

Lluís Galbany



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Synopsis of the CV

I am an observational astrophysicist with broad and multidisciplinary interests spanning supernova science, massive stars, galaxy evolution, and cosmology. I obtained a PhD degree in Physics from Universitat Autònoma de Barcelona (UAB) in Oct 2011, under the supervision of Prof. Ramon Miquel. My first 2-year postdoctoral experience was in CENTRA/IST at Lisboa, under the supervision of Dr. Vallery Stanishev and Prof. Ana Mourão. Then, I got a 3-year Fondecyt postdoctoral fellowship to work with Prof. Mario Hamuy in the Astronomy Department of Universidad de Chile. I am currently a Postdoctoral Research Associate at University of Pittsburgh, working with Dr. Michael Wood-Vasey. I have always enjoyed scientific independence, conducting competitive research in enjoyable scientific environments, and have proved my potential to reach a position of professional maturity in the following aspects:

- Publication record: I have published 127 original articles, 9 as a first and 7 as a second author, in top international peer-reviewed journals, with over 5,200 citations (h-index of 36). In 44 out of these publications, I was one of the main contributors, including the first statistical analysis of Integral Field Spectroscopy of supernova host galaxies, a review article on SN environments, and 16 letters. At the time of writing, 11 articles are under the referee process at various journals.
- Lecturing: I have 2 years experience in lecturing, as an associate professor at the Physics Department of UAB during 2008/09 and 2009/10 seasons, and I have also given tutorials in schools for PhD students (GH2014 in Mexico, and 2ndSELGIFS2016 in Madrid).
- Student tutoring: I have supervised the work of two PhD students (M. E. Moreno-Raya, CIEMAT, Laura Sánchez-Menguiano, U. Granada) in a 3-month visit to Universidad de Chile, thanks to the funding allocated by the Spanish Ministry of Education on a competitive basis. In addition, I had the opportunity to mentor another PhD, 10 undergraduate, and 3 graduate students in part of my research.
- Organization of scientific events: I have been the responsible of the weekly seminar series at my hosting institutions. I was a LOC member of the International Conference "Supernova through the ages: understanding the past to be prepared for the future" (<http://www.sn2016.cl>), to be held in August 2016 at Easter Island, and the main organizer of a 5-days workshop focused on SN science the week before this conference. In addition, I have been the PI of the proposal that awarded by the LSST Enabling Science call, to organize a SN workshop at U. Pittsburgh in Nov 2016 (20 k\$USD), and a workshop on NIR SN Ia cosmology in Apr 2018 (10 k\$USD).
- Invitation to deliver seminars and talks: My work is internationally recognized as an expert in the extremely competitive field of SN Cosmology and SN environments. This is demonstrated by the 20 invitations to deliver seminars at several research institutions, and to participate in specialized conferences where the leading trends in his field are discussed, giving 40 talks in total.
- Observational experience: I have been the PI of 20, and participated in the observations in other 27, allocated observational campaigns in a competitive basis, at the largest telescopes in the world (Gemini N and S, LCO Magellan, Paranal VLT, La Silla NTT, CTIO Blanco/SMARTS, La Palma TNG/GTC, CAHA 3.5m, AAT), and lead analyses within major collaborations (SDSS-II/SN, PESSTO, CALIFA, DES, AMUSING, MaNGA, J-PLUS, HSC).

Education

- Sep 2006 - Oct 2011 **Ph.D. in Physics**, Universitat 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: Dr. Ramon Miquel.
- Sep 2006 - Apr 2008 **Master degree in Physics**, Universitat Autònoma de Barcelona (UAB).
Tests of DES Charge Coupled Devices.
Supervisors: Dr. Ramon Miquel and Dr. Manel Martínez.
- Jun 2007 **Certificate of Teaching Proficiency**, Institute of Education Sciences, UAB.
- Sep 2001 - Jun 2006 **B.S. in Physics (5-year degree)**, Universitat Autònoma de Barcelona (UAB).

Research activity

- From Sep 2016 **Postdoctoral Research Associate in supernova cosmology.**
Supervisor: Dr. W. Michael Wood-Vasey.
University of Pittsburgh.
- Oct 2013 - Aug 2016 **Postdoctoral fellow in supernova cosmology.**
Supervisor: Dr. Mario Hamuy.
Millennium Institute for Astrophysics (MAS), Departamento de Astronomía, U. de Chile.
- Nov 2011 - Sep 2013 **Postdoctoral position in supernova environment studies.**
Supervisor: Dr. Vallery Stanishev.
Centro Multidisciplinar de Astrofísica (CENTRA) - Instituto Superior Técnico (IST).
- Sep 2006 - Oct 2011 **Ph.D. student.**
Supervisor: Dr. Ramon Miquel.
Institut de Física d'Altes Energies (IFAE), Universitat Autònoma de Barcelona (UAB).

Teaching activity

- Nov 2016 **Invited professor** '2nd SELGIFS Advanced School on Integral-Field Spectroscopic Data Analysis', UAM, Madrid, Spain.
- Aug 2014 **Invited professor** 'Guillermo Haro Advanced School on Integral Field Spectroscopy Techniques and Analysis', INAOE, Puebla, Mexico.
- Sep 2008 - Sep 2010 **Teaching Assistant (TA)** Physics Department of Universitat Autònoma de Barcelona.
General Physics, Mathematical Methods, Physics Laboratory.

Fellowships and grants awarded

- Apr 2018 SNe Ia in the NIR workshop grant. Funding PITT-PACC: 10,000 USD.
- Mar 2018 SNe II cosmology with the LSST workshop grant. Funding PITT-PACC: 4,000 USD.
- Mar 2017 FINCA grant for visitor researcher program. Funding: 2,650 EUR.
- Nov 2016 Workshop project selected in the *LSST Enabling science call*. Funding: 19,750 USD.
- Nov 2013 - Oct 2016 FONDECYT Postdoctoral fellowship 2014. CONICYT - Chile.
- Sep 2004 - Sep 2005 Mobility fellowship SENECA-SICUE program, Universidad de La Laguna, Tenerife.

Research interests

Supernova science

Understanding supernova progenitors and physics of the explosions. Spectroscopy. Photometric identification. Light-curve modeling. Host galaxies. Environment. Photometric estimation of extinction.

