

# Antonella Palmese

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## Work experience

- 2022 - present **Carnegie Mellon University, PA, USA**  
*Assistant Professor, McWilliams Center for Cosmology*
- 2021 - 2022 **University of California, Berkeley, CA, USA**  
*NASA Einstein Postdoctoral Fellow, Department of Physics*
- 2018 - 2021 **Fermi National Accelerator Laboratory, Batavia, IL, USA**  
*Postdoctoral Research Associate, Cosmic Physics Center*
- 2019 - 2021 **The University of Chicago, Chicago, IL, USA**  
*Associate fellow, Kavli Institute for Cosmological Physics*
- 2012 **La Sapienza University of Rome, Rome, Italy**  
*Assistant in the Physics Laboratories*
- 2012 **IAPS (Institute for Space Astrophysics and Planetology), Rome, Italy**  
*Astrophysics Laboratory Internship on the Herschel Infrared Galactic Plane Survey (Hi-GAL)*  
Supervisors: Dr. Stefano Pezzuto and Dr. Sergio Molinari.
- 2010 **La Sapienza University of Rome, Rome, Italy**  
*Assistant in the Physics Department Library*

## Education and qualifications

- 2021 - 2031 Italian Certification for Associate Professorship in Astrophysics
- 2013 - 2018 **University College London, London, UK**  
*PhD in Astrophysics*  
Thesis: “Unveiling the unseen with the Dark Energy Survey (DES): gravitational waves and dark matter”  
Supervisors: Prof. Ofer Lahav and Dr. Filipe Abdalla
- 2011 - 2013 **La Sapienza University of Rome, Rome, Italy**  
*Master Degree in Astronomy and Astrophysics*  
Grading 110/110 *cum laude*  
Thesis: “Future constraints on cosmological parameters for DES”  
Supervisors: Prof. Alessandro Melchiorri and Dr. Luca Pagano
- 2008 - 2011 **La Sapienza University of Rome, Rome, Italy**  
*Bachelor degree in Physics*  
Grading 110/110 *cum laude*, Advanced Course (top 10% Physics students)  
Dissertation title: “Standard Cosmological Model’s paradoxes and Inflation”  
Supervisors: Dr. Giovanni Montani and Dr. Massimiliano Lattanzi
- 2003 - 2008 **Liceo Scientifico B.Pascal, Pomezia (Rome), Italy**  
*Scientific High School Diploma*  
Computing Track, Grading 100/100 *cum laude*

## Grants

- PI of NASA LISA preparatory Science Grant**, “Studying LISA sources using DESI and LIGO/Virgo/KAGRA”, 687k\$, 2023-2026
- PI of National Science Foundation Astronomy and Astrophysics Research Grant**, “Probing the Universe’s expansion and gravitational wave sources with ground-based optical telescopes”, 466k\$, 2023-2026
- Co-PI of Hubble Space Telescope (HST) program**, “Understanding the Hubble tension and jet physics through joint electromagnetic and gravitational wave observations of a neutron star merger”, 55k\$, 2024-2025

**Co-I of James Webb Space Telescope (JWST)** program, “An Archival Study of Cosmic Transients in Existing JWST Observations”, 143k\$, 2024-2025

Partner investigator of **Australian Research Council Discovery Project Grant**, “*A Space Odyssey: Exploring the Universe with Gravitational-Wave Sirens*”, 560k\$ (AUS), 2022

**Berkeley Physics Innovators** funding for 2 undergraduate students and mentor, 13,500\$, 2022

Co-PI of **US Department of Energy (DOE) Visiting Faculty Program**, sponsoring Prof. Al Nasr (U Tennessee) “*Artificial Intelligence for Gravitational Waves*”, 2021

**URA Scholar Award** to support research at Fermilab, 15k\$, 2016-2017

## Awards

**Leonardo Da Vinci Award for Physics, Math, and Engineering**, Italian/Italian American early career researchers in the San Francisco Bay Area who distinguished themselves, 2022

