Alex G. Kim

Lawrence Berkeley National Laboratory, 1 Cyclotron Rd, MS: 50R6048, Berkeley, CA 94720-8164, agkim@lbl.gov

Education	Ph.D., Physics, University of California, Berkeley, Dec. 17 1996. *The Discovery of High-Redshift Supernovae and Their Cosmological Implications*, Richard Muller & Saul Perlmutter advisors
	M.A., Physics, University of California, Berkeley, 1994.
	B.S., Physics, Mathematics, University of Michigan, Ann Arbor,1991.

Professional Experience	2003–	Staff Scientist, Physics Division, Lawrence Berkeley National Laboratory
	2002–2003	Term Scientist, Physics Division, Lawrence Berkeley National Laboratory
	1999–2002	Research Assistant, Center for Particle Astrophysics and Lawrence Berkeley National Laboratory
	1997–1999	Research Associate, Laboratoire de Physique Corpusculaire et Cosmologie, Collège de France
	1992–1997	Research Assistant, Center for Particle Astrophysics and Lawrence Berkeley Laboratory
	1989–1991	Research Assistant, Physics Department, University of Michigan

Honors and Awards	2018	Invited Professorship, University of Lyon
	2014	Breakthrough Prize
	2007	Cosmology Prize, Gruber Foundation
	1991	Phi Beta Kappa
	1989–1990	Northern Telecom Scholarship, Northern Telecom Inc., Vienna, Va.
	1988–1990	Franklin Tillery Scholarship
	1988–1989	David Aspland Scholarship
	1988	William Branstrom Freshman Prize
	1987–1991	Angell Scholar

Teaching Experience	2013	University of California, Berkeley. Astro 260 Guest Lecturer
	2000–2002	Tutor, Malcolm X Elementary School, Berkeley CA
	1991–1992	University of California, Berkeley. Teaching assistant

Professional Memberships	American Astronomical Society

Relevant Committees, and Service	DES DEI Committee 2020 –
	DESC Collaboration Meeting SOC Chair 2025
	DESI Spare Fiber Task Force 2024 DESC Collaboration Council Nomination Committee 2022-2023
	DESC Alerts Topical Team Chair 2020–2023
	OzDES Deputy Spokesperson, 2018 –2020
	DESC Meeting Committee Chair 2018 – 2020
	Future Sky Surveys and Big Data, Scientific Organizing Committee, 2016
	DES Publications Committee, 2015 –2022
	DESI Time Domain Working Group Chair – 2014–2016
	LSST-DESC Collaboration Council, 2014 – 2016
	DOE National Lab Day Committee, 2014
	LSST Cadence Workshop, Supernova Working Group co-Chair, 2014
	LBNL Diversity and Inclusion Committee, 2014–2022
	OzDES Executive Committee, 2013 –2022
	Distances Task Leader, Snowmass, 2013
	LSST-DESC SN Ia Working Group Co-Chair, 2012–2015
	DES Spring 2013 Collaboration Meeting, Local Organizing Chair, 2012–2013

Publications Committee, Nearby Supernova Factory, 2012–
SN Ia Working Group Leader, LSST DESC, 2012–2014
DES Spectroscopy Task Force Co-Chair, 2011– 2014
DES Collaboration Meeting Steering Committee, 2011–
Referee for DOE-Office of Science proposals, 2010–
Referee for Astrophysical Journal, Astroparticle Physics, Journal of Cosmology and
Astroparticle Physics, Publications of the Astronomical Society of the Pacific, Publications of the Astronomical Society of Australia, Astrophysical Journal Letters 1997–
Research supervisor for numerous students and postdocs, 1997–
Member of several doctoral thesis committees 2008–
SN Ia Spectroscopy Group leader, DES collaboration, 2008–2012
Joint Dark Energy Mission Interim Science Working Group, 2010–2011
Science Fair Judge, North School Hillsdale, CA Mar 2 2010
SN Ia Working Group leader, SNAP Collaboration, 2001–2009
Simulation Working Group leader, SNAP Collaboration, 1999–2009
System Managers Group member, SNAP Collaboration, 2001–2008
Review Presentation, Particle Physics Project Prioritization Panel (P5), Stanford, CA
Friday, Feb. 22, 2008
Organizing Committe, Key Approaches to Dark Energy, Barcelona, Aug, 2006
Internal Review Committee, Supernova Factory, 2004

Research Activities	1999–present — Lawrence Berkeley National Laboratory

- Dark Energy Spectroscopic Instrument – Identifying non-BAO science applications for DESI. Target selection.

