# Lluís Galbany



Contact Institute of Space Sciences (IEEC-CSIC)
Campus UAB, Carrer de Can Magrans, s/n, 08193 Barcelona.

+34 937 379 788

□ lgalbany@ice.csic.es

https://lgalbany.github.io

ORCID 0000-0002-1296-6887

# Synopsis of the CV

I am an observational astrophysicist with broad and multidisciplinary interests spanning supernova physics, massive stars, galaxy evolution, and cosmology. I obtained a PhD in Physics from Universitat Autònoma de Barcelona in Oct 2011 under the supervision of Prof. Ramon Miquel at the Institut de Física d'Altes Energies (IFAE). I have been a postdoctoral researcher at the CENTRA/IST in Lisboa under the supervision of Dr. Vallery Stanishev and Prof. A. M. Mourao, a FONDECYT postdoctoral fellow at the Astronomy Department of Universidad de Chile working with Prof. Mario Hamuy, a research associate at the Department of Physics and Astronomy of University of Pittsburgh working with Prof. Michael Wood-Vasey, and a Marie Skłodowska-Curie fellow at Universidad de Granada integrated in Prof. Inmaculada Domínguez group. Currently, I am a Ramón y Cajal Fellow at the Institute of Space Sciences (IEEC-CSIC). I have always enjoyed scientific independence, conducting competitive research in enjoyable scientific environments.

So far, I have published 243 articles with more than 14,000 citations and an h-index of 51 (ADS, Jul 2021). My work has been presented in international conferences giving in total 52 talks, including 25 invitations to deliver seminars at different institutions. I have been PI of 43 successful observational proposals in a competitive basis in the largest observatories around the world, and participated in other 35 observational campaigns. I have led analyses within major collaborations (SDSS-II SN, CALIFA, PESSTO, DES, HSC-SSP, MaNGA, J-PLUS, LSST, WFIRST), and I had the chance to mentor 1 postdoc, 2 PhD students, 10 undergraduate and 16 graduate students, including two funded 3-months research visits.

### Education

Sep 2006 - Oct 2011 Ph.D. in Physics, Institut de Física d'Altes Energies (IFAE), U. Autònoma de Barcelona

(UAB).

Supernova studies in the SDSS-II/SNe Survey: spectroscopy of the peculiar SN 2007qd, and photometric properties of Type-Ia supernovae as a function of the distance to the host galaxy. Supervisor: Prof. Ramon Miquel.

Sep 2006 - Apr 2008 Master degree in Physics, U. Autònoma de Barcelona (UAB).

Tests of DES Charge Coupled Devices. Supervisors: Ramon Miquel and Manel Martínez.

Jun 2007 Certificate of Teaching Proficiency, Institute of Education Sciences (ICE-UAB).

Sep 2001 - Jun 2006 B.S. in Physics (5-year degree), U. Autònoma de Barcelona (UAB).

# Research activity

From Sep 2021 Ramon y Cajal fellow (RyC 2019). Institut de Ciències de l'Espai (IEEC-CSIC).

Sep 2019 - Aug 2021 Marie Skłodowska-Curie (MSCA-IF 2018) fellow. Universidad de Granada.

Sep 2016 - Aug 2019 **Postdoctoral research associate.** University of Pittsburgh.

Oct 2013 - Aug 2016 FONDECYT postdoctoral fellow. Universidad de Chile.

Nov 2011 - Sep 2013 Postdoctoral researcher. Instituto Superior Técnico (IST), Universidade de Lisboa.

# Fellowships and grants awarded

Sep 2021	Hubble Space Telescope Cycle 29 $\#16741$ proposal. Funding: $\sim90,000$ USD.
Sep 2021	Proyecto Nacional I+D+i AYA PID2020-115253GA-I00. Funding: 155,577 EUR.
Sep 2021	Proyecto Intramural Especial (PIE) CSIC. Funding: 150.000 EUR.
Jul 2020	Ramon y Cajal Fellowship (RyC 2019, ranked 1st). Funding: 308.600 EUR.
May 2020	UGR conference organization funding. Amount: 1.000 EUR.
Mar 2020	NOAJ grant for visitor researcher program. Funding: 285.000 JPY.
Feb 2019	Marie Skłodowska-Curie Actions - Individual Fellowship (MSCA-IF): 172,932.48 EUR.
Jan 2019	The future of SN host galaxies studies workshop. Funding PITT-PACC: 8,000 USD.
Apr 2018	New advances in NIR SNIa science workshop. Funding PITT-PACC: 10,000 USD.
Mar 2018	SNe II cosmology with the LSST workshop. Funding PITT-PACC: 4,000 USD.
Mar 2017	FINCA grant for visitor researcher program. Funding: 2,650 EUR.
Nov 2016	Preparing for SN Science in the LSST Era workshop. Funding LSST Enabling science: 19,750 USD.
Apr 2013	FONDECYT Postdoctoral fellowship 2014. CONICYT - Chile: 74.352.000 CLP
Jun 2004	SENECA-SICUE student fellowship, Universidad de La Laguna. Funding: 4,520 EUR.

Total funding awarded: approx. 1,000,000 EUR

# Teaching activity

Froem Sep 2021	Lecturer Postgraduate Program in High Energy Physics, Astrophysics & Cosmology, ICE-IFAE.
Sep 2019 - Aug 2021	MasterCosmos BCN. Galaxies and Supernovae. <b>Lecturer</b> Department of Theoretical and Cosmological Physics, U. Granada.
Sep 2019 - Aug 2021	Stellar Physics, Physics Laboratory, General Physics.
Nov 2016	Invited professor '2nd SELGIFS Advenced School on IFS Data Analysis', UAM, Madrid, Spain.
Aug 2014	<b>Invited professor</b> 'Guillermo Haro Advanced School on IFS Techniques and Analysis', INAOE, Puebla, Mexico.
Sep 2008 - Sep 2010	<b>Teaching Assistant (TA)</b> Physics Department of U. Autònoma de Barcelona. General Physics, Mathematical Methods, Physics Laboratory.

# Supervision and mentorship

## Postdocs

From Nov 2021 **Tomás Müller**, ICE-CSIC. Supernova cosmology in the NIR.

# PhD students

From Sep 2022	<b>TBD</b> , ICE-UAB. <i>PhD advisor</i> . SN Ia cosmology in the NIR.
From Sep 2020	Raúl González Díaz, INAOE. Co-supervised with Fabián Rosales.  Diffuse interstellar gas in IFS.
From Sep 2018	Jared Hand, U. Pittsburgh. Supervised by W. M. Wood-Vasey. Stellar population synthesis. (paper in prep., 2102.08980)
Sep 18 - Feb 21	<b>Daniel Perrefort</b> , U. Pittsburgh. <i>Supervised by W. M. Wood-Vasey</i> . Subluminous SNe. (See <i>selected refereed papers</i> #62)
From Apr 2018	<b>Héctor Martínez Rodríguez</b> , U. Pittsburgh. <i>Supervised by C. Badenes</i> . SN remnants in IFS. ( <i>paper in prep</i> .)
Abr-Jul 2016	<b>Laura Sánchez-Menguiano</b> , U. Granada. <i>Supervised by I. Pérez and S. F. Sánchez</i> . Radial migration. (See <i>selected refereed papers</i> #21) Funding: "Ayudas a la movilidad predoctoral para estancias en centros de I+D 2015".
Mar 2016	<b>Manuel Emilio Moreno-Raya</b> , U. Complutense. <i>Supervised by M. Mollá and A. López-Sánchez</i> . Elemental abundances of int-z SN host galaxies. (See <i>selected refereed papers</i> #35)
From Jun 2015	Alessandro Razza, U. Chile. Supervised by G. Blanc.

SN Ia extinction studies from their LC and IFS of their host galaxies. (paper in prep.)

Aug-Nov 2014 **Manuel Emilio Moreno-Raya**, U. Complutense. *Supervised by M. Mollá and A. López-Sánchez*. Elemental abundances of low-z SN host galaxies. (See *selected refereed papers* #12, #22). Funding: "Ayudas a la movilidad predoctoral para estancias en centros de I+D 2013".