**Fermilab Exceptional Performance Recognition Award** for the innovative use of the DES data in gravitational wave standard siren measurements, 2020

**Italian Physical Society (SIF) conference prize** for the top two presentations in Astrophysics, 2020

**Royal Astronomical Society Michael Penston Prize runner-up** for top 2 Astronomy doctoral thesis in UK, 2019

**Enrico Persico award** from Accademia dei Lincei for best 2014 Astrophysics Masters in Italy, awarded by the President of the Italian Republic, 2014

“Excellent graduate student at Sapienza” (Laureata eccellente Sapienza), 2014

“Women, gender: Sapienza”, award to women who distinguished themselves during university career, 2014

“Advanced Course” merit scholarship from Sapienza, Tuition fee paid, 2009 - 2011

Merit scholarship from Lazioidisu, 2010

Grant from the Italian Ministry of Education for the final result at high school, 2008

## Leadership & collaboration roles

Roles within large international collaborations, including the Dark Energy Survey (DES,  $\sim 500$  members), the Dark Energy Spectroscopic Instrument (DESI,  $> 1000$  members) and the ESA/NASA Laser Interferometer Space Antenna (LISA) Consortium ( $> 1000$  members).

2024 - present **DESI Transients and low-redshift Cosmology working group co-chair**

2022 - present **DESI Multi-messenger astronomy and cosmology Topical Group co-lead**

2022 - present DESI Institutional Board member

2022 - 2024 DESI Publication Board member

2021 - 2023 DESI-II Working Group - Time Domain Task Force Lead

2020 - 2022 DESI Ombudsperson

2020 - 2021 La Silla Schmidt Southern Survey (LS<sup>4</sup>) Executive Committee member

2019 - present **LISA Multi-messenger/multi-band astronomy Survey science expert lead**

2019 - present **DES builder**

2019 - 2022 **DESI Transients and low-redshift Cosmology working group co-chair**

2019 - 2022 **DES Galaxy evolution & quasars working group co-chair**

2017 - 2019 DES Galaxy evolution in clusters analysis team lead

2015 - 2017 DES Early Career Scientists representative

## Conference & workshop organization

2025 SOC<sup>1</sup>, International Conference on General Relativity and Gravitation (GR24), Glasgow, UK  
SOC, 16th Amaldi Conference on Gravitational Waves, Glasgow, UK  
LOC<sup>2</sup>, COSMO25, Carnegie Mellon University (PA), USA  
2024 SOC, NOIRLab “Rare Gems in Big Data”, Tucson (AZ), USA  
OC, Essential Cosmology for the Next Generation, Playa del Carmen, Mexico  
2020 OC, First Cosmic Explorer (US-based next generation gravitational wave detector) Meeting  
2020 Fermilab Representative, *oSTEM 2020* (Out in STEM, supporting LGBTQ+ community), remote  
2019 Main organizer, DESI Time-domain workshop, Fermilab, USA  
2017 Local organizer, Euclid consortium meeting, London, UK  
2015 Local organizer, Accurate Astrophysics, Correct Cosmology, London, UK

## Institutional service

2022 - present CMU Physics Outreach committee member  
2024 - present CMU Physics Colloquia Committee Chair  
2024 - present CMU McWilliams Center Seminar Committee  
2022 - 2024 CMU McWilliams Center Software Seminar Series  
2022 CMU McWilliams Fellowship committee member  
2019 - 2021 Fermilab Astrophysics seminar committee  
2019 - 2020 Fermilab Cosmic Survey science meetings organizer

