

Christopher A. Theissen

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PROFESSIONAL APPOINTMENTS	Assistant Professor	Jul 2023–Present
	UC San Diego, Department of Astronomy & Astrophysics	
	UCSD Chancellor’s Postdoctoral Fellow	Sep 2021–Jun 2023
	NASA Sagan Postdoctoral Fellow	Sep 2019–Sep 2022
	Visting Scholar	Jan 2019–Sep 2019
	UC San Diego, Center for Astrophysics and Space Sciences	
	Postdoctoral Scholar – Konopacky Group	Jan 2018–Jan 2019
	UC San Diego, Center for Astrophysics and Space Sciences	
	PI: Quinn Konopacky	
	Adjunct Professor – San Diego Mesa College	Jun 2017–Jan 2019
	Department of Physical Sciences	
EDUCATION	Boston University , Boston, Massachusetts, USA	
	Doctor of Philosophy (Ph.D.) in Astronomy	Jan 2018
	Thesis: <i>Low-mass Stars with Extreme Mid-Infrared Excesses: Potential Signatures of Planetary Collisions</i>	
	Master of Arts (M.A.) in Astronomy	May 2013
	University of California San Diego , La Jolla, California, USA	
	Bachelor of Science (B.S.) in Physics	Jun 2010
	Specialization in Astrophysics	
	Bachelor of Arts (B.A.) in Mathematics	Jun 2010
	Applied Science	
	San Diego Mesa College , San Diego, California, USA	
	Associate of Arts (A.A.) in Transfer Studies	Jun 2007
ACADEMIC AWARDS & HONORS	Scialog Fellow, Early Science with the LSST	2024
	UC San Diego Chancellor’s Postdoctoral Fellowship	2021–2023
	UC San Diego Chancellor’s Outstanding Postdoctoral Scholar Award	2020–2021
	NASA Hubble Fellowship Program Sagan Postdoctoral Fellowship	2019–2022
	Ford Foundation Dissertation Fellowship (Honorable Mention/Alternate)	2016
	National Science Foundation Graduate K–12 Fellowship	2014–2015
	Excellent Teaching Fellow Award, Boston University	2012
	Ford Foundation Predoctoral Fellowship	2012–2016
	California Alliance for Minority Participation Graduate School Application Award	2011
	Minority Undergraduate Research Fellowship, California Institute of Technology	2009
	Opportunity Grant, University of California San Diego	2009–2010

RESEARCH EXPERIENCE	Konopacky Group , UC SAN DIEGO	2018–2019
	Postdoctoral Scholar PI: Quinn Konopacky	
	Cool Star Lab , UC SAN DIEGO	2015–2017
	Visiting Graduate Student Researcher Mentor: Adam Burgasser	
TEACHING EXPERIENCE	West Group , BOSTON UNIVERSITY	2011–2017
	Graduate Student Researcher Advisor: Andrew West	
	Physics 253: Astrophysical Statistics , UC SAN DIEGO, SAN DIEGO, CA	Fall 2023
	Astronomy 101: Descriptive Astronomy , MESA COLLEGE, SAN DIEGO, CA	Summer 2017
FIRST & SECOND AUTHOR REFEREED PUBLICATIONS	Adjunct Faculty	
	8th Grade Science , ATLANTIC MIDDLE SCHOOL, QUINCY, MASSACHUSETTS	2014–2015
	Resident Scientist (NSF GK-12 Fellow)	
	Astronomy 203: Principles of Astronomy II , BOSTON UNIVERSITY	Spring 2012
	Teaching Fellow	
	Astronomy 101: The Solar System , BOSTON UNIVERSITY	Fall 2011
CO-AUTHOR REFEREED PUBLICATIONS	Teaching Fellow	
	*DIRECTLY MENTORED STUDENT CO-AUTHORS ARE UNDERLINED.	
	A8 <u>Wei, L.</u> , Theissen, C. A. et al., “The 3D Kinematics of the Orion Nebula Cluster. II. Mass-dependent Kinematics of the Inner Cluster,” <i>Astrophysical Journal</i> , 962, 174, Feb 2024.	
	A7 Theissen, C. A. et al. (incl. <u>Hsu, C.</u> , <u>Wei, L.</u>), “The 3-D Kinematics of the Orion Nebula Cluster: NIRSPEC-AO Radial Velocities of the Core Population,” <i>Astrophysical Journal</i> , 926, 141, Oct 2021.	
	A6 Theissen, C. A. , “Parallaxes of Cool Objects with <i>WISE</i> : Filling in for <i>Gaia</i> ,” <i>Astrophysical Journal</i> , 862, 173, Aug 2018.	
	A5 Theissen, C. A. et al., “2MASS J11151597+1937266: A Young, Dusty, Isolated, Planetary-Mass Object with a Potential Wide Stellar Companion,” <i>Astrophysical Journal</i> , 853, 75, Jan 2018.	
	A4 Theissen, C. A. & West, A. A., “Collisions of Terrestrial Worlds: The Occurrence of Extreme Mid-Infrared Excesses around Low-mass Field Stars,” <i>Astronomical Journal</i> , 153, 165, Apr 2017.	
	A3 Theissen, C. A. et al. (incl. <u>Shippee, G.</u>), “The Late-Type Extension to MoVeRS (LaTE-MoVeRS): Proper Motion Verified Low-mass Stars and Brown Dwarfs from SDSS, 2MASS, and <i>WISE</i> ,” <i>Astronomical Journal</i> , 153, 92, Feb 2017.	
	A2 Theissen, C. A. , West, A. A., & Dhital, S., “Motion Verified Red Stars (MoVeRS): A Catalog of Proper Motion Selected Low-mass Stars from <i>WISE</i> , SDSS, and 2MASS,” <i>Astronomical Journal</i> , 151, 41, Feb 2016.	
	A1 Theissen, C. A. & West, A. A., “Warm Dust around Cool Stars: <i>WISE</i> 12 and 22 μm Excesses around SDSS M Dwarfs,” <i>Astrophysical Journal</i> , 794, 146, Oct 2014.	
CO-AUTHOR REFEREED PUBLICATIONS	B33 Vasylyev, S. S., et al. (incl. <u>Karpoor, P. R.</u> , <u>Softich, E. R.</u> , Theissen, C. A.), “Early Time Spectropolarimetry of the Aspherical Type II Supernova SN 2023ixf,” <i>Astrophysical Journal Letters</i> , 955, 37, Sep 2023.	

