David Champion

List of Publications by Year
in descending order

133 papers	9,822 citations	38742 50 h-index	37204 96 g-index
133 all docs	133 docs citations	133 times ranked	5473 citing authors

#	Article	IF	Citations
1	A comparative analysis of pulse time-of-arrival creation methods. Astronomy and Astrophysics, 2022, 658, A181.	5.1	4
2	The International Pulsar Timing Array second data release: Search for an isotropic gravitational wave background. Monthly Notices of the Royal Astronomical Society, 2022, 510, 4873-4887.	4.4	174
3	The High Time Resolution Universe Pulsar Survey â€“ XVII. PSR J1325â˜6253, a low eccentricity double neutron star system from an ultra-stripped supernova. Monthly Notices of the Royal Astronomical Society, 2022, 512, 5782-5792.	4.4	14
4	Two New Black Widow Millisecond Pulsars in M28. Astrophysical Journal, 2022, 927, 126.	4.5	8
5	Discoveries and timing of pulsars in NGC 6440. Monthly Notices of the Royal Astronomical Society, 2022, 513, 1386-1399.	4.4	7
6	Coherent search for binary pulsars across all Five Keplerian parameters in radio observations using the template-bank algorithm. Monthly Notices of the Royal Astronomical Society, 2022, 511, 1265-1284.	4.4	7
7	Four pulsar discoveries in NGC 6624 by TRAPUM using MeerKAT. Monthly Notices of the Royal Astronomical Society, 2022, 513, 2292-2301.	4.4	10
8	Arecibo and FAST timing follow-up of 12 millisecond pulsars discovered in Commensal Radio Astronomy FAST Survey. Monthly Notices of the Royal Astronomical Society, 2022, 518, 1672-1682.	4.4	10
9	Measurements of pulse jitter and single-pulse variability in millisecond pulsars using MeerKAT. Monthly Notices of the Royal Astronomical Society, 2021, 502, 407-422.	4.4	25
10	Common-red-signal analysis with 24-yr high-precision timing of the European Pulsar Timing Array: inferences in the stochastic gravitational-wave background search. Monthly Notices of the Royal Astronomical Society, 2021, 508, 4970-4993.	4.4	184
11	The relativistic binary programme on MeerKAT: science objectives and first results. Monthly Notices of the Royal Astronomical Society, 2021, 504, 2094-2114.	4.4	27
12	Multifrequency observations of SGRâ€‰J1935+2154. Monthly Notices of the Royal Astronomical Society, 2021, 503, 5367-5384.	4.4	22
13	Eight new millisecond pulsars from the first MeerKAT globular cluster census. Monthly Notices of the Royal Astronomical Society, 2021, 504, 1407-1426.	4.4	47
14	Pulsar candidate identification using semi-supervised generative adversarial networks. Monthly Notices of the Royal Astronomical Society, 2021, 505, 1180-1194.	4.4	17
15	A search for pulsar companions around low-mass white dwarfs. Monthly Notices of the Royal Astronomical Society, 2021, 505, 4981-4988.	4.4	2
16	Multi-epoch searches for relativistic binary pulsars and fast transients in the Galactic Centre. Monthly Notices of the Royal Astronomical Society, 2021, 507, 5053-5068.	4.4	11
17	FAST early pulsar discoveries: Effelsberg follow-up. Monthly Notices of the Royal Astronomical Society, 2021, 508, 300-314.	4.4	17
18	Noise analysis in the European Pulsar Timing Array data release 2 and its implications on the gravitational-wave background search. Monthly Notices of the Royal Astronomical Society, 2021, 509, 5538-5558.	4.4	28

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19	No Pulsar Companion Around the Nearest Low Mass White Dwarf. Research Notes of the AAS, 2021, 5, 279.	0.7	0