## Telescope & computing allocations

**PI** of **NERSC** DOE Mission Science award computing allocation, “Time Domain Cosmology with the Dark Energy Camera”, 2023 -2024  
**PI** of **DESI Transients Survey**, DESI spare fiber program, 2024-present  
**Co-PI** of **HST** program HST-GO-17583, “Understanding the Hubble tension and jet physics through joint electromagnetic and gravitational wave observations of a neutron star merger”, 2024-2025  
**PI** (with Andreoni) of **GW-MMADS: Gravitational Wave Multi-Messenger Astronomy DECam Survey**, the DECam GW follow-up survey during the LIGO/Virgo/KAGRA O4 run, 2023-2025  
**PI** of “**Understanding compact binary formation and cosmology through gravitational wave host galaxies**”, SOAR, 2024-2025  
**PI** of “**Multi-messenger follow-up with DESI**”, DESI 2021 secondary target program  
**PI** (with Wang) of “**DESIRT: DECam Survey of Intermediate-Redshift Transients**”, a program running jointly with DESI, 48 nights over 5 semesters, 2021-2023  
Co-Investigator (co-I) in a large number of successful telescope proposals, including:  
1. JWST programs 1936, 2061, 2091, for gravitational wave (GW) follow-up (2022-2024);  
2. DECam programs establishing the DES GW counterpart search and discovery program and the discovery of the GW170817 optical counterpart;  
3. Blanco Images of the Southern Sky (BLISS) (2017A-0260) and 2019A-0305 (DELVE);

## Invited talks and panels

2024 *Challenges and future perspectives in gravitational- wave astronomy: O4 and beyond*, Leiden, Netherlands  
*Enabling Astronomical Transient discoveries in the Rubin era*, Keynote speaker, CBPF, Brazil  
*Dawn VII Meeting on Next Generation Gravitational Wave Observatories*, Vancouver, Canada  
*COSPAR 2024 Assembly*, “Cosmology with multi-messenger observations”, Busan, Korea  
*Astronomy Colloquium*, University of Florida, USA  
*Astronomy Colloquium*, Pennsylvania State University, USA

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<sup>1</sup>Science Organizing Committee

<sup>2</sup>Local Organizing Committee

- Astronomy Colloquium*, Carnegie Observatories, Pasadena, USA  
*CITA Seminar*, University of Toronto, Canada  
*Astronomy Seminar*, University of Bologna, Italy
- 2023 *Astronomy Colloquium*, University of Hawaii, USA  
*Astronomy Colloquium\**, University Cidade de São Paulo, Brazil  
*3PAC Seminar\**, Imperial College, London, UK  
*Astronomy Colloquium*, University of Maryland, USA  
*Astronomy Colloquium*, University of Illinois at Urbana Champaign, USA  
*Amaldi Conference*, keynote speaker, remote  
*AGN Santa Fe: where are the things in AGN disks?*, Santa Fe, USA
- 2022 *The quest for precision gravitational wave cosmology* workshop, The University of Chicago, USA  
*Roman Juskiewicz Symposium*, Warsaw, Poland  
*Physics Colloquium*, University of San Francisco, USA  
*Physics and Astrophysics at the Extreme (PAX)* workshop, Cosmology Panel, MIT, USA  
*Plasma in Laboratory and Universe Systems (PLUS)* webinar  
*DESI-II Planning Workshop*, Asilomar, CA, USA  
*Physics Colloquium*, Georgia Institute of Technology, USA  
*Physics Colloquium*, Carnegie Mellon University, USA  
*Astrophysics Seminar\**, Stony Brook University, USA  
*Physics Colloquium\**, Florida Institute of Technology, USA  
*KASI Early Career Seminar\**, Korea Astronomy and Space Science Institute  
*Cosmolunch seminar\**, Princeton University, USA  
*Astrophysics seminar*, University of California Santa Cruz, USA  
*Cosmology, Relativity and Gravitation seminar\**, Sheffield University, UK  
*Astrophysics seminar\**, University of Southern California, USA  
*Astrophysics Colloquium\**, LMU Munich, Germany
- 2021 *Focused Workshop on Cosmology with Gravitational Waves 2021*, KASI\*, Korea  
“Standard Sirens”, *Snowmass Cosmology Intertwined Workshop\**,  
*Astrophysics Colloquium\**, NASA Jet Propulsion Laboratory, USA  
DES & DESI special session\*, *National Astronomy Meeting*, University of Bath, UK  
*UCL Extragalactic and cosmology Seminar\**, UCL, UK
- 2020 *GECA Seminar\**, Laboratoire d’Astrophysique de Marseille, France  
“*Harvard-Smithsonian CfA seminar\**”, Harvard University, USA  
“*Dark Energy in a Dark Age*” *Lecture Series\**, Korea Astronomy and Space Science Institute, Korea  
Plenary talk on Multi-Messenger Astronomy\*, *Cosmology at home Conference*  
*Institute of Astronomy and Planetary Science seminar\**, Universidad de Atacama, Chile  
*IFAE seminar\**, Barcelona, Spain  
*DESI lunch\**, UC Berkeley, USA
- 2020 *KIPAC seminar*, Stanford University, USA  
*235th AAS Meeting, DES special session*, Honolulu, USA
- 2019 *Astrophysics seminar*, University of Wisconsin Milwaukee, USA  
*Astrophysics seminar*, Argonne National Laboratory, USA  
“Dark Energy Experiments”, *Annual Users meeting*, Fermilab, USA  
*Gravitational-Wave Advanced Detector Workshop*, Isola d’Elba, Italy  
*Astronomy seminar*, Northwestern University, USA  
*Astrophysics seminar*, Rochester University, USA
- 2018 *COSMO seminar*, Centro Brasileiro de Pesquisas Fisica, Rio de Janeiro, Brazil  
*Dark Universe seminar*, Brandeis University, USA  
*Colours of the Universe: photometric redshifts for large scale surveys*, Lorentz center, Netherlands  
“DECAM and DES perspective of GW170817”, *University of Sussex Extragalactic seminar*, UK
- 2017 “Follow up of gravitational wave events”, *UCL Center for Doctoral Training festival seminar*, UK  
“DECAM and DES perspective of GW170817”, *Brazil LIneA Web seminar*

