

# Jacob D Bekenstein

## List of Publications by Year in descending order

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Version: 2024-02-01

80  
papers

15,298  
citations

66315

42  
h-index

76872

74  
g-index

80  
all docs

80  
docs citations

80  
times ranked

5053  
citing authors

#	ARTICLE	IF	CITATIONS
1	Black Holes and Entropy. Physical Review D, 1973, 7, 2333-2346.	1.6	4,962
2	Generalized second law of thermodynamics in black-hole physics. Physical Review D, 1974, 9, 3292-3300.	1.6	1,538
3	Relativistic gravitation theory for the modified Newtonian dynamics paradigm. Physical Review D, 2004, 70, .	1.6	1,068
4	Universal upper bound on the entropy-to-energy ratio for bounded systems. Physical Review D, 1981, 23, 287-298.	1.6	770
5	Nonexistence of Baryon Number for Static Black Holes. Physical Review D, 1972, 5, 1239-1246.	1.6	442
6	Exact solutions of Einstein-conformal scalar equations. Annals of Physics, 1974, 82, 535-547.	1.0	397
7	Relation between physical and gravitational geometry. Physical Review D, 1993, 48, 3641-3647.	1.6	370
8	Spectroscopy of the quantum black hole. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 360, 7-12.	1.5	360
9	Fine-structure constant: Is it really a constant?. Physical Review D, 1982, 25, 1527-1539.	1.6	328
10	Novel "no-scalar-hair" theorem for black holes. Physical Review D, 1995, 51, R6608-R6611.	1.6	283
11	Extraction of Energy and Charge from a Black Hole. Physical Review D, 1973, 7, 949-953.	1.6	277
12	Transcendence of the Law of Baryon-Number Conservation in Black-Hole Physics. Physical Review Letters, 1972, 28, 452-455.	2.9	256
13	Hydrostatic Equilibrium and Gravitational Collapse of Relativistic Charged Fluid Balls. Physical Review D, 1971, 4, 2185-2190.	1.6	246
14	Nonexistence of Baryon Number for Black Holes. II. Physical Review D, 1972, 5, 2403-2412.	1.6	216
15	Fine-structure constant: Is it really a constant?. , 2019, , 347-359.		215
16	Black holes with scalar charge. Annals of Physics, 1975, 91, 75-82.	1.0	211
17	Gravitational-Radiation Recoil and Runaway Black Holes. Astrophysical Journal, 1973, 183, 657.	1.6	210
18	Energy Cost of Information Transfer. Physical Review Letters, 1981, 46, 623-626.	2.9	203

#	ARTICLE	IF	CITATIONS
19	Entropy bounds and black hole remnants. <i>Physical Review D</i> , 1994, 49, 1912-1921.	1.6	200
20	Statistical black-hole thermodynamics. <i>Physical Review D</i> , 1975, 12, 3077-3085.	1.6	198
21	Black-hole thermodynamics. <i>Physics Today</i> , 1980, 33, 24-31.	0.3	190
22	No hair for spherical black holes: Charged and nonminimally coupled scalar field with self-interaction. <i>Physical Review D</i> , 1996, 54, 5059-5069.	1.6	178
23	Information in the Holographic Universe. <i>Scientific American</i> , 2003, 289, 58-65.	1.0	143
24	The modified Newtonian dynamics "MOND and its implications for new physics. <i>Contemporary Physics</i> , 2006, 47, 387-403.	0.8	113
25	The many faces of superradiance. <i>Physical Review D</i> , 1998, 58, .	1.6	108
26	New conservation laws in general-relativistic magnetohydrodynamics. <i>Physical Review D</i> , 1978, 18, 1809-1819.	1.6	101
27	Gravitational lenses and unconventional gravity theories. <i>Astrophysical Journal</i> , 1994, 429, 480.	1.6	90
28	Black holes and information theory. <i>Contemporary Physics</i> , 2004, 45, 31-43.	0.8	81
29	Entropy content and information flow in systems with limited energy. <i>Physical Review D</i> , 1984, 30, 1669-1679.	1.6	80
30	QUANTUM LIMITATIONS ON THE STORAGE AND TRANSMISSION OF INFORMATION. <i>International Journal of Modern Physics C</i> , 1990, 01, 355-422.	0.8	77
31	Einstein coefficients for a black hole. <i>Physical Review D</i> , 1977, 15, 2775-2781.	1.6	71
32	Are particle rest masses variable? Theory and constraints from solar system experiments. <i>Physical Review D</i> , 1977, 15, 1458-1468.	1.6	68
33	Helicity conservation laws for fluids and plasmas. <i>Astrophysical Journal</i> , 1987, 319, 207.	1.6	65
34	Nonsingular general-relativistic cosmologies. <i>Physical Review D</i> , 1975, 11, 2072-2075.	1.6	62
35	How does the Entropy/Information Bound Work?. <i>Foundations of Physics</i> , 2005, 35, 1805-1823.	0.6	60
36	Conformal invariance, microscopic physics, and the nature of gravitation. <i>Physical Review D</i> , 1980, 22, 1313-1324.	1.6	56

