

Sergey V Buldyrev

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220
papers

21,814
citations

65
h-index

145
g-index

227
ext. papers

24,036
ext. citations

5.5
avg, IF

6.62
L-index

#	Paper	IF	Citations
220	Mosaic organization of DNA nucleotides. <i>Physical Review E</i> , 1994 , 49, 1685-9	2.4	3261
219	Catastrophic cascade of failures in interdependent networks. <i>Nature</i> , 2010 , 464, 1025-8	50.4	2614
218	Optimizing the success of random searches. <i>Nature</i> , 1999 , 401, 911-4	50.4	1098
217	Networks formed from interdependent networks. <i>Nature Physics</i> , 2012 , 8, 40-48	16.2	796
216	Revisiting Lévy flight search patterns of wandering albatrosses, bumblebees and deer. <i>Nature</i> , 2007 , 449, 1044-8	50.4	626
215	Scaling behaviour in the growth of companies. <i>Nature</i> , 1996 , 379, 804-806	50.4	534
214	Interdependent networks: reducing the coupling strength leads to a change from a first to second order percolation transition. <i>Physical Review Letters</i> , 2010 , 105, 048701	7.4	517
213	Long-range correlation properties of coding and noncoding DNA sequences: GenBank analysis. <i>Physical Review E</i> , 1995 , 51, 5084-91	2.4	458
212	Robustness of a network of networks. <i>Physical Review Letters</i> , 2011 , 107, 195701	7.4	418
211	Robustness of interdependent networks under targeted attack. <i>Physical Review E</i> , 2011 , 83, 065101	2.4	346
210	Generic mechanism for generating a liquid-liquid phase transition. <i>Nature</i> , 2001 , 409, 692-5	50.4	335
209	Anomalous interface roughening in porous media: Experiment and model. <i>Physical Review A</i> , 1992 , 45, R8313-R8316	2.6	273
208	Discrete molecular dynamics studies of the folding of a protein-like model. <i>Folding & Design</i> , 1998 , 3, 577-87		255
207	Cascade of failures in coupled network systems with multiple support-dependence relations. <i>Physical Review E</i> , 2011 , 83, 036116	2.4	252
206	Zipf plots and the size distribution of firms. <i>Economics Letters</i> , 1995 , 49, 453-457	1.3	224
205	Critical effect of dependency groups on the function of networks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 1007-10	11.5	217
204	Spontaneous recovery in dynamical networks. <i>Nature Physics</i> , 2014 , 10, 34-38	16.2	215

203	The extreme vulnerability of interdependent spatially embedded networks. <i>Nature Physics</i> , 2013 , 9, 667-672	2.09	209
202	Linguistic features of noncoding DNA sequences. <i>Physical Review Letters</i> , 1994 , 73, 3169-72	7.4	205
201	Finite-size effects on long-range correlations: implications for analyzing DNA sequences. <i>Physical Review E</i> , 1993 , 47, 3730-3	2.4	202
200	Power Law Scaling for a System of Interacting Units with Complex Internal Structure. <i>Physical Review Letters</i> , 1998 , 80, 1385-1388	7.4	201
199	Appearance of a fractional Stokes-Einstein relation in water and a structural interpretation of its onset. <i>Nature Physics</i> , 2009 , 5, 565-569	16.2	199
198	Thermodynamics, structure, and dynamics of water confined between hydrophobic plates. <i>Physical Review E</i> , 2005 , 72, 051503	2.4	192
197	Cascading failures in interdependent lattice networks: the critical role of the length of dependency links. <i>Physical Review Letters</i> , 2012 , 108, 228702	7.4	180
196	Liquid-State Anomalies and the Stell-Hemmer Core-Softened Potential. <i>Physical Review Letters</i> , 1998 , 81, 4895-4898	7.4	174
195	Scaling laws of human interaction activity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 12640-5	11.5	173
194	Interdependent networks with identical degrees of mutually dependent nodes. <i>Physical Review E</i> , 2011 , 83, 016112	2.4	168
193	Correlation approach to identify coding regions in DNA sequences. <i>Biophysical Journal</i> , 1994 , 67, 64-70	2.9	161
192	Long flights in random searches. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2000 , 282, 1-12	3.3	157
191	Optimal paths in disordered complex networks. <i>Physical Review Letters</i> , 2003 , 91, 168701	7.4	148
190	Molecular dynamics simulation of the SH3 domain aggregation suggests a generic amyloidogenesis mechanism. <i>Journal of Molecular Biology</i> , 2002 , 324, 851-7	6.5	146
189	Thermodynamics and dynamics of the two-scale spherically symmetric Jagla ramp model of anomalous liquids. <i>Physical Review E</i> , 2006 , 74, 031108	2.4	143
188	Scaling Behavior in Economics: I. Empirical Results for Company Growth. <i>Journal De Physique, I</i> , 1997 , 7, 621-633		139
187	Structural order for one-scale and two-scale potentials. <i>Physical Review Letters</i> , 2005 , 95, 130604	7.4	131
186	Fractal landscapes and molecular evolution: modeling the myosin heavy chain gene family. <i>Biophysical Journal</i> , 1993 , 65, 2673-9	2.9	131

