Chihway Chang

CONTACT INFORMATION

The Kavli Institute for Cosmological Physics
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EDUCATION

Physics Department, Stanford University — Ph. D. 2013
Thesis: *Systematic Effects in Weak Lensing Measurements for Future Optical Surveys*

Physics Department, National Taiwan University — B. S. 2007

ACADEMIC APPOINTMENTS

EDI Deputy Department Co-Chair — 2020 – present
Clare Boothe Luce Assistant Professor — 2018 – present
Department of Astronomy and Astrophysics, University of Chicago
KICP Fellow, University of Chicago — 2016 – 2018
Postdoctoral Fellow, Institute of Astronomy, ETH Zurich — 2013 – 2016

HONOURS AND RECOGNITIONS

DOE Early Career Award — 2021
DES Builder — 2019 – present
LSST DESC Full Member — 2018 – present
Clare Boothe Luce Assistant Professor — 2018
Editor's choice in Physical Review Letters — 2015
62nd Meeting of Nobel Laureate, Lindau, Germany — 2012
Presidential Awards, National Taiwan University — 2004 – 2007
Jen-Lin Huang Scholarship — 2005 – 2006

SERVICE AND LEADERSHIP

DES Science Committee Co-Chair — 2021 – present
LSST DESC Deputy Analysis Coordinator — 2021 – present
Snowmass 2021 Topical Group Convener (CF6: Dark Energy and Cosmic Acceleration: Complementarity of Probes and New Facilities) — 2020 – 2021
2020 CMB-S4 Science Organizing Committee — 2020
LSST DESC Collaboration Council — 2020 – 2021
DES Membership Committee — 2019 – 2021
DES Management Committee — 2018 – 2021
LSST DESC Weak Lensing Working Group Coordinator — 2018 – 2020
DES Weak Lensing Mass Mapping Analysis Group Coordinator — 2016 – 2020
Reviewer for MNRAS, ApJ, Nature Astronomy, DES/DESC Collaboration — 2014 – present

COLLABORATIONS

The Dark Energy Survey (DES) — 2013 – present
The LSST Dark Energy Science Collaboration (DESC) — 2013 – present

TEACHING

ASTR 406 (UChicago) Gravitational Lensing: *Instructor* — Fall 2020
ASTR 133 (UChicago) Introduction to Astrophysics: *Instructor* — Spring 2019 – 2022
PHYS 372 (UChicago), Space Physics and Astrophysics: *Guest Lecturer* — Fall 2016, 2018
Astrophysics I (ETH): *Substitute Lecturer* — Fall 2015, 2014
Astrowoche (ETH): *Teaching Assistant* — Spring 2016, 2015
Cosmological Probes (ETH): *Teaching Assistant and Substitute Lecturer* — Spring 2014
Physics 21 (Stanford), Mechanics and Heat: *Teaching Assistant* — Fall 2011
Physics 23 (Stanford), Electricity and Optics: *Teaching Assistant* — Winter 2007

Physics 41 (Stanford), Light and Heat: *Teaching Assistant* Fall 2007

Advising and Mentoring

Dhayaa Anbajagane (Graduate)	September 2020 – present
Yuuki Omori (Postdoc)	January 2021 – present
Zhuoqi Zhang (Undergraduate)	December 2019 – present
Judit Prat (Postdoc)	October 2019 – present
Ariel Amsellem (Undergraduate)	January 2019 – December 2020
Yi Zhao (Master)	September 2018 – December 2018
Georgios Zacharegkas (Graduate)	October 2018 – present
Dimitrios Tanoglidis (Graduate)	October 2017 – present
Rebecca Chen (Undergraduate)	October 2017 – May 2019
Marco Gatti (Graduate, Barcelona)	October 2017 – May 2019
Claudio Bruderer (Graduate, ETH Zurich)	October 2016 – June 2018

