Samuel Hinton

PhD, Astrophysicist | Data Scientist | Software Engineer

Abstract

I'm a scientist with a strong focus on solving interesting problems in reproducible ways. My move from astrophysics into machine learning and sustainability is driven by a desire to try and explore problem areas with direct impact on the world. My core scientific philosophy is that a product is more useful than a paper. Make analyses and implementations accessible, packaged, documented, tested, and reproducible, and you've made ten times the impact.

Education

2016–2020 **Doctor of Philosophy** University of Queensland
Analysing supernovae in the Dark Energy Survey using Hierarchical Bayesian models to help constrain the nature of dark energy.

2010–2015 **Bachelor of Science** (Physics)(Hons, 1st) University of Queensland
Thesis: Analysed the Baryon Acoustic Oscillation signal imprinted in the large scale structure of the universe using the WiggleZ survey. Won the Astronomical Society of Australia's award for best Australian Astrophysics honours thesis of the year.

2010–2014 **Bachelor of Engineering** (Software)(Hons, 1st) University of Queensland
Thesis: Created the first online client-only web-application to compute redshifts from telescope spectra. Won the GroudProbe prize, IEEE student thesis prize and IET student prize.

Experience

2020-Now **Arenko Group** London, UK
Senior Data Scientist

- Designed and productionised probabilistic time-series forecasting models for UK energy markets.
- Implemented a wide variety of forecasting algorithms, including gaussian processes, deep learning models, temporal models like GRU and LSTM, plus simpler statistical models.
- Implemented MLOps pipelines in AWS, including feature store, model versioning (mlflow), model serving, data engineering and orchestration (Prefect) and digestion (RDMS) in a microservice framework.
- Created interactive visualisations of market opportunities (matplotlib, plotly, Dash, angular, Streamlit). Mentored junior data scientists and helped grow the data science team.
- Created optimisation algorithm for trading energy, catering to a discontinuous, stochastic surface using a combination of particle swarm, genetic algorithms, and Monte-Carlo simulation.
- Contributed to multiple open source projects, including mlflow, cloudpickle, pandas and scipy.
- Created and maintained my own open-source libraries, including documentation, testing, example galleries, and rigorous code quality.

2020 **COVID-19 Critical Care Consortium** Brisbane, Queensland, Australia

Lead Data Analyst

- Technical lead for the COVID-19 Critical Care Consortium.
- Created the data pipeline to automatically produce machine-learning-ready data products for use in the study.
- Created reports for clinical staff and hosted a dashboard for use in hospital sites to provide insights from the data products.

2020 **University of Queensland** Brisbane, Queensland, Australia

Postdoctoral Researcher

- Continued research in the areas of supernova cosmology and large scale structure, focusing heavily upon analysis pipelines and systematics control through efficient use of simulations and mocks.
- Implemented and integrated probabilistic classification of our photometric imagery of supernovae.
- Increased efficiency of cosmological analysis by two orders of magnitude.

2019 **SuperDataScience** Sunshine Coast, Queensland, Australia

Course Instructor

- Created a course on statistical analysis in Python for students. Focused on applied statistics and utilisation of modern code packages, with attention given to visual output and workflows for continuous validation of methodology.

2017, 2016 **Lawrence Berkeley National Laboratory** Berkeley, California

Research Fellowship

- Research fellowship to work on Bayesian Hierarchical Modelling and its applications to Supernova Cosmology.
- Investigated how to use high dimensional hierarchical models to model individual supernova instead of populations to provide better constraints on cosmology using supernova discovered by the Dark Energy Survey.

2015–2016 **Gemini & Australian Astronomical Observatory** La Serena, Chile

Research Intern

- Utilised photometric data of Maffei 1 to determine globular cluster candidates and their properties for spectroscopic follow-up.
- Utilised data reduction pipelines, automated analysis methods in Python, and applied machine learning techniques to perform object classification.