\* Remote talks.

## Mentoring & Supervision

- 2020-2023 Mentor for [Supernova Foundation](#), supporting young women & gender minorities in Physics.
- 2020-2021 Mentor for high-school students through the National Association for the Advancement of Colored People [ACT-SO](#) program
- 2016-present **Supervision of graduate students:**
- Xander Hall (CMU, 2024-present)
  - Hannah Skobe (CMU, 2024-present)
  - Keerthi Kunnumkai (CMU, 2023-present)
  - Tomás Cabrera (CMU, 2023-present)
  - Ariel Amsellem (CMU, 2023-present)
  - Ekaterine Dadiani (CMU, 2023-present)
  - Connor Burgad (Ohio University, 2016-2020) supported by DOE funding;
  - Matthew Portman (UCI, 2020-2021) funded by URA
- 2016-present **Supervision of undergraduate students:**
- Rutong Pei (2024, CMU), Yuhan Chen (2024, Berkeley), Emma Yu (2024, Berkeley), Aidan Catalano (2023-2024, CMU), William Ballard (2023, CMU), Michael Murphy (2023, CMU), Elise Kesler (2023, CMU), Angela Thomas (2023, CMU), Rav Kaur (2022-present, Berkeley), Alina Sheng (2022, Berkeley), Emilie Cote (2022, Berkeley), Cole Meldorf (2020-2023, UChicago), Mohit Dighamber (2020, MIT), Lily Eshani (2019, UChicago), Karen Perez Sarmiento (2018, Macalester College)

## Teaching & Outreach

- 2023-2024 Instructor for Experimental Physics Course
- 2020 *DES Book launch event*, invited speaker
- 2019 *Chicago Astronomical Society*, Dark Energy with DES and DESI, Adler Planetarium, Chicago
- 2019 *Fermilab Undergraduate Lecture Series*, Dark Energy, galaxies and DES, Fermilab
- 2019 *Barside chats* (Dark Energy), Kinghslager Brewery, Chicago
- 2019 *This Week In Science Podcast*, invited guest
- 2016-present School events, regularly participates in DES outreach activities on social media including articles for the public, translation to Italian of the DESI web pages
- 2017-present Interviews with various journals/magazines: interview on my results on the expansion of the Universe for Scientific American, interview with the DOE Office of Science, two interviews on DES and gravitational waves for Symmetry, one interview for the SISSA “Oggi Scienza” magazine
- 2014-2015 UCL teaching activities: HPC workshop assistant, demonstrator at Observatory, exam supervision