Outreach

Talk at the Ryerson Astronomical Society at UChicago	2021
Talk at Project Exploration (middle school students)	2021
Kavli Community Forum career panel	2021
GRADUCon 2021 panel	2021
UChicago PSD Women in STEM panel	2021
KIPAC career panel	2020
Panel at SLAC public lecture series	2020
Career panel in DES, SLAC	2018, 2020
Co-organizer of workshop "When Technology Transforms Society: Considering the Societal and Ethical Impacts of Quantum Computing and AI"	2019
APS Conferences for Undergraduate Women in Physics (CUWiP) Panel	2019
Public talk at the *Art of Science* series	2018
Volunteer at the Adler Planetarium: *Astronomy Conversations*	2016 – present
DES outreach program *DarkBites*: *Lead illustrator*, 50+ illustrations (https://www.darkenergysurvey.org/education/darkbites/)	2014 – 2015, 2021
SLAC tour guide	2010 – 2013

Proposals Awarded

Computing: Midway Research II Allocation, 2M hours [PI] 2021

Funding: DOE Early Career Award 2021, Towards Robust Cosmology from Large-Scale Structure with Galaxy Surveys, 750K [PI] 2021 – 2026

Funding: NSF AAG 2020, Collaborative Research: Cosmic Shear on Extremely Large Scales with the Dark Energy Camera, 360K [PI] 2021 – 2024

Computing: Midway Research II Allocation, 2M hours [PI] 2020

Funding: DOE FY2020 HEP Comparative Review, Cosmology with Galaxy and CMB Surveys: Mitigating Systematic Effects Through Combining Datasets, 125K [PI] 2020 – 2022

Observing: Magellan 2020 B, 2 nights [PI] 2020 – 2022

Computing: Midway Research II Allocation, 1.3M hours [PI] 2019

Observing: Magellan 2020A, 2 nights [PI] 2019

Funding: University of Chicago Center for Data and Computing (CDAC) Data Science Discovery Grant – When Technology Transforms Society: Considering the Societal and

Ethical Impacts of Quantum Computing and AI, 15K [PI] 2019 – 2020

Computing: Midway Research II Allocation, 1M hours [PI] 2018

Funding: Fermilab LDRD – Mapping Dark Matter with the faintest Galaxy, 40K [PI] 2018 – 2019

SELECTED TALKS

CIERA Astronomy Seminar at Northwestern, Evanston, IL	Nov 9, 2021
Plenary talk at "Rubin Project and Community Workshop", remote	Aug 12, 2021
Invited review talk "Growth of Structure Summer Seminar Series", remote	June 23, 2021
CITA Seminar, remote	Mar 28, 2021
Invited Panel for SLAC public talk series, remote	Sep 29, 2020
Invited talk at IPMU conference "Cosmic Acceleration", Tokyo, Japan	Feb 17, 2020
Physics Colloquium, Kansas State University, Manhattan, KS	Oct 21, 2019
Invited talk at conference "Cosmic Controversy", Chicago, IL	Oct 5, 2019
Plenary talk at conference "COSMO19", Aachen, Germany	Sep 2, 2019
Invited talk at "LSST DESC Dark Matter Workshop", Chicago, IL	Aug 5, 2019
Plenary talk at conference APS DPF, Boston, MA	Jul 31, 2019
Astrophysics Seminar, McGill University, Montreal, Canada	Jul 3, 2019
Plenary talk at "Quantum Theory and Symmetry-XI", Montreal, Canada	Jul 2, 2019
Panelist at workshop ICG25, State College, PA	Jun 24, 2019
Fermilab Astrophysics Seminar, Baltavia, IL	Jun 10, 2019
Invited talk at LSST in South America, Sao Paulo, Brazil	Dec 18, 2018
Kavli Symposium, Oslo, Norway	Sep 1, 2018
Invited talk at COSPAR, Pasadena, CA, USA	Jul 16, 2018
Invited talk at APS, Columbus, OH, USA	Apr 17, 2018
UChicago Astro Seminar, Chicago, IL, USA	Feb 27, 2018
Rutgers Astro Seminar, New Brunswick, NJ, USA	Feb 19, 2018
Duke Physics Colloquium, Durham, NC, USA	Feb 14, 2018
University of Pittsburgh Physics Colloquium, Pittsburgh, PA, USA	Jan 30, 2018
UC Berkeley Physics Colloquium, Berkeley, CA, USA	Jan 23, 2018
Cosmology Group Meeting, CCA, NY, USA	Nov 9, 2017
Cosmology Seminar, Princeton/IAS, NJ, USA	Nov 6, 2017
Fermilab Astro Seminar, Fermilab, IL, USA	October 23, 2017
Astro/Cosmology Seminar, CMU, PA, USA	October 13, 2017
Astrophysics and Cosmology Seminar, UIUC, IL, USA	September 20, 2017
Cosmology Seminar, BNL, NY, USA	September 14, 2017
Instrumentation Seminar, BNL, NY, USA	September 13, 2017
The Nonlinear Universe, Smartno, Slovenia	July 20, 2017
Fermilab 50th User Meeting, Fermilab, IL, USA	June 8, 2017
KICP Colloquium, KICP, IL, USA	May 31, 2017
Astronomy Chalk Talk, U of Chicago, IL, USA	January 24, 2017
Cosmology Seminar, UCL, London, UK	December 21, 2016
Astronomy Colloquium, UIUC, IL, USA	November 1, 2016

