes of Simulated Galaxies:
F. J. Mercado, ***B. Giraud Calderon***, J. Moreno, C. Wheeler, J. Benavides, J. S. Bullock, R. Feldmann, P. F. Hopkins (2026); Submitted to ApJ
23. The Quenched Fraction of Satellites around Simulated Milky Way–Mass Galaxies:
F. J. Mercado, D. Baxter, M. K. Rodriguez Wimberly, J. Moreno, C. Wheeler, P. Gandhi, J. Samuel, L. Tortora, A. Wetzel, R. Feldmann (2026); ApJ, Volume 1004, Issue 2, id.217, 16 pp.
22. Effects of galactic environment on size and dark matter content in low-mass galaxies:
F. J. Mercado, J. Moreno, R. Feldmann, M. Zeender, J. A. Benavides, J. M. Piotrowska, C. Klein, C. Wheeler, L. Necib, J. S. Bullock, P. F. Hopkins (2025); ApJ, Volume 983, Issue 2, id.93, 14 pp.
21. Hooks & Bends in the RAR: Discriminatory Tests for Dark Matter and MOND:
F. J. Mercado, J. S. Bullock, J. Moreno, M. Boylan-Kolchin, A. Wetzel, C. Faucher-Giguère, J. Samuel (2024); MNRAS, Volume 530, Issue 2, pp.1349-1362
20. Comparing implementations of self-interacting dark matter in the GIZMO and AREPO codes:
H. Meskhidze, **F. J. Mercado**, O. Sameie, V. Robles, J. S. Bullock, M. Kaplinghat, J. O. Weatherall (2022); MNRAS, Volume 513, Issue 2, pp.2600-2608
19. Amplified J-factors in the galactic center for velocity-dependent dark matter annihilation in FIRE simulations: ***D. McKeown***, J. S. Bullock, **F. J. Mercado**, Z. Hafen, M. Boylan-Kolchin, A. Wetzel, L. Necib, P. F. Hopkins, S. Yu (2022); MNRAS, Volume 513, Issue 1, pp.55-70
18. A Relationship Between Stellar Metallicity Gradients & Galaxy Age in Dwarf Galaxies:
F. J. Mercado, J. S. Bullock, M. Boylan-Kolchin, J. Moreno, A. Wetzel, K. El-Badry, A.S. Graus, A. Fitts, P. F. Hopkins, C. Faucher-Giguère, A. B. Gurvich (2021); MNRAS, Volume 501, Issue 4, pp.5121-5134

CONTRIBUTING CO-AUTHOR

17. The impact of Population III stars on the elemental enrichment of ultra-faint galaxies in the FIRE-3 zoom-in simulations:
P. J. Gandhi, E. P. Bellinger, M. Geha, A. Wetzel, C. Wheeler, Y. J. Meziani, J. Samuel, **F. J. Mercado**, J. Moreno, P. F. Hopkins (2026); Submitted to ApJ (arXiv:2611.05589)

16. "Helium Enrichment Law": The Relation Between Helium and Metal Enrichment in Stars in FIRE-3 Simulations of Milky Way-mass Galaxies:
P. J. Gandhi, E. P. Bellinger, A. Wetzel, J. Bailin, S. Basu, I. L. Trierweiler, **F. J. Mercado** (2026); Submitted to ApJ (arXiv:2610.37529)

15. Igniting Galaxy Formation in the Postreionization Universe, II: Nature versus Nurture:
J. Moreno, ***D. Aluç***, ***E. López***, ***V. Wood***, ***E. Santiago***, **F. J. Mercado**, C. Choban, C. Wheeler, M. K. Rodriguez Wimberly, R. Feldmann; Submitted to ApJ

14. Old Disks Die Hard: How Does AGN Feedback Suppress Disk Formation in Milky Way Mass Galaxies?:
P. Fofie, J. S. Bullock, S. Wellons, J. Moreno, **F. J. Mercado**, A. Wetzel; Submitted to ApJ

13. Pickles on FIRE: The 3D Shape Evolution of Simulated Milky Way-Mass Galaxies:
L. Xia, C. Klein, J. S. Bullock, M. Boylan-Kolchin, V. Caudillo, J. Moreno, **F. J. Mercado**, R. Feldmann (2026); MNRAS, Volume 549, Issue 3, id.stag964, 22 pp.

