

# Will Handley

## List of Publications by Year in descending order

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Version: 2024-02-01

67  
papers

3,140  
citations

236912

25  
h-index

155644

55  
g-index

67  
all docs

67  
docs citations

67  
times ranked

2431  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nested Sampling for Frequentist Computation: Fast Estimation of Small $p$ -Values. Physical Review Letters, 2022, 128, 021801.	7.8	4
2	Improved cosmological fits with quantized primordial power spectra. Physical Review D, 2022, 105, .	4.7	2
3	Perturbations and the future conformal boundary. Physical Review D, 2022, 105, .	4.7	2
4	Cosmology intertwined: A review of the particle physics, astrophysics, and cosmology associated with the cosmological tensions and anomalies. Journal of High Energy Astrophysics, 2022, 34, 49-211.	6.7	350
5	A comprehensive Bayesian reanalysis of the SARAS2 data from the epoch of reionization. Monthly Notices of the Royal Astronomical Society, 2022, 513, 4507-4526.	4.4	10
6	Simple and statistically sound recommendations for analysing physical theories. Reports on Progress in Physics, 2022, 85, 052201.	20.1	9
7	Nested sampling for physical scientists. Nature Reviews Methods Primers, 2022, 2, .	21.2	40
8	Rescuing palindromic universes with improved recombination modeling. Physical Review D, 2022, 105, .	4.7	0
9	Primordial power spectra from $k$ -inflation with curvature. Physical Review D, 2022, 105, .	4.7	4
10	Analytical approximations for curved primordial power spectra. Physical Review D, 2021, 103, .	4.7	11
11	$\text{maxsmooth}$ : rapid maximally smooth function fitting with applications in Global 21-cm cosmology. Monthly Notices of the Royal Astronomical Society, 2021, 502, 4405-4425.	4.4	30
12	Curvature tension: Evidence for a closed universe. Physical Review D, 2021, 103, .	4.7	166
13	Quantifying ionospheric effects on global 21-cm observations. Monthly Notices of the Royal Astronomical Society, 2021, 503, 344-353.	4.4	22
14	CosmoBit: a GAMBIT module for computing cosmological observables and likelihoods. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 022-022.	5.4	15
15	The HARPS search for southern extra-solar planets â€œ XLV. Two Neptune mass planets orbiting HDâ€™13808: a study of stellar activity modellingâ€™s impact on planet detection. Monthly Notices of the Royal Astronomical Society, 2021, 503, 1248-1263.	4.4	13
16	Nested sampling with plateaus. Monthly Notices of the Royal Astronomical Society, 2021, 503, 1199-1205.	4.4	6
17	Quantifying the global parameter tensions between ACT, SPT, and <i>Planck</i> . Physical Review D, 2021, 103, .	4.7	38
18	Bayesian noise wave calibration for 21-cm global experiments. Monthly Notices of the Royal Astronomical Society, 2021, 505, 2638-2646.	4.4	9

#	ARTICLE	IF	CITATIONS
19	Convergent Bayesian global fits of 4D composite Higgs models. Journal of High Energy Physics, 2021, 2021, 1.	4.7	2
20	Rapid numerical solutions for the Mukhanov-Sasaki equation. Physical Review D, 2021, 103, . Bayesian evidence for the tensor-to-scalar ratio	4.7	3
21	and neutrino masses Effects of uniform versus logarithmic priors. Physical Review D, 2021, 103, .	4.7	21
22	A general Bayesian framework for foreground modelling and chromaticity correction for global 21 cm experiments. Monthly Notices of the Royal Astronomical Society, 2021, 506, 2041-2058.	4.4	32
23	Strengthening the bound on the mass of the lightest neutrino with terrestrial and cosmological experiments. Physical Review D, 2021, 103, .	4.7	21
24	Nested sampling with any prior you like. Monthly Notices of the Royal Astronomical Society: Letters, 2021, 505, L95-L99.	3.3	15
25	Snowmass2021 - Letter of interest cosmology intertwined I: Perspectives for the next decade. Astroparticle Physics, 2021, 131, 102606.	4.3	37
26	emulating the sky-averaged 21-cm signal from the cosmic dawn and epoch of reionization. Monthly Notices of the Royal Astronomical Society, 2021, 508, 2923-2936.	4.4	22
27	Constraining quantum initial conditions before inflation. Physical Review D, 2021, 104, .	4.7	7
28	Snowmass2021 - Letter of interest cosmology intertwined II: The hubble constant tension. Astroparticle Physics, 2021, 131, 102605.	4.3	228
29	Snowmass2021 - Letter of interest cosmology intertwined IV: The age of the universe and its curvature. Astroparticle Physics, 2021, 131, 102607.	4.3	39
30	Cosmology intertwined III: and Astroparticle Physics, 2021, 131, 102604.	4.3	182
31	Radiometer Design for the REACH 21cm Global Experiment. , 2021, , .		0
32	Nonlinear Hamiltonian analysis of new quadratic torsion theories: Cases with curvature-free constraints. Physical Review D, 2021, 104, .	4.7	6
33	Informing antenna design for sky-averaged 21-cm experiments using a simulated Bayesian data analysis pipeline. Monthly Notices of the Royal Astronomical Society, 2021, 509, 4679-4693.	4.4	15
34	Thermal WIMPs and the scale of new physics: global fits of Dirac dark matter effective field theories. European Physical Journal C, 2021, 81, 1.	3.9	17
35	Mapping Poincaré gauge cosmology to Horndeski theory for emergent dark energy. Physical Review D, 2020, 102, .	4.7	7
36	Systematic study of background cosmology in unitary Poincaré gauge theories with application to emergent dark radiation and tension. Physical Review D, 2020, 102, .	4.7	29