#### Master students

From Sep 2020	Sara Muñoz Torres, U. Granada. <i>TFM supervisor</i> .  The oxygen abundance dependence on the Cepheid period in SH0ES. (paper in prep.)
Oct 19 - Jul 20	<b>Román Fernández Aranda</b> , U. Complutense Madrid. <i>TFM supervised with M. Mollà</i> . Stellar populations of supernova host galaxies at high-z 0.5 <z<1.0. (paper="" in="" prep.)<="" td=""></z<1.0.>
Sep 19 - Jul 20	Raúl González Díaz, U. Granada. TFM supervised with R García-Benito. NCR method in broad and narrow band data from J-PLUS. (paper in prep.)
Dec 18 - Jul 20	<b>Nataliya Ramos Chernenko</b> , U. Granada. <i>TFM supervised with I. Domínguez</i> . The local environment of Type Ia supernovae with IFS.
Nov 18 - Jun 19	Macarena García del Valle, U. Complutense Madrid. <i>TFM supervised with M. Mollà</i> . Type la supernova environments at high redshift. (paper in prep.)
Oct 18 - Sep 19	<b>Isaac Lozano Rey</b> , U. Internacional de València (VIU). <i>TFM supervisor</i> . The imprint of hydrogen-rich core collapse supernovae from their parent populations.
Sep 16 - Jun 17	Asier Castrillo, U. Autónoma Madrid. <i>TFM supervised with Y. Ascasibar</i> . Supernova rates in nearby galaxies. (See <i>selected refereed papers</i> #63)

#### Undergrad students

From Sep 2020	<b>Antonio láñez Ferres</b> , U. Granada. <i>TFG supervisor</i> . Studying the diversity of type la supernovae in the near-infrared. (paper in prep.)
From Sep 2020	María Delgado Mancheño, U. Granada. TFG supervisor.  The type Ia NIR Hubble diagram constructed with ANDICAM JHK data.
Nov 19 - Jul 20	<b>Darío García Redecillas</b> , U. Granada. <i>TFG supervisor</i> . Studying the diversity of subluminous type la supernovae from twins.
Nov 19 - Jul 20	<b>Lamberto Oltra Nieto</b> , U. Granada. <i>TFG supervisor</i> .  The local environment of supernovae as seen by J-PLUS. (paper in prep.)
Sep 16 - Jun 17	Asier Castrillo, U. Autónoma Madrid. <i>TFM supervised with Y. Ascasibar</i> . Supernova rates in nearby galaxies. (See <i>selected refereed papers</i> #63)
Sep 16 - Sep 17	Nicolette M. Kier, U. Pittsburgh. HII region statistics in PISCO. (See <i>selected refereed papers</i> #34)
Sep 16 - Mar 17	<b>Yiwen Huang</b> , Carnegie Mellon U. Statistical study of SN Ia 91bg-like. (See <i>selected refereed papers</i> #50)
Jan-Sep 2016	<b>Luis Mora</b> , U. Chile. <i>TFG supervisor</i> .  Measuring CO at SN locations with CARMA. (See <i>selected refereed papers</i> #25)
Jan-Jul 2015	<b>Tania Moraga</b> , U. Chile. <i>TFG supervisor</i> .  Type II multiwavelength light-curve characterization. (See <i>selected refereed papers</i> #11)
Feb-Jul 2014	<b>Ismael Pessa</b> , U. Chile. <i>TFG supervisor</i> .  SNe Ia host galaxy properties as a function of the distance to host galaxy. (paper in prep.)

# Publication list

Here you can find links of my publications in the ADS, Google Scholar, and ORCID.

### Selected refereed papers

- 67. Carnegie Supernova Project: The First Homogeneous Sample of 2003fg-like Type Ia Supernova. C. Ashall, J. Lu, E. Y. Hsiao, P. Hoeflich, M. Phillips, L. Galbany, et al. APJ, accepted.
- 66. ASASSN-15hy: an under-luminous, red 03fg-like type la supernova.

  J. Lu, C. Ashall, E. Y. Hsiao, P. Hoeflich, L. Galbany, E. Baron, M. M. Phillips, et al. APJ, accepted, arXiv:2107.08150.
- 65. Probing the Progenitors of SNe Ia using Circumstellar Material Interaction Signatures.

- P. Clark, K. Maguire, M. Bulla, L. Galbany, M. Sullivan, J. P. Anderson, S. J. Smartt. MNRAS, accepted, arXiv:2107.09034.
- 64. Supernova 2018cuf: A Type IIP supernova with a slow fall from plateau. Y. Dong, S. Valenti, K. A. Bostroem, D. J. Sand, J. E. Andrews, L. Galbany, et al. APJ, 906:56 (2021). arXiv:2010.09764.
- 63. The delay time distribution of supernovae from IFS of nearby galaxies.

  A. Castrillo, Y. Ascasibar, L. Galbany, S. F. Sánchez, et al. MNRAS, 501:3122 (2021). arXiv:2012.11958.
- 62. A Template-based Approach to the Photometric Classification of SN 1991bg-like SNe in the SDSS-II SN Survey. D. Perrefort; Y. Zhang; L. Galbany, W. M. Wood-Vasey, S. González-Gaitán APJ, 904:156 (2020). arXiv:2010.09756.
- 61. Observational constraints on the optical and NIR emission from a NS-BH binary merger candidate S190814bv  $_{\rm ENGRAVE\ coll.}$  A&A, 643:113 (2020). arXiv:2002.01950.
- 60. The stellar metallicity distribution function of galaxies in the CALIFA survey.

  A. Mejía-Narváez, S. F. Sánchez, E. A. Lacerda, L. Carigi, L. Galbany, et al. MNRAS, 499:4838 (2020). arXiv:2009.13712.
- SN 2017ivv: A type II supernova with an abnormal nebular evolution.
   C. P. Gutiérrez, A. Pastorello, A. Jerkstrand, L. Galbany, et al. MNRAS, 499:974 (2020). arXiv:2008.09628.
- 58. A measurement of the Hubble constant from Type II supernovae.

  T. de Jaeger, W. Zheng, B. E. Stahl, A. V. Filippenko, A. G. Riess, L. Galbany. MNRAS, 496:3402 (2020). arXiv:2006.03412.
- 57. Studying Type II supernovae as cosmological standard candles using the Dark Energy Survey. T. de Jaeger, L. Galbany, S. González-Gaitán, et al. MNRAS, 495:1860 (2020). arXiv:2005.09757.
- 56. Studying the environment of AT 2018cow with MUSE.

  J. D. Lyman, L. Galbany, S. F. Sánchez, J. P. Anderson, H. Kuncarayakti. MNRAS, 495:992 (2020). arXiv:2005.02412.
- 55. Discovery and Rapid Follow-up Observations of the Unusual Type II SN 2018ivc in NGC 1068.

  K. A. Bostroem, S. Valenti, D. J. Sand, J. E. Andrews, S. D. Van Dyk, L. Galbany, et al. APJ, 895:31 (2020), arXiv:1909.07304.
- 54. The AMUSING++ Compilation: I. Full Sample Characterization and Galactic-Scale Outflows Selection. C. López-Cobá, S. F. Sánchez, J. P. Anderson, I. Cruz-González, L. Galbany, et al. AJ, 159:167 (2020), arXiv:2002.09328.
- 53. HII regions in the CALIFA survey: I. catalog presentation.

  C. Espinosa-Ponce, S. F. Sánchez, C. Morisset, J. K. Barrera, L. Galbany, et al. MNRAS, 494:1622 (2020), arXiv:2003.07865.
- 52. Galaxies hosting an AGN: a view from the CALIFA survey.

