

Curriculum Vitae

RAQUEL A. MARTINEZ

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EDUCATION

- The University of Texas at Austin**, Austin, TX Aug 2014 – Aug 2021
Ph. D. in Astronomy, Concentration in Teaching & Mentoring
Advisor: Dr. Adam Kraus
- Wesleyan University**, Middletown, CT Aug 2011 – May 2013
M. A. in Astronomy
Thesis: *Searching for Spectral Signatures of the Hidden Secondary Component of BM Ori: Improved Spectroscopic Findings*
Advisor: Dr. Seth Redfield
- California Institute of Technology**, Pasadena, CA Sept 2004 – June 2008
B. S. in Astrophysics

RESEARCH POSITIONS

- NSF MPS-Ascend Fellow**, UC Irvine Sept 2022 – Present
Postdoctoral Scholar, S. Sallum, UC Irvine Sept 2021 – Aug 2022
Harrington Graduate Research Fellow, UT Austin Sept 2014 – Aug 2021
NASA Earth & Space Sciences Fellow, UT Austin Sept 2017 – Aug 2020
Research Assistant, A. Kraus, UT Austin Aug 2014 – Aug 2021
Intern, D. Padgett, NASA Goddard Space Flight Center June 2013 – June 2014
Research Assistant, S. Redfield, W. Herbst, Wesleyan University Sept 2011 – May 2013

FELLOWSHIPS, ACADEMIC HONORS & AWARDS

- NSF MPS-Ascend Postdoctoral Fellowship** Sept 2022 – Present
Three year \$100,000 postdoctoral fellowship
- Robert Smith Davis and Lyall Pickett Davis Fellowship** April 2019
\$1000 travel grant to attend Extreme Solar Systems IV in Reykjavic, Iceland
- UT Graduate School Professional Development Award** July 2018
\$600 of travel support to attend Cool Stars 20 at Boston University
- Fred T. Goetting, Jr. Memorial Endowed Presidential Fellowship**, UT Austin Dept. of Astronomy 2017
Recognizes a student for outstanding service to the department
- NASA Earth & Space Science Fellowship** Sept 2017 – Aug 2020
Three year \$35,000 graduate fellowship
- Board of Visitors Graduate Student 2nd Year Defense Award**, UT Austin Dept. of Astronomy 2016
Given in recognition for an outstanding Second Year defense of research to date
- AAS FAMOUS Travel Grant** Nov 2016
\$500 of travel support to attend Winter AAS #229 in Grapevine, TX
- UT Graduate School Professional Development Award** Nov 2016
\$800 of travel support to attend High-Contrast Imaging in Space Conference at STScI

Frank N. Edmonds, Jr. Memorial Fellowship , UT Austin Dept. of Astronomy	2015
Given to a second or third year student who shows strong promise in research	
Donald D. Harrington Fellowship , UT Austin Graduate School	Sept 2014 – Aug 2021
Three year \$36,000 graduate fellowship for the 1 st , 2 nd , and 5 th years	
Littell Prize , Wesleyan University	May 2013
For excellence in one or more advanced courses in astronomy	
President's Scholar , California Institute of Technology	Sept 2004 – June 2008
Four year full-tuition scholarship	

SUCCESSFUL OBSERVING PROPOSALS

Hobby-Eberly Telescope: LRS2, 30.7 hours, (PI)	Dec 2016 – Dec 2018
Gemini North: GNIRS, 1.4 hours, (PI)	2019B
Keck-I: LRIS, 3 1/2 nights, (Co-I)	2021B, 2022AB
Keck-II: NIRSPAO, 3 1/2 nights, (Co-I)	2021B, 2022AB
<i>Hubble Space Telescope</i> : WFC3/UVIS, 26 orbits, (Co-I)	Cycle 28
<i>JWST</i> : MIRI, NIRCcam, NIRISS, NIRSpec (Collaborator)	Early Release Science

