Richard A Blythe

List of Publications by Year
in descending order

74 papers	3,295 citations	236833 25 h-index	149623 56 g-index
74 all docs	74 docs citations	74 times ranked	1916 citing authors

#	Article	IF	Citations
1	Language Is a Complex Adaptive System: Position Paper. Language Learning, 2009, 59, 1-26.	1.4	678
2	Nonequilibrium steady states of matrix-product form: a solver's guide. Journal of Physics A: Mathematical and Theoretical, 2007, 40, R333-R441.	0.7	536
3	Stochastic models of evolution in genetics, ecology and linguistics. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P07018-P07018.	0.9	144
4	S-curves and the mechanisms of propagation in language change. Language, 2012, 88, 269-304.	0.3	137
5	Modeling language change: An evaluation of Trudgill's theory of the emergence of New Zealand English. Language Variation and Change, 2009, 21, 257-296.	0.3	118
6	Crossâ€Situational Learning: An Experimental Study of Wordâ€Learning Mechanisms. Cognitive Science, 2011, 35, 480-498.	0.8	111
7	Lattice models of nonequilibrium bacterial dynamics. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, P02029.	0.9	102
8	Utterance selection model of language change. Physical Review E, 2006, 73, 046118.	0.8	96
9	Jamming and Attraction of Interacting Run-and-Tumble Random Walkers. Physical Review Letters, 2016, 116, 218101.	2.9	79
10	The Lee-Yang theory of equilibrium and nonequilibrium phase transitions. Brazilian Journal of Physics, 2003, 33, 464-475.	0.7	76
11	Executive functions predict conceptual learning of science. British Journal of Developmental Psychology, 2016, 34, 261-275.	0.9	71
12	Building social cognitive models of language change. Trends in Cognitive Sciences, 2009, 13, 464-469.	4.0	66
13	How do communication systems emerge?. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 1943-1949.	1.2	62
14	Exact Asymptotics for One-Dimensional Diffusion with Mobile Traps. Physical Review Letters, 2002, 89, 150601.	2.9	61
15	Learning Times for Large Lexicons Through Crossâ€Situational Learning. Cognitive Science, 2010, 34, 620-642.	0.8	61
16	Fixation and Consensus Times on a Network: A Unified Approach. Physical Review Letters, 2008, 101, 258701.	2.9	56
17	Survival probability of a diffusing particle in the presence of Poisson-distributed mobile traps. Physical Review E, 2003, 67, 041101.	0.8	52
18	Nonequilibrium dynamics in low-dimensional systems. Physica A: Statistical Mechanics and Its Applications, 2002, 313, 110-152.	1.2	47

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19	Exact solution of the multi-allelic diffusion model. Mathematical Biosciences, 2007, 209, 124-170.	0.9	44
20	Why is combinatorial communication rare in the natural world, and why is language an exception to this trend?. Journal of the Royal Society Interface, 2013, 10, 20130520.	1.5	39
21	Assembly of microbial communities in replicate nutrientâ€cycling model ecosystems follows divergent trajectories, leading to alternate stable states. Environmental Microbiology, 2017, 19, 3374-3386.	1.8	39
22	Formal solution of a class of reaction-diffusion models: Reduction to a single-particle problem. Physical Review E, 2003, 67, 060102.	0.8	34
23	Exact solution of two interacting run-and-tumble random walkers with finite tumble duration. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 375601.	0.7	33
24	Exact spectral solution of two interacting run-and-tumble particles on a ring lattice. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 013204.	0.9	33
25	Stochastic Ballistic Annihilation and Coalescence. Physical Review Letters, 2000, 85, 3750-3753.	2.9	27
26	Momentum in Language Change. Language Dynamics and Change, 2016, 6, 171-198.	0.4	25
27	Cross-Situational Learning: A Mathematical Approach. Lecture Notes in Computer Science, 2006, , 31-44.	1.0	25
28	Ordering in voter models on networks: exact reduction to a single-coordinate diffusion. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 385003.	0.7	23
29	NEUTRAL EVOLUTION: A NULL MODEL FOR LANGUAGE DYNAMICS. International Journal of Modeling, Simulation, and Scientific Computing, 2012, 15, 1150015.	0.9	23
30	Mechanism for the failure of the Edwards hypothesis in the Sherrington-Kirkpatrick spin glass. Physical Review B, 2006, 74, .	1.1	22
31	Dynamical transition in the open-boundary totally asymmetric exclusion process. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 035003.	0.7	22
32	Dyck paths, Motzkin paths and traffic jams. Journal of Statistical Mechanics: Theory and Experiment, 2004, 2004, P10007.	0.9	21
33	Spatiotemporally Complete Condensation in a Non-Poissonian Exclusion Process. Physical Review Letters, 2014, 112, 050603.	2.9	20
34	Free-energy landscapes, dynamics, and the edge of chaos in mean-field models of spin glasses. Physical Review B, 2006, 74, .	1.1	19
35	Evidence for a Role of Executive Functions in Learning Biology. Infant and Child Development, 2014, 23, 67-83.	0.9	19
36	Continued fractions and the partially asymmetric exclusion process. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 325002.	0.7	17

