

Leonardo A. Paredes

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Education

- 2022 **Ph.D. in Astronomy**
Georgia State University
Recipient of the Outstanding Advanced Graduate Student Award
“*The Solar Neighborhood Complete Survey of Stars and Planets Orbiting K Stars*”
Thesis Advisor: Dr. Todd J. Henry
- 2020 **M.Sc. in Physics**
Georgia State University
Graduate Advisor: Dr. Todd J. Henry
- 2007 **B.Sc. in Physics**
Universidad de La Serena, Chile
Undergraduate Advisors: Dr. Amelia Ramirez and Dr. Rodolfo Barbá

Professional History

- 2023— ... **NEID Software Architect – Postdoctoral Research Associate**
Steward Observatory at The University of Arizona, Tucson, AZ
Researcher and code developer for the NEID Spectrograph Data Processing Pipeline. Member of the team lead by Dr. Chad Bender. Duties include: Add new features, enhance capabilities, troubleshoot for the pipeline. Provide users documentation and support for their science. Support in instrument maintenance and upgrades procedures. Evaluate the quality and stability of instrument, implementing quality control tools.
- 2016—2022 **RECONS CTIO/SMARTS 1.5-m Telescope Fellow**
Georgia State University and RECONS Institute, Atlanta, GA
Manager of scientific operations for CHIRON Spectrograph. Daily duties include: management of the observing queue, oversee data processing and distribution, provide scientific support and general troubleshooting for PIs and users, provide technical support for telescope operations in coordination with observatory staff, oversee maintenance and upgrades to the CHIRON website for target requests and scheduling. Additionally: In 2017, leading the reopening of 1.5-m telescope operations and CHIRON recommissioning on-site. Including the migration of servers for website scheduler, queue and data processing routines to Atlanta facilities.

- 2012—2015 **Telescope Operator and Observer Support**
NOIRLab and SMARTS Consortium, La Serena, Chile
 Performed several duties that included: Carry-on observing runs, night time telescope operations, instrument support for visiting astronomers, and daytime support for all 4-m and 1-m class telescopes and their instruments at Cerro Tololo Inter-American Observatory (CTIO), Southern Astrophysical Research Telescope (SOAR), SMARTS Telescopes.
- 2011—2012 **Research Assistant**
Cerro Tololo Inter-American Observatory (CTIO), La Serena, Chile
 Part of the Magellanic Clouds Emission Line Survey (MCELS) Project, led by Sean Points, Chris Smith and Armin Rest. Performed the flux calibration for narrow-band imaging 6-year survey, and used the difference imaging technique to identify planetary nebulae in the Magellanic Clouds. Co-mentored REU students for astronomical observations at CTIO.
- 2009—2012 **Physics Teacher**
Colegio Seminario Conciliar (High School), Full-time 2009—2010
Preuniversitario CEPECH (Test Preparation Center), 2010—2012
Preuniversitario FEULS (Test Preparation Center), 2010
- 2009—2010 **Physics Lecturer**
Universidad Pedro de Valdivia
Centro de Formación Técnica Salesianos Don Bosco
- 2005—2009 **Visitor’s Guide and Public Outreach**
La Silla Observatory, European Southern Observatory (ESO), Chile
- 2005—2006 **Teaching Assistant**
Bachelor of Science in Physics Program at Universidad de La Serena, Chile
 Mechanics I and Classical Mechanics.

Awards

- 2022 **Outstanding Advanced Graduate Student Award**
Department of Physics and Astronomy, Georgia State University
- 2020 **Chambliss Student Achievement Award**
“Discovering New Stellar, Brown Dwarf, and Planetary Companions Orbiting 472 of the Nearest K Dwarfs”, 235th AAS Meeting, Honolulu, HI

