

# Ricardo **López Valdivia**

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## Employment

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2021 – **Postdoctoral Fellow**

Universidad Nacional Autónoma de México  
Instituto de Astronomía  
Carr. Tijuana-Ensenada km107  
Ensenada, Baja California 22860, Mexico

2017 – 2021 **Postdoctoral Fellow**

The University of Texas at Austin  
Department of Astronomy  
2515 Speedway, Stop C1400  
Austin, Texas 78712-1205, USA

## Education

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AUGUST 2017 **Doctor of Philosophy in Astrophysics**

Instituto Nacional de Astrofísica, Óptica y Electrónica, Mexico  
Thesis: “Super metal-rich solar analogs: targets for giant planet searches”

JULY 2013 **Master of Science in Astrophysics**

Instituto Nacional de Astrofísica, Óptica y Electrónica, Mexico  
Thesis: “Super solar metallicity in solar analogs (Spanish)”

FEBRUARY 2011 **Undergraduate Degree in Physics**

Universidad de Guadalajara, Mexico  
Graduated with honors

## Professional memberships

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2019 – 2021 National Researchers’ System (Candidate), CONACyT, Mexico.

2018 – IAU member, Junior member

## Professional skills

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LANGUAGES: Spanish (Mother tongue), English (Advanced)

OPERATIVE SYSTEMS: Linux, Windows, macOS

PROGRAMMING LANGUAGES: IDL, Python

ASTRONOMICAL SOFTWARE: IRAF, MOOG, MOOGStokes

## Publications

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### Published or accepted journal articles

2021 Kidder, B., Mace, G. N., **López-Valdivia, R.** et al., *The IGRINS YSO Survey II: Veiling Spectra of Pre-Main-Sequence Stars in Taurus-Auriga*, Accepted in ApJ

Yana Galarza, J., **López-Valdivia, R.**, Melendez J., Lorenzo-Oliveira, D., *Rocky planet engulfment in the binary system HIP 71726-37*, Accepted in ApJ (arXiv:2109.00679)

**López-Valdivia, R.**, Sokal, K. R., Mace, G. N. et al, *The IGRINS YSO Survey I. Stellar parameters of pre-main sequence stars in Taurus-Auriga*, ApJ, 921, 53

Yana Galarza, J., **López-Valdivia, R.**, Lorenzo-Oliveira, D. et al., *Searching for new solar twins: The Inti survey for the Northern Sky*, MNRAS, 504, 1873

Nofi, L. A., Johns-Krull, C. M., **López-Valdivia, R.** et al., *Projected Rotational Velocities and Fundamental Properties of Low-mass Pre-main-sequence Stars in the Taurus-Auriga Star-forming Region*, ApJ, 911, 138

2020 Chávez, M., Tapia-Schiavon, C., Bertone, E., and **López-Valdivia, R.**, *Supersolar metallicity in G0-G3 main-sequence stars with  $V < 15$ . II. An extension of the sample*, MNRAS, 493, 5807

2019 Long, F., Herczeg, G. J., Harsono, D., et al., *Compact Disks in a High-resolution ALMA Survey of Dust Structures in the Taurus Molecular Cloud*, ApJ, 882, 49

**López-Valdivia, R.**, Mace, G. N., Sokal, K. R., et al, *Effective Temperatures of Low-mass Stars from High-resolution H-band Spectroscopy*, ApJ, 879, 105

Kidder, B., Mace, G., Sokal, K., **Lopez R.**, and Jaffe, D., *Radial Velocities of Low-mass Candidate TWA Members*, ApJ, 879, 63

2017 Sada, P. V., Olguin, L., Saucedo, J. C., et al., *Results of the 2016 Mexican Asteroid Photometry Campaign*, Minor Planet Bulletin, 44, 239

Ricci D., Valdés Sada, P., Navarro-Meza, S., et al., *Multi-filter transit observations of HAT-P-3b and TrES-3b with multiple Northern Hemisphere telescopes*, PASP, 129

**López-Valdivia R.**, Bertone, E., & Chávez, M., *Mg, Al, Si, Ca, Ti, Fe and Ni abundance in a sample of solar analogues*, MNRAS, 467, 2412

