

Lluís Galbany



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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 degree in Physics from Universitat Autònoma de Barcelona in Oct 2011 under the supervision of Prof. Ramon Miquel. I have been a postdoctoral researcher at the CENTRA/IST in Lisboa, a FONDECYT postdoctoral fellow at the Astronomy Department of Universidad de Chile, and a research associate at the Department of Physics and Astronomy of University of Pittsburgh. From September 2019 I am at Universidad de Granada as a Marie Skłodowska-Curie fellow. I have always enjoyed scientific independence, conducting competitive research in enjoyable scientific environments.

So far, I have published 180 articles with more than 9800 citations and an h-index of 45 (ADS, Apr 2020). 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 26 successful observational proposals in a competitive basis in the largest observatories around the world, and participated in other 28 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 11 undergraduate and 12 graduate students, including two funded 3-months research visits.

Education

- Sep 2006 - Oct 2011 **Ph.D. in Physics**, 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: Prof. 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)**, U. Autònoma de Barcelona (UAB).

Research activity

- From Sep 2019 **Marie Skłodowska-Curie 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

- Mar 2020 NOAJ grant for visitor researcher program. Funding: 285.000 JPY.
- Feb 2019 *Marie Skłodowska-Curie Action - 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	<i>SNe II cosmology with the LSST</i> workshop. Funding PITT-PACC: 4,000 USD.
Mar 2017	FINCA grant for visitor researcher program. Funding: 2,650 EUR.
Nov 2016	<i>Preparing for SN Science in the LSST Era</i> 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. 320,000 EUR

Teaching activity

Sep 2019 - present	Lecturer Department of Theoretical and Cosmological Physics, U. Granada. Stellar Physics, Physics Laboratory.
Nov 2016	Invited professor '2nd SELGIFS Advanced School on IFS Data Analysis', UAM, Madrid, Spain.
Aug 2014	Invited professor 'Guillermo Haro Advanced School on IFS Techniques and Analysis', INAOE, Puebla, Mexico.
Sep 2008 - Sep 2010	Teaching Assistant (TA) Physics Department of U. Autònoma de Barcelona. General Physics, Mathematical Methods, Physics Laboratory.

Student supervision

From Sep 2020	The type Ia NIR Hubble diagram constructed with ANDICAM JHK data. María Delgado Mancheño, undergraduate student, Universidad de Granada.
From Sep 2020	The oxygen abundance dependence on the Cepheid period in SH0ES. Sara Muñoz Torres, graduate student, Universidad de Granada.
From Nov 2019	Studying the diversity of subluminal type Ia supernovae from twins. Darío García Redecillas, undergraduate student, Universidad de Granada.
From Nov 2019	The local environment of supernovae as seen by J-PLUS. Lamberto Oltra Nieto, undergraduate student, Universidad de Granada.
From Oct 2019	Stellar populations of supernova host galaxies at high-z $0.5 < z < 1.0$ Román Fernández Aranda, Master student (LG co-supervisor), Universidad Complutense de Madrid.
From Sep 2019	NCR method in broad and narrow band data from J-PLUS Raúl González Díaz, Master student (LG co-supervisor), Universidad de Granada.
From Dec 2018	The local environment of Type Ia supernovae with IFS Nataliya Ramos Chernenko, Master student (LG co-supervisor), Universidad de Granada.
Nov 18 - Jun 19	Type Ia supernova environments at high redshift Macarena García del Valle, Master student (LG co-supervisor), Universidad Complutense de Madrid.
Oct 18 - Sep 19	The imprint of hydrogen-rich core collapse supernovae from their parent populations Isaac Lozano Rey, Master student, Universitat Internacional de València (VIU).
From Sep 2018	Comparing photometric and spectroscopic estimations of galactic parameters (<i>paper in prep.</i>) Jared Hand, PhD student, University of Pittsburgh.
Sep 18 - Feb 21	Searching for subluminal SNe Ia in SDSS-II/SNe survey (<i>paper submitted</i>) Daniel Perrefort, PhD student, University of Pittsburgh.
From Apr 2018	The first survey of SN remnants in IFS (<i>paper in prep.</i>) Héctor Martínez Rodríguez, PhD student, University of Pittsburgh.
May 17 - Jan 19	Single stellar population fitting combining optical spectroscopy and UV imaging Meghan Ciento, undergraduate student, University of Pittsburgh.
Sep 16 - Sep 17	HII region statistics in PISCO (See <i>selected refereed papers</i> #35). Nicolette M. Kier, undergraduate student, University of Pittsburgh.
Sep 16 - Jun 17	Supernova rates in nearby galaxies (<i>paper submitted</i>) Asier Castrillo, Master student (LG co-supervisor), Universidad Autónoma de Madrid (UAM).
Sep 16 - Mar 17	Statistical study of SN Ia 91bg-like. (See <i>selected refereed papers</i> #50). Yiwen Huang, undergraduate student, Carnegie Mellon University.
Abr-Jul 2016	Radial migration within spiral galaxies (See <i>selected refereed papers</i> #21). Laura Sánchez-Menguiano, PhD student, Universidad de Granada.