12. From protogalaxy through thick and thin: Why did the Milky Way evolve in three kinematic phases?:
O. Myrtaj, J. S. Bullock, M. Boylan-Kolchin, V. Chandra, C. Faucher-Giguère, R. Feldmann, **F. J. Mercado**, J. Moreno, J. Stern, A. Wetzel, P. J. Gandhi, L. Xia (2026); Accepted to MNRAS (arXiv:2605.22806)

11. Beyond Cloud-9: The case for discovering more HI-rich failed halos:
J. Moreno, C. Wheeler, **F. J. Mercado**, M. K. Rodriguez Wimberly, P. J. Gandhi, J. Samuel, R. Feldmann, J. S. Bullock, A. Wetzel, M. Boylan-Kolchin (2026); Submitted to ApJ

10. Confronting the Diversity Problem: The Limits of Galaxy Rotation Curves as a tool to Understand Dark Matter Profiles: I. S. Sands, P. F. Hopkins, A. Shen, M. Boylan-Kolchin, J. S. Bullock, C. Faucher-Giguère, **F. J. Mercado**, J. Moreno, L. Necib, X. Ou, S. Wellons, A. Wetzel (2026); ApJ, Volume 1000, Issue 1, id.127, 18 pp.

9. The shape of FIREbox galaxies and a potential tension with low-mass disks:
C. Klein, J. S. Bullock, L. Xia, J. Moreno, R. Feldmann, **F. J. Mercado**, C. Faucher-Giguère, J. Stern, N. N. Sanchez, A. Hussein (2026); ApJ, Volume 998, Issue 1, id.125, 13 pp.

8. Igniting Galaxy Formation in the Postreionization Universe:
J. Moreno, C. Wheeler, **F. J. Mercado**, M. K. Rodriguez Wimberly, J. Samuel, J. S. Bullock, R. Feldmann, P. F. Hopkins (2026); ApJ, Volume 997, Issue 2, id.181, 17 pp.

7. How invisible stellar halos bias our understanding of ultra-faint galaxies:
C. Wheeler, J. Moreno, M. K Rodriguez Wimberly, **F. J. Mercado**, J. S. Bullock, M. Boylan-Kolchin, P. J. Gandhi, S. R. Loebman, P. F. Hopkins (2025); ApJ, Volume 995, Issue 2, id.162, 15 pp.

6. Disks no more: the morphology of low-mass simulated galaxies in FIREbox:
J. A. Benavides, L. V. Sales, A. Wetzel, J. Moreno, R. Feldmann, **F. J. Mercado**, J. S. Bullock, P. F. Hopkins, C. Faucher-Giguère, J. Stern, C. Wheeler, D. Keres (2025); MNRAS, Volume 544, Issue 4, pp. 4651-4664

5. Stellar Metallicities and Gradients in the Faint M31 Satellites Andromeda XVI and Andromeda XXVIII:
S. W. Fu, D. R. Weisz, E. Starkenburg, N Martin, M. L. M. Collins, A. Savino, M. Boylan-Kolchin, P. Côté, E. Dolphin, N. Longeard, M. L. Mateo, **F. J. Mercado**, N. R. Sanford, E. D. Skillman (2024); ApJ, Volume 975, Issue 1, id.2, 14 pp.

4. Size-mass relations for simulated low-mass galaxies: mock imaging versus intrinsic properties: C. Klein, J. S. Bullock, J. Moreno, **F. J. Mercado**, P. F. Hopkins, R. K. Cochrane, J. A. Benavides (2024); MNRAS, Volume 532, Issue 1, pp.538-548

3. Stellar Metallicities and Gradients in the Isolated, Quenched Low-mass Galaxy Tucana: S. W. Fu, D. L. Weisz, E. Starkenburg, N Martin, **F. J. Mercado**, A. Savino, M. Boylan-Kolchin, P. Côté, A. E. Dolphin, N. Longeard, M. L. Mateo, J. Samuel, N. R. Sanford (2024); ApJ, Volume 965, Issue 1, id.36, 23 pp.

