

Bruce J West

List of Publications by Year in descending order

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Version: 2024-02-01

88
papers

4,023
citations

186265

28
h-index

149698

56
g-index

94
all docs

94
docs citations

94
times ranked

2616
citing authors

#	ARTICLE	IF	CITATIONS
1	Science in Pictures: Chaos and Fractals in Human Physiology. Scientific American, 1990, 262, 42-49.	1.0	625
2	Fractal Physiology. , 1994, , .		515
3	Fractal physiology for physicists: Lévy statistics. Physics Reports, 1994, 246, 1-100.	25.6	247
4	Maximizing information exchange between complex networks. Physics Reports, 2008, 468, 1-99.	25.6	211
5	Fractal physiology and the fractional calculus: a perspective. Frontiers in Physiology, 2010, 1, 12.	2.8	159
6	Nonlinear dynamical model of human gait. Physical Review E, 2003, 67, 051917.	2.1	151
7	Linear systems with Lévy fluctuations. Physica A: Statistical Mechanics and Its Applications, 1982, 113, 203-216.	2.6	126
8	Colloquium: Fractional calculus view of complexity: A tutorial. Reviews of Modern Physics, 2014, 86, 1169-1186.	45.6	117
9	Physiology in fractal dimensions: Error tolerance. Annals of Biomedical Engineering, 1990, 18, 135-149.	2.5	113
10	Fractional calculus and the evolution of fractal phenomena. Physica A: Statistical Mechanics and Its Applications, 1999, 265, 535-546.	2.6	113
11	The wisdom of the body; a contemporary view. Frontiers in Physiology, 2010, 1, 1.	2.8	101
12	Spontaneous brain activity as a source of ideal noise. Physical Review E, 2009, 80, 061914.	2.1	100
13	On an Enriched Collection of Stochastic Processes. , 1979, , 61-175.		92
14	A theory of noise in human cognition. Physica A: Statistical Mechanics and Its Applications, 2009, 388, 4192-4204.	2.6	72
15	Wavelet analysis of epileptic spikes. Physical Review E, 2003, 67, 052902.	2.1	71
16	Dynamical approach to Lévy processes. Physical Review E, 1996, 54, 4760-4767.	2.1	70
17	Transmission of information between complex systems: Lévy resonance. Physical Review E, 2011, 83, 051130.	2.1	57
18	Fractional Langevin model of memory in financial time series. Physical Review E, 2002, 65, 037106.	2.1	52

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19	Tunneling versus Chaos in the Kicked Harper Model. <i>Physical Review Letters</i> , 1994, 73, 802-805.	7.8	51
20	Beyond the Death of Linear Response: 1/f Optimal Information Transport. <i>Physical Review Letters</i> , 2010, 105, 040601.	7.8	51
21	An out-of-equilibrium model of the distributions of wealth. <i>Quantitative Finance</i> , 2004, 4, 353-364.	1.7	46
22	Self-organizing Complex Networks: individual versus global rules. <i>Frontiers in Physiology</i> , 2017, 8, 478.	2.8	45
23	Physiologic time: A hypothesis. <i>Physics of Life Reviews</i> , 2013, 10, 210-224.	2.8	43
24	Fractal response of physiological signals to stress conditions, environmental changes, and neurodegenerative diseases. <i>Complexity</i> , 2007, 12, 12-17.	1.6	42
25	Multifractality of cerebral blood flow. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2003, 318, 453-460.	2.6	40
26	FRACTAL FORMS IN PHYSIOLOGY. <i>International Journal of Modern Physics B</i> , 1990, 04, 1629-1669.	2.0	39
27	A DYNAMICAL APPROACH TO FRACTIONAL BROWNIAN MOTION. <i>Fractals</i> , 1994, 02, 81-94.	3.7	32
28	Structural determinants of criticality in biological networks. <i>Frontiers in Physiology</i> , 2015, 6, 127.	2.8	32
29	Spectral decomposition of nonlinear systems with memory. <i>Physical Review E</i> , 2016, 93, 022211.	2.1	30
30	The independently fractal nature of respiration and heart rate during exercise under normobaric and hyperbaric conditions. <i>Respiratory Physiology and Neurobiology</i> , 2005, 145, 219-233.	1.6	29
31	From Self-Organized to Extended Criticality. <i>Frontiers in Physiology</i> , 2012, 3, 98.	2.8	28
32	Multiscaling comparative analysis of time series and geophysical phenomena. <i>Complexity</i> , 2005, 10, 51-56.	1.6	25
33	Relating size and functionality in human social networks through complexity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 18355-18358.	7.1	25
34	Crucial events, randomness, and multifractality in heartbeats. <i>Physical Review E</i> , 2017, 96, 062216.	2.1	24
35	Anomalous diffusion and the correspondence principle. <i>Physical Review E</i> , 1995, 51, 5524-5534.	2.1	23
36	ON ALLOMETRY RELATIONS. <i>International Journal of Modern Physics B</i> , 2012, 26, 1230010.	2.0	23