  E. Lacerda, S. Sánchez, R. Cid Fernandes, C. López-Cobá, C. Espinosa, L. Galbany. MNRAS, 492:3073 (2020), arXiv:2001.00099.
- 51. The 50-100 pc scale parent stellar populations of SNII and limitations of single star evolution models. P. Schady, J.J. Eldridge, J. Anderson, T.-W. Chen, L. Galbany, et al. MNRAS, 490:4515 (2019), arXiv:1907.12260.
- 50. Evidence for a Chandrasekhar-mass explosion in the Ca-strong 1991bg-like type la supernova 2016hnk. L. Galbany, C. Ashall, P. Hoeflich, S. González-Gaitán, et al. A&A, 630:A76 (2019), arXiv:1904.10034.
- 49. Models and Sim. for the Photometric LSST Astronomical Time Series Classification Challenge (PLAsTiCC) R. Kessler, G. Narayan, A. Avelino, E. Bachelet, R. Biswas, ...(with) L. Galbany, et al. PASP, 131:094501 (2019), arXiv:1903.11756.
- 48. The extraplanar type II supernova ASASSN-14jb in the ESO 467-G051 galaxy. N. Meza, J. L. Prieto, A. Clocchiatti, L. Galbany, et al. A&A, 629:A57 (2019), arXiv:1811.11771.
- 47. Superluminous Supernovae from the Dark Energy Survey.

  C. Angus, M. Smith, M. Sullivan, C. Inserra, P. Wiseman, ...(with) L. Galbany, et al. MNRAS, 487:2215 (2019), arXiv:1812.04071.
- 46. On the nature of the unusual transient AT 2018cow from Hi observations of its host galaxy M. J. Michałowski, P. Kamphuis, J. Hjorth, D. A. Kann, A. de Ugarte, L. Galbany, et al. A&A, 627:106 (2019), arXiv:1902.10144.
- 45. Accounting for the uncertainties in gas kinematics arising from stellar continuum subtraction in MUSE IFS. E. Bellocchi, Y. Ascasibar, L. Galbany, H. Ibarra-Medel, M. Gavilán, Á. Díaz A&A, 625:A83 (2019), arXiv:1903.06252.
- 44. Emission-line diagnostics of CCSN host HII regions including massive binary population Lin Xiao, L. Galbany, J.J. Eldridge, and Elizabeth R. Stanway. MNRAS, 482:384 (2019), arXiv:1805.01213.
- 43. Unravelling the infrared transient VVV-WIT-06: the case for an origin in a classical nova D.P.K. Banerjee, E. Y. Hsiao, T. Diamond, L. Galbany, et al. APJ, 867:99 (2018), arXiv:1809.06801.
- 42. Thermonuclear supernovae and cosmology I. Dominguez, L. Galbany. EPJP, 133:323 (2018).
- 41. The SELGIFS data challenge: generating synth. obs. of CALIFA galaxies from hydrodynamical simulations G. Guidi, J. Casado, Y. Ascasibar, R. García-Benito, L. Galbany, et al. MNRAS, 479:917 (2018), arXiv:1610.07620.
- Serendipitous discovery of a strong-lensed galaxy in integral field spectroscopy from MUSE.
   L. Galbany, T. E. Collett, J. Méndez-Abreu, S. F. Sánchez, J. P. Anderson. MNRAS, 479:262 (2018), arXiv:1803.09277G.

- 39. SN 2016esw: a bright Type II supernova observed a few hours after the explosion T. de Jaeger, L. Galbany, C. P. Gutiérrez, A. V. Filippenko, W. Zheng, et al., MNRAS, 478:3776 (2018), arXiv:1805.03205.
- 38. No surviving companion in Kepler's supernova.
  P. Ruiz-Lapuente, F. Damiani, L. R. Bedin, J. I. Gonzalez Hernandez, L. Galbany, et al., APJ, 862:124 (2018), arXiv:1711.00876.
- 37. The lowest metallicity type II supernova from the highest mass red-supergiant progenitor J. P. Anderson, L. Dessart, C. P. Gutiérrez, T. Krühler, L. Galbany, et al., NATURE ASTRONOMY, 2:574 (2018), arXiv:1805.04434.
- 36. Observed Type II supernova colours from the Carnegie Supernova Project-I T. de Jaeger, J. P. Anderson, L. Galbany, et al., MNRAS, 476:4592 (2018), arXiv:1802.07254.
- 35. Elemental gas-phase abundances of intermediate redshift type la supernova star-forming host galaxies M. E Moreno-Raya, L. Galbany, A. R. López-Sánchez, M. Mollá, et al., MNRAS, 476:307 (2018), arXiv:1801.06547.
- 34. PISCO: The PMAS/Ppak Integral field supernova hosts compilation

  L. Galbany, J. P. Anderson, S. F. Sánchez, H. Kuncarayakti, S. Pedraz, et al., APJ, 855:107 (2018), arXiv:1802.01589.
- 33. Constraints on core-collapse supernova progenitors from explosion site integral field spectroscopy H. Kuncarayakti, J. P. Anderson, L. Galbany, K. Maeda, M. Hamuy, et al. A&A, 613:35 (2018), arXiv:1711.05765.
- 32. Studying the ultraviolet spectrum of the first spectroscopically confirmed SN at z=2. M. Smith, M. Sullivan, R. C. Nichol, L. Galbany, et al., APJ, 854:37 (2018), arXiv:1712.04535.
- 31. The shape of O abundance profiles explored with MUSE: evidence for widespread deviations from single gradients L. Sánchez-Menguiano, S. F. Sánchez, I. Pérez, T. Ruiz-Lara, L. Galbany, et al. A&A. 609:A119 (2018), arXiv:1710.01188.
- 30. Investigating the diversity of SNe lax: A MUSE and NOT spectroscopic study of their environments J. D. Lyman, F. Taddia, M. D. Stritzinger, L. Galbany, G. Leloudas, et al. MNRAS, 473:1359 (2018), arXiv:1707.042708.
- 29. SN 2016jhj at redshift 0.34: extending the SN II Hubble diagram using the standard candle method T. de Jaeger, L. Galbany, A. Filippenko, S. González-Gaitán, et al. MNRAS, 472:4233 (2017), arXiv:1709.01513.
- 28. Serendipitous discovery of an optical emission line jet in NGC 232 C. Lopez-Cobá, S. F. Sánchez, I. Cruz-González, L. Binette, L. Galbany, et al. APJL, 850:L17 (2017), arXiv:1711.02785.
- 27. Type II SN spectral diversity II: spectroscopic and photometric correlations
  C. P. Gutiérrez, J. P. Anderson, M. Hamuy, S. González-Gaitán, L. Galbany, et al. APJ, 850:90 (2017), arXiv:1709.02799.
- 26. DES15E2mlf: A Spectroscopically Confirmed Superluminous SN that Exploded 3.5 Gyr After the Big Bang Y.-C. Pan, R. J. Foley, M. Smith, L. Galbany, C. B. D'Andrea, et al. MNRAS, 470:4241 (2017), arXiv:1702.05430.
- Molecular gas at supernova local environments unveiled by EDGE
   L. Galbany, L. Mora, S. González-Gaitán, A. Bolatto, H. Dannerbauer, et al. MNRAS, 468 628 (2017), arXiv:1702.02945.
- 24. Hot gas around SN 1998bw. The progenitor inferred through its environment T. Krühler, H. Kuncarayakti, P. Schady, J. Anderson, L. Galbany, J. Gensior. A&A, 602:A85 (2017), arXiv:1702.05430.
- 23. A type II supernova Hubble diagram from the CSP, SDSS-II nd SNLS surveys.

  T. de Jaeger, S. González-Gaitán, M. Hamuy, L. Galbany, J. P. Anderson, et al. APJ, 835:166 (2017), arXiv:1612.05636.
- 22. Using the local gas-phase oxygen abundances to explore a metallicity-dependence in SNe la luminosities M.E. Moreno-Raya, Á.R. López-Sánchez, M. Mollá, L. Galbany, et al. MNRAS, 462:1281 (2016), arXiv:1607.05526.
- 21. Evidence of ongoing radial migration in NGC 6754: Azimutal variations of the gas properties.