2010–2014 **GBST** Brisbane, Queensland, Australia

Software Developer

- Developed business intelligence reporting solutions to visualise complex financial data.
- Designed and developed server and client based web application code for both frontoffice and backoffice staff.
- Created large scale SQL queries, optimised queries, databases and applications for network, processing and memory constraints.
- Developed back-end server code and front-end web applications.

Noteable Awards

2019 **Lindau Nobel Laureate Delegate** Representing Australia at LINO19. Australian Academy of Science

2019 **Future Superstar Award** Science's highest performing PhD student. University of Queensland

2016 **Bok Prize** Best astrophysics honours thesis in Australia. Astronomical Society of Australia

2016	**Australian Postgraduate Award**	Australian Government
2016	**Science Faculty Graduate of the Year**	University of Queensland
2016	**Australian Institute of Physics Prize** Top physics graduate.	University of Queensland
2016	**University Medal (Science)**	University of Queensland
2015	**Australian Gemini Undergraduate Summer Studentships**	AAO
2015	**AAO Honours Scholarship**	Australian Astronomical Observatory
2015	**University Medal (Engineering)**	University of Queensland

Other Awards

2015	**Rhodes Scholarship Finalist**	Oxford University
2015	**A.W. Oakes Scholarship**	St John's College
2015	**Harriet Marks Bursary** Academic merit in science honours.	University of Queensland
2015	**10x Deans Commendation**	University of Queensland
2015	**Helen Thompson Prize for All Round Excellence**	St John's College
2015	**IET Student Prize** Outstanding academic success.	The Institution of Engineering and Technology
2015	**David Andrew Krnak Memorial Prize** Top engineering graduate.	University of Queensland
2014	**UQ Future Leader**	University of Queensland
2014	**IEEE Student Thesis Prize** Best final year thesis.	IEEE
2014	**GroundProbe Prize** Best final year thesis.	University of Queensland
2014	**RWH Hawken Scholar**	University of Queensland
2014	**UQ Summer Research Scholarship**	University of Queensland
2012	**Walter Bruce Darker Scholarship**	University of Queensland
2012	**Exxon Mobil Achievement Award** Top mechanical engineering student.	University of Queensland
2011	**Alstom Prize** Top electrical engineering student.	University of Queensland
2010	**UQ Academic Excellence Scholarship**	University of Queensland
2010	**ICT Enabling Scholarship**	University of Queensland
2010	**John Black Prize**	University of Queensland

Communication

2022 **Industry Guest** — Energy Systems Catapult
Presented on the intersection between academia and industry and the current challenges facing both parties, and explored solutions to increase collaboration.

2021 **Industry Guest** — CodeHers
Gave workshops and presentations to highschool students on coding, machine learning, and careers in STEM.

2021 **Interviewed Data Scientist** — SuperDataScience Podcast
Participated in multiple SDS podcast episodes about topics in data science, from hypothesis testing to MLOps.

2020 **Scientific Correspondent** — CNET, CBS
Acted as a scientific correspondent for multiple organisations to break down complicated scientific research into everyday terms.

2020 **Coding@Home Industry Partner** — Queensland Education, Coding@Home
Shared the modern and future role of coding and machine learning from the perspective of an astronomer and scientist.

2020 **FameLab National Finalist** British Council
National finalist in the FameLab program, with topic "Can you hear the Big bang?"

2020 ***Science Friction* Guest** ABC Radio National
Discussed the huge transition from astrophysics to data analytics due to the COVID-19 pandemic, and the transferable skillset that science gives you.

2020 **NYSF Guest Panelist** National Youth Science Forum
Shared my personal journey in science outreach, and presented on how to give effective presentations.

2019-2017 ***ScopeTV* Guest Scientist** ScopeTV, Channel 10
Helped script, narrate and appear in ScopeTV educational astronomy episodes.

2019 ***Science Says!* Scientific Panelist** World Science Festival
Panel scientist for Science Says, a comedy science show for Brisbane's World Science Festival.

2019 ***Probably Science Podcast* Guest Scientist** Probably Science Live Podcast and Comedy Show
Guest scientist for Probably Science, joining the previous guests of Neil deGrasse Tyson, Sean Carroll and more.

