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Born: December 25th, 1985

Nationality: Mexican

Current Position

CONACyT Research Fellow, Instituto de Radioastronomía y Astrofísica (IRyA), Universidad Nacional Autónoma de México (UNAM), México

Research Interests

Star formation, HII Regions, Reionization, Galaxy formation and evolution, Dark Energy, Cosmological Parameters

Appointments held

- 2018 - 2019 Postdoctoral Fellow, Instituto de Radioastronomía y Astrofísica (IRyA), Universidad Nacional Autónoma de México (UNAM), México
- 2016 - 2018 Postdoctoral Fellow, Cavendish Lab. & Kavli Institute for Cosmology, University of Cambridge, UK
- 2014 - 2016 Support Astronomer, LMT, México

Education

- 2010 - 2014 PhD in Astrophysics, INAOE (October 13th, 2014)
- 2008 - 2010 MSc in Astrophysics, INAOE (July 9th, 2010)
- 2003 - 2008 BEng in Mechatronics, ITCC (April 11th, 2008)

Languages

Spanish	Native proficiency
English	Professional proficiency (TOEFL ITP: 630 pts)
French	Limited working proficiency

Publications

Key Publications

- 2016 **Chávez R.**, Plionis M., Basilakos S., Terlevich R., Terlevich E., Melnick J., Bresolin F., González-Morán A. L., *Constraining the Dark Energy Equation of State with HII Galaxies*, *MNRAS*, 462, 2431 [35 citations*]
- 2014 **Chávez R.**, Terlevich R., Terlevich E., Bresolin F., Melnick J., Plionis M. & Basilakos S., *The $L - \sigma$ relation for massive bursts of star formation*, *MNRAS*, 442, 3565 [43 citations]

- 2012 **Chávez R.**, Terlevich E., Terlevich R., Plionis M., Bresolin F., Basilakos S. & Melnick J., *Determining the Hubble constant using giant extragalactic H II regions and H II galaxies*, *MNRAS*, 425L, 56 [49 citations]

Journal Articles

- 2020 Bresolin F., Rizzi L., Ho I.-T., Terlevich R., Terlevich E., Telles E., **Chávez R.**, Basilakos S., Plionis M., *Internal kinematics of giant H II regions in M101 with the Keck Cosmic Web Imager*, *MNRAS*, 495, 4347 [4 citations]
- 2020 Hogarth L., Amorín R., Vilchez J. M., Hägele G. F., Cardaci M., Pérez-Montero E., Firpo V., Jaskot A., **Chávez R.**, *Chemodynamics of green pea galaxies - I. Outflows and turbulence driving the escape of ionizing photons and chemical enrichment*, *MNRAS*, 494, 3541 [2 citations]
- 2019 González-Morán A.L., **Chávez R.**, Terlevich R., Terlevich E., Bresolin F., Fernández-Arenas D., Plionis M., Basilakos S., Melnick J., Telles E., *Independent Cosmological Constraints from high- z HII Galaxies*, *MNRAS*, 487, 4669 [12 citations]
- 2018 Terlevich E., Fernández-Arenas D., Terlevich R., Gieles M., **Chávez R.**, González-Morán A.L., *From Giant H II regions and H II galaxies to globular clusters and compact dwarf ellipticals*, *MNRAS*, 481, 268 [3 citations]
- 2018 Fernández-Arenas D., Terlevich E., Terlevich R., Melnick J., **Chávez R.**, Bresolin F., Telles E., Plionis M., Basilakos S., *An independent determination of the local Hubble constant*, *MNRAS*, 474, 1250 [47 citations]
- 2017 Melnick J., Telles E., Bordalo V., **Chávez R.**, Fernández-Arenas D., Terlevich E., Terlevich R., Bresolin F., Plionis M., Basilakos S., *The $L - \sigma$ relation for HII galaxies in green*, *A&A*, 599, 76 [10 citations]
- 2016 Terlevich R., et al., *Direct measurement of lensing amplification in Abell S1063 using a strongly lensed high redshift HII Galaxy*, *A&A*, 592, L7 [2 citations]
- 2016 Fernández X., et al., *Highest Redshift Image of Neutral Hydrogen in Emission: A CHILES Detection of a Starbursting Galaxy at $z = 0.376$* , *ApJ*, 824, L1 [64 citations]
- 2015 Terlevich R., Terlevich E., Melnick J., **Chávez R.**, Plionis M., Bresolin F. & Basilakos S., *On the road to precision cosmology with high-redshift H II galaxies*, *MNRAS*, 451, 3001 [37 citations]
- 2013 Koulouridis E., Plionis M., **Chávez R.**, Terlevich E., Terlevich R., Bresolin F. & Basilakos S., *The Environment of H II Galaxies revisited*, *A&A*, 554, 13 [6 citations]
- 2011 Plionis M., Terlevich R., Basilakos S., Bresolin F., Terlevich E., Melnick J. & **Chávez R.**, *A strategy to measure the dark energy equation of state using the H II galaxy Hubble function and X-ray active galactic nuclei clustering: preliminary results*, *MNRAS*, 416, 2981 [36 citations]