KICP Friday Seminar, KICP, IL, USA	October 7, 2016
Cosmology Seminar, KIPAC, CA, USA	May 16, 2016
Kosmologietag Overview Talk, Bielefeld University, Germany	April 29, 2016
Astronophysics Colloquium, ASIAA, Taipei, Taiwan	March 28, 2016
RAS Specialist Discussion Meeting, London, UK	February 12, 2016
Swiss Python Summit, Rapperswil, Switzerland	February 5, 2016
Astrophysics Seminar, Rutgers University, NJ, USA	August 11, 2015
Cosmology Lunch, Princeton University, NY, USA	August 10, 2015
Fourteenth Marcel Grossmann Meeting (MG14) Rome, Italy	July 17, 2015
APS April meeting, Baltimore, MD, USA	April 14, 2015
Weekly Colloquium, IEEC-CSIC, Barcelona, Spain	October 8, 2014
Astrophysics Seminar, ASIAA, Taipei, Taiwan	September 19, 2014
Research Seminar Shanghai Jiao Tong University, Shanghai, China	September 9, 2014
DES-LSST Joint Workshop, Fermilab, IL, USA	March 24, 2014
Swiss Cosmology Day, ETH Zurich, Switzerland	February 6, 2014
ETH Research Seminar, ETH Zurich, Zurich, Switzerland	September 19, 2013
Astrophysics Seminar, JPL, CA, USA	September 2012
Special Seminar, IPMU, Tokyo, Japan	August 2012
SnowPAC, Snowbird, CO, USA	March 22, 2012

Publication List

Lead author (marked with *, including as first 1-3 authors with similar level of contributions) of 26+ refereed publications in weak gravitational lensing, cross-correlation, and other large-scale cosmology tropics. Contributing author of a total of 100+ publications, with † marking those joined as builder. Full publication list available at ORCHID and ADS.

Submitted Journal Publications

100. A. Kovacs, ...**C. Chang**... et al., *The DES view of the Eridanus supervoid and the CMB Cold Spot*. Arxiv e-print (2021) 2112.07699.

99. D. Anbajagane, **C. Chang***, B. Jain... et al., *Shocks in the Stacked Sunyaev-Zel'dovich Profiles of Clusters II: Measurements from SPT-SZ + Planck Compton-y Map*. Arxiv e-print (2021) 2111.04778.

98. Z. Zhang, **C. Chang***, *Transitioning from Stage-III to Stage-IV: Cosmology from galaxy×CMB lensing and shear×CMB lensing*. Arxiv e-print (2021) 2111.04917.