- B32 Jacobson-Galán, W. V., et al. (incl. Karpoor, P. R., Softich, E. R., **Theissen, C. A.**), “SN 2023ixf in Messier 101: Photo-ionization of Dense, Close-in Circumstellar Material in a Nearby Type II Supernova,” *Astrophysical Journal Letters*, 954, 42, Sep 2023.
- B31 Hoch, K. K. W., et al. (incl. **Theissen, C. A.**), “Assessing the C/O Ratio Formation Diagnostic: A Potential Trend with Companion Mass,” *Astronomical Journal*, 166, 85, Sep 2023.
- B30 Ghachoui, M., et al. (incl. Aganze, C., Gerasimov, R., Hsu, C., **Theissen, C. A.**), “TESS discovery of a super-Earth orbiting the M-dwarf star TOI-1680,” *Astronomy & Astrophysics*, 677, A31, Sep 2023.
- B29 Franson, K., et al. (incl. **Theissen, C. A.**), “Astrometric Accelerations as Dynamical Beacons: A Giant Planet Imaged Inside the Debris Disk of the Young Star AF Lep,” *Astrophysical Journal Letters*, 950, 19, Jun 2023.
- B28 Pozuelos, F. J., et al. (incl. Aganze, C., Gerasimov, R., **Theissen, C. A.**), “A super-Earth and a mini-Neptune near the 2:1 MMR straddling the radius valley around the nearby mid-M dwarf TOI-2096,” *Astronomy & Astrophysics*, 672, A70, Apr 2023.
- B27 Hsu, C., Burgasser, A. J., & **Theissen, C. A.**, “Discovery of the Exceptionally Short Period Ultracool Dwarf Binary LP 413-53AB,” *Astrophysical Journal Letters*, 945, 6, Mar 2023.
- B26 Schneider, A. C., et al. (incl. Aganze, C., **Theissen, C. A.**), “Redder than Red: Discovery of an Exceptionally Red L/T Transition Dwarf,” *Astrophysical Journal Letters*, 943, 16, Feb 2023.
- B25 Franson, K., et al. (incl. **Theissen, C. A.**), “Astrometric Accelerations as Dynamical Beacons: Discovery and Characterization of HIP 21152 B, the First T-Dwarf Companion in the Hyades,” *Astronomical Journal*, 165, 39, Feb 2023.
- B24 Tamburo, P., et al. (incl. **Theissen, C. A.**), “The Perkins INfrared Exosatellite Survey (PINES) II. Transit Candidates and Implications for Planet Occurrence around L and T Dwarfs,” *Astronomical Journal*, 164, 252, Dec 2022.
- B23 Delrez, L., et al. (incl. Aganze, C., **Theissen, C. A.**), “Two Temperate Super-Earths Transiting a Nearby Late-type M Dwarf,” *Astronomy & Astrophysics*, 667, 59, Nov 2022.
- B22 Hoch, K. W. et al. (incl. **Theissen, C. A.**), “Moderate-Resolution *K*-Band Spectroscopy of the Substellar Companion VHS 1256 b,” *Astronomical Journal*, 164, 155, Oct 2022.
- B21 Gan, T., et al. (incl. **Theissen, C. A.**, Aganze, C. A.), “TESS discovery of a sub-Neptune orbiting a mid-M dwarf TOI-2136,” *Monthly Notices of the Royal Astronomical Society*, 514, 4120, Aug 2022.
- B20 Aganze, C. et al. (incl. **Theissen, C. A.**, Tejada Arevalo, R. A., Hsu, C.), “Beyond the Local Volume II: Population Scaleheights and Ages of Ultracool Dwarfs in Deep HST/WFC3 Parallel Fields,” *Astrophysical Journal*, 934, 73, Jul 2022.
- B19 Tamburo, P., et al. (incl. **Theissen, C. A.**), “The Perkins INfrared Exosatellite Survey (PINES) I. Survey Overview, Reduction Pipeline, and Early Results,” *Astronomical Journal*, 163, 253, Jun 2022.
- B18 Abdurro’uf et al. (incl. **Theissen, C. A.**), “The Seventeenth Data Release of the Sloan Digital Sky Surveys: Complete Release of MaNGA, MaStar and APOGEE-2 Data,” *Astrophysical Journal Supplement Series*, 259, 35, Apr 2022.
- B17 Aganze, C. et al. (incl. **Theissen, C. A.**, Tejada Arevalo, R. A., Hsu, C.), “Beyond the Local Volume: Surface Densities of Ultracool Dwarfs in Deep HST/WFC3 Parallel Fields,” *Astrophysical Journal*, 924, 114 Jan 2022.
- B16 Hsu, C. et al. (incl. **Theissen, C. A.**, Birky, J., Aganze, C.), “The Brown Dwarf Kinematics Project (BDKP). V. Radial and Rotational Velocities of T Dwarfs from Keck/NIRSPEC High-Resolution Spectroscopy,” *Astrophysical Journal*, 257, 45, Dec 2021.