Conference Proceedings

- 2014 **Chávez R.**, Terlevich E., Terlevich R., Plionis M., Melnick J., Bresolin F. & Basilakos S., *The Hubble Constant via HII Galaxies and Giant HII Regions, in Massive Young Star Clusters Near and Far: From the Milky Way to Reionization. 2013 Guillermo Haro Conference*, Eds. Y. D. Mayya, D. Rosa González and E. Terlevich. *INAOE & AMC*, 215
- 2014 Plionis M., Terlevich R., Basilakos S., Terlevich E., **Chávez R.**, Bresolin F. & Melnick J., *Tracing the High- z Hubble Expansion with H II Galaxies, in Massive Young Star Clusters Near and Far: From the Milky Way to Reionization. 2013 Guillermo Haro Conference*, Eds. Y. D. Mayya, D. Rosa González and E. Terlevich. *INAOE & AMC*, 211
- 2014 Terlevich R., **Chávez R.**, Terlevich E., Bresolin F., Melnick J., Plionis M. & Basilakos S., *The $L - \sigma$ Relation for Massive Bursts of Star Formation and its Use for Precision Cosmology, in Massive Young Star Clusters Near and Far: From the Milky Way to Reionization. 2013 Guillermo Haro Conference*, Eds. Y. D. Mayya, D. Rosa González and E. Terlevich. *INAOE & AMC*, 197
- 2011 **Chávez R.**, Terlevich R., Terlevich E., Bresolin F., Melnick J., Plionis M. & Basilakos S., *Constraining the Dark Energy Equation of State Using Alternative Cosmic Tracers*, *RMxAC*, 40, 9
- 2010 Plionis M., Terlevich R., Basilakos S., Bresolin F., Terlevich E., Melnick J. & **Chávez R.**, *Constraining the Dark Energy Equation of State using Alternative High- z Cosmic Tracers*, *AIPC*, 1241, 267 [11 citations]
- 2010 Plionis M., Terlevich R., Basilakos S., Bresolin F., Terlevich E., Melnick J. & **Chávez R.**, *The Dark Energy Equation of State Using Alternative Cosmic High- z Tracers*, *JPhCS*, 222, 2025 [1 citation]

