Herbert Levine

List of Publications by Year
in descending order

403 papers	25,315 citations	6606 79 h-index	11601 135 g-index
461 all docs	461 docs citations	461 times ranked	18391 citing authors

#	Article	IF	Citations
1	Guidelines and definitions for research on epithelialâ€“mesenchymal transition. Nature Reviews Molecular Cell Biology, 2020, 21, 341-352.	16.1	1,195
2	Pattern selection in fingered growth phenomena. Advances in Physics, 1988, 37, 255-339.	35.9	932
3	Implications of the Hybrid Epithelial/Mesenchymal Phenotype in Metastasis. Frontiers in Oncology, 2015, 5, 155.	1.3	581
4	Cooperative self-organization of microorganisms. Advances in Physics, 2000, 49, 395-554.	35.9	529
5	Phase-Field Model of Mode III Dynamic Fracture. Physical Review Letters, 2001, 87, 045501.	2.9	482
6	MicroRNA-based regulation of epithelialâ€“hybridâ€“mesenchymal fate determination. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 18144-18149.	3.3	442
7	Experimental Demonstration of the Role of Anisotropy in Interfacial Pattern Formation. Physical Review Letters, 1985, 55, 1315-1318.	2.9	407
8	Tumor Budding: The Name is EMT. Partial EMT.. Journal of Clinical Medicine, 2016, 5, 51.	1.0	369
9	Stability of the hybrid epithelial/mesenchymal phenotype. Oncotarget, 2016, 7, 27067-27084.	0.8	367
10	Self-organization in systems of self-propelled particles. Physical Review E, 2000, 63, 017101.	0.8	363
11	Diffuse interface model of diffusion-limited crystal growth. Physical Review B, 1985, 31, 6119-6122.	1.1	333
12	<scp>EMT</scp> and <scp>MET</scp>: necessary or permissive for metastasis?. Molecular Oncology, 2017, 11, 755-769.	2.1	319
13	Electron Delocalization by a Magnetic Field in Two Dimensions. Physical Review Letters, 1983, 51, 1915-1918.	2.9	296
14	Vortex reconnection in superfluid helium. Physical Review Letters, 1993, 71, 1375-1378.	2.9	256
15	Hybrid epithelial/mesenchymal phenotypes promote metastasis and therapy resistance across carcinomas. , 2019, 194, 161-184.		244
16	Bacterial linguistic communication and social intelligence. Trends in Microbiology, 2004, 12, 366-372.	3.5	241
17	RNA Virus Evolution via a Fitness-Space Model. Physical Review Letters, 1996, 76, 4440-4443.	2.9	240
18	Geometrical models of interface evolution. Physical Review A, 1984, 29, 1335-1342.	1.0	238

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19	Toward understanding cancer stem cell heterogeneity in the tumor microenvironment. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 148-157.	3.3	238
20	Coupling actin flow, adhesion, and morphology in a computational cell motility model. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 6851-6856.	3.3	230
21	Elucidating cancer metabolic plasticity by coupling gene regulation with metabolic pathways. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 3909-3918.	3.3	227
22	Heterogeneous clearance rates of long-lived lymphocytes infected with HIV: Intrinsic stability predicts lifelong persistence. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 4819-4824.	3.3	224
23	Computational Model for Cell Morphodynamics. Physical Review Letters, 2010, 105, 108104.	2.9	214
24	Modeling the Genetic Regulation of Cancer Metabolism: Interplay between Glycolysis and Oxidative Phosphorylation. Cancer Research, 2017, 77, 1564-1574.	0.4	207
25	Survival Outcomes in Cancer Patients Predicted by a Partial EMT Gene Expression Scoring Metric. Cancer Research, 2017, 77, 6415-6428.	0.4	206
26	Dynamic Instabilities of Fracture under Biaxial Strain Using a Phase Field Model. Physical Review Letters, 2004, 93, 105504.	2.9	198
27	Geometrical Approach to Moving-Interface Dynamics. Physical Review Letters, 1983, 51, 1111-1114.	2.9	191
28	Epithelialâ€“mesenchymal transition, a spectrum of states: Role in lung development, homeostasis, and disease. Developmental Dynamics, 2018, 247, 346-358.	0.8	190
29	Alignment of cellular motility forces with tissue flow as a mechanism for efficient wound healing. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 2452-2459.	3.3	184
30	Immunoproteasome deficiency is a feature of non-small cell lung cancer with a mesenchymal phenotype and is associated with a poor outcome. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E1555-64.	3.3	174
31	Elucidating the Metabolic Plasticity of Cancer: Mitochondrial Reprogramming and Hybrid Metabolic States. Cells, 2018, 7, 21.	1.8	167
32	Viscosity renormalization in the Brinkman equation. Physics of Fluids, 1983, 26, 2864.	1.4	165
33	Domain swapping is a consequence of minimal frustration. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 13786-13791.	3.3	164
34	Stability of Dendritic Crystals. Physical Review Letters, 1986, 57, 3069-3072.	2.9	161
35	Interrogating the topological robustness of gene regulatory circuits by randomization. PLoS Computational Biology, 2017, 13, e1005456.	1.5	161
36	Coupling the modules of EMT and stemness: A tunable â€˜stemness windowâ€™ model. Oncotarget, 2015, 6, 25161-25174.	0.8	157