- B15 Faherty, J. K., et al. (incl. Aganze, C., Hsu, C., Gerasimov, R., **Theissen, C. A.**), “A Wide Planetary Mass Companion Discovered Through the Citizen Science Project Backyard Worlds: Planet 9,” *Astrophysical Journal*, 923, 48, Dec 2021.
- B14 Schneider, A. C., et al. (incl. Aganze, C., Gerasimov, R., Hsu, C., **Theissen, C. A.**), “Ross 19B: An Extremely Cold Companion Discovered via the Backyard Worlds: Planet 9 Citizen Science Project,” *Astrophysical Journal*, 920, 140, Nov 2021.
- B13 Wells, R. D., et al. (incl. **Theissen, C. A.**), “A large sub-Neptune transiting the thick-disk M4V TOI-2406,” *Astronomy & Astrophysics*, 653, A97 Sep 2021.
- B12 Meisner, A. M., et al. (incl. **Theissen, C. A.**, Gerasimov, R., Aganze, C., Hsu, C.), “New Candidate Extreme T Subdwarfs from the Backyard Worlds: Planet 9 Citizen Science Project,” *Astrophysical Journal*, 915, 120, May 2021.
- B11 Kirkpatrick, J. D., et al. (incl. Aganze, C., Gerasimov, R., Hsu, C., **Theissen, C. A.**), “The Field Substellar Mass Function Based on the Full-sky 20-pc Census of 525 L, T, and Y Dwarfs,” *Astrophysical Journal Supplement Series*, 253, 7, May 2021.
- B10 Wilcomb, K. K. et al. (incl. **Theissen, C. A.**), “Moderate-Resolution *K*-Band Spectroscopy of Substellar Companion κ Andromedae b,” *Astronomical Journal*, 160, 270, Nov 2020.
- B9 Meisner, A. M., et al. (incl. Hsu, C., Aganze, C., Gerasimov, R., **Theissen, C. A.**), “*Spitzer* Follow-up of the Coldest Brown Dwarfs Discovered by the Backyard Worlds: Planet 9 Citizen Science Project,” *Astrophysical Journal*, 889, 123, Aug 2020.
- B8 Muirhead, P. S., et al. (incl. **Theissen, C. A.**), “Magnetic Inflation and Stellar Mass. V. Intensification and saturation of M dwarf absorption lines with Rossby number,” *Astronomical Journal*, 159, 52, Feb 2020.
- B7 Bardalez Gagliuffi, D. C., et al. (incl. **Theissen, C. A.**), “The Ultracool SpeXtoscopic Survey. I. Volume-limited Spectroscopic Sample and Luminosity Function of M7–L5 Ultracool Dwarfs,” *Astrophysical Journal*, 883, 205, Oct 2019.
- B6 Kim, D., et al. (incl. **Theissen, C. A.**), “Stellar Proper Motions in the Orion Nebular Cluster,” *Astronomical Journal*, 157, 118, Feb 2019.
- B5 Gagné, J., et al. (incl. **Theissen, C. A.**), “2MASS J13243553+6358281 is an Early T-Type Planetary-mass Object in the AB Doradus Moving Group,” *Astrophysical Journal Letters*, 854, 27, Feb 2018.
- B4 Favia, A., West, A. A., & **Theissen, C. A.**, “Runaway M Dwarf Candidates from the Sloan Digital Sky Survey,” *Astrophysical Journal*, 813, 26, Nov 2015.
- B3 Arcavi, I., et al. (incl. **Theissen, C. A.**), “A Continuum of H- to He-rich Tidal Disruption Candidates With a Preference for E + A Galaxies,” *Astrophysical Journal*, 793, 38, Sep 2014.
- B2 Sfiligoi, I., et al. (incl. **Theissen, C. A.**), “Scalability of network facing services used in the Open Science Grid,” *Journal of Physics: Conference Series*, 331, 062023, Dec 2011.
- B1 Quimby, R. M., et al. (incl. **Theissen, C. A.**), “Hydrogen-poor superluminous stellar explosions,” *Nature*, 474, 487, Jun 2011.
- C8 Desai, M., et al. (incl. Draxl Giannoni, J. D., Aganze, C., **Theissen, C. A.**), “Identifying Ultracool Binary Systems using Machine Learning Methods,” *Research Notes of the American Astronomical Society*, 6, 151, Jan 2023.
- C7 **Theissen, C. A.**, et al. (incl. Hsu, C.), “Keck NIRES Spectral Standards for L, T, & Y Dwarfs,” *Research Notes of the American Astronomical Society*, 6, 151, Jul 2022.