- Funding: "Ayudas a la movilidad predoctoral para estancias en centros de I+D 2015".
- Mar-Jul 2016 **SN observing cadence optimization for cosmology**
Javier Silva, undergraduate student, Universidad de Chile.
- Mar 2016 **Elemental abundances of int-z SN host galaxies** (See *selected refereed papers* #34).
Manuel Emilio Moreno-Raya, PhD student, Universidad Complutense de Madrid.
- Jan-Sep 2016 **Measuring CO at SN locations with CARMA** (See *selected refereed papers* #24)
Luis Mora, undergraduate student, Universidad de Chile.
- Jan 2016 **SN rates from CALIFA IFS data**
Ignacio Andrés Sanchez Barraza, undergraduate student, Universidad de Chile.
- From Jun 2015 **SN Ia extinction studies from their LC and IFS of their host galaxies**
Alessandro Razza, PhD student, Universidad de Chile.
- Jan-Jul 2015 **Type II multiwavelength light-curve characterization** (See *selected refereed papers* #14)
Tania Moraga, undergraduate student, Universidad de Chile.
- Aug-Nov 2014 **Elemental abundances of low-z SN host galaxies** (See *selected refereed papers* #13, #18).
Manuel Emilio Moreno-Raya, PhD student, Universidad Complutense de Madrid.
Funding: "Ayudas a la movilidad predoctoral para estancias en centros de I+D 2013".
- Jul-Des 2014 **Supernova Remnants and Supernova Remnant dominated regions in CALIFA galaxies**
Astor Sandoval, undergraduate student, Universidad de Chile.
- Feb-Jul 2014 **SNe Ia host galaxy properties as a function of the distance to host galaxy**
Ismael Pessa, undergraduate student, Universidad de Chile.

Publication list

Here you can find links of my publications in the [ADS](#), [Google Scholar](#), and [ORCID](#).

Selected refereed papers

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*, accepted.
54. HII regions in the CALIFA survey: I. catalog presentation.
C. Espinosa-Ponce, S. F. Sánchez, C. Morisset, J. K. Barrera-Ballesteros, **L. Galbany**, et al. *MNRAS*, accepted.
53. 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*, accepted.
52. Galaxies hosting an AGN: a view from the CALIFA survey.
E. A. D. Lacerda, S. F. Sánchez, R. Cid Fernandes, C. López-Cobá, C. Espinosa-Ponce, **L. Galbany**. *MNRAS*, accepted.
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*, accepted, [arXiv:1907.12260](#).
50. On the Ca-strong 1991bg-like type Ia supernova 2016hnk: evidence for a Chandrasekhar-mass explosion.
L. Galbany, C. Ashall, P. Hoefflich, S. González-Gaitán, et al. *A&A*, accepted, [arXiv:1904.10034](#).
49. 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*, [arXiv:1811.11771](#).
48. 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](#).
47. 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*, accepted, [arXiv:1903.11756](#).
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 Postigo, **L. Galbany**, et al. *A&A*, accepted.
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. Domínguez, **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 2016jhh 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. Habergham, **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

124. SN siblings: assessing the consistency of SNIa properties that share the same parent galaxies.
D. Scolnic, et al. APJ, accepted.
123. The Mystery of Photometric Twins DES17X1boj and DES16E2bjy.
M. Pursiainen, et al. MNRAS, accepted.
122. First Cosmology Results using SNIa from DES: The Effect of Host Galaxy Properties on Supernova Luminosity.
M. Smith, et al. MNRAS, accepted.
121. The rise and fall of an extraordinarily fast Ca-rich transient The discovery of ATLAS19dqr/SN 2019bkc.
S. J. Prentice, et al. A&A, accepted.
120. SN2016gsd: Evaluating an unusual luminous and linear supernova
T. Reynolds, et al. MNRAS, accepted.
119. Arm-interarm O/H variations explored with MUSE: the role of spiral structure in the chemical enrichment
L. Sánchez-Menguiano, et al. A&A, accepted.
118. Initial Evaluation of SNEMO2 and SNEMO7 standardization derived from current SNIa LCs
B. Rose, et al. APJ, accepted.
117. The spectral evolution of AT2018dyb and the presence of metal lines in TDEs
G. Leloudas, et al. APJ, accepted.
116. SN2018kzr: A Rapidly Declining Transient from the Destruction of a White Dwarf
O. R. McBrien, et al. APJ, accepted.