Observational cosmology

Distance determinations based on Type Ia supernovae to understand the origin of Dark Energy. Type II SNe cosmology. Systematic errors of Type Ia SN standardization. Photometric redshifts. Galaxy formation and evolution.

Publication list

Selected refereed papers

44. 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*, accepted, [arXiv:1809.06801](#).
43. Emission-line diagnostics of CCSN host HII regions including massive binary population
Lin Xiao, **L. Galbany**, J.J. Eldridge, and Elizabeth R. Stanway. *MNRAS*, accepted, [arXiv:1805.01213](#).
42. Thermonuclear supernovae and cosmology
I. Dominguez, **L. Galbany**. *EPJP*, [133:323 \(2018\)](#).
41. 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](#).
40. 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](#).
39. 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](#).
38. 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](#).
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. 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](#).
34. Elemental gas-phase abundances of intermediate redshift type Ia 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](#).
33. 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](#).
32. 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](#).
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 Iax: 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. 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](#).
28. 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](#).
27. 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](#).
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](#).
25. 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](#).
24. 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](#).

23. A type II supernova Hubble diagram from the CSP, SDSS-II and 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. 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.
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.
20. 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.
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. Using the local gas-phase oxygen abundances to explore a metallicity-dependence in SNe Ia luminosities
M.E. Moreno-Raya, Á.R. López-Sánchez, M. Mollá, **L. Galbany**, et al. *MNRAS*, **462:1281** (2016), arXiv:1607.05526.
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. 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
13. On the dependence of the type Ia 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
12. SN 2014J at M82: I. A middle-class type Ia 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.
11. 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
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. Statistical studies of supernova environments
J. P. Anderson, P. A. James, S. M. Haberman, **L. Galbany**, and H. Kuncarayakti. *PASA*, **32:e019** (2015), arXiv:1504.04043
7. 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.
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
5. 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.
J. Iglesias-Páramo, J.M. Vilchez, **L. Galbany**, S.F. Sánchez, F.F. Rosales-Ortega, et al. *A&AL*, **553:L7** (2013), arXiv:1304.16440
2. Type-Ia Supernova properties as a function of the distance to host galaxy in the SDSS-II/SNe survey.
L. Galbany, R. Miquel, L. Ostman, P. J. Brown, D. Cinabro, et al. *APJ*, **755:125** (2012), arXiv:1206.2210

1. The Subluminous Supernova 2007qd: A Missing Link in a Family of Low-Luminosity Type Ia Supernovae.
C. M. McClelland, P. M. Garnavich, **L. Galbany**, R. Miquel, R. J. Foley, et al. *APJ*, [720:704-716 \(2010\)](#), [arXiv:1007.2850](#)

Other refereed papers

83. A nearby superluminous supernova with a long pre-maximum 'plateau' and strong CII features
J.P. Anderson et al. *A&A*, accepted, [arXiv:1806.10609](#).
82. The High Cadence Transient Survey (HiTS) - IV. Compilation and characterization of light-curve catalogs
J. Martínez, et al., *APJ*, accepted, [arXiv:1809.00763](#).
81. K2 Observations of SN 2018oh Reveal a Two-Component Rising Light Curve for a Type Ia Supernova.
G. Dimitriadis, et al., *APJ*, accepted.
80. Relativistic supernova 2009bb exploded close to an atomic gas cloud.
Michał J. Michałowski, et al., *A&A*, accepted, [arXiv:1808.00977](#).
79. The Data Release of the Sloan Digital Sky Survey-II Supernova Survey.
M. Sako, et al. *PASP*, [130:064002 \(2018\)](#), [arXiv:1401.3317](#).
78. J-PLUS: measuring H α emission line fluxes in the nearby universe
R. García-Logroño, et al., *A&A*, accepted, [arXiv:1804.04039](#).
77. Type II supernovae in low luminosity host galaxies.
C. Gutiérrez, et al., and *MNRAS*, [479:3232 \(2018\)](#), [arXiv:1806.03855](#).
76. The delay of shock breakout due to circumstellar material seen in most Type II Supernovae
F. Förster, et al., *NATURE ASTRONOMY*, accepted, [arXiv:1809.06379](#)
75. The type IIIn supernova 2010bt: The explosion of a star in outburst.
N. Elias-Rosa, et al., *APJ*, [860:68 \(2018\)](#), [arXiv:1805.02188](#).
74. J-PLUS: Morphological star/galaxy classification by PDF analysis
C. López-Sanjuan, et al., *A&A*, accepted, [arXiv:1804.02673](#).
73. Using late-time spectra to constrain Type Ia supernova progenitor and explosion properties
K. Maguire, et al., *MNRAS*, [477:3567 \(2018\)](#), [arXiv:1803.10252](#).
72. Discovery of distant RR Lyrae stars in the Milky Way using DECam
G. Medina, et al., *APJ*, [855:43 \(2018\)](#), [arXiv:1802.01581](#).
71. Asteroids in the High Cadence Transient Survey
J. Peña, et al., *AJ*, [155:135 \(2018\)](#).
70. SN 2017dio: a type Ic SN exploding in a hydrogen-rich circumstellar medium
H. Kuncarayakti, et al., *APJL*, [854:L14 \(2018\)](#), [arXiv:1712.00027](#)
69. The twin SNe 2013K and 2013am: observed and physical properties of two slow, normal Type IIP events.
L. Tomasella, et al., *MNRAS*, [475:1937 \(2017\)](#), [arXiv:1712.03933](#)
68. The early detection and follow-up of the highly obscured type II SN 2016ija/DLT16am
L. Tartaglia, et al., *APJ*, [853:62 \(2018\)](#), [arXiv:1711.03940](#)
67. The fourteenth data release of the Sloan Digital Sky Survey
B. Abolfathi, et al. *APJS*, [235:42 \(2018\)](#), [arXiv:1707.09322](#).
66. Morpho-kinematic properties of S0 bulges in the CALIFA survey: Clues to the origin of S0 galaxies.
J. Méndez-Abreu, et al., *A&A*, [474:1307 \(2017\)](#), [arXiv:1710.09349](#).
65. Multi-messenger Observations of a Binary Neutron Star Merger
B. P. Abbott, et al., *APJL*, [848:2 \(2017\)](#), [arXiv:1710.05833](#).
64. A kilonova as the electromagnetic counterpart to a gravitational-wave source
S. Smartt, et al., *NATURE*, [551:75 \(2017\)](#), [arXiv:1710.05841](#).