2019 ***2SER Radio* Scientific Correspondent** Radio, 2SER
Monthly scientific and astronomy updates.

2019-2018 **Podcast Host** Commuting the Cosmos
Hosted and presented on a podcast about various space related concepts.

2018 **Curious Kids Writer** The Conversation
Consulted and authored articles for The Conversation's Curious Kids program.

2018 **BrisScience Presenter** BrisScience & UQ
Invited to talk at the monthly BrisScience event on the dark side of the universe.

2018 **Australian Survivor Invited Contestant, Academic Champion** Endemol Shine
Cast as the academic champion for the 'Champions v. Contendors' season of Australian Survivor.

2018-2017 **School Guest Presenter** Clayfield College, Gumdale State School
Talks to primary and secondary students on astronomy, science, STEM and career pathways.

2019-2017 **Science Communicator** Pint of Science, Physics in the Pub
Gave public talks to a general audience about various topics in astronomy.

2017 **Invited Presenter** Research Education and Development Retreat
Invited presenter at a progressional development program for physics PhD, honours and undergraduate students.

2017 **Workshop Organiser, Host and Presenter** CAASTRO Code Workshop
Created and presented a code workshop focusing on open-source science run across Australia.

2017 **Battle of the Brains Panel Scientist** National Science Week
Invited participant in a games panel discussion for physicists during National Science Week.

2017 **World Science Festival Tour Guide** Queensland Museum & UQ
Scientific tour guide for the Large Hadron Collider exhibit during the World Science Festival.

2017 **FameLab Australia Scientist** British Council
State finalist FameLab scientist. Public communication through radio interview and stage presentation.

2016 **Guest Scientist, An Evening with Dr Lisa Randall** ThinkInc
Gave the opening speech for the Brisbane event, talking about the exciting future of astronomy.

2016 **UQ Science Demo Troupe Member** University of Queensland
Joined the UQ Science Demo troupe to create resources for the group and participate in UQ demonstrations.

2016 **Uluru Astronomer in Residence** CAASTRO
Accompanied Sky Tours to answer scientific questions from the public and gave public lectures on popular astronomy topics.

Teaching

2020	**Data Manipulation in Python**	SuperDataScience
2019	**Python for Statistical Analysis**	SuperDataScience
2019	**Frontiers of Astrophysics Guest Lecturer**	University of Queensland
2018	**Introduction to Astrophysics Guest Lecturer**	University of Queensland
2018	**Cosmology Tutor and Guest Lecturer**	University of Queensland
2018	**Supervisor - Capstone Project**	University of Queensland
2017	**Computational Physics Tutor**	University of Queensland
2017	**Computational Physics Content Creator**	University of Queensland
2017	**Supervisor - Summer Project**	University of Queensland
2015	**5-Minute Physics Content Creator**	University of Queensland

Academic Presentations

June 2020	**Data Science Pipelines**	DataScienceGo Virtual Conference
May 2020	**Getting Started with Pippin**	Duke University
Jan 2020	**Supernova Cosmology updates from the Dark Energy Survey**	AAS
Oct 2019	**Pippin: A pipeline for SN Ia cosmology**	SCAM
Jul 2019	**Barry - A BAO model fitting framework**	Python in Astronomy
Mar 2019	**The path towards Photometric Supernova Cosmology with DES**	Cosmology on Safari
Feb 2019	**Hitting the Limits of Supernova cosmology**	ANITA
Nov 2017	**Coding Practises for the Busy Astronomer**	CAASTRO
Jun 2017	**Hierachical Bayesian Models for Supernova Cosmology**	Lawrence Berkeley National Lab
Dec 2016	**Introduction to git and code management**	University of Cambridge
Dec 2016	**Hierachical Bayesian Models for Supernova Cosmology**	University of Southampton
Dec 2016	**Hierachical Bayesian Models for Supernova Cosmology**	University of Portsmouth
Nov 2016	**Sound waves in Space: Wigglez and the BAO**	Swinburne University of Technology
Aug 2016	**Publishing Packages in Python**	University of Queensland
Aug 2016	**ChainConsumer: Plots and LaTeX from MCMC chains**	CAASTRO
May 2016	**Hieracrhical Bayesian Models for Supernova Cosmology**	Standford University
Feb 2016	**Detecting Globular Clusters in Maffei 1**	Gemini Institute
Nov 2015	**Marz - Redshifting software inside your browser**	OzDES Workshop