115. J-PLUS: tools to identify planetary nebulae and symbiotic stars in the J-PLUS and S-PLUS surveys.
L. A. Gutierrez-Soto, et al. *A&A*, accepted.
114. CSP-II. Early observations and progenitor constraints of the Type Ib SN LSQ13abf
M. D. Stritzinger, et al. *A&A*, accepted.
113. J-PLUS: Impact of bars on quenching timescales in nearby green valley disc galaxies
J. P. Nogueira-Cavalcante, et al. *A&A*, accepted.
112. Clearing the Smoke: Nebular Spectra of 100+ Type Ia Supernovae Exclude Single Degenerate Progenitors
M. A. Tucker, et al. *MNRAS*, accepted.
111. The CALIFA view on stellar angular momentum across the Hubble sequence.
J. Falc3n-Barroso, et al. *A&A*, accepted.
110. SN 2017gmr: An energetic Type II-P supernova with asymmetries.
J. E. Andrews, et al. *APJ*, accepted, arXiv:1907.01013.
109. PLAsTiCC: Selection of a performance metric for classification probabilities balancing diverse science goals
A. Malz et al. *AJ*, accepted, arXiv:1809.11145.
108. SDSS-IV MaStar - A Large and Comprehensive Empirical Stellar Spectral Library.
R. Yan, et al. *APJ*, accepted.
107. HSC16aayt: Slowly evolving interacting transient rising for more than 100 days
T. Moriya, et al. *APJ*, accepted, arXiv:1907.01633.
106. ASASSN-15pz: Revealing Significant Photometric Diversity Among 2009dc-like, Peculiar Type Ia Supernovae
P. Chen, et al. *APJ*, accepted, arXiv:1904.03198.
105. A Physical Basis for the H-band Blue-edge vel. and LC Shape Correlation in Context of SNIa Explosion Physics
C. Ashall, et al. *APJ*, 878:86 (2019), arXiv:1904.01633.
104. Nebular H α Limits for Fast Declining Type Ia Supernovae
D. Sand, et al. *APJL*, 877:L4 (2019), arXiv:1903.03626.
103. First cosmology results using SNIa from the DES: Measurement of the Hubble constant.
E. Macaulay, et al. *MNRAS*, 486:2184 (2019), arXiv:1811.02376.
102. CSP-II: Using NIR Spectroscopy to determine the outer ^{56}Ni distribution in SNIa as a test for explosion scenarios.
C. Ashall, et al. *APJL*, 875:L14 (2019), arXiv:1902.10088.
101. The type IIP supernova 2017eaw: from explosion to the nebular phase
T. Szalai, et al. *APJ*, 876:19 (2019), arXiv:1903.09048.
100. Cosmological constraints from multiple probes in the Dark Energy Survey.
T. Abbott, et al. *PhRvL*, 122:171301 (2019), arXiv:1811.02375.
99. ASASSN-15oz: Evidence of Circumstellar Interaction in a Type III-L Supernova.
K. Azalee Bostroem, et al. *MNRAS*, 485:5120 (2019), arXiv:1901.09962.
98. First release of the high-z SLSNe from the Subaru high-z SN campaign (SHIZUCA). II. Spectroscopic properties.
C. Curtin, et al., *APJS*, 241:17 (2019), arXiv:1801.08241.
97. First release of the high-z SLSNe from the Subaru high-z SN campaign (SHIZUCA). I. Photometric properties
T. J. Moriya, et al., *APJS*, 241:16 (2019), arXiv:1801.08240.
96. First cosmology results using SNIa from the DES: Photometric pipeline and light curve release.
D. Brout, et al. *APJ*, 874:106 (2019), arXiv:1811.02378.
95. First cosmology results using SNIa from the DES: Analysis, systematic uncertainties, and validation.
D. Brout, et al. *APJ*, 874:50 (2019), arXiv:1811.02377.
94. First cosmology results using SNIa from the DES: Constraints on cosmological parameters.
T. Abbott, et al. *APJL*, 872:L30 (2019), arXiv:1811.02374.
93. J-PLUS: measuring H α emission line fluxes in the nearby universe
R. Garc3a-Logro3o, et al., *A&A*, 622:A180 (2019), arXiv:1804.04039.
92. J-PLUS: Morphological star/galaxy classification by PDF analysis
C. L3pez-Sanjuan, et al., *A&A*, 622:A177 (2019), arXiv:1804.02673.
91. Investigating the properties of stripped-envelope supernovae; what are the implications for their progenitors?
S. Prentice et al. *MNRAS*, 485:1559 (2019), arXiv:1812.03716.