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37	Towards elucidating the connection between epithelialâ€“mesenchymal transitions and stemness. Journal of the Royal Society Interface, 2014, 11, 20140962.	1.5	156
38	Incoherent Feedforward Control Governs Adaptation of Activated Ras in a Eukaryotic Chemotaxis Pathway. Science Signaling, 2012, 5, ra2.	1.6	154
39	Directional sensing in eukaryotic chemotaxis: A balanced inactivation model. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 9761-9766.	3.3	145
40	Theory of the quantized Hall effect (I). Nuclear Physics B, 1984, 240, 30-48.	0.9	137
41	Controlling spatiotemporal chaos. Physical Review Letters, 1994, 72, 2561-2564.	2.9	136
42	Self-organized Vortex State in Two-DimensionalDictyosteliumDynamics. Physical Review Letters, 1999, 83, 1247-1250.	2.9	136
43	Identification of EMT signaling cross-talk and gene regulatory networks by single-cell RNA sequencing. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	134
44	Polarity mechanisms such as contact inhibition of locomotion regulate persistent rotational motion of mammalian cells on micropatterns. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14770-14775.	3.3	131
45	Notch-Jagged signalling can give rise to clusters of cells exhibiting a hybrid epithelial/mesenchymal phenotype. Journal of the Royal Society Interface, 2016, 13, 20151106.	1.5	130
46	Geometrical models of interface evolution. II. Numerical simulation. Physical Review A, 1984, 30, 3161-3174.	1.0	129
47	The Astrocyte as a Gatekeeper of Synaptic Information Transfer. Neural Computation, 2007, 19, 303-326.	1.3	125
48	Pattern formation inDictyosteliumvia the dynamics of cooperative biological entities. Physical Review E, 1993, 48, 4801-4804.	0.8	123
49	Phenotypic Plasticity, Bet-Hedging, and Androgen Independence in Prostate Cancer: Role of Non-Genetic Heterogeneity. Frontiers in Oncology, 2018, 8, 50.	1.3	122
50	Hybrid epithelial/mesenchymal phenotype(s): The â€˜fittestâ€™ for metastasis?. Biochimica Et Biophysica Acta: Reviews on Cancer, 2018, 1870, 151-157.	3.3	122
51	Stress-induced plasticity of dynamic collagen networks. Nature Communications, 2017, 8, 842.	5.8	121
52	OVOL guides the epithelial-hybrid-mesenchymal transition. Oncotarget, 2015, 6, 15436-15448.	0.8	121
53	External and internal constraints on eukaryotic chemotaxis. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9656-9659.	3.3	120
54	Steady-state dendritic crystal growth. Physical Review A, 1986, 33, 3352-3357.	1.0	117

