

Richard A Battye

List of Publications by Year in descending order

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129
papers

6,675
citations

66315

42
h-index

64755

79
g-index

130
all docs

130
docs citations

130
times ranked

4019
citing authors

#	ARTICLE	IF	CITATIONS
1	A detailed study of the stability of vortons. <i>Journal of High Energy Physics</i> , 2022, 2022, 1.	1.6	5
2	Cosmology intertwined: A review of the particle physics, astrophysics, and cosmology associated with the cosmological tensions and anomalies. <i>Journal of High Energy Astrophysics</i> , 2022, 34, 49-211.	2.4	350
3	Comparison of different approaches to the quasi-static approximation in Horndeski models. <i>Journal of Cosmology and Astroparticle Physics</i> , 2021, 2021, 017.	1.9	14
4	Cosmological gravity on all scales. Part II. Model independent modified gravity N-body simulations. <i>Journal of Cosmology and Astroparticle Physics</i> , 2021, 2021, 016.	1.9	10
5	Blind map level systematics cleaning: a quadratic estimator approach. <i>Journal of Cosmology and Astroparticle Physics</i> , 2021, 2021, 016.	1.9	1
6	Spectral distortion constraints on photon injection from low-mass decaying particles. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 507, 3148-3178.	1.6	38
7	Understanding matched filters for precision cosmology. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 507, 4852-4863.	1.6	6
8	Simulations of domain walls in Two Higgs Doublet Models. <i>Journal of High Energy Physics</i> , 2021, 2021, 1.	1.6	2
9	Baryon Acoustic Oscillations from Integrated Neutral Gas Observations: an instrument to observe the 21cm hydrogen line in the redshift range $0.13 < z < 0.45$ status update. <i>Anais Da Academia Brasileira De Ciencias</i> , 2021, 93, e20201096.	0.3	0
10	Photon interactions with superconducting topological defects. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2021, 823, 136730.	1.5	4
11	SuperCLASS II. Photometric redshifts and characteristics of spatially resolved $\hat{1}/4Jy$ radio sources. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 495, 1724-1736.	1.6	2
12	SuperCLASS III. Weak lensing from radio and optical observations in Data Release 1. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 495, 1737-1759.	1.6	8
13	SuperCLASS I. The super cluster assisted shear survey: Project overview and data release 1. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 495, 1706-1723.	1.6	3
14	Cosmology with Phase 1 of the Square Kilometre Array Red Book 2018: Technical specifications and performance forecasts. <i>Publications of the Astronomical Society of Australia</i> , 2020, 37, .	1.3	195
15	Domain wall constraints on two-Higgs-doublet models with $\langle mml:msub \langle mml:mi \rangle Z \langle mml:mi \rangle \langle mml:msub \langle mml:mn \rangle 2 \langle mml:mn \rangle \langle mml:math \rangle$ symmetry. <i>Physical Review D</i> , 2020, 102, .	1.6	12
16	Dark sector evolution in Horndeski models. <i>Journal of Cosmology and Astroparticle Physics</i> , 2019, 2019, 018-018.	1.9	12
17	The Simons Observatory: science goals and forecasts. <i>Journal of Cosmology and Astroparticle Physics</i> , 2019, 2019, 056-056.	1.9	741
18	Cosmologically viable generalized Einstein-aether theories. <i>Physical Review D</i> , 2019, 99, .	1.6	12

