

# Eshel Ben-Jacob

## List of Publications by Year in descending order

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244  
papers

21,345  
citations

14614

66  
h-index

11288

136  
g-index

251  
all docs

251  
docs citations

251  
times ranked

16032  
citing authors

#	ARTICLE	IF	CITATIONS
1	Novel Type of Phase Transition in a System of Self-Driven Particles. <i>Physical Review Letters</i> , 1995, 75, 1226-1229.	2.9	5,647
2	The formation of patterns in non-equilibrium growth. <i>Nature</i> , 1990, 343, 523-530.	13.7	729
3	Implications of the Hybrid Epithelial/Mesenchymal Phenotype in Metastasis. <i>Frontiers in Oncology</i> , 2015, 5, 155.	1.3	581
4	Cooperative self-organization of microorganisms. <i>Advances in Physics</i> , 2000, 49, 395-554.	35.9	529
5	Generic modelling of cooperative growth patterns in bacterial colonies. <i>Nature</i> , 1994, 368, 46-49.	13.7	520
6	MicroRNA-based regulation of epithelialâ€“hybridâ€“mesenchymal fate determination. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 18144-18149.	3.3	442
7	Stability of the hybrid epithelial/mesenchymal phenotype. <i>Oncotarget</i> , 2016, 7, 27067-27084.	0.8	367
8	Dominating Clasp of the Financial Sector Revealed by Partial Correlation Analysis of the Stock Market. <i>PLoS ONE</i> , 2010, 5, e15032.	1.1	286
9	Toward understanding cancer stem cell heterogeneity in the tumor microenvironment. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 148-157.	3.3	238
10	Formation of complex bacterial colonies via self-generated vortices. <i>Physical Review E</i> , 1996, 54, 1791-1801.	0.8	219
11	Modeling the Genetic Regulation of Cancer Metabolism: Interplay between Glycolysis and Oxidative Phosphorylation. <i>Cancer Research</i> , 2017, 77, 1564-1574.	0.4	207
12	Electro-chemical and biological properties of carbon nanotube based multi-electrode arrays. <i>Nanotechnology</i> , 2007, 18, 035201.	1.3	202
13	Studies of bacterial branching growth using reactionâ€“diffusion models for colonial development. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1998, 260, 510-554.	1.2	187
14	Long Term Behavior of Lithographically Prepared In Vitro Neuronal Networks. <i>Physical Review Letters</i> , 2002, 88, 118102.	2.9	186
15	COOPERATIVE ORGANIZATION OF BACTERIAL COLONIES: From Genotype to Morphotype. <i>Annual Review of Microbiology</i> , 1998, 52, 779-806.	2.9	185
16	Engineered self-organization of neural networks using carbon nanotube clusters. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2005, 350, 611-621.	1.2	177
17	From snowflake formation to growth of bacterial colonies II: Cooperative formation of complex colonial patterns. <i>Contemporary Physics</i> , 1997, 38, 205-241.	0.8	174
18	Immunoproteasome deficiency is a feature of non-small cell lung cancer with a mesenchymal phenotype and is associated with a poor outcome. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E1555-64.	3.3	174