185	Statistical mechanics in biology: how ubiquitous are long-range correlations?. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1994 , 205, 214-53	3.3	131
184	Identifying the protein folding nucleus using molecular dynamics. <i>Journal of Molecular Biology</i> , 2000 , 296, 1183-8	6.5	130
183	Folding Trp-cage to NMR resolution native structure using a coarse-grained protein model. <i>Biophysical Journal</i> , 2005 , 88, 147-55	2.9	125
182	Generalized L _W -walk model for DNA nucleotide sequences. <i>Physical Review E</i> , 1993 , 47, 4514-23	2.4	125
181	Direct molecular dynamics observation of protein folding transition state ensemble. <i>Biophysical Journal</i> , 2002 , 83, 3525-32	2.9	119
180	Connection between Adam-Gibbs theory and spatially heterogeneous dynamics. <i>Physical Review Letters</i> , 2003 , 90, 085506	7.4	116
179	Folding events in the 21-30 region of amyloid beta-protein (Abeta) studied in silico. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 6015-20	11.5	113
178	Statistical properties of DNA sequences. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1995 , 221, 180-92	3.3	100
177	Family of tunable spherically symmetric potentials that span the range from hard spheres to waterlike behavior. <i>Physical Review E</i> , 2006 , 73, 051204	2.4	97
176	Fractals in biology and medicine. <i>Chaos, Solitons and Fractals</i> , 1995 , 6, 171-201	9.3	96
175	Structure of the first- and second-neighbor shells of simulated water: quantitative relation to translational and orientational order. <i>Physical Review E</i> , 2007 , 76, 051201	2.4	94
174	Static and dynamic anomalies in a repulsive spherical ramp liquid: theory and simulation. <i>Physical Review E</i> , 2005 , 72, 021501	2.4	94
173	Species independence of mutual information in coding and noncoding DNA. <i>Physical Review E</i> , 2000 , 61, 5624-9	2.4	94
172	Aggregation and disaggregation of senile plaques in Alzheimer disease. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1997 , 94, 7612-6	11.5	93
171	Dynamical robustness of L _W search strategies. <i>Physical Review Letters</i> , 2003 , 91, 240601	7.4	92
170	Structure of shells in complex networks. <i>Physical Review E</i> , 2009 , 80, 036105	2.4	90
169	Water-like solvation thermodynamics in a spherically symmetric solvent model with two characteristic lengths. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 20177-82	11.5	90
168	Percolation of a general network of networks. <i>Physical Review E</i> , 2013 , 88, 062816	2.4	87

