

## Alberto SALDANA-LOPEZ, PhD – Curriculum Vitae

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🌐 WEBSITE: <https://asalda.github.io/>  
📖 PUBLICATIONS: as first author... 5 papers (258 citations) – in total... 45 papers (1,685 citations)  
📡 TELESCOPE TIME: HST (40 orbits), VLT (32 hours)

My research focuses on understanding the physical conditions that lead to the Reionization of the Universe a billion years after the Big Bang. In particular, I use space-based observatories to study the interplay between the stars, gas and dust within nearby, starburst galaxies, to decipher how the (elusive) ionizing radiation escaped from their high-redshift counterparts during the Dawn of cosmic star formation.

### Education

2023 - present	<b>Postdoctoral Fellow</b> Department of Astronomy, Stockholm University (SU, Sweden)
2019 – 2023	<b>Astrophysics PhD</b> , University of Geneva (UniGE, Switzerland) Thesis: <i>Properties of star-forming galaxies contributing to reionization</i> 📄 <a href="https://doi.org/10.13097/archive-ouverte/unige:174485">https://doi.org/10.13097/archive-ouverte/unige:174485</a> Advisor: Prof. D. Schaerer
2018 – 2019	<b>Astrophysics MSc</b> , Complutense University of Madrid (UCM, Spain)
2014 – 2018	<b>Physics BSc</b> , Complutense University of Madrid (UCM, Spain)

### Research and teaching experience

2023 – present	<b>PhD thesis advisor</b> for Alice R. Young, Stockholm University (SU) Thesis: <i>Observational constraints on SMBHs seeding mechanisms</i>
2024 – 2025	<b>PhD thesis committee</b> for Olof Nebrin, Stockholm University (SU) Thesis: <i>Ly<math>\alpha</math> feedback prevails at Cosmic Dawn</i>
2024 – 2025	<b>BSc thesis co-advisor</b> for Pontus Strand, Stockholm University (SU) Thesis: <i>An unbiased sample of strong UV emitters at Cosmic Noon</i>
2024 – 2025	<b>Guest lecture</b> , Stockholm University (SU) Course: <i>Observational Astrophysics I</i> (AS7003, graduate)
2023 – 2024	<b>Guest lecture</b> , Stockholm University (SU) Course: <i>Physics of the Interstellar Medium</i> (AS7001, graduate)
2019 – 2021	<b>Teaching Assistant</b> , University of Geneva (UniGE) Course: <i>Astrophysics Lab</i> (13P950, undergraduate)
2018 – 2019	<b>Research Assistant</b> , High Energy Group (UCM)
2017 – 2018	<b>Research Assistant</b> , International Nanotechnology Laboratory (INL)
2016 – 2017	<b>Research Assistant</b> , Dark Energy Survey Group (CIEMAT)
2015 – 2016	<b>Research Assistant</b> , LASER Processing Group (CSIC)

### Invited talks and seminars

November 19th, 2025	UMass Galaxies Journal Club, University of Massachusetts (UMass, USA) <i>Extended Ly<math>\alpha</math> halos as probes of ionizing radiation escape near and far</i>
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October 3rd, 2025	Astronomy Seminar, University of Minnesota (UMN, USA) <i>A low-redshift look to reionization with star-forming galaxies</i>
October 29th, 2024	STScI/JHU Galaxies Journal Club (STScI, USA) <i>The average UV emission line spectra of high-redshift galaxies</i>
November 17th, 2023	Astronomy Seminar, Stockholm University (SU, Sweden) <i>The properties of star-forming galaxies contributing to reionization</i>
May 16th, 2023	Colloquium, Herzberg Astronomy Research Centre (HAA-NRC, Canada) <i>A low-redshift look to reionization with star-forming galaxies</i>
November 7th, 2022	Lunch Seminar, University of Texas at Austin (UT, USA) <i>Ionizing properties of galaxies through the eyes of absorption spectroscopy</i>
March 3rd, 2021	AstroSeminar, California Institute of Technology (Caltech/IPAC, online) <i>An observational determination of the Extragalactic Background Light</i>
February 2nd, 2021	Astronomy Seminar, University of Geneva (UniGE, online) <i>An observational determination of the Extragalactic Background Light</i>
January 27th, 2021	Astronomy Seminar, University of California Riverside (UCR, online) <i>An observational determination of the Extragalactic Background Light</i>
January 25th, 2021	Cosmo Club seminar, University of California Santa Cruz (UCSC, online) <i>An observational determination of the Extragalactic Background Light</i>