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19	A method for spike sorting and detection based on wavelet packets and Shannon's mutual information. <i>Journal of Neuroscience Methods</i> , 2002, 117, 1-12.	1.3	170
20	Quantifying the Behavior of Stock Correlations Under Market Stress. <i>Scientific Reports</i> , 2012, 2, 752.	1.6	164
21	Interrogating the topological robustness of gene regulatory circuits by randomization. <i>PLoS Computational Biology</i> , 2017, 13, e1005456.	1.5	161
22	Glutamate regulation of calcium and IP3 oscillating and pulsating dynamics in astrocytes. <i>Journal of Biological Physics</i> , 2009, 35, 383-411.	0.7	158
23	Coupling the modules of EMT and stemness: A tunable "stemness window" model. <i>Oncotarget</i> , 2015, 6, 25161-25174.	0.8	157
24	Towards elucidating the connection between epithelial-mesenchymal transitions and stemness. <i>Journal of the Royal Society Interface</i> , 2014, 11, 20140962.	1.5	156
25	Adaptive self-organization during growth of bacterial colonies. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1992, 187, 378-424.	1.2	154
26	Hyperbaric Oxygen Therapy Can Improve Post Concussion Syndrome Years after Mild Traumatic Brain Injury - Randomized Prospective Trial. <i>PLoS ONE</i> , 2013, 8, e79995.	1.1	147
27	New quantum oscillations in current driven small junctions. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1985, 108, 289-292.	0.9	146
28	Morphological characterization of vitroneuronal networks. <i>Physical Review E</i> , 2002, 66, 021905.	0.8	135
29	Polarity mechanisms such as contact inhibition of locomotion regulate persistent rotational motion of mammalian cells on micropatterns. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 14770-14775.	3.3	131
30	Hidden Neuronal Correlations in Cultured Networks. <i>Physical Review Letters</i> , 2004, 92, 118102.	2.9	130
31	Notch-Jagged signalling can give rise to clusters of cells exhibiting a hybrid epithelial/mesenchymal phenotype. <i>Journal of the Royal Society Interface</i> , 2016, 13, 20151106.	1.5	130
32	Hyperbaric Oxygen Induces Late Neuroplasticity in Post Stroke Patients - Randomized, Prospective Trial. <i>PLoS ONE</i> , 2013, 8, e53716.	1.1	128
33	Jagged "Delta" asymmetry in Notch signaling can give rise to a Sender/Receiver hybrid phenotype. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E402-9.	3.3	127
34	Lubricating bacteria model for branching growth of bacterial colonies. <i>Physical Review E</i> , 1999, 59, 7025-7035.	0.8	126
35	The Astrocyte as a Gatekeeper of Synaptic Information Transfer. <i>Neural Computation</i> , 2007, 19, 303-326.	1.3	125
36	Deadly competition between sibling bacterial colonies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 428-433.	3.3	125

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37	From snowflake formation to growth of bacterial colonies. <i>Contemporary Physics</i> , 1993, 34, 247-273.	0.8	124
38	Cooperative Formation of Chiral Patterns during Growth of Bacterial Colonies. <i>Physical Review Letters</i> , 1995, 75, 2899-2902.	2.9	124
39	Bacterial self-organization: co-enhancement of complexification and adaptability in a dynamic environment. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2003, 361, 1283-1312.	1.6	121
40	OVOL guides the epithelial-hybrid-mesenchymal transition. <i>Oncotarget</i> , 2015, 6, 15436-15448.	0.8	121
41	Self-engineering capabilities of bacteria. <i>Journal of the Royal Society Interface</i> , 2006, 3, 197-214.	1.5	115
42	Observations and modeling of synchronized bursting in two-dimensional neural networks. <i>Physical Review E</i> , 2001, 64, 011920.	0.8	110
43	Quantum Shot Noise in Tunnel Junctions. <i>Physical Review Letters</i> , 1983, 51, 2064-2067.	2.9	108
44	Jagged mediates differences in normal and tumor angiogenesis by affecting tip-stalk fate decision. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E3836-44.	3.3	107
45	A Tale of Two Stories: Astrocyte Regulation of Synaptic Depression and Facilitation. <i>PLoS Computational Biology</i> , 2011, 7, e1002293.	1.5	104
46	Time of Zener tunneling. <i>Physical Review Letters</i> , 1989, 62, 2543-2546.	2.9	103
47	Bacterial survival strategies suggest rethinking cancer cooperativity. <i>Trends in Microbiology</i> , 2012, 20, 403-410.	3.5	103
48	Complex bacterial patterns. <i>Nature</i> , 1995, 373, 566-567.	13.7	100
49	Tristability in Cancer-Associated MicroRNA-TF Chimera Toggle Switch. <i>Journal of Physical Chemistry B</i> , 2013, 117, 13164-13174.	1.2	99
50	Process entanglement as a neuronal anchorage mechanism to rough surfaces. <i>Nanotechnology</i> , 2009, 20, 015101.	1.3	97
51	Mechanically-driven phase separation in a growing bacterial colony. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E2166-73.	3.3	95
52	Identifying repeating motifs in the activation of synchronized bursts in cultured neuronal networks. <i>Journal of Neuroscience Methods</i> , 2008, 170, 96-110.	1.3	89
53	Nonlinear Gap Junctions Enable Long-Distance Propagation of Pulsating Calcium Waves in Astrocyte Networks. <i>PLoS Computational Biology</i> , 2010, 6, e1000909.	1.5	88
54	The three-way switch operation of Rac1/RhoA GTPase-based circuit controlling amoeboid-hybrid-mesenchymal transition. <i>Scientific Reports</i> , 2014, 4, 6449.	1.6	88

