

# Alan Coley

## List of Publications by Year in descending order

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102  
papers

2,874  
citations

172457

29  
h-index

189892

50  
g-index

103  
all docs

103  
docs citations

103  
times ranked

995  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamical Systems and Cosmology. Astrophysics and Space Science Library, 2003, , .	2.7	229
2	Teleparallel theories of gravity: illuminating a fully invariant approach. Classical and Quantum Gravity, 2019, 36, 183001.	4.0	217
3	Self-similarity in general relativity. Classical and Quantum Gravity, 1999, 16, R31-R71.	4.0	150
4	Is there proof that backreaction of inhomogeneities is irrelevant in cosmology?. Classical and Quantum Gravity, 2015, 32, 215021.	4.0	125
5	On spacetimes with constant scalar invariants. Classical and Quantum Gravity, 2006, 23, 3053-3074.	4.0	108
6	Cosmological Solutions in Macroscopic Gravity. Physical Review Letters, 2005, 95, 151102.	7.8	103
7	Special conformal Killing vector spacetimes and symmetry inheritance. Journal of Mathematical Physics, 1989, 30, 2616-2625.	1.1	76
8	Spacetimes characterized by their scalar curvature invariants. Classical and Quantum Gravity, 2009, 26, 025013.	4.0	71
9	Scaling solutions in Robertson-Walker spacetimes. Classical and Quantum Gravity, 1999, 16, 1843-1851.	4.0	70
10	Metrics with vanishing quantum corrections. Classical and Quantum Gravity, 2008, 25, 145017.	4.0	59
11	Conformal Killing vectors and FRW spacetimes. General Relativity and Gravitation, 1990, 22, 241-251.	2.0	54
12	The isotropic singularity in cosmology. Classical and Quantum Gravity, 1992, 9, 445-455.	4.0	54
13	Lorentzian spacetimes with constant curvature invariants in four dimensions. Classical and Quantum Gravity, 2009, 26, 125011.	4.0	52
14	No chaos in brane-world cosmology. Classical and Quantum Gravity, 2002, 19, L45-L56.	4.0	50
15	Two-fluid cosmological models. Journal of Mathematical Physics, 1986, 27, 406-416.	1.1	49
16	A dynamical systems approach to the tilted Bianchi models of solvable type. Classical and Quantum Gravity, 2005, 22, 579-605.	4.0	48
17	Stability of cosmological scaling solutions. Physical Review D, 1998, 58, .	4.7	47
18	The state space and physical interpretation of self-similar spherically symmetric perfect-fluid models. Classical and Quantum Gravity, 2001, 18, 303-324.	4.0	47