2. Galaxies lacking dark matter produced by close encounters in a cosmological simulation: J. Moreno, S. Danieli, J. S. Bullock, R. Feldmann, P.F.Hopkins, O. Catmabacak, A. Gurvich, A. Lazar, C. Klein, C. B. Hummels, Z. Hafen, **F. J. Mercado**, S. Yu, F.Jiang, C. Wheeler, A. Wetzel, D. Angles-Alcázar, M. Boylan-Kolchin, E. Quataert, C.A. Faucher-Giguère, D. Keres (2022); Nature Astronomy, Volume 6, p. 496-502

1. The time-scales probed by star formation rate indicators for realistic, bursty star formation histories from the FIRE simulations: J. A. Flores Velázquez, A. Gurvich, C. Faucher-Giguère, J. Bullock, T. Starkenburg, J. Moreno, A. Lazar, **F. J. Mercado**, J. Stern, M. Sparre, C. Hayward, A. Wetzel, K. El-Badry (2020); MNRAS, Volume 501, Issue 4, pp.4812-4824

PAST & UPCOMING PRESENTATIONS

INVITED CONFERENCE PRESENTATIONS:

3. 9th biennial Frank N. Bash Symposium – Low-mass galaxies review talk (Austin, TX) Sep 2025
2. AAS special session on student-centered pedagogy (Anchorage, AK) Jun 2025
1. First Joint NSBP-NSHP Conference (Houston, TX) Nov 2024

INVITED COLLOQUIA & SEMINARS:

19. USC Astrophysics Seminar (Los Angeles, CA) Sep 2026
18. CSU Long Beach Physics Department Colloquium (Long Beach, CA) Feb 2026
17. University of Washington Astronomy Colloquium (Seattle, WA) Feb 2026
16. IPAC Lunch Seminar (Pasadena, CA) Jan 2026
15. Santa Clara University Physics Department Colloquium (Santa Clara, CA) Jan 2026
14. Yale University Galaxies Seminar (New Haven, CT) Oct 2025
13. USC CosmoLab Seminar (Los Angeles, CA) Sep 2025
12. UC Santa Cruz Lamat Institute Science Talk (Santa Cruz, CA) Jul 2025
11. UW-Madison Science Seminar [Virtual] (Madison, WI) Feb 2025
10. UCSD/CSUSD Astronomy & Astrophysics Colloquium (La Jolla, CA) Jan 2025
9. Cal Poly Pomona Physics & Astronomy Colloquium (Pomona, CA) Oct 2024
8. Cal State LA Colloquium (Los Angeles, CA) March 2024
7. Carnegie Observatories Colloquium (Pasadena, CA) Feb 2024
6. TAPIR Seminar at Caltech (Pasadena, CA) Jan 2024
5. CSU San Bernardino Physics & Astronomy Colloquium (San Bernardino, CA) Nov 2023
4. UC Riverside Astronomy Seminar (Riverside, CA) Oct 2023
3. Pomona College Physics & Astronomy Colloquium (Claremont, CA) Sep 2023
2. Northwestern University Science Happy Hour [Virtual] (Evanston, IL) Apr 2021
1. Ohio State ArXiv Seminar [Virtual] (Columbus, OH) Feb 2021

CONTRIBUTED CONFERENCE PRESENTATIONS:

24. Galaxy Formation & Evolution in Southern California (Irvine, CA) Mar 2026
23. End of Star Formation Workshop (Champaign, IL) Mar 2026
22. 247th AAS Meeting (Phoenix, AZ) Jan 2026
21. 24th NSF Astronomy & Astrophysics Postdoc Symposium (Phoenix, AZ) Jan 2026
20. New Data that Challenge Assumptions in Early Galaxy Evolution (Acadia, ME) Jul 2025
19. Galactic Frontiers II (Hanover, NH) Jun 2025
18. 246th AAS Meeting (Anchorage, AK) Jun 2025
17. NSF MPS-Ascend Postdoctoral Fellow Conference (Nashville, TN) Oct 2024

16. Galaxy Formation & Evolution in Southern California (Pasadena, CA) Aug 2024
15. Dwarf Galaxies, Star Clusters & Stellar Streams in the LSST Era (Chicago, IL) Jul 2024
14. 23rd NSF Astronomy & Astrophysics Postdoc Symposium (New Orleans, LA) Jan 2024
13. 4th Regional Extragalactic Astronomy Meeting (Córdoba, Argentina) Dec 2023
12. Galaxy Formation & Evolution in Southern California (Riverside, CA) Aug 2023
11. 240th AAS Meeting (Pasadena, CA) Jun 2022
10. Flatiron CCA Symposium (New York City, NY) Aug 2021
9. Galaxy Formation & Evolution in Southern California (Pasadena & Irvine, CA) 2017 - 2019
8. Cal Poly Pomona SIAM Research Symposium (Pomona, CA) Apr 2016
7. UC Irvine Summer Research Symposium (Irvine, CA) May 2017
6. Cal Poly Pomona SIAM Research Symposium (Pomona, CA) Apr 2017
5. 229th AAS Meeting (Grapevine, TX) Jan 2017
4. Cal-Bridge/Campare Symposium, Cal Poly Pomona (Pomona, CA) Sep 2016
3. UC Irvine Summer Research Symposium (Irvine, CA) Aug 2016
2. Galaxy Formation & Evolution in Southern California (Pasadena, CA) Aug 2016
1. 227th AAS Meeting (Kissimmee, FL) Jan 2016