Publications

Core Author

Binning is Sinning (Supernova Version): The Impact of Self-calibration in Cosmological Analyses with Type Ia Supernovae
Brout, Dillon, **Samuel R. Hinton**, and Dan Scolnic ApJ *912.2, L26 (May 2021) p. L26*

Pippin: A pipeline for supernova cosmology
Hinton, **Samuel** and Dillon Brout Journal of Open Source Software *5.47 (2020) p. 2122. The Open Journal*

BARRY and the BAO model comparison
Hinton, **Samuel R.**, Cullan Howlett, and Tamara M. Davis MNRAS *493.3 (Apr. 2020) pp. 4078–4093*

Can redshift errors bias measurements of the Hubble Constant?
Davis, Tamara M. et al. MNRAS *(Sept. 2019) p. 2279*

Steve: A Hierarchical Bayesian Model for Supernova Cosmology
Hinton, **S. R.** et al. The Astrophysical Journal *876.1 (Apr. 2019) p. 15. American Astronomical Society*

Measuring the 2D baryon acoustic oscillation signal of galaxies in WiggleZ: cosmological constraints
Hinton, **S. R.** et al. MNRAS *464 (Feb. 2017) pp. 4807–4822*

ChainConsumer: A Python Package for consuming MCMC chains!
Hinton, **S. R.** JOSS *1.4 (Aug. 2016). The Open Journal*

Marz: Manual and automatic redshifting software
Hinton, **S.R.** et al. Astronomy and Computing *15 (2016) pp. 61–71*

Science Contributions

OzDES multi-object fibre spectroscopy for the Dark Energy Survey: Results and second data release
Lidman, C. et al. MNRAS *(May 2020)*

Supernova Siblings: Assessing the Consistency of Properties of Type Ia Supernovae that Share the Same Parent Galaxies
Scolnic, D. et al. ApJ *896.1, L13 (June 2020) p. L13*

First Cosmology Results using Supernovae Ia from the Dark Energy Survey: Survey Overview, Performance, and Supernova Spectroscopy
Smith, M. et al. AJ *160.6, 267 (Dec. 2020) p. 267*

First cosmology results using type Ia supernovae from the Dark Energy Survey: the effect of host galaxy properties on supernova luminosity
Smith, M. et al. MNRAS *494.3 (Apr. 2020) pp. 4426–4447*

The host galaxies of 106 rapidly evolving transients discovered by the Dark Energy Survey
Wiseman, P. et al. MNRAS *498.2 (Oct. 2020) pp. 2575–2593*

First Cosmology Results using Type Ia Supernovae from the Dark Energy Survey: Constraints on Cosmological Parameters
Abbott, T. M. C. et al. ApJ *872.2, L30 (Feb. 2019) p. L30*

First Cosmology Results Using SNe Ia from the Dark Energy Survey: Analysis, Systematic Uncertainties, and Validation

Brout, D. et al. ApJ *874.2, 150 (Apr. 2019) p. 150*

First Cosmology Results Using Type Ia Supernovae from the Dark Energy Survey: Photometric Pipeline and Light-curve Data Release
Brout, D. et al. ApJ *874.1, 106 (Mar. 2019) p. 106*

First cosmology results using Type Ia supernova from the Dark Energy Survey: simulations to correct supernova distance biases
Kessler, R. et al. MNRAS *485.1 (May 2019) pp. 1171–1187*

First cosmology results using Type IA supernovae from the dark energy survey: effects of chromatic corrections to supernova photometry on measurements of cosmological parameters
Lasker, J. et al. MNRAS *485.4 (June 2019) pp. 5329–5344*