Selected Publications

1. **L. A. Paredes**, T. J. Henry, S. N. Quinn, D. R. Gies, R. Hinojosa-Goñi, H.-S. James, W.-C. Jao, and R. J. White. *The Solar Neighborhood XLVIII: Nine Giant Planets Orbiting Nearby K Dwarfs, and the CHIRON Spectrograph's Radial Velocity Performance*. In: AJ 162.5, 176 (Nov. 2021), p. 176. DOI: 10.3847/1538-3881/ac082a
2. **L. Paredes**, T. Henry, D. Nusdeo, H. James, W. Jao, and Speckle Team. *Discovering New Stellar, Brown Dwarf, and Planetary Companions Orbiting 472 of the Nearest K Dwarfs*. In: *American Astronomical Society Meeting Abstracts*. Jan. 2020, 374.03, p. 374.03 **2020 AAS Chambliss Award Recipient**
3. S. Surana, C. F. Bender, C. I. Cañas, D. M. Krolikowski, W. D. Cochran, M. Everett, A. F. Gupta, S. Kanodia, S. Mahadevan, et al. *Stellar and Orbital Characterization of Three Low Mass M Dwarf Binary Stars with Dynamical Spectroscopy from the Habitable Zone Planet Finder*. In: AJ 171.3, 193 (Mar. 2026), p. 193. DOI: 10.3847/1538-3881/ae3d9d. arXiv: 2601.19996 [astro-ph.SR]
4. H.-S. Hubbard-James, S. Carrazco-Gaxiola, T. J. Henry, **L. A. Paredes**, A. H. Nizak, X. Lesley-Saldaña, W.-C. Jao, and A. Arbogast. *The Solar Neighborhood LV: Spectral Characterization of an Equatorial Sample of 580 K Dwarfs*. In: AJ 171.3, 175 (Mar. 2026), p. 175. DOI: 10.3847/1538-3881/ae3de3. arXiv: 2601.00462 [astro-ph.SR]
5. A. F. Gupta, E. Fitzmaurice, S. Mahadevan, P. Robertson, J. K. Luhn, J. T. Wright, S. E. Logsdon, D. M. Krolikowski, **L. A. Paredes**, et al. *The NEID Earth Twin Survey. III. Survey Performance after Three Years on Sky*. In: AJ 170.5, 264 (Nov. 2025), p. 264. DOI: 10.3847/1538-3881/ae0339. arXiv: 2506.23704 [astro-ph.EP]
6. C. Melis, **L. Paredes**, M. Millar-Blanchaer, R. Launhardt, C. Mann, J. Olofsson, J. Lillo-Box, A. Weinberger, G. Kennedy, et al. *Dynamical Chaos and Disappearing Dust in the TYC 8830 410 1 Planetary System*. In: *IAU General Assembly*. Aug. 2024, 1701, p. 1701
7. W.-C. Jao, T. J. Henry, R. J. White, A. H. Nisak, H.-S. Hubbard-James, **L. A. Paredes**, and V. B. Lewis. *Mind the Gap. I. $H\alpha$ Activity of M Dwarfs Near the Partially/Fully Convective Boundary and a New $H\alpha$ Emission Deficiency Zone on the Main Sequence*. In: AJ 166.2, 63 (Aug. 2023), p. 63. DOI: 10.3847/1538-3881/ace2bb. arXiv: 2304.14452 [astro-ph.SR]
8. H.-S. Hubbard-James, D. X. Lesley, T. J. Henry, **L. A. Paredes**, and A. H. Nisak. *The Solar Neighborhood L: Spectroscopic Discovery of K Dwarfs Younger Than 1 Gyr and New Binaries within 30 pc*. In: AJ 164.5, 174 (Nov. 2022), p. 174. DOI: 10.3847/1538-3881/ac8d6a. arXiv: 2210.03873 [astro-ph.SR]
9. M. L. Silverstein, J. E. Schlieder, T. Barclay, B. J. Hord, W.-C. Jao, E. H. Vrijmoet, T. J. Henry, R. Cloutier, V. B. Kostov, et al. *The LHS 1678 System: Two Earth-sized Transiting Planets and an Astrometric Companion Orbiting an M Dwarf Near*

the Convective Boundary at 20 pc. In: AJ 163.4, 151 (Apr. 2022), p. 151. DOI: 10.3847/1538-3881/ac32e3. arXiv: 2110.12079 [astro-ph.EP]

10. **L. A. Paredes**, T. J. Henry, W. Jao, H. James, R. Hinojosa, and Recons Team. *A Radial Velocity Survey of the Complete Sample of K Dwarfs within 25 Parsecs.* In: *American Astronomical Society Meeting Abstracts.* Vol. 53. Jan. 2021, 332.02, p. 332.02

Observing Time

- 2026-2 HPF Spectrograph time for RV and relative astrometry combined analysis of nearby binary systems (PI: Chad Bender)
- 2017—pres. CHIRON Spectrograph time at CTIO/SMARTS 1.5m Telescope through Georgia State University internal funding.
- 2011—pres. 15 years of experience on 4-m and 1-m class telescopes with optical/infrared imagers and spectrographs, NOIRLab and SMARTS.

Telescope and Instruments Support/Observer

Scientific and Technical Support

- 2023—pres. WIYN Telescope NEID High-resolution Spectrograph: Data quality assessment, data analyst, pipeline developer.
- 2011—2024 CTIO/SMARTS 1.5m Telescope CHIRON High-resolution Spectrograph: Nighttime Observer, daytime instrument support, science fellow, scientific support, data analyst, pipeline developer, target scheduler, and RV performance paper published in 2021.
- 2011—2024 CTIO/SMARTS 0.9m Telescope Imager: Nighttime observer, daytime instrument support, astrometry and photometry data analyst.

Operations and Technical Support

- Blanco 4m Telescope: DECam, Hydra, COSMOS, ISPI, MOSAIC.
- SOAR Telescope: Goodman, SAM, SOI, Spartan.
- CTIO/SMARTS 0.9m/1.3m/1.5m Telescopes: 0.9m CCD Imager, ANDICAM (Optical/IR), CHIRON, RCSpec, SIMON (NIR).
- WIYN Telescope: NEID Spectrograph (data quality and processing).