PRESENTATIONS & PANELS

AAS #241 , Contributed Talk, Seattle, WA	Jan 2023
University of San Diego , Colloquium, San Diego, CA	Oct 2022
AAS Division of Dynamical Astronomy , Invited Speaker, Virtual	May 2021
KIPAC Tea Talk , Invited Speaker, Virtual	Dec 2020
Carnegie EPL Seminar , Invited Speaker, Virtual	Nov 2020
Carnegie Observatories , Invited Speaker, Virtual	Oct 2020
JPL Exoplanet Journal Club , Invited Speaker, Virtual	Oct 2020
SACNAS National Diversity in STEM Conference , Contributed Talk, Virtual	Oct 2020
AAS #237 , Contributed Talk, Honolulu, HI	Jan 2020
Brown Dwarf-Exoplanet Connection Workshop III , Contributed Talk, Newark, DE	Oct 2019
Center for Astrophysics Star & Planets Seminar , Invited Speaker, Cambridge, MA	Oct 2019
Boston University , Invited Speaker, Boston, MA	Oct 2019
6th Annual GMT Community Science Meeting , Contributed Talk, Honolulu, HI	Sept 2018
Women in Astronomy IV , Austin, TX	June 2017
Co-designer & Co-presenter of <i>Practicing Allyship: Recognizing and Confronting Macro/Microaggressions</i>	
Workshop with Brandon Bozek and Caitlin Casey	
Dept. of Astronomy Board of Visitors Meeting , Invited Speaker, UT Austin	Feb 2016
Harrington Symposium , Invited Speaker, Amarillo, TX	April 2015
Harrington Fellows Program Board Meeting , Invited Speaker, UT Austin	March 2015

TEACHING EXPERIENCE & PUBLIC OUTREACH

Astronomy on Tap Organizer and Co-Host , Austin, TX	Jul 2016 – Mar 2019
Girl Day STEM Festival Volunteer , UT Austin	Feb 2016 – Feb 2020
<ul style="list-style-type: none"> Coordinated UT Department of Astronomy involvement in event attended by >5000 K-8 school-aged children 	
AAS Astronomy Ambassador	Jan 2017 – Present
Astronomy on Tap Talk , Austin, TX	May 2015, May 2016
Smart Kids: Career Paths and Personal Journeys in Science , Panelist, UT Austin	Mar 2018
Teaching Assistant , AST 364P <i>Planetary Systems</i> , UT Austin	Fall 2017
CNS Science in the Public Square , Panelist, UT Austin	Nov 2016

Young Scientists' Day , Travis Heights Elementary School	Nov 2016
JWST Exhibit Volunteer , SXSW Gaming Expo	March 2015, 2016
Teaching Assistant , Wesleyan University	Fall 2011 – Spring 2013
• <i>Introductory Astronomy, Descriptive Astronomy, The Universe</i>	
Outreach Volunteer , Van Vleck Observatory, Wesleyan University	Fall 2011 – Spring 2013

PROFESSIONAL DEVELOPMENT

Postdoc Leadership Institute , Society for Advancement of Chicanos/Hispanics and Native Americans in Science, San Juan, PR	Oct 2022
Institute for Scientist & Engineer Educators Leadership Institute , Hilo, HI	May 2022
Institute for Scientist & Engineer Educators Leadership by Design , UCSC	2021
Institute for Scientist & Engineer Educators Professional Development Program , UCSC	2017 – 2019
Women in Astronomy IV , Austin, TX	June 2017
Inclusive Astronomy , Vanderbilt University	June 2015

PROFESSIONAL ACTIVITIES & ACADEMIC SERVICE

Reviewer , AAS Journals	2022 – Present
Full Member , American Astronomical Society	2022 – Present
Mentoring Working Group Member , NASA Bridge Program Workshop	Sept 2022 – Oct 2022
National Liaison , Society for Advancement of Chicanos/Hispanics and Native Americans in Science, UC Irvine Chapter	Sept 2022 – Present
New Professional Member , Society for Advancement of Chicanos/Hispanics and Native Americans in Science	2022 – Present
Local Organizing Committee , Bashfest Symposium, UT Austin	2017
UT Austin Department of Astronomy Leadership Positions	
CNS Dean's Council	Sept 2017 – April 2019
Equity & Inclusion Group, Co-Founder	Aug 2016 – Aug 2021
Graduate Student Representative	May 2016 – May 2017
UT Graduate Student Assembly Representative	Sept 2015 – May 2016
Association of Women in Astronomy Research and Education, Coordinator	2014 – 2021
Graduate Student Member , Society for Advancement of Chicanos/Hispanics and Native Americans in Science	2016 – 2021
Junior Member , American Astronomical Society	2012 – 2021
Representative , Educational Policy Committee, Wesleyan University	Fall 2012 – Spring 2013
Executive Committee , Graduate Student Association, Wesleyan University	2012 – 2013