First cosmological results using Type Ia supernovae from the Dark Energy Survey: measurement of the Hubble constant
Macaulay, E. et al. MNRAS *486.2 (June 2019) pp. 2184–2196*

OzDES multifibre spectroscopy for the Dark Energy Survey: 3-yr results and first data release
Childress, M. J. et al. Monthly Notices of the Royal Astronomical Society *472 (Nov. 2017) pp. 273–288*

OzDES multifibre spectroscopy for the Dark Energy Survey: first-year operation and results
Yuan, F. et al. Monthly Notices of the Royal Astronomical Society *452 (Sept. 2015) pp. 3047–3063*

Infrastructure / Data Contributions

Dark Energy Survey Year 3 results: A 2.7% measurement of baryon acoustic oscillation distance scale at redshift 0.835
Abbott, T. M. C. et al. Phys. Rev. D *105.4, 043512 (Feb. 2022) p. 043512*

Dark Energy Survey Year 3 results: Cosmological constraints from galaxy clustering and weak lensing
Abbott, T. M. C. et al. Phys. Rev. D *105.2, 023520 (Jan. 2022) p. 023520*

Joint analysis of DES Year 3 data and CMB lensing from SPT and Planck III: Combined cosmological constraints
Abbott, T. M. C. et al. arXiv e-prints*, arXiv:2206.10824 (June 2022) arXiv:2206.10824*

VizieR Online Data Catalog: The Dark Energy Survey (DES): Data Release 2 (Abott+, 2021)
Abbott, T. M. C. et al. VizieR Online Data Catalog*, II/371 (Jan. 2022) pp. II/371*

Finding quadruply imaged quasars with machine learning - I. Methods
Akhazhanov, A. et al. MNRAS *513.2 (June 2022) pp. 2407–2421*

Consistent lensing and clustering in a low-S_8 Universe with BOSS, DES Year 3, HSC Year 1 and KiDS-1000
Amon, A. et al. arXiv e-prints*, arXiv:2202.07440 (Feb. 2022) arXiv:2202.07440*

Dark Energy Survey Year 3 results: Cosmology from cosmic shear and robustness to data calibration
Amon, A. et al. Phys. Rev. D *105.2, 023514 (Jan. 2022) p. 023514*

VizieR Online Data Catalog: TNOs from the full six years of DES (Bernardinelli+, 2022)
Bernardinelli, P. H. et al. VizieR Online Data Catalog*, J/ApJS/258/41 (May 2022) J/ApJS/258/41*

A Search of the Full Six Years of the Dark Energy Survey for Outer Solar System Objects
Bernardinelli, Pedro H. et al. ApJS *258.2, 41 (Feb. 2022) p. 41*

The Pantheon+ Analysis: Cosmological Constraints

Brout, Dillon et al. arXiv e-prints, *arXiv:2202.04077 (Feb. 2022) arXiv:2202.04077*

Dark Energy Survey Year 3 results: galaxy sample for BAO measurement
Carnero Rosell, A. et al. MNRAS *509.1 (Jan. 2022) pp. 778–799*

Dark Energy Survey Year 3 results: calibration of lens sample redshift distributions using clustering redshifts with BOSS/eBOSS
Cawthon, R. et al. MNRAS *513.4 (July 2022) pp. 5517–5539*

Joint analysis of DES Year 3 data and CMB lensing from SPT and Planck II: Cross-correlation measurements and cosmological constraints
Chang, C. et al. arXiv e-prints, *arXiv:2203.12440 (Mar. 2022) arXiv:2203.12440*

Constraining the Baryonic Feedback with Cosmic Shear Using the DES Year-3 Small-Scale Measurements
Chen, A. et al. arXiv e-prints, *arXiv:2206.08591 (June 2022) arXiv:2206.08591*

Measuring Cosmological Parameters with Type Ia Supernovae in redMaGiC galaxies
Chen, R. et al. arXiv e-prints, *arXiv:2202.10480 (Feb. 2022) arXiv:2202.10480*