  L. Sánchez-Menguiano, S. F. Sánchez, D. Kawata, ... (with) L. Galbany, et al. APJL, 830:40 (2016), arXiv:1603.04748.
- MUSE Reveals a Recent Merger in the Post-starburst Host Galaxy of the TDE ASASSN-14li.
   J. L. Prieto, T. Krühler, J. P. Anderson, L. Galbany, C. S. Kochanek, et al. APJL, 830:32 (2016), arXiv:1609.00013.
- 19. CALIFA, the Calar Alto Legacy Integral Field Area survey IV. Third Public data release. S. F. Sánchez, R. García-Benito, S. Zibetti, C. J. Walcher, ...(with) L. Galbany, et al. A&A, 594:A36 (2016) arXiv:1604.02289.
- 18. Unresolved versus resolved: calibrating young SSP models with VLT/MUSE observation of NGC 3603. H. Kuncarayakti, L. Galbany, J. P. Anderson, T. Krühler, M. Hamuy. A&A, 593:A78 (2016) arXiv:1607.03446.
- 17. Nearby supernova host galaxies from the CALIFA Survey: II. SN environmental metallicity L. Galbany, V. Stanishev, A. M. Mourão, M. Rodrigues, H. Flores, et al. A&A, 591:48 (2016), arXiv:1603.07808.
- 16. Evolving into a remnant: optical spectroscopy of SN 1978K at thirty-six years
  H. Kuncarayakti, K. Maeda, J. P. Anderson, M. Hamuy, K. Nomoto, L. Galbany MNRAS, 458:2063 (2016), arXiv:1512.02108.
- 15. Type II supernovae as probes of environment metallicity: observations of host HII regions J. P. Anderson, C. P. Gutiérrez, L. Dessart, M. Hamuy, L. Galbany, et al. A&A, 589:A110 (2016) arXiv:1602.00011

- 14. SN 2014J at M82: I. A middle-class type la supernova by all spectroscopic metrics L. Galbany, M. E. Moreno-Raya, P. Ruiz-Lapuente, J. I. González-Hernández, et al. MNRAS, 457:525 (2016), arXiv:1510.06596.
- 13. Characterising the environments of supernovae with MUSE

  L. Galbany, J. P. Anderson, F. F. Rosales-Ortega, H. Kuncarayakti, et al. MNRAS, 455:4087 (2016), arXiv:1511.01495
- 12. On the dependence of the type la SNe luminosities on the metallicity of their host galaxies M. E. Moreno-Raya, M. Mollá, Á . R. López-Sánchez, L. Galbany, et al. APJL, 818:L19 (2016), arXiv:1511.05348
- 11. UBVRIz light curves of 51 type II supernovae

  L. Galbany, M. Hamuy, M. M. Phillips, N. B. Suntzeff, J. Maza, et al. AJ, 151:33 (2016), arXiv:1511.08402
- 10. A Hubble diagram from type II supernovae based solely on photometry: The photometric-colour method T. de Jaeger, S. González-Gaitán, J. P. Anderson, L. Galbany, M. Hamuy, et al. APJ, 815:121 (2015), arXiv:1511.05145
- 9. The rise-time of Type II supernovae S. González-Gaitán, N. Tominaga, J. Molina, L. Galbany, F. Bufano, et al. MNRAS, 451: 2212 (2015), arXiv:1505.02988
- 8. PESSTO: survey description and products from the first data release. S. J. Smartt, S. Valenti, M. Fraser, C. Inserra, D. R. Young, ...(with) L. Galbany, et al. A&A, 579:A40 (2015), arXiv:1410.2210.
- Statistical Studies of Supernova Environments.
   J. P. Anderson, P. A. James, S. M. Habergham, L. Galbany, H. Kuncarayakti PASA, 32:e019 (2015), arXiv:1504.04043.
- 6. CALIFA, the Calar Alto Legacy Integral Field Area survey. III. Second public data release R. García-Benito, S. Zibetti, S.F. Sánchez, B. Huseman, ...(with) L. Galbany, et al. A&A, 576:135 (2015), arXiv:1409.8302
- Census of HII regions in NGC6754 derived with MUSE: Constraints on the metal mixing scale.
   S.F. Sánchez, L. Galbany, J. Falcón-Barroso, P. Sánchez-Blázquez, E. Pérez, et al. A&A, 573:A105 (2015), arXiv:1411.4967
- 4. Nearby SN host galaxies from the CALIFA Survey: I. Sample, data analysis, and correlation to SF regions L. Galbany, V. Stanishev, A. M. Mourão, M. Rodrigues, H. Flores, et al. A&A, 572:A38 (2014), arXiv:1409.1623
- 3. Aperture corrections for galaxy properties computed from the CALIFA survey.

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- 26. Outer-disk reddening and gas-phase metallicities: The CALIFA connection R. A. Marino, et al., A&A, 585:47 (2016), arXiv:1509.07878.
- 25. Star Formation in the Local Universe from the CALIFA sample: I. Calibrating the SFR using IFS data C. Catalán-Torrecilla, et al., A&A, 584:A87 (2015), arXiv:1507.03801.
- 24. On the diversity of Super-luminous Supernovae: Ejected mass as the dominant factor M. Nicholl, et al., MNRAS, 452:3869 (2015), arXiv:1503.03310.
- 23. The CALIFA survey across the Hubble sequence: Spatially resolved stellar pop. properties in bulges and disks R. M. González Delgado, et al., A&A, 581:A103 (2015), arXiv:1506.04157.
- 22. LSQ14bdq: A Type Ic super-luminous supernova with a double-peaked light curve M. Nicholl, et al., APJ LETTERS, 807:L18 (2015), arXiv:1505.01078.
- 21. Central star formation and metallicity in CALIFA interacting galaxies  $_{\rm J.K.~Barrera\text{-}Ballesteros,~et~al.,~}A\&A,~579\text{:}A45~(2015),~arXiv:1505.03153.}$
- 20. Early-time light curves of Type lb/c supernovae from the SDSS-II Supernova Survey F. Taddia, et al., A&A, 574:A60 (2015), arXiv:1408.4084.
- 19. Imprints of galaxy evolution on HII regions. Memory of the past uncovered by the CALIFA survey. S.F. Sánchez, et al., A&A, 574:A47 (2015), arXiv:1409.8293.
- 18. Defining photometric peculiar type la supernovae S. González-Gaitán, et al., APJ, 795:142 (2014), arXiv:1409.4811.
- 17. CALIFA: a diameter selected sample for an Integral Field Spectroscopy galaxy survey C.J. Walcher, et al., A&A, 569:A1 (2014), arXiv:1407.2939.
- 16. The Core Collapse Supernova Rate from the SDSS-II Supernova Survey M. Taylor, et al., APJ, 792:135 (2014), arXiv:1407.0999.