167	A tetrahedral entropy for water. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 22130-4	11.5	85
166	Scaling Behavior in Economics: II. Modeling of Company Growth. <i>Journal De Physique, I</i> , 1997 , 7, 635-650		84
165	The robustness of interdependent clustered networks. <i>Europhysics Letters</i> , 2013 , 101, 18002	1.6	82
164	Anomalous transport in scale-free networks. <i>Physical Review Letters</i> , 2005 , 94, 248701	7.4	82
163	Description of microcolumnar ensembles in association cortex and their disruption in Alzheimer and Lewy body dementias. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000 , 97, 5039-43	11.5	82
162	Systematic analysis of coding and noncoding DNA sequences using methods of statistical linguistics. <i>Physical Review E</i> , 1995 , 52, 2939-50	2.4	82
161	Traveling time and traveling length in critical percolation clusters. <i>Physical Review E</i> , 1999 , 60, 3425-8	2.4	76
160	Levy flight random searches in biological phenomena. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2002 , 314, 208-213	3.3	75
159	Liquid-liquid phase transition for an attractive isotropic potential with wide repulsive range. <i>Physical Review E</i> , 2005 , 71, 061504	2.4	74
158	A monatomic system with a liquid-liquid critical point and two distinct glassy states. <i>Journal of Chemical Physics</i> , 2009 , 130, 054505	3.9	71
157	Waterlike anomalies for core-softened models of fluids: one dimension. <i>Physical Review E</i> , 1999 , 60, 6714-21	2.4	71
156	Molecular dynamics study of orientational cooperativity in water. <i>Physical Review E</i> , 2006 , 73, 041505	2.4	69
155	Energy landscape in protein folding and unfolding. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 3159-63	11.5	62
154	The size variance relationship of business firm growth rates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 19595-600	11.5	60
153	Effect of water-wall interaction potential on the properties of nanoconfined water. <i>Physical Review E</i> , 2007 , 75, 011202	2.4	60
152	Levy flights search patterns of biological organisms. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2001 , 295, 85-88	3.3	60
151	Scaling behavior in economics: The problem of quantifying company growth. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1997 , 244, 1-24	3.3	59
150	A system with multiple liquid-liquid critical points. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2003 , 330, 124-129	3.3	59

149	Non-equilibrium dynamics as an indispensable characteristic of a healthy biological system. <i>Integrative Psychological and Behavioral Science</i> , 1994 , 29, 283-93		59
148	Communication activity in a social network: relation between long-term correlations and inter-event clustering. <i>Scientific Reports</i> , 2012 , 2, 560	4.9	58
147	Properties of Lévy flights on an interval with absorbing boundaries. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2001 , 302, 148-161	3.3	57
146	Flow between two sites on a percolation cluster. <i>Physical Review E</i> , 2000 , 62, 8270-81	2.4	57
145	Search for a liquid-liquid critical point in models of silica. <i>Journal of Chemical Physics</i> , 2014 , 140, 224502	3.9	56
144	Physiology: Dynamic instabilities in the inflating lung. <i>Nature</i> , 2002 , 417, 809-11	50.4	55
143	Long-range power-law correlations in condensed matter physics and biophysics. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1993 , 200, 4-24	3.3	54
142	Dynamic Heterogeneities in Supercooled Water. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 6655-6662	3.4	52
141	Correspondence between phase diagrams of the TIP5P water model and a spherically symmetric repulsive ramp potential with two characteristic length scales. <i>Physical Review E</i> , 2008 , 77, 042201	2.4	51
140	OPTIMAL PATH AND MINIMAL SPANNING TREES IN RANDOM WEIGHTED NETWORKS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2007 , 17, 2215-2255	2	51
139	Thermodynamics and folding kinetics analysis of the SH3 domain from discrete molecular dynamics. <i>Journal of Molecular Biology</i> , 2002 , 318, 863-76	6.5	51
138	Avalanches and the directed percolation depinning model: Experiments, simulations, and theory. <i>Physical Review E</i> , 1995 , 51, 4655-4673	2.4	51
137	Relation of water anomalies to the excess entropy. <i>Physical Review E</i> , 2008 , 78, 051201	2.4	50
136	Transitions between inherent structures in water. <i>Physical Review E</i> , 2002 , 65, 041502	2.4	50
135	Scaling of the Distribution of Shortest Paths in Percolation. <i>Journal of Statistical Physics</i> , 1998 , 93, 603-613		48
134	Routes to colloidal gel formation. <i>Computer Physics Communications</i> , 2005 , 169, 166-171	4.2	48
133	Long-range fractal correlations in DNA. <i>Physical Review Letters</i> , 1993 , 71, 1776	7.4	48
132	Behavior of the Widom line in critical phenomena. <i>Physical Review Letters</i> , 2014 , 112, 135701	7.4	46

