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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 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
- 2017 - 2018 **University College London**, London, UK
Research Assistant
- 2016 - 2017 **Fermi National Accelerator Laboratory**, Batavia, IL, USA
URA Research Scholar
- 2014 - 2015 **University College London**, London, UK
Teaching activities (HPC workshop assistant, demonstrator at Observatory, exam supervision)
- 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 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
Computer course of studies, Grading 100/100 *cum laude*

Grants & awards

PI of NASA LISA preparatory Science Grant, “*Studying LISA sources using DESI and LIGO/Virgo/KAGRA*”, 687k\$, 2023-2026

PI of NSF Astronomy and Astrophysics Research Grant, “*Probing the Universe’s expansion and gravitational wave sources with ground-based optical telescopes*”, 466k\$, 2023-2026

Leonardo Da Vinci Award for Physics, Math, and Engineering, Italian/Italian American early career researchers in the San Francisco Bay Area who distinguished themselves, 1000\$, 2022

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

Fermilab Exceptional Performance Recognition Award for the innovative use of the DES data in gravitational wave standard siren measurements, 1600\$, 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

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

Enrico Persico award from Accademia dei Lincei for best 2014 Astrophysics Masters in Italy, awarded by the President of Italian Republic, 1000 €, 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

Erasmus scholarship from Sapienza, Erasmus integration from Laziodisu, 2010

Merit scholarship from Laziodisu, 2010

Grant from the Italian Department of Education for the final result at high school, 1000 €, 2008

Leadership & organizational roles

Several of the leadership positions listed below are within large international collaborations, namely the Dark Energy Survey (DES, ~ 500 members), the Dark Energy Spectroscopic Instrument (DESI, ~ 500 members) and the ESA/NASA Laser Interferometer Space Antenna (LISA) Consortium (> 1000 members). PI of telescope programs listed under “Collaborations & telescope time”.

2025 SOC, International Conference on General Relativity and Gravitation (GR24), Glasgow, UK

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

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

2020 - 2022 DESI Ombudsperson

2020 First Cosmic Explorer (US-based next generation gravitational wave detector) Meeting - Organizing Committee

2020 - 2021 La Silla Schmidt Southern Survey (LS⁴) Executive Committee member during experiment planning

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

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

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

2019 - 2021 Fermilab Astrophysics seminar committee
 2019 - 2020 Fermilab Cosmic Survey science meetings organizer
 2017 - 2019 DES Galaxy evolution in clusters analysis team lead
 2015 - 2017 DES Early Career Scientists representative
 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

Collaborations, telescope & computing allocations

DES builder since 2019, member since 2014

Member of LSST Dark Energy Science Collaboration (DESC) and DESI since 2016

Member of LISA since 2019

NERSC computing time: DOE Mission Science award for ERCAP0022871, titled: "Time Domain Cosmology with the Dark Energy Camera"

co-PI of the DECam GW follow-up survey during the LIGO/Virgo/KAGRA O4 run (2023B-851374, evolved from allocated standard programs 2022B-715089, PI Palmese, and 2022B-922046, PI Andreoni & Palmese):

GW-MMADS: Gravitational Wave Multi-Messenger Astronomy DECam Survey, 2023-2025

PI of "Multi-messenger follow-up with DESI", DESI 2021 secondary target program

Co-PI of "DESIRT: DECam¹ Survey of Intermediate-Redshift Transients" (Proposal IDs 2021A-0148, 2022A-388025, 2022B-297190, 2023A-881453, 2023B-735801), a survey running jointly with DESI, 48 nights spread over 5 semesters.

Co-Investigator (co-I) in a large number of successful telescope proposals, including:

1. Hubble Space Telescope Cycle 31 HST-GO-17583, "Understanding the Hubble tension and jet physics through joint electromagnetic and gravitational wave observations of a neutron star merger" (2023-2024);
2. NASA James Webb Space Telescope programs 1936, 2061, 2091, for gravitational wave (GW) follow-up (2022-2024);
3. DECam program 2020A-0402, 2019A-0235, 2018B-0228 2017B-0110, 2016B-0124, establishing the DES GW counterpart search and discovery program and the discovery of the GW170817 optical counterpart;
4. Blanco Images of the Southern Sky (BLISS) (2017A-0260) and 2019A-0305 (DELVE);

Invited talks and panels

2023 *Astronomy Colloquium*, University of Hawaii, USA
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

¹Dark Energy Camera, built for DES.

- 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.