Astronomical Techniques Experience

- *High-resolution Spectroscopy*: Wavelength calibration with Laser Frequency Comb and Comparison lamps (ThAr, Etalon); echelle blaze correction; echelle order stitching; precision RV extraction using CCF; derivation of stellar activity indicators (e.g. S-index and BIS).
- *CCD Imaging*: Photo-center relative astrometry; aperture and PSF photometry; difference imaging analysis (DIA); image combination and mosaic (single and RGB channels); CCD image reduction (bias correction, dark subtraction, flat-field correction, astrometric plate solution); flux calibration with spectrophotometric standard stars.
- *Catalog and Large data sets*: Sample construction and vetting using astrometric and photometric catalogs (e.g. Gaia, HIPPARCOS, Tycho, 2MASS, APASS). Archival and distribution of reduced data and derived measurements for survey progress tracking.
- *Time Series Analysis*: RV variability from stabilized spectrographs for stellar and exoplanet orbital solutions; Astrometric variability for parallax, proper motion, and stellar orbital solutions; photometric variability from TESS data and CCD imaging.

Programming Experience

- *Community software developer*: maintainer and collaborator for NEID-DRP (NExSci private repo) and EPRV-RCN Data Standard repositories; contributor to `numpy` repository.
- **Python 2/3** with data analysis and visualization packages: `astropy`, `numpy/scipy`, `specutils`, `pandas`, `matplotlib`, `bokeh`, and others. Used extensively on image, spectra, and large catalog data, developing data analysis pipelines, data quality control, visualization, and publishable products. Main coding language I use for research work since 2011.
- **GIT** (github.com/phdparedes). Used for personal and large collaborative coding efforts, package development, version control, compliance, and CI testing.
- **Slurm Workload Manager**. Used to manage NEID pipeline processing jobs in HPC infrastructure.
- **IRAF/pyraf**. Used extensively for CCD image processing such as bias/flat corrections, astrometric solutions, co-adding, mosaicing, aperture photometry and flux calibration.
- **IDL** and astronomy packages for spectroscopic data reduction and visualization.
- **SQL Server** for various purposes such as queries, large data sets storage, database maintenance and inter-operability for the CHIRON Scheduler web application.
- **HTML/PHP/Javascript** limited to maintenance and upgrades of CHIRON Scheduler web application.

Teaching Experience

TA/Lab.	<i>Astronomy of the Solar System</i> , Georgia State University (2 semesters) <i>Stellar and Galactic Astronomy</i> , Georgia State University (4 semesters) <i>Mechanics I</i> , Universidad de La Serena (2 semesters) <i>Classical Mechanics</i> , Universidad de La Serena (2 semesters)
Lecture	<i>Mechanics</i> , Universidad Pedro de Valdivia (2 semesters) <i>Electromagnetism</i> , Universidad Pedro de Valdivia (2 semesters)
Lecture	<i>High School Physics</i> (9 semesters) Colegio Seminario Conciliar, Preuniversitario CEPECH and FEULS

Invited Talks

- “*Adapting the NEID Wavelength Calibration to Instrumental Changes Over Time*” at the Wavelength Calibration for High-resolution Spectrographs Workshop, Geneva Observatory, May 2025, Geneva, Switzerland.
- “*NEID Spectrograph Wavelength Calibration Vetting*” at EPRV Data Standard Group Meeting, October 2024, New York, NY.
- “*Using CHIRON and the CTIO/SMARTS 1.5m for TESS Follow-up*” at the Exoplanet Exploration Program Analysis Group (EXOPAG) Meeting, January 2019, Seattle, WA.

Co-PI Funded Efforts

2025—pres.	<i>Development of a community data reduction framework to advance EPRV towards the cm/s precision era</i> P.I.: Daniel Krolikowski NASA D.20 Exoplanet Mass Measurement Program
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Collaborator/Contributor in Funded Efforts

2023—pres.	<i>A Community Driven, Modular Data-Pipeline Architecture to Push EPRV Into the 1 cm/s Era</i> P.I.: Jennifer Burt NASA D.18 Extreme Precision Radial Velocity Foundation Science
2019—2023	<i>Orbital Architectures of Companions to the Nearest K Dwarfs</i> P.I.: Todd J. Henry NASA’s Exoplanet Research Program
2019—2023	<i>A Reconnaissance of the 5000 Nearest K Dwarfs</i> P.I.: Todd J. Henry National Science Foundation

Science Investigation Groups

2023—pres.	NEID Spectrograph Science Group
2023—pres.	Habitable Planet Finder Spectrograph Science Group
2016—pres.	RECONS Science Group

Professional Organization Activities

2016—2022	American Astronomical Society (AAS)
2017—2022	Astronomy Peer Advising Leaders (AstroPAL). Mentorship student program for the Astronomy Graduate Program at Georgia State University. Mentoring first and second year astronomy graduate students, and as lecturer for focus group activities such as astronomy coding workshops and professional development practices.