- 15. Insights on the stellar mass-metallicity relation from the CALIFA survey R. M. González Delgado, et al., APJ LETTERS, 791:L16 (2014), arXiv:1407.1315.
- 14. Improved cosmological constraints from a joint analysis of the SDSS-II and SNLS supernova samples. M. Betoule, et al., A&A, 568:A22 (2014), arXiv:1401.4064.
- 13. Hubble Space Telescope and ground-based observations of the type lax supernovae SN 2005hk and SN 2008A C. Mc Cully, et al., APJ, 786:134 (2014), arXiv:1309.4457.
- 12. Host galaxy spectra and consequences for SN typing from the SDSS SN Survey. M. D. Olmstead, et al., AJ, 147:75 (2014), arXiv:1308.6818.
- 11. A characteristic oxygen abundance gradient in galaxies disks unveiled with CALIFA S.F. Sánchez, et al., A&A, 563:A49 (2014), arXiv:1311.7052.
- 10. The effect of weak lensing on distance estimates from supernovae. M. Smith, et al., APJ, 780:24 (2014), arXiv:1307.2566.
- 9. The effects of spatial resolution on Integral Field Unit Surveys at different redshift. The CALIFA perspective. D. Mast, et al., A&A, 561:129 (2014), arXiv:1311.3941.
- 8. The N2 and O3N2 indicators revisited: improved calibrations based on CALIFA and  $T_e$ -based literature data. R. A. Marino, et al., A&A, 559:114 (2013), arXiv:1307.5316.
- 7. The nature of LINER galaxies: Ubiquitous hot old stars plus rare accreting black holes. R. Singh, et al., A&A, 558:A43 (2013), arXiv:1308.4271.
- 6. Properties of type la supernovae inside rich galaxy clusters. H. S. Xavier, et al., MNRAS, 434:1443 (2013), arXiv:1304.6431.
- 5. Nebular emission and the Lyman continuum photon escape fraction in CALIFA early-type galaxies. P. Papaderos, et al., A&A LETTERS, 555:L1 (2013), arXiv:1306.2338.
- 4. Mass-Metallicity relation explored with CALIFA. I. Is there a dependence on the star-formation rate?. S. F. Sánchez, et al., A&A, 554:A58 (2013), arXiv:1304.2158.
- 3. CALIFA, the Calar Alto Legacy Integral Field Area survey: II. First public data release. B. Husemann, et al., A&A, 549:A87 (2013), arXiv:1210.8150.
- 2. A Measurement of the Rate of Type Ia Supernovae in Galaxy Clusters from the SDSS-II Supernova Survey. B. Dilday, et al., APJ, 715:1021-1035 (2010), arXiv:1003.1521.
- 1. Measurements of the Rate of Type Ia Supernovae at Redshift  $z \lesssim 0.3$  from the SDSS-II Supernova Survey. B. Dilday, et al., APJ, 713:1026-1036 (2010), arXiv:1001.4995.

## Thesis

2. Supernova studies in the SDSS-II/SNe Survey: spectroscopy of the peculiar SN 2007qd, and photometric properties of Type-Ia supernovae as a function of the distance to the host galaxy.

Lluís Galbany, PhD thesis, Universitat Autònoma de Barcelona, Departament de Física, 28 10 2011

Supervisor: Dr. Ramon Miquel. Tribunal: Dr. Robert C. Nichol, Dr. Enrique Fernàndez, Dr. Francisco J. Castander

BASES DE DATOS DE TESIS DOCTORALES (TESEO), REF. 936108

1. Tests of DES Charge Coupled Devices

Lluís Galbany, Master thesis (DEA), Universitat Autònoma de Barcelona, Departament de Física, 18 04 2008

Supervisor: Dr. Ramon Miquel, Dr. Manel Martínez. Trib.: Dr. Eduard Massó, Dr. Enrique Fernàndez, Dr. Francisco J. Castander BIBLIOTECA DE CIÈNCIA I TECNOLOGIA (UAB), T-53 2008 GAL

# Invited presentations and selected talks

- Dec 2021 Seminar: Dust, H0, SNe, King's College London.
- May 2020 (Contributed): Type Ia SNe evolution studied with IFS: the low and high-z examples, CSIC, Madrid.
- Apr 2020 Seminar: A SN in the borough: IFS of SN hosts, NYU Abu Dhabi (POSTPONED COVID-19).
- Mar 2020 (Contributed): The Legacy Andalusian Transient IFU Network Observatory (LATINO), IAA, Granada.
- Jan 2020 (Contributed): The AMUSING survey, CRISPINHO workshop, Granada.
- Oct 2019 Seminar: A SN in the borough: integral field spectroscopy of SN hosts, UNAM México.
- Oct 2019 (Contributed): IFS follow up of CSP SNIa host galaxies, Carnegie Obs, Passadena.
- Sep 2019 (Contributed): Dones and ToDos in IFS surveys of SN hosts, U. de Southampton, UK.

- Sep 2019 Seminar: Constraining progenitors with integral field spectroscopy, U. de Granada.
- Sep 2019 Seminar: Surveys of integral field spectroscopy of SN hosts, Florida State University, Tallahassee, FL.
- Aug 2019 Invited talk: Progenitors of Type Ia supernovae conference, Lijiang, Yunnan, China.
- Jul 2019 (Contributed): Analyzing Integral field spectroscopy data CRISP workshop, Lisbon, Portugal.
- Feb 2019 (Contributed) A 1991bg-like SNIa 2016hnk, Carnegie SN Project meeting, Saint George Island, FL.
- Dec 2018 (Contributed) Testing WFIRST simulations with SNEMO, Lawrence Berkeley National Lab, CA.
- Nov 2018 Seminar: SN Ia local environments with IFS, University of Pennsylvania, Philadelphia PA.
- Nov 2018 Seminar: SN 2016hnk, a Ca-rich 91bg-like SN Ia with a light echo, ESO, Santiago, Chile.
- Nov 2018 (Contributed) The local environment of type la SNe as seen with IFS, Bariloche, Argentina.
- Jul 2018 (Contributed) A Ca-rich faint 91bg-like type Ia SN, Institute for Astrophysics, Honolulu HI.
- Jul 2018 (Contributed) CSP SN Ia environments with IFS. Carnegie SN Project meeting, IfA, Honolulu HI.
- Jul 2018 (Contributed) A Ca-rich faint 91bg-like type Ia SN, Lorentz center, Leiden.
- Jun 2018 Seminar: Inferring SN progenitor properties with J-PLUS, CEFCA, Teruel.
- Jun 2018 Seminar: Using the environment to infer SN progenitor properties, U. Zaragoza.
- Jun 2018 Seminar: Using the environment to infer SN progenitor properties, U. Barcelona.
- Jun 2018 Seminar: The Pmas/ppak Integral-field SN hosts COmpilation (PISCO), IAA Granada.
- Jun 2018 Seminar: Using the environment to infer SN progenitor properties, U. Autònoma de Barcelona.
- Dec 2017 Seminar: The Pmas/ppak Integral-field SN hosts COmpilation (PISCO), CfA Harvard MA.
- Oct 2017 (Contributed) The local environment of type Ia SNe as seen with IFS, Carnegie Observatories, Pasadena.
- Mar 2017 Seminar: The All-weather MUse SN Integral field Nearby Galaxies survey, U. Oulu, Finland.
- Mar 2017 Seminar: PISCO and AMUSING: IFS of SN environments, University of Turku, Finland.
- Feb 2017 Seminar: Integral field spectroscopy of SN environments, University of Toronto, Canada.
- Feb 2017 Seminar: What's there? Integral field spectroscopy to study SN environments, U. Pittsburgh PA.
- Nov 2016 Invited talk: The All-weather MUse AN Integral field Nearby Galaxies survey, IFS school UAM, Madrid.
- Nov 2016 Invited talk: SN remnant dominated regions and SN rates with IFS, IFS school UAM, Madrid.
- Nov 2016 (Contributed) Spectrophot. SNII template: A SiFTO fitter for SNeII. LSST SN workshop, Pittsburgh.
- Aug 2016 (Contributed) *SN environmental studies through IFS*. SNe through the ages: understanding the past to prepare for the future, Easter Island, Chile.
- Jul 2016 (Contributed) *SN environmental studies through IIFS*. XII Reunión Sociedad Española de Astronomía (SEA) 2016, Bilbo, Spain.
- Jul 2016 (Contributed) The All-weather MUse Supernova Integral field Nearby Galaxies (AMUSING) survey. European Week of Astronomy and Space Science (EWASS) 2016, Athens, Greece.
- Jun 2016 (Contributed) Standardization of SN II light-curves with statistical methods. Meeting on Fundamental Cosmology, Barcelona.
- Jun 2016 Seminar: Environmental studies of SNe. CIEMAT, Madrid, Spain.
- May 2016 (Contributed) Statistical methods in SN II light-curves. South American Supernovae 2016, La Plata, Argentina.
- Mar 2016 (Contributed) *The local environment of SNe as seen with IFS*. Chilean Astronomical Society (SOCHIAS) meeting 2016, Antofagasta, Chile.
- Jun 2015 (Contributed) Nearby supernova host galaxies from the CALIFA survey. European Week of Astronomy and Space Science (EWASS) 2015, La Laguna, Spain.
- Jun 2015 (Contributed) The local environment of SNe., IX PESSTO meeting, Paris, France.
- May 2015 Seminar: Characterizing SN host galaxies with IFS. European Southern Observatory, Santiago, Chile.
- Apr 2015 (Contributed) PCA of type II SN light-curves. South American Supernovae 2015, Santiago, Chile.
- Apr 2015 (Contributed) SN studies with IFS: the CALIFA contribution. CALIFA Busy Week, Firenze, Italy.
- Sep 2014 Seminar: Characterizing SN host galaxies with IFS. Universidad de Guanajuato, Mexico.
- Aug 2014 Invited talk: What can IFS shine on SN progenitors. Invited tutorial: Studying SN environments with IFS. Guillermo Haro Advanced School on IFS Techniques and Analysis, INAOE, Puebla, Mexico.