Dark Energy Survey Year 3 results: marginalization over redshift distribution uncertainties using ranking of discrete realizations
Cordero, Juan P. et al. MNRAS *511.2 (Apr. 2022) pp. 2170–2185*

Dark Energy Survey Year 3 results: Cosmology from combined galaxy clustering and lensing validation on cosmological simulations
DeRose, J. et al. Phys. Rev. D *105.12, 123520 (June 2022) p. 123520*

Using Host Galaxy Spectroscopy to Explore Systematics in the Standardisation of Type Ia Supernovae
Dixon, M. et al. arXiv e-prints, *arXiv:2206.12085 (June 2022) arXiv:2206.12085*

Dark Energy Survey Year 3 results: cosmological constraints from the analysis of cosmic shear in harmonic space
Doux, C. et al. arXiv e-prints, *arXiv:2203.07128 (Mar. 2022) arXiv:2203.07128*

The DECam Local Volume Exploration Survey Data Release 2
Drlica-Wagner, A. et al. arXiv e-prints, *arXiv:2203.16565 (Mar. 2022) arXiv:2203.16565*

Dark Energy Survey Year 3 Results: Measuring the Survey Transfer Function with Balrog
Everett, S. et al. ApJS *258.1, 15 (Jan. 2022) p. 15*

Cross-correlation of Dark Energy Survey Year 3 lensing data with ACT and Planck thermal Sunyaev-Zel'dovich effect observations. I. Measurements, systematics tests, and feedback model constraints
Gatti, M. et al. Phys. Rev. D *105.12, 123525 (June 2022) p. 123525*

Dark Energy Survey Year 3 Results: clustering redshifts - calibration of the weak lensing source redshift distributions with redMaGiC and BOSS/eBOSS
Gatti, M. et al. MNRAS *510.1 (Feb. 2022) pp. 1223–1247*

The Observed Evolution of the Stellar Mass-Halo Mass Relation for Brightest Central Galaxies
Golden-Marx, Jesse B. et al. ApJ *928.1, 28 (Mar. 2022) p. 28*

Multiwavelength optical and NIR variability analysis of the Blazar PKS 0027-426
Guise, E. et al. MNRAS *510.3 (Mar. 2022) pp. 3145–3177*

Dark Energy Survey Year 3 Results: Deep Field optical + near-infrared images and catalogue
Hartley, W. G. et al. MNRAS *509.3 (Jan. 2022) pp. 3547–3579*

Dark Energy Survey Year 3 results: imprints of cosmic voids and superclusters in the Planck CMB lensing map
Kovács, A. et al. arXiv e-prints, *arXiv:2203.11306 (Mar. 2022) arXiv:2203.11306*

The DES view of the Eridanus supervoid and the CMB cold spot
Kovács, A. et al. MNRAS *510.1 (Feb. 2022) pp. 216–229*

Galaxy-galaxy lensing with the DES-CMASS catalogue: measurement and constraints on the galaxy-matter cross-correlation
Lee, S. et al. MNRAS *509.2 (Jan. 2022) pp. 2033–2047*

Probing gravity with the DES-CMASS sample and BOSS spectroscopy
Lee, S. et al. MNRAS *509.4 (Feb. 2022) pp. 4982–4996*

Robust sampling for weak lensing and clustering analyses with the Dark Energy Survey
Lemos, P. et al. arXiv e-prints, *arXiv:2202.08233 (Feb. 2022) arXiv:2202.08233*

Early short course of neuromuscular blocking agents in patients with COVID-19 ARDS: a propensity score analysis
Li Bassi, Gianluigi et al. Critical Care *26.1 (2022) pp. 1–17. BioMed Central*

Dark Energy Survey Y3 results: blending shear and redshift biases in image simulations
MacCrann, N. et al. MNRAS *509.3 (Jan. 2022) pp. 3371–3394*