Other Professional Activities

- **Photographer** – Professional Portraits, Astrophotography, and Concert Photography
- **Chess Player** – FIDE International Ranked Chess player 1944 ELO, USCF Ranked Player 2062 ELO
 - Champion Oro Valley Rapid Chess Tournament May 2026, Arizona
 - Champion Under-18 National Chess 2002 and Vice-Champion 2003, Chile
 - First Place at Intercollegiate Zonal Team Chess Championship 2004, Chile
 - Awarded Best Chess Player of University of La Serena 2006, Chile
- **Freestyle Slalom Skater** — World Slalom Series 2014-2015

Refereed Journal Publications (Full list)

1. **L. A. Paredes**, T. J. Henry, S. N. Quinn, D. R. Gies, R. Hinojosa-Goñi, H.-S. James, W.-C. Jao, and R. J. White. *The Solar Neighborhood XLVIII: Nine Giant Planets Orbiting Nearby K Dwarfs, and the CHIRON Spectrograph's Radial Velocity Performance*. In: AJ 162.5, 176 (Nov. 2021), p. 176. DOI: 10.3847/1538-3881/ac082a

2. K. Pandey, E. A. Ford, J. M. Salzer, J. Cisewski-Kehe, L. L. Zhao, A. F. Gupta, M. L. Palumbo III, R. C. Terrien, E. Fitzmaurice, et al. *Improving the Precision of Line-by-Line Radial Velocities: A Data-Driven Iterative Algorithm for Spectral Line Selection*. In: *arXiv e-prints*, arXiv:2606.29552 (June 2026), arXiv:2606.29552. DOI: 10.48550/arXiv.2606.29552. arXiv: 2606.29552 [astro-ph.EP]
3. S. Surana, C. F. Bender, C. I. Cañas, D. M. Krolkowski, W. D. Cochran, M. Everett, A. F. Gupta, S. Kanodia, S. Mahadevan, et al. *Stellar and Orbital Characterization of Three Low Mass M Dwarf Binary Stars with Dynamical Spectroscopy from the Habitable Zone Planet Finder*. In: *AJ* 171.3, 193 (Mar. 2026), p. 193. DOI: 10.3847/1538-3881/ae3d9d. arXiv: 2601.19996 [astro-ph.SR]
4. H.-S. Hubbard-James, S. Carrazco-Gaxiola, T. J. Henry, **L. A. Paredes**, A. H. Nizak, X. Lesley-Saldaña, W.-C. Jao, and A. Arbogast. *The Solar Neighborhood LV: Spectral Characterization of an Equatorial Sample of 580 K Dwarfs*. In: *AJ* 171.3, 175 (Mar. 2026), p. 175. DOI: 10.3847/1538-3881/ae3de3. arXiv: 2601.00462 [astro-ph.SR]
5. K. H. Taş, G. Stefansson, S. N. M. Fariz, E. Garg, J. I. Espinoza-Retamal, E. Koo, D. Bruijne, J. K. Luhn, E. B. Ford, et al. *An Earth-sized planet on a 5.4 h orbit around a nearby K dwarf*. In: *A&A* 707, A238 (Mar. 2026), A238. DOI: 10.1051/0004-6361/202556365. arXiv: 2507.08464 [astro-ph.EP]
6. A. F. Gupta, E. Fitzmaurice, S. Mahadevan, P. Robertson, J. K. Luhn, J. T. Wright, S. E. Logsdon, D. M. Krolkowski, **L. A. Paredes**, et al. *The NEID Earth Twin Survey. III. Survey Performance after Three Years on Sky*. In: *AJ* 170.5, 264 (Nov. 2025), p. 264. DOI: 10.3847/1538-3881/ae0339. arXiv: 2506.23704 [astro-ph.EP]
7. R. B. Fernandes, S. Kanodia, M. Delamer, A. Hotnisky, T. Han, C. I. Cañas, J. Libby-Roberts, V. Reji, A. F. Gupta, et al. *Searching for GEMS: Confirmation of TOI-5573 b, a Cool, Saturn-like Planet Orbiting an M Dwarf*. In: *AJ* 170.1, 55 (July 2025), p. 55. DOI: 10.3847/1538-3881/addc51. arXiv: 2505.08947 [astro-ph.EP]
8. T. Han, P. Robertson, C. I. Cañas, G. Stefansson, S. Kanodia, J. P. Ninan, J. A. Alvarado-Montes, C. F. Bender, J. Dong, et al. *NEIDSpecMatch: Stellar Parameter Estimation with NEID Spectra Using an Empirical Library*. In: *Research Notes of the American Astronomical Society* 9.3, 63 (Mar. 2025), p. 63. DOI: 10.3847/2515-5172/adc264. arXiv: 2503.16729 [astro-ph.SR]
9. C. Beard, P. Robertson, J. Lubin, T. Han, R. Holcomb, P. Premnath, R. P. Butler, P. A. Dalba, B. Holden, et al. *Jitter Across 15 yr: Leveraging Precise Photometry from Kepler and TESS to Extract Exoplanets from Radial Velocity Time Series*. In: *AJ* 169.2, 92 (Feb. 2025), p. 92. DOI: 10.3847/1538-3881/ad9eb0. arXiv: 2412.11329 [astro-ph.EP]
10. C. Beard, P. Robertson, J. Lubin, T. Han, R. Holcomb, P. Premnath, R. P. Butler, P. A. Dalba, B. Holden, et al. *Jitter Across 15 yr: Leveraging Precise Photometry from Kepler and TESS to Extract Exoplanets from Radial Velocity Time Series*. In: *AJ*