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19	Measuring cosmic shear and birefringence using resolved radio sources. Monthly Notices of the Royal Astronomical Society, 2018, 474, 460-477.	1.6	3
20	Gravitational wave constraints on dark sector models. Physical Review D, 2018, 98, .	1.6	43
21	Do cosmological data rule out $f(R)$ with $w \approx -1$?. Physical Review D, 2018, 97, .	1.6	18
22	Optimal scan strategies for future CMB satellite experiments. Monthly Notices of the Royal Astronomical Society, 2017, 466, 425-442.	1.6	17
23	Cosmological perturbation theory in generalized Einstein-Aether models. Physical Review D, 2017, 96, .	1.6	23
24	Planck data versus large scale structure: Methods to quantify discordance. Physical Review D, 2017, 95, .	1.6	40
25	Cosmology and the distant universe. Astronomy and Geophysics, 2016, 57, 3.40-3.42.	0.1	0
26	Approximation of the potential in scalar field dark energy models. Physical Review D, 2016, 94, .	1.6	23
27	$f < \frac{1}{3}$. Physical Review D, 2016, 93, .	1.6	23
28	Tension between the power spectrum of density perturbations measured on large and small scales. Physical Review D, 2015, 91, .	1.6	116
29	A new map-making algorithm for CMB polarization experiments. Monthly Notices of the Royal Astronomical Society, 2015, 453, 2058-2069.	1.6	7
30	Separating weak lensing and intrinsic alignments using radio observations. Monthly Notices of the Royal Astronomical Society, 2015, 451, 383-399.	1.6	13
31	Constraining dark sector perturbations I: cosmic shear and CMB lensing. Journal of Cosmology and Astroparticle Physics, 2015, 2015, 048-048.	1.9	14
32	A demonstration of position angle-only weak lensing shear estimators on the GREAT3 simulations. Monthly Notices of the Royal Astronomical Society, 2015, 454, 2154-2165.	1.6	4
33	Classically isospinning Skyrmion solutions. Physical Review D, 2014, 90, .	1.6	22
34	PRISM (Polarized Radiation Imaging and Spectroscopy Mission): an extended white paper. Journal of Cosmology and Astroparticle Physics, 2014, 2014, 006-006.	1.9	138
35	Impact of baryons on the cluster mass function and cosmological parameter determination. Monthly Notices of the Royal Astronomical Society, 2014, 439, 2485-2493.	1.6	38
36	Removing beam asymmetry bias in precision CMB temperature and polarization experiments. Monthly Notices of the Royal Astronomical Society, 2014, 442, 1963-1979.	1.6	10

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37	The Dark Universe – A mystery of 21 st century physics. <i>Annalen Der Physik</i> , 2014, 526, A61.	0.9	0
38	Evidence for Massive Neutrinos from Cosmic Microwave Background and Lensing Observations. <i>Physical Review Letters</i> , 2014, 112, 051303.	2.9	208
39	Weak lensing using only galaxy position angles. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 445, 1836-1857.	1.6	9
40	Testing cosmic microwave background polarization data using position angles. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 444, 162-171.	1.6	1
41	Computing model independent perturbations in dark energy and modified gravity. <i>Journal of Cosmology and Astroparticle Physics</i> , 2014, 2014, 051-051.	1.9	25
42	Isospinning baby Skyrmion solutions. <i>Physical Review D</i> , 2013, 88, .	1.6	22
43	Massive gravity, the elasticity of space-time, and perturbations in the dark sector. <i>Physical Review D</i> , 2013, 88, .	1.6	18
44	Parametrizing dark sector perturbations via equations of state. <i>Physical Review D</i> , 2013, 88, .	1.6	31
45	Classically isospinning Hopf solitons. <i>Physical Review D</i> , 2013, 87, .	1.6	12
46	PROJECTED CONSTRAINTS ON THE COSMIC (SUPER)STRING TENSION WITH FUTURE GRAVITATIONAL WAVE DETECTION EXPERIMENTS. <i>Astrophysical Journal</i> , 2013, 764, 108.	1.6	35
47	Effective action approach to cosmological perturbations in dark energy and modified gravity. <i>Journal of Cosmology and Astroparticle Physics</i> , 2012, 2012, 019-019.	1.9	82
48	Classically spinning and isospinning solitons. , 2012, , .		0
49	Constraints on cosmic string tension imposed by the limit on the stochastic gravitational wave background from the European Pulsar Timing Array. <i>Physical Review D</i> , 2012, 85, .	1.6	128
50	Modelling neutral hydrogen in galaxies using cosmological hydrodynamical simulations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, , no-no.	1.6	18
51	Sunyaev-Zeldovich clusters in Millennium gas simulations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 422, 1999-2023.	1.6	70
52	Tilted physics: A cosmologically dipole-modulated sky. <i>Physical Review D</i> , 2011, 84, .	1.6	28
53	X-type and Y-type junction stability in domain wall networks. <i>Physical Review D</i> , 2011, 84, .	1.6	5
54	Classically Spinning Skyrmions. , 2011, , .		0