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55	Toward rationally redesigning bacterial two-component signaling systems using coevolutionary information. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E563-71.	3.3	117
56	Inflammatory breast cancer: a model for investigating cluster-based dissemination. Npj Breast Cancer, 2017, 3, 21.	2.3	117
57	Self-engineering capabilities of bacteria. Journal of the Royal Society Interface, 2006, 3, 197-214.	1.5	115
58	Cellular memory in eukaryotic chemotaxis. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14448-14453.	3.3	115
59	Geometrical models of interface evolution. III. Theory of dendritic growth. Physical Review A, 1985, 31, 1712-1717.	1.0	111
60	Interface fluctuations in random media. Physical Review A, 1991, 43, 4551-4554.	1.0	111
61	Fluctuation-induced diffusive instabilities. Nature, 1998, 394, 556-558.	13.7	111
62	Interface moving through a random background. Physical Review B, 1985, 32, 280-292.	1.1	110
63	Contact inhibition of locomotion determines cellâ€“cell and cellâ€“substrate forces in tissues. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2660-2665.	3.3	109
64	Stochastic spreading of intracellularCa2+release. Physical Review E, 2000, 62, 2636-2643.	0.8	108
65	Infiltration of CD8 ⁺ T cells into tumor cell clusters in triple-negative breast cancer. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 3678-3687.	3.3	108
66	Physical Limits on Cellular Sensing of Spatial Gradients. Physical Review Letters, 2010, 105, 048104.	2.9	104
67	Numb prevents a complete epithelialâ€“mesenchymal transition by modulating Notch signalling. Journal of the Royal Society Interface, 2017, 14, 20170512.	1.5	104
68	Bacterial survival strategies suggest rethinking cancer cooperativity. Trends in Microbiology, 2012, 20, 403-410.	3.5	103
69	NRF2 activates a partial epithelial-mesenchymal transition and is maximally present in a hybrid epithelial/mesenchymal phenotype. Integrative Biology (United Kingdom), 2019, 11, 251-263.	0.6	102
70	Complex bacterial patterns. Nature, 1995, 373, 566-567.	13.7	100
71	Pattern selection in three dimensional dendritic growth. Acta Metallurgica, 1988, 36, 2693-2706.	2.1	99
72	Interfacial velocity corrections due to multiplicative noise. Physical Review E, 1999, 59, 3893-3900.	0.8	97

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73	Emergent Collective Chemotaxis without Single-Cell Gradient Sensing. Physical Review Letters, 2016, 116, 098101.	2.9	96
74	Mechanically-driven phase separation in a growing bacterial colony. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E2166-73.	3.3	95
75	Spleen Tyrosine Kinaseâ€“Mediated Autophagy Is Required for Epithelialâ€“Mesenchymal Plasticity and Metastasis in Breast Cancer. Cancer Research, 2019, 79, 1831-1843.	0.4	95
76	Membrane-bound Turing patterns. Physical Review E, 2005, 72, 061912.	0.8	92
77	Small Regulatory RNAs May Sharpen Spatial Expression Patterns. PLoS Computational Biology, 2007, 3, e233.	1.5	92
78	The GRHL2/ZEB Feedback Loop-A Key Axis in the Regulation of EMT in Breast Cancer. Journal of Cellular Biochemistry, 2017, 118, 2559-2570.	1.2	90
79	Molecular-beam epitaxial growth and surface diffusion. Physical Review Letters, 1992, 69, 100-103.	2.9	89
80	Mesenchymal-Epithelial Transition in Sarcomas Is Controlled by the Combinatorial Expression of MicroRNA 200s and GRHL2. Molecular and Cellular Biology, 2016, 36, 2503-2513.	1.1	88
81	The Physics of Cellular Decision Making During Epithelialâ€“Mesenchymal Transition. Annual Review of Biophysics, 2020, 49, 1-18.	4.5	87
82	Comparative Study of Transcriptomics-Based Scoring Metrics for the Epithelial-Hybrid-Mesenchymal Spectrum. Frontiers in Bioengineering and Biotechnology, 2020, 8, 220.	2.0	87
83	Motion of extended charges in classical electrodynamics. American Journal of Physics, 1977, 45, 75-78.	0.3	85
84	MCAM Mediates Chemoresistance in Small-Cell Lung Cancer via the PI3K/AKT/SOX2 Signaling Pathway. Cancer Research, 2017, 77, 4414-4425.	0.4	85
85	Establishing Direction during Chemotaxis in Eukaryotic Cells. Biophysical Journal, 2002, 83, 1361-1367.	0.2	84
86	Velocity selection in dendritic growth. Physical Review B, 1986, 33, 7867-7870.	1.1	83
87	Division accuracy in a stochastic model of Min oscillations in Escherichia coli. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 347-352.	3.3	83
88	Positive genetic feedback governs cAMP spiral wave formation in Dictyostelium.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 6382-6386.	3.3	82
89	Dendritic growth in a channel. Physical Review A, 1986, 34, 4980-4987.	1.0	81
90	A possible role for epigenetic feedback regulation in the dynamics of the epithelialâ€“mesenchymal transition (EMT). Physical Biology, 2019, 16, 066004.	0.8	81