63. Type II SN spectral diversity I: Observations, sample characterization and spectral line evolution
C. P. Gutiérrez, et al., *APJ*, **850:89** (2017), [arXiv:1709.02487](#).
62. Serendipitous discovery of RR Lyrae stars in the Leo V ultra-faint galaxy
G. Medina, et al., *APJL*, **845:10** (2017), [arXiv:1708.00009](#).
61. Sloan Digital Sky Survey IV: Mapping the Milky Way, nearby galaxies and the distant Universe
M. R. Blanton, et al., *AJ*, **154:28** (2017), [arXiv:1603.04748](#).
60. Observational evidences for radial migration in disc galaxies from CALIFA
T. Ruiz-Lara, et al., *A&A*, **604:A4** (2017), [arXiv:1705.02120](#).
59. Arm and interarm abundance gradients in CALIFA spiral galaxies
L. Sánchez-Menguiano, et al., *A&A*, **603:A113** (2017), [arXiv:1705.05733](#).
58. Toward the Dynamical Classification of Galaxies: PCA of SAURON and CALIFA circular velocity curves
V. Kalinova, et al., *MNRAS*, **469:2539** (2017), [arXiv:1509.03352](#).
57. Complexity in the light curves and spectra of slow-evolving superluminous supernovae
C. Inserra, et al., *MNRAS*, **468:4642** (2017), [arXiv:1701.00941](#).
56. The Mass-Metallicity Relation revisited with CALIFA
S.F. Sánchez, et al., *MNRAS*, **469:2121** (2017), [arXiv:1703.09769](#).
55. Resolving the age bimodality of galaxy stellar populations on kpc scales
S. Zibetti, et al. *MNRAS*, **468:1902** (2017), [arXiv:1701.06570](#).
54. The spectral evolution of SLSN LSQ14mo and its interacting host galaxy system
T.-W. Chen, et al. *A&A*, **602:A9** (2017), [arXiv:1611.09910](#).
53. The progenitor and early evolution of the type IIb SN 2016GKG
L. Tartaglia, et al., *APJ LETTERS*, **836:L12** (2017), [arXiv:1611.00419](#).
52. Star formation driven galactic winds in UGC 10043.
C. López-Cobá, et al., *MNRAS*, **467:4951** (2017), [arXiv:1701.01695](#).
51. 2D Multi-component photometric decomposition of CALIFA galaxies.
J. Méndez-Abreu, et al., *A&A*, **598:32** (2017), [arXiv:1610.05324](#).
50. Early observations of type Ia supernova SN2015F.
R. Cartier, et al., *MNRAS*, **464:4476** (2016), [arXiv:1609.04465](#).
49. The High cadence Transient Survey (HiTS) I. Survey design and supernova shock breakout constraints.
F. Förster, et al., *APJ*, **832:155** (2016), [arXiv:1609.03567](#).
48. Stellar kinematics across the Hubble sequence in the CALIFA survey: general properties and aperture corrections.
J. Falcón-Barroso, et al. *A&A*, **597:A48** (2017), [arXiv:1609.06446](#).
47. Pan-STARRS and PESSTO search for the optical counterpart to the LIGO gravitational wave source GW150914
S. J. Smartt, et al., *MNRAS LETTERS*, **462:4094** (2016), [arXiv:1602.04156](#).
46. The dependence of oxygen and nitrogen abundances on stellar mass from the CALIFA survey.
E. Pérez-Montero, et al., *A&A*, **595:A62** (2016), [arXiv:1608.04677](#).
45. Photoionization models of the CALIFA HII regions compatible with the direct method
C. Morisset, et al., *A&A*, **594:A37** (2016) [arXiv:1606.01146](#).
44. IMF shape constraints from stellar populations and dynamics from CALIFA
M. Lyubenova, et al., *MNRAS LETTERS*, **463:3220** (2016), [arXiv:1606.07448](#).
43. First survey of Wolf-Rayet star populations over the full extension of nearby galaxies observed with CALIFA
D. Miralles-Caballero, et al. *A&A*, **592:A105** (2016), [arXiv:1605.03991](#).
42. Aperture effects on the oxygen abundance determinations from CALIFA data
J. Iglesias-Páramo, et al. *APJ*, **826:71** (2016), [arXiv:1605.03490](#).

41. Supernova 2014J at M82: II. Direct analysis of spectra obtained with IN and WH telescopes
P. Valley, et al. *MNRAS*, **460**:1614 (2016), [arXiv:151202608](#).
40. SN 2015bn: a detailed multi-wavelength view of a nearby superluminous supernova
M. Nicholl, et al. *APJ*, **826**:39 (2016), [arXiv:1603.04748](#).
39. Supplement: "Localization and broadband follow-up of the gravitational-wave transient GW150914"
B. P. Abbott, et al. *APJ SUPPLEMENT SERIES*, **225**:8 (2016), [arXiv:1602.07864](#).
38. Localization and broadband follow-up of the gravitational-wave transient GW150914
B. P. Abbott, et al. *APJ LETTERS*, **826**:L13 (2016), [arXiv:1602.08492](#).
37. The type Iax supernova, SN 2015H: a white dwarf deflagration candidate
M. R. Magee, et al. *A&A*, **589**:A89 (2016), [arXiv:1603.04728](#).
36. Star formation along the Hubble sequence: Radial structure of the star formation of CALIFA galaxies
R. González Delgado, et al. *A&A*, **590**:A44 (2016), [arXiv:1603.00874](#).
35. Spatially-Resolved Star Formation Main Sequence Of Galaxies in the CALIFA Survey
M. Cano-Díaz, et al. *A&A LETTERS*, **821**:L2 (2016), [arXiv:1602.02770](#).
34. PIPE3D, A pipeline to analyse integral field spectroscopy: II. Analysis sequence and CALIFA dataproducs
S. F. Sánchez, et al. *RMxAA*, **52**:171 (2016), [arXiv:1601.01830](#).
33. Warm ionized gas in CALIFA early-type galaxies 2D emission-line patterns and kinematics for 32 galaxies
J. M. Gomes, et al. *A&A*, **588**:68 (2016), [arXiv:1509.02191](#).
32. LSQ13fn: A type II-Plateau SN with a possibly low Z progenitor that breaks the standardised candle relation
J. Polshaw, et al. *A&A*, **588**:1 (2016), [arXiv:1511.01718](#).
31. The shape of the oxygen abundance profiles in CALIFA face-on spiral galaxies
L. Sánchez-Menguiano, et al. *A&A*, **587**:70 (2016), [arXiv:1601.01542](#).
30. Spectroscopic aperture biases in inside-out evolving early-type galaxies from CALIFA
J. M. Gomes, et al. *A&A*, **586**:A22 (2016), [arXiv:1511.01300](#).
29. Spiral-like star-forming patterns in CALIFA early-type galaxies
J. M. Gomes, et al., *A&A*, **585**:A92 (2016), [arXiv:1511.00744](#).
28. No direct coupling between bending of galaxy disc stellar age and light profiles
T. Ruiz-Lara, et al. *MNRAS LETTERS*, **456**:35 (2016), [arXiv:1511.03499](#).
27. Supernova 2013fc in a circumnuclear ring of a luminous infrared galaxy: the big brother of SN 1998S
T. Kangas, et al. *MNRAS*, **456**:323 (2016), [arXiv:1510.06596](#).
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
J.K. Barrera-Ballesteros, et al., *A&A*, **579**:A45 (2015), [arXiv:1505.03153](#).
20. Early-time light curves of Type Ib/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 Ia 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 Ia 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 Ia 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.