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55	MAPPING THE DARK MATTER WITH POLARIZED RADIO SURVEYS. <i>Astrophysical Journal Letters</i> , 2011, 735, L23.	3.0	11
56	Sunyaev-Zel'dovich observations of a statistically complete sample of galaxy clusters with OCRA-p. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 418, 1441-1451.	1.6	12
57	Vacuum topology of the two Higgs doublet model. <i>Journal of High Energy Physics</i> , 2011, 2011, 1.	1.6	75
58	Polarization as an indicator of intrinsic alignment in radio weak lensing. <i>Monthly Notices of the Royal Astronomical Society</i> , 2010, , no-no.	1.6	19
59	Impact of baryon physics on dark matter structures: a detailed simulation study of halo density profiles. <i>Monthly Notices of the Royal Astronomical Society</i> , 2010, , no-no.	1.6	135
60	Curing singularities in cosmological evolution of $F(R)$ gravity. <i>Journal of Cosmology and Astroparticle Physics</i> , 2010, 2010, 005-005.	1.9	195
61	Updated constraints on the cosmic string tension. <i>Physical Review D</i> , 2010, 82, .	1.6	93
62	Constraints on the anisotropy of dark energy. <i>Physical Review D</i> , 2010, 81, .	1.6	30
63	Tight constraints on F - and D -term hybrid inflation scenarios. <i>Physical Review D</i> , 2010, 81, .	1.6	36
64	Charge, junctions, and the scaling of domain wall networks. <i>Physical Review D</i> , 2010, 82, .	1.6	11
65	Formation and evolution of kinky vortons. <i>Journal of Cosmology and Astroparticle Physics</i> , 2009, 2009, 039-039.	1.9	11
66	Statistics of the Sunyaev-Zel'dovich effect power spectrum. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 397, 2189-2207.	1.6	6
67	Vorton construction and dynamics. <i>Nuclear Physics B</i> , 2009, 814, 180-194.	0.9	16
68	Anisotropic dark energy and CMB anomalies. <i>Physical Review D</i> , 2009, 80, .	1.6	42
69	Stability and the equation of state for kinky vortons. <i>Physical Review D</i> , 2009, 80, .	1.6	7
70	Observations of the Corona Borealis supercluster with the superextended Very Small Array: further constraints on the nature of the non-Gaussian cosmic microwave background cold spot. <i>Monthly Notices of the Royal Astronomical Society</i> , 2008, 391, 1127-1136.	1.6	11
71	Kinky vortons. <i>Nuclear Physics B</i> , 2008, 805, 287-304.	0.9	11
72	Constraints on brane inflation and cosmic strings. <i>Journal of Cosmology and Astroparticle Physics</i> , 2008, 2008, 020.	1.9	19