#	ARTICLE	IF	CITATIONS
19	Qualitative analysis of two-fluid Bianchi cosmologies. <i>Classical and Quantum Gravity</i> , 1992, 9, 651-665.	4.0	45
20	Zero-curvature Friedmann-Robertson-Walker models as exact viscous magnetohydrodynamic cosmologies. <i>Astrophysical Journal</i> , 1983, 271, 1.	4.5	45
21	Dynamics of brane-world cosmological models. <i>Physical Review D</i> , 2002, 66, .	4.7	44
22	Kinematic self-similarity. <i>Classical and Quantum Gravity</i> , 1997, 14, 87-118.	4.0	40
23	A Class of Exact Classical Solutions to String Theory. <i>Physical Review Letters</i> , 2002, 89, 281601.	7.8	38
24	Future asymptotic behaviour of tilted Bianchi models of type IV and VII h. <i>Classical and Quantum Gravity</i> , 2005, 22, 607-633.	4.0	35
25	Complete classification of spherically symmetric self-similar perfect fluid solutions. <i>Physical Review D</i> , 2000, 62, .	4.7	34
26	Qualitative analysis of a class of Bianchi V imperfect fluid cosmologies. <i>Journal of Mathematical Physics</i> , 1992, 33, 1772-1779.	1.1	32
27	The similarity hypothesis in general relativity. <i>General Relativity and Gravitation</i> , 2005, 37, 2165-2188.	2.0	32
28	On the isotropy of the Universe: do Bianchi cosmologies isotropize?. <i>Classical and Quantum Gravity</i> , 1998, 15, 331-350.	4.0	30
29	Qualitative analysis of diagonal Bianchi type V imperfect fluid cosmological models. <i>Journal of Mathematical Physics</i> , 1994, 35, 4117-4144.	1.1	29
30	Bianchi type IX brane-world cosmologies. <i>Physical Review D</i> , 2003, 68, .	4.7	29
31	Affine conformal vectors in space-time. <i>Journal of Mathematical Physics</i> , 1992, 33, 1754-1764.	1.1	28
32	Induced matter theory and embeddings in Riemann flat space-time. <i>Journal of Mathematical Physics</i> , 1996, 37, 361-373.	1.1	28
33	Scalar field cosmologies with barotropic matter: models of Bianchi class B. <i>Classical and Quantum Gravity</i> , 1999, 16, 4035-4056.	4.0	28
34	Static spherically symmetric Einstein-aether models I: perfect fluids with a linear equation of state and scalar fields with an exponential self-interacting potential. <i>General Relativity and Gravitation</i> , 2019, 51, 1.	2.0	27
35	Curvature operators and scalar curvature invariants. <i>Classical and Quantum Gravity</i> , 2010, 27, 095014.	4.0	26
36	Stability of Einstein-aether cosmological models. <i>Physical Review D</i> , 2013, 87, .	4.7	26

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37	Static spherically symmetric Einstein-Åther models II: Integrability and the modified Tolman-“Oppenheimer-“Volkoff approach. <i>Annals of Physics</i> , 2020, 412, 168002.	2.8	26
38	Higher dimensional bivectors and classification of the Weyl operator. <i>Classical and Quantum Gravity</i> , 2010, 27, 015002.	4.0	25
39	Identification of black hole horizons using scalar curvature invariants. <i>Classical and Quantum Gravity</i> , 2018, 35, 025013.	4.0	25
40	Cartan invariants and event horizon detection. <i>General Relativity and Gravitation</i> , 2018, 50, 1.	2.0	25
41	Fluid observers and tilting cosmology. <i>Classical and Quantum Gravity</i> , 2006, 23, 3573-3591.	4.0	24
42	AVERAGING GEOMETRICAL OBJECTS ON A DIFFERENTIABLE MANIFOLD. <i>International Journal of Modern Physics D</i> , 2010, 19, 1915-1923.	2.1	24
43	Theoretical cosmology. <i>Classical and Quantum Gravity</i> , 2020, 37, 013001.	4.0	24
44	Self-similar spherically symmetric cosmological models with a perfect fluid and a scalar field. <i>Classical and Quantum Gravity</i> , 2000, 17, 2557-2588.	4.0	23
45	Persistent black holes in bouncing cosmologies. <i>Classical and Quantum Gravity</i> , 2017, 34, 135005.	4.0	23
46	Are braneworlds born isotropic?. <i>Physical Review D</i> , 2004, 69, .	4.7	21
47	Observational constraints on the averaged universe. <i>Physical Review D</i> , 2012, 85, .	4.7	21
48	Critical phenomena and a new class of self-similar spherically symmetric perfect-fluid solutions. <i>Physical Review D</i> , 2000, 61, .	4.7	20
49	PERSISTENCE OF BLACK HOLES THROUGH A COSMOLOGICAL BOUNCE. <i>International Journal of Modern Physics D</i> , 2011, 20, 2733-2738.	2.1	19
50	Lorentzian manifolds and scalar curvature invariants. <i>Classical and Quantum Gravity</i> , 2010, 27, 102001.	4.0	18
51	Inhomogeneous Cosmologies, the Copernican Principle and the Cosmic Microwave Background: More on the EGS Theorem. <i>General Relativity and Gravitation</i> , 2003, 35, 969-990.	2.0	17
52	Large-scale perturbations on the brane and the isotropy of the cosmological singularity. <i>Physical Review D</i> , 2004, 70, .	4.7	17
53	Averaging in cosmological models using scalars. <i>Classical and Quantum Gravity</i> , 2010, 27, 245017.	4.0	17
54	Symmetry and equivalence in teleparallel gravity. <i>Journal of Mathematical Physics</i> , 2020, 61, .	1.1	17