97. J. Prat, C. Hogan, **C. Chang**, J. Frieman, *Vacuum Energy Density Measured from Cosmological Data*. Arxiv e-print (2021) 2111.08151.

96. D. Zuercher, ...**C. Chang**... et al., *Dark Energy Survey Year 3 results: Cosmology with peaks using an emulator approach*. Arxiv e-print (2021) 2110.10135.

95. M. Gatti, B. Jain, **C. Chang**... et al., *Dark Energy Survey Year 3 results: Cosmology with moments of weak lensing mass maps*. Arxiv e-print (2021) 2110.10141.

94. E. Kovac, ...**C. Chang**... et al., *Validating Synthetic Galaxy Catalogs for Dark Energy Science in the LSST Era*. Arxiv e-print (2021) 2110.03769.

93. M. Gatti, ...**C. Chang**... et al., *Cross-correlation of DES Y3 lensing and ACT+Planck thermal Sunyaev Zel'dovich Effect I: Measurements, systematics tests, and feedback model constraints*. Arxiv e-print (2021) 2108.01600.

92. S. Pandey, ...**C. Chang**... et al., *Cross-correlation of DES Y3 lensing and ACT+Planck thermal Sunyaev Zel'dovich Effect II: Modeling and constraints on halo pressure profiles*. Arxiv e-print (2021) 2108.01601.

91. P. Fiedorowicz, ...**C. Chang**... et al., *KaRMMa – Kappa Reconstruction for Mass Mapping*. Arxiv e-print (2021) 2105.14699.

90. DES Collaboration, ...**C. Chang**... et al., *Dark Energy Survey Year 3 Results: Cosmological Constraints from Galaxy Clustering and Weak Lensing*. Arxiv e-print (2021) 2105.13549.

89. E. Krause, ...**C. Chang**... et al., *Dark Energy Survey Year 3 Results: Multi-Probe Modeling Strategy and Validation*. Arxiv e-print (2021) 2105.13548.

88. J. DeRose, ...**C. Chang**... et al., *Dark Energy Survey Year 3 results: Cosmology from combined galaxy clustering and lensing – validation on cosmological simulations*. Arxiv e-print (2021) 2105.13547.

87. S. Pandey, ...**C. Chang**... et al., *Dark Energy Survey Year 3 Results: Constraints on cosmological parameters and galaxy bias models from galaxy clustering and galaxy-galaxy lensing using the redMaGiC sample*. Arxiv e-print (2021) 2105.13545.

86. L. Secco, ...**C. Chang**... et al., *Dark Energy Survey Year 3 Results: Cosmology from Cosmic Shear and Robustness to Modeling Uncertainty*. Arxiv e-print (2021) 2105.13544.

85. A. Amon, ...**C. Chang**... et al., *Dark Energy Survey Year 3 Results: Cosmology from Cosmic Shear and Robustness to Data Calibration*. Arxiv e-print (2021) 2105.13543.

84. C. Sanchez, ...**C. Chang**... et al., *Dark Energy Survey Year 3 Results: Exploiting small-scale information with lensing shear ratios*. Arxiv e-print (2021) 2105.13542.

83. J. Prat, ...**C. Chang**... et al., *Dark Energy Survey Year 3 Results: High-precision measurement and modeling of galaxy-galaxy lensing*. Arxiv e-print (2021) 2105.13541.

82. O. Friedrich, ...**C. Chang**... et al., *Dark Energy Survey Year 3 Results: Covariance Modelling and its Impact on Parameter Estimation and Quality of Fit*. Arxiv e-print (2020) 2012.08568.

81. C. Davis, ...**C. Chang**... et al., *Dark Energy Survey Year 1 Results: Cross-Correlation Redshifts in the DES – Calibration of the Weak Lensing Source Redshift Distributions*. ArXiv e-prints (2017) 1710.02517.

80. E. Krause, ...**C. Chang**... et al., *Dark Energy Survey Year 1 Results: Multi-Probe Methodology and Simulated Likelihood Analyses*. ArXiv e-prints (2017) 1706.09359.