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91	Possible Cooperation of Differential Adhesion and Chemotaxis in Mound Formation of Dictyostelium. Biophysical Journal, 1998, 75, 2615-2625.	0.2	80
92	Folding Time Predictions from All-atom Replica Exchange Simulations. Journal of Molecular Biology, 2007, 372, 756-763.	2.0	80
93	Decoding leader cells in collective cancer invasion. Nature Reviews Cancer, 2021, 21, 592-604.	12.8	80
94	A mechanism for epithelial-mesenchymal heterogeneity in a population of cancer cells. PLoS Computational Biology, 2020, 16, e1007619.	1.5	80
95	Aggregation Patterns in Stressed Bacteria. Physical Review Letters, 1995, 75, 1859-1862.	2.9	79
96	Numerical simulation of two-dimensional snowflake growth. Physical Review A, 1984, 30, 2820-2823.	1.0	78
97	Embryonic pattern scaling achieved by oppositely directed morphogen gradients. Physical Biology, 2006, 3, 107-120.	0.8	78
98	Discrete Stochastic Modeling of Calcium Channel Dynamics. Physical Review Letters, 2000, 84, 5664-5667.	2.9	77
99	Micromechanics of cellularized biopolymer networks. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E5117-22.	3.3	77
100	The artistry of nature. Nature, 2001, 409, 985-986.	13.7	72
101	Transient Localized Patterns in Noise-Driven Reaction-Diffusion Systems. Physical Review Letters, 2010, 104, 158301.	2.9	72
102	Phosphorylation-induced conformational dynamics in an intrinsically disordered protein and potential role in phenotypic heterogeneity. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E2644-E2653.	3.3	72
103	Theory of the quantized hall effect (II). Nuclear Physics B, 1984, 240, 49-70.	0.9	71
104	Effective stochastic dynamics on a protein folding energy landscape. Journal of Chemical Physics, 2006, 125, 054910.	1.2	71
105	Interconnected feedback loops among ESRP1, HAS2, and CD44 regulate epithelial-mesenchymal plasticity in cancer. APL Bioengineering, 2018, 2, 031908.	3.3	71
106	Spatiotemporal Dynamics of HIV Propagation. Journal of Theoretical Biology, 2002, 218, 85-96.	0.8	70
107	Coexistence of amplitude and frequency modulations in intracellular calcium dynamics. Physical Review E, 2008, 77, 030903.	0.8	70
108	Modelling Vesicular Release at Hippocampal Synapses. PLoS Computational Biology, 2010, 6, e1000983.	1.5	70

