

# List of publications

Lluís Galbany

## Selected refereed papers

10. Characterising the environments of supernovae with MUSE  
**L. Galbany**, J. P. Anderson, F. F. Rosales-Ortega, H. Kuncarayakti, T. Krühler, S. F. Sánchez, J. Falcón-Barroso, et al.  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, *accepted*.
9. The rise-time of Type II supernovae  
S. González-Gaitán, N. Tominaga, J. Molina, **L. Galbany**, F. Bufano, J. P. Anderson, C. P. Gutierrez, F. Förster, et al.  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, **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.  
PUBLICATIONS OF THE ASTRONOMICAL SOCIETY OF AUSTRALIA, **32:e019 (2015)**, [arXiv:1504.04043](#)
7. 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, F.F. Rosales-Ortega, et al.  
ASTRONOMY & ASTROPHYSICS, **573:A105 (2015)**, [arXiv:1411.4967](#)
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, A. L. de Amorim, A. Castillo-Morales, R. Cid Fernandes, S. C. Ellis, J. Falcón-Barroso, **L. Galbany**, Gil de Paz, A., González Delgado, R. M., Lacerda, E. A. D., López-Fernández, R., et al.  
ASTRONOMY & ASTROPHYSICS, **576:135 (2015)**, [arXiv:1409.8302](#)
5. 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, C. Badenes, J. Barrera-Ballesteros, et al.  
ASTRONOMY & ASTROPHYSICS, **572:A38 (2014)**, [arXiv:1409.1623](#)
4. The Core Collapse Supernova Rate from the SDSS-II Supernova Survey  
M. Taylor, D. Cinabro, B. Dilday, **L. Galbany**, R. R. Gupta, R. Kessler, J. Marriner, R. C. Nichol, M. Richmond, et al.  
THE ASTROPHYSICAL JOURNAL, **792:135 (2014)**, [arXiv:1407.0999](#)
3. Aperture corrections for galaxy properties computed from the CALIFA survey.  
J. Iglesias-Páramo, J.M. Vílchez, **L. Galbany**, S.F. Sánchez, F.F. Rosales-Ortega, D. Mast, R. García-Benito, B. Husemann, et al.  
ASTRONOMY & ASTROPHYSICS LETTERS, **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, C. B. D'Andrea, J. A. Frieman, S. W. Jha, J. Marriner, et al.  
THE ASTROPHYSICAL JOURNAL, **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, A. V. Filippenko, B. Bassett, J. C. Wheeler, et al.  
THE ASTROPHYSICAL JOURNAL, **720:704-716 (2010)**, [arXiv:1007.2850](#)

## Other refereed papers

31. Spectroscopic aperture biases in inside-out evolving early-type galaxies from CALIFA  
J. M. Gomes, et al. ASTRONOMY & ASTROPHYSICS, *accepted*.
30. The warm ionized gas in CALIFA early-type galaxies 2D emission-line patterns and kinematics for 32 galaxies  
J. M. Gomes, et al. ASTRONOMY & ASTROPHYSICS, *accepted*.
29. Supernova 2013fc in a circumnuclear ring of a luminous infrared galaxy: the big brother of SN 1998S  
T. Kangas, et al. MONTHLY NOTICES OF THE ROYAL ASTRO. SOCIETY, *accepted*.
28. No direct coupling between bending of galaxy disc stellar age and light profiles  
T. Ruiz-Lara, et al. MONTHLY NOTICES OF THE ROYAL ASTRO. SOCIETY, *accepted*.
27. Spiral-like star-forming patterns in CALIFA early-type galaxies  
J. M. Gomes, et al., ASTRONOMY & ASTROPHYSICS, *accepted*.