Refereed Journal Publications

79. G. Zacharegkas, **C. Chang***, J. Prat... et al., *Dark Energy Survey Year 3 results: Galaxy-halo connection from galaxy-galaxy lensing*. MNRAS **509**, 3119 (2022) 2106.08438.

78. T. Shin, B. Jain, S. Adhikari, E. J. Baxter, **C. Chang**... et al., *The mass and galaxy distribution around SZ-selected clusters*. MNRAS **507**, 5758 (2021) 2105.05914.

77. S. Lee, ...**C. Chang**... et al., *Galaxy-galaxy lensing with the DES-CMASS catalogue: measurement and constraints on the galaxy-matter cross-correlation*. MNRAS **509**, 2033 (2022) 2104.11319.

76. E. Baxter, S. Adhikari, J. Vega-Ferrero, W. Cui, **C. Chang**... et al., *Shocks in the Stacked Sunyaev-Zel'dovich Profiles of Clusters I: Analysis with the Three Hundred Simulations*. MNRAS **508**, 1777 (2021) 2101.04179.

75. S. Adhikari, ...**C. Chang**... et al., *Probing Galaxy Evolution in Massive Clusters using ACT and DES: Splashback as a Cosmic Clock*. ApJ **923**, 37 (2021) 2008.11663.

74. F. Andrade-Oliveira, ...**C. Chang**... et al., *Galaxy clustering in harmonic space from the dark energy survey year 1 data: compatibility with real-space results*. MNRAS **505**, 5714 (2021) 2103.14190.

73. N. Jeffrey, M. Gatti, **C. Chang**, L. Whiteway, U. Demirbozan... et al., *Dark Energy Survey Year 3 results: Curved-sky weak lensing mass map reconstruction*. MNRAS **505**, 4626 (2021) 2105.13539.

72. T. M. C. Abbottt, ...**C. Chang**†... et al., *The Dark Energy Survey Data Release 2*. ApJS **255**, 20 (2021) 2101.05765.

71. M. Gatti, ...**C. Chang**... et al., *Dark energy survey year 3 results: weak lensing shape catalogue*. MNRAS **504**, 4312 (2021) 2011.03408.

70. **C. Chang**, A. Drlica-Wagner, S. M. Kent, D. M. Wang, M. H. L. S. Wang, *A machine learning approach to the detection of ghosting and scattered light artifacts in dark energy survey images*. Astronomy and Computing **36**, 100474 (2021) 2105.10524.

69. I. Sevilla-Noarbe, ...**C. Chang**†... et al., *Dark Energy Survey Year 3 Results: Photometric Data Set for Cosmology*. ApJS **254**, 24 (2021) 2011.03407.

68. P. Lemos, M. Raveri, A. Campos, Y. Park, **C. Chang***... et al., *Assessing tension metrics with Dark Energy Survey and Planck data*. MNRAS **505**, 6179 (2021) 2012.09544.

67. C. Doux, **C. Chang***, B. Jain, J. Blazek, H. Camacho... et al., *Consistency of cosmic shear analyses in harmonic and real space*. MNRAS **503**, 3796 (2021) 2011.06469.

66. C. Doux, E. Baxter, P. Lemos, **C. Chang**, A. Alarcon... et al., *Dark Energy Survey internal consistency tests of the joint cosmological probes analysis with posterior predictive distributions*. MNRAS **503**, 2688 (2021) 2011.03410.

65. C. To, ...**C. Chang**†... et al., *Dark Energy Survey Year 1 Results: Cosmological Constraints from Cluster Abundances, Weak Lensing, and Galaxy Correlations*. PRL **126**, 141301 (2020) 2010.01138.