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37	Why Do Big Data and Machine Learning Entail the Fractional Dynamics?. Entropy, 2021, 23, 297.	2.2	20
38	A mathematics for medicine: The Network Effect. Frontiers in Physiology, 2014, 5, 456.	2.8	19
39	Entropic Approach to the Detection of Crucial Events. Entropy, 2019, 21, 178.	2.2	18
40	Influence of Progressive Central Hypovolemia on Hölder Exponent Distributions of Cardiac Interbeat Intervals. Annals of Biomedical Engineering, 2004, 32, 1077-1087.	2.5	16
41	Diffusion in heterogeneous media: An iterative scheme for finding approximate solutions to fractional differential equations with time-dependent coefficients. Journal of Computational Physics, 2015, 293, 297-311.	3.8	16
42	Diffusion Entropy vs. Multiscale and Rényi Entropy to Detect Progression of Autonomic Neuropathy. Frontiers in Physiology, 2020, 11, 607324.	2.8	16
43	Chaotic properties of internal wave triad interactions. Physics of Fluids, 1997, 9, 632-647.	4.0	14
44	Fractional Dynamics of Individuals in Complex Networks. Frontiers in Physics, 2018, 6, .	2.1	14
45	Bridging Waves and Crucial Events in the Dynamics of the Brain. Frontiers in Physiology, 2018, 9, 1174.	2.8	14
46	Renewal and memory origin of anomalous diffusion: A discussion of their joint action. Physical Review E, 2013, 88, 062106.	2.1	13
47	From Neural and Social Cooperation to the Global Emergence of Cognition. Frontiers in Bioengineering and Biotechnology, 2015, 3, 78.	4.1	13
48	Self-Organized Temporal Criticality: Bottom-Up Resilience versus Top-Down Vulnerability. Complexity, 2018, 2018, 1-10.	1.6	12
49	Thoughts on modeling complexity. Complexity, 2006, 11, 33-43.	1.6	11
50	Sir Isaac Newton Stranger in a Strange Land. Entropy, 2020, 22, 1204.	2.2	11
51	Changes in Interictal Pretreatment and Posttreatment EEG in Childhood Absence Epilepsy. Frontiers in Neuroscience, 2020, 14, 196.	2.8	11
52	Control from an Allometric Perspective. Advances in Experimental Medicine and Biology, 2009, 629, 57-82.	1.6	11
53	Nonergodic complexity management. Physical Review E, 2016, 93, 062301.	2.1	10
54	Meditation-Induced Coherence and Crucial Events. Frontiers in Physiology, 2018, 9, 626.	2.8	10