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37	How fast does information leak out from a black hole?. <i>Physical Review Letters</i> , 1993, 70, 3680-3683.	2.9	54
38	Proof of the quantum bound on specific entropy for free fields. <i>Physical Review D</i> , 1989, 39, 1109-1115.	1.6	51
39	Entropy bounds and the second law for black holes. <i>Physical Review D</i> , 1983, 27, 2262-2270.	1.6	50
40	Is the cosmological singularity thermodynamically possible?. <i>International Journal of Theoretical Physics</i> , 1989, 28, 967-981.	0.5	50
41	Non-Archimedean character of quantum buoyancy and the generalized second law of thermodynamics. <i>Physical Review D</i> , 1999, 60, .	1.6	47
42	Black hole polarization and new entropy bounds. <i>Physical Review D</i> , 1999, 61, .	1.6	46
43	General relativity without general relativity. <i>Physical Review D</i> , 1978, 18, 4378-4386.	1.6	43
44	Is a tabletop search for Planck scale signals feasible?. <i>Physical Review D</i> , 2012, 86, .	1.6	41
45	Phase coupling gravitation: Symmetries and gauge fields. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1988, 202, 497-500.	1.5	35
46	Holographic bound from second law of thermodynamics. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2000, 481, 339-345.	1.5	35
47	Do Newton's and Milgrom's vary with cosmological epoch?. <i>Physical Review D</i> , 2008, 77, .	1.6	35
48	Black holes in the tensor-vector-scalar theory of gravity and their thermodynamics. <i>Physical Review D</i> , 2008, 77, .	1.6	34
49	Bound on viscosity and the generalized second law of thermodynamics. <i>Physical Review D</i> , 2008, 77, .	1.6	33
50	Conservation of circulation in magnetohydrodynamics. <i>Physical Review E</i> , 2000, 62, 5594-5602.	0.8	31
51	Building blocks of a black hole. <i>Physical Review D</i> , 2002, 66, .	1.6	30
52	Gravitation and spontaneous symmetry breaking. <i>Foundations of Physics</i> , 1986, 16, 409-422.	0.6	28
53	Stability of the black hole horizon and the Landau ghost. <i>Physical Review D</i> , 1994, 50, 7239-7243.	1.6	28
54	Black Holes Are One-Dimensional. <i>General Relativity and Gravitation</i> , 2001, 33, 2095-2099.	0.7	28

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55	Interior magnetohydrodynamic structure of a rotating relativistic star. <i>Physical Review D</i> , 1979, 19, 2827-2837.	1.6	26
56	Are there hyperentropic objects?. <i>Physical Review D</i> , 2004, 70, .	1.6	25
57	Communication and energy. <i>Physical Review A</i> , 1988, 37, 3437-3449.	1.0	22
58	Symmetry breaking induced by charge density and the entropy of interacting fields. <i>Physical Review D</i> , 1987, 35, 716-731.	1.6	21
59	The Limits of Information. <i>Studies in History and Philosophy of Science Part B - Studies in History and Philosophy of Modern Physics</i> , 2001, 32, 511-524.	1.4	21
60	Specific entropy and the sign of the energy. <i>Physical Review D</i> , 1982, 26, 950-953.	1.6	20
61	Black holes and everyday physics. <i>General Relativity and Gravitation</i> , 1982, 14, 355-359.	0.7	20
62	Tensor- $\epsilon$ -vector- $\epsilon$ -scalar-modified gravity: from small scale to cosmology. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011, 369, 5003-5017.	1.6	20
63	THE CASE FOR DISCRETE ENERGY LEVELS OF A BLACK HOLE. <i>International Journal of Modern Physics A</i> , 2002, 17, 21-31.	0.5	14
64	Relativistic MOND as an alternative to the dark matter paradigm. <i>Nuclear Physics A</i> , 2009, 827, 555c-560c.	0.6	14
65	Chiral cosmic strings. <i>Physical Review D</i> , 1992, 45, 2794-2801.	1.6	13
66	Do zero-frequency modes contribute to the entropy?. <i>Physical Review D</i> , 1990, 42, 3598-3599.	1.6	11
67	If vacuum energy can be negative, why is mass always positive? Uses of the subdominant trace energy condition. <i>Physical Review D</i> , 2013, 88, .	1.6	11
68	Universality in grey-body radiance: Extending Kirchoff's law to the statistics of quanta. <i>Physical Review Letters</i> , 1994, 72, 2512-2515.	2.9	10
69	Statistics of black hole radiance and the horizon area spectrum. <i>Physical Review D</i> , 2015, 91, .	1.6	9
70	Extended Kelvin Theorem in Relativistic Magnetohydrodynamics. <i>Foundations of Physics</i> , 2001, 31, 895-907.	0.6	8
71	Perfect magnetohydrodynamics as a field theory. <i>Physical Review D</i> , 2006, 74, .	1.6	8
72	Can Quantum Gravity be Exposed in the Laboratory?. <i>Foundations of Physics</i> , 2014, 44, 452-462.	0.6	8

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73	Challenging the generalized second law. <i>Physical Review D</i> , 2009, 79, .	1.6	7
74	Positiveness of mass and the strong energy condition. <i>International Journal of Theoretical Physics</i> , 1975, 13, 317-321.	0.5	6
75	Quantum Information and Quantum Black Holes. , 2002, , 1-26.		4
76	Disturbing the Black Hole. , 1999, , 87-102.		4
77	Optimizing entropy bounds for macroscopic systems. <i>Physical Review E</i> , 2014, 89, 052137.	0.8	3
78	THE CASE FOR DISCRETE ENERGY LEVELS OF A BLACK HOLE. , 2002, , .		1
79	Black Holes: Physics and Astrophysics. , 2005, , 149-173.		0
80	Entropy bounds and black hole remnants. , 2019, , 361-370.		0