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109	Phenotypic Plasticity and Cell Fate Decisions in Cancer: Insights from Dynamical Systems Theory. Cancers, 2017, 9, 70.	1.7	70
110	Crawling and turning in a minimal reaction-diffusion cell motility model: Coupling cell shape and biochemistry. Physical Review E, 2017, 95, 012401.	0.8	69
111	Distinguishing mechanisms underlying EMT tristability. Cancer Convergence, 2017, 1, 2.	8.0	69
112	Periodic Migration in a Physical Model of Cells on Micropatterns. Physical Review Letters, 2013, 111, 158102.	2.9	68
113	Phenotypic plasticity in prostate cancer: role of intrinsically disordered proteins. Asian Journal of Andrology, 2016, 18, 704.	0.8	68
114	Theory of the quantized Hall effect (III). Nuclear Physics B, 1984, 240, 71-90.	0.9	67
115	A mechanism-based computational model to capture the interconnections among epithelial-mesenchymal transition, cancer stem cells and Notch-Jagged signaling. Oncotarget, 2018, 9, 29906-29920.	0.8	67
116	Computational approach for modeling intra- and extracellular dynamics. Physical Review E, 2003, 68, 037702.	0.8	66
117	Recombination Dramatically Speeds Up Evolution of Finite Populations. Physical Review Letters, 2005, 94, 098102.	2.9	65
118	Growth feedback as a basis for persister bistability. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 544-549.	3.3	65
119	Activated Membrane Patches Guide Chemotactic Cell Motility. PLoS Computational Biology, 2011, 7, e1002044.	1.5	64
120	Large population solution of the stochastic Luriaâ€“DelbrÃ¼ck evolution model. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 11682-11687.	3.3	64
121	Epithelial/mesenchymal plasticity: how have quantitative mathematical models helped improve our understanding?. Molecular Oncology, 2017, 11, 739-754.	2.1	64
122	Theory of the Saffman-Taylor â€˜â€˜fingerâ€™â€™ pattern. I. Physical Review A, 1986, 33, 2621-2633.	1.0	63
123	Streaming instability of aggregating slime mold amoebae. Physical Review Letters, 1991, 66, 2400-2403.	2.9	63
124	Connecting the Sequence-Space of Bacterial Signaling Proteins to Phenotypes Using Coevolutionary Landscapes. Molecular Biology and Evolution, 2016, 33, 3054-3064.	3.5	63
125	Quantifying Cancer Epithelial-Mesenchymal Plasticity and its Association with Stemness and Immune Response. Journal of Clinical Medicine, 2019, 8, 725.	1.0	63
126	Towards decoding the coupled decision-making of metabolism and epithelial-to-mesenchymal transition in cancer. British Journal of Cancer, 2021, 124, 1902-1911.	2.9	63

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127	Differential Contributions of Pre- and Post-EMT Tumor Cells in Breast Cancer Metastasis. Cancer Research, 2020, 80, 163-169.	0.4	62
128	On the large-N limit in symplectic matrix models. Nuclear Physics B, 1983, 215, 307-315.	0.9	61
129	Steady-state cellular growth during directional solidification. Physical Review A, 1989, 39, 3041-3052.	1.0	61
130	Evolution on a smooth landscape. Journal of Statistical Physics, 1997, 87, 519-544.	0.5	61
131	Astrocytes Optimize the Synaptic Transmission of Information. PLoS Computational Biology, 2008, 4, e1000088.	1.5	61
132	The physics of eukaryotic chemotaxis. Physics Today, 2013, 66, 24-30.	0.3	61
133	Scaling of conductivities in the fractional quantum Hall effect. Physical Review B, 1985, 32, 1311-1314.	1.1	60
134	Determining the scale of the Bicoid morphogen gradient. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 1710-1715.	3.3	60
135	Receptor Noise and Directional Sensing in Eukaryotic Chemotaxis. Physical Review Letters, 2008, 100, 228101.	2.9	59
136	Nonlinear elasticity of disordered fiber networks. Soft Matter, 2016, 12, 1419-1424.	1.2	59
137	Stability of finger patterns in Hele-Shaw cells. Physical Review A, 1985, 32, 1930-1933.	1.0	58
138	The Role of Cell Contraction and Adhesion in Dictyostelium Motility. Biophysical Journal, 2010, 99, 50-58.	0.2	58
139	Monopole Condensation and the Lattice-Quantum-Chromodynamics Crossover. Physical Review Letters, 1981, 47, 621-624.	2.9	57
140	Computational Modeling of the Crosstalk Between Macrophage Polarization and Tumor Cell Plasticity in the Tumor Microenvironment. Frontiers in Oncology, 2019, 9, 10.	1.3	55
141	Theory of the Saffman-Taylor â€˜â€˜fingerâ€™â€™ pattern. II. Physical Review A, 1986, 33, 2634-2639.	1.0	54
142	Quantifying noise levels of intercellular signals. Physical Review E, 2007, 75, 061905.	0.8	54
143	Resistance to Chemotherapy: Patient Variability and Cellular Heterogeneity. Cancer Research, 2014, 74, 4663-4670.	0.4	54
144	Mean-field theory for diffusion-limited aggregation in low dimensions. Physical Review Letters, 1991, 66, 1978-1981.	2.9	53