- 169.2, 92 (Feb. 2025), p. 92. DOI: 10.3847/1538-3881/ad9eb0. arXiv: 2412.11329 [astro-ph.EP]
11. S. Kanodia, A. S. J. Lin, E. Lubar, S. Halverson, S. Mahadevan, C. F. Bender, S. E. Logsdon, L. W. Ramsey, J. P. Ninan, et al. *Stable Fiber-illumination for Extremely Precise Radial Velocities with NEID*. in: AJ 166.3, 105 (Sept. 2023), p. 105. DOI: 10.3847/1538-3881/acea60. arXiv: 2307.12403 [astro-ph.IM]
 12. W.-C. Jao, T. J. Henry, R. J. White, A. H. Nisak, H.-S. Hubbard-James, **L. A. Paredes**, and V. B. Lewis. *Mind the Gap. I. H α Activity of M Dwarfs Near the Partially/Fully Convective Boundary and a New H α Emission Deficiency Zone on the Main Sequence*. In: AJ 166.2, 63 (Aug. 2023), p. 63. DOI: 10.3847/1538-3881/ace2bb. arXiv: 2304.14452 [astro-ph.SR]
 13. I. I. Tristan, Y. Notsu, A. F. Kowalski, A. Brown, J. P. Wisniewski, R. A. Osten, E. H. Vrijmoet, G. L. White, B. D. Carter, et al. *A 7 Day Multiwavelength Flare Campaign on AU Mic. I. High-time-resolution Light Curves and the Thermal Empirical Neupert Effect*. In: ApJ 951.1, 33 (July 2023), p. 33. DOI: 10.3847/1538-4357/acc94f. arXiv: 2304.05692 [astro-ph.SR]
 14. K. V. Lester, G. H. Schaefer, F. C. Fekel, D. R. Gies, T. J. Henry, W.-C. Jao, **L. A. Paredes**, H.-S. Hubbard-James, C. D. Farrington, et al. *Visual Orbits of Spectroscopic Binaries with the CHARA Array. IV. HD 61859, HD 89822, HD 109510, and HD 191692*. In: AJ 164.6, 228 (Dec. 2022), p. 228. DOI: 10.3847/1538-3881/ac9385. arXiv: 2209.09993 [astro-ph.SR]
 15. H.-S. Hubbard-James, D. X. Lesley, T. J. Henry, **L. A. Paredes**, and A. H. Nisak. *The Solar Neighborhood L: Spectroscopic Discovery of K Dwarfs Younger Than 1 Gyr and New Binaries within 30 pc*. In: AJ 164.5, 174 (Nov. 2022), p. 174. DOI: 10.3847/1538-3881/ac8d6a. arXiv: 2210.03873 [astro-ph.SR]
 16. A. H. Nisak, R. J. White, A. Yep, T. J. Henry, **L. Paredes**, H.-S. James, and W.-C. Jao. *Mapping out the Stellar Populations of IC 2602 and IC 2391*. In: AJ 163.6, 278 (June 2022), p. 278. DOI: 10.3847/1538-3881/ac63c3
 17. M. L. Silverstein, J. E. Schlieder, T. Barclay, B. J. Hord, W.-C. Jao, E. H. Vrijmoet, T. J. Henry, R. Cloutier, V. B. Kostov, et al. *The LHS 1678 System: Two Earth-sized Transiting Planets and an Astrometric Companion Orbiting an M Dwarf Near the Convective Boundary at 20 pc*. In: AJ 163.4, 151 (Apr. 2022), p. 151. DOI: 10.3847/1538-3881/ac32e3. arXiv: 2110.12079 [astro-ph.EP]
 18. A. B. Davis, S. Wang, M. Jones, J. D. Eastman, M. N. Günther, K. G. Stassun, B. C. Addison, K. A. Collins, S. N. Quinn, et al. *TOI 564 b and TOI 905 b: Grazing and Fully Transiting Hot Jupiters Discovered by TESS*. in: AJ 160.5, 229 (Nov. 2020), p. 229. DOI: 10.3847/1538-3881/aba49d. arXiv: 1912.10186 [astro-ph.EP]
 19. I. Mireles, A. Shporer, N. Grieves, G. Zhou, M. N. Günther, R. Brahm, C. Ziegler, K. G. Stassun, C. X. Huang, et al. *TOI 694b and TIC 220568520b: Two Low-mass*