#### Contributed talks (relevant in bold)

May 27th, 2025	<b>Cosmic Frontier Center 2025 conference</b> (Austin, USA) <i>Feedback and dynamical masses in high-<math>z</math> galaxies</i>
May 12th, 2025	2025 STScI Spring Symposium (Baltimore, USA) <i>Ly<math>\alpha</math> feedback prevails at Cosmic Dawn</i>
April 7th, 2025	<b>First galaxies meeting</b> (Oxford, UK) <i>Feedback and dynamical masses in high-<math>z</math> galaxies</i>
July 1st, 2024	<b>Cosmic Dawn at High Latitudes Workshop</b> (Stockholm, Sweden) <i>A low-redshift look to reionization with star-forming galaxies</i>
May 20th, 2024	<b>First Stars VII conference</b> (New York City, USA) <i>The Lyman-alpha and Continuum Origins Survey</i>
January 21st, 2024	Linking galaxy physics from ISM to IGM scales (Sexten, Italy) <i>Ionizing properties of galaxies through the eyes of absorption spectroscopy</i>
January 11th, 2024	DLOCKS-24 Workshop on Galaxy Evolution (Copenhagen, Denmark) <i>Constraining galactic feedback at Cosmic Dawn</i>
April 18th, 2023	Escape of Lyman radiation from galactic labyrinths (Crete, Greece) <i>Ionizing properties of galaxies through the eyes of absorption spectroscopy</i>
September 14th, 2022	CRPropa Workshop on Astroparticle propagation (Madrid, Spain) <i>An observational determination of the Extragalactic Background Light</i>

<b>July 4th, 2022</b>	From galaxies to cosmology with spectroscopic surveys (Marseille, France) <i>The ionizing properties of star-forming galaxies at <math>3 \leq z \leq 5</math></i>
<b>June 27th, 2022</b>	European Astronomical Society EAS Meeting (Valencia, Spain) <i>The ISM properties of low-<math>z</math> Lyman Continuum emitters</i>
<b>March 14th, 2022</b>	The growth of galaxies in the Early Universe VII (Sexten, Italy) <i>The ISM properties of low-<math>z</math> Lyman Continuum emitters</i>
<b>January 14th, 2022</b>	Production and escape of Lyman photons through time and space (UK, online) <i>Unveiling the ISM properties of low-<math>z</math> Lyman Continuum emitters</i>
<b>November 29th, 2021</b>	SAZERAC-SIP Early Galaxy Formation Near and Far (online) <i>Unveiling the ISM properties of low-<math>z</math> Lyman Continuum emitters</i>
<b>May 17th, 2021</b>	STScI Workshop – MOS for Measures of Galaxy Evolution (USA, online) <i>Unveiling the ISM properties of low-<math>z</math> Lyman Continuum emitters</i>
<b>April 12th, 2021</b>	<b>Ninth International Fermi Symposium (South Africa, online)</b> <i>An observational determination of the Extragalactic Background Light</i>
<b>April 12th, 2021</b>	Extragalactic Spectroscopic Surveys: Past, Present and Future (Chile, online) <i>Using LIS UV-lines to select Lyman continuum leaking candidates</i>
<b>September 9th, 2019</b>	VII Meeting on Fundamental Cosmology (Madrid, Spain) <i>An observational determination of the Extragalactic Background Light</i>

#### Summer and winter schools

<b>May 2022</b>	Severo Ochoa Advanced School on Galaxy Evolution IAA-CSIC, Granada (Spain)
<b>July 2021</b>	International Summer School on the ISM of Galaxies CNRS, France (online)
<b>June 2021</b>	Summer School in Statistics for Astronomers XVI Penn State University, USA (online)