## Review work

- 2022-2023 Subject-matter expert reviewer in NASA peer reviews
- 2016-present Internal reviewer for 10+ DES papers
- 2016-present Reviewer for 10+ papers in ApJ, MNRAS, Physical Review, Nature.
- 2021-present NSF NOIRLab Telescope allocation service work
- 2021 PhD thesis review (Gran Sasso Science Institute)

## Skills & Interests

- Observing experience:** 10+ nights of observation with DESI, on-site and remotely (2020-2021); 2015-2023: 30+ nights of observation with DECam on-site and remotely; 2018: SOAR remote observing
- Languages:** Italian (mother tongue), English (fluent), Brazilian Portuguese (proficient reading and

conversation)

**IT:** extensive Python and bash programming experience; extensive experience with large datasets and high performance computing on clusters (Fermilab, NERSC, Pittsburgh Supercomputer Center, and UCL clusters); experience with supervised and unsupervised machine learning methods; very good knowledge of  $\text{\LaTeX}$ ; good experience with C, IDL, Fortran, Mathematica and Gnuplot; operating systems: Mac OS, Linux, Windows

**Sport:** Volleyball and beach volleyball player competing at national level (in UK, Italy and US over the past 10 years); UK beach volleyball universities national champion 2016; UCL Union Elite athlete (2014-2017); UK GLL Sport Foundation Athlete (2015-2018); UCL Volleyball Women's team captain 2015-2016

## Selected Publications

**Co-author in more than 200 articles** published on peer-review journals.

**Citations: 25k+, h-index: 66** (Google Scholar)

Below is a list of selected articles, for a full list visit [Google Scholar](#).

### Lead analyses and major contributions

*Kilonova emission from GW230529 and mass gap neutron star-black hole mergers*

K. Kunnumkai, **A. Palmese**, et al., 2024, submitted to PRD, [arXiv:2409.10651](#)

*Searching for electromagnetic emission in an AGN from the gravitational wave binary black hole merger candidate S230922g*

T. Cabrera, **A. Palmese**, et al., 2024, in PRD review, [arXiv:2407.10698](#)

*A new bump in the night: evidence of a new feature in the binary black hole mass distribution at 70 solar masses from gravitational-wave observations*

I. Magaña-Hernandez & **A. Palmese**, 2024, in PRL review, [arXiv:2407.02460](#)

*A dark standard siren measurement of the Hubble constant following LIGO/Virgo/KAGRA O4a*

C. Bom, V. Alfradique, **A. Palmese**, et al., 2024, submitted to JCAP

*A standard siren measurement of the Hubble constant using GW170817 and the latest observations of the electromagnetic counterpart afterglow,*

**A. Palmese**, R Kaur, A Hajela, R Margutti, A McDowell & A MacFadyen, 2024, [PRD 109, 063508](#).

*Measuring the dust attenuation law of galaxies using photometric data*

C. Meldorf, **A. Palmese (corresponding author)**, & Salim, 2024, [arXiv:2308.13974](#), MNRAS

*A dark siren measurement of the Hubble constant using gravitational wave events from the first three LIGO/Virgo observing runs and DELVE*

V. Alfradique, C. Bom, **A. Palmese**, et al., 2024, [MNRAS 528, 3249–3259](#)

*Standard Siren Cosmology with Gravitational Waves from Binary Black Hole Mergers in Active Galaxy Nuclei,*

C. Bom & **A. Palmese**, 2024, [arXiv:2307.01330](#), PRD, 110, 083005

*A dark siren measurement of the Hubble constant with the LIGO/Virgo gravitational wave event GW190412 and DESI galaxies*