- Large Synoptic Survey Telescope - Dark Energy Science Collaboration – Leading preparations for exploitation of supernovae discovered by LSST. Optimization of observing strategy.

- Euclid Consortium – Developing hardware and mission requirements for the SN Ia/transient survey.

- OzDES – Forming member of the collaboration formed to get spectra of targets identified by DES. Collecting DES targets and furnishing them to the observers.

- Dark Energy Survey – Working on the optimization of the DES supernova survey and setting requirements on external spectroscopic observations. Leading the spectroscopy component of the full collaboration.

- Nearby Supernova Factory – Improving the calibration of Type Ia supernovae as distance indicators. Developing a toolkit for generalized spectroscopy pipelines including high-performance computing and forward-modeling.

- Joint Dark Energy Mission – Developing science requirements, survey strategies, and mission configurations for a NASA and DOE interagency satellite experiment intended to probe dark energy. Participation as a member of the JDEM-Interim Science Working Group charged with designing mission concepts for the two agencies.

- Supernova Acceleration Probe (SNAP) Collaboration– Developed and implemented a simulation package, science requirements, survey strategies, and mission configurations for a proposed satellite experiment designed to probe dark energy. Led two collaboration working groups. Contributions led to the successful passing of scientific reviews and advocacy by national committees. Work on the supernova error budget and systematic uncertainties has resulted in several published papers with more in progress.

- Baryon Oscillation Spectroscopic Survey – Developed and implemented the spectroscopic reduction pipeline for the BOSS experiment. The software is currently processing nightly observations.

- Supernova Cosmology Project – Working on the statistical analysis for high-redshift supernova cosmology presented in several papers.

1997–1999 — Collège de France
- AGAPE – Applied HST archival data to analyze the gravitational microlensing of unresolved source stars within the AGAPE collaboration and to search for new events, resulting in a published paper.

- EROS – Discovering and studying supernovae at low ($z < 0.2$) and high ($z > 0.4$) redshifts as part of the EROS supernova search and the Supernova Cosmology Project. The supernovae are used to measure cosmological parameters. Work has led to papers on supernova rates and the cosmological distance scale.

- Planck – Developing algorithms and software simulating the data expected from the Planck mission, a satellite that measures CMB temperature anisotropies. My focus was in determining hardware constraints, optimized scanning strategies, and data processing methods for polarization measurements. Findings have been published.

1992–1997 — Lawrence Berkeley National Laboratory
- Deepsearch (SCP) – Discovered and studied over 28 distant supernovae, $0.35 < z < 0.85$, in a project aimed at measuring the mass density of the universe and the Cosmological constant. Involved in developing search software, observing, and data analysis. Resulted in the discovery of the accelerated expansion of the Universe.