Currently under peer-review process

11. Carnegie Supernova Project-II: Extending the Near-Infrared Hubble Diagram for Type Ia Supernovae to $z \sim 0.1$
Mark M. Phillips, et al. SUBMITTED TO PASP.
10. Carnegie Supernova Project-II: The Near-infrared Spectroscopy Program
Eric Y. Hsiao, et al. SUBMITTED TO PASP.

9. Phot. and spec. properties of SN Ia 2018oh with early excess emission from the Kepler 2 observations
W. Li et al. SUBMITTED TO APJ.
8. SN 2017ens: The metamorphosis of a bright broad-lined type Ic supernova to a type II_n
T.-W. Chen et al. SUBMITTED TO A&A.
7. A Virgo Env. Survey Tracing Ionised Gas Emission (VESTIGE).IV. Tails of Ionised Gas in the MR NGC 4424.
A. Boselli et al. SUBMITTED TO A&A.
6. Systematic study of outflows in the Local Universe using CALIFA: I. Sample selection and main properties.
C. López-Cobá et al. SUBMITTED TO A&A.
5. J-PLUS: The Javalambre Photometric Local Universe Survey.
J. Cenarro, et al., SUBMITTED TO A&A, [arXiv:1804.02667](#).
4. Spatial field reconstruction with INLA: Application to IFU galaxy data.
S. González-Gaitán, R. S. de Souza, A. Krone-Martins, E. Cameron, P. Coelho, **L. Galbany**, et al., MNRAS, [arXiv:1802.06280](#).
3. First release of the high-z SLSNe from the Subaru high-z SN campaign (SHIZUCA). II. Spectroscopic properties.
C. Curtin, J. Cooke, T. J. Moeiya, S. R. Bernard, **L. Galbany**, et al.,
SUBMITTED TO APJ, [arXiv:1801.08241](#).
2. First release of the high-z SLSNe from the Subaru high-z SN campaign (SHIZUCA). I. Photometric properties
T. J. Moeiya, et al., SUBMITTED TO APJ, [arXiv:1801.08240](#).
1. Science-Driven Optimization of the LSST Observing Strategy.
LSST Science Collaborations. GITHUB LIVING DOCUMENT, [arXiv:1708.04058](#)

Proceedings

10. Emission-line diagnostics of Nearby HII regions including supernova host
L. Xiao, J. J. Eldridge, E. Stanway, **L. Galbany**, IAU, [arXiv:1705.03606](#)
9. Connecting supernovae to their environments
L. Galbany, HIGHLIGHTS ON SPANISH ASTROPHYSICS IX, BILBAO, 2016, [arXiv:1703.07567](#)
8. New approaches to SN studies using IFS
L. Galbany, THE INTERPLAY BETWEEN LOCAL AND GLOBAL PROCESSES IN GALAXIES, MEXICO, 2016.
7. Constraining SN progenitors: An IFS survey of the explosion sites
H. Kuncarayakti, et al., ASIA-PACIFIC REGIONAL IAU MEETING (APRIM) 2014, [arXiv:1410.8739](#)
6. Principal Component Analysis of type II SN light-curves
L. Galbany, STATISTICAL CHALLENGES OF 21ST CENTURY COSMOLOGY, [IAU306 \(2014\)](#)
5. Properties of type Ia supernovae inside rich galaxy clusters
H. S. Xavier, et al., LATIN AMERICAN REGIONAL IAU MEETING (LARIM) 2013., [RMxAC, 44,206 \(2014\)](#)
4. Integral Field Spectroscopy of supernova host galaxies
L. Galbany, LATIN AMERICAN REGIONAL IAU MEETING (LARIM) 2013., [RMxAC, 44, 42 \(2014\)](#)
3. Using the environment to understand supernova properties
L. Galbany, et al., SUPERNOVA ENVIRONMENTAL IMPACTS, [IAU296 \(2014\)](#)
2. Searching the footprint of the SN progenitors in the environment
L. Galbany, MASSIVE STARS: FROM α TO Ω , [150 \(2013\)](#)
1. Spectroscopy of Sloan Digital Sky Survey II Supernovae Host Galaxies
M. Olmstead, et al., AMERICAN ASTRONOMICAL SOCIETY, [222 118.03 \(2013\)](#)

Astronomical Communications

- CBET: [1128](#), [1137](#), [3858](#), [3860](#), [4051](#), [4062](#).

- ATEL: 5827, 5949, 5956, 6014, 6080, 6570, 6612, 6618, 6620, 6622, 6695, 6699, 6706, 6711, 6854, 6859, 6965, 6974, 7091, 7099, 7102, 7108, 7115, 7122, 7131, 7132, 7144, 7146, 7148, 7149, 7154, 7162, 7164, 7221, 7246, 7289, 7290, 7291, 7308, 7319, 7335, 7412, 7415, 7512, 8005, 8018, 8206, 8255, 8264, 8268, 8357, 8363, 8369, 8375, 8460, 8541, 8555, 8559, 8658, 8701, 8702, 8708, 8902, 8917, 9289, 9297, 9304, 9308, 9337, 9483, 9530, 9534, 9542, 9546, 9612, 9614, 9700, 9769, 9773, 9775, 9777, 9781, 9784, 9800, 10053, 10056, 10144, 10148, 10152, 10163, 10202, 10313, 10315, 10318, 10454, 10458, 10462, 10674, 10676, 10683, 10689, 10694, 10727, 10766, 10779, 10836, 10841, 10846, 10913, 11092, 11102, 11109, 11114, 11150, 11171, 11177, 11192, 11319, 11320, 11329, 11474, 11476, 11477, 11480, 11485, 11519, 11524, 11655, 11657, 11659, 11662, 11667, 11669, 11671, 11965, 11967, 11969, 11973, 12001, 12002, 12006, 12075.