W. Ballard, **A. Palmese (corresponding author)**, et al. (DESI Collaboration), 2023, [RNAAS 7 250](#)

*GW190425 and FRB20190425A: Challenges for Fast Radio Bursts as Multi-Messenger Sources from Binary Neutron Star Mergers,*

M. Bhardwaj, **A. Palmese** et al., 2023, [arXiv:2306.00948](#), under Nature Astronomy review

*A standard siren measurement of the Hubble constant using gravitational wave events from the first three LIGO/Virgo observing runs and the DESI Legacy Survey,*

**A. Palmese** et al., 2023, [ApJ 943 56](#).



*Designing an Optimal Kilonova Search using DECam for Gravitational Wave Events*,  
C. R. Bom, J. Annis, A. Garcia, **A. Palmese** et al. (The DES Collaboration), 2024, [ApJ 960 122](#)

*The Hitchhiker’s guide to the galaxy catalog approach for gravitational wave cosmology*,  
Gair, Ghosh, Gray, Holz, Mastrogiovanni, Mukherjee, **Palmese**, Tamanini, et al., 2023, [AJ, 941, 1](#)

*The Dark Energy Survey Supernova Program results: Type Ia Supernova brightness correlates with host galaxy dust*,  
C. Meldorf, **A. Palmese (corresponding author, undergraduate student supervisor)**, et al., 2023, [MNRAS 518, 1985–2004](#)

*Snowmass2021 Cosmic Frontier CF6 White Paper: Multi-Experiment Probes for Dark Energy – Transients*,  
A. G. Kim, **A. Palmese**, M. E. S. Pereira, et al., 2022, [arXiv:2203.11226](#)

*Do LIGO/Virgo black hole mergers produce AGN flares? The case of GW190521 and prospects for reaching a confident association*,  
**A. Palmese** et al., 2021, [ApJ 914, L34](#).

*Gravitational wave cosmology with galaxy surveys*,  
**A. Palmese**, 2021, invited conference proceedings, [Il Nuovo Cimento C, 10](#)

*GW190521 from the Merger of Ultra-Dwarf Galaxies*,  
**A. Palmese** and C. J. Conselice, 2021, [PRL 126, 181103](#)

*A machine learning approach to galaxy properties: Joint redshift - stellar mass probability distributions with Random Forest*  
S. Mucesh, W. Hartley, **A. Palmese** et al., 2021 [MNRAS, 502, 2770](#)

*Is GW170817 a Multimessenger Neutron Star-Primordial Black Hole Merger?* ,  
Y. Tsai, **A. Palmese**, S. Profumo, T. Jeltama, 2021, [JCAP 10, 019](#)

*The updated DESGW processing pipeline for the third LIGO/Virgo observing run*  
K. Herner et al. , 2020, [EPJ Web of Conferences 245, 01008](#)

*The distant, galaxy cluster environment of the short GRB 161104A at  $z \sim 0.8$  and a comparison to the short GRB host population*,  
A. Nugent, W. Fong, Y. Dong, **A. Palmese** et al., 2020, [ApJ 904, 52](#)

*A DESGW Search for the Electromagnetic Counterpart to the LIGO/Virgo Gravitational Wave Binary Neutron Star Merger Candidate S190510g*,  
A. Garcia, R. Morgan, K. Herner, **A. Palmese** et al., 2020, [ApJ, 903, 75](#)

$\mu_*$  *Masses: Weak Lensing Calibration of the Dark Energy Survey Year 1 redMaPPer Clusters using Stellar Masses*,  
M. E. S. Pereira, **A. Palmese** et al., 2020, [MNRAS, 498, 4, 5450-5467](#)

*Constraints on the Physical Properties of GW190814 through Simulations based on DECam Follow-up Observations by the Dark Energy Survey*,  
R. Morgan et al., 2020, [ApJ 901, 1](#)

*Probing gravity and growth of structure with gravitational waves and galaxies’ peculiar velocity*,  
**A. Palmese** & A. G. Kim, 2021, [PRD 103, 103507](#)

*Optical follow-up of gravitational wave triggers with DECam during the first two LIGO/VIRGO observing runs*,  
K. Herner et al., 2020, [Astronomy and Computing, 33 100425](#)