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37	Stochastic Dynamics of Lexicon Learning in an Uncertain and Nonuniform World. Physical Review Letters, 2013, 110, 258701.	2.9	17
38	The Speech Community in Evolutionary Language Dynamics. Language Learning, 2009, 59, 47-63.	1.4	15
39	Noise-Induced Dynamical Transition in Systems with Symmetric Absorbing States. Physical Review Letters, 2011, 106, 165702.	2.9	15
40	How individuals change language. PLoS ONE, 2021, 16, e0252582.	1.1	15
41	Word learning under infinite uncertainty. Cognition, 2016, 151, 18-27.	1.1	13
42	Generic modes of consensus formation in stochastic language dynamics. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P02059.	0.9	12
43	Parasites on parasites: Coupled fluctuations in stacked contact processes. Europhysics Letters, 2013, 101, 50001.	0.7	12
44	A comparison of dynamical fluctuations of biased diffusion and run-and-tumble dynamics in one dimension. Journal of Physics A: Mathematical and Theoretical, 2019, 52, 425002.	0.7	12
45	The grand-canonical asymmetric exclusion process and the one-transit walk. Journal of Statistical Mechanics: Theory and Experiment, 2004, 2004, P06001.	0.9	11
46	Resource spectrum engineering by specialist species can shift the specialist-generalist balance. Theoretical Ecology, 2020, 13, 149-163.	0.4	11
47	Challenges in detecting evolutionary forces in language change using diachronic corpora. Glossa, 2020, 5, 45.	0.2	11
48	Zero-range processes with saturated condensation: the steady state and dynamics. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P02013.	0.9	9
49	Colloquium: Hierarchy of scales in language dynamics. European Physical Journal B, 2015, 88, 1.	0.6	9
50	Slow crossover to Kardar-Parisi-Zhang scaling. Physical Review E, 2001, 64, 051101.	0.8	8
51	The propagation of a cultural or biological trait by neutral genetic drift in a subdivided population. Theoretical Population Biology, 2007, 71, 454-472.	0.5	8
52	RÃ©nyi entropy of the totally asymmetric exclusion process. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 475005.	0.7	8
53	Conceptual Similarity and Communicative Need Shape Colexification: An Experimental Study. Cognitive Science, 2021, 45, e13035.	0.8	7
54	An introduction to phase transitions in stochastic dynamical systems. Journal of Physics: Conference Series, 2006, 40, 1-12.	0.3	6

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55	Fast fixation with a generic network structure. Physical Review E, 2012, 86, 031142.	0.8	6
56	Minimal stochastic field equations for one-dimensional flocking. Physical Review E, 2018, 98, .	0.8	6
57	Can a Scienceâ€"Humanities Collaboration Be Successful?. Adaptive Behavior, 2010, 18, 12-20.	1.1	5
58	Coupled differentiation and division of embryonic stem cells inferred from clonal snapshots. Physical Biology, 2020, 17, 065009.	0.8	5
59	Combinatorial mappings of exclusion processes. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 123001.	0.7	5
60	Publisherâ€™s Note: Exact Asymptotics for One-Dimensional Diffusion with Mobile Traps [Phys. Rev. Lett.89, 150601 (2002)]. Physical Review Letters, 2002, 89, .	2.9	4
61	Macroscopically observable probability currents in finite populations. Journal of Statistical Mechanics: Theory and Experiment, 2013, 2013, P06008.	0.9	4
62	Simulating the Real Origins of Communication. PLoS ONE, 2014, 9, e113636.	1.1	4
63	Maintenance of order in a moving strong condensate. Journal of Statistical Mechanics: Theory and Experiment, 2014, 2014, P11029.	0.9	4
64	Solvable model of a many-filament Brownian ratchet. Physical Review E, 2019, 100, 042122.	0.8	4
65	Inter-particle ratchet effect determines global current of heterogeneous particles diffusing in confinement. Journal of Statistical Mechanics: Theory and Experiment, 2021, 2021, 013209.	0.9	3
66	RANDOM COPYING IN SPACE. International Journal of Modeling, Simulation, and Scientific Computing, 2012, 15, 1150012.	0.9	2
67	Width Scaling of an Interface Constrained by a Membrane. Physical Review Letters, 2018, 121, 058102.	2.9	2
68	Symmetry and Universality in Language Change. Lecture Notes in Morphogenesis, 2016, , 43-57.	0.2	2
69	Discontinuous transition in a boundary driven contact process. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P09008.	0.9	1
70	THE ORIGINS OF COMBINATORIAL COMMUNICATION. , 2014, , .		1
71	A search for general principles of nonequilibrium physics. Journal of Physics A: Mathematical and Theoretical, 2016, 49, 421006.	0.7	0
72	How Laggards Help Decision-Making. Physics Magazine, 2020, 13, .	0.1	0

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73	SAMPLERS, MAXIMISERS AND THE CULTURAL EVOLUTIONARY DYNAMICS OF LANGUAGE. , 2010, , .		0
74	The Interplay of Replication, Variation and Selection in the Dynamics of Evolving Populations. The Frontiers Collection, 2011, , 81-118.	0.1	0