**PREPRINTS &
OTHERS**

- C6 Low, R., et al. (incl. Gerasimov, R., Hsu, C., **Theissen, C. A.**), “Spectroscopic Confirmation of an M6 Dwarf Companion to the Nearby Star BD-08 2582,” *Research Notes of the American Astronomical Society*, 5, 26, Feb 2021.
- C5 **Theissen, C. A.**, et al., “WISE J135501.90-825838.9 is a Nearby, Young, Extremely Low-mass Substellar Binary,” *Research Notes of the American Astronomical Society*, 4, 67, May 2020.
- C4 Muirhead, P. S., et al. (incl. **Theissen, C. A.**), “Searching for Exosatellites Orbiting L and T Dwarfs: Connecting Planet Formation to Moon Formation and Finding New Temperate Worlds,” *Bulletin of the American Astronomical Society*, Astro2020 White Paper, 2019.
- C3 Dupuy, T. J., et al. (incl. **Theissen, C. A.**), “Establishing an Empirical Substellar Sequence to Planetary Masses,” *Bulletin of the American Astronomical Society*, Astro2020 White Paper, 2019.
- C2 Kirkpatrick, J. D., et al. (incl. **Theissen, C. A.**), “The Need for Infrared Astrometry of Brown Dwarfs in the Post-Gaia Era,” *Bulletin of the American Astronomical Society*, Astro2020 White Paper, 2019.
- C1 Burgasser, A. J., **Theissen, C. A.**, et al., “Identification of WISE J000100.45+065259.6 as an M8.5+T5 Spectral Binary Candidate,” *Research Notes of the American Astronomical Society*, 1, 47, Dec 2017.

CONFERENCE PROCEEDINGS

- D4 Wilcomb, K. K., et al. (incl. **Theissen, C. A.**), “Moderate Resolution Spectroscopy of Directly Imaged Planets,” *Extreme Solar Systems IV*, *Bulletin of the American Astronomical Society*, 2019.
- D3 Burgasser, A. J. & **SPLAT Development Team**, “The SpeX Prism Library Analysis Toolkit (SPLAT): A Data Curation Model,” *3rd International Workshop on Spectral Stellar Libraries*, 14, 7-22, Oct 2017.
- D2 Chakrabarti, S., et al. (incl. **Theissen, C. A.**), “Laboratory and Field tests of a High Throughput and Multi-slit Imaging Spectrograph (HiT&MIS),” *39th COSPAR Scientific Assembly*, 293, Feb 2016.
- D1 Sfiligoi, I., Würthwein, F., & **Theissen, C. A.**, “Using Condor Glideins for Distributed Testing of Network Facing Services,” *Third International Joint Conference on Computational Science and Optimization*, 327-331, May 2010.

PRESENTATIONS & POSTERS

- “Using the Smallest Stars to Explore Large-scale Habitability within the Milky Way Galaxy,” *Notre Dame Astrophysics Seminar* [**Invited Talk**], Nov 2022.
- Carnegie EPL Seminar* [**Invited Talk**], Feb 2022.
- UCSD Scripps IGPP Seminar* [**Invited Talk**], Feb 2022.
- UCSD Physics Colloquium* [**Invited Talk**], Jan 2021.
- “The Three Dimensional Kinematics of the Low-mass Population within the ONC Core,” *NASA Hubble Symposium* [Talk], Nov 2021.
- “Investigating Spectral Peculiarities in the Lowest-mass Planet Hosts,” *AAS 237 (Winter Meeting)* [Talk], Jan 2021.
- “Spectral Peculiarities in Ultracool Dwarf Planet Hosts,” *NASA SOFIA Colloquium* [**Invited Talk**], Nov 2020.
- “The Dos and Don’ts of Writing a Successful (Fellowship) Application,” *UCSD IDEA Center Postdoc Talk* [**Invited Talk**], Oct 2020.
- “The Connection Between Ultracool Dwarf Planet Hosts and Surface Gravity,” *NASA Hubble Fellowship Program Symposium* [Talk], Sep 2020.
- “3-D Kinematics in the ONC Core,” *Keck Science Meeting* [Poster], Sep 2020.

