Bruce Henry

List of Publications by Year
in descending order

98 papers	3,016 citations	257101 24 h-index	168136 53 g-index
100 all docs	100 docs citations	100 times ranked	1717 citing authors

#	Article	IF	Citations
1	The accuracy and stability of an implicit solution method for the fractional diffusion equation. Journal of Computational Physics, 2005, 205, 719-736.	1.9	464
2	Fractional reactionâ€“diffusion. Physica A: Statistical Mechanics and Its Applications, 2000, 276, 448-455.	1.2	271
3	Anomalous diffusion with linear reaction dynamics: From continuous time random walks to fractional reaction-diffusion equations. Physical Review E, 2006, 74, 031116.	0.8	210
4	Existence of Turing Instabilities in a Two-Species Fractional Reaction-Diffusion System. SIAM Journal on Applied Mathematics, 2002, 62, 870-887.	0.8	171
5	Fractional Cable Models for Spiny Neuronal Dendrites. Physical Review Letters, 2008, 100, 128103.	2.9	158
6	Fractional cable equation models for anomalous electrodiffusion in nerve cells: infinite domain solutions. Journal of Mathematical Biology, 2009, 59, 761-808.	0.8	123
7	Fractional Fokker-Planck Equations for Subdiffusion with Space- and Time-Dependent Forces. Physical Review Letters, 2010, 105, 170602.	2.9	114
8	Turing pattern formation in fractional activator-inhibitor systems. Physical Review E, 2005, 72, 026101.	0.8	98
9	The Electrotonic Structure of Pyramidal Neurons Contributing to Prefrontal Cortical Circuits in Macaque Monkeys Is Significantly Altered in Aging. Cerebral Cortex, 2009, 19, 2248-2268.	1.6	82
10	Anomalous subdiffusion with multispecies linear reaction dynamics. Physical Review E, 2008, 77, 021111.	0.8	77
11	A Fractional Order Recovery SIR Model from a Stochastic Process. Bulletin of Mathematical Biology, 2016, 78, 468-499.	0.9	64
12	A fractional-order infectivity SIR model. Physica A: Statistical Mechanics and Its Applications, 2016, 452, 86-93.	1.2	62
13	Fractional chemotaxis diffusion equations. Physical Review E, 2010, 81, 051102.	0.8	61
14	Fractional Cable Equation Models for Anomalous Electrodiffusion in Nerve Cells: Finite Domain Solutions. SIAM Journal on Applied Mathematics, 2011, 71, 1168-1203.	0.8	59
15	Turing Patterns from Dynamics of Early HIV Infection. Bulletin of Mathematical Biology, 2013, 75, 774-795.	0.9	59
16	Continuous Time Random Walks with Reactions Forcing and Trapping. Mathematical Modelling of Natural Phenomena, 2013, 8, 17-27.	0.9	59
17	A case for biotic morphogenesis of coniform stromatolites. Physica A: Statistical Mechanics and Its Applications, 2004, 337, 319-326.	1.2	56
18	Lagging and leading coupled continuous time random walks, renewal times and their joint limits. Stochastic Processes and Their Applications, 2011, 121, 324-336.	0.4	50