20	The MeerKAT telescope as a pulsar facility: System verification and early science results from MeerTime. Publications of the Astronomical Society of Australia, 2020, 37, .	3.4	108
21	Constraining the dense matter equation-of-state with radio pulsars. Monthly Notices of the Royal Astronomical Society, 2020, 497, 3118-3130.	4.4	35
22	High-cadence observations and variable spin behaviour of magnetar Swift J1818.0â˜'1607 after its outburst. Monthly Notices of the Royal Astronomical Society, 2020, 498, 6044-6056.	4.4	20
23	Timing stability of three black widow pulsars. Monthly Notices of the Royal Astronomical Society, 2020, 494, 2591-2599.	4.4	7
24	A Fast Radio Burst Discovered in FAST Drift Scan Survey. Astrophysical Journal Letters, 2020, 895, L6.	8.3	31
25	An in-depth investigation of 11 pulsars discovered by FAST. Monthly Notices of the Royal Astronomical Society, 2020, 495, 3515-3530.	4.4	26
26	A pulsar-based time-scale from the International Pulsar Timing Array. Monthly Notices of the Royal Astronomical Society, 2020, 491, 5951-5965.	4.4	51
27	The High Time Resolution Universe Pulsar Survey â€“ XVI. Discovery and timing of 40 pulsars from the southern Galactic plane. Monthly Notices of the Royal Astronomical Society, 2020, 493, 1063-1087.	4.4	20
28	A Shapiro delay detection in the pulsar binary system PSRÂJ1811â€“2405. Monthly Notices of the Royal Astronomical Society, 2020, 493, 1261-1267.	4.4	15
29	A precise mass measurement of PSRâ€‰J2045Â+Â3633. Monthly Notices of the Royal Astronomical Society, 2020, 499, 4082-4096.	4.4	9
30	Revisiting profile instability of PSRÂJ1022+1001. Monthly Notices of the Royal Astronomical Society, 2020, 500, 1178-1187.	4.4	9
31	Precise mass measurements for the double neutron star system J1829+2456. Monthly Notices of the Royal Astronomical Society, 2020, 500, 4620-4627.	4.4	16
32	The International Pulsar Timing Array: second data release. Monthly Notices of the Royal Astronomical Society, 2019, 490, 4666-4687.	4.4	191
33	The dynamics of Galactic centre pulsars: constraining pulsar distances and intrinsic spin-down. Monthly Notices of the Royal Astronomical Society, 2019, 487, 1025-1039.	4.4	7
34	The High Time Resolution Universe survey â€“ XIV. Discovery of 23 pulsars through GPU-accelerated reprocessing. Monthly Notices of the Royal Astronomical Society, 2019, 483, 3673-3685.	4.4	38
35	The High Time Resolution Universe Pulsar Survey â€“ XV. Completion of the intermediate-latitude survey with the discovery and timing of 25 further pulsars. Monthly Notices of the Royal Astronomical Society, 2019, 484, 5791-5801.	4.4	10
36	Tests of gravitational symmetries with pulsar binary J1713+0747. Monthly Notices of the Royal Astronomical Society, 2019, 482, 3249-3260.	4.4	73

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37	The High Time Resolution Universe Pulsar Survey â€“ XIII. PSR J1757â^'1854, the most accelerated binary pulsar. Monthly Notices of the Royal Astronomical Society: Letters, 2018, 475, L57-L61.	3.3	79
38	The Einstein@Home Gamma-ray Pulsar Survey. II. Source Selection, Spectral Analysis, and Multiwavelength Follow-up. Astrophysical Journal, 2018, 854, 99.	4.5	22
39	Improving timing sensitivity in the microhertz frequency regime: limits from PSR J1713+0747 on gravitational waves produced by supermassive black hole binaries. Monthly Notices of the Royal Astronomical Society, 2018, 478, 218-227.	4.4	22
40	Studying the Solar system with the International Pulsar Timing Array. Monthly Notices of the Royal Astronomical Society, 2018, 481, 5501-5516.	4.4	36