*LIGO/Virgo Sources from Merging Black Holes in Ultradwarf Galaxies*,  
C. J. Conselice, R. Bhatawdekar, **A. Palmese**, W. G. Hartley, 2020, [ApJ 890 8](#)

*Stellar mass as a galaxy cluster mass proxy: application to the Dark Energy Survey redMaPPer clusters*,  
**A. Palmese** et al., 2020, [MNRAS 493, 4](#)

*A statistical standard siren measurement of the Hubble constant from the LIGO/Virgo gravitational wave compact object merger GW190814 and Dark Energy Survey galaxies,*

**A. Palmese** et al. (DES Collaboration), 2020, [ApJ](#) **900**, **2**, L33.

*First measurement of the Hubble constant from a dark standard siren using the Dark Energy Survey galaxies and the LIGO/Virgo binary-black-hole merger GW170814,* M. Soares-Santos & A. Palmese et al. (The DES Collaboration, the LIGO Scientific Collaboration and the Virgo Collaboration),

**A. Palmese Corresponding author**, 2019, [ApJL](#), **876**, **1**, L7.

*Astro2020 science white paper: Gravitational wave cosmology and astrophysics with large spectroscopic galaxy surveys,*

**A. Palmese** et al., 2019, [BAAS](#), **51**, 310

*A Search for Optical Emission from Binary-Black-Hole Merger GW170814 with the Dark Energy Camera,*

Z. Doctor, R. Kessler, K. Herner, **A. Palmese**, et al., 2019, [ApJL](#), **873**, **2**, L24

*Dark Energy Survey Year 1 results: Detection of Intra-cluster Light at Redshift  $\sim 0.25$ ,*

Y. Zhang, B. Yanny, **A. Palmese** et al., 2019, [ApJ](#), **874**, **2**

*Dark Energy Survey Year 1 Results: The effect of intra-cluster light on photometric redshifts for weak gravitational lensing,*

D. Gruen, Y. Zhang, **A. Palmese** et al., 2019, [MNRAS](#) **488** **3**

*Weak-lensing calibration of a stellar mass-based mass proxy for redMaPPer and Voronoi Tessellation clusters in SDSS Stripe 82,*

M. E. S. Pereira et al., 2018, [MNRAS](#), **474**, 361-1372

*Evidence for dynamically-driven formation of the GW170817 Neutron Star Binary in NGC 4993,*

**A. Palmese** et al. (DES Collaboration), 2017, [ApJL](#), **849**, L34.

*The electromagnetic counterpart of the binary neutron star merger LIGO/VIRGO GW170817.*

*I. Discovery of the optical counterpart using the Dark Energy Camera,*

M. Soares-Santos et al., 2017, [ApJL](#), **848**, L16

*Comparing Dark Energy Survey and HST-CLASH observations of the galaxy cluster RXC J2248.7-4431: implications for stellar mass versus dark matter,*

**A. Palmese**, et al., 2016, [MNRAS](#), **463**, 1486–1499

*Redshift distributions of galaxies in the DES Science Verification shear catalogue and implications for weak lensing,*

C. Bonnett et al., 2016, [PRD](#), **94**, 4

*Hi-GAL, the Herschel infrared Galactic Plane Survey: photometric maps and compact source catalogues.*

*First data release for the inner Milky Way:  $+68^\circ \geq l \geq -70^\circ$ ,*

S. Molinari et al., 2016, [A&A](#), **591**, A149

## Significant contributions

*On the association of GW190425 with its potential electromagnetic counterpart FRB 20190425A,*

I. Magaña-Hernandez et al., 2024, [ApJL](#) **971** L5

*Enabling kilonova science with Nancy Grace Roman Space Telescope*

I. Andreoni et al., 2024, [Astroparticle Physics](#), **155**, 102904

*The rate of extreme coronal line emitting galaxies in the Sloan Digital Sky Survey and their relation to tidal disruption events*

