Melvyn B Davies

List of Publications by Year
in descending order

112	6,842	71102	64796
papers	citations	41 h-index	79 g-index

112	112	112	5613
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The PLATO 2.0 mission. Experimental Astronomy, 2014, 38, 249-330.	3.7	912
2	Ultraluminous X-Ray Sources in External Galaxies. Astrophysical Journal, 2001, 552, L109-L112.	4.5	574
3	An origin for short Î³-ray bursts unassociated with current star formation. Nature, 2005, 438, 994-996.	27.8	287
4	High-resolution calculations of merging neutron stars - III. Gamma-ray bursts. Monthly Notices of the Royal Astronomical Society, 2003, 345, 1077-1090.	4.4	241
5	Mass segregation in young stellar clusters. Monthly Notices of the Royal Astronomical Society, 1998, 295, 691-698.	4.4	231
6	How to form planetesimals from mm-sized chondrules and chondrule aggregates. Astronomy and Astrophysics, 2015, 579, A43.	5.1	210
7	The effects of fly-bys on planetary systems. Monthly Notices of the Royal Astronomical Society, 2011, 411, 859-877.	4.4	178
8	Investigating stellar-mass black hole kicks. Monthly Notices of the Royal Astronomical Society, 2012, 425, 2799-2809.	4.4	165
9	Black holes and core expansion in massive star clusters. Monthly Notices of the Royal Astronomical Society, 2008, 386, 65-95.	4.4	164
10	The CHEOPS mission. Experimental Astronomy, 2021, 51, 109-151.	3.7	140
11	Planetesimal Formation by the Streaming Instability in a Photoevaporating Disk. Astrophysical Journal, 2017, 839, 16.	4.5	137
12	Relative Frequencies of Blue Stragglers in Galactic Globular Clusters: Constraints for the Formation Mechanisms. Astrophysical Journal, 2004, 604, L109-L112.	4.5	135
13	A planetesimal orbiting within the debris disc around a white dwarf star. Science, 2019, 364, 66-69.	12.6	131
14	Merging White Dwarf/Black Hole Binaries and Gammaâ€Ray Bursts. Astrophysical Journal, 1999, 520, 650-660.	4.5	126
15	Close encounters in young stellar clusters: implications for planetary systems in the solar neighbourhood. Monthly Notices of the Royal Astronomical Society, 2007, 378, 1207-1216.	4.4	125
16	CAN PLANETARY INSTABILITY EXPLAIN THEKEPLERDICHOTOMY?. Astrophysical Journal, 2012, 758, 39.	4.5	124
17	Blue straggler production in globular clusters. Monthly Notices of the Royal Astronomical Society, 2004, 349, 129-134.	4.4	121
18	Planetary dynamics in stellar clusters. Monthly Notices of the Royal Astronomical Society, 2001, 322, 859-865.	4.4	113

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19	SUPERMASSIVE BLACK HOLE FORMATION VIA GAS ACCRETION IN NUCLEAR STELLAR CLUSTERS. Astrophysical Journal Letters, 2011, 740, L42.	8.3	102
20	Tidal disruptions by supermassive black holes - Hydrodynamic evolution of stars on a Schwarzschild background. Astrophysical Journal, 1993, 410, L83.	4.5	92
21	THE DESTRUCTION OF INNER PLANETARY SYSTEMS DURING HIGH-ECCENTRICITY MIGRATION OF GAS GIANTS. Astrophysical Journal, 2015, 808, 14.	4.5	88
22	The effects of external planets on inner systems: multiplicities, inclinations and pathways to eccentric warm Jupiters. Monthly Notices of the Royal Astronomical Society, 2017, 468, 3000-3023.	4.4	84
23	A giant exoplanet orbiting a very-low-mass star challenges planet formation models. Science, 2019, 365, 1441-1445.	12.6	78
24	Neutron star retention and millisecond pulsar production in globular clusters. Monthly Notices of the Royal Astronomical Society, 1998, 301, 15-24.	4.4	72
25	Blue stragglers as stellar collision products: the angular momentum question. Monthly Notices of the Royal Astronomical Society, 2005, 358, 716-725.	4.4	69
26	Red giant stellar collisions in the Galactic Centre. Monthly Notices of the Royal Astronomical Society, 2009, 393, 1016-1033.	4.4	64
27	Planets in 47 Tuc. Monthly Notices of the Royal Astronomical Society, 2001, 324, 612-616.	4.4	61
28	Red giant collisions in the Galactic Centre. Monthly Notices of the Royal Astronomical Society, 1999, 308, 257-270.	4.4	60
29	Gamma-Ray Bursts, Supernova Kicks, and Gravitational Radiation. Astrophysical Journal, 2002, 579, L63-L66.	4.5	59
30	Mass transfer in white dwarfâ€“neutron star binaries. Monthly Notices of the Royal Astronomical Society, 2017, 467, 3556-3575.	4.4	59
31	Close approach during hard binary-binary scattering. Monthly Notices of the Royal Astronomical Society, 1996, 281, 830-846.	4.4	58
32	Cataclysmic variable production in globular clusters. Monthly Notices of the Royal Astronomical Society, 1997, 288, 117-128.	4.4	56
33	Collisions and close encounters involving massive main-sequence stars. Monthly Notices of the Royal Astronomical Society, 2006, 366, 1424-1436.	4.4	54
34	Implications for the origin of short gamma-ray bursts from their observed positions around their host galaxies. Monthly Notices of the Royal Astronomical Society, 2011, 413, 2004-2014.	4.4	54
35	Survival of habitable planets in unstable planetary systems. Monthly Notices of the Royal Astronomical Society, 2016, 463, 3226-3238.	4.4	52
36	Transit detection of the long-period volatile-rich super-Earth Î½2 Lupi d with CHEOPS. Nature Astronomy, 2021, 5, 775-787.	10.1	51