VISITING GROUP MEETING PRESENTATIONS:

5. Andrew Benson's Group Meeting, Carnegie Observatories (Pasadena, CA) Nov 2024
4. Phil Hopkins' Group Meeting, Caltech (Pasadena, CA) Sep 2023
3. Tom Quinn's Group Meeting, University of Washington (Seattle, WA) Mar 2017
2. Mark Vogelsberger's Group Meeting, MIT (Cambridge, MA) Jul 2015
1. Lars Hernquist's Group Meeting, Harvard CfA (Cambridge, MA) Jul 2015

WORKSHOPS:

3. Towards ethical outreach in astronomy and astrophysics (Choir Conference; Acadia, ME) Jul 2025
2. Mentorship and cultivating the next generation of leaders (AAS; Pasadena, CA) Jun 2022
1. Various PACE workshops on topics relevant to first year grads (Irvine, CA) 2021-2022

OUTREACH:

8. Friday Night Flights **Invited Speaker** (Pico Rivera, CA) Sep 2025
7. Cosmos & Coffee Inaugural Talk Sep 2025
6. St. Louis of France STEM Career Showcase **Invited Speaker** Jan 2024
5. UCI Astronomy Club **Invited Graduate Research Talk** (Irvine, CA) Apr 2023
4. UCI Astronomy Club **Invited Astronomer Talk** (Irvine, CA) May 2020
3. UC Irvine SACNAS Chapter High School Visit Day (Irvine, CA) Mar 2019
2. WATzUP Middle School Workshop **Invited Speaker** (Orange County, CA) Spring 2018
1. BUILD Star Party **Invited Speaker** (Upland, CA) May 2017

ADVISING & MENTORSHIP

RESEARCH ADVISING/CO-ADVISING:

18. Nina Zavala | University of Washington Undergrad 2026 - Present
Dark matter density profiles in FIREbox galaxies

17. L. Standifer (Supervised Sr. thesis) | Pomona College Undergrad 2025 - Present
Environmental effects on metallicity gradients
⇒ Paper in prep

16. Defne Aluç | Pomona College Undergrad Summer 2026
The threshold of galaxy formation

15. Eisha Lopez | Pomona College Undergrad Summer 2026
The threshold of galaxy formation

14. Emmanuel Santiago | Pomona College Undergrad Summer 2026
The threshold of galaxy formation

13. Vivienne Wood | Pomona College Undergrad Summer 2026

The threshold of galaxy formation

12. B. Giraud Calderon (Supervised Sr. thesis) | Pomona College Undergrad — 2024 - 2026
Environmental effects on galaxy formation timescales
⇒ Paper submitted for publication

11. D. E. Olloqui Cortés | Pomona College Undergrad — Summer 2025
Creating and using mock spaxel maps with FIREbox-simulated galaxies

10. L. McRoberts | Pomona College Undergrad — Spring 2025
Creating and using mock spaxel maps with FIREbox-simulated galaxies

9. K. Chen | Harvey Mudd College Undergrad — Fall 2024
Effect of reionization on Local Group dwarf galaxies (project continuation)

8. B. Hanf (Supervised Sr. thesis) | Pomona College Undergrad — AY 2024 - 2025
Stellar stream finding in the FIREbox cosmological volume simulation

7. I. Hahn | Pomona College Undergrad — Summer 2023
Finding voids in simulated cosmological volumes

6. P. Qin | Pomona College Undergrad — Summer 2022
Finding galaxy streams in the FIREbox simulation

5. N. Canim | Pomona College Undergrad — Summer 2022
Finding galaxy streams in the FIREbox simulation

4. H. Meskhidze | UC Irvine Grad — 2021 - 2022
Comparing implementations of SIDM in the GIZMO and AREPO codes
⇒ Resulted in publication

3. E. Chicas | Cal State Long Beach Undergrad — Summer 2020
Effect of reionization on Local Group dwarf galaxies

2. I. Ware | San Francisco State University Undergrad — Summer 2020
Effect of reionization on Local Group dwarf galaxies (worked with Evangelina)

1. D. McKeown | UC Irvine Grad — Summer 2020
Amplified J-factors in the galactic center in FIRE simulations
⇒ Resulted in publication