#### Funding and grants

<b>TBD</b>	<b>HST GO Cycle 33 (ID 18034) awarded funding</b>
<b>\$1,500</b>	STScI 2025 Spring Symposium travel grant
<b>\$1,500</b>	Swedish Academy of Sciences (KVA) mobility grant
<b>\$1,800</b>	Simons Foundation (Flatiron Institute, CfA) travel grant
<b>\$1,500</b>	Swiss Society for Astronomy and Astrophysics (SSAA) mobility grant

#### Awards and outreach

<b>Awards</b>	<b>Ramón Corbalán Prize 2021</b> , ‘... for the popularization and education in Nonlinear and Quantum Optics’ - article: <i>Two-photon polymerization</i> , Saldana-Lopez et al. (2020), The Spanish Journal of Physics, Vol.34, No.2
<b>Articles</b>	<i>Fueling or Starving? The Role of Gas Flows in Early Galaxy Evolution</i> , <b>AstroBites</b> (L. Rowland) - adapted from Saldana-Lopez et al. 2025a (submitted to MNRAS)
<b>Blogs</b>	<i>El blog de Laniakea</i> , <a href="https://elblogdelaniakea.wordpress.com/">https://elblogdelaniakea.wordpress.com/</a> <i>Encuentro galactico en Canarias</i> – El Dia (La opinion de Tenerife), <a href="#">interview</a> .

## Telescope Observing Proposals (as Principal Investigator, PI)

- HST / GO33** *Spatially resolving the conditions for ionizing radiation escape in galaxies*  
**PI: Saldana-Lopez (ID 18034)**  
Instrument: **HST/WFC**. Awarded time: 40 orbits
- ESO / P112** *The nature of UV emission line galaxies: a study of CIV emitters at Cosmic Noon*  
**PI: Saldana-Lopez (ID 112.2639)**  
Instrument: **VLT/XShooter**. Awarded time: 32 hours

## Telescope Observing Proposals (as co-Investigator, co-I)

- HST / GO33** *The HyperDeep Ultraviolet Field*  
PI: Hayes (ID 18004), co-I: Saldana-Lopez  
Instrument: **HST/WFC3**. Awarded time: 124 orbits
- HST / GO33** *Unlocking the full potential of JWST spectroscopic fields with SHIP3: Snapshot HST Imaging of Pure-Parallel Programs*  
PI: Nedkova (ID 18022), co-I: Saldana-Lopez  
Instrument: **HST/WFC3**. Awarded time: 123 orbits
- HST / GO33** *The High Redshift Lyman Continuum Survey*  
PI: Scarlata (ID 18080), co-I: Saldana-Lopez  
Instrument: **HST/WFC3**. Awarded time: 53 orbits
- HST / Brigde** *To the Frontiers of Time Domain: Supermassive Black Holes and Exotic Stellar Transients in the Early Universe*  
PI: Hayes (ID 17908), co-I: Saldana-Lopez  
Instrument: **HST/WFC3**. Awarded time: 20 orbits
- JWST / DDT** *Let there be Light: Directly Witnessing the Birth of Metal-Free, Pop III Stars in an Ultra-Faint Galaxy at  $z = 6.5$*   
PI: Fujimoto and Naidu (ID 9223), co-I: Saldana-Lopez  
Instrument: **JWST/NIRSpec**. Awarded time: 39 hours
- JWST / GO4** *Formation and nature of the UV-brightest starbursts in the distant Universe*  
PI: Marques-Chaves (ID 8258), co-I: Saldana-Lopez  
Instrument: **JWST/NIRSpec**. Awarded time: 38 hours
- HST / GO32** *MgII maps to reveal how ionizing photons escape local LyC emitting galaxies*  
PI: Leclercq (ID 17761), co-I: Saldana-Lopez  
Instrument: **HST/ACS**. Awarded time: 31 orbits
- HST / GO32** *Lyman alpha imaging of galaxies with the lowest mass and metallicity*  
PI: Ostlin (ID 17826), co-I: Saldana-Lopez  
Instrument: **HST/ACS/WFC3**. Awarded time: 48 orbits
- JWST / GO3** *Ionization and Obscuration in LyC Emitters: A MIR Look at Lyman Continuum Escape*  
PI: Flury (ID 5554), co-I: Saldana-Lopez  
Instrument: **JWST/MIRI**. Awarded time: 31 hours
- JWST / GO2** *JWST's GLIMPSE: gravitational lensing & NIRCcam imaging to probe early galaxy formation and sources of reionization*  
PI: Atek (ID 3293), co-I: Saldana-Lopez  
Instrument: **JWST/NIRCam**. Awarded time: 155 hours