90. The Fifteenth Data Release of the SDSS: 1st Release of MaNGA-derived Quantities, Vis. Tools, and Stel. Lib.
D. S. Aguado, et al. *APJS*, **240:23** (2019), arXiv:1812.02759.
89. J-PLUS: The Javalambre Photometric Local Universe Survey.
J. Cenarro, et al., *A&A*, **622:A176** (2019), arXiv:1804.02667.
88. Spatial field reconstruction with INLA: Application to IFU galaxy data.
S. González-Gaitán, et al. *MNRAS*, **482:3880** (2019), arXiv:1802.06280.
87. Carnegie Supernova Project-II: The Near-infrared Spectroscopy Program
Eric Y. Hsiao, et al. *PASP*, **131:014002** (2019), arXiv:1810.08213.
86. Phot. and spec. properties of SN Ia 2018oh with early excess emission from the Kepler 2 observations
W. Li et al. *APJ*, **870:12** (2019), arXiv:1811.10056.
85. Carnegie Supernova Project-II: Extending the NIR Hubble Diagram for Type Ia Supernovae to $z \sim 0.1$
Mark M. Phillips, et al. *PASP*, **131:014001** (2019), arXiv:1810.09252.
84. Systematic study of outflows in the Local Universe using CALIFA: I. Sample selection and main properties.
C. López-Cobá et al. *MNRAS*, **482:4032** (2018), arXiv:1811.01253.
83. A Virgo Env. Survey Tracing Ionised Gas Emission (VESTIGE).IV. Tails of Ionised Gas in the MR NGC 4424.
A. Boselli et al. *A&A*, **620:A164** (2018), arXiv:1810.09234.
82. SN 2017ens: The metamorphosis of a bright broad-lined type Ic supernova to a type IIn
T.-W. Chen et al. *APJL*, **867:L31** (2018), arXiv:1808.04382.
81. A nearby superluminous supernova with a long pre-maximum 'plateau' and strong CII features
J.P. Anderson et al. *A&A*, **629:A67** (2018), arXiv:1806.10609.
80. The High Cadence Transient Survey (HiTS) - IV. Compilation and characterization of light-curve catalogs
J. Martínez, et al., *AJ*, **156:186** (2018), arXiv:1809.00763.
79. K2 Observations of SN 2018oh Reveal a Two-Component Rising Light Curve for a Type Ia Supernova.
G. Dimitriadis, et al., *APJL*, **870:L1** (2018), arXiv:1811.10061.
78. Relativistic supernova 2009bb exploded close to an atomic gas cloud.
Michał J. Michałowski, et al., *A&A*, **618:A104** (2018), arXiv:1808.00977.
77. The Data Release of the Sloan Digital Sky Survey-II Supernova Survey.
M. Sako, et al. *PASP*, **130:064002** (2018), arXiv:1401.3317.
76. Type II supernovae in low luminosity host galaxies.
C. Gutiérrez, et al., and *MNRAS*, **479:3232** (2018), arXiv:1806.03855.
75. The delay of shock breakout due to circumstellar material seen in most Type II Supernovae
F. Förster, et al., *NATURE ASTRONOMY*, **2:808** (2018), arXiv:1809.06379.
74. The type IIn supernova 2010bt: The explosion of a star in outburst.
N. Elias-Rosa, et al., *APJ*, **860:68** (2018), arXiv:1805.02188.
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. McCully, 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](#).

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

- 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, Pasadena.
- 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 2016hmk*, 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 2016hmk, a Ca-rich 91bg-like SN Ia with a light echo*, ESO, Santiago, Chile.

Nov 2018 (Contributed) *The local environment of type Ia 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*, CEFA, 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 SNIi*, LSST SN workshop, Pittsburgh.

Aug 2016 (Contributed) *SN environmental studies through IFS*, Supernovae through the ages: understanding the past to prepare for the future, Easter Island, Chile.

Jul 2016 (Contributed) *Supernova environmental studies through Integral Field Spectroscopy*, 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 type II supernova light-curves with statistical methods*, Meeting on Fundamental Cosmology, Barcelona.