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37	The ultimate outcome of black hole-neutron star mergers. Monthly Notices of the Royal Astronomical Society, 2005, 356, 54-58.	4.4	49
38	Supernova enrichment and dynamical histories of solar-type stars in clusters. Monthly Notices of the Royal Astronomical Society, 2014, 437, 946-958.	4.4	49
39	Close encounters involving free-floating planets in star clusters. Monthly Notices of the Royal Astronomical Society, 2015, 449, 3543-3558.	4.4	46
40	The binary zoo: the calculation of production rates of binaries through 2+1 encounters in globular clusters. Monthly Notices of the Royal Astronomical Society, 1995, 276, 887-905.	4.4	45
41	The violent past of Cygnus X-2. Monthly Notices of the Royal Astronomical Society, 2000, 317, 438-446.	4.4	45
42	AN UPPER LIMIT TO THE VELOCITY DISPERSION OF RELAXED STELLAR SYSTEMS WITHOUT MASSIVE BLACK HOLES. Astrophysical Journal, 2012, 755, 81.	4.5	45
43	Stellar encounters involving red giants in globular cluster cores. Astrophysical Journal, 1991, 381, 449.	4.5	45
44	High-resolution simulations of stellar collisions between equal-mass main-sequence stars in globular clusters. Monthly Notices of the Royal Astronomical Society, 2002, 332, 49-54.	4.4	44
45	The progenitors of calcium-rich transients are not formed in situ*. Monthly Notices of the Royal Astronomical Society, 2014, 444, 2157-2166.	4.4	43
46	Misaligned streamers around a Galactic Centre black hole from a single cloud's infall. Monthly Notices of the Royal Astronomical Society, 2013, 433, 353-365.	4.4	41
47	A stellar audit: the computation of encounter rates for 47 Tucanae and ï‰ Centauri. Monthly Notices of the Royal Astronomical Society, 1995, 276, 876-886.	4.4	39
48	The Stars of the Galactic Center. Astrophysical Journal, 2005, 624, L25-L27.	4.5	38
49	Analysis of Early Science observations with the CHaracterising ExOPlanets Satellite (CHEOPS) using<scp>pycheops</scp>. Monthly Notices of the Royal Astronomical Society, 2022, 514, 77-104.	4.4	38
50	Postâ€Newtonian Smoothed Particle Hydrodynamics. Astrophysical Journal, 2001, 550, 846-859.	4.5	37
51	Rapid destruction of protoplanetary discs due to external photoevaporation in star-forming regions. Monthly Notices of the Royal Astronomical Society, 0, , .	4.4	37
52	Stellar encounters involving neutron stars in globular cluster cores. Astrophysical Journal, 1992, 401, 246.	4.5	35
53	Close encounters of the third-body kind. Astrophysical Journal, 1994, 424, 870.	4.5	35
54	Black widow pulsars: the price of promiscuity. Monthly Notices of the Royal Astronomical Society, 2003, 345, 678-682.	4.4	33