Invited Talks	Seminar, Laboratoire de physique nucléaire et des hautes énergies, Paris, May 26, 2025
	Seminar, Max Planck Institute for Nuclear Physics, Heidelberg, May 23, 2025
	Cook's Branch Workshop on Supernova Cosmology, Texas A&M, Apr 17, 2025
	KASI Seminar, Daejon, Korea, Sep 30, 2024
	LIneA Webinar, Virtual, Dec 3 2020
	KASI Seminar, Daejon, Korea, Oct 25, 2019
	Speaker, LSST Community Broker Workshop, Seattle, Jun 21, 2019
	Speaker, ZTF 2 Workshop, Japan, Feb 7, 2019
	Lecturer, University of Lyon, France, Sep 26, 2018
	Keynote Speech, Slurm User Group Meeting, LBNL, Sep 25, 2017
	Lecturer, SLAC Summer Institute, SLAC, Menlo Park, CA, Aug 23, 2017
	RPM, Physics Division, Lawrence Berkeley National Laboratory, Berkeley, CA, Oct 18, 2016
	Colloquium, Laboratoire de Physique Corpusculaire de Clermont-Ferrand, Aubiere, France, Sep 30, 2016
	Southern Spectroscopic Survey Instrument Workshop, Argonne, IL, Aug 22, 2016
	Invited Talk, Future Sky Surveys and Big Data, Daejon, Korea, Apr 25, 2016
	Invited Talk, CAASTRO Annual Retreat, Sydney, Australia, Nov 16, 2015
	Speaker, Innovative Cosmological Simulations with Machine Learning and Statistics in the era of LSST, Pittsburgh, PA Jun 5, 2015
	Colloquium, University of Oklahoma, Norman, OK, Jan 22, 2015
	Colloquium, ATPC, Dec 23, 2014
	Speaker, LSST Project and Community Workshop, Phoenix, AZ, Aug 14, 2014
	Lecture, Santa Fe Cosmology Workshop, Santa Fe, NM, Jul 22, 2014
	Speaker, DES-LSST Workshop, Fermi National National Laboratory, IL, Mar 26, 2014
	Panel Discussion, Snowmass, Minneapolis MN, July 29, 2013

Seminar, LineA Seminar, Brazil, June 20, 2013
Colloquium, Herzberg Institute of Astronomy, Victoria, Canada, March 12, 2013
Lecture, IX Mexican School on Gravitation and Mathematical Physics, Puerto Vallarta, Mexico, Dec 5, 2012
Speaker, Korean Physical Society, Oct 26, 2012
Colloquium, Yonsei University, Oct 25, 2012
Seminar, Asia Pacific Center for Theoretical Physics, Pohang Korea, Oct 22, 2012
Speaker, 13th Marcel Grossmann Meeting, Stockholm, Sweden, July 1, 2012
Speaker, Nobel Prize Panel, University of Stockholm, Sweden, Nov 12, 2011
Lecturer, Azores School on Observational Cosmology, Angra do Heroismo, Portugal, Aug 31- Sep 6, 2011
Seminar, Astronomy Department, Yonsei University, Seoul, May 6, 2011
Seminar, Institute for the Early Universe, Ewha University, Seoul, May 3, 2011
Seminar, Korea Institute for Advanced Study, Seoul, May 2, 20011
Workshop, The Return of de Sitter, NORITA, Stockholm, March 15, 2011
Seminar, Center for Particle Astrophysics, Fermilab, May 17, 2010
Seminar, National Astronomy Observatory of China, Beijing, Apr 8 2010
Seminar, Institute of High Energy Physics, Beijing, Apr 7 2010
Seminar, Institute for the Early Universe, Ewha University, Seoul, Apr 5, 2010
Workshop, First Berkeley-Paris Dark Energy Cosmology Workshop, Paris, Sep 19, 2009
Conference, Frontiers of Cosmology at Dome A Antarctica, Suzhou, China, Jul 21, 2009
Speaker, Particle Physics Project Prioritization Panel (P5), Stanford, CA Friday, Feb. 22, 2008
Workshop, International Workshop on the Interconnection Between Particle Physics and Cosmology, Texas A&M, May 14, 2007
Cosmology Seminar, University of California, Davis, Dec 7 2006
Workshop, Key Approaches to Dark Energy, Barcelona, Aug, 2006
Workshop, European Dark Energy Network in Paris, Paris, Dec 9, 2005
Workshop, Probing the Dark Universe with Subaru and Gemini, Waikoloa, HI, Nov 8, 2005
Colloquium, University of Missouri, Columbia, Oct 3, 2005
Seminar, Laboratoire d'Astrophysique de Marseille, Apr 3, 2003
Astrophysics Seminar, Univerity of California Riverside, Mar 24, 2003
Seminar, University of Florida, Mar 17, 2003
Colloquium, Florida Atlantic University, Mar 14, 2003
Astrophysics Seminar, Los Alamos National Laboratory, Feb 27, 2002
Colloquium, Purdue University, Oct 25, 2001
San Mateo Astronomical Society, May 3, 2001
Journal Club, Department of Astronomy, UC Berkeley, Apr 27, 2001
Colloquium, Collège de France, Mar 18, 2001
Colloquium, Centre de Physique des Particules de Marseille, Mar 15, 2001
Workshop, Frontiers in Contemporary Physics-II at Vanderbilt University, Mar 9, 2001
Colloquium, Indiana University, March 2001
Colloquium, Observatoire de Meudon, Feb 2000
Colloquium, Universidad de La Serena, Chile, Sep 21, 1998
Conference, XXXIIInd Rencontres de Moriond "Fundamental Parameters in Cosmology", Les Arcs 1800, France, Jan 17-24, 1998
Conference, NATO Advanced Study Institute on Thermonuclear Supernovae, Aiguablava, Spain, June 20-30, 1995