Conferences and Workshops

2021/01	237th meeting of the American Astronomical Society, online.
2020/10	LXIII Congreso Nacional de Física, online.
2020/06	Assessing Uncertainties in Hubble's Constant Across the Universe, ESO Conference, online.
2020/02	JWST Master Class México 2020, Cd. México, México.
2019/12	II Reunion de Extragaláctica en México, Morelia, México.
2019/07	Guillermo Haro Workshop: The Formation and Evolution of Super Star Clusters: Theory and Observations, Tonantzintla, Puebla, Mexico.
2018/10	LXI Congreso Nacional de Física, Puebla, México.
2018/09	Guillermo Haro 2018 Workshop: Synergy between the GTC and GTM/LMT, Tonantzintla, Puebla, Mexico.
2017/09	Emission Line Galaxies with MOS: from cosmic noon to the reionization era, KICC Workshop, Cambridge, UK. LOC, SOC, co-Chair.
2016/06	66th Lindau Nobel Laureate Meeting, Lindau, Germany.
2015/12	5th Science with the GTC, Puebla, Mexico.
2013/12	5th Guillermo Haro Conference. Massive Young Star Clusters Near and Far: From the Milky Way to Re-ionization, Puebla, Mexico.
2013/11	XXV Congreso Nacional de Astronomía (National Astronomy Conference), Mexico City, Mexico.
2013/08	Segunda Reunión de Estudiantes de Astronomía (2nd Mexican Astronomy Students Meeting), Tonantzintla, Puebla, Mexico. SOC, Chair
2013/07	Guillermo Haro Workshop in Advanced Astrophysical Research. Galaxy structure and evolution through Integral Field Spectroscopy: the next generation surveys, Tonantzintla, Puebla, Mexico.
2012/01	Cosmology on the Beach 2012, Essential Cosmology for the Next Generation, Cancun, Mexico.
2011/08	COSMO11, International Conference on Particle Physics and Cosmology, Porto, Portugal.
2010/11	XIII Latin American Regional IAU Meeting, Morelia, Mexico.
2010/07	Guillermo Haro Workshop in Advanced Astrophysical Research. Compact super star-clusters, birth, evolution and feedback, Tonantzintla, Puebla, Mexico.
2009/09	XXIII Congreso Nacional de Astronomía (National Astronomy Conference), Ensenada, Mexico.

Observational experience

- 2m class observatories: several observation runs from 2010 to 2013 at 2m class observatories in Mexico (OAGH-Cananea and OAN-SPM). The instruments used were the Long Slit Boller and Chivens spectrographs at both observatories and the echelle Mezcal and CanHiS spectrographs at OAN-SPM and OAGH-Cananea respectively. PI: Roberto Terlevich and Ricardo Chávez.
- Subaru: An observation run during November 2012 at Subaru-NAOJ using the echelle HDS spectrograph. PI: Fabio Bresolin.
- VLT: Participation in the preparation of observation proposals for VLT-ESO to use the Xshooter and KMOS spectrographs during 2013, 2014 and 2015. PIs: Jorge Melnick and Roberto Terlevich (~ 60h of observing time secured).
- LMT: Service observation runs at LMT as Support Astronomer. Several PIs.

Honors & awards

2020 - 2022	Sistema Nacional de Investigadores (SNI) 1.
2017	Best Doctoral Thesis Award for the years 2013-2014 from the National Astronomy Conference, Mexico.
2012	Excellent Graduate Students Prize, Puebla State Government, Mexico.
2011	MSc thesis Honourable Mention from the National Astronomy Conference, Mexico.

Other activities

2017	SOC, LOC, co-chair at the 2017 KICC Workshop: <i>Emission Line Galaxies with MOS: from cosmic noon to the reionization era.</i>
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2017 Member of the joint postdoc committee for the Astrophysics Group (Cavendish Lab.) and Institute of Astronomy.

2017 Member of the postdoc committee for Clare Hall.

2013 SOC chair at the 2nd Mexican Astronomy Students Meeting.

2012 - 2013 President of the INAOE Students' Association.

2012 - 2013 Organizer of the Star Formation and Star Clusters Journal Club at INAOE.

2011 - 2013 Students Representative at INAOE's Astrophysics Department academic senate.

Programming languages

- IDL, Python, IRAF, C, C++, MatLab, Mathematica, SQL.

* As reported by the ADS site to this date: [NASA/ADS statistics](#)
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