J. Callow, O. Graur, P. Clark, A. Palmese, et al., 2024, [arXiv:2402.16951](#)

*The MOST Hosts Survey: spectroscopic observation of the host galaxies of  $\sim 40,000$  transients using DESI,*

M. Soumagnac et al., 2024, [ApJS](#) in press



*Copacabana: A Probabilistic Membership Assignment Method for Galaxy Clusters*, J. H. Esteves et al., 2024, submitted to MNRAS

*A Fast Radio Burst in a Compact Galaxy Group at  $z \sim 1$* , A. Gordon et al., 2024, [ApJL](#), **963** L34

*Rates and properties of type Ia supernovae in galaxy clusters within the Dark Energy Survey*, M. Toy, P. Wiseman, M. Sullivan, C. Frohmaier, A. Palmese et al. (The DES Collaboration), 2023, [MNRAS](#)

*Cosmology intertwined: A review of the particle physics, astrophysics, and cosmology associated with the cosmological tensions and anomalies*, E. Abdalla, et al., 2022, [Journal of High Energy Astrophysics](#) **34**, 49-211

*The Pantheon+ analysis: cosmological constraints*, D. Brout, et al., 2022 [ApJ](#) **938**, 110

*A Spectroscopic Road Map for Cosmic Frontier: DESI, DESI-II, Stage-5*, Schlegel et al. 2022, [2209.03585](#)

*Deep Hubble Space Telescope Observations of GW170817: Complete Light Curves and the Properties of the Galaxy Merger of NGC 4993*, Kilpatrick et al., 2021, [ApJ](#)

*Snowmass2021 - Letter of interest cosmology intertwined II: The Hubble constant tension*, E. Di Valentino et al., 2021, *Astroparticle Physics* **131**, 102605

*Dark Energy Survey Year 3 Results: Photometric Data Set for Cosmology*, Sevilla-Noarbe et al., 2021 [ApJS](#) **254** 24

*Probing galaxy evolution in massive clusters using ACT and DES: splashback as a cosmic clock*, S. Adhikari et al., 2020, [arXiv:2008.11663](#)

*Dark Energy Survey Year 1 Results: Cosmological Constraints from Cluster Abundances and Weak Lensing*, The DES Collaboration, 2020, [PRD](#), **102**, 2

*Shadows in the Dark: Low-Surface-Brightness Galaxies Discovered in the Dark Energy Survey*, D. Tanoglidis et al., 2020, [ApJS](#), **252**, 18

*The Diffuse Light Envelope of Luminous Red Galaxies*, Y. Leung et al., 2020, [Research Notes of the AAS](#), **4**, 174

*A joint SZ-X-ray-optical analysis of the dynamical state of 288 massive galaxy clusters*, A. Zenteno et al., 2020, [MNRAS](#), **495**, 1

*The Curious Case of PHL 293B: A Long-Lived Transient in a Metal-Poor Blue Compact Dwarf Galaxy*, C. J. Burke et al., 2020, [ApJL](#) **894**, 1, L5

*STRIDES: Spectroscopic and photometric characterization of the environment and effects of mass along the line of sight to the gravitational lenses DES J0408-5354 and WGD 2038-4008*, E. J. Buckley-Geer et al., 2020, [MNRAS](#) **498**, 3, pages 3241–3274

*A DECam Search for Explosive Optical Transients Associated with IceCube Neutrinos*, R. Morgan et al., 2019, [ApJ](#) **833** 2

*Chemical Abundance Analysis of Tucana III, the Second r-process Enhanced Ultra-Faint Dwarf Galaxy*, J. Marshall et al., 2019, [ApJ](#) **882** 177

*Cosmological Constraints from Multiple Probes in the Dark Energy Survey*, The Dark Energy Survey Collaboration, 2019, [PRL](#) **122**, 171301

*First Cosmology Results using Type Ia Supernovae from the Dark Energy Survey: Constraints on Cosmological Parameters*, The Dark Energy Survey Collaboration, 2019, [ApJL](#) **872**, 2, L30

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