“Supporting BIPOC Scientists through NHFP-organized Mentorship and Outreach,”
NASA Hubble Fellowship Program Symposium [Talk], Sep 2020.

“Multiplicity at the Bottom of the Main Sequence,”
San Diego State University Astronomy & Physics Colloquium [**Invited Talk**], Nov 2019.

“Planetary Collisions around Low-mass Stars: Constraining the Timescale for Collisions and Testing the Origin of the *Kepler* Dichotomy,”
NASA Hubble Fellowship Program Symposium [Talk], Oct 2019.

“Cooler than *Gaia*: Parallaxes of Ultracool Objects with *WISE*,”
UC San Diego Astrophysics Seminar [**Invited Talk**], May 2018.

“Low-mass Stars with Extreme Mid-Infrared Excesses: Potential Signatures of Planetary Collisions,”
AAS 231 (Winter Meeting) [Talk], 2018.

“Exoplanets and the Search for Life around Low-mass Stars,”
Mesa College STEM Lecture Series [**Invited Talk**], 2017.

“Cool Stars with Extreme Mid-Infrared Excesses: Potential Tracers of Planetary Collisions,”
AAS 228 (Summer Meeting) + Cool Stars 19 [Poster], 2016.

“The Motion Verified Red Stars (MoVeRS) Catalog and Low-Mass Field Stars with Warm Dust,”
AAS 227 (Winter Meeting) [Poster], 2016.

“The Occurrence of Warm Dust around Cool Stars,”
UC San Diego CASS Journal Club [Talk], 2015.

“*WISE* Infrared Excess Detections for SDSS M Dwarfs: Cool Field Stars with Evidence of Warm Circumstellar Material,”
AAS 224 (Summer Meeting) + Cool Stars 18 [Poster], 2014.

“SDSS M dwarfs with *WISE* Signatures of Infrared Excess: Evidence of Warm Circumstellar Material in Low-Mass Field Populations,”
AAS 223 (Winter Meeting) [Poster], 2014.

“GlideTester - A framework for distributed testing of network-facing services using Condor glideins on Grid resources,”
TeraGrid Conference [Poster], 2010.

“PyTracker: Automated Spectroscopic Target Acquisition using Cross-Correlation with Existing Astrometric Positions,”
University of California San Diego Undergraduate Research Conference [Talk], 2010.

“Automated Cross-Correlative Spectroscopic Analysis of the Optical Transient Sky via Images Acquired using the Palomar Transient Factory,”
California Institute of Technology Summer Seminar [Poster], 2009.

**PRESS
COVERAGE**

Ultrashort Period Ultracool Binary

- “Ultracool Dwarf Binary Stars Break Records”
Keck Observatory, Feb 2023.
- “Record breakers! Super-close dwarf stars orbit each other in less than a day”
Space.com, Feb 2023.
- “Astronomers spot a tiny binary”
Sky & Telescope, Jan 2023.
- “Astronomers Discover Two Invisible Stars Spinning Around Each Other at Breakneck Speed”
Gizmodo, Jan 2023.
- “Binary Dwarf Stars Found Orbiting Each Other Every 20 Hrs. They Were Once Almost Touching”
Universe Today, Jan 2023.

Extremely Low-mass Binary

- “WISE J135501.90-825838.9 is a young, extremely low-mass substellar binary, study finds”
Phys.org, Mar 2020.

Planetary Collisions

- “Some planets ripe for life may be doomed by billions of years of violent collisions”
Astronomy Magazine, Jul 2016.

**RESEARCH
COLLABS**

Institutional Representative for UCSD on the LSST-DA Board
Member of the LSST Stars, Milky Way & Local Volume Science Collaboration
Member of the Wide-Field Spectroscopic Telescope Science Team
Member of the Perkins INfrared Exosatellite Survey (PINES)

**SERVICE &
OUTREACH**

Research Affairs Advisory Committee - Member, UC SAN DIEGO	Oct 2022–Present
NHFP DEI Session - Presenter, NASA HUBBLE FELLOWSHIP PROGRAM SYMPOSIUM	Nov 2021
2021 Chancellor’s Award Review Committee - Reviewer, UC SAN DIEGO	Aug 2021
Coalition NSF Advocacy Day - Advocate, REMOTE MEETINGS	Jun 2021
UCSD Spring STEM Transfer Seminar 2021 - Panelist, “Traversing Postdocs and Industry Positions”, UC SAN DIEGO	May 2021
UCSD Career Center - Panelist, “PhD Career Summit: Applying to Postdoc Positions”, UC SAN DIEGO	Mar 2021
UCSD IDEA Center - Postdoctoral Scholarly Talks, “Developing a Successful Ford Fellowship Application”, UC SAN DIEGO	Oct 2020
Summer Training Academy for Research Success (STARS)/ California-Arizona Minority Partnership for Astronomy Research and Education (CAMPARE), UC SAN DIEGO	2018, 2019, 2020
High Tech High Internship, UC SAN DIEGO	Jan 2020
Career Paths Session - Chair/Panelist, NASA HUBBLE FELLOWSHIP PROGRAM SYMPOSIUM	Oct 2019