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55	Organization of the autoantibody repertoire in healthy newborns and adults revealed by system level informatics of antigen microarray data. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 14484-14489.	3.3	87
56	Mutually facilitated dispersal between the nonmotile fungus <i>Aspergillus fumigatus</i> and the swarming bacterium <i>Paenibacillus vortex</i> . Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 19731-19736.	3.3	87
57	Global and Local Features of Semantic Networks: Evidence from the Hebrew Mental Lexicon. PLoS ONE, 2011, 6, e23912.	1.1	84
58	Chemomodulation of cellular movement, collective formation of vortices by swarming bacteria, and colonial development. Physica A: Statistical Mechanics and Its Applications, 1997, 238, 181-197.	1.2	81
59	Zener transitions in dissipative driven systems. Physical Review B, 1987, 36, 2770-2782.	1.1	80
60	Formation of Electrically Active Clusterized Neural Networks. Physical Review Letters, 2003, 90, 168101.	2.9	80
61	Aggregation Patterns in Stressed Bacteria. Physical Review Letters, 1995, 75, 1859-1862.	2.9	79
62	Learning from Bacteria about Natural Information Processing. Annals of the New York Academy of Sciences, 2009, 1178, 78-90.	1.8	78
63	DEPENDENCY NETWORK AND NODE INFLUENCE: APPLICATION TO THE STUDY OF FINANCIAL MARKETS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1250181.	0.7	77
64	Atomic force pulling: probing the local elasticity of the cell membrane. European Biophysics Journal, 2001, 30, 83-90.	1.2	73
65	The artistry of nature. Nature, 2001, 409, 985-986.	13.7	72
66	Detection and Sorting of Neural Spikes Using Wavelet Packets. Physical Review Letters, 2000, 85, 4637-4640.	2.9	71
67	Coexistence of amplitude and frequency modulations in intracellular calcium dynamics. Physical Review E, 2008, 77, 030903.	0.8	70
68	Distinguishing mechanisms underlying EMT tristability. Cancer Convergence, 2017, 1, 2.	8.0	69
69	Evolution of Uniformity and Volatility in the Stressed Global Financial Village. PLoS ONE, 2012, 7, e31144.	1.1	68
70	Hyperbaric Oxygen Therapy Can Diminish Fibromyalgia Syndrome – Prospective Clinical Trial. PLoS ONE, 2015, 10, e0127012.	1.1	68
71	Holotransformations of bacterial colonies and genome cybernetics. Physica A: Statistical Mechanics and Its Applications, 1994, 202, 1-47.	1.2	66
72	Reflections on the neurotherapeutic effects of hyperbaric oxygen. Expert Review of Neurotherapeutics, 2014, 14, 233-236.	1.4	65