- Companions near the Hydrogen-burning Mass Limit Orbiting Sun-like Stars.* In: AJ 160.3, 133 (Sept. 2020), p. 133. DOI: 10.3847/1538-3881/aba526. arXiv: 2006.14019 [astro-ph.SR]
20. R. Rodríguez Martínez, B. S. Gaudi, J. E. Rodríguez, G. Zhou, J. Labadie-Bartz, S. N. Quinn, K. Penev, T.-G. Tan, D. W. Latham, et al. *KELT-25 b and KELT-26 b: A Hot Jupiter and a Substellar Companion Transiting Young A Stars Observed by TESS.* in: AJ 160.3, 111 (Sept. 2020), p. 111. DOI: 10.3847/1538-3881/ab9f2d. arXiv: 1912.01017 [astro-ph.EP]
 21. G. Zhou, J. N. Winn, E. R. Newton, S. N. Quinn, J. E. Rodríguez, A. W. Mann, A. C. Rizzuto, A. M. Vanderburg, C. X. Huang, et al. *A Well-aligned Orbit for the 45 Myr-old Transiting Neptune DS Tuc Ab.* In: ApJ 892.2, L21 (Apr. 2020), p. L21. DOI: 10.3847/2041-8213/ab7d3c. arXiv: 1912.04095 [astro-ph.EP]
 22. C. X. Huang, S. N. Quinn, A. Vanderburg, J. Becker, J. E. Rodríguez, F. J. Pozuelos, D. Gandolfi, G. Zhou, A. W. Mann, et al. *TESS Spots a Hot Jupiter with an Inner Transiting Neptune.* In: ApJ 892.1, L7 (Mar. 2020), p. L7. DOI: 10.3847/2041-8213/ab7302. arXiv: 2003.10852 [astro-ph.EP]
 23. P. Dorval, G. J. J. Talens, G. P. P. L. Otten, R. Brahm, A. Jordán, P. Torres, L. Vanzì, A. Zapata, T. Henry, et al. *MASCARA-4 b/bRing-1 b: A retrograde hot Jupiter around a bright A-type star.* In: A&A 635, A60 (Mar. 2020), A60. DOI: 10.1051/0004-6361/201935611. arXiv: 1904.02733 [astro-ph.EP]
 24. M. I. Jones, R. Brahm, N. Espinoza, S. Wang, A. Shporer, T. Henning, A. Jordán, P. Sarkis, **L. A. Paredes**, et al. *HD 2685 b: a hot Jupiter orbiting an early F-type star detected by TESS.* in: A&A 625, A16 (May 2019), A16. DOI: 10.1051/0004-6361/201834640. arXiv: 1811.05518 [astro-ph.EP]
 25. R. Vanderspek, C. X. Huang, A. Vanderburg, G. R. Ricker, D. W. Latham, S. Seager, J. N. Winn, J. M. Jenkins, J. Burt, et al. *TESS Discovery of an Ultra-short-period Planet around the Nearby M Dwarf LHS 3844.* In: ApJ 871.2, L24 (Feb. 2019), p. L24. DOI: 10.3847/2041-8213/aafb7a. arXiv: 1809.07242 [astro-ph.EP]
 26. S. Wang, M. Jones, A. Shporer, B. J. Fulton, **L. A. Paredes**, T. Trifonov, D. Kosakowski, J. Eastman, S. Redfield, et al. *HD 202772A b: A Transiting Hot Jupiter around a Bright, Mildly Evolved Star in a Visual Binary Discovered by TESS.* in: AJ 157.2, 51 (Feb. 2019), p. 51. DOI: 10.3847/1538-3881/aaf1b7. arXiv: 1810.02341 [astro-ph.EP]
 27. L. Gonzalez, M. C. Bentz, and **L. Paredes**. *V-Band Photometric Monitoring of 852 Wladilena.* In: *Minor Planet Bulletin* 46.1 (Jan. 2019), pp. 8–9
 28. M. C. Bentz, C. Abbot, S. Agudelo, S. Dassing, W. Flynn, A. Gibbs, L. Gonzalez, B. Kim, **L. Paredes**, et al. *Filtered Photometric Monitoring of 1591 Baize.* In: *Minor Planet Bulletin* 45.4 (Oct. 2018), pp. 311–312

29. J. L. Prieto, A. Rest, F. B. Bianco, T. Matheson, N. Smith, N. R. Walborn, E. Y. Hsiao, R. Chornock, **L. Paredes Álvarez**, et al. *Light Echoes from η Carinae's Great Eruption: Spectrophotometric Evolution and the Rapid Formation of Nitrogen-rich Molecules*. In: ApJ 787.1, L8 (May 2014), p. L8. DOI: 10.1088/2041-8205/787/1/L8. arXiv: 1403.7202 [astro-ph.SR]
30. A. Kunder, P. B. Stetson, S. Cassisi, A. Layden, G. Bono, M. Catelan, A. R. Walker, **L. Paredes Alvarez**, J. L. Clem, et al. *The RR Lyrae Variables and Horizontal Branch of NGC 6656 (M22)*. In: AJ 146.5, 119 (Nov. 2013), p. 119. DOI: 10.1088/0004-6256/146/5/119. arXiv: 1308.6573 [astro-ph.SR]