Milky Way Satellite Census. IV. Constraints on Decaying Dark Matter from Observations of Milky Way Satellite Galaxies
Mau, S. et al. ApJ *932.2, 128 (June 2022) p. 128*

The Dark Energy Survey Supernova Program results: Type Ia Supernova brightness correlates with host galaxy dust
Meldorf, Cole et al. arXiv e-prints, *arXiv:2206.06928 (June 2022) arXiv:2206.06928*

The Dark Energy Survey 5-year photometrically identified Type Ia Supernovae
Möller, A. et al. MNRAS *(June 2022)*

DeepZipper II: Searching for Lensed Supernovae in Dark Energy Survey Data with Deep Learning
Morgan, Robert et al. arXiv e-prints, *arXiv:2204.05924 (Apr. 2022) arXiv:2204.05924*

The Dark Energy Survey Bright Arcs Survey: Candidate Strongly Lensed Galaxy Systems from the Dark Energy Survey 5000 Square Degree Footprint
O'Donnell, J. H. et al. ApJS *259.1, 27 (Mar. 2022) p. 27*

VizieR Online Data Catalog: DES Bright Arcs Survey: strong lens systems (O'Donnell+, 2022)
O'Donnell, J. H. et al. VizieR Online Data Catalog, *J/ApJS/259/27 (June 2022) J/ApJS/259/27*

Joint analysis of DES Year 3 data and CMB lensing from SPT and Planck I: Construction of CMB Lensing Maps and Modeling Choices
Omori, Y. et al. arXiv e-prints, *arXiv:2203.12439 (Mar. 2022) arXiv:2203.12439*

Cross-correlation of Dark Energy Survey Year 3 lensing data with ACT and P l a n c k thermal Sunyaev-Zel'dovich effect observations. II. Modeling and constraints on halo pressure profiles
Pandey, S. et al. Phys. Rev. D *105.12, 123526 (June 2022) p. 123526*

OzDES reverberation mapping program: Lag recovery reliability for 6-yr C IV analysis
Penton, A. et al. MNRAS *509.3 (Jan. 2022) pp. 4008–4023*

Dark energy survey year 3 results: High-precision measurement and modeling of galaxy-galaxy lensing

Prat, J. et al. Phys. Rev. D *105.8, 083528 (Apr. 2022) p. 083528*

Evolutionary genomic relationships and coupling in MK-STYX and STYX pseudophosphatases
Qi, Yi et al. Scientific Reports *12, 4139 (Mar. 2022) p. 4139*

Dark Energy Survey Year 3 results: galaxy clustering and systematics treatment for lens galaxy samples
Rodŕiguez-Monroy, M. et al. MNRAS *511.2 (Apr. 2022) pp. 2665–2687*

Dark Energy Survey Year 3 results: Exploiting small-scale information with lensing shear ratios
Sánchez, C. et al. Phys. Rev. D *105.8, 083529 (Apr. 2022) p. 083529*

STRIDES: Automated uniform models for 30 quadruply imaged quasars
Schmidt, T. et al. arXiv e-prints, *arXiv:2206.04696 (June 2022) arXiv:2206.04696*

Dark Energy Survey Year 3 results: Cosmology from cosmic shear and robustness to modeling uncertainty
Secco, L. F. et al. Phys. Rev. D *105.2, 023515 (Jan. 2022) p. 023515*

Dark Energy Survey Year 3 Results: Three-point shear correlations and mass aperture moments
Secco, L. F. et al. Phys. Rev. D *105.10, 103537 (May 2022) p. 103537*

The Evolution of AGN Activity in Brightest Cluster Galaxies
Somboonpanyakul, T. et al. AJ *163.4, 146 (Apr. 2022) p. 146*

Optical variability of quasars with 20-yr photometric light curves
Stone, Zachary et al. MNRAS *514.1 (July 2022) pp. 164–184*

From the Fire: A Deeper Look at the Phoenix Stream
Tavangar, K. et al. ApJ *925.2, 118 (Feb. 2022) p. 118*