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 Fernández, 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 Fernández, Dr. Francisco J. Castander

BIBLIOTECA DE CIÈNCIA I TECNOLOGIA (UAB), [T-53 2008 GAL](#)

Invited presentations and selected talks

- | | |
|----------|--|
| Jul 2018 | Contributed talk: <i>A Ca-rich faint 91bg-like type Ia SN</i> , Institute for Astrophysics, Honolulu HI. |
| Jul 2018 | Contributed talk: <i>CSP SN Ia local environments with IFS</i> . Carnegie Supernova Project meeting, Institute for Astrophysics, Honolulu HI. |
| Jul 2018 | Contributed talk: <i>A Ca-rich faint 91bg-like type Ia SN</i> , Lorentz center, Leiden. |
| Jun 2018 | Invited seminar: <i>Inferring SN progenitor properties with J-PLUS</i> , CEFCa, Teruel. |
| Jun 2018 | Invited seminar: <i>Using the environment to infer SN progenitor properties</i> , Universidad de Zaragoza. |
| Jun 2018 | Invited seminar: <i>Using the environment to infer SN progenitor properties</i> , Universitat de Barcelona. |
| Jun 2018 | Invited seminar: <i>The Pmas/ppak Integral-field Supernova hosts COmpilation (PISCO)</i> , Instituto de Astrofísica de Andalucía, Granada. |
| Jun 2018 | Invited seminar: <i>Using the environment to infer SN progenitor properties</i> , Universitat Autònoma de Barcelona. |
| Dec 2017 | Invited seminar: <i>The Pmas/ppak Integral-field Supernova hosts COmpilation (PISCO)</i> , Harvard University, Cambridge. |
| Oct 2017 | Invited talk: <i>The local environment of type Ia SNe as seen with IFS</i> , Carnegie Observatories, Pasadena. |
| Mar 2017 | Invited talk: <i>The All-weather MUSE Supernova Integral field Nearby Galaxies (AMUSING) survey</i> , University of Oulu, Finland. |
| Mar 2017 | Invited talk: <i>PISCO and AMUSING: IFS of SN environments</i> , University of Turku, Finland. |
| Feb 2017 | Invited talk: <i>Integral field spectroscopy of SN environments</i> , University of Toronto, Canada. |
| Feb 2017 | Invited talk: <i>What's there? Using integral field spectroscopy to study SN environments</i> , University of Pittsburgh, US. |
| Nov 2016 | Invited talk: <i>The All-weather MUSE Supernova Integral field Nearby Galaxies (AMUSING) survey</i> , IFS school UAM, Madrid. |
| Nov 2016 | Invited talk: <i>Characterization of SN remnant dominated regions and Measurement of SN rates with IFS</i> , IFS school UAM, Madrid. |
| Nov 2016 | Contributed talk: <i>Spectrophotometric SN II template: A SiFTO fitter for SNe II</i> . LSST SN workshop, Pittsburgh. |
| Aug 2016 | Contributed talk: <i>SN environmental studies through Integral Field Spectroscopy</i> . Supernovae through the ages: understanding the past to prepare for the future, Easter Island, Chile. |
| Jul 2016 | Contributed talk: <i>Supernova environmental studies through Integral Field Spectroscopy</i> . XII Reunión Sociedad Española de Astronomía (SEA) 2016, Bilbo, Spain. |

- Jul 2016 Contributed talk: *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 talk: *Standardization of type II supernova light-curves with statistical methods*. Meeting on Fundamental Cosmology, Barcelona.
- Jun 2016 Invited seminar: *Environmental studies of SNe*. Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas, Madrid, Spain.
- May 2016 Contributed talk: *Statistical methods in SN II light-curves*. South American Supernovae (SAS) 2015, La Plata, Argentina.
- Mar 2016 Contributed talk: *The local environment of SNe as seen with IFS*. Chilean Astronomical Society (SOCHIAS) meeting 2016, Antofagasta, Chile.
- Jun 2015 Contributed talk: *Nearby supernova host galaxies from the CALIFA survey*. European Week of Astronomy and Space Science (EWASS) 2015, La Laguna, Spain.
- Jun 2015 Contributed talk: *The local environment of SNe*, IX PESSTO meeting, Paris, France.
- May 2015 Invited seminar: *Characterizing SN host galaxies with IFS*. European Southern Observatory (ESO), Santiago, Chile.
- Apr 2015 Contributed talk: *PCA of type II SN light-curves*. South American Supernovae (SAS) 2015, Santiago, Chile.
- Apr 2015 Contributed talk: *SN studies with IFS: the CALIFA contribution*. CALIFA 8th Busy Week, Firenze, Italy.
- Sep 2014 Invited 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 Integral Field Spectroscopy Techniques and Analysis, INAOE, Puebla, Mexico.
- May 2014 Invited seminar: *Integral Field Spectroscopy of nearby supernova host galaxies*. Institut d'Estudis Espacials de Catalunya, Universitat Autònoma de Barcelona.
- Nov 2013 Contributed talk: *Studying SNe environment with CALIFA Survey*. LARIM: XIV Latin American Regional IAU Meeting, Florianópolis, Brasil.
- Jul 2013 Contributed talk: *Integral Field Unit spectroscopy of supernova host galaxies*. XXIII Encontro Nacional de Astronomia e Astrofísica (ENAA), Centro de Astronomia e Astrofísica da Universidade de Lisboa (CAAUL), Lisboa, Portugal.
- Apr 2013 Invited seminar: *IFU spectroscopy of SN host galaxies*. Departamento de Astronomia, Universidad de Chile, Santiago, Chile.
- Apr 2013 Contributed talk: *IFU spectroscopy of SN host galaxies*. CALIFA 5th Busy Week, AIP - An der Sternwarte, Potsdam, Germany.
- Jan 2013 Invited seminar: *Using the environment to understand SNe properties*. Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas, Madrid, Spain.
- Nov 2012 Contributed talk: *Studying CCSNe environment with CALIFA Survey*. CALIFA 4th Busy Week, Instituto de Astronomía de Andalucía (IAA), Granada, Spain.
- Aug 2012 Contributed talk: *Type-Ia SNe standardization accounting for the environment*. Modern Cosmology: Early Universe, CMB and LSS, Bidasoa Center for Science, Bidasoa, Spain.
- Oct 2010 Contributed talk: *Type-Ia SDSS-II/SNe properties as a function of the distance to their host galaxies*. SDSS-II/SN Collaboration Meeting, Argonne National Laboratory, IL, USA.