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73	Aspects of cosmological expansion in $F(R)$ gravity models. <i>Journal of Cosmology and Astroparticle Physics</i> , 2008, 2008, 019.	1.9	96
74	Textures and semi-local strings in supersymmetric hybrid inflation. <i>Journal of Cosmology and Astroparticle Physics</i> , 2008, 2008, 020.	1.9	6
75	Regularized braneworlds of arbitrary codimension. <i>Physical Review D</i> , 2007, 76, .	1.6	11
76	Cosmological perturbations in elastic dark energy models. <i>Physical Review D</i> , 2007, 76, .	1.6	37
77	Skyrmions and the $\hat{I}\pm$ -particle model of nuclei. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2007, 463, 261-279.	1.0	72
78	Do consistent models mimic general relativity plus \hat{I} ?. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2007, 654, 7-12.	1.5	445
79	Anisotropic perturbations due to dark energy. <i>Physical Review D</i> , 2006, 74, .	1.6	51
80	Scaling dynamics of domain walls in the cubic anisotropy model. <i>Physical Review D</i> , 2006, 74, .	1.6	20
81	Non-Gaussianity in the Very Small Array cosmic microwave background maps with smooth goodness-of-fit tests. <i>Monthly Notices of the Royal Astronomical Society</i> , 2006, 369, 909-920.	1.6	13
82	The cosmic microwave background and the ionization history of the Universe. <i>Monthly Notices of the Royal Astronomical Society</i> , 2006, 373, 561-570.	1.6	60
83	Constraints on supersymmetric hybrid inflation models. <i>Journal of Cosmology and Astroparticle Physics</i> , 2006, 2006, 007-007.	1.9	100
84	Elastic properties of anisotropic domain wall lattices. <i>Physical Review D</i> , 2006, 73, .	1.6	17
85	Skyrmions with massive pions. <i>Physical Review C</i> , 2006, 73, .	1.1	63
86	Spinning skyrmions and the Skyrme parameters. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2005, 626, 120-126.	1.5	60
87	Source subtraction for the extended Very Small Array and 33-GHz source count estimates. <i>Monthly Notices of the Royal Astronomical Society</i> , 2005, 360, 340-353.	1.6	36
88	Optimizing the yield of Sunyaev-Zel'dovich cluster surveys. <i>Monthly Notices of the Royal Astronomical Society</i> , 2005, 362, 171-183.	1.6	6
89	Cosmic microwave background observations from the Cosmic Background Imager and Very Small Array: a comparison of coincident maps and parameter estimation methods. <i>Monthly Notices of the Royal Astronomical Society</i> , 2005, 363, 1125-1135.	1.6	7
90	Constraints on the solid dark universe model. <i>Journal of Cosmology and Astroparticle Physics</i> , 2005, 2005, 001-001.	1.9	17

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91	Linearized self-forces for branes. <i>Physical Review D</i> , 2005, 71, .	1.6	8
92	Skyrmions and the pion mass. <i>Nuclear Physics B</i> , 2005, 705, 384-400.	0.9	70
93	Cosmological tensor perturbations in the Randall-Sundrum model: Evolution in the near-brane limit. <i>Physical Review D</i> , 2004, 69, .	1.6	20
94	Regularization of the Linearized Gravitational Self-Force for Branes. <i>Physical Review Letters</i> , 2004, 92, 201305.	2.9	9
95	Multiple-scales analysis of cosmological perturbations in brane-worlds. <i>Physical Review D</i> , 2004, 70, .	1.6	10
96	Searching for non-Gaussianity in the Very Small Array data. <i>Monthly Notices of the Royal Astronomical Society</i> , 2004, 349, 973-982.	1.6	13
97	Estimating the bispectrum of the Very Small Array data. <i>Monthly Notices of the Royal Astronomical Society</i> , 2004, 352, 887-902.	1.6	16
98	Cosmological parameter estimation using Very Small Array data out to $\hat{\alpha} = 1500$. <i>Monthly Notices of the Royal Astronomical Society</i> , 2004, 353, 747-759.	1.6	82
99	High-sensitivity measurements of the cosmic microwave background power spectrum with the extended Very Small Array. <i>Monthly Notices of the Royal Astronomical Society</i> , 2004, 353, 732-746.	1.6	183
100	Neutral hydrogen surveys for high-redshift galaxy clusters and protoclusters. <i>Monthly Notices of the Royal Astronomical Society</i> , 2004, 355, 1339-1347.	1.6	106
101	Cosmological tensor perturbations in brane world models. <i>Astrophysics and Space Science</i> , 2003, 283, 633-638.	0.5	6
102	Gradient Formula for Linearly Self-Interacting Branes. <i>Communications in Mathematical Physics</i> , 2003, 235, 289-311.	1.0	22
103	Central configurations in three dimensions. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2003, 459, 911-943.	1.0	20
104	Icosahedral Skyrmions. <i>Journal of Mathematical Physics</i> , 2003, 44, 3543-3554.	0.5	12
105	Constraining cosmological parameters using Sunyaev-Zel'dovich cluster surveys. <i>Physical Review D</i> , 2003, 68, .	1.6	102
106	Polyhedral scattering of fundamental monopoles. <i>Journal of Mathematical Physics</i> , 2003, 44, 3532-3542.	0.5	6
107	Cosmological Tensor Perturbations in Brane World Models. , 2003, , 195-200.		0
108	Constraining Dark Energy with Sunyaev-Zel'dovich Cluster Surveys. <i>Physical Review Letters</i> , 2002, 88, 231301.	2.9	87