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73	From The Cover: Evaluating putative mechanisms of the mitotic spindle checkpoint. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 6332-6337.	3.3	64
74	Activated Membrane Patches Guide Chemotactic Cell Motility. <i>PLoS Computational Biology</i> , 2011, 7, e1002044.	1.5	64
75	Computational quest for understanding the role of astrocyte signaling in synaptic transmission and plasticity. <i>Frontiers in Computational Neuroscience</i> , 2012, 6, 98.	1.2	63
76	<i>Paenibacillus dendritiformis</i> sp. nov., proposal for a new pattern-forming species and its localization within a phylogenetic cluster. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 1999, 49, 239-246.	0.8	62
77	Index Cohesive Force Analysis Reveals That the US Market Became Prone to Systemic Collapses Since 2002. <i>PLoS ONE</i> , 2011, 6, e19378.	1.1	61
78	Prostate Cancer and Neuroendocrine Differentiation: More Neuronal, Less Endocrine?. <i>Frontiers in Oncology</i> , 2015, 5, 37.	1.3	61
79	Bacterial cooperative organization under antibiotic stress. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2000, 282, 247-282.	1.2	60
80	Smart Swarms of Bacteria-Inspired Agents with Performance Adaptable Interactions. <i>PLoS Computational Biology</i> , 2011, 7, e1002177.	1.5	60
81	Semantic organization in children with cochlear implants: computational analysis of verbal fluency. <i>Frontiers in Psychology</i> , 2013, 4, 543.	1.1	60
82	Modeling the Transitions between Collective and Solitary Migration Phenotypes in Cancer Metastasis. <i>Scientific Reports</i> , 2015, 5, 17379.	1.6	59
83	Phase-dependent thermal transport in Josephson junctions. <i>Physical Review B</i> , 1997, 55, 3849-3855.	1.1	58
84	Manifestation of function-follow-form in cultured neuronal networks. <i>Physical Biology</i> , 2005, 2, 98-110.	0.8	58
85	Towards neuro-memory-chip: Imprinting multiple memories in cultured neural networks. <i>Physical Review E</i> , 2007, 75, 050901.	0.8	58
86	Morphology transitions during non-equilibrium growth. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1992, 187, 87-111.	1.2	57
87	COMMUNICATION, REGULATION AND CONTROL DURING COMPLEX PATTERNING OF BACTERIAL COLONIES. <i>Fractals</i> , 1994, 02, 15-44.	1.8	57
88	Periodic, Quasi-periodic and Chaotic Dynamics in Simple Gene Elements with Time Delays. <i>Scientific Reports</i> , 2016, 6, 21037.	1.6	56
89	Engineered Neuronal Circuits: A New Platform for Studying the Role of Modular Topology. <i>Frontiers in Neuroengineering</i> , 2011, 4, 10.	4.8	55
90	Construction of an Effective Landscape for Multistate Genetic Switches. <i>Physical Review Letters</i> , 2014, 113, 078102.	2.9	55