Refereed Publications

[1] Khaled Said et al. DESI peculiar velocity survey – Fundamental Plane. *MNRAS*, 539(4):3627–3644, June 2025.

[2] A. G. Kim, P. E. Nugent, Xingzhuo Chen, L. Wang, J. T. O'Brien, and Tardis Collaboration. Measuring type Ia supernova angular-diameter distances with intensity interferometry. *Phys. Rev. D*, 111(8):083047, April 2025.

[3] Jared Hand, A. G. Kim, et al. An Agnostic Approach to Building Empirical Type Ia Supernova Light Curves: Evidence for Intrinsic Chromatic Flux Variation Using Nearby Supernova Factory Data. *ApJ*, 982(2):110, April 2025.

[4] A. Townsend et al. Candidate strongly lensed type Ia supernovae in the Zwicky Transient Facility archive. *A&A*, 694:A146, February 2025.

[5] Maayane T. Soumagnac et al. The MOST Hosts Survey: Spectroscopic Observation of the Host Galaxies of ∼40,000 Transients Using DESI. *ApJS*, 275(2):22, December 2024.

[6] Satadru Bag, Simon Huber, Sherry H. Suyu, Nikki Arendse, Irham Taufik Andika, Raoul Cañameras, Alex Kim, Eric Linder, Kushal Lodha, Alejandra Melo, Anupreeta More, Stefan Schuldt, and Arman Shafieloo. Detecting unresolved lensed SNe Ia in LSST using blended light curves. *A&A*, 691:A100, November 2024.

[7] R. Calderon et al. DESI 2024: reconstructing dark energy using crossing statistics with DESI DR1 BAO data. *J. Cosmology Astropart. Phys.*, 2024(10):048, October 2024.

[8] DES Collaboration. The Dark Energy Survey: Cosmology Results with ∼1500 New High-redshift Type Ia Supernovae Using the Full 5 yr Data Set. *ApJ*, 973(1):L14, September 2024.

[9] P. Armstrong, H. Qu, D. Brout, T. M. Davis, R. Kessler, A. G. Kim, C. Lidman, M. Sako, and B. E. Tucker. Probing the consistency of cosmological contours for supernova cosmology. *PASA*, 40:e038, August 2023.

[10] Christoph Saulder et al. Target selection for the DESI peculiar velocity survey. *MNRAS*, July 2023.

[11] L. Aldoroty et al. Bump Morphology of the CMAGIC Diagram. *ApJ*, 948(1):10, May 2023.

[12] Melissa L. Graham et al. Deep drilling in the time domain with DECam: survey characterization. *MNRAS*, 519(3):3881–3902, March 2023.

[13] C. Meldorf et al. The Dark Energy Survey Supernova Program results: type Ia supernova brightness correlates with host galaxy dust. *MNRAS*, 518(2):1985–2004, January 2023.