- Seminar: Integral Field Spectroscopy of nearby supernova host galaxies.. Institut d'Estudis Espacials May 2014 de Catalunya, Universitat Autònoma de Barcelona.
- Nov 2013 (Contributed) Studying SNe environment with CALIFA Survey. LARIM: XIV Latin American Regional IAU Meeting, Florianópolis, Brasil.
- Jul 2013 (Contributed) Integral Field Unit spectroscopy of supernova host galaxies. XXIII Encontro Nacional de Astronomía e Astrofísica (ENAA), CAAUL Universidade de Lisboa, Portugal.
- Apr 2013 Seminar: IFU spectroscopy of SN host galaxies. Universidad de Chile, Santiago, Chile.
- Apr 2013 (Contributed) IFU spectroscopy of SN host galaxies. CALIFA 5th Busy Week, AIP, Potsdam, Germany.
- Jan 2013 Seminar: Using the environment to understand SNe properties. Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas, Madrid, Spain.
- (Contributed) Studying CCSNe environment with CALIFA Survey. CALIFA 4th Busy Week, Instituto Nov 2012 de Astronomía de Andalucía (IAA), Granada, Spain.
- Aug 2012 (Contributed) Type-la SNe standarization accounting for the environment. Modern Cosmology: Early Universe, CMB and LSS, Benasque Center for Science, Benasque, Spain.
- (Contributed) Type-la SDSS-II/SNe properties as a function of the distance to their host galaxies. Oct 2010 SDSS-II/SN Collaboration Meeting, Argonne National Laboratory, IL, USA.

# Participation and responsibilities in international collaborations

2018 - present	Member of the Electro-magnetic counterparts of GW at the VLT (ENGRAVE). MUSE instrument scientist (with J. Lyman).
2016 - present	Member of the J-PLUS collaboration.  Leading the SN environments working group.
2016 - present	Full member of the LSST Dark Energy Science Collaboration (DESC). Served in the Publication Board committee (2019-2021).
2016 - present	External collaborator of the Hyper Suprime Cam Survey (HSCS) for SNe II and SL

- SLSNe. Typer Suprime Cam Survey (HSCS) for SNe
  - 2016 2021 Member (until 2019; EC since then) of the Sloan Digital Sky Survey IV (SDSS-IV).

PI of an ancillary program in MaNGA to observe SN host galaxies. Member (EC until 2021) of the Dark Energy Survey (DES).

2015 - present Leading the SNII working group.

- Member of the Chilean Scientific Coordination Committee for the LSST. 2015 - 2016
- Member of Public ESO Spectroscopic Survey of Transient Objects (PESSTO → ePESSTO+). 2013 - present Serving as the ePESSTO+ Ombudsperson, and in the Target And Alert (TAT) committee. PI of the SN environments and the SNIa cosmology in the NIR science groups.
  - 2011 2017 Associate member of the Calar Alto Legacy Integral Field Area Survey (CALIFA). Responsible of the external ancillary data catalogues.
  - 2008 2014 External member of the Sloan Digital Sky Survey II - Supernova Survey (SDSS-II/SNe).
  - 2006 2011 Participant member of the Dark Energy Survey (DES)

# Major collaborators

J. P. Anderson (ESO, Chile), S. Gónzalez-Gaitán (CENTRA, Portugal), M. Phillips (Carnegie Obs.), E. Hsiao (FSU), S. F. Sánchez (UNAM, México), M. Stritzinger (Aarhus), H. Kuncarayakti (U. Turku, Finland), F. Förster (CMM, U. Chile), I. Domínguez (UGR, Spain), M. Hamuy (DAS, U. Chile), C. Badenes (U. Pittsburgh), M. A. Pérez-Torres (IAA-CEFCA), M. Mollá (CIEMAT, Spain), A. R. López-Sánchez (Macquire U.), F. F. Rosales-Ortega (INAOE, México), Y. Ascasibar (UAM, Spain), J. M. Vílchez (IAA, Spain), A. M. Mourão (IST, Lisbon), R. Miquel (IFAE-UAB, Spain).

# Observing experience

— As a Principal investigator (PI):

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8.1m UT4 / MUSE
                                                     20B. 106.2104.001, 53 hours (SM).
                                                     17A. 099.D-0022(A), 45 hours (Service mode; SM).
                                                     16B. 098.D-0115(A), 99 hours (SM).
                                                     14B. 60.A-9329(A), 4 hours (SM).
                                 8.1m UT1 / KMOS
                                                     19B. 0104.D-0498(A), 36 hours (SM).
                 Las Campanas Observatory (LCO)
                       6.5m Baade Telescope / FIRE
                                                     16B. CN2016B-17, 2 nights (Visitor mode; VM).
                                                     16B. CN2016B-16, 4 nights (VM).
                       6.5m Clay Telescope / LDSS3
    Observatorio Roque de Los Muchachos (ORM)
            2.5m Nordic Optical Telescope / NOTCam
                                                     21A. 58-NOT4/21A, 6 half-nights.
                                                     20B. 6-NOT2-A/20B, 6 half-nights.
              10.4m Gran Telescopio Canarias / EMIR
                                                     21A. 57-GTC36/21A, 18 hours.
                                                     20B. 5-GTC3/20B, 20 hours.
             10.4m Gran Telescopio Canarias / OSIRIS
                                                     20B. 11-GTC9/20B, 6 hours (ToO).
                                                     20A. 76-GTC52/20A, 10 hours (ToO).
           4.5m William Herschel Telescope / PFQHY
                                                     21B. SW2021a13, 16h (SM).
                                                     21B. SW2021a26, 28h (SM).
       4.5m William Herschel Telescope / ACAM-LIRIS
                                                     20A. 150-WHT5/20A, 4 nights.
                         Gemini Observatory (GO)
                              8.2m G-North / GMOS
                                                     18B. NOAO-2018B-0060, 10 hours (SM).
                                                     18A. NOAO-2018A-0125, 1.1 hours (SM).
                                                     18A. NOAO-2018A-0040, 10 hours (SM).
                             8.2m G-South / GMOS
                                                     15B. GS-2015B-Q-8, 10 hours (SM).
  Cerro Tololo Inter-American Observatory (CTIO)
                1.3m SMARTS telescope / ANDICAM
                                                     19A. 2019A-0081, 42 hours (SM).
                                                     18B. 2018B-0016, 42 hours (SM).
                                                     18A. 2018A-0047, 30 hours (SM).
Centro Astronómico Hispano de Andalucía (CAHA)
                       3.5m telescope / OMEGA2000
                                                     21B. 21B-3.5-003, 4 nights (VM).
                                                     21A. F21-3.5-003, 4 nights (SM).
                                                     20B. H20-3.5-002, 4 nights (SM).
                        3.5m telescope / PMAS-Ppak
                                                     20B. H20-3.5-001, 4 nights (VM).
                                                     20A. F20-3.5-008, 5 nights (VM).
                                                     18B. H18-3.5-008, 6 nights (VM).
                                                     18A. F18-3.5-001, 3 nights (SM).
                                                     17B. H17-3.5-001, 2 nights (SM).
                                                     17A. F17-3.5-001, 3 nights (SM).
                                                     16B. H16-3.5-012, 2 nights (SM).
                                                     16A. F16-3.5-006, 5 nights (SM).
                                                     15B. H15-3.5-004, 4 nights (VM).
       Astronomical Australian Observatory (AAO)
                       4.2m AAT telescope / KOALA
                                                     18A. A/2018A/19, 11 nights (VM).
    Observatorio Astroómico de Javalambre (OAJ)
                           0.8m telescope / T80Cam
                                                     21A. 2000182, 44.24 hours (SM).
                                                     20B. 2000177, 47.52 hours (SM).
                                                     20A. 1900165, 47.52 hours (SM).
                                                     19B. 1900154, 47.52 hours (SM).
                                                     19A. 1800146, 46.9 hours (SM).
      Observatori Astronòmic del Montec (OAdM)
                           0.8m telescope / T80Cam
                                                     21B. p351, 45 hours (remote).
                 Apache Point Observatory (APO)
                       2.5m SDSS telescope / BOSS
                                                     17B. MaNGA Ancillary program, 30 objects (SM).
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Cerro Paranal Observatory (CPO)