64. H. Sampaio-Santos, ...**C. Chang**†... et al., *Is diffuse intracluster light a good tracer of the galaxy cluster matter distribution?*. MNRAS (2020) 2005.12275

63. M. Jarvis, ...**C. Chang**... et al., *Dark Energy Survey Year 3 Results: Point Spread Function Modelling*. MNRAS **501**, 1282 (2021) 22011.03409

62. A. Palmese, ...**C. Chang**†... et al., *A Statistical Standard Siren Measurement of the Hubble Constant from the LIGO/Virgo Gravitational Wave Compact Object Merger GW190814 and Dark Energy Survey Galaxies*. ApJ **900**, 33 (2020) 2006.14961.

61. D. Tanoglidis, ...**C. Chang**†... et al., *Shadows in the Dark: Low-Surface-Brightness Galaxies Discovered in the Dark Energy Survey*. ApJS **252**, 18 (2021) 2006.04294

60. W. Hartley, **C. Chang***, S. Samani, A. Carnero Rosell, T. Davis et al., *The Impact of Spectroscopic Incompleteness in Direct Calibration of Redshift Distributions for Weak Lensing Surveys*. MNRAS **496**, 4769 (2020) 2003.10454

59. M. Gatti, **C. Chang***, O. Friedrich, B. Jain, D. Bacon et al., *Dark Energy Survey Year 3 Results: Cosmology with Moments of Weak Lensing Mass Maps – Validation on Simulations*. MNRAS **498**, 4060 (2020) 1911.05568

58. B. Mawdsley, D. Bacon, **C. Chang**, P. Melchior, E. Rozo et al., *Dark Energy Survey Year 1 Results: Wide-field Mass Maps via Forward Fitting in Harmonic Space*. MNRAS **493**, 5662 (2020) 1905.12682.

57. T. M. C. Abbott, ...**C. Chang**... et al., *Dark Energy Survey Year 1 Results: Cosmological Constraints from Cluster Abundances and Weak Lensing*. PRD **102**, 023509 (2020). 2002.11124

56. D. Tanoglidis, **C. Chang***, J. Frieman, *Optimizing Galaxy Samples for Clustering Measurements in Photometric Surveys*. MNRAS **491**, 3535 (2020) 1908.07150.

55. Y. Fang, ...**C. Chang**... et al., *Dark Energy Survey Year 1 results: The Relationship between Mass and Light around Cosmic Voids*. MNRAS **490**, 3573 (2019) 1909.01386.

54. D. Korytov, ...**C. Chang**... et al., *CosmoDC2: A Synthetic Sky Catalog for Dark Energy Science with LSST*. ApJS **254**, 26 (2019) 1907.06530.

53. K. Vahi, M. Wang, **C. Chang** et al., *Workflows using Pegasus: Enabling Dark Energy Survey Pipelines*. ASPC **523**, 689 (2019).

52. T. M. C. Abbott, ...**C. Chang***... et al., *Dark Energy Survey Year 1 Results: Joint Analysis of Galaxy Clustering, Galaxy Lensing, and CMB Lensing Two-point Functions*. PRD **100**, 3541 (2019) 1810.02322.

51. Y. Omori, T. Giannantonio, A. Porredon, E. Baxter, **C. Chang** et al., *Dark Energy Survey Year 1 Results: tomographic cross-correlations between DES galaxies and CMB lensing from SPT+Planck*. PRD **100**, 3501 (2019) 1810.02342.

50. Y. Omori, E. Baxter, **C. Chang***, D. Kirk, A. Alarcon et al., *Dark Energy Survey Year 1 Results: Cross-correlation between DES Y1 galaxy weak lensing and SPT+Planck CMB weak lensing*. PRD **100**, 3517 (2019) 1810.02441.

49. T. M. C. Abbott, ...**C. Chang**... et al., *Cosmological Constraints from Multiple Probes in the Dark Energy Survey*. PRD **122**, 171301 (2019) 1811.02375.

48. T. M. C. Abbott, ...**C. Chang**... et al., *Dark Energy Survey Year 1 Results: Constraints on Extended Cosmological Models from Galaxy Clustering and Weak Lensing*. PRD **99**, 123505 (2019) 1810.02499.