41	PSR J1755â^'2550: a young radio pulsar with a massive, compact companion. Monthly Notices of the Royal Astronomical Society, 2018, 476, 4315-4326.	4.4	21
42	cobra: a Bayesian approach to pulsar searching. Monthly Notices of the Royal Astronomical Society, 2018, 473, 5026-5042.	4.4	5
43	PSRâ€‰J2322â^'2650 â€“ a low-luminosity millisecond pulsar with a planetary-mass companion. Monthly Notices of the Royal Astronomical Society, 2018, 475, 469-477.	4.4	25
44	A massive millisecond pulsar in an eccentric binary. Monthly Notices of the Royal Astronomical Society, 2017, 465, 1711-1719.	4.4	41
45	Formation of Double Neutron Star Systems. Astrophysical Journal, 2017, 846, 170.	4.5	435
46	The discovery of two mildly recycled binary pulsars in the Northern High Time Resolution Universe pulsar survey. Monthly Notices of the Royal Astronomical Society, 2017, 470, 4421-4433.	4.4	15
47	Limits on the mass, velocity and orbit of PSR J1933â^'6211. Monthly Notices of the Royal Astronomical Society, 2017, 471, 4579-4586.	4.4	6
48	Detection of the magnetar SGR J1745â^'2900 up to 291â€‰GHz with evidence of polarized millimetre emission. Monthly Notices of the Royal Astronomical Society, 2017, 465, 242-247.	4.4	35
49	An investigation of pulsar searching techniques with the fast folding algorithm. Monthly Notices of the Royal Astronomical Society, 2017, 468, 1994-2010.	4.4	30
50	Single-Source Gravitational Wave Limits From the J1713+0747 24-hr Global Campaign. Journal of Physics: Conference Series, 2016, 716, 012014.	0.4	9
51	21Âyear timing of the black-widow pulsar J2051â^'0827. Monthly Notices of the Royal Astronomical Society, 2016, 462, 1029-1038.	4.4	36
52	High-precision timing of 42 millisecond pulsars with the European Pulsar Timing Array. Monthly Notices of the Royal Astronomical Society, 2016, 458, 3341-3380.	4.4	351
53	The International Pulsar Timing Array: First data release. Monthly Notices of the Royal Astronomical Society, 2016, 458, 1267-1288.	4.4	332
54	A glitch in the millisecond pulsar J0613â^'0200. Monthly Notices of the Royal Astronomical Society, 2016, 461, 2809-2817.	4.4	60

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55	Five new fast radio bursts from the HTRU high-latitude survey at Parkes: first evidence for two-component bursts. Monthly Notices of the Royal Astronomical Society: Letters, 2016, 460, L30-L34.	3.3	222
56	A millisecond pulsar in an extremely wide binary system. Monthly Notices of the Royal Astronomical Society, 2016, 460, 2207-2222.	4.4	41
57	The noise properties of 42 millisecond pulsars from the European Pulsar Timing Array and their impact on gravitational-wave searches. Monthly Notices of the Royal Astronomical Society, 2016, 457, 4421-4440.	4.4	48
58	Prospects for high-precision pulsar timing with the new Effelsberg PSRIX backend. Monthly Notices of the Royal Astronomical Society, 2016, 458, 868-880.	4.4	96
59	European Pulsar Timing Array limits on continuous gravitational waves from individual supermassive black hole binaries. Monthly Notices of the Royal Astronomical Society, 2016, 455, 1665-1679.	4.4	149
60	PSR J1906+0722: AN ELUSIVE GAMMA-RAY PULSAR. Astrophysical Journal Letters, 2015, 809, L2.	8.3	18
61	A survey of FRB fields: limits on repeatability. Monthly Notices of the Royal Astronomical Society, 2015, 454, 457-462.	4.4	71
62	The High Time Resolution Universe Pulsar Survey â€“ XII. Galactic plane acceleration search and the discovery of 60 pulsars. Monthly Notices of the Royal Astronomical Society, 2015, 450, 2922-2947.	4.4	58