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55	Formation of the binary pulsars J1141â€“6545 and B2303+46. Monthly Notices of the Royal Astronomical Society, 2002, 335, 369-376.	4.4	32
56	Mass transfer in eccentric binaries: the new oil-on-water smoothed particle hydrodynamics technique. Monthly Notices of the Royal Astronomical Society, 2009, 395, 1127-1134.	4.4	29
57	Hubble Space Telescopeobservations of the host galaxies and environments of calcium-rich supernovae. Monthly Notices of the Royal Astronomical Society, 2016, 458, 1768-1777.	4.4	29
58	A new constraint for gamma-ray burst progenitor mass. Monthly Notices of the Royal Astronomical Society, 2007, 376, 1285-1290.	4.4	28
59	Global torques and stochasticity as the drivers of massive black hole pairing in the young Universe. Monthly Notices of the Royal Astronomical Society, 2020, 498, 3601-3615.	4.4	28
60	Fly-by encounters between two planetary systems I: Solar system analogues. Monthly Notices of the Royal Astronomical Society, 2019, 488, 1366-1376.	4.4	27
61	Making massive stars in the Galactic Centre via accretion on to low-mass stars within an accretion disc. Monthly Notices of the Royal Astronomical Society, 2020, 498, 3452-3456.	4.4	25
62	Brown dwarf populations in open clusters. Monthly Notices of the Royal Astronomical Society, 2002, 333, 547-560.	4.4	24
63	ACHANDRASTUDY OF THE GALACTIC GLOBULAR CLUSTER OMEGA CENTAURI. Astrophysical Journal, 2009, 697, 224-236.	4.5	24
64	Transients from ONe white dwarf â€“ neutron star/black hole mergers. Monthly Notices of the Royal Astronomical Society, 2022, 510, 3758-3777.	4.4	24
65	The destructive effects of binary encounters on red giants in the Galactic Centre. Monthly Notices of the Royal Astronomical Society, 1998, 301, 745-753.	4.4	23
66	The structure of star clusters in the outer halo of M31. Monthly Notices of the Royal Astronomical Society, 2012, 422, 162-184.	4.4	22
67	The minimum orbital period in thermal time-scale mass transfer. Monthly Notices of the Royal Astronomical Society, 2001, 321, 327-332.	4.4	21
68	A source of high-velocity white dwarfs. Monthly Notices of the Royal Astronomical Society, 2002, 333, 463-468.	4.4	21
69	A fossil winonaite-like meteorite in Ordovician limestone: A piece of the impactor that broke up the L-chondrite parent body?. Earth and Planetary Science Letters, 2014, 400, 145-152.	4.4	21
70	A method of smoothed particle hydrodynamics using spheroidal kernels. Astrophysical Journal, 1995, 440, 254.	4.5	21
71	The X-ray source population of the globular cluster M15: Chandra high-resolution imaging. Monthly Notices of the Royal Astronomical Society, 0, 357, 325-332.	4.4	19
72	Detailed models of the binary pulsars J1141â^'6545 and B2303+46. Monthly Notices of the Royal Astronomical Society, 2006, 372, 715-727.	4.4	19

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73	Flyby encounters between two planetary systems II: exploring the interactions of diverse planetary system architectures. Monthly Notices of the Royal Astronomical Society, 2020, 496, 1149-1165.	4.4	19
74	Exploiting timing capabilities of the CHEOPS mission with warm-Jupiter planets. Monthly Notices of the Royal Astronomical Society, 2021, 506, 3810-3830.	4.4	18
75	The binary star population of the young cluster NGC 1818 in the Large Magellanic Cloud. Monthly Notices of the Royal Astronomical Society, 1998, 300, 857-862.	4.4	18
76	Faint objects in motion: the new frontier of high precision astrometry. Experimental Astronomy, 2021, 51, 845-886.	3.7	17
77	Encounters between binaries and neutron stars. Astrophysical Journal, 1993, 411, 285.	4.5	16
78	On the origin of black hole spin in high-mass black hole binaries: Cygnus X-1. Monthly Notices of the Royal Astronomical Society, 2011, 412, 2260-2264.	4.4	15
79	The EBLM project â€“ VIII. First results for M-dwarf mass, radius, and effective temperature measurements using CHEOPS light curves. Monthly Notices of the Royal Astronomical Society, 2021, 506, 306-322.	4.4	15
80	Formation of supermassive black holes in galactic nuclei â€“ I. Delivering seed intermediate-mass black holes in massive stellar clusters. Monthly Notices of the Royal Astronomical Society, 2021, 502, 2682-2700.	4.4	15
81	Merger rates in primordial black hole clusters without initial binaries. Monthly Notices of the Royal Astronomical Society, 2020, 496, 994-1000.	4.4	14
82	Stellar encounters involving massive stars in young clusters. Monthly Notices of the Royal Astronomical Society, 0, 370, 2038-2046.	4.4	13
83	The MODEST questions: Challenges and future directions in stellar cluster research. New Astronomy, 2006, 12, 201-214.	1.8	13
84	The dynamical evolution of transiting planetary systems including a realistic collision prescription. Monthly Notices of the Royal Astronomical Society, 2018, 478, 2896-2908.	4.4	13
85	Encounters involving planetary systems in birth environments: the significant role of binaries. Monthly Notices of the Royal Astronomical Society, 2020, 499, 1212-1225.	4.4	13
86	Accretion of tidally disrupted asteroids on to white dwarfs: direct accretion versus disc processing. Monthly Notices of the Royal Astronomical Society, 2021, 508, 5671-5686.	4.4	13
87	Formation Constraints Indicate a Black Hole Accretor in 47 Tuc X9. Astrophysical Journal Letters, 2017, 851, L4.	8.3	12
88	On the origin of red giant depletion through low-velocity collisions. Monthly Notices of the Royal Astronomical Society, 2004, 348, 469-481.	4.4	10
89	Resonance in the K2-19 system is at odds with its high reported eccentricities. Monthly Notices of the Royal Astronomical Society, 2020, 496, 3101-3111.	4.4	10
90	Metal Pollution of the Solar White Dwarf by Solar System Small Bodies. Astrophysical Journal, 2022, 924, 61.	4.5	10