47. J. Prat, E. Baxter, T. Shin, C. Sanchez, **C. Chang** et al., *Cosmological lensing ratios with DES Y1, SPT and Planck*. MNRAS **487**, 1363 (2019) 1810.02212.

46. T. Shin, S. Adhikari, E. Baxter, **C. Chang**, B. Jain et al., *Measurement of the Splashback Feature around SZ-selected Galaxy Clusters with DES, SPT and ACT*. MNRAS **487**, 2900 (2019) 1811.06081.

45. **C. Chang***, M. Wang, S. Dodelson, T. Eifler, C. Heymans et al., *A Unified Analysis of Four Cosmic Shear Surveys*. MNRAS **482**, 3696 (2019) 1808.07335.

44. M. Fagioli, ...**C. Chang**... et al., *Forward Modeling of Spectroscopic Galaxy Surveys: Application to SDSS*. JCAP **11**, 015 (2018) 1803.06343.

43. E. Baxter, Y. Omori, **C. Chang***, T. Giannantonio, D. Kirk et al., *Dark Energy Survey Year 1 Results: Methodology and Projections for Joint Analysis of Galaxy Clustering, Galaxy Lensing, and CMB Lensing Two-point Functions*. PRD **99**, 023508 (2019) 1802.05257.

42. T. M. C. Abbott, ...**C. Chang**... et al, *The Dark Energy Survey Data Release 1*. ApJS **239**, 18 (2018) 1801.03181.

41. R. Cawthon, ...**C. Chang**... et al, *Dark Energy Survey Year 1 Results: Calibration of redMaGiC Redshift Distributions in DES and SDSS from Cross-Correlations*. MNRAS **481**, 2427 (2018) 1712.07298.

40. **C. Chang***, E. Baxter, B. Jain, C. Sanchez, S. Adhikari et al., *The Splashback Feature around DES Galaxy Clusters: Galaxy Density and Weak Lensing Profiles*. ApJ **864**, 83 (2018) 1710.06808.

39. T. M. C. Abbott, ...**C. Chang**... et al., *Dark Energy Survey Year 1 Results: Cosmological Constraints from Galaxy Clustering and Weak Lensing*. PRD **98**,043526 (2018) 1708.01530.

38. J. Prat, ...**C. Chang** et al., *Dark Energy Survey Year 1 Results: Galaxy-Galaxy Lensing*. PRD **98**, 042005 (2018) 1708.01537.

37. M. Troxel, ...**C. Chang**... et al., *Dark Energy Survey Year 1 Results: Cosmological Constraints from Cosmic Shear*. PRD **98**, 043528 (2018) 1708.01538.

36. M. Troxel, E. Krause, **C. Chang**, T. F. Eifler, O. Friedrich et al., *Survey Geometry and the Internal Consistency of Recent Cosmic Shear Measurements*. MNRAS **476**, 4998 (2018) 1804.10663.

35. N. Jeffrey,... **C. Chang**..., et al., *Improving Weak Lensing Mass Map Reconstructions using Gaussian and Sparsity Priors: Application to DES SV*. MNRAS **479**, 2871 (2018) 1801.08945.

34. O. Friedrich, ...**C. Chang**... et al., *Density Split Statistics: Joint Model of Counts and Lensing in Cells*. PRD **98**, 023508 (2018) 1710.05162.

33. D. Gruen, ...**C. Chang**... et al., *Density Split Statistics: Cosmological Constraints from Counts and Lensing in Cells in DES Y1 and SDSS*. PRD **98**, 023507 (2018) 1710.05045.

32. B. Hoyle, ...**C. Chang**... et al., *Dark Energy Survey Year 1 Results: Redshift Distributions of the Weak Lensing Source Galaxies*. MNRAS **478**, 592 (2018) 1708.01532.

31. M. Gatti, ...**C. Chang**... et al., *Dark Energy Survey Year 1 Results: Cross-Correlation Redshifts - Methods and Systematics Characterization*. MNRAS (2018)1709.00992.