2016 Chavez-Dagostino, M., Bertone, E., Cruz-Saenz de Miera, F., et al., *Deep LMT/AzTEC millimeter observations of  $\epsilon$  Eridani and its surroundings*, MNRAS, 462, 2285

2015 **López-Valdivia, R.**, Hernández-Águila, J. B., Bertone, E. et al., *Lithium abundance in a sample of solar-like stars*, MNRAS, 451, 4368

2014 **López-Valdivia, R.**, Bertone, E., Chávez, M. et al., *Supersolar metallicity in G0-G3 main-sequence stars with  $V < 15$* , MNRAS, 444, 2251

[First-author publications on ADS](#)

[All publications on ADS](#)

## Submitted or in preparation journal articles

*The IGRINS YSO survey III. Stellar parameters of Ophiuchus and Upper Scorpius members*  
López-Valdivia et al., **in preparation**.

## Observational experience

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2018–2021	TS23 (Echelle spectrograph) @ HST - <b>50+ nights</b>
2018–2020	IGRINS (Infrared spectrograph) @ GS - <b>35 nights</b>
2017–2019	IGRINS (Infrared spectrograph) @ LDT - <b>20+ nights</b>
2014–2017	MEXMAN (Filter wheel) @ OAN - <b>40+ nights</b>

2014–2015 CanHis (Single-order echelle spectrograph) @ OAGH - **30+ nights**  
2012–2016 Boller & Chivens spectrograph @ OAGH - **20+ nights**

**GS** Gemini South Telescope, 8.1 m. telescope, La Serena, Chile  
**LDT** Lowell Discovery Telescope, 4.3 m. telescope, Arizona, United States  
**HST** Harlan J. Smith Telescope, 2.7 m telescope, Texas, United States  
**OAN** Observatorio Astronómico Nacional , 0.84 m. telescope, Baja California, Mexico  
**OAGH** Observatorio Astrofísico Guillermo Haro, 2.1 m. telescope, Sonora, Mexico

## Participation in meetings and workshops

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### Invited talks

OCT. 2019 High Resolution Spectroscopy Workshop, Campos do Jordão, Brazil

### Contributed talks

JUNE 2019 234th Meeting of AAS, St. Louis, USA  
AUG. 2017 Precision Spectroscopy 2017: Towards Earth 2.0, São Paulo, Brazil  
SEPT. 2016 Precision Spectroscopy 2016: Abundances, nucleosynthesis and chemical evolution, Porto Alegre, Brazil  
AUG. 2015 IV Students of Astronomy Meeting, Puebla, Mexico  
AUG. 2014 III Students of Astronomy Meeting, Guanajuato, Mexico  
AUG. 2013 II Students of Astronomy Meeting, Puebla, Mexico

### Posters

JAN. 2020 235th Meeting of AAS, Honolulu, USA  
SEPT. 2014 Towards Other Earths II: The star-planet connection, Oporto, Portugal  
MAR. 2014 Search Life Beyond the Solar System: Exoplanets, Biosignatures & Instruments, Tucson, USA  
NOV. 2013 XXV National meeting of Astronomy, Mexico city, Mexico  
MAR. 2013 1st National workshop on planetary Astrophysics, Monterrey, Mexico  
MAR. 2012 New Quest in Stellar Astrophysics III, Puerto Vallarta, Mexico  
NOV. 2010 XIII Latin American Regional IAU Meeting, Morelia, Mexico  
SEPT. 2009 XXIII National meeting of Astronomy, Ensenada, Mexico

### Meetings as an attendee, schools and research stays

MAR. 2014 Astrobiology School EBI 2014, Tucson, USA  
OCT. 2010 The HAWC 2010 MEXICO - USA collaboration meeting, Guadalajara, Mexico  
AUG. 2010 XX Scientific summer, Tuxtla Gutierrez, Mexico  
JULY 2010 XIX Summer at the National Observatory, Ensenada, Mexico  
MAY 2010 1st Astronomy school for undergraduates, Guanajuato, Mexico  
NOV. 2009 XIII Western Region Astronomical Meeting, Guanajuato, Mexico

### Meetings and workshops as organizer

AUG. 2015 Member of the LOC of the IV Students of Astronomy Meeting  
AUG. 2014 Member of the SOC of the III Students of Astronomy Meeting