Participation in international collaborations

- 2018 - present Member of the Electro-magnetic counterparts of GW at the VLT (ENGRAVE).
- 2017 - present Member of the Sloan Digital Sky Survey IV (SDSS-IV).
- 2016 - present Member of the J-PLUS collaboration.
- 2016 - present Full member of the LSST Dark Energy Science Collaboration (DESC).
- 2016 - present External collaborator of the Hyper Suprime Cam Survey (HSCS) for SNe II and SLSNe.
- 2015 - present External collaborator of the Dark Energy Survey (DES).
- 2015 - 2016 Member of the Chilean Scientific Coordination Committee for the LSST.

2013 - present	Member of the Public Spectroscopic Survey of Transient Objects (PESSTO/ePESSTO).
2011 - 2017	Associate member of the Calar Alto Legacy Integral Field Area Survey (CALIFA).
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. González-Gaitán (CMM, U. Chile), M. Phillips (Carnegie), E. Hsiao (FSU), S. F. Sánchez (UNAM, México), H. Kuncarayakti (U. Turku, Finland), F. Förster (CMM, U. Chile), M. Hamuy (DAS, U. Chile), M. Wood-Vasey (U. Pittsburgh), C. Badenes (U. Pittsburgh), M. A. Pérez-Torres (IAA-CEFC), I. Domínguez (UGR, Spain), M. Mollá (CIEMAT, Spain), A. R. López-Sánchez (ANU), F. F. Rosales-Ortega (INAOE, México), Y. Ascasibar (UAM, Spain), J. M. Vílchez (IAA, Spain), V. Stanishev (U. Linköping, Sweden), A. M. Mourão (IST, Lisbon), P. Ruiz-Lapuente (ICC-UB, Spain), R. Miquel (IFAE-UAB, Spain).

Observing experience

Oct 2018	22 hours, CPO 8.1m Very Large Telescope (VLT). <i>Optical observations of HI-rich galaxies</i> (PI: López-Sánchez).
Oct 2018	99 hours, CPO 8.1m Very Large Telescope (VLT). <i>AMUSING VIII: CSP SNe Ia host galaxies</i> (PI: Anderson).
Ago 2018	42 hours, CTIO , 1.3m SMARTS Telescopes. <i>NIR SNe Ia follow-up</i> (PI: Galbany).
Ago 2018	9 hour, GO , 8.2m Gemini North Telescope. <i>Spectroscopic confirmation of high-z SLSNe</i> (PI: Galbany).
Jul 2018	6 nights, CAHA , 3.5m telescope. <i>The host galaxies of CSP SNe Ia</i> (PI: Galbany).
Feb-Jul 2018	30 hours, CTIO , 1.3m SMARTS Telescopes. <i>FFT follow-up</i> (PI: Galbany).
Apr 2018	99 hours, CPO 8.1m Very Large Telescope (VLT). <i>AMUSING VII: late-time nebular spectroscopy and environments of CCSNe II</i> (PI: Kuncarayakti).
Feb-Jul 2018	1 hour, GO , 8.2m Gemini North Telescope. <i>Nebular spectroscopy of SN2017dio</i> (PI: Galbany).
Feb-Jul 2018	11 nights, AAT , 4m telescope. <i>IFU observations of CSP SN Ia host galaxies</i> (PI: Galbany).
Feb-Jul 2018	9 hour, GO , 8.2m Gemini North Telescope. <i>Spectroscopic confirmation of high-redshift superluminous supernovae</i> (PI: Galbany).
Feb-Mar 2018	3 nights, CAHA , 3.5m telescope. <i>IFU observations of CSP SN Ia host galaxies</i> (PI: Galbany).
Oct 2017	12 hours, GO , 8.2m Gemini South Telescope. <i>New Approaches to SN Standardisation for Cosmology Classification of faint (~ 23 mag) SN candidates from DES</i> (PI: Olivares).
Oct 2017	99 hours, CPO 8.1m Very Large Telescope (VLT). <i>AMUSING VI: late-time nebular spectroscopy and environments of CCSNe I</i> (PI: Kuncarayakti).
Sep 2017	4 nights, LCO , 6.5m Clay Telescope. <i>New Approaches to SN Standardisation for Cosmology: Classification of faint (~ 22 mag) SN candidates from DES</i> (PI: Förster).
Aug 2017	2 nights, CAHA , 3.5m telescope. <i>Improving the use of SNe Ia as distance indicators in the NIR: Observations of SN Ia SweetSpot host galaxies</i> (PI: Galbany).
Jun 2017	30 objects, APO , 2.5m SDSS Telescope. <i>Constraining SN progenitors through the characterisation of their environment. MaNGA 2017 ancillary program</i> (PI: Galbany).
Apr 2017	4 nights, CAHA , 3.5m telescope. <i>Reducing systematic effects in NIR SN Ia standardization: Observations of SN Ia SweetSpot host galaxies</i> (PI: Galbany).
Apr 2017	99 hours, CPO 8.1m Very Large Telescope (VLT). <i>AMUSING V: Host galaxy dependencies in the NIR SN Ia Hubble diagram</i> (PI: Galbany).
Mar 2017	1 night, LCO , 6.5m Baade Telescope. <i>The first NIR spec. study of high-z ($z > 0.5$) SNIa host galaxies FIRE spectroscopy of high-redshift SNLS SN host galaxies</i> (PI: González-Gaitán).
Nov 2016	14 hours, GO , 8.2m Gemini South Telescope. <i>New Approaches to SN Standardisation for Cosmology Classification of faint (~ 23 mag) SN candidates from DES</i> (PI: González-Gaitán).
Nov 2016	45 hours, CPO 8.1m Very Large Telescope. <i>AMUSING IV: Reducing the scatter in the NIR SN Ia Hubble diagram IFS of SweetSpot SNIa host galaxies</i> (PI: Galbany).