Non-Refereed Journal Publications and Conference Proceedings

1. **L. Paredes**, T. Henry, D. Nusdeo, H. James, W. Jao, and Speckle Team. *Discovering New Stellar, Brown Dwarf, and Planetary Companions Orbiting 472 of the Nearest K Dwarfs*. In: *American Astronomical Society Meeting Abstracts*. Jan. 2020, 374.03, p. 374.03 **2020 AAS Chambliss Award Recipient**
2. T. Johns, M. LeBlanc, T. Henry, J. Carrazco Gaxiola, H.-S. Hubbard-James, W.-C. Jao, and L. Paredes. *The RKSTAR Catalog: Getting to Know *ALL* of the 4466 K Dwarf Systems Within 50 Parsecs*. In: *American Astronomical Society Meeting Abstracts*. Vol. 247. Feb. 2026, 211.02, p. 211.02
3. H.-S. Hubbard-James, S. Gaxiola, T. Henry, D. X. Lesley, **L. Paredes**, and A. Nisak. *Spectral Characterization of a Complete Equatorial Sample of 615 K Dwarfs*. In: *IAU General Assembly*. Aug. 2024, 2962, p. 2962
4. C. Melis, **L. Paredes**, M. Millar-Blanchaer, R. Launhardt, C. Mann, J. Olofsson, J. Lillo-Box, A. Weinberger, G. Kennedy, et al. *Dynamical Chaos and Disappearing Dust in the TYC 8830 410 1 Planetary System*. In: *IAU General Assembly*. Aug. 2024, 1701, p. 1701
5. T. Johns, **L. Paredes**, T. Henry, S. Carrazco Gaxiola, H.-S. Hubbard-James, and W.-C. Jao. *Stellar and Planetary Companions of 1064 Nearby K Dwarfs*. In: *American Astronomical Society Meeting Abstracts #243*. Vol. 243. Feb. 2024, 463.04, p. 463.04
6. S. Carrazco Gaxiola, H.-S. Hubbard-James, T. Henry, T. Johns, W.-C. Jao, and **L. Paredes**. *Identifying Young and Active Stars Among the Nearest 1500 K dwarfs within 40 Parsecs with the CHIRON Spectrograph*. In: *American Astronomical Society Meeting Abstracts*. Vol. 243. Feb. 2024, 259.05, p. 259.05
7. W.-C. Jao, T. Henry, R. White, A. Nisak, H.-S. Hubbard-James, and **L. Paredes**. *H α Activity Near mid-M dwarf Transition Boundary and a Newly identified H α Emission Deficiency Zone on the Main Sequence*. In: *American Astronomical Society Meeting Abstracts*. Vol. 242. June 2023, 201.03, p. 201.03

8. W. Brennom, R. White, A. Yep, A. Nisak, T. Henry, H.-S. James, W.-C. Jao, and **L. Paredes**. *The Red Giants in Ruprecht 147: An Investigation of Fundamental Parameters and Age*. In: *American Astronomical Society Meeting Abstracts*. Vol. 241. Jan. 2023, 402.07, p. 402.07
9. T. J. Henry, D. I. Casetti-Dinescu, E. P. Horch, H.-S. Hubbard-James, W.-C. Jao, D. X. Lesley, **L. A. Paredes**, M. A. Shea, T. P. Sutherland, and Recons Team. *The RKSTAR Concert: A RECONS Survey of the 5000 Nearest K Dwarfs*. In: *The 21st Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun*. Dec. 2022, 77, p. 77. DOI: 10.5281/zenodo.7445026
10. **L. Paredes**. *Discoveries of Stars, Brown Dwarfs, and Planets Orbiting K Dwarfs within 33 Parsecs*. In: *American Astronomical Society Meeting Abstracts*. Vol. 54. June 2022, 434.01D, p. 434.01D
11. T. Henry, D. Casetti-Dinescu, E. Horch, H.-S. Hubbard-James, W.-C. Jao, D. X. Lesley, **L. Paredes**, M. Shea, T. Sutherland, and Recons Team. *The RKSTAR Concert — A RECONS Survey of the 5000 Nearest K Dwarfs*. In: *American Astronomical Society Meeting Abstracts*. Vol. 54. June 2022, 305.15, p. 305.15
12. H.-S. Hubbard-James, D. X. Lesley, T. J. Henry, **L. A. Paredes**, A. H. Nisak, and Recons Team. *Spectroscopic Identification of Young and Active K Dwarfs Within 25 Parsecs*. In: *American Astronomical Society Meeting Abstracts*. Vol. 54. June 2022, 305.14, p. 305.14
13. W.-C. Jao, J. Schlieder, T. Henry, **L. Paredes**, H.-S. James, J. Lewis Vanders, and Recons Team. *Connecting M Dwarf Pulsation and Surface Activity for Gap Stars*. In: *American Astronomical Society Meeting Abstracts*. Vol. 54. June 2022, 305.12, p. 305.12
14. D. X. Lesley, H. .-. Hubbard-James, T. J. Henry, **L. Paredes**, and Recons Team. *A Kinematic and Spectroscopic Analysis of the Nearest K Dwarfs*. In: *American Astronomical Society Meeting Abstracts*. Vol. 54. June 2022, 208.04, p. 208.04
15. T. J. Henry, **L. A. Paredes**, E. Vrijmoet, A. C. Couperus, H.-S. James, W.-C. Jao, A. Kar, D. X. Lesley, D. I. Casetti-Dinescu, et al. *Solar System Realms: Stars Taking Up Space Where Planets Could Be*. In: *The 20.5th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun (CS20.5)*. Mar. 2021, 183, p. 183. DOI: 10.5281/zenodo.4565595
16. **L. A. Paredes**, T. J. Henry, W. Jao, H. James, R. Hinojosa, and Recons Team. *A Radial Velocity Survey of the Complete Sample of K Dwarfs within 25 Parsecs*. In: *American Astronomical Society Meeting Abstracts*. Vol. 53. Jan. 2021, 332.02, p. 332.02
17. T. Henry, W. Jao, **L. Paredes**, E. Vrijmoet, and Recons. *The SMARTS Way to Explore 10000 of the Nearest Star Systems*. In: *American Astronomical Society Meeting Abstracts*. Jan. 2020