[14] Felix Pat, Stéphanie Juneau, Vanessa Böhm, Ragadeepika Pucha, A. G. Kim, A. S. Bolton, Cleo Lepart, Dylan Green, and Adam D. Myers. Reconstructing and Classifying SDSS DR16 Galaxy Spectra with Machine-Learning and Dimensionality Reduction Algorithms. *arXiv e-prints*, page arXiv:2211.11783, November 2022.

[15] C. Doux et al. Dark energy survey year 3 results: cosmological constraints from the analysis of cosmic shear in harmonic space. *MNRAS*, 515(2):1942–1972, September 2022.

[16] George Stein et al. A Probabilistic Autoencoder for Type Ia Supernova Spectral Time Series. *ApJ*, 935(1):5, August 2022.

[17] R. Cawthon et al. Dark Energy Survey Year 3 results: calibration of lens sample redshift distributions using clustering redshifts with BOSS/eBOSS. *MNRAS*, 513(4):5517–5539, July 2022.

[18] A. Akhazhanov et al. Finding quadruply imaged quasars with machine learning - I. Methods. *MNRAS*, 513(2):2407–2421, June 2022.

[19] Michelle Lochner et al. The Impact of Observing Strategy on Cosmological Constraints with LSST. *ApJS*, 259(2):58, April 2022.

[20] Mikhail Denissenya, Satadru Bag, Alex G. Kim, Eric V. Linder, and Arman Shafieloo. Out of one, many: distinguishing time delays from lensed supernovae. *MNRAS*, 511(1):1210–1217, March 2022.

[21] A. Leauthaud et al. Lensing without borders - I. A blind comparison of the amplitude of galaxy-galaxy lensing between independent imaging surveys. *MNRAS*, 510(4):6150–6189, March 2022.

[22] Jesse B. Golden-Marx et al. The Observed Evolution of the Stellar Mass-Halo Mass Relation for Brightest Central Galaxies. *ApJ*, 928(1):28, March 2022.

[23] R. Morgan et al. DeepZipper: A Novel Deep-learning Architecture for Lensed Supernovae Identification. *ApJ*, 927(1):109, March 2022.

[24] A. Penton et al. OzDES reverberation mapping program: Lag recovery reliability for 6-yr C IV analysis. *MNRAS*, 509(3):4008–4023, January 2022.

[25] A. Carnero Rosell et al. Dark Energy Survey Year 3 results: galaxy sample for BAO measurement. *MNRAS*, 509(1):778–799, January 2022.

[26] M. Briday et al. Accuracy of environmental tracers and consequences for determining the Type Ia supernova magnitude step. *A&A*, 657:A22, January 2022.

[27] Jonathan E. Carrick et al. Optimizing a magnitude-limited spectroscopic training sample for photometric classification of supernovae. *MNRAS*, 508(1):1–18, November 2021.

[28] Zhefu Yu et al. OzDES Reverberation Mapping Programme: the first Mg II lags from 5 yr of monitoring. *MNRAS*, 507(3):3771–3788, November 2021.

[29] C. Inserra et al. The first Hubble diagram and cosmological constraints using superluminous supernovae. *MNRAS*, 504(2):2535–2549, June 2021.

[30] A. Palmese and A. G. Kim. Probing gravity and growth of structure with gravitational waves and galaxies' peculiar velocity. *Phys. Rev. D*, 103(10):103507, May 2021.

[31] Brian Hayden et al. The HST See Change Program. I. Survey Design, Pipeline, and Supernova Discoveries. *ApJ*, 912(2):87, May 2021.

[32] K. Boone et al. The Twins Embedding of Type Ia Supernovae. II. Improving Cosmological Distance Estimates. *ApJ*, 912(1):71, May 2021.

[33] K. Boone et al. The Twins Embedding of Type Ia Supernovae. I. The Diversity of Spectra at Maximum Light. *ApJ*, 912(1):70, May 2021.

[34] J. Vega-Ferrero et al. Pushing automated morphological classifications to their limits with the Dark Energy Survey. *MNRAS*, March 2021.