- Oct 2016 2 nights, **CAHA**, 3.5m telescope. *Reducing systematic effects in NIR SN Ia standardization* Observations of SN Ia SweetSpot host galaxies (PI: Galbany).
- Oct 2016 4 nights, **LCO**, 6.5m Clay Telescope. *New Approaches to SN Standardisation for Cosmology Classification of faint (~ 22 mag) SN candidates from DES* (PI: Galbany).
- Jul 2016 2 nights, **LCO**, 6.5m Baade Telescope. *The first NIR spectroscopic study of high- z ($z > 0.5$) SNIa host galaxies* FIRE spectroscopy of high-redshift SNLS SN host galaxies (PI: Galbany).
- May 2016 99 hours, **CPO** 8.1m Very Large Telescope. *AMUSING III: constraining SN progenitors from narrow features* IFS of SN host galaxies with high-res spectral observations (PI: Anderson).
- Jan 2016 0.5 night, **LCO**, 6.5m Baade Telescope. *The HiTS Survey: real-time detection of stellar explosions.* Spectroscopy of HiTS SN host galaxies (PI: Förster).
- Jan 2016 5 nights, **CAHA**, 3.5m telescope. *Constraining supernova progenitors using the narrow Na absorption* (PI: Galbany).
- Jan 2016 1 night, **LCO**, 6.5m Baade Telescope. *Probing CSM interaction and mass-loss of SNIIn via late-time spec.* (PI: Kuncarayakti).
- Nov 2015 99 hours, **CPO** 8.1m Very Large Telescope. *AMUSING II: supernova rates with respect to environment properties* IFS of ASAS-SN host galaxies (PI: Anderson).
- Oct 2015 10 hours, **GO**, 8.2m Gemini South Telescope. *New Approaches to SN Standardisation for Cosmology Classification of faint (~ 23 mag) SN candidates from DES* (PI: Galbany).
- Set 2015 4 nights, **LCO**, 6.5m Clay Telescope. *New Approaches to SN Standardisation for Cosmology Classification of faint (~ 22 mag) SN candidates from DES* (PI: González-Gaitán).
- Set 2015 4 nights, **LSO**, 3.5m New Technology Telescope (NTT). *The Public ESO Spectroscopic Survey of Transient Objects* Classification and follow-up of nearby transients (PI: Smartt).
- Ago 2015 6 nights, **CAHA**, 3.5m telescope. *IFS of CC SN environments in low-mass galaxies to compensate the sample from CALIFA* (PI: Galbany).
- May 2015 99 hours, **CPO** 8.1m Very Large Telescope. *AMUSING I: constraining progenitor properties, and refining distance calibration techniques* IFS of CSP SNIa host galaxies (PI: Anderson).
- May 2015 4 nights, **CPO** 8.1m Very Large Telescope (VLT). *Study of nearby CCSN environments and parent stellar populations observed by MUSE* (PI: Kuncarayakti).
- Feb 2015 6 nights, **CTIO**, 4m Blanco Telescope. *HITS Survey: real-time detection of stellar explosions* Searching SN shock breakouts with the Hlgh cadence Transient Survey (PI: Förster).
- Dec 2014 22 hours, **ORM**, 10m Gran Telescopio de Canarias (GTC). *Elemental abundances on high- z (~ 0.5) galaxies hosting type Ia SNe: study metallicities at SN positions* (PI: Moreno-Raya).
- Oct 2014 3 nights, **LSO**, 3.5m New Technology Telescope (NTT). *The Public ESO Spectroscopic Survey of Transient Objects* Classification and follow-up of nearby transients (PI: Smartt).
- Jun 2014 2 hours, **CPO** 8.1m Very Large Telescope. *Characterising the location of SNe within galaxies* IFS of a SN host galaxy for the MUSE Science Verification (PI: Galbany).
- Apr 2014 1 night, **LCO**, 6.5m Baade Telescope. *Constrains on nearby SN progenitors from IFS of the explosion site* (PI: Kuncarayakti).
- Mar 2014 5 nights, **CTIO**, 4m Blanco Telescope. *HITS Survey: real-time detection of stellar explosions* Searching SN shock breakouts with the Hlgh cadence Transient Survey (PI: Förster).
- Jan 2014 4 nights, **ORM**, 4.2m William Herschel Telescope (WHT) *Elemental abundances of galaxies hosting type Ia SNe: spectroscopy to study metallicities at SN positions* (PI: Moreno Raya).
- May 2013 4 nights, **CAHA**, 3.5m telescope. *the CALIFA Survey: Optical integral field spectroscopy of nearby galaxies ~ 0.02* (PI: Sánchez).
- Nov 2007 2 nights, **ORM**, 3.6m Telescopio Nazionale Galileo (TNG). *Observations of SN Ia discovered by SDSS-II* Classification of SN candidates from the SDSS-II SN Survey (PI: Castander).

Organisation of scientific meetings and seminar series

- 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).
- 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 - 2018 Organizer of the biweekly 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 (PI: 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 (<http://www.sn2016.cl>). 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 (<http://lluiscalbany.wix.com/presn2016>). 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).