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19	Turing pattern formation with fractional diffusion and fractional reactions. Journal of Physics Condensed Matter, 2007, 19, 065115.	0.7	40
20	Fractional Order Compartment Models. SIAM Journal on Applied Mathematics, 2017, 77, 430-446.	0.8	35
21	Deterministic KPZ model for stromatolite laminae. Physica A: Statistical Mechanics and Its Applications, 2000, 282, 123-136.	1.2	32
22	The correlation dimension: A useful objective measure of the transient visual evoked potential?. Journal of Vision, 2008, 8, 6.	0.1	30
23	Pattern formation on networks with reactions: A continuous-time random-walk approach. Physical Review E, 2013, 87, .	0.8	30
24	Limits to Eden growth in two and three dimensions. Physics Letters, Section A: General, Atomic and Solid State Physics, 1991, 157, 229-236.	0.9	29
25	Generalized Continuous Time Random Walks, Master Equations, and Fractional Fokker–Planck Equations. SIAM Journal on Applied Mathematics, 2015, 75, 1445-1468.	0.8	26
26	From stochastic processes to numerical methods: A new scheme for solving reaction subdiffusion fractional partial differential equations. Journal of Computational Physics, 2016, 307, 508-534.	1.9	24
27	A Fractional-Order Infectivity and Recovery SIR Model. Fractal and Fractional, 2017, 1, 11.	1.6	24
28	A biofilm and organomineralisation model for the growth and limiting size of ooids. Scientific Reports, 2018, 8, 559.	1.6	24
29	Statistical physics and stromatolite growth: new perspectives on an ancient dilemma. Physica A: Statistical Mechanics and Its Applications, 2005, 350, 6-11.	1.2	21
30	Functionally relevant measures of spatial complexity in neuronal dendritic arbors. Journal of Theoretical Biology, 2006, 238, 505-526.	0.8	21
31	Recurrence times in cubic and quartic Fermi-Pasta-Ulam chains: A shifted-frequency perturbation treatment. Physical Review A, 1991, 44, 6364-6374.	1.0	16
32	A time-fractional generalised advection equation from a stochastic process. Chaos, Solitons and Fractals, 2017, 102, 175-183.	2.5	16
33	Generalized fractional power series solutions for fractional differential equations. Applied Mathematics Letters, 2020, 102, 106107.	1.5	16
34	A discrete time random walk model for anomalous diffusion. Journal of Computational Physics, 2015, 293, 53-69.	1.9	15
35	Branching in the zero-noise limit of discrete Laplacian growth processes. Physical Review A, 1992, 45, 4180-4183.	1.0	14
36	Reversible approach to statistical equilibrium in a nonlinear chain: An ensemble study. Physica D: Nonlinear Phenomena, 1987, 28, 49-79.	1.3	13

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37	Continuum model for radial interface growth. Physica A: Statistical Mechanics and Its Applications, 1998, 260, 11-19.	1.2	13
38	Mathematical and Image Analysis of Stromatolite Morphogenesis. Mathematical Geosciences, 2003, 35, 789-803.	0.9	13
39	Predicting First Traversal Times for Virions and Nanoparticles in Mucus with Slowed Diffusion. Biophysical Journal, 2015, 109, 164-172.	0.2	13
40	Intrinsic Discontinuities in Solutions of Evolution Equations Involving Fractional Caputoâ€“Fabrizio and Atanganaâ€“Baleanu Operators. Mathematics, 2020, 8, 2023.	1.1	13
41	Continuous-time random walks on networks with vertex- and time-dependent forcing. Physical Review E, 2013, 88, 022811.	0.8	12
42	Nonconservative dynamics of optically trapped high-aspect-ratio nanowires. Physical Review E, 2016, 93, 022137.	0.8	12
43	Generalized fractional diffusion equations for subdiffusion in arbitrarily growing domains. Physical Review E, 2017, 96, 042153.	0.8	12
44	Growth and form in the zero-noise limit of discrete Laplacian growth processes with inherent surface tension. Physica A: Statistical Mechanics and Its Applications, 1992, 187, 551-574.	1.2	11
45	Estimating chromatic contrast thresholds from the transient visual evoked potential. Vision Research, 2005, 45, 2367-2383.	0.7	11
46	Dynamics of a Nonlinear Diatomic Chain. Australian Journal of Physics, 1983, 36, 339.	0.6	10
47	Random walks on finite lattice tubes. Physical Review E, 2003, 68, 016112.	0.8	10
48	Time Fractional Fisherâ€“KPP and Fitzhughâ€“Nagumo Equations. Entropy, 2020, 22, 1035.	1.1	10
49	Numerical ensemble study of ergodic properties of the quartic Fermi-Pasta-Ulam chain. Physical Review A, 1988, 38, 2594-2604.	1.0	9
50	Exact solution for random walks on the triangular lattice with absorbing boundaries. Journal of Physics A, 2002, 35, 5951-5959.	1.6	9
51	Dynamics of chromatic visual system processing differ in complexity between children and adults. Journal of Vision, 2009, 9, 22-22.	0.1	9
52	Continuous-time random walks that alter environmental transport properties. Physical Review E, 2011, 84, 061146.	0.8	9
53	An explicit numerical scheme for solving fractional order compartment models from the master equations of a stochastic process. Communications in Nonlinear Science and Numerical Simulation, 2019, 68, 188-202.	1.7	9
54	Growth and form in the zero-noise limit of discrete Laplacian growth processes with inherent surface tension. Physica A: Statistical Mechanics and Its Applications, 1993, 193, 553-574.	1.2	8