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JWST / 6.5m James Webb Space Telescope / MIRI
                                                      Cycle 1. #02114, 21.1h. PI: Ashall.
JWST / 6.5m James Webb Space Telescope / NIRSPEC
                                                      Cycle 1. #02122, 22.1h. PI: Ashall.
         HST / 2.4m Hubble Space Telescope / WFC3
                                                      Cycle 28. #16287, 210 Snapshot targets. Pl: Lyman.
          HST / 2.4m Hubble Space Telescope / STIS
                                                      Cycle 28. #16190, 62 orbits. PI: Brown.
                                                      Cycle 28. #16275, 18 orbits. PI: Tanvir.
         HST / 2.4m Hubble Space Telescope / WFC3
             CAHA / 2.2m CAHA Telescope / CAFOS
                                                      20A. F20-2.2-023, 5 nights. PI: Morales.
         HST / 2.4m Hubble Space Telescope / WFC3
                                                      Cycle 27. #15889, 77 orbits. Pl: Jha.
                           CPO / 8.1m UT4 / MUSE
                                                      19B. 104.D-0503(A)-(B), 99 hours (SM). PI: Anderson.
                           CPO / 8.1m UT4 / MUSE
                                                      19A. 103.D-0440(A)-(B), 99 hours (SM). PI: Anderson.
         HST / 2.4m Hubble Space Telescope / WFC3
                                                      Cycle 26. #15664, 90 orbits. PI: Levan.
                           CPO / 8.1m UT4 / MUSE
                                                      18B. 102.B-0628(A), 22 hours (SM). PI: López-Sánchez.
                           CPO / 8.1m UT4 / MUSE
                                                      18B. 102.D-0095(A), 99 hours (SM). PI: Anderson.
                           CPO / 8.1m UT4 / MUSE
                                                      18A. 101.D-0748(A), 99 hours (SM). PI: Kuncarayakti.
             CAHA / 2.2m CAHA Telescope / CAFOS
                                                      17B. H17-2.2-023, 10 nights. PI: Moreno-Raya.
                        GO / 8.2m G-South / GMOS
                                                      17B. CL-2017B-015, 12 hours (SM). PI: Olivares
                           CPO / 8.1m UT4 / MUSE
                                                      17B. 100.D-0341(A), 99 hours (SM). PI: Kuncarayakti.
                 LCO / 6.5m Baade Telescope / FIRE
                                                      17A. CL-2017A-XXX, 1 night. PI: González-Gaitán.
  LCO / 6.5m Baade/Clay Telescopes / IMACS/LDSS3
                                                      17A. CL-2017B-046, 4 nights. PI: Förster.
                        GO / 8.2m G-South / GMOS
                                                      16B. CL-2016B-009, 14 hours (SM). PI: González-Gaitán
               LCO / 6.5m Baade Telescope / IMACS
                                                      16A. CL-2016A-XXX, 1 night. PI: Kuncarayakti.
               LCO / 6.5m Baade Telescope / IMACS
                                                      16A. CL-2016A-XXX, 0.5 nights. PI: Förster.
                           CPO / 8.1m UT4 / MUSE
                                                      16A. 097.D-0408(A), 99 hours (SM). PI: Anderson.
                                                      15B. 096.D-0296(A), 99 hours (SM). PI: Anderson.
                           CPO / 8.1m UT4 / MUSE
                                                      15B. CL-2015B-XXX, 4 nights. PI: González-Gaitán.
                 LCO / 6.5m Clay Telescope / LDSS3
           LSO / 3.5m NTT Telescope / EFOSC-SOFI
                                                      15B. —, 4 nights. PI: Smartt.
                           CPO / 8.1m UT4 / MUSE
                                                      15A. 095.D-0091(B), 99 hours (SM).
            CPO / 8.1m UT1 VLT Telescope / MUSE
                                                      15A. —, 4 nights. PI: Kuncarayakti.
               CTIO / 4m Blanco Telescope / DECam
                                                      15A. —, 6 nights. PI: Förster.
                ORM / 10m GTC Telescope / OSIRIS
                                                      14B. —, 22 hours. PI: Moreno-Raya.
                                                      14B. —, 4 nights. PI: Smartt.
           LSO / 3.5m NTT Telescope / EFOSC-SOFI
               LCO / 6.5m Baade Telescope / IMACS
                                                      14A. CL-2014A-XXX, 1 night. PI: Kuncarayakti.
               CTIO / 4m Blanco Telescope / DECam
                                                      14A. —, 5 nights. PI: Förster.
               ORM / 4.2m WHT Telescope / ACAM
                                                      14A. —, 4 nights. PI: Moreno-Raya.
              CAHA / 3.5m CAHA Telescope / PMAS
                                                      13A. —, 4 nights. PI: Sánchez.
               ORM / 3.6m TNG Telescope / OSIRIS
                                                      07B. —, 2 nights. PI: Castander.
```

# Organization of scientific meetings and seminar series

- Sep 2021 SOC member of the Encontro Nacional de Astronomia e Astrofisica (ENAA) 2021, Sep 8 to 10th.
- Jul 2020 SOC member of the Dark Energy Science Collaboration (DESC) virtual meeting, Jul 20th to 24th.
- Jun 2020 Chair of the special session Supernova host environments at the EAS 2020, Leiden, NL.
- Mar 2020 SOC member of the *Public Surveys and new instrumentation for Calar Alto Observatory* workshop, Granada, Mar 12th & 13rd.
- Jan 2020 Organizer of the workshop *CRISPINHO*: Correcting reddening intelligently for cosmological supernova probes, Granada, Jan 27th to 31st.
- Sep 2019 Organizer of the workshop *The future of SN host galaxies studies II*, Southampton, UK, Sep 23nd to 25th. (webpage).
- Jan 2019 Organizer of the workshop *The future of SN host galaxies studies*, Pittsburgh, USA, Jan 22nd to 24th. Funding: \$8,000 USD from the PITT-PACC research fund (PI: Galbany; webpage).
- Apr 2018 Organizer of the workshop "New advances in NIR SNIa science", Pittsburgh, USA, April 11th to 13th. Funding: \$10,000 USD from the PITT-PACC research fund (PI: Galbany; webpage).
- Mar 2018 Organizer of the workshop "SN II cosmology in the LSST", Pittsburgh, USA, March 5th to 9th. Funding: \$4,000 USD from the PITT-PACC research fund (PI: Galbany).
- 2017 2019 Organizer of the Astro Seminars at the Department of Physics and Astronomy U. Pittsburgh.

- Nov 2016 Organizer of the workshop "Preparing for supernova science in the LSST era: a kick-off workshop", Pittsburgh, USA, November 16th to 18th. Funding: \$19,750 USD from the LSST Enabling Science call (Pl: Galbany; webpage).
- Nov 2016 LOC member of the LSST Hack Week, Pittsburgh, US, November 7th to 11th (webpage).