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145	Collective Signal Processing in Cluster Chemotaxis: Roles of Adaptation, Amplification, and Co-attraction in Collective Guidance. PLoS Computational Biology, 2016, 12, e1005008.	1.5	52
146	Immunosuppressive Traits of the Hybrid Epithelial/Mesenchymal Phenotype. Frontiers in Immunology, 2021, 12, 797261.	2.2	52
147	Target-Specific and Global Effectors in Gene Regulation by MicroRNA. Biophysical Journal, 2007, 93, L52-L54.	0.2	51
148	Spiral Competition in Three-Component Excitable Media. Physical Review Letters, 1996, 76, 1170-1173.	2.9	50
149	Operating principles of tristable circuits regulating cellular differentiation. Physical Biology, 2017, 14, 035007.	0.8	49
150	Pericytes enable effective angiogenesis in the presence of proinflammatory signals. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 23551-23561.	3.3	49
151	Scattering of Superfluid Vortex Rings. Physical Review Letters, 1996, 76, 4745-4748.	2.9	48
152	On the mechanism of long-range orientational order of fibroblasts. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 8974-8979.	3.3	48
153	Physical schemata underlying biological pattern formationâ€”examples, issues and strategies. Physical Biology, 2004, 1, P14-P22.	0.8	47
154	Multimodal encoding in a simplified model of intracellular calcium signaling. Cognitive Processing, 2009, 10, 55-70.	0.7	47
155	Short-term plasticity constrains spatial organization of a hippocampal presynaptic terminal. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 14657-14662.	3.3	46
156	Interaction between a drifting spiral and defects. Physical Review E, 1993, 47, R800-R803.	0.8	45
157	Spectral mixing of rhythmic neuronal signals in sensory cortex. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 15176-15181.	3.3	45
158	Receptor noise limitations on chemotactic sensing. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 19270-19275.	3.3	45
159	Alignment and nonlinear elasticity in biopolymer gels. Physical Review E, 2015, 91, 042710.	0.8	45
160	XIAP Regulation by MNK Links MAPK and NFÎºB Signaling to Determine an Aggressive Breast Cancer Phenotype. Cancer Research, 2018, 78, 1726-1738.	0.4	45
161	Semiclassical Approach to Planar Diagrams. Physical Review Letters, 1980, 44, 1443-1446.	2.9	44
162	Growth velocity of three-dimensional dendritic crystals. Physical Review A, 1987, 36, 4123-4126.	1.0	44