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91	Antibiotic-Induced Anomalous Statistics of Collective Bacterial Swarming. <i>Physical Review Letters</i> , 2015, 114, 018105.	2.9	53
92	Operating principles of Notchâ€“Deltaâ€“Jagged module of cellâ€“cell communication. <i>New Journal of Physics</i> , 2015, 17, 055021.	1.2	53
93	Bacterial wisdom, GÃ¶del's theorem and creative genomic webs. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1998, 248, 57-76.	1.2	52
94	Lethal protein produced in response to competition between sibling bacterial colonies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 6258-6263.	3.3	52
95	Toward Decoding the Principles of Cancer Metastasis Circuits. <i>Cancer Research</i> , 2014, 74, 4574-4587.	0.4	51
96	Operating principles of tristable circuits regulating cellular differentiation. <i>Physical Biology</i> , 2017, 14, 035007.	0.8	49
97	Morphology transitions during non-equilibrium growth. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1992, 181, 136-155.	1.2	47
98	Physical schemata underlying biological pattern formationâ€“examples, issues and strategies. <i>Physical Biology</i> , 2004, 1, P14-P22.	0.8	47
99	Multimodal encoding in a simplified model of intracellular calcium signaling. <i>Cognitive Processing</i> , 2009, 10, 55-70.	0.7	47
100	Innate Synchronous Oscillations in Freely-Organized Small Neuronal Circuits. <i>PLoS ONE</i> , 2010, 5, e14443.	1.1	47
101	Improvement of memory impairments in poststroke patients by hyperbaric oxygen therapy.. <i>Neuropsychology</i> , 2015, 29, 610-621.	1.0	47
102	Generic modeling of chemotactic based self-wiring of neural networks. <i>Neural Networks</i> , 2000, 13, 185-199.	3.3	46
103	Functional Holography of Recorded Neuronal Networks Activity. <i>Neuroinformatics</i> , 2004, 2, 333-352.	1.5	46
104	The emergence and properties of mutual synchronization in <i>in vitro</i> coupled cortical networks. <i>European Journal of Neuroscience</i> , 2008, 28, 1825-1835.	1.2	46
105	Periodic Reversals in <i>Paenibacillus dendritiformis</i> Swarming. <i>Journal of Bacteriology</i> , 2013, 195, 2709-2717.	1.0	45
106	Thermopower of mesoscopic and disordered systems. <i>Physical Review B</i> , 1995, 51, 17758-17766.	1.1	44
107	Astrocyte regulation of sleep circuits: experimental and modeling perspectives. <i>Frontiers in Computational Neuroscience</i> , 2012, 6, 65.	1.2	44
108	The Artistry of Microorganisms. <i>Scientific American</i> , 1998, 279, 82-87.	1.0	43

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109	Bridging genetic networks and queueing theory. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2004, 332, 585-616.	1.2	43
110	Propagating Waves of Directionality and Coordination Orchestrate Collective Cell Migration. <i>PLoS Computational Biology</i> , 2014, 10, e1003747.	1.5	43
111	Sparse short-distance connections enhance calcium wave propagation in a 3D model of astrocyte networks. <i>Frontiers in Computational Neuroscience</i> , 2014, 8, 45.	1.2	42
112	Generative modelling of regulated dynamical behavior in cultured neuronal networks. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2004, 335, 249-278.	1.2	41
113	Genome sequence of the pattern forming <i>Paenibacillus vortex</i> bacterium reveals potential for thriving in complex environments. <i>BMC Genomics</i> , 2010, 11, 710.	1.2	40
114	Turning Oscillations Into Opportunities: Lessons from a Bacterial Decision Gate. <i>Scientific Reports</i> , 2013, 3, 1668.	1.6	40
115	Modeling putative therapeutic implications of exosome exchange between tumor and immune cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E4165-E4174.	3.3	39
116	Hyperbaric oxygen may induce angiogenesis in patients suffering from prolonged post-concussion syndrome due to traumatic brain injury. <i>Restorative Neurology and Neuroscience</i> , 2015, 33, 943-951.	0.4	39
117	Tumor Invasion Optimization by Mesenchymal-Amoeboid Heterogeneity. <i>Scientific Reports</i> , 2015, 5, 10622.	1.6	39
118	Multispecies Swarms of Social Microorganisms as Moving Ecosystems. <i>Trends in Microbiology</i> , 2016, 24, 257-269.	3.5	39
119	Charge solitons in one-dimensional arrays of serially coupled Josephson junctions. <i>Physical Review B</i> , 1996, 54, 1234-1245.	1.1	38
120	Cell Motility Dynamics: A Novel Segmentation Algorithm to Quantify Multi-Cellular Bright Field Microscopy Images. <i>PLoS ONE</i> , 2011, 6, e27593.	1.1	38
121	Identification and characterization of a highly motile and antibiotic refractory subpopulation involved in the expansion of swarming colonies of <i>Paenibacillus vortex</i> . <i>Environmental Microbiology</i> , 2013, 15, 2532-2544.	1.8	37
122	Individual Pause-and-Go Motion Is Instrumental to the Formation and Maintenance of Swarms of Marching Locust Nymphs. <i>PLoS ONE</i> , 2014, 9, e101636.	1.1	37
123	Ordered shapes in nonequilibrium growth. <i>Physica D: Nonlinear Phenomena</i> , 1989, 38, 16-28.	1.3	36
124	Chemotactic-based adaptive self-organization during colonial development. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1996, 233, 678-698.	1.2	36
125	Interference effect heat conductance in a Josephson junction and its detection in an rf SQUID. <i>Physical Review B</i> , 1998, 57, 2717-2719.	1.1	36
126	Growth morphology of two-dimensional insect neural networks. <i>Neurocomputing</i> , 2002, 44-46, 635-643.	3.5	36