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55	Isotropic singularity in inhomogeneous brane cosmological models. <i>Classical and Quantum Gravity</i> , 2004, 21, 1311-1342.	4.0	16
56	Generating Matter Inhomogeneities in General Relativity. <i>Physical Review Letters</i> , 2012, 108, 191101.	7.8	15
57	A new look at FRW cosmologies. <i>General Relativity and Gravitation</i> , 1983, 15, 977-983.	2.0	14
58	Space-times admitting a three-dimensional conformal group. <i>General Relativity and Gravitation</i> , 1996, 28, 311-337.	2.0	14
59	Gravitational Entropy in Cosmological Models. <i>International Journal of Theoretical Physics</i> , 2006, 45, 1258-1266.	1.2	13
60	An invariant characterization of the quasi-spherical Szekeres dust models. <i>General Relativity and Gravitation</i> , 2019, 51, 1.	2.0	13
61	Space-times admitting special affine conformal vectors. <i>Journal of Mathematical Physics</i> , 1990, 31, 649-652.	1.1	12
62	Discriminating the Weyl type in higher dimensions using scalar curvature invariants. <i>General Relativity and Gravitation</i> , 2011, 43, 2199-2207.	2.0	12
63	Refinements of the Weyl tensor classification in five dimensions. <i>Classical and Quantum Gravity</i> , 2012, 29, 155016.	4.0	12
64	Algebraic classification of five-dimensional spacetimes using scalar invariants. <i>Classical and Quantum Gravity</i> , 2011, 28, 155016.	4.0	11
65	Geometric horizons in the Kastor-Traschen multi-black-hole solutions. <i>Physical Review D</i> , 2018, 98, .	4.7	11
66	Cosmic microwave background and scalar-tensor theories of gravity. <i>Physical Review D</i> , 2001, 64, .	4.7	10
67	Spikes and matter inhomogeneities in massless scalar field models. <i>Classical and Quantum Gravity</i> , 2016, 33, 015009.	4.0	10
68	The Cartan algorithm in five dimensions. <i>Journal of Mathematical Physics</i> , 2017, 58, 032502.	1.1	10
69	Asymptotic analysis of spatially inhomogeneous stiff and ultra-stiff cosmologies. <i>Classical and Quantum Gravity</i> , 2005, 22, 3073-3082.	4.0	9
70	Horizon detection and higher dimensional black rings. <i>Classical and Quantum Gravity</i> , 2017, 34, 035008.	4.0	9
71	Backreaction: Gauge and frame dependences. <i>Physical Review D</i> , 2013, 87, .	4.7	8
72	Magnetic fields and the cosmic microwave background. <i>Classical and Quantum Gravity</i> , 2001, 18, 1305-1310.	4.0	7