SOAR/Goodman Spectroscopic Assessment of Candidate Counterparts of the LIGO/Virgo Event GW190814
Tucker, D. L. et al. ApJ *929.2, 115 (Apr. 2022) p. 115*

Synthetic galaxy clusters and observations based on Dark Energy Survey Year 3 Data
Varga, T. N. et al. MNRAS *509.4 (Feb. 2022) pp. 4865–4885*

The Dark Energy Survey Supernova Program: Cosmological biases from supernova photometric classification
Vincenzi, M. et al. MNRAS *(June 2022)*

Velocity dispersions of clusters in the Dark Energy Survey Y3 redMaPPer catalog
Wetzell, V. et al. MNRAS *(June 2022)*

Dark Energy Survey Year 3 results: galaxy-halo connection from galaxy-galaxy lensing
Zacharegkas, G. et al. MNRAS *509.3 (Jan. 2022) pp. 3119–3147*

Dark energy survey year 3 results: Cosmology with peaks using an emulator approach
Zürcher, D. et al. MNRAS *511.2 (Apr. 2022) pp. 2075–2104*

The Dark Energy Survey Data Release 2
Abbott, T. M. C. et al. ApJS *255.2, 20 (Aug. 2021) p. 20*

Probing Galaxy Evolution in Massive Clusters Using ACT and DES: Splashback as a Cosmic Clock
Adhikari, Susmita et al. ApJ *923.1, 37 (Dec. 2021) p. 37*

The WaZP galaxy cluster sample of the dark energy survey year 1
Aguena, M. et al. MNRAS *502.3 (Apr. 2021) pp. 4435–4456*

Galaxy clustering in harmonic space from the dark energy survey year 1 data: compatibility with real-space results

Andrade-Oliveira, F. et al. MNRAS *505.4 (Aug. 2021) pp. 5714–5724*

SN2017jgh: a high-cadence complete shock cooling light curve of a SN IIb with the Kepler telescope
Armstrong, P. et al. MNRAS *507.3 (Nov. 2021) pp. 3125–3138*

Risk Factors for 28-Day in-Hospital Mortality in Mechanically Ventilated Patients with COVID-19: An International Cohort Study
Bassi, Gianluigi Li et al. *(2021)*

C/2014 UN_{271} (Bernardinelli-Bernstein): The Nearly Spherical Cow of Comets
Bernardinelli, Pedro H. et al. ApJ *921.2, L37 (Nov. 2021) p. L37*

Variability-Selected Dwarf AGNs in the Dark Energy Survey Deep Fields
Burke, Colin J. et al. arXiv e-prints*, arXiv:2111.03079 (Nov. 2021) arXiv:2111.03079*

Cosmic Shear in Harmonic Space from the Dark Energy Survey Year 1 Data: Compatibility with Configuration Space Results
Camacho, H. et al. arXiv e-prints*, arXiv:2111.07203 (Nov. 2021) arXiv:2111.07203*

A Deeper Look at DES Dwarf Galaxy Candidates: Grus I and Indus II
Cantu, Sarah A. et al. ApJ *916.2, 81 (Aug. 2021) p. 81*

Constraints on dark matter to dark radiation conversion in the late universe with DES-Y1 and external data
Chen, A. et al. Phys. Rev. D *103.12, 123528 (June 2021) p. 123528*

Galaxy morphological classification catalogue of the Dark Energy Survey Year 3 data with convolutional neural networks
Cheng, Ting-Yun et al. MNRAS *507.3 (Nov. 2021) pp. 4425–4444*

Cosmological constraints from DES Y1 cluster abundances and SPT multiwavelength data
Costanzi, M. et al. Phys. Rev. D *103.4, 043522 (Feb. 2021) p. 043522*

COVID-19 symptoms at hospital admission vary with age and sex: results from the ISARIC prospective multinational observational study
Infection *49.5 (2021) pp. 889–905. Springer Berlin Heidelberg Berlin/Heidelberg*

Consistency of cosmic shear analyses in harmonic and real space
Doux, C. et al. MNRAS *503.3 (May 2021) pp. 3796–3817*

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