#	ARTICLE	IF	CITATIONS
37	Quantifying Suspiciousness within correlated data sets. Monthly Notices of the Royal Astronomical Society, 2020, 496, 4647-4653.	4.4	25
38	Nested sampling cross-checks using order statistics. Monthly Notices of the Royal Astronomical Society, 2020, 497, 5256-5263.	4.4	15
39	Quantum initial conditions for inflation and canonical invariance. Physical Review D, 2020, 102, .	4.7	5
40	Beyond the Runge-Kutta-Wentzel-Kramers-Brillouin method. Physical Review D, 2020, 101, .	4.7	3
41	Efficient method for solving highly oscillatory ordinary differential equations with applications to physical systems. Physical Review Research, 2020, 2, .	3.6	20
42	Case for kinetically dominated initial conditions for inflation. Physical Review D, 2019, 100, .	4.7	17
43	Quantifying tensions in cosmological parameters: Interpreting the DES evidence ratio. Physical Review D, 2019, 100, .	4.7	68
44	Quantifying dimensionality: Bayesian cosmological model complexities. Physical Review D, 2019, 100, .	4.7	41
45	Constraining the kinetically dominated universe. Physical Review D, 2019, 100, .	4.7	24
46	Loglinear series expansions with applications to primordial cosmology. Physical Review D, 2019, 99, .	4.7	7
47	The HANDE-QMC Project: Open-Source Stochastic Quantum Chemistry from the Ground State Up. Journal of Chemical Theory and Computation, 2019, 15, 1728-1742.	5.3	33
48	Static energetics in gravity. Journal of Mathematical Physics, 2019, 60, 052504.	1.1	2
49	Maximum-Entropy Priors with Derived Parameters in a Specified Distribution. Entropy, 2019, 21, 272.	2.2	11
50	<scp>nestcheck</scp>: diagnostic tests for nested sampling calculations. Monthly Notices of the Royal Astronomical Society, 2019, 483, 2044-2056.	4.4	29
51	Primordial power spectra for curved inflating universes. Physical Review D, 2019, 100, .	4.7	41
52	Bayesian inflationary reconstructions from <i>Planck</i> 2018 data. Physical Review D, 2019, 100, .	4.7	20
53	Dynamic nested sampling: an improved algorithm for parameter estimation and evidence calculation. Statistics and Computing, 2019, 29, 891-913.	1.5	159
54	anesthetic: nested sampling visualisation. Journal of Open Source Software, 2019, 4, 1414.	4.6	51

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55	On the Feasibility of Intense Radial Velocity Surveys for Earth-Twin Discoveries. Monthly Notices of the Royal Astronomical Society, 2018, 479, 2968-2987.	4.4	32
56	Towards a framework for testing general relativity with extreme-mass-ratio-inspiral observations. Monthly Notices of the Royal Astronomical Society, 2018, 478, 28-40.	4.4	16
57	Bayesian sparse reconstruction: a brute-force approach to astronomical imaging and machine learning. Monthly Notices of the Royal Astronomical Society, 2018, , .	4.4	7
58	Sampling Errors in Nested Sampling Parameter Estimation. Bayesian Analysis, 2018, 13, .	3.0	25
59	fgivenx: A Python package for functional posterior plotting. Journal of Open Source Software, 2018, 3, 849.	4.6	37
60	Constraining the dark energy equation of state using Bayes theorem and the Kullback-Leibler divergence. Monthly Notices of the Royal Astronomical Society, 2017, 466, 369-377.	4.4	32
61	Dynamical dark energy in light of the latest observations. Nature Astronomy, 2017, 1, 627-632.	10.1	332
62	Novel quantum initial conditions for inflation. Physical Review D, 2016, 94, .	4.7	22
63	AMI observations of 10 CLASH galaxy clusters: SZ and X-ray data used together to determine cluster dynamical states. Monthly Notices of the Royal Astronomical Society, 2016, 460, 569-589.	4.4	13
64	Bayesian model selection without evidences: application to the dark energy equation-of-state. Monthly Notices of the Royal Astronomical Society, 2016, 455, 2461-2473.	4.4	43
65	polychord: next-generation nested sampling. Monthly Notices of the Royal Astronomical Society, 2015, 453, 4385-4399.	4.4	285
66	<scp>polychord</scp>: nested sampling for cosmology. Monthly Notices of the Royal Astronomical Society: Letters, 2015, 450, L61-L65.	3.3	265
67	Kinetic initial conditions for inflation. Physical Review D, 2014, 89, .	4.7	46