63	Simultaneous multifrequency radio observations of the Galactic Centre magnetar SGR J1745â˜2900. Monthly Notices of the Royal Astronomical Society: Letters, 2015, 451, L50-L54.	3.3	46
64	The High Time Resolution Universe survey â€“ XI. Discovery of five recycled pulsars and the optical detectability of survey white dwarf companions. Monthly Notices of the Royal Astronomical Society, 2015, 446, 4019-4028.	4.4	25
65	Limits on Anisotropy in the Nanohertz Stochastic Gravitational Wave Background. Physical Review Letters, 2015, 115, 041101.	7.8	47
66	A Bayesian method for pulsar template generation. Monthly Notices of the Royal Astronomical Society, 2015, 449, 4162-4183.	4.4	9
67	European Pulsar Timing Array limits on an isotropic stochastic gravitational-wave background. Monthly Notices of the Royal Astronomical Society, 2015, 453, 2577-2599.	4.4	380
68	A Cosmic Census of Radio Pulsars with the SKA. , 2015, , .		51
69	Measuring pulse times of arrival from broad-band pulsar observations. Monthly Notices of the Royal Astronomical Society, 2014, 443, 3752-3760.	4.4	56
70	The High Time Resolution Universe pulsar survey - X. Discovery of four millisecond pulsars and updated timing solutions of a further 12. Monthly Notices of the Royal Astronomical Society, 2014, 439, 1865-1883.	4.4	50
71	ARECIBO PULSAR SURVEY USING ALFA. III. PRECURSOR SURVEY AND POPULATION SYNTHESIS. Astrophysical Journal, 2014, 787, 137.	4.5	16
72	PULSE BROADENING MEASUREMENTS FROM THE GALACTIC CENTER PULSAR J1745-2900. Astrophysical Journal Letters, 2014, 780, L3.	8.3	75

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73	AN ABSENCE OF FAST RADIO BURSTS AT INTERMEDIATE GALACTIC LATITUDES. Astrophysical Journal Letters, 2014, 789, L26.	8.3	56
74	A 24 HR GLOBAL CAMPAIGN TO ASSESS PRECISION TIMING OF THE MILLISECOND PULSAR J1713+0747. Astrophysical Journal, 2014, 794, 21.	4.5	37
75	A strong magnetic field around the supermassive black hole at the centre of the Galaxy. Nature, 2013, 501, 391-394.	27.8	340
76	A Population of Fast Radio Bursts at Cosmological Distances. Science, 2013, 341, 53-56.	12.6	803
77	EINSTEIN@HOME DISCOVERY OF FOUR YOUNG GAMMA-RAY PULSARS IN FERMI LAT DATA. Astrophysical Journal Letters, 2013, 779, L11.	8.3	34
78	TIMING AND INTERSTELLAR SCATTERING OF 35 DISTANT PULSARS DISCOVERED IN THE PALFA SURVEY. Astrophysical Journal, 2013, 772, 50.	4.5	28
79	The Parkes Pulsar Timing Array Project. Publications of the Astronomical Society of Australia, 2013, 30, .	3.4	350
80	Measurement and correction of variations in interstellar dispersion in high-precision pulsar timing. Monthly Notices of the Royal Astronomical Society, 2013, 429, 2161-2174.	4.4	174
81	The High Time Resolution Universe survey â€“ IX. Polarimetry of long-period pulsars. Monthly Notices of the Royal Astronomical Society, 2013, 436, 3557-3572.	4.4	16
82	The Northern High Time Resolution Universe pulsar survey â€“ I. Setup and initial discoveries. Monthly Notices of the Royal Astronomical Society, 2013, 435, 2234-2245.	4.4	91
83	The High Time Resolution Universe Pulsar Survey â€“VIII. The Galactic millisecond pulsar population. Monthly Notices of the Royal Astronomical Society, 2013, 434, 1387-1397.	4.4	64
84	Pulsar searches of Fermi unassociated sources with the Effelsberg telescope. Monthly Notices of the Royal Astronomical Society, 2013, 429, 1633-1642.	4.4	46
85	A new limit on local Lorentz invariance violation of gravity from solitary pulsars. Classical and Quantum Gravity, 2013, 30, 165019.	4.0	91