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55	Nonlinear excitations in a diatomic chain. Solid State Communications, 1982, 44, 511-514.	0.9	7
56	Spectral line limiting and polarization shift in plasmas of high particle and energy density. Laser and Particle Beams, 1983, 1, 11-28.	0.4	7
57	Numerical ensemble study of the approach to equilibrium of an anharmonic chain. Physics Letters, Section A: General, Atomic and Solid State Physics, 1986, 119, 215-220.	0.9	7
58	Perturbative calculation of superperiod recurrence times in nonlinear chains. Physics Letters, Section A: General, Atomic and Solid State Physics, 1991, 159, 21-27.	0.9	7
59	Subdiffusive discrete time random walks via Monte Carlo and subordination. Journal of Computational Physics, 2018, 372, 373-384.	1.9	7
60	Time-fractional geometric Brownian motion from continuous time random walks. Physica A: Statistical Mechanics and Its Applications, 2019, 526, 121002.	1.2	7
61	Fractal dimensions of zero-noise diffusion-limited aggregation. Physica A: Statistical Mechanics and Its Applications, 1992, 191, 113-116.	1.2	6
62	Comparative study of large-scale Laplacian growth patterns. Physical Review E, 1995, 51, 807-810.	0.8	6
63	Resonance energy transfers in the induction phenomenon in quartic Fermi-Pasta-Ulam chains. Physical Review E, 1998, 58, 3045-3054.	0.8	6
64	Generalized master equations and fractional Fokkerâ€“Planck equations from continuous time random walks with arbitrary initial conditions. Computers and Mathematics With Applications, 2017, 73, 1315-1324.	1.4	6
65	A General Framework for Fractional Order Compartment Models. SIAM Review, 2021, 63, 375-392.	4.2	6
66	From dynamics to statistical mechanics in the HÃ©non-Heiles model: Dynamics. Physical Review E, 1994, 49, 2549-2558.	0.8	5
67	Chemical diffusion in amphoteric oxide semiconductors. Advances in Applied Ceramics, 2007, 106, 77-81.	0.6	5
68	Fractional Euler Limits and their Applications. SIAM Journal on Applied Mathematics, 2017, 77, 447-469.	0.8	5
69	Discretization of fractional differential equations by a piecewise constant approximation. Mathematical Modelling of Natural Phenomena, 2017, 12, 23-36.	0.9	5
70	Dynamics of a Nonlinear Diatomic Chain. II. Thermodynamic Properties. Australian Journal of Physics, 1985, 38, 171.	0.6	5
71	Fractal Dimension Analysis of Transient Visual Evoked Potentials: Optimisation and Applications. PLoS ONE, 2016, 11, e0161565.	1.1	5
72	Polarization shift of spectral lines in high density plasmas. Optics Communications, 1983, 44, 185-187.	1.0	4