[35] L. Kelsey et al. The effect of environment on Type Ia supernovae in the Dark Energy Survey three-year cosmological sample. *MNRAS*, 501(4):4861–4876, March 2021.

[36] Satadru Bag, Alex G. Kim, Eric V. Linder, and Arman Shafieloo. Be It Unresolved: Measuring Time Delays from Lensed Supernovae. *ApJ*, 910(1):65, March 2021.

[37] Alex G. Kim and LSST Dark Energy Science Consortium. Characterizing the Sample Selection for Supernova Cosmology. *The Open Journal of Astrophysics*, 4(1):2, February 2021.

[38] Yu-Ching Chen et al. Candidate periodically variable quasars from the Dark Energy Survey and the Sloan Digital Sky Survey. *MNRAS*, 499(2):2245–2264, December 2020.

[39] M. Smith et al. First Cosmology Results using Supernovae Ia from the Dark Energy Survey: Survey Overview, Performance, and Supernova Spectroscopy. *AJ*, 160(6):267, December 2020.

[40] M. Rigault et al. Strong dependence of Type Ia supernova standardization on the local specific star formation rate. *A&A*, 644:A176, December 2020.

[41] C. Lidman et al. OzDES multi-object fibre spectroscopy for the Dark Energy Survey: results and second data release. *MNRAS*, 496(1):19–35, May 2020.

[42] M. Pursiainen et al. The mystery of photometric twins DES17X1boj and DES16E2bjy. *MNRAS*, 494(4):5576–5589, April 2020.

[43] Rahul Biswas, Scott F. Daniel, R. Hložek, A. G. Kim, Peter Yoachim, and LSST Dark Energy Science Collaboration. Enabling Catalog Simulations of Transient and Variable Sources Based on LSST Cadence Strategies. *ApJS*, 247(2):60, April 2020.

[44] P. F. Léget et al. SUGAR: An improved empirical model of Type Ia supernovae based on spectral features. *A&A*, 636:A46, April 2020.

[45] C. Lemon et al. The STRong lensing Insights into the Dark Energy Survey (STRIDES) 2017/2018 follow-up campaign: discovery of 10 lensed quasars and 10 quasar pairs. *MNRAS*, 494(3):3491–3511, March 2020.

[46] Alex G. Kim and Eric V. Linder. Complementarity of peculiar velocity surveys and redshift space distortions for testing gravity. *Phys. Rev. D*, 101(2):023516, January 2020.

[47] Zhefu Yu et al. Quasar Accretion Disk Sizes from Continuum Reverberation Mapping in the DES Standard-star Fields. *ApJS*, 246(1):16, January 2020.

[48] C. E. Martínez-Vázquez et al. Search for RR Lyrae stars in DES ultrafaint systems: Grus I, Kim 2, Phoenix II, and Grus II. *MNRAS*, 490(2):2183–2199, December 2019.

[49] D. Sluse et al. H0LiCOW - X. Spectroscopic/imaging survey and galaxy-group identification around the strong gravitational lens system WFI 2033-4723. *MNRAS*, 490(1):613–633, November 2019.

[50] S. Taubenberger et al. SN 2012dn from early to late times: 09dc-like supernovae reassessed. *MNRAS*, 488(4):5473–5488, October 2019.

[51] C. R. Angus et al. Superluminous supernovae from the Dark Energy Survey. *MNRAS*, 487(2):2215–2241, Aug 2019.

[52] T. M. C. Abbott et al. Dark Energy Survey year 1 results: Constraints on extended cosmological models from galaxy clustering and weak lensing. *Phys. Rev. D*, 99(12):123505, Jun 2019.

[53] E. Macaulay et al. First cosmological results using Type Ia supernovae from the Dark Energy Survey: measurement of the Hubble constant. *MNRAS*, 486(2):2184–2196, Jun 2019.

[54] T. M. C. Abbott et al. Cosmological Constraints from Multiple Probes in the Dark Energy Survey. *Phys. Rev. Lett.*, 122(17):171301, May 2019.

[55] T. Shin et al. Measurement of the Splashback Feature around SZ-selected Galaxy Clusters with DES, SPT and ACT. *MNRAS*, page 1376, May 2019.