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91	Neutron star binaries and long-duration gamma-ray bursts. Monthly Notices of the Royal Astronomical Society, 2006, 372, 1351-1356.	4.4	9
92	Discovery of a Luminous White Dwarf in a Young Star Cluster in the Large Magellanic Cloud. Astrophysical Journal, 1998, 499, L53-L56.	4.5	9
93	Stellar encounters with giant molecular clouds. Monthly Notices of the Royal Astronomical Society, 2019, 489, 5165-5180.	4.4	8
94	Red giant depletion in globular cluster cores. Monthly Notices of the Royal Astronomical Society, 2004, 348, 679-686.	4.4	7
95	Young stars in the Galactic Centre: a potential intermediate-mass star origin. Monthly Notices of the Royal Astronomical Society, 2006, 372, 31-44.	4.4	7
96	Resilient habitability of nearby exoplanet systems. Monthly Notices of the Royal Astronomical Society, 2020, 492, 352-368.	4.4	6
97	Close stellar encounters at the Galactic Centre â€“ I. The effect on the observed stellar populations. Monthly Notices of the Royal Astronomical Society, 2021, 505, 3314-3328.	4.4	6
98	Oumuamuas Passing through Molecular Clouds. Astrophysical Journal, 2020, 903, 114.	4.5	6
99	Formation of supermassive black holes in galactic nuclei â€“ II. Retention and growth of seed intermediate-mass black holes. Monthly Notices of the Royal Astronomical Society, 2022, 511, 2631-2647.	4.4	6
100	Dynamical orbital evolution scenarios of the wide-orbit eccentric planet HRÂ5183b. Monthly Notices of the Royal Astronomical Society, 2021, 509, 3616-3625.	4.4	4
101	The properties of long gamma-ray bursts in massive compact binaries. Monthly Notices of the Royal Astronomical Society, 2012, 425, 470-476.	4.4	3
102	Dynamics of galactic nuclei: mass segregation and collisions. Proceedings of the International Astronomical Union, 2007, 3, 211-214.	0.0	2
103	Turning solar systems into extrasolar planetary systems in stellar clusters. Proceedings of the International Astronomical Union, 2010, 6, 304-307.	0.0	2
104	Towards an initial mass function for giant planets. Monthly Notices of the Royal Astronomical Society, 2018, 478, 961-970.	4.4	2
105	The ecology of the galactic centre: Nuclear stellar clusters and supermassive black holes. Proceedings of the International Astronomical Union, 2019, 14, 80-83.	0.0	2
106	Making extrasolar planets from solar systems via dynamical interactions. EAS Publications Series, 2010, 42, 375-383.	0.3	1
107	Stellar revival in old clusters. Nature, 2009, 462, 991-992.	27.8	0
108	Forming misaligned stellar disks around a massive black hole: cloud infall in the Galactic center. Proceedings of the International Astronomical Union, 2013, 9, 245-247.	0.0	0

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109	Tidal stripping as a mechanism for placing globular clusters on wide orbits: the case of MGC1 in M31. Monthly Notices of the Royal Astronomical Society, 2019, 485, 4134-4149.	4.4	0
110	Multiple, quiet, and close by. Science, 2020, 368, 1432-1432.	12.6	0
111	STABILITY OF MASS TRANSFER IN ECCENTRIC COMPACT BINARIES. , 2015, , .		0
112	Effects of capturing a wide-orbit planet on planetary systems: system stability and habitable zone bombardment rates. Monthly Notices of the Royal Astronomical Society, 2022, 511, 1685-1693.	4.4	0