Participation in funded research projects

- 2013 - 2017 *Type Ia Supernovae in the Near Infrared - Clearing a Path through the Dust.*
PI: W. M. Wood-Vasey, U. Pittsburgh. Funding: National Science Fundation, (grant AST-1311862)
- 2017 - 2019 *Estallidos estelares: Starbursts and galaxy evolution.*
PI: Mercedes Mollá, CIEMAT. Funding: Plan Estatal de Investigación Científica y Técnica y de Innovación 2017-2019, (grant AYA2016-79724-C4-3-P)
- 2016 - 2018 *Las componentes del Universo.*
PI: Pilar Ruiz-Lapuente, IFT-CSIC. Funding: Programa Estatal de fomento de la Investigación Científica y Técnica de excelencia, (grant AYA2015-67854-P)
- 2014 - 2016 *Estallidos estelares: The role of starburst in galaxy formation and evolution.*
PI: Mercedes Mollá, CIEMAT. Funding: Plan Estatal de Investigación Científica y Técnica y de Innovación 2013-2016 (grant AYA2013-47742-C4-4-P)
- 2009 - 2013 *Uso de supernovas do tipo Ia para determinar a energia escura no Universo.*
PI: Vallery Stanishev, CENTRA-Instituto Superior Técnico (IST). Funding: FCT - Fundação para a Ciência e a Tecnologia (grant PTDC/CTE-AST/112582/2009)
- 2009 - 2012 *Cosmología con cartografiados extragalácticos.*
PI: Ramon Miquel, Institut de Física d'Altes Energies (IFAE). Funding: VI Plan Nacional de I+D+I 2008-2011 (grant AYA2009-13936-C06-02)
- 2007 - 2012 *Physics of the Accelerating Universe.*
PI: Enrique Fernández, Institut de Física d'Altes Energies (IFAE). Funding: Program Consolider-Ingenio 2010 (grant CSD2007-00060)
- 2006 - 2009 *The Dark Energy Survey.*
PI: Ramon Miquel, Institut de Física d'Altes Energies (IFAE). Funding: V Plan Nacional de I+D+I 2004-2007, and VI Plan Nacional de I+D+I 2008-2011 (grant AYA2006-13735-C02-01/02)

Research visits

- Nov 2018 **European Southern Observatory (ESO), Chile.**
AMUSING survey.
Collaborator: Joe Anderson.
- Oct 2018 **University of Southampton, UK.**
SN Ia environments with IFS.
Collaborators: Dr. Matthew Smith and Prof. Mark Sullivan.
- May 2018 **Macquarie 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), Madrid, SPAIN.**
Intermediate redshift type Ia 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), Madrid, SPAIN.**
Metallicity dependence on SN Ia luminosity.
Collaborator: Dra. Mercedes Mollá
- Feb 2016 **University of Pittsburgh, Pennsylvania, US.**
Type Ia supernova cosmology in the NIR.
Collaborators: Dr. Michael Wood-Vasey and Dr. Carles Badenes.
- Jun 2015 **Instituto de Astrofísica de Canarias, La Laguna, 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, Santiago, CHILE.**
Core-collapse and type Ia SNe environmental studies.
Collaborators: Dr. Joseph Anderson
- Jan 2013 **Centro Inv. Energéticas, Medioambientales y Tecnológicas (CIEMAT), Madrid, SPAIN.**
Type Ia SN standardization accounting for host galaxy metallicity.
Collaborator: Dra. Mercedes Mollá
- Feb 2007 **Fermi National Laboratory (FNAL), Batavia, IL, US**
Studies related to DES CCD characterization.
Supervisors: Dra. Brenna Flaugher and Dr. Juan Estrada

Student supervision

- From May 2017 **Single stellar population fitting combining optical spectroscopy and UV imaging**
Meghan Clinto, undergrad, University of Pittsburgh.
- May-Sep 2017 **HII region statistics in PISCO** (See *selected refereed papers* #35).
Nicolette M. Kier, undergrad, University of Pittsburgh.
- Sep 16 - Jun 17 **Supernova rates in nearby galaxies**
Asier Castrillo, Master student, Universidad Autónoma de Madrid (UAM).
- Sep 16 - Mar 17 **Supernova environments in J-PLUS**
Nicolette M. Kier, undergrad, University of Pittsburgh.
- Sep 16 - Mar 17 **Statistical study of SN Ia 91bg-like.** (*paper in prep.*)
Yiwen Huang, undergrad, Carnegie Mellon University.
- Abr-Jul 2016 **Radial migration within spiral galaxies** (See *selected refereed papers* #21).
Laura Sánchez-Menguiano, PhD, Universidad de Granada.
Funding: "Ayudas a la movilidad predoctoral para la realización de estancias breves en centros de I+D españoles y extranjeros 2015".
- Mar-Jul 2016 **SN observing cadence optimization for cosmology**
Javier Silva, undergrad, Universidad de Chile.
- Mar 2016 **Elemental abundances of int-z SN host galaxies** (See *selected refereed papers* #34).
Manuel Emilio Moreno-Raya, PhD, Universidad Complutense de Madrid.
- Jan-Sep 2016 **Measuring CO at SN locations with CARMA** (See *selected refereed papers* #24)
Luis Mora, undergrad, Universidad de Chile.

Jan 2016	SN rates from CALIFA IFS data Ignacio Andrés Sanchez Barraza, undergrad, Universidad de Chile.
From Jun 2015	SN Ia extinction studies from their LC and IFS of their host galaxies Alessandro Razza, PhD, Universidad de Chile.
Jan-Jul 2015	Type II multiwavelength light-curve characterization (See <i>selected refereed papers</i> #14) Tania Moraga, undergrad, Universidad de Chile.
Aug-Nov 2014	Elemental abundances of low-z SN host galaxies (See <i>selected refereed papers</i> #13, #18). Manuel Emilio Moreno-Raya, PhD, Universidad Complutense de Madrid. Funding: "Ayudas a la movilidad predoctoral para la realización de estancias breves en centros de I+D españoles y extranjeros 2013".
Jul-Des 2014	Supernova Remnants and Supernova Remnant dominated regions in CALIFA galaxies Astor Sandoval, undergrad, Universidad de Chile.
Feb-Jul 2014	SNe Ia host galaxy properties as a function of the distance to host galaxy Ismael Pessa, undergrad, Universidad de Chile.

Press and outreach

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 astronomía , CONICYT).
18/03/2016	"Supernovas, explosiones en el universo", outreach talk at the Colegio Malaquias Concha, La Granja, Chile (in Spanish, Día de astronomía , 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).
13/04/2015	"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 Ilatargi Astronomical Association, Oñati, Spain (in Spanish, El Correo).

Languages

Catalan	Native speaker
Spanish	Native speaker
English	CEFR B2.2.
Portuguese	CEFR A2.

Computer skills

Op. Systems	Linux, OS X
Astronomy	IRAF/pyraf, STARLIGHT (galaxy stellar population fitting), SNANA, SiFTO (SN LC fitting), SYNOW, SYN++, SYNAPPS (SN spectral fitting).
Computing	C++, Root, Fortran, IDL, R, python
Databases	MySQL

Astronomical society membership

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

Other merits

— Reviewer for journals: ApJ (US), MNRAS (UK), Galaxies (Switzerland), RACCE (Colombia).
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 Research accreditation for *Tenured assistant professor* issued by 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).

SEPTEMBER 2018