131	Avalanches in the lung: A statistical mechanical model. <i>Physical Review Letters</i> , 1996 , 76, 2192-2195	7.4	46
130	Improvements in the statistical approach to random Lévy flight searches. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2001 , 295, 89-92	3.3	45
129	Fractal boundaries of complex networks. <i>Europhysics Letters</i> , 2008 , 84, 48004	1.6	44
128	Static and dynamic heterogeneities in water. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2005 , 363, 509-23	3	44
127	The Growth of Business Firms: Facts and Theory. <i>Journal of the European Economic Association</i> , 2007 , 5, 574-584	3.3	43
126	Liquid-liquid phase transition in one-component fluids. <i>Journal of Physics Condensed Matter</i> , 2002 , 14, 2193-2200	1.8	43
125	Fractal landscape analysis of DNA walks. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1992 , 191, 25-9	3.3	43
124	Waterlike glass polyamorphism in a monoatomic isotropic Jagla model. <i>Journal of Chemical Physics</i> , 2011 , 134, 064507	3.9	41
123	Ballistic deposition with power-law noise: A variant of the Zhang model. <i>Physical Review A</i> , 1991 , 43, 7113-7116	2.6	41
122	Clusters of mobile molecules in supercooled water. <i>Physical Review E</i> , 2005 , 72, 011202	2.4	40
121	Quasicrystals in a monodisperse system. <i>Physical Review E</i> , 1999 , 60, 2664-9	2.4	40
120	New exponent characterizing the effect of evaporation on imbibition experiments. <i>Physical Review Letters</i> , 1994 , 72, 641-644	7.4	40
119	Relating airway diameter distributions to regular branching asymmetry in the lung. <i>Physical Review Letters</i> , 2005 , 95, 168101	7.4	39
118	Current flow in random resistor networks: the role of percolation in weak and strong disorder. <i>Physical Review E</i> , 2005 , 71, 045101	2.4	39
117	Liquid and glass polymorphism in a monatomic system with isotropic, smooth pair interactions. <i>Journal of Physical Chemistry B</i> , 2011 , 115, 14229-39	3.4	35
116	Multiple folding pathways of the SH3 domain. <i>Biophysical Journal</i> , 2004 , 87, 521-33	2.9	35
115	Universality classes for self-avoiding walks in a strongly disordered system. <i>Physical Review E</i> , 2002 , 65, 056128	2.4	35
114	Distribution of Base Pair Repeats in Coding and Noncoding DNA Sequences. <i>Physical Review Letters</i> , 1997 , 79, 5182-5185	7.4	33

113	Preferential attachment and growth dynamics in complex systems. <i>Physical Review E</i> , 2006 , 74, 035103	2.4	33
112	Avalanche dynamics of crackle sound in the lung. <i>Physical Review Letters</i> , 2001 , 87, 088101	7.4	33
111	Distributions of dimeric tandem repeats in non-coding and coding DNA sequences. <i>Journal of Theoretical Biology</i> , 2000 , 202, 273-82	2.3	33
110	Predicting oil recovery using percolation. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1999 , 266, 107-114	3.3	32
109	Relationship between the liquid-liquid phase transition and dynamic behaviour in the Jagla model. <i>Journal of Physics Condensed Matter</i> , 2006 , 18, S2239-S2246	1.8	31
108	CAN STATISTICAL PHYSICS CONTRIBUTE TO THE SCIENCE OF ECONOMICS?. <i>Fractals</i> , 1996 , 04, 415-425	3.2	30
107	Scaling in the growth of geographically subdivided populations: invariant patterns from a continent-wide biological survey. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2002 , 357, 627-33	5.8	29
106	Punctuated equilibrium and "history-dependent" percolation. <i>Physical Review E</i> , 1994 , 50, 2403-2406	2.4	29
105	Effect of hydrophobic solutes on the liquid-liquid critical point. <i>Physical Review E</i> , 2010 , 81, 061504	2.4	28
104	Thermodynamic and dynamic anomalies for dumbbell molecules interacting with a repulsive ramplike potential. <i>Physical Review E</i> , 2006 , 73, 061504	2.4	28
103	Effect of disorder strength on optimal paths in complex networks. <i>Physical Review E</i> , 2004 , 70, 046133	2.4	28
102	On Economic Complexity and the Fitness of Nations. <i>Scientific Reports</i> , 2017 , 7, 15332	4.9	26
101	Phase diagram of a two-dimensional system with anomalous liquid properties. <i>Journal of Chemical Physics</i> , 2012 , 137, 034507	3.9	26
100	Network of Interdependent Networks: Overview of Theory and Applications. <i>Understanding Complex Systems</i> , 2014 , 3-36	0.4	24
99	Cascading failures in networks with proximate dependent nodes. <i>Physical Review E</i> , 2014 , 89, 032808	2.4	24
98	Correlated randomness and switching phenomena. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2010 , 389, 2880-2893	3.3	23
97	FLUCTUATIONS, NOISE AND SCALING IN THE CARDIO-PULMONARY SYSTEM. <i>Fluctuation and Noise Letters</i> , 2003 , 03, R1-R25	1.2	23
96	Anisotropic percolation and the d-dimensional surface roughening problem. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1993 , 200, 200-211	3.3	23