30. **C. Chang***, A. Pujol, B. Mawdsley, D. Bacon, J. Elvin-Poole, et al., *Dark Energy Survey Year 1 Results: Curved-Sky Weak Lensing Mass Map*. MNRAS **475**, 3165 (2018) 1708.01535.

29. E. Baxter, **C. Chang***, B. Jain, S. Adhikari, N. Dalal et al., *The Halo Boundary of Galaxy Clusters in the SDSS*. ApJ **841**, 18 (2017) 1702.01722.

28. J. Akeret, **C. Chang***, A. Lucchi, A. Refregier, *Radio Frequency Interference Mitigation using Deep Convolutional Neural Networks*. A&C **18**, 35–39 (2017) 1609.09077.

27. J. Akeret, S. Seehars, **C. Chang**, C. Monstein, A. Amara, A. Refregier, *HIDE & SEEK: End-to-End Packages to Simulate and Process Radio Survey Data*. A&C **18**, 8–17 (2017) 1607.07443.

26. **C. Chang***, C. Monstein, J. Akeret, S. Seehars, A. Refregier et al., *An Integrated System at the Bleien Observatory for Mapping the Galaxy*. MNRAS **464**, 1727–1737 (2017) 1607.07451.

25. N. MacCrann, ...**C. Chang**... et al., *Inference from the Small Scales of Cosmic Shear with Current and Future Dark Energy Survey Data*. MNRAS **465**, 2567–2583 (2017). 1608.01838.

24. L. Clerkin, ...**C. Chang**... et al., *Testing the Lognormality of the Galaxy and Weak Lensing Convergence Distributions from Dark Energy Survey Maps*. MNRAS **466**, 1444–1461 (2017). 1605.02036.

23. T. Kacprzak, ... **C. Chang**..., et al., *Cosmology Constraints from Shear Peak Statistics in Dark Energy Survey Science Verification Data*. MNRAS **463**, 3653–3673 (2016), 1603.05040.

22. B. Nord, ... **C. Chang**..., et al., *SPOKES: An End-to-End Simulation Facility for Spectroscopic Cosmological Surveys*. A&C **15**, 1–15 (2016), 1602.01480.

21. D. Kirk, Y. Omori, A. Benoit-Levy, R. Cawton, **C. Chang** et al., *Cross-correlation of Gravitational Lensing from DES Science Verification, SPT and Planck*. MNRAS **459**, 21 (2016), 1512.04535.

20. A. Pujol, **C. Chang***, E. Gazganaga, A. Amara, A. Refregier et al., *A New Method to Measure Galaxy Bias from the Density and Weak Lensing Fields*. MNRAS **462**, 35–47 (2016) 1601.00160.

19. **C. Chang***, A. Pujol, E. Gazganaga, A. Amara, A. Refregier et al., *Galaxy Bias from the DES Science Verification Data: Combining Galaxy Density Maps and Weak Lensing Maps*. MNRAS **459**, 3203 (2016), 1601.00405.

18. The Dark Energy Survey Collaboration .. **C. Chang**..., et al., *Cosmology from Cosmic Shear with DES Science Verification Data*. PRD **94**, 022001 (2016), 1507.05552.

17. M. Jarvis, ... **C. Chang**..., et al., *The DES Science Verification Weak Lensing Shear Catalogs*. MNRAS **460**, 2245 (2016), 1507.05603.

16. M.R. Becker, ... **C. Chang**..., et al., *Cosmic Shear Measurements with DES Science Verification Data*. PRD **94**, 022002 (2016), 1507.05598.

15. B. Leistedt, ... **C. Chang**..., et al., *Mapping and Simulating Systematics due to Spatially-Varying Observing Conditions in DES Science Verification Data*. ApJS **226**, 24 (2016), 1507.05647.

14. C. Bonnett, ... **C. Chang**..., et al., *Redshift Distributions of Galaxies in the DES Science Verification Shear Catalogue and Implications for Weak Lensing* PRD **94**, 042005 (2016), 1507.05909.

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