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109	GRAVITY AND COSMOLOGY ON A BRANE-WORLD. International Journal of Modern Physics A, 2002, 17, 2651-2654.	0.5	0
110	SKYRMIONS, FULLERENES AND RATIONAL MAPS. Reviews in Mathematical Physics, 2002, 14, 29-85.	0.7	106
111	Stable Skyrmions in Two-Component Bose-Einstein Condensates. Physical Review Letters, 2002, 88, 080401.	2.9	137
112	Generic junction conditions in brane-world scenarios. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2001, 509, 331-336.	1.5	62
113	Cosmological expansion on a dilatonic brane-world. Classical and Quantum Gravity, 2001, 18, 2171-2194.	1.5	70
114	Simulated gravity without true gravity in asymmetric brane-world scenarios. Classical and Quantum Gravity, 2001, 18, 4871-4895.	1.5	23
115	Solitonic Fullerene Structures in Light Atomic Nuclei. Physical Review Letters, 2001, 86, 3989-3992.	2.9	61
116	Cosmic concordance and the fine structure constant. Physical Review D, 2001, 63, .	1.6	79
117	Einstein equations for an asymmetric brane-world. Physical Review D, 2001, 64, .	1.6	43
118	Second-order Lagrangian and symplectic current for gravitationally perturbed Dirac-Goto-Nambu strings and branes. Classical and Quantum Gravity, 2000, 17, 3325-3334.	1.5	17
119	Cosmic structure formation in hybrid inflation models. Physical Review D, 2000, 61, .	1.6	46
120	Reionization by active sources and its effects on the cosmic microwave background. Physical Review D, 1999, 60, .	1.6	8
121	Solitons, links and knots. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1999, 455, 4305-4331.	1.0	131
122	A Skyrme lattice with hexagonal symmetry. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1998, 416, 385-391.	1.5	42
123	Non-divergence of gravitational self interactions for Nambu-Goto strings. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1998, 430, 49-53.	1.5	22
124	Knots as Stable Soliton Solutions in a Three-Dimensional Classical Field Theory. Physical Review Letters, 1998, 81, 4798-4801.	2.9	238
125	Structure Formation by Cosmic Strings with a Cosmological Constant. Physical Review Letters, 1998, 80, 4847-4850.	2.9	48
126	Detailed study of defect models for cosmic structure formation. Physical Review D, 1998, 59, .	1.6	69

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127	The Case against Scaling Defect Models of Cosmic Structure Formation. Physical Review Letters, 1997, 79, 4736-4739.	2.9	113
128	Multi-soliton dynamics in the Skyrme model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1997, 391, 150-156.	1.5	40
129	Galaxy redshift surveys selected by neutral hydrogen using the Five-hundred metre Aperture Spherical Telescope. Monthly Notices of the Royal Astronomical Society, 0, 383, 150-160.	1.6	28