18. A. Nisak, R. White, **L. Paredes**, H.-S. James, and T. Henry. *Lithium Depletion and Stellar Jitter Measurements in Young Open Clusters*. In: *American Astronomical Society Meeting Abstracts #233*. Vol. 233. Jan. 2019, 364.03, p. 364.03
19. A. F. Kowalski, J. Allred, R. Axelson, A. Brown, B. Carter, C. A. Grady, T. Henry, R. Hinojosa, W.-C. Jao, et al. *A 7-Day, Multiwavelength Flare Monitoring Campaign on AU Mic*. In: *American Astronomical Society Meeting Abstracts #233*. Vol. 233. Jan. 2019, 360.14, p. 360.14
20. **L. Paredes**, T. Henry, D. A. Nusdeo, H.-S. James, and R. Hinojosa. *K-KIDS: Radial Velocity Search of Closest Companions to K Dwarfs within 25 pc with the CHIRON Spectrograph at the CTIO/SMARTS 1.5m*. In: *American Astronomical Society Meeting Abstracts #233*. Vol. 233. Jan. 2019, 259.34, p. 259.34
21. **L. Paredes**, T. Henry, D. Nusdeo, J. Winters, and T. Dincer. *K-KIDS: K Dwarfs and Their Companions. First Results from Radial Velocity Survey with CHIRON Spectrograph*. In: *American Astronomical Society Meeting Abstracts #231*. Vol. 231. Jan. 2018, 157.09, p. 157.09
22. T. J. Henry, W.-C. Jao, and **L. Paredes**. *Our View of the Solar Neighborhood Before, During, and After Gaia (invited talk for session, Impact of Gaia Astrometry on Dynamical Astronomy)*. In: *AAS/Division of Dynamical Astronomy Meeting #48*. June 2017, 200.02, p. 200.02
23. **L. Paredes-Alvarez**, D. A. Nusdeo, T. J. Henry, W.-C. Jao, D. R. Gies, R. White, and RECONS Team. *The K-KIDS Sample: K Dwarfs within 50 Parsecs and the Search for their Closest Companions with CHIRON*. in: *American Astronomical Society Meeting Abstracts #229*. Vol. 229. Jan. 2017, 344.13, p. 344.13
24. D. A. Nusdeo, J. Winters, **L. Paredes-Alvarez**, E. Horch, W.-C. Jao, T. J. Henry, and RECONS Institute. *K-KIDS: Companions to K Dwarfs Within 50 Parsecs*. In: *American Astronomical Society Meeting Abstracts #229*. Vol. 229. Jan. 2017, 344.12, p. 344.12
25. **L. Paredes**, S. D. Points, R. C. Smith, A. Rest, G. Damke, A. Zenteno, and MCELS Team. “The MCELS Data Reduction Pipeline and Its Application to PNe Searches in the LMC”. in: *Fifty Years of Wide Field Studies in the Southern Hemisphere: Resolved Stellar Populations of the Galactic Bulge and Magellanic Clouds*. Ed. by S. Points and A. Kunder. Vol. 491. 2015, pp. 366–369
26. D. Calderon Espinoza, B. Indahl, **L. Paredes Alvarez**, C. Kaleida, and F. J. Virgili. *GRB 130131B: CTIO 0.9-m optical upper-limits*. In: *GRB Coordinates Network 14202* (Jan. 2013), p. 1