<b>JWST / GO1</b>	<p><i>The First Observations of the Ionizing Luminosity of Galaxies within the Epoch of Reionization</i></p> <p>PI: Chisholm (ID 1871), co-I: Saldana-Lopez</p> <p>Instrument: <b>JWST/NIRSpec</b>. Awarded time: 22 hours</p>
<b>JWST / GO1</b>	<p><i>LyC22 - Deep spectroscopic insights on star-forming galaxies 2.2Gyr after the Big Bang</i></p> <p>PI: Schaerer (ID 1869), co-I: Saldana-Lopez</p> <p>Instrument: <b>JWST/NIRSpec</b>. Awarded time: 73 hours</p>
<b>HST / GO31</b>	<p><i>Establishing the Geometry of Lyman Continuum Escape</i></p> <p>PI: Carr (ID 17443), co-I: Saldana-Lopez</p> <p>Instrument: <b>HST/COS</b>. Awarded time: 23 orbits</p>
<b>HST / GO31</b>	<p><i>High-resolution imaging of the ionizing and non-ionizing radiation of extreme starbursts at <math>z \sim 2.4</math></i></p> <p>PI: Marques-Chaves (ID 17424), co-I: Saldana-Lopez</p> <p>Instrument: <b>HST/UVIS</b>. Awarded time: 23 orbits</p>
<b>HST / GO30</b>	<p><i>Far-Ultraviolet Legacy Survey of the GOODS and COSMOS Fields: Completing the Census of the UV Sky</i></p> <p>PI: Siana (ID 17032), co-I: Saldana-Lopez</p> <p>Instrument: <b>HST/SBC</b>. Awarded time: (archival proposal)</p>
<b>HST / GO30</b>	<p><i>The Lyman-alpha and Continuum Origins Survey (LaCOS)</i></p> <p>PI: Hayes (ID 17069), co-I: Saldana-Lopez</p> <p>Instrument: <b>HST/ACS, HST/WFC3</b>. Awarded time: 119 orbits</p>
<b>HST / GO30</b>	<p><i>Resolving Lyman Alpha emission in a complete sample of Lyman Continuum leakers and non-leakers</i></p> <p>PI: Leclercq (ID 17153), co-I: Saldana-Lopez</p> <p>Instrument: <b>HST/COS</b>. Awarded time: 49 orbits</p>
<b>HST / GO30</b>	<p><i>Revealing the link between strong LyC emitters and enigmatic CIV emitters</i></p> <p>PI: Schaerer (ID 17169), co-I: Saldana-Lopez</p> <p>Instrument: <b>HST/STIS</b>. Awarded time: 34 orbits</p>
<b>GMRT</b>	<p><i>Radio-SED Study of low-<math>z</math> Lyman Continuum Emitters</i></p> <p>PI: Bait (ID 17032), co-I: Saldana-Lopez</p> <p>Instrument: <b>GMRT/B3/B4/B5</b>. Awarded time: 24 hours</p>
<b>ESO / P109</b>	<p><i>Observations of the ionizing spectra in the Lyman continuum of distant starbursts</i></p> <p>PI: Marques-Chaves (ID 109.23G1), co-I: Saldana-Lopez</p> <p>Instrument: <b>VLT/FORS2</b>. Awarded time: 15 hours</p>
<b>ESO / P108</b>	<p><i>XShooter Survey of Extremely UV and Lya Luminous Star-forming Galaxies at <math>z = 2 - 3.6</math></i></p> <p>PI: Marques-Chaves (ID 108.228N), co-I: Saldana-Lopez</p> <p>Instrument: <b>VLT/XShooter</b>. Awarded time: 18 hours</p>
<b>ESO / P106</b>	<p><i>Deep spectroscopy of low-<math>z</math> HST Lyman continuum emitters: revealing their ISM and ionizing radiation field properties</i></p> <p>PI: Schaerer (ID 106.215K), co-I: Saldana-Lopez</p> <p>Instrument: <b>VLT/XShooter</b>. Awarded time: 15 hours</p>