86	THEEINSTEIN@HOMESEARCH FOR RADIO PULSARS AND PSR J2007+2722 DISCOVERY. Astrophysical Journal, 2013, 773, 91.	4.5	53
87	The High Time Resolution Universe Pulsar Survey â€“ VII. Discovery of five millisecond pulsars and the different luminosity properties of binary and isolated recycled pulsars. Monthly Notices of the Royal Astronomical Society, 2013, 433, 259-269.	4.4	24
88	peace: pulsar evaluation algorithm for candidate extraction â€“ a software package for post-analysis processing of pulsar survey candidates. Monthly Notices of the Royal Astronomical Society, 2013, 433, 688-694.	4.4	48
89	The European Pulsar Timing Array and the Large European Array for Pulsars. Classical and Quantum Gravity, 2013, 30, 224009.	4.0	235
90	DISCOVERY OF NINE GAMMA-RAY PULSARS INFERMILARGE AREA TELESCOPE DATA USING A NEW BLIND SEARCH METHOD. Astrophysical Journal, 2012, 744, 105.	4.5	85

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91	SPAN512: A new mid-latitude pulsar survey with the NanÃ§ay Radio Telescope. Proceedings of the International Astronomical Union, 2012, 8, 375-377.	0.0	1
92	Can we see pulsars around Sgr Aâ‹† ? The latest searches with the Effelsberg telescope.. Proceedings of the International Astronomical Union, 2012, 8, 382-384.	0.0	2
93	FOUR HIGHLY DISPERSED MILLISECOND PULSARS DISCOVERED IN THE ARECIBO PALFA GALACTIC PLANE SURVEY. Astrophysical Journal, 2012, 757, 90.	4.5	18
94	Development of a pulsar-based time-scale. Monthly Notices of the Royal Astronomical Society, 2012, 427, 2780-2787.	4.4	163
95	The High Time Resolution Universe Pulsar Survey â€" VI. An artificial neural network and timing of 75 pulsars. Monthly Notices of the Royal Astronomical Society, 2012, 427, 1052-1065.	4.4	69
96	CONSTRAINING RADIO EMISSION FROM MAGNETARS. Astrophysical Journal, 2012, 744, 97.	4.5	18
97	The High Time Resolution Universe Pulsar Survey - V. Single-pulse energetics and modulation properties of 315 pulsars. Monthly Notices of the Royal Astronomical Society, 2012, 423, 1351-1367.	4.4	77
98	Application of the Gaussian mixture model in pulsar astronomy - pulsar classification and candidates ranking for the Fermi 2FGL catalogue. Monthly Notices of the Royal Astronomical Society, 2012, 424, 2832-2840.	4.4	67
99	TWO MILLISECOND PULSARS DISCOVERED BY THE PALFA SURVEY AND A SHAPIRO DELAY MEASUREMENT. Astrophysical Journal, 2012, 757, 89.	4.5	29
100	THE MAGNETOSPHERE OF THE ULTRACOOL DWARF DENIS 1048â€"3956. Astrophysical Journal Letters, 2011, 735, L2.	8.3	24
101	Discovery of 59â€ƒms pulsations from 1RXS J141256.0+792204 (Calvera). Monthly Notices of the Royal Astronomical Society, 2011, 410, 2428-2445.	4.4	23
102	On the nature and evolution of the unique binary pulsar J1903+0327. Monthly Notices of the Royal Astronomical Society, 2011, 412, 2763-2780.	4.4	237
103	On detection of the stochastic gravitational-wave background using the Parkes pulsar timing array. Monthly Notices of the Royal Astronomical Society, 2011, 414, 1777-1787.	4.4	54
104	Polarization observations of 20 millisecond pulsars. Monthly Notices of the Royal Astronomical Society, 2011, 414, 2087-2100.	4.4	69
105	Pulsar timing analysis in the presence of correlated noise. Monthly Notices of the Royal Astronomical Society, 2011, 418, 561-570.	4.4	140
106	Rotation measure variations for 20 millisecond pulsars. Astrophysics and Space Science, 2011, 335, 485-498.	1.4	16
107	Measuring the mass of solar system planets using pulsar timing. , 2011, , .		0