Other conferences organization

2020 *oSTEM 2020*, (Out in STEM, Inc. is a non-profit professional association supporting the LGBTQ+ community), remote, Fermilab Representative

Speaker and organizer for several parallel and plenary sessions at the DES meetings: remote (2020 and 2021), Unicamp - Brazil (2018) , Texas A&M - USA (2018), Brisbane - Australia (2017), Chicago - USA (2017), Cambridge - UK (2016), SLAC, Stanford - USA (2016), Madrid - Spain (2015), University of Michigan - USA (2015), Brighton - UK (2014).

Speaker and organizer for parallel sessions at the 4 2020 and 2021 remote DESI collaboration meetings.

Teaching & Outreach

2020-present Mentor for [Supernova Foundation](#), supporting young women & gender minorities in Physics.

2020 *DES Book launch event*, invited speaker

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:**

- 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:**

William Ballard (2023, CMU), Michael Murphy (2023, CMU), Elise Kesler (2023, CMU), Angela Thomas (2023, CMU), Aidan Catalano (2023, CMU), Rav Kaur (2022-2023, 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)

2020 *Fermilab CPC Bootcamp for summer students*, data analysis tutorial

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), Kingslager 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

Astronomy Community Service

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);

2015-2021: 30+ nights of observation with DECam on-site and remotely; 2018: remote observing with SOAR from the Fermilab control room

Languages: Italian (mother tongue), English (fluent), Brazilian Portuguese (proficient reading and conversation)

IT: very good programming experience with Python and bash; very good experience with large datasets and job submission on clusters (Fermilab, NERSC, Pittsburgh Supercomputer Center, and UCL clusters); experience with supervised machine learning methods; very good knowledge of L^AT_EX; 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; supported by the UCL Union Elite athlete programme in 2014-2017; supported from 2015 to 2018 by the GLL Sport Foundation; UCL Volleyball Women’s team captain 2015-2016; occasionally taking part in CrossFit competitions

Other skills: Drawing, painting, scuba diving

Publications

Co-author in more than 100 articles published on peer-review journals.

Citations: 16k+, h-index: 51 (Google Scholar)

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

Lead analyses and major contributions

Standard Siren Cosmology with Gravitational Waves from Binary Black Hole Mergers in Active Galaxy Nuclei,
C. Bom & **A. Palmese**, arXiv:2307.01330, submitted

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, submitted

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, 2023, [in PRD review](#)

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), 2023, [arXiv:2302.04878](#)

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](#)

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](#)

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. Jeltema, 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](#)

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., 2020, [ApJ 900, 2, L33](#)

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](#)

μ_ 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](#)

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

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

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](#)

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 ~ 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 of the GW170817 Neutron Star Binary in NGC 4993,

A. Palmese et al., 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

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, [arXiv:2302.05184](#)

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](#) in press

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

First Cosmology Results Using Type Ia Supernovae From the Dark Energy Survey: Analysis, Systematic

Uncertainties, and Validation, D. Brout et al., 2019, [ApJ](#), **874**, 2

Dark Energy Survey Year 1 Results: Weak Lensing Mass Calibration of redMaPPer Galaxy Clusters,

McClintock et al., 2018, [MNRAS](#), **482**, 1352-1378

The Dark Energy Survey Data Release 1, The Dark Energy Survey Collaboration, 2018, [The Astrophysical Journal Supplement Series](#), **239**, 18

DES Science Portal: Computing Photometric Redshifts

J. Gschwend et al., 2018, *Astronomy and Computing*, 25, 58-80

The Splashback Feature around DES Galaxy Clusters: Galaxy Density and Weak Lensing Profiles,

C. Chang et al., 2017, *ApJ*, 864, 83

The multi-messenger discovery and observation of a binary neutron star merger, Abbott et al., 2017, *ApJL*, 848, L12

A gravitational wave standard siren measurement of the Hubble constant, Abbott et al., 2017, *Nature*

<http://dx.doi.org/10.1038/nature24471>

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

II. UV, optical and near-IR light curves and comparison to kilonova models, P. Cowperthwaite et al., 2017,

ApJL, 848, L17

Dark Energy Survey Year 1 Results: Cosmological Constraints from Galaxy Clustering and Weak Lensing,

The Dark Energy Survey Collaboration, 2018, *PRD* 98, 043526, arXiv:1708.01530

The Dark Energy Survey: more than dark energy - an overview, The Dark Energy Survey Collaboration,

2016, *MNRAS*, 460, 1270

Mapping and simulating systematics due to spatially-varying observing conditions in DES Science

Verification data, B. Leistedt et al., 2016, *apjs*, 226, 24

Cosmology from Cosmic Shear with DES Science Verification Data, The Dark Energy Survey Collaboration,

2016, *PRD*, 94, 2