FORMAL PROFESSIONAL MENTORSHIP:

UC Santa Cruz LAMAT Mentor | 1 undergrad	Summer 2025
UC Irvine PACE Mentorship Program Peer Mentor | 4 grads	2018 - 2023
UC Irvine Competitive Edge Peer Mentor | 2 grads	Summer 2022
Cal-Bridge Graduate Mentor | 2 undergrads	2019 - 2022
TELACU Graduate Mentor | 2 undergrads	2019 - 2022

TEACHING

Instructor of record in **boldface**

POMONA COLLEGE:

Regular Discussion Guest – Extragalactic Astronomy (ASTR 125)	Spring 2024 & 2026
Regular Discussion Guest – The Milky Way (ASTR 127)	Spring 2025
Introduction to Galaxies & Cosmology (ASTR 002)	**Spring 2024**
Guest Lecture – Astro Collective (ASTR 001)	Oct 2023

SOUTHERN CALIFORNIA UNIVERSITY OF HEALTH SCIENCES:

Accelerated Sciences Division – 5 week courses

Basic Physics I Online (PHYS 211)	**Spring 2023**
Basic Physics I Online Laboratory (PHYS 211L)	**Spring 2023**
Basic Physics II Online (PHYS 216)	**Spring 2023**
Basic Physics II Online Laboratory (PHYS 216L)	**Spring 2023**

UC IRVINE:

Basic Physics I (PHYSICS 3A) — **Summer 2022**
Basic Physics II (PHYSICS 3B) — **Summer 2021 & 2022**
Intro to Mathematical Physics (PHYSICS 2) — **Summer 2021**
Statistical Mechanics (PHYSICS 115A) — Fall 2018
Life in the Universe (PHYSICS 20E) — Spring/Fall 2018
Introduction to Mathematical Physics (PHYSICS 2) — Fall 2017

CAL POLY POMONA:

General Physics III (PHYS 133) — Fall 2015/Winter 2016
General Physics I (PHYS 131) — Spring 2015

ELSEWHERE:

Learning Shack Math and Physics Tutor — 2018 - 2022
Ardent Academy AP Physics C Instructor — **Winter 2020**

TRAINING & CERTIFICATIONS

UCI/CSULB PRE-Professor Program — Spring 2021
UCI OIE Inclusive Excellence Certificate — Fall 2020
UCI DTEI Certificate in Course Design — Spring 2020
CIRTL Associate Level — Spring 2020

SERVICE & LEADERSHIP

SCIENTIFIC ORGANIZING COMMITTEES:

23rd Annual NSF AAPF Postdoc Symposium (**Chair**; National Harbor, MD) — Jan 2025
Galaxy Formation & Evolution in Southern California (Member; Pasadena, CA) — Sep 2024
Galaxy Formation & Evolution in Southern California (**Chair**; Irvine, CA) — Aug 2019

REVIEWER:

Astronomy & Astrophysics Reviewer — 2026 - Present
Astronomical Society of the Pacific Awards Reviewer — 2025 - Present
NASA Panel Reviewer — 2025 - Present
The Astrophysical Journal — 2023 - Present

ORGANIZATIONS:

Astronomical Society of the Pacific Board Fellow — 2025 - Present
NSF Ascend Mentor Network Advisory Fellow Board Member — 2025
UC Irvine PACE Mentorship Program **Co-Chair** & Administrator — 2022 - 2023
UC Irvine Physics Graduate Caucus **Diversity Chair** — 2020 - 2022
UC Irvine DECADE Physics Graduate Representative — 2018 - 2022

OUTREACH:

Cosmos & Coffee **Founder & Organizer** — 2025 - Present
Pomona College Latine Undergraduates in Physics & Astronomy (LUPA) co-organizer — 2025 - 2026
Pomona College Eclipse Party Co-Host — Apr 2024
UC Irvine Telescope Outreach Program Co-Organizer — 2018 - 2019
UC Irvine WATzUP Group Leader — 2017 - 2019

MEDIA COVERAGE

5. NSF Grant Will Fund Symposium for Post-Doctoral Fellows — Sep 2024
4. Astronomy Post-Doc and Professor Publish Paper on Dark Matter and Galaxies — Apr 2024
3. UC Irvine astronomers' simulations support dark matter theory — Apr 2024
2. Francisco Mercado wins UCI Latinx Excellence and Achievement Award — Mar 2021
1. From home, Francisco Mercado is studying distant galaxies — Apr 2020