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73	Dynamics and statistical mechanics of a diatomic Ï†4 chain. Solid State Communications, 1985, 55, 587-592.	0.9	4
74	A Mathematical Model for the Proliferation, Accumulation and Spread of Pathogenic Proteins Along Neuronal Pathways with Locally Anomalous Trapping. Mathematical Modelling of Natural Phenomena, 2016, 11, 142-156.	0.9	4
75	Numeric solution of advectionâ€“diffusion equations by a discrete time random walk scheme. Numerical Methods for Partial Differential Equations, 2020, 36, 680-704.	2.0	4
76	Patterning of the MinD cell division protein in cells of arbitrary shape can be predicted using a heuristic dispersion relation. AIMS Biophysics, 2016, 3, 119-145.	0.3	4
77	Chaos in a chain of six particles with fixed ends (a 4+2 chain). Physical Review A, 1991, 44, 4876-4884.	1.0	3
78	Diffusion-limited aggregation with Eden growth surface kinetics. Physica A: Statistical Mechanics and Its Applications, 1994, 203, 566-582.	1.2	3
79	Who cares what's new?. Nature, 1997, 387, 337-337.	13.7	3
80	Mean-field analysis of Williamsâ€“Bjerknes-type growth. Physica A: Statistical Mechanics and Its Applications, 1998, 256, 295-311.	1.2	3
81	Surface width scaling in noise reduced Eden clusters. Physical Review E, 1998, 58, 4023-4026.	0.8	3
82	Gene Stanley, the n-vector model and random walks with absorbing boundaries. Physica A: Statistical Mechanics and Its Applications, 2002, 314, 77-82.	1.2	3
83	Dynamics of a Nonlinear Diatomic Chain. III. A Molecular Dynamics Study. Australian Journal of Physics, 1985, 38, 191.	0.6	2
84	Numerical ensemble study of ergodic properties of the quartic Fermi-Pasta-Ulam chain. II. Distribution and correlation functions. Physical Review A, 1989, 40, 392-403.	1.0	2
85	Tip lengths and whiskering in noise-reduced diffusion-limited aggregation. Journal of Physics A, 1993, 26, 3431-3440.	1.6	2
86	New equipartition results for normal mode energies of anharmonic chains. Journal of Statistical Physics, 1995, 78, 1039-1053.	0.5	2
87	Growth and form of zero-noise diffusion-limited-aggregation on the cubic lattice. Physica A: Statistical Mechanics and Its Applications, 1996, 233, 905-918.	1.2	2
88	PATTERN FORMATION IN AN ETCHED RADIAL HELE SHAW CELL. Fractals, 1996, 04, 149-159.	1.8	2
89	Integrablization of time fractional PDEs. Computers and Mathematics With Applications, 2017, 73, 1053-1062.	1.4	2
90	Noise induced aperiodic rotations of particles trapped by a non-conservative force. Chaos, 2018, 28, 043101.	1.0	2

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91	Statistical surface distributions for constant-energy ensembles. Canadian Journal of Physics, 1997, 75, 539-547.	0.4	1
92	MULTIFRACTAL MEASURES IN FRACTIONAL ITERATIVE MAPS. Fractals, 2002, 10, 229-233.	1.8	1
93	Deterministic diffusion generated by a chaotic map with intrinsic bias. Chaos, Solitons and Fractals, 2002, 14, 681-687.	2.5	1
94	Classical freeâ€energy densities for harmonic chains: A pedagogic application of the transfer integral technique. American Journal of Physics, 1984, 52, 1016-1020.	0.3	0
95	Exact solutions for restricted walks with applications to polymers. Physics Letters, Section A: General, Atomic and Solid State Physics, 1991, 153, 35-39.	0.9	0
96	Chaotic features in fractional iterative maps. Physica A: Statistical Mechanics and Its Applications, 2002, 315, 40-44.	1.2	0
97	Anomalous dynamic behaviour of optically trapped high aspect ratio nanowires. , 2014, , .		0
98	Integrability of Low Particle-number Models for Solids. Australian Journal of Physics, 1991, 44, 1.	0.6	0