[56] Benjamin L'Huillier, Arman Shafieloo, Eric V. Linder, and Alex G. Kim. Model independent expansion history from supernovae: Cosmology versus systematics. *MNRAS*, 485(2):2783–2790, May 2019.

[57] R. Kessler et al. First cosmology results using Type Ia supernova from the Dark Energy Survey: simulations to correct supernova distance biases. *MNRAS*, 485(1):1171–1187, May 2019.

[58] S. R. Hinton, T. M. Davis, A. G. Kim, D. Brout, C. B. D'Andrea, R. Kessler, J. Lasker, C. Lidman, E. Macaulay, and A. Möller. Steve: A Hierarchical Bayesian Model for Supernova Cosmology. *ApJ*, 876(1):15, May 2019.

[59] D. Brout, D. Scolnic, R. Kessler, C. B. D'Andrea, T. M. Davis, R. R. Gupta, S. R. Hinton, A. G. Kim, J. Lasker, and C. Lidman. First Cosmology Results Using SNe Ia from the Dark Energy Survey: Analysis, Systematic Uncertainties, and Validation. *ApJ*, 874(2):150, Apr 2019.

[60] D. Brout, M. Sako, D. Scolnic, R. Kessler, C. B. D'Andrea, T. M. Davis, S. R. Hinton, A. G. Kim, J. Lasker, and E. Macaulay. First Cosmology Results Using Type Ia Supernovae from the Dark Energy Survey: Photometric Pipeline and Light-curve Data Release. *ApJ*, 874(1):106, Mar 2019.

[61] T. M. C. Abbott, S. Allam, P. Andersen, C. Angus, J. Asorey, A. Avelino, S. Avila, B. A. Bassett, K. Bechtol, and G. M. Bernstein. First Cosmology Results using Type Ia Supernovae from the Dark Energy Survey: Constraints on Cosmological Parameters. *ApJ*, 872(2):L30, Feb 2019.

[62] S. Raghunathan, S. Patil, E. Baxter, B. A. Benson, L. E. Bleem, T. L. Chou, T. M. Crawford, G. P. Holder, T. McClintock, and C. L. Reichardt. Mass Calibration of Optically Selected DES Clusters Using a Measurement of CMB-cluster Lensing with SPTpol Data. *ApJ*, 872(2):170, Feb 2019.

[63] C. Saunders, G. Aldering, P. Antilogus, S. Bailey, C. Baltay, K. Barbary, D. Baugh, K. Boone, S. Bongard, and C. Buton. SNEMO: Improved Empirical Models for Type Ia Supernovae. *ApJ*, 869(2):167, Dec 2018.

[64] D. Rubin, B. Hayden, X. Huang, G. Aldering, R. Amanullah, K. Barbary, K. Boone, M. Brodwin, S. E. Deustua, and S. Dixon. The Discovery of a Gravitationally Lensed Supernova Ia at Redshift 2.22. *ApJ*, 866(1):65, Oct 2018.

[65] C. Chang, E. Baxter, B. Jain, C. Sánchez, S. Adhikari, T. N. Varga, Y. Fang, E. Rozo, E. S. Rykoff, and A. Kravtsov. The Splashback Feature around DES Galaxy Clusters: Galaxy Density and Weak Lensing Profiles. *ApJ*, 864(1):83, Sep 2018.

[66] T. M. C. Abbott, F. B. Abdalla, A. Alarcon, J. Aleksić, S. Allam, S. Allen, A. Amara, J. Annis, J. Asorey, and S. Avila. Dark Energy Survey year 1 results: Cosmological constraints from galaxy clustering and weak lensing. *Phys. Rev. D*, 98(4):043526, Aug 2018.

[67] P. F. Léget, M. V. Pruzhinskaya, A. Ciulli, E. Gangler, G. Aldering, P. Antilogus, C. Aragon, S. Bailey, C. Baltay, and K. Barbary. Correcting for peculiar velocities of Type Ia supernovae in clusters of galaxies. *A&A*, 615:A162, Aug 2018.