Institute for Scientist & Engineer Educators (ISEE) Professional Development Program (PDP), UC SANTA CRUZ/UC SAN DIEGO	2018
InterTribal Youth/Young Native Scholars Summer Program, UC SAN DIEGO	Jul 2016
Cal-Bridge Workshop on Graduate School, UC SAN DIEGO	May 2016
STEM Fest, VISTA HIGH SCHOOL	Mar 2016
High School Science Olympiad Coach, UNIVERSITY HIGH SCHOOL	Oct 2015–Feb 2016
Chambliss Award Judge, AMERICAN ASTRONOMICAL SOCIETY MEETING 227	Jan 2016
Program on Student Success in Engineering (POSSE), UNIVERSITY OF CALIFORNIA SAN DIEGO/GOMPERS PREPARATORY ACADEMY	Sep 2015–Jun 2016
Upward Bound, BOSTON UNIVERSITY	2013–2015
Research in Science and Engineering (RISE), BOSTON UNIVERSITY	2013–2015
U-Design, BOSTON UNIVERSITY, DEPARTMENT OF ENGINEERING	Jul 2014
Academy of the Pacific Rim Astronomy Day, BOSTON UNIVERSITY	Nov 2012
Graduate Women in Science and Engineering (GWISE) - “How to Find a Fellowship” Panelist, BOSTON UNIVERSITY	Sep 2012
<i>Other:</i>	
• Co-organizer of the NASA Hubble Fellowship Program Anti-Racism Initiative – Lead for the Mentoring and Outreach Subgroup	2020–2022
• OPTICON-Radionet Pilot TAC	2023
• Subject-matter expert reviewer in a NASA peer review	2020, 2021, 2022
• Panelist for a NASA review	2023
• Panelist for a NASA review	2021
Referee: The Astrophysical Journal (ApJ) The Astrophysical Journal Supplement Series (ApJS) Monthly Notices of the Royal Astronomical Society (MNRAS)	2018–Present

MENTORSHIP

PHD STUDENTS

Preethi Karpoor, UCSD	2022–Present
Aneesh Baburaj, UCSD	2021–Present
Lingfeng Wei, UCSD	2020–Present
Christian Aganze, UCSD (→ Science Fellow @ Stanford)	2018–2023
Kielan Wilcomb, UCSD (→ Giacconi Fellow @ STScI)	2018–2022
Chih-Chun Hsu, UCSD (→ Postdoc @ Northwestern)	2018–2022

UNDERGRAD

Jackie Scullin, UCSD	2023–Present
So Hirota, UCSD	2023–Present
Lexu Zhao, UCSD	2022–Present
Tianxing Zhou, UCSD	2022–Present
Malina Desai, UCSD (→ Carnegie post-bac)	2022–2023
Chelsea Adelman, Cal Poly Pomona (Cal-Bridge Scholar → UCI grad)	2020
Roberto Tejada Arevalo, CSULA (→ Princeton grad)	2018–2020
Dennis H. Calderon, CSUEB (→ OSU grad)	2018–2019
Russell Van Linge, UCSD (→ Scripps Health)	2018
Jessica Birky, UCSD (→ NSF & Univ. of Washington grad)	2016–2019
Guillaume Shippee, UCB (→ Qualcomm)	2016

HIGH SCHOOL

Sven Andersen, Intern	2022
Angeli Solis, Intern (→ UCSD undergrad)	2020
Victor Zhang, BU RISE (Princeton → U. Chicago grad)	2015
Katie Melbourne, BU RISE (Yale → Ball Aerospace)	2014
Isabella Trierweiler, BU RISE (Yale → UCLA grad)	2013