95	Cluster formation, waterlike anomalies, and re-entrant melting for a family of bounded repulsive interaction potentials. <i>Physical Review E</i> , 2010 , 81, 031201	2.4	22
94	Distribution of shortest paths in percolation. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1999 , 266, 55-61	3.3	22
93	Validation of Capillarity Theory at the Nanometer Scale by Atomistic Computer Simulations of Water Droplets and Bridges in Contact with Hydrophobic and Hydrophilic Surfaces. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 1597-1608	3.8	21
92	A statistically based density map method for identification and quantification of regional differences in microcolumnarity in the monkey brain. <i>Journal of Neuroscience Methods</i> , 2005 , 141, 321-323		21
91	Scaling behavior in crackle sound during lung inflation. <i>Physical Review E</i> , 1999 , 60, 4659-63	2.4	21
90	Dynamics of surface roughening with quenched disorder. <i>Physical Review Letters</i> , 1995 , 74, 4205-4208	7.4	21
89	Dry friction avalanches: experiment and theory. <i>Physical Review E</i> , 2006 , 74, 066110	2.4	20
88	Transport and percolation theory in weighted networks. <i>Physical Review E</i> , 2007 , 75, 045103	2.4	19
87	Glassy behavior of a homopolymer from molecular dynamics simulations. <i>Physical Review E</i> , 2002 , 65, 030801	2.4	19
86	Optimization of crystal nucleation close to a metastable fluid-fluid phase transition. <i>Scientific Reports</i> , 2015 , 5, 11260	4.9	18
85	Optimal path in random networks with disorder: A mini review. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2005 , 346, 82-92	3.3	18
84	Efficient network immunization under limited knowledge. <i>National Science Review</i> , 2021 , 8, nwaa229	10.8	18
83	Diffusivity and short-time dynamics in two models of silica. <i>Journal of Chemical Physics</i> , 2015 , 142, 104506	5.9	17
82	Hydrophobic collapse and cold denaturation in the Jagla model of water. <i>Journal of Physics Condensed Matter</i> , 2010 , 22, 284109	1.8	17
81	Modeling simple amphiphilic solutes in a Jagla solvent. <i>Journal of Chemical Physics</i> , 2012 , 136, 044511	3.9	17
80	Model of unequal chromosomal crossing over in DNA sequences. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1998 , 249, 594-599	3.3	17
79	Postbreakthrough behavior in flow through porous media. <i>Physical Review E</i> , 2003 , 67, 056314	2.4	17
78	Fractals in Biology and Medicine: From DNA to the Heartbeat 1994 , 49-88		17

77	Physics of the Jagla model as the liquid-liquid coexistence line slope varies. <i>Journal of Chemical Physics</i> , 2015 , 142, 224501	3.9	16
76	Homogeneous crystal nucleation near a metastable fluid-fluid phase transition. <i>Physical Review Letters</i> , 2012 , 109, 095702	7.4	16
75	Different water scenarios for a primitive model with two types of hydrogen bonds. <i>Europhysics Letters</i> , 2012 , 97, 56005	1.6	16
74	Monte Carlo simulation of liquid bridge rupture: application to lung physiology. <i>Physical Review E</i> , 2006 , 74, 026311	2.4	16
73	Effect of hydrophobic environments on the hypothesized liquid-liquid critical point of water. <i>Journal of Biological Physics</i> , 2012 , 38, 97-111	1.6	15
72	Uncertainty in oil production predicted by percolation theory. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2002 , 306, 376-380	3.3	15
71	Crackles and instabilities during lung inflation. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2005 , 357, 18-26	3.3	15
70	Potential of mean force between hydrophobic solutes in the Jagla model of water and implications for cold denaturation of proteins. <i>Journal of Chemical Physics</i> , 2012 , 136, 044512	3.9	14
69	Confinement of anomalous liquids in nanoporous matrices. <i>Physical Review Letters</i> , 2012 , 109, 105701	7.4	14
68	Using percolation theory to predict oil field performance. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2002 , 314, 103-108	3.3	14
67	Temperature and length scale dependence of solvophobic solvation in a single-site water-like liquid. <i>Journal of Chemical Physics</i> , 2013 , 138, 064506	3.9	13
66	Communication activity in social networks: growth and correlations. <i>European Physical Journal B</i> , 2011 , 84, 147-159	1.2	13
65	Optimal paths in strong and weak disorder: a unified approach. <i>Physical Review E</i> , 2006 , 73, 036128	2.4	13
64	Dependence of conductance on percolation backbone mass. <i>Physical Review E</i> , 2000 , 61, 3435-40	2.4	13
63	Liquid-liquid phase transition and glass transition in a monoatomic model system. <i>International Journal of Molecular Sciences</i> , 2010 , 11, 5184-200	6.3	12
62	Scale-free networks emerging from weighted random graphs. <i>Physical Review E</i> , 2006 , 73, 025103	2.4	12
61	SURFACE ROUGHENING WITH QUENCHED DISORDER IN d-DIMENSIONS. <i>Fractals</i> , 1993 , 01, 827-839	3.2	12
60	Interdependent lattice networks in high dimensions. <i>Physical Review E</i> , 2016 , 94, 052306	2.4	11