[68] B. Hoyle et al. Dark Energy Survey Year 1 Results: redshift distributions of the weak- lensing source galaxies. *MNRAS*, 478:592–610, July 2018.

[69] J. Nordin, G. Aldering, P. Antilogus, C. Aragon, S. Bailey, C. Baltay, K. Barbary, S. Bongard, K. Boone, and V. Brinnel. Understanding type Ia supernovae through their U-band spectra. *A&A*, 614:A71, Jun 2018.

[70] M. J. Childress et al. OzDES multifibre spectroscopy for the Dark Energy Survey: 3-yr results and first data release. *MNRAS*, 472:273–288, November 2017.

[71] S. Lombardo et al. SCALA: In situ calibration for integral field spectrographs. *A&A*, 607:A113, November 2017.

[72] Y.-C. Pan et al. DES15E2mlf: a spectroscopically confirmed superluminous supernova that exploded 3.5 Gyr after the big bang. *MNRAS*, 470:4241–4250, October 2017.

[73] C. Howlett, A. S. G. Robotham, C. D. P. Lagos, and A. G. Kim. Measuring the Growth Rate of Structure with Type IA Supernovae from LSST. *ApJ*, 847:128, October 2017.

[74] E. Luque et al. The Dark Energy Survey view of the Sagittarius stream: discovery of two faint stellar system candidates. *MNRAS*, 468:97–108, June 2017.

[75] Z. Doctor et al. A Search for Kilonovae in the Dark Energy Survey. *ApJ*, 837:57, March 2017.

[76] X. Huang et al. The Extinction Properties of and Distance to the Highly Reddened Type IA Supernova 2012CU. *ApJ*, 836:157, February 2017.

[77] R. R. Gupta et al. Host Galaxy Identification for Supernova Surveys. *AJ*, 152:154, December 2016.

[78] E. Rozo et al. redMaGiC: selecting luminous red galaxies from the DES Science Verification data. *MNRAS*, 461:1431–1450, September 2016.

[79] C. Bonnett et al. Redshift distributions of galaxies in the Dark Energy Survey Science Verification shear catalogue and implications for weak lensing. *Phys. Rev. D*, 94(4):042005, August 2016.

[80] B. P. Abbott and et al. Supplement: Localization and Broadband Follow-up of the Gravitational-wave Transient GW150914 (2016, ApJL, 826, L13). *ApJS*, 225:8, July 2016.

[81] H. K. Fakhouri et al. Improving Cosmological Distance Measurements Using Twin Type Ia Supernovae. *ApJ*, 815:58, December 2015.

[82] F. Yuan et al. OzDES multifibre spectroscopy for the Dark Energy Survey: first-year operation and results. *MNRAS*, 452:3047–3063, September 2015.

[83] D. A. Goldstein et al. Automated Transient Identification in the Dark Energy Survey. *AJ*, 150:82, September 2015.

[84] U. Feindt et al. Measuring cosmic bulk flows with Type Ia supernovae from the Nearby Supernova Factory (Corrigendum). *A&A*, 578:C1, June 2015.

[85] M. Rigault et al. Confirmation of a Star Formation Bias in Type Ia Supernova Distances and its Effect on the Measurement of the Hubble Constant. *ApJ*, 802:20, March 2015.

[86] A. G. Kim et al. Distance probes of dark energy. *Astroparticle Physics*, 63:2–22, March 2015.

[87] A. G. Kim, E. V. Linder, J. Edelstein, and D. Erskine. Giving cosmic redshift drift a whirl. *Astroparticle Physics*, 62:195–205, March 2015.

[88] M. Sasdelli et al. A metric space for Type Ia supernova spectra. *MNRAS*, 447:1247–1266, February 2015.

[89] C. Saunders et al. Type Ia Supernova Distance Modulus Bias and Dispersion from K-correction Errors: A Direct Measurement Using Light Curve Fits to Observed Spectral Time Series. *ApJ*, 800:57, February 2015.

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