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127	Self-Regulated Complexity in Cultured Neuronal Networks. <i>Physical Review Letters</i> , 2004, 92, 198105.	2.9	36
128	Tunneling and resonant tunneling of fluxons in a long Josephson junction. <i>Physical Review B</i> , 1997, 56, 14677-14685.	1.1	35
129	Network Theory Analysis of Antibody-Antigen Reactivity Data: The Immune Trees at Birth and Adulthood. <i>PLoS ONE</i> , 2011, 6, e17445.	1.1	35
130	The Dynamics of Wealth Inequality and the Effect of Income Distribution. <i>PLoS ONE</i> , 2016, 11, e0154196.	1.1	34
131	Numerical study of a morphology diagram in the large undercooling limit using a phase-field model. <i>Physical Review E</i> , 1994, 50, 1005-1008.	0.8	33
132	Calcium and synaptic dynamics underlying reverberatory activity in neuronal networks. <i>Physical Biology</i> , 2007, 4, 91-103.	0.8	33
133	The formation of synchronization cliques during the development of modular neural networks. <i>Physical Biology</i> , 2009, 6, 036018.	0.8	32
134	Quantifying meta-correlations in financial markets. <i>Europhysics Letters</i> , 2012, 99, 38001.	0.7	32
135	The Natural Autoantibody Repertoire in Newborns and Adults. <i>Advances in Experimental Medicine and Biology</i> , 2012, 750, 198-212.	0.8	32
136	Clique of Functional Hubs Orchestrates Population Bursts in Developmentally Regulated Neural Networks. <i>PLoS Computational Biology</i> , 2014, 10, e1003823.	1.5	32
137	Coexistence of morphologies in diffusive patterning. <i>Physical Review E</i> , 1993, 48, R4168-R4171.	0.8	31
138	Coexistence of symmetric and parity-broken dendrites in a channel. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1995, 213, 451-464.	1.2	31
139	The motility-proliferation-metabolism interplay during metastatic invasion. <i>Scientific Reports</i> , 2015, 5, 13538.	1.6	31
140	Loss of Intrinsic Organization of Cerebellar Networks in Spinocerebellar Ataxia Type 1: Correlates with Disease Severity and Duration. <i>Cerebellum</i> , 2011, 10, 218-232.	1.4	30
141	The dynamics of mesoscopic normal tunnel junctions. <i>Physica B: Condensed Matter</i> , 1988, 152, 172-185.	1.3	29
142	Quantum dynamics of a fluxon in a long circular Josephson junction. <i>Physical Review B</i> , 1994, 49, 9757-9762.	1.1	29
143	Modeling of Synchronized Bursting Events: The Importance of Inhomogeneity. <i>Neural Computation</i> , 2004, 16, 2577-2595.	1.3	29
144	Functional holography analysis: Simplifying the complexity of dynamical networks. <i>Chaos</i> , 2006, 16, 015112.	1.0	29