- Aug 2016 LOC member of the conference "Supernovae through the ages: understanding the past to prepare for the future", Easter Island, Chile, August 9th to 13th (webpage). Funding: several sources including ESO-Chile, AURA, Carnegie observatories, MAS, and CASSACA.
- Aug 2016 Organizer of the workshop "SIDH: Supernova is in da house", Santiago, Chile, August 1st to 5th (webpage). Funding: \$200,000 CLP from the Millennium Institute for Astrophysics (MAS).
- 2014 2015 Organizer of 'Supernova Journal Club' seminar series (DAS).
- 2009 2010 Organizer of PhD students 'Thursday's Meeting seminar series (IFAE).

## Research visits

## Oct 2019 Instituto de Astronomía, UNAM, Mexico City

Quality control pipeline for the AMUSING survey.

Collaborator: Prof. Sebastián Sánchez.

## Oct 2019 Carnegie Observatories, Pasadena

Preparation of the next stage of the Carnegie Supernova Project (CSP).

Collaborator: Dr. Christopher Burns.

#### Jul 2019 Universidade de Lisboa, Portugal.

Correcting reddening intelligently for cosmological supernova probes (CRISP).

Collaborator: Dr. Santiago González-Gaitán.

## Nov 2018 European Southern Observatory (ESO), Chile.

Executive meeting for the AMUSING survey.

Collaborator: Dr. Joseph Anderson.

#### Oct 2018 University of Southampton, UK.

SN Ia environments with IFS.

Collaborators: Dr. Matthew Smith and Prof. Mark Sullivan.

### May 2018 Macquaire University, AUS.

IFS observations with KOALA.

Collaborator: Dr. Ángel R. López-Sánchez.

#### Feb 2018 University of Berkeley, US.

Type II SN cosmology in the Dark Energy Survey.

Collaborator: Dr. Thomas de Jaeger.

### Jun 2017 Centro Inv. Energéticas, Medioambientales y Tecnológicas (CIEMAT), SPAIN.

Intermediate redshift type la supernova host galaxies.

Collaborator: Dra. Mercedes Mollá

### Mar 2017 University of Turku, FINLAND. Under the FINCA visitor program.

Integral Field Spectroscopy of SN host galaxies.

Collaborator: Dr. Hanindyo Kuncarayakti, Dr. Seppo Matila.

## Feb 2017 University of Berkeley, US.

Type II supernova cosmology.

Collaborator: Dr. Thomas de Jaeger.

# Jun 2016 Centro Inv. Energéticas, Medioambientales y Tecnológicas (CIEMAT), SPAIN.

Metallicity dependence on SN Ia luminosity.

Collaborator: Dra. Mercedes Mollá

# Feb 2016 University of Pittsburgh, US.

Type Ia supernova cosmology in the NIR.

Collaborators: Dr. Michael Wood-Vasey and Dr. Carles Badenes.

#### Jun 2015 Instituto de Astrofísica de Canarias, SPAIN.

Spectroscopic characterization of SN 2014J.

Collaborators: Dr. Jonay I. González

## Jun 2014 University of Southampton & Institute of Cosmology and Gravitation, Portsmouth, UK.

Supernova science with DECam.

Collaborators: Dr. Francisco Förster, Dr. Mark Sullivan, Dr. Robert Nichol

Apr 2013 Departamento de Astronomía, Universidad de Chile, CHILE.

Core-collapse and type Ia SNe environmental studies.

Collaborators: Dr. Joseph Anderson

Jan 2013 Centro Inv. Energéticas, Medioambientales y Tecnológicas (CIEMAT), SPAIN.

Type Ia SN standardization accounting for host galaxy metallicity.

Collaborator: Dra. Mercedes Mollá

Feb 2007 Fermi National Laboratory (FNAL), US

Studies related to DES CCD characterization.

Supervisors: Dra. Brenna Flaugher and Dr. Juan Estrada

### Press and outreach

18/03/2021 Two outreach talks at the mental health unit of the juvenile detention cen	center <i>Els I II·lers</i> .
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12/11/2020 Interview in *La esfera celeste* Astronomy blog (Link).

14/11/2019 Outreach talk at José Hurtado Primary school, Granada. "What is a star?" (IAU100).

08/11/2019 Participation in "Semana de la Ciencia" at UGR. Speaker in Stand 5 "Stellar evolution" (Link).

23/06/2018 "Perfils", interview in the online newspaper Nació digital (in Catalan, Nació Digital).

20/06/2018 Interview in the La Xarxa television (in Catalan, Vallès Oriental TV).

30/05/2018 'Career day' at the Environmental Charter School, outreach talk. Pittsburgh PA.

18/03/2016 "Supernovas, explosiones en el universo", outreach talk at the Colegio Su Santidad Juan XXIII, San Joaquín, Chile (in Spanish, Día de astronomia, CONICYT).

18/03/2016 "Supernovas, explosiones en el universo", outreach talk at the Colegio Malaquias Concha, La Granja, Chile (in Spanish, Día de astronomia, CONICYT).

01/12/2015 "Supernovas, explosiones estelares", outreach talk at the Liceo Bicentenario Zapallar high school, Curicó, Chile (in Spanish, http://www.astrofisica.cl/?p=4904).

30/11/2015 "Supernovas, explosiones estelares", outreach talk at the Liceo Complejo Educacional Javiera Carrera high school, Talca, Chile (in Spanish, http://www.astrofisica.cl/?p=4904)

"Qué son los meteoritos?", outreach talk at the Pintacuentos primary school, Las Condes, Chile (in Spanish, http://www.astrofisica.cl/?p=4287).

03/02/2014 "Esclata la Supernova més propera a la Terra des de 1604", press article in the online newspaper Nació digital (in Catalan, Nació Digital).

10/02/2014 "Un granollerí que estudia l'Univers a Santiago de Xile", short interview for the La Xarxa television (in Catalan, Vallès Oriental TV).

28/12/2012 "Supernovas, la llave del lado oscuro del Universo", outreach talk at the llatargi Astronomical Association, Oñati, Spain (in Spanish, El Correo).

# Languages

Catalan Native speaker
Spanish Native speaker
English CEFR C1
Portuguese CEFR A2.

# Astronomical society membership

2020 - present International Astronomical Union (IAU)2019 - present European Astronomical Society (EAS)

2016 - present Sociedad Española de Astronomía (SEA) 2015 - 2016 Sociedad Chilena de Astronomía (SOCHIAS)

Other merits

- Reviewer for journals: ApJL, ApJ & AJ (US), MNRAS (UK), JCAP (UK/IT), Galaxies (Switzerland).
- May 2021 Reviewer for the Hubble Space Telescope Cycle 29 proposals.
- 2020-2021 ESO Observing Programmes Committee (OPC) Panel member for periods P106, P108 (P107 cancelled), and P109.
- Apr 2020 *Profesor Contratado Doctor* credential awarded from the Agencia Nacional de Evaluación de la Calidad y Acreditación (ANECA).
- Oct 2019 Reviewer for the Hubble Space Telescope Cycles 26 and 27 Mid-cycle proposals.
- May 2019 CIRTL course on Diversity in the College Classroom.
- Apr 2019 Lecturer (*Lector*) credential issued by the Agència per a la Qualitat Universitària (AQU) de Catalunya.
- Dec 2018 Associate certification from the Center for the Integration of Research, Teaching, and Learning (CIRTL), University of Pittsburgh.
- 2017 DDT External reviewer for the Spanish Time Allocation Committee (CAT) of the Instituto de Astrofísica de Canarias (IAC).
  - Jul 2016 Member of the Tribunal in Manuel Moreno-Raya PhD thesis defense.
- 2016A semester External reviewer for the Spanish Time Allocation Committee (CAT) of the Instituto de Astrofísica de Canarias (IAC).
  - Dec 2015 Tenured assistant professor (*Recerca*) credential issued by the Agència per a la Qualitat Universitària (AQU) de Catalunya.
  - Jun 2011 Training Program for Higher Education Teachers (FDES-UAB).
  - Jun 2010 Corrector of University Access Exams (PAU).
    - 2008 Radiological protection program at UTPR (UAB).