GRANTS & FUNDING

Characterizing the Lowest-mass Planet Hosts and Investigating the Potential Link between Stellar Surface Gravity and Planet Occurrence PI, NASA XRP, \$618k	2024–2026
A Magnitude Limited Sample of M dwarfs to Study the Super-Earth Rate across the Fully Convective Boundary PI, TESS Cycle 5 Guest Investigator, \$70k	2022–2023
Recalibrating Fundamental Parameters for Low-Mass Stars for Current and Future Planet Hunting Surveys PI, XSEDE Research allocation PHY220048, 8,314,035 SUs (~\$100k)	2022–2023
Recalibrating the Ultracool Dwarfs in the Transiting Exoplanet Survey Satellite Input Catalog PI, XSEDE Startup allocation PHY200052, 100,000 SUs (~\$1k)	2022–2023
Infrared Gold: A Student-Centered Program to Extract, Analyze, and Disseminate 20 Years of IRTF/SpeX Point-Source Spectroscopy Co-I, NASA ADAP (PI: Adam Burgasser), \$666,511	2022–2025
Simulating Ultracool Dwarf Populations in LSST DP0 and in the Main LSST Survey Co-I, LSST Kickstarter Grant (PI: Adam Burgasser), \$19k	2022
A Search for Distant Ultracool Dwarfs in Hubble Space Telescope Spectral Surveys PI, XSEDE Startup allocation PHY200052, 50,000 SUs (~\$1k)	2020–2021
Planetary Collisions around Low-Mass Stars: Constraining the Timescale for Collisions and Testing the Origin of the Kepler Dichotomy PI, NASA Sagan Postdoctoral Fellowship, \$347k	2019–2022
Spectroscopic Analysis of Ultracool Dwarfs Co-I, SDSS FAST (PI: Adam Burgasser), \$60K	2016–2017
Low-mass Field Stars with Infrared Excesses: Possible Signatures of Planetary Collisions Co-I, NASA ADAP (PI: Andrew West; Admin PI: Phil Muirhead), \$125K	2016–2017

TELESCOPE TIME AWARDED	Keck I & II 10-meters	
	PI: “Abundances and Kinematics of Ultracool Dwarf Planet Host Twin Stars” • 7 nights (NIRSPEC)	2022–2025
	PI: “Precise Abundances of Ultracool Dwarfs using FGK Wide Binaries” • 2 nights (NIRSPEC)	2024
	Co-I: “Keck/NIRSPEC Cadence Program: NIRSPEC Observations of Ultrashort Period Ultracool Binaries” • 0.8 nights (NIRSPEC)	2024
	Co-I: “Resolving Elemental Abundances of a Remarkable Hierarchical Exoplanet-host System Observed by a JWST ERS Program” • 1 night (NIRSPAO)	2024
	Co-I: “Unresolved Binaries in the Core of the Orion Nebula Cluster” • 1 night (NIRSPAO)	2023
	Co-I: “The Old and the Quick: A Search for Halo Brown Dwarfs with Backyard Worlds” • 1 night (NIREs)	2022
	Co-I “Galactic Archaeology with Ultracool Dwarfs: Kinematic Structure Among L Dwarfs” • 3.5 nights (NIRSPEC)	2021–2022
	PI: “Resolving Tertiary Components of Wide, Very Low-mass Binaries with AO” • 3 nights (NIRC2)	2020–2021
	Co-I: “Searching for Our Coldest Young Neighbors with Backyard Worlds” • 10 nights (NIREs)	2018–2021
	Co-I “Testing Pre-Main Sequence Evolutionary Models in the First 10 Myr” • 2.5 nights (OSIRIS)	2020–2021
	Co-I “Completing the Kinematic Census of Local L and T Dwarfs” • 5.5 nights (NIRSPEC)	2019–2020
	Co-I: “Secondary Radial Velocities in Short-Period Star/Brown Dwarf Spectral Binaries” • 0.5 nights (NIRSPEC)	2019–2020
	Co-I: “Dynamics of the Orion Nebula Cluster: Mass-Dependent Kinematics” • 6 nights (NIRSPAO)	2019–2020
	PI: “Characterizing Low-mass Binaries and Searching for Hierarchical Triples: NIR Spectra of Low-mass, Wide, Common Proper Motion Pairs” • 1 night (NIREs)	2019
	CHARA Array	
	PI: “Investigating Radius Inflation in the Lowest Mass Planet Hosts: CHARA Observations of Teegarden’s Star” • 4 nights (CLASSIC)	2020
	Gemini North & South 8-meters	
	PI: “High-resolution Near-infrared Observations of a Planetary-mass Binary” • 8 hours (IGRINS)	2023–2024
	PI: “Abundances and Kinematics of Ultracool Dwarf Planet Host Twin Stars” • 10.7 hours (IGRINS)	2022–2023
	Co-I: “The BASS-Ultracool Search for Isolated Giant Exoplanet Analogs” • 27 hours (GNIRS Spectrograph)	2018
	Co-I: “Confirming a new L/T transition planetary-mass object in AB Doradus” • Fast turnaround single object observation (GNIRS Spectrograph)	2018