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145	CORRELATIONS AND DEPENDENCIES IN THE GLOBAL FINANCIAL VILLAGE. International Journal of Modern Physics Conference Series, 2012, 16, 13-28.	0.7	29
146	Emergence of HGF/SF-Induced Coordinated Cellular Motility. PLoS ONE, 2012, 7, e44671.	1.1	29
147	Artificial Neural Networks Based Controller for Glucose Monitoring during Clamp Test. PLoS ONE, 2012, 7, e44587.	1.1	29
148	From branching to nebula patterning during colonial development of the Paenibacillus alvei bacteria. Physica A: Statistical Mechanics and Its Applications, 2000, 286, 321-336.	1.2	28
149	Biophysical constraints on neuronal branching. Neurocomputing, 2004, 58-60, 487-495.	3.5	28
150	Analyses of antigen dependency networks unveil immune system reorganization between birth and adulthood. Chaos, 2011, 21, 016109.	1.0	28
151	One-to-one neuron-electrode interfacing. Journal of Neuroscience Methods, 2009, 182, 219-224.	1.3	27
152	Management of synchronized network activity by highly active neurons. Physical Biology, 2008, 5, 036008.	0.8	26
153	RMT Assessments of the Market Latent Information Embedded in the Stocks' Raw, Normalized, and Partial Correlations. Journal of Probability and Statistics, 2009, 2009, 1-13.	0.3	26
154	From organized internal traffic to collective navigation of bacterial swarms. New Journal of Physics, 2013, 15, 125019.	1.2	26
155	A two-phase growth strategy in cultured neuronal networks as reflected by the distribution of neurite branching angles. Journal of Neurobiology, 2005, 62, 361-368.	3.7	24
156	Modeling cell-death patterning during biofilm formation. Physical Biology, 2013, 10, 066006.	0.8	24
157	The physics of bacterial decision making. Frontiers in Cellular and Infection Microbiology, 2014, 4, 154.	1.8	24
158	Phase-field model: Boundary layer, velocity of propagation, and the stability spectrum. Physical Review B, 1992, 46, 16045-16057.	1.1	23
159	Collective navigation of cargo-carrying swarms. Interface Focus, 2012, 2, 786-798.	1.5	23
160	Tumor-Associated and Disease-Associated Autoantibody Repertoires in Healthy Colostrum and Maternal and Newborn Cord Sera. Journal of Immunology, 2015, 194, 5272-5281.	0.4	23
161	Zener tunneling in systems without level crossing. Physical Review A, 1990, 42, 5181-5192.	1.0	22
162	Bacteria determine fate by playing dice with controlled odds. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 13197-13198.	3.3	22

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163	Spontaneous synchronized bursting in 2D neural networks. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2001, 302, 64-69.	1.2	21
164	New periodic morphologies observed during dendritic growth of ammonium chloride crystals in thin layers. <i>Journal of Crystal Growth</i> , 1991, 108, 637-646.	0.7	20
165	Detecting and localizing the foci in human epileptic seizures. <i>Chaos</i> , 2007, 17, 043113.	1.0	20
166	Modelling the short term herding behaviour of stock markets. <i>New Journal of Physics</i> , 2014, 16, 053040.	1.2	20
167	Order-Disorder Phase Transition in Heterogeneous Populations of Self-propelled Particles. <i>Journal of Statistical Physics</i> , 2015, 158, 579-588.	0.5	20
168	Live time-lapse dataset of in vitro wound healing experiments. <i>GigaScience</i> , 2015, 4, 8.	3.3	20
169	Genome Sequence of the Pattern-Forming Social Bacterium <i>Paenibacillus dendritiformis</i> C454 Chiral Morphotype. <i>Journal of Bacteriology</i> , 2012, 194, 2127-2128.	1.0	19
170	Turning death into creative force during biofilm engineering. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 18633-18634.	3.3	19
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