PUBLICATIONS

Refereed Publications:

A Mid-Infrared Study of Directly-Imaged Planetary-Mass Companions us Archival Spitzer/IRAC Images

Martinez, R. A., Kraus, A. L. 2022, *AJ*, 163, 36; [link](#)

Searching for Wide Companions and Identifying Circum(sub)stellar Disks Through PSF-fitting of Spitzer/IRAC Archival Images

Martinez, R. A., Kraus, A. L. 2019, *AJ*, 158, 134; [link](#)

The JWST Early Release Science Program for Direct Observations of Exoplanetary Systems II: A 1 to 20 Micron Spectrum of the Planetary-Mass Companion VHS 1256-1257 b

Miles, B. E., Biller, B. A., Patapis, P., et al. (including **Martinez, R. A.**) 2022, in review; [link](#)

The JWST Early Release Science Program for Direct Observations of Exoplanetary Systems I: High Contrast Imaging of the Exoplanet HIP 65426 b from 2-16 μm

Carter, A. L., Hinkley, S., Kammerer, J., et al. (including **Martinez, R. A.**) 2022, in review; [link](#)

The JWST Early Release Science Program for the Direct Imaging and Spectroscopy of Exoplanetary Systems

Hinkley, S., Carter, A. L., Ray, S., et al. (including **Martinez, R. A.**) 2022, PASP, 134, 095003; [link](#)

TESS Hunt for Young and Maturing Exoplanets (THYME): A planet in the 45 Myr Tucana-Horologium association

Newton, E. R., Mann, A. W., Tofflemire, B. M., Pearce, L., Rizzuto, A. C., Vanderburg, A., **Martinez, R. A.**, et al. 2019, ApJL, 880, L17; [link](#)

How to Constrain Your M Dwarf. II. The Mass–Luminosity–Metallicity Relation from 0.075 to 0.7 Solar Masses

Mann, A. W., Dupuy, T., Kraus, A. L., Gaidos, E., Ansdell, M., Ireland, M., Rizzuto, A. C., Hung, C.-L., Dittmann, J., Factor, S., Feiden, G., **Martinez, R. A.**, Ruíz-Rodríguez, D., Chia Thao, P. 2019, ApJ, 871, 63; [link](#)

Non-refereed Publications:

Weighing Exo-atmospheres: A Novel Mid-resolution Spectral Mode for SCALES

Stelter, R. D., Skemer, A. J., Kupke, R., et al. (including **Martinez, R. A.**) 2022, Proceedings of the SPIE, 12184, 1218445. doi:10.1117/12.2630400; [link](#)

The Planetary Systems Imager for TMT: Driving Science Cases and Top Level Requirements

Sallum, S., Millar-Blanchaer, M. A., Batalha, N., et al. (including **Martinez, R. A.**) 2022, Proceedings of the SPIE, 12184, 1218446. doi:10.1117/12.2630423; [link](#)

Design of SCALES: a 2-5 micron Coronagraphic Integral Field Spectrograph for Keck Observatory

Skemer, A. J., Stelter, R. D., Sallum, S., et al. (including **Martinez, R. A.**) 2022, Proceedings of the SPIE, 12184, 121840I. doi:10.1117/12.2630577; [link](#)

Martinez, R. A., Silvia, D.W., Rice, E.L., & Porter, J. (2022). Value of the array of returner roles within the Professional Development Program. pp. 381–388 in S. Seagroves, A. Barnes, A.J. Metevier, J. Porter, & L. Hunter (Eds.), *Leaders in effective and inclusive STEM: Twenty years of the Institute for Scientist & Engineer Educators*. UC Santa Cruz: Institute for Scientist & Engineer Educators.

https://escholarship.org/uc/isee_pdp20yr

Finkelstein, K., **Martinez, R. A.**, & Vanderbosch, Z. (2022). Designing and implementing a PDP inquiry activity for an introductory astronomy research methods course. pp. 221–232 in S. Seagroves, A. Barnes, A.J. Metevier, J. Porter, & L. Hunter (Eds.), *Leaders in effective and inclusive STEM: Twenty years of the Institute for Scientist & Engineer Educators*. UC Santa Cruz: Institute for Scientist & Engineer Educators.

https://escholarship.org/uc/isee_pdp20yr