James Webb Space Telescope 6.5-meter		
Co-I: “Direct Imaging Spectroscopy of Two Jovian Exoplanets: Characterization of the TYC 8998-760-1 Multi-Planetary System”		2021
• 5.2 hours (NIRSpec and MIRI)		
LDT 4.3-meter		
PI: “Pre-main Sequence or Field Stars?: Searching for Traces of Youth in Low-mass Stars with Extreme Mid-infrared Excesses”		2016
• 2 nights (DeVeny Optical Spectrograph)		
CFHT 3.6-meter		
Co-I: “Precision NIR RVs for WISE J1624-3212: A Nearby, Potentially Unresolved Low-mass Binary”		2021
• 2.4 hours (SPIRou NIR Spectrograph)		
IRTF 3.2-meter		
PI: “Characterizing the Ultracool <i>TESS</i> Targets: Investigating the Role of Gravity in Planet Hosts”		2020–2024
• 30 nights (SpeX NIR Spectrograph)		
Co-I: “Characterizing Cool Hosts of Candidate Transiting Exoplanets with IRTF/SpeX”		2024
• 4 nights (SpeX NIR Spectrograph)		
Co-I: “Homogeneous stellar characterization for M dwarfs with confirmed giant planets”		2023
• 1 night (SpeX NIR Spectrograph)		
Co-I: “Radial Velocity Monitoring of an Exceptionally Short-Period Very Low Mass Binary”		2022–2023
• 6 nights (iSHELL Spectrograph)		
Co-I: “Searching for Hierarchical Triples in Wide, Common Proper Motion, Very Low-Mass Binaries”		2018–2020
• 4.5 nights (SpeX NIR Spectrograph)		
Co-I: “Training the Cannon: Calibrating APOGEE Observations of Ultracool Dwarfs”		2018–2020
• 6 nights (iSHELL Spectrograph)		
Co-I: “LaTE-MoVeRS: New Nearby Very Low-Mass Stars and Brown Dwarfs Verified by Proper Motion from SDSS+2MASS+ <i>WISE</i> ”		2017–2019
• 4.5 nights (SpeX NIR Spectrograph + MORIS)		
Shane 3-meter		
PI: “Optimizing Target Selection of Direct Imaging Planet Campaigns using Accelerating Stars”		2022–2023
• 7 nights (ShARCS AO NIR Imager)		
PI: “AO Observations of Overluminous members of Wide, Low-mass Binaries: Searching for Hierarchical Triples”		2019–2021
• 17 nights (ShARCS AO NIR Imager)		
Co-I: “Optical Spectroscopy of LaTE-MoVeRS M and L Dwarfs”		2017–2021
• 75 nights (Kast Optical Spectrograph)		
SDSS 2.5-meter		
Co-I: “APOGEE-2 Survey of the Lowest-mass Stars and Brown Dwarfs: Composition, Chemistry and Companions”		2017–2018
• ~500 APOGEE fibers awarded for ancillary science call		
Hubble Space Telescope 2.4-meter		
Co-I: Cycle 30 - “Completing the stellar census of Westerlund 1”		2022
• 7 orbits (WFC3)		

	APF 2.4-meter	
	Co-I: “Abundances of Directly Imaged Planet Host Stars”	2021–2022
	• 1.5 nights (Levy Optical Spectrograph)	
	Co-I: “Calibrations of Chemical Abundances of Ultracool Dwarfs in Wide Binary Systems with Optical High-Resolution Spectroscopy of G-Type Primaries”	2022
	• 1 nights (Levy Optical Spectrograph)	
	Co-I: “Benchmarking Chemical Abundances of Ultracool Dwarfs in Binary Systems with Optical Spectroscopy of Bright AFGK Primaries”	2022
	• 2.5 nights (Levy Optical Spectrograph)	
	Co-I: “Radial Velocity Monitoring of WISE J1624-3212: A Potential Low-mass Binary Hiding at 18 pc”	2021
	• 1 nights (Levy Optical Spectrograph)	
	<i>Transiting Exoplanet Survey Satellite 4×0.1-meter</i>	
	PI: “A Magnitude Limited Sample of M dwarfs to Study the Super-Earth Rate across the Fully Convective Boundary”	2022–2023
	• GO Cycle 5: 658 short cadence targets	
ADDITIONAL OBSERVING EXPERIENCE	Keck I 10-meter	
	3 nights on the optical spectrometer (LRIS).	2009–2010
	Keck II 10-meter	
	4 half-nights on the high-res NIR spectrometer (NIRSPEC) with AO (NIRSPAO).	2018
	Palomar Hale 200-inch	
	1 night on the optical spectrograph (DBSP).	2009
	CTIO SMARTS 0.9-meter	
	27 nights on the optical imager.	2014–2016
PROFESSIONAL AFFILIATIONS	American Astronomical Society	2009–Present
	American Physical Society	2008–Present
	National Society of Hispanic Physicists	2008–Present
	National Society of Black Physicists	2011–Present
	Society for the Advancement of Chicanos and Native Americans in Science	2016–Present
OTHER WORK EXPERIENCE	Booz Allen Hamilton (BAH) , San Diego, California, USA	2019
	Strategic Innovation Group - Lead Data Scientist	
	Co-organizer of the 2019 Kaggle Data Science Bowl	
	Aeronautical Radio, Incorporated (ARINC) , San Diego, California, USA	2007–2011
	Analyst/Network Engineer	
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[CV compiled on 2024-06-04]