59	Volume distributions of avalanches in lung inflation: A statistical mechanical approach. <i>Physical Review E</i> , 1997 , 56, 3385-3394	2.4	11
58	Identifying importance of amino acids for protein folding from crystal structures. <i>Methods in Enzymology</i> , 2003 , 374, 616-38	1.7	11
57	Optimization of coding potentials using positional dependence of nucleotide frequencies. <i>Journal of Theoretical Biology</i> , 2000 , 206, 525-37	2.3	11
56	Logistic map: an analytical solution. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1995 , 218, 457-460	2.4	11
55	The phase behavior study of human antibody solution using multi-scale modeling. <i>Journal of Chemical Physics</i> , 2016 , 145, 194901	3.9	11
54	Network overload due to massive attacks. <i>Physical Review E</i> , 2018 , 97, 052309	2.4	11
53	A coarse-grained protein model in a water-like solvent. <i>Scientific Reports</i> , 2013 , 3, 1841	4.9	10
52	Local structure and thermodynamics of a core-softened potential fluid: theory and simulation. <i>ChemPhysChem</i> , 2007 , 8, 138-47	3.2	10
51	Universality of the optimal path in the strong disorder limit. <i>Physical Review E</i> , 2004 , 70, 035102	2.4	10
50	Possible connection between the optimal path and flow in percolation clusters. <i>Physical Review E</i> , 2005 , 72, 056131	2.4	10
49	Expansion of tandem repeats and oligomer clustering in coding and noncoding DNA sequences. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1999 , 273, 19-32	3.3	10
48	Surface roughening with quenched disorder in high dimensions: Exact results for the Cayley tree. <i>Physical Review E</i> , 1995 , 52, 373-388	2.4	10
47	Anomalous electrical and frictionless flow conductance in complex networks. <i>Physica D: Nonlinear Phenomena</i> , 2006 , 224, 69-76	3.3	9
46	Scaling of optimal-path-lengths distribution in complex networks. <i>Physical Review E</i> , 2005 , 72, 025102	2.4	9
45	Statistical and linguistic features of noncoding DNA: A heterogeneous «Complex system». <i>Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics</i> , 1994 , 16, 1339-1356		9
44	Crackling sound generation during the formation of liquid bridges: A lattice gas model. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2013 , 392, 3409-3416	3.3	8
43	Fluid transport in branched structures with temporary closures: a model for quasistatic lung inflation. <i>Physical Review E</i> , 2003 , 67, 031912	2.4	8
42	Thermodynamically important contacts in folding of model proteins. <i>Physical Review E</i> , 2001 , 63, 032901	2.4	8

41	Reversible bootstrap percolation: Fake news and fact checking. <i>Physical Review E</i> , 2020 , 101, 042307	2.4	7
40	Validation of Capillarity Theory at the Nanometer Scale. II: Stability and Rupture of Water Capillary Bridges in Contact with Hydrophobic and Hydrophilic Surfaces. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 1556-1569	3.8	7
39	Percolation model for growth rates of aggregates and its application for business firm growth. <i>Physical Review E</i> , 2006 , 74, 036118	2.4	7
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