Jun 2016 Seminar: *Environmental studies of SNe*, Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas, 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 (ESO), 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.

- May 2014 Seminar: *Integral Field Spectroscopy of nearby supernova host galaxies.* Institut d'Estudis Espacials 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 Astronomia 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 - An der Sternwarte, Potsdam, Germany.
- Jan 2013 Seminar: *Using the environment to understand SNe properties.* Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas, Madrid, Spain.
- Nov 2012 (Contributed) *Studying CCSNe environment with CALIFA Survey.* CALIFA 4th Busy Week, Instituto de Astronomía de Andalucía (IAA), Granada, Spain.
- Aug 2012 (Contributed) *Type-Ia SNe standarization accounting for the environment.* Modern Cosmology: Early Universe, CMB and LSS, Benasque Center for Science, Benasque, Spain.
- Oct 2010 (Contributed) *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 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).
Serving in the Publication Board committee.
- 2016 - present External collaborator of the Hyper Suprime Cam Survey (HSCS) for SNe II and SLSNe.
- 2016 - present 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.
- 2015 - present External collaborator of the Dark Energy Survey (DES).
Leading the SNII working group.
- 2015 - 2016 Member of the Chilean Scientific Coordination Committee for the LSST.
- 2013 - present Member of Public ESO Spectroscopic Survey of Transient Objects (PESSTO → ePESSTO+).
Serving as the ePESSTO+ Ombudsperson, and in the Target And Alert (TAT) committee. PI of the *SN environments* and the *SN Ia 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. González-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 (Macquarie 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):

Cerro Paranal Observatory (CPO)

8.1m UT4 / MUSE 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).
6.5m Clay Telescope / LDSS3	16B. CN2016B-16, 4 nights (VM).
Observatorio Roque de Los Muchachos (ORM)	
10.4m Gran Telescopio Canarias / OSIRIS	20A. 76-GTC52/20A, 10 hours (ToO).
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 / PMAS-Ppak	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	20A. 1900165, 47.52 hours (SM).
	19B. 900154, 47.52 hours (SM).
	19A. 1800146, 46.9 hours (SM).
Apache Point Observatory (APO)	
2.5m SDSS telescope / BOSS	17B. MaNGA Ancillary program, 30 objects (SM).

— As a co-principal investigator (co-PI), or co-investigator (col) but involved in observations:

CAHA / 2.2m CAHA Telescope / CAFOS	20A. F20-2.2-023, 5 nights. PI: Morales.
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.
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.
CPO / 8.1m UT4 / MUSE	15B. 096.D-0296(A), 99 hours (SM). PI: Anderson.

LCO / 6.5m Clay Telescope / LDSS3	15B. CL-2015B-XXX, 4 nights. PI: González-Gaitán.
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.
LSO / 3.5m NTT Telescope / EFOSC-SOFI	14B. —, 4 nights. PI: Smartt.
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 2020	Organizer of the extended Public ESO Spectroscopic Survey of Transient Objects + (ePESSTO+) meeting, Granada, Sep 21st to 25th.
Jun 2020	Chair of the special session <i>Supernova host environments</i> at the EAS 2020, Leiden, NL.
Mar 2020	SOC member of the <i>Public Surveys and new instrumentation for Calar Alto Observatory</i> workshop, Granada, Mar 12th & 13rd.
Jan 2020	Organizer of the workshop <i>CRISPINHO: Correcting reddening intelligently for cosmological supernova probes</i> , Granada, Jan 27th to 31st.
Sep 2019	Organizer of the workshop <i>The future of SN host galaxies studies II</i> , Southampton, UK, Sep 23rd to 25th. (webpage).
Jan 2019	Organizer of the workshop <i>The future of SN host galaxies studies</i> , 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 <i>"New advances in NIR SN Ia science"</i> , 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 <i>"SN II cosmology in the LSST"</i> , 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 <i>"Preparing for supernova science in the LSST era: a kick-off workshop"</i> , 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 <i>"Supernovae through the ages: understanding the past to prepare for the future"</i> , 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 <i>"SIDH: Supernova is in da house"</i> , 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 **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), 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), 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

- 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, [Valès 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 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), Galaxies (Switzerland).
May 2020	ESO Observing Programmes Committee (OPC) Panel member for periods P106 and P107.
Oct 2019	Reviewer for the Hubble Space Telescope Cycle 27 Mid-cycle proposals.
May 2019	CIRTL course on <i>Diversity in the College Classroom</i> .
Apr 2019	Lecturer (<i>Lector</i>) 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 (<i>Recerca</i>) 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).