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55	Hypothetical Control of Heart Rate Variability. <i>Frontiers in Physiology</i> , 2019, 10, 1078.	2.8	9
56	Wavelet analysis of scaling properties of gastric electrical activity. <i>Journal of Applied Physiology</i> , 2006, 101, 1425-1431.	2.5	8
57	Asymmetry of short-term control of spatio-temporal gait parameters during treadmill walking. <i>Scientific Reports</i> , 2017, 7, 44349.	3.3	8
58	Geophysical attractors may be only colored noise. <i>Journal of Applied Physics</i> , 1991, 69, 6747-6749.	2.5	7
59	EXTREMA OF FRACTAL RANDOM WATER WAVES. <i>International Journal of Modern Physics B</i> , 1996, 10, 67-132.	2.0	7
60	On the dynamical foundation of multifractality. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020, 551, 124038.	2.6	7
61	Fractional Calculus and the Future of Science. <i>Entropy</i> , 2021, 23, 1566.	2.2	7
62	Selfish algorithm and emergence of collective intelligence. <i>Journal of Complex Networks</i> , 2020, 8, .	1.8	6
63	EVIDENCE OF "ESSENTIAL UNCERTAINTY" IN EMERGENCY-WARD LENGTH OF STAY. <i>Fractals</i> , 2004, 12, 197-209.	3.7	5
64	A Fractional Probability Calculus View of Allometry. <i>Systems</i> , 2014, 2, 89-118.	2.3	5
65	Significance of trends in gait dynamics. <i>PLoS Computational Biology</i> , 2020, 16, e1007180.	3.2	5
66	A model of turbulent mixing in the A+B \rightarrow 0 reaction. <i>Journal of Statistical Physics</i> , 1991, 65, 1247-1260.	1.2	4
67	CHAOS, NOISE AND COMPLEX FRACTAL DIMENSIONS. <i>Fractals</i> , 1993, 01, 21-28.	3.7	4
68	IRREVERSIBILITY AND QUANTUM MACROSCOPIC EFFECTS IN CLASSICALLY CHAOTIC SYSTEMS. <i>International Journal of Modern Physics B</i> , 1993, 07, 1175-1205.	2.0	3
69	Can intermittent long-range jumps of a random walker compensate for lethargy?. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2011, 44, 152003.	2.1	3
70	Caputo Fractional Derivative and Quantum-Like Coherence. <i>Entropy</i> , 2021, 23, 211.	2.2	3
71	The Fractal Tapestry of Life: II Entailment of Fractional Oncology by Physiology Networks. <i>Frontiers in Network Physiology</i> , 2022, 2, .	1.8	3
72	The Application of Nonlinear Dynamics in Nursing Research. <i>Nonlinear Dynamics, Psychology, and Life Sciences</i> , 1997, 1, 237-261.	0.2	2

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73	Networking of psychophysics, psychology, and neurophysiology. <i>Frontiers in Physiology</i> , 2012, 3, 423.	2.8	2
74	The fractional landau model. <i>IEEE/CAA Journal of Automatica Sinica</i> , 2016, 3, 257-260.	13.1	2
75	The Fractal Tapestry of Life: III Multifractals Entail the Fractional Calculus. <i>Fractal and Fractional</i> , 2022, 6, 225.	3.3	2
76	The Disproportionate Response. , 1990, , 258-290.		1
77	NETWORKS AND 1/f NOISE. <i>Fluctuation and Noise Letters</i> , 2011, 10, 515-531.	1.5	1
78	Persistent random motion with maximally correlated fluctuations. <i>Physical Review E</i> , 2019, 100, 022119.	2.1	1
79	Size and History Combine in Allometry Relation of Technology Systems. <i>Journal of Defense Modeling and Simulation</i> , 2022, 19, 417-422.	1.7	1
80	Information Forces. <i>Journal of Theoretical and Computational Science</i> , 2016, 03, .	0.1	1
81	ANALYSIS AND NUMERICAL COMPUATION OF THE DIMENSION OF COLORED NOISE AND DETERMINISTIC TIME SERIES WITH POWER-LAW SPECTRA. <i>Fractals</i> , 1994, 02, 53-64.	3.7	0
82	Quantum dissipative systems. <i>Journal of Statistical Physics</i> , 1994, 77, 951-952.	1.2	0
83	Comment on "Quantum suppression of chaos in the spin-boson model". <i>Physical Review E</i> , 1997, 56, 2325-2328.	2.1	0
84	Quantum Irreversibility and Chaos. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , 1997, 52, 53-58.	1.5	0
85	SOCIAL, BIOLOGICAL AND PHYSICAL META-MECHANISMS: A TALE OF TAILS. , 2002, , .		0
86	METHODS FOR DISTINGUISHING CHAOS FROM COLORED NOISE. <i>Studies of Nonlinear Phenomena in Life Science</i> , 1993, , 1-41.	0.2	0
87	LEVY STATISTICS OF WATER WAVE LOADING ON SHIPS AND PLATFORMS. , 1998, , 252-265.		0
88	Hypothetical Control of Fatal Quarrel Variability. <i>Entropy</i> , 2021, 23, 1693.	2.2	0