26. Outer-disk reddening and gas-phase metallicities: The CALIFA connection  
R. A. Marino, et al., *ASTRONOMY & ASTROPHYSICS*, arXiv:1509.07878
25. The CALIFA survey across the Hubble sequence: Spatially resolved stellar pop. properties in bulges and disks  
R. M. González Delgado, et al., *ASTRONOMY & ASTROPHYSICS*, 581:A103 (2015) , arXiv:1506.04157
24. Star Formation in the Local Universe from the CALIFA sample: I. Calibrating the SFR using IFS data  
C. Catalán-Torrecilla, et al., *ASTRONOMY & ASTROPHYSICS*, accepted, arXiv:1507.03801
23. On the diversity of Super-luminous Supernovae: Ejected mass as the dominant factor  
M. Nicholl, et al., *MONTHLY NOTICES OF THE ROYAL ASTRO. SOCIETY*, 452:3869 (2015) , arXiv:1503.03310
22. LSQ14bdq: A Type Ic super-luminous supernova with a double-peaked light curve  
M. Nicholl, et al., *THE ASTROPHYSICAL JOURNAL LETTERS*, 807:L18 (2015), arXiv:1505.01078
21. Central star formation and metallicity in CALIFA interacting galaxies  
J.K. Barrera-Ballesteros, et al., *ASTRONOMY & ASTROPHYSICS*, 579:A45 (2015), arXiv:1505.03153
20. PESSTO: survey description and products from the first data release.  
S. J. Smartt, et al., *ASTRONOMY & ASTROPHYSICS*, 579:A40 (2015), arXiv:1410.2210
19. Early-time light curves of Type Ib/c supernovae from the SDSS-II Supernova Survey  
F. Taddia, et al., *ASTRONOMY & ASTROPHYSICS*, 574:A60 (2015), arXiv:1408.4084
18. Imprints of galaxy evolution on HII regions. Memory of the past uncovered by the CALIFA survey.  
S.F. Sánchez, et al., *ASTRONOMY & ASTROPHYSICS*, 574:A47 (2015), arXiv:1409.8293
17. Defining photometric peculiar type Ia supernovae  
S. González-Gaitán, et al., *THE ASTROPHYSICAL JOURNAL*, 795:142 (2014), arXiv:1409.4811
16. CALIFA: a diameter selected sample for an Integral Field Spectroscopy galaxy survey  
C.J. Walcher, et al., *ASTRONOMY & ASTROPHYSICS*, 569:A1 (2014), arXiv:1407.2939
15. Insights on the stellar mass-metallicity relation from the CALIFA survey  
R. M. González Delgado, et al., *THE ASTROPHYSICAL JOURNAL 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., *ASTRONOMY & ASTROPHYSICS*, 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., *THE ASTROPHYSICAL JOURNAL*, 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., *THE ASTRONOMICAL JOURNAL*, 147:75 (2014), arXiv:1308.6818
11. A characteristic oxygen abundance gradient in galaxies disks unveiled with CALIFA  
S.F. Sánchez, et al. , *ASTRONOMY & ASTROPHYSICS*, 563:A49 (2014), arXiv:1311.7052
10. The effect of weak lensing on distance estimates from supernovae.  
M. Smith, et al., *THE ASTROPHYSICAL JOURNAL*, 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., *ASTRONOMY & ASTROPHYSICS*, 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., *ASTRONOMY & ASTROPHYSICS*, 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., *ASTRONOMY & ASTROPHYSICS*, 558:A43 (2013), arXiv:1308.4271
6. Properties of type Ia supernovae inside rich galaxy clusters.  
H. S. Xavier, et al., *MONTHLY NOTICES OF THE ROYAL ASTRO. SOCIETY*, 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., *ASTRONOMY & ASTROPHYSICS 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., *ASTRONOMY & ASTROPHYSICS*, **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., *ASTRONOMY & ASTROPHYSICS*, **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., *THE ASTROPHYSICAL JOURNAL*, **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., *THE ASTROPHYSICAL JOURNAL*, **713:1026-1036** (2010), [arXiv:1001.4995](#)

#### Currently under peer-review process

13. Evolving into a remnant: optical spectroscopy of SN 1978K at thirty-six years  
H. Kuncarayakti, K. Maeda, J. P. Anderson, K. Nomoto, **L. Galbany**, M. Doi SUBMITTED TO MNRAS.
12. Type II supernovae as probes of environment metallicity: observations of host HII regions  
J. P. Anderson, C. P. Gitiérrez, L. Dessart, M. Hamuy, **L. Galbany**, N. I. Morrell, et al. SUBMITTED TO MNRAS.
11. LSQ13fn: A type II-Plateau SN with a possibly low Z progenitor that breaks the standardised candle relation  
J. Polshaw, et al. SUBMITTED TO A&A.
10. PIPE3D, Aa pipeline to analyse integral field spectroscopy: II. Analysis sequence and CALIFA dataproducs  
S. F. Sánchez, et al. SUBMITTED TO RMA&A.
9. Spectroscopic follow-up and characterisation of SN 2014J with Isaac Newton and William Herschel Telescopes  
**L. Galbany**, M. E. Moreno-Raya, P. Ruiz-Lapuente, J. I. González-Hernández, et al. SUBMITTED TO MNRAS, [arXiv:1510.06596](#).
8. The shape of the oxygen abundance profiles in CALIFA face-on spiral galaxies  
L. Sánchez-Menguiano, S. F. Sánchez, I. Pérez, R. García-Benito, B. Husemann, D. Mast et al. SUBMITTED TO A&A
7. Spatially-Resolved Star Formation Main Sequence Of Galaxies in the CALIFA Survey  
M. Cano-Díaz, S. F. Sánchez, S. Zibetti, Y. Ascasibar, J. Bland-Hawthorn, B. Ziegler, et al. SUBMITTED TO A&A LETTERS.
6. Toward the Dynamical Classification of Galaxies: PCA of SAURON and CALIFA circular velocity curves  
V. Kalinova, D. Colombo, E. Rosolowsky, G. van de Ven, J. Falcón-Barroso, et al. SUBMITTED TO MNRAS, [arXiv:1509.03352](#)
5. UBVRIz light curves of 51 type II supernovae  
**L. Galbany**, M. Hamuy, M. M. Phillips, N. B. Suntzeff, J. Maza, T. Moraga, et al. SUBMITTED TO A&A.
4. 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, M. M. Phillips, et al. SUBMITTED TO THE APJ.
3. First survey of Wolf-Rayet star populations over the full extension of nearby galaxies observed with CALIFA  
D. Miralles-Caballero, A. I. Díaz, Á. R. López-Sánchez, F. F. Rosales-Ortega, A. Monreal-Ibero, et al. SUBMITTED TO A&A.
2. 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**, J. Vilchez, et al. SUBMITTED TO THE APJ LETTERS.
1. The Data Release of the Sloan Digital Sky Survey-II Supernova Survey.  
M. Sako, Bruce Bassett, Andrew C. Becker, Peter J. Brown, et al. SUBMITTED TO THE APJ SUPPLEMENTS, [arXiv:1401.3317](#)

#### Proceedings

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  $\alpha$  TO  $\Omega$ , [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](#), [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](#).

#### 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  
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