108	Pulsars with the Australian Square Kilometre Array Pathfinder. , 2011, , .		0

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109	New Discoveries from the GBT 350-MHz Drift-Scan Survey. , 2011, , .		3
110	Pulsar Timing with the Parkes Radio Telescope for the Fermi Mission. Publications of the Astronomical Society of Australia, 2010, 27, 64-75.	3.4	64
111	MEASURING THE MASS OF SOLAR SYSTEM PLANETS USING PULSAR TIMING. Astrophysical Journal Letters, 2010, 720, L201-L205.	8.3	112
112	Observations of radio pulses from CU Virginis. Monthly Notices of the Royal Astronomical Society: Letters, 2010, 408, L99-L103.	3.3	20
113	The sensitivity of the Parkes Pulsar Timing Array to individual sources of gravitational waves. Monthly Notices of the Royal Astronomical Society, 2010, 407, 669-680.	4.4	89
114	Pulsar Discovery by Global Volunteer Computing. Science, 2010, 329, 1305-1305.	12.6	57
115	Status update of the Parkes pulsar timing array. Classical and Quantum Gravity, 2010, 27, 084015.	4.0	26
116	A Radio Pulsar/X-ray Binary Link. Science, 2009, 324, 1411-1414.	12.6	463
117	Timing stability of millisecond pulsars and prospects for gravitational-wave detection. Monthly Notices of the Royal Astronomical Society, 2009, 400, 951-968.	4.4	178
118	ARECIBO PULSAR SURVEY USING ALFA: PROBING RADIO PULSAR INTERMITTENCY AND TRANSIENTS. Astrophysical Journal, 2009, 703, 2259-2274.	4.5	103
119	Gravitational-Wave Detection Using Pulsars: Status of the Parkes Pulsar Timing Array Project. Publications of the Astronomical Society of Australia, 2009, 26, 103-109.	3.4	79
120	The PULSE@Parkes Project: a New Observing Technique for Long-Term Pulsar Monitoring. Publications of the Astronomical Society of Australia, 2009, 26, 468-475.	3.4	21
121	An Eccentric Binary Millisecond Pulsar in the Galactic Plane. Science, 2008, 320, 1309-1312.	12.6	152
122	The Discovery of an Eccentric Millisecond Pulsar in the Galactic Plane. AIP Conference Proceedings, 2008, , .	0.4	1
123	PSR J1856+0245: Arecibo Discovery of a Young, Energetic Pulsar Coincident with the TeV Î³-Ray Source HESS J1857+026. Astrophysical Journal, 2008, 682, L41-L44.	4.5	27
124	The GBT350 Survey of the Northern Galactic Plane for Radio Pulsars and Transients. AIP Conference Proceedings, 2008, , .	0.4	16
125	PSR J1453+1902 and the radio luminosities of solitary versus binary millisecond pulsars. Monthly Notices of the Royal Astronomical Society, 2007, 379, 282-288.	4.4	14
126	Arecibo and the ALFA Pulsar Survey. Research in Astronomy and Astrophysics, 2006, 6, 311-318.	1.1	2

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127	Arecibo Pulsar Survey Using ALFA. I. Survey Strategy and First Discoveries. Astrophysical Journal, 2006, 637, 446-455.	4.5	205
128	Arecibo Pulsar Survey Using ALFA. II. The Young, Highly Relativistic Binary Pulsar J1906+0746. Astrophysical Journal, 2006, 640, 428-434.	4.5	103
129	Arecibo timing and single-pulse observations of 17 pulsars. Monthly Notices of the Royal Astronomical Society, 2005, 363, 929-936.	4.4	84
130	A survey for pulsars in EGRET error boxes. Monthly Notices of the Royal Astronomical Society, 2005, 364, 1011-1014.	4.4	12
131	PSR J1829+2456: a relativistic binary pulsar. Monthly Notices of the Royal Astronomical Society, 2004, 350, L61-L65.	4.4	72
132	a-CLIMAX: a new INS analysis tool. Applied Physics A: Materials Science and Processing, 2002, 74, s1302-s1304.	2.3	21
133	A fast radio burst with a low dispersion measure. Monthly Notices of the Royal Astronomical Society, 0, , .	4.4	18