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73	Self-Similar Static Spherically Symmetric Scalar Field Models. <i>General Relativity and Gravitation</i> , 2003, 35, 707-749.	2.0	7
74	Self-similar spherically symmetric cosmological models with two scalar fields. <i>Classical and Quantum Gravity</i> , 2001, 18, 4213-4237.	4.0	6
75	General relativistic density perturbations. <i>Classical and Quantum Gravity</i> , 2014, 31, 015020.	4.0	6
76	Demonstration of the spike phenomenon using the LTB models. <i>Classical and Quantum Gravity</i> , 2014, 31, 115012.	4.0	6
77	Universality and Constant Scalar Curvature Invariants. <i>ISRN Geometry</i> , 2011, 2011, 1-9.	0.1	6
78	Qualitative properties of magnetic fields in scalar field cosmology. <i>Physical Review D</i> , 2001, 64, .	4.7	5
79	ON THE ALGEBRAIC CLASSIFICATION OF PSEUDO-RIEMANNIAN SPACES. <i>International Journal of Geometric Methods in Modern Physics</i> , 2011, 08, 1679-1685.	2.0	5
80	Stiff fluid spike solutions from Bianchi type V seed solutions. <i>Classical and Quantum Gravity</i> , 2017, 34, 235013.	4.0	5
81	Timelike self-similar spherically symmetric models with two scalar fields. <i>Classical and Quantum Gravity</i> , 2002, 19, 3901-3925.	4.0	4
82	Basis for scalar curvature invariants in three dimensions. <i>Classical and Quantum Gravity</i> , 2014, 31, 235010.	4.0	4
83	On the first G 1 stiff fluid spike solution in General Relativity. <i>Classical and Quantum Gravity</i> , 2016, 33, 215010.	4.0	4
84	Geometric horizons in binary black hole mergers. <i>Classical and Quantum Gravity</i> , 2021, 38, 17LT01.	4.0	3
85	The maximum dimension of the inheriting algebra in perfect fluid space $\times$ times. <i>Journal of Mathematical Physics</i> , 2002, 43, 5567-5577.	1.1	2
86	Letter: Mach's Principle and Superfluids in Cosmology. <i>General Relativity and Gravitation</i> , 2002, 34, 549-555.	2.0	2
87	On scalar curvature invariants in three dimensional spacetimes. <i>General Relativity and Gravitation</i> , 2016, 48, 1.	2.0	2
88	Higher-dimensional vacuum solutions of Einstein's field equations. <i>International Journal of Theoretical Physics</i> , 1995, 34, 293-299.	1.2	1
89	General Relativistic Tilt and Dark Energy. , 2008, , .		1
90	Teleparallel geometries not characterized by their scalar polynomial torsion invariants. <i>Journal of Mathematical Physics</i> , 2021, 62, 052501.	1.1	1

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91	Persistence in black hole lattice cosmological models. <i>Classical and Quantum Gravity</i> , 2020, 37, 245002.	4.0	1
92	Curvature invariants in a binary black hole merger. <i>General Relativity and Gravitation</i> , 2022, 54, .	2.0	1
93	FRW Models as Exact Viscous Magnetohydrodynamical Cosmologies. <i>Annals of the New York Academy of Sciences</i> , 1984, 422, 338-338.	3.8	0
94	Observations and FRW Models. <i>Annals of the New York Academy of Sciences</i> , 1986, 470, 369-369.	3.8	0
95	Analysis of Weyl-Affine Theories of Gravity in Terms of the Gravitational Frequency Shift Effect. <i>Annals of the New York Academy of Sciences</i> , 1986, 470, 370-370.	3.8	0
96	Primordial nucleosynthesis and $\Lambda$ cosmologies with interacting radiation and matter. <i>Astrophysics and Space Science</i> , 1987, 138, 393-401.	1.4	0
97	ASSISTED INFLATION. <i>International Journal of Modern Physics A</i> , 2002, 17, 2755-2755.	1.5	0
98	BRANE-WORLD COSMOLOGY. <i>International Journal of Modern Physics D</i> , 2002, 11, 1609-1614.	2.1	0
99	Editorial introduction: Malcolm MacCallum at 60. <i>General Relativity and Gravitation</i> , 2006, 38, 997-1002.	2.0	0
100	SCALAR AVERAGING IN COSMOLOGY. <i>International Journal of Modern Physics D</i> , 2010, 19, 2361-2364.	2.1	0
101	Summary of the parallel session: mathematical cosmology. <i>General Relativity and Gravitation</i> , 2014, 46, 1.	2.0	0
102	EINSTEIN-AETHER COSMOLOGICAL MODELS. , 2015, , .		0