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163	Protein Oligomerization Through Domain Swapping: Role of Inter-molecular Interactions and Protein Concentration. Journal of Molecular Biology, 2005, 352, 202-211.	2.0	44
164	The Artistry of Microorganisms. Scientific American, 1998, 279, 82-87.	1.0	43
165	Structure of infectious prions: stabilization by domain swapping. FASEB Journal, 2005, 19, 1778-1782.	0.2	43
166	RACIPE: a computational tool for modeling gene regulatory circuits using randomization. BMC Systems Biology, 2018, 12, 74.	3.0	43
167	Dynamics of SU(2) lattice gauge theories. Nuclear Physics B, 1982, 205, 77-106.	0.9	39
168	Catalysis at single-crystal Pt(110) surfaces: Global coupling and standing waves. Physical Review E, 1993, 48, 50-64.	0.8	39
169	Effective elastic parameters of random composites. Applied Physics Letters, 1980, 37, 377-379.	1.5	38
170	A Thermodynamic Model for Receptor Clustering. Biophysical Journal, 1999, 77, 2358-2365.	0.2	38
171	Compression stiffening of fibrous networks with stiff inclusions. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21037-21044.	3.3	38
172	Determining the Wavelength of Dendritic Sidebranches. Europhysics Letters, 1987, 4, 215-221.	0.7	37
173	The Fixation Probability of Rare Mutators in Finite Asexual Populations. Genetics, 2009, 181, 1595-1612.	1.2	37
174	Biological Networks Regulating Cell Fate Choice are Minimally Frustrated. Physical Review Letters, 2020, 125, 088101.	2.9	37
175	Connecting Thermal and Mechanical Protein (Un)folding Landscapes. Biophysical Journal, 2014, 107, 2950-2961.	0.2	36
176	PAGE4 and Conformational Switching: Insights from Molecular Dynamics Simulations and Implications for Prostate Cancer. Journal of Molecular Biology, 2018, 430, 2422-2438.	2.0	36
177	A CTC-Cluster-Specific Signature Derived from OMICS Analysis of Patient-Derived Xenograft Tumors Predicts Outcomes in Basal-Like Breast Cancer. Journal of Clinical Medicine, 2019, 8, 1772.	1.0	36
178	Gradient sensing in defined chemotactic fields. Integrative Biology (United Kingdom), 2010, 2, 659-668.	0.6	35
179	E-Cadherin Represses Anchorage-Independent Growth in Sarcomas through Both Signaling and Mechanical Mechanisms. Molecular Cancer Research, 2019, 17, 1391-1402.	1.5	35
180	Testing the gene expression classification of the EMT spectrum. Physical Biology, 2019, 16, 025002.	0.8	35

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181	Breast cancer dormancy: need for clinically relevant models to address current gaps in knowledge. Npj Breast Cancer, 2021, 7, 66.	2.3	35
182	Mutator Dynamics on a Smooth Evolutionary Landscape. Physical Review Letters, 1998, 80, 2012-2015.	2.9	34
183	Pattern Selection by Gene Expression inDictyostelium Discoideum. Physical Review Letters, 1998, 80, 3875-3878.	2.9	34
184	Spiral core in singly diffusive excitable media. Physical Review Letters, 1992, 68, 401-404.	2.9	33
185	Steady-state cracks in viscoelastic lattice models. Physical Review E, 1999, 59, 5154-5164.	0.8	33
186	Scaling Solution in the Large Population Limit of the General Asymmetric Stochastic Luriaâ€“DelbrÃ¼ck Evolution Process. Journal of Statistical Physics, 2015, 158, 783-805.	0.5	33
187	Properties of gene expression and chromatin structure with mechanically regulated elongation. Nucleic Acids Research, 2018, 46, 5924-5934.	6.5	33
188	Epigenetic feedback and stochastic partitioning during cell division can drive resistance to EMT. Oncotarget, 2020, 11, 2611-2624.	0.8	33
189	Numerical study for traveling waves in directional solidification. Physical Review A, 1990, 42, 7475-7478.	1.0	32
190	Theory of pulse instabilities in electrophysiological models of excitable tissues. Physica D: Nonlinear Phenomena, 1994, 73, 113-127.	1.3	32
191	A comparison of deterministic and stochastic simulations of neuronal vesicle release models. Physical Biology, 2010, 7, 026008.	0.8	32
192	Mechanical bounds to transcriptional noise. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13983-13988.	3.3	32
193	Effects of thymic selection on T cell recognition of foreign and tumor antigenic peptides. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E7875-E7881.	3.3	32
194	Anticipating critical transitions in epithelialâ€“hybrid-mesenchymal cell-fate determination. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 26343-26352.	3.3	32
195	Mechanisms of cooperativity underlying sequence-independent Î²-sheet formation. Journal of Chemical Physics, 2002, 116, 4353-4365.	1.2	31
196	Optimal Strategy for Competence Differentiation in Bacteria. PLoS Genetics, 2010, 6, e1001108.	1.5	31
197	The motility-proliferation-metabolism interplay during metastatic invasion. Scientific Reports, 2015, 5, 13538.	1.6	31
198	Computational modeling of mound development in Dictyostelium. Physica D: Nonlinear Phenomena, 1997, 106, 375-388.	1.3	30

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