

# Raymond E Goldstein

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

217  
papers

13,820  
citations

64  
h-index

112  
g-index

238  
ext. papers

15,791  
ext. citations

6.1  
avg, IF

6.81  
L-index

#	Paper	IF	Citations
217	Cellular organization in lab-evolved and extant multicellular species obeys a maximum entropy law.. <i>ELife</i> , <b>2022</b> , 11,	8.9	3
216	Biofilm Growth under Elastic Confinement.. <i>Physical Review Letters</i> , <b>2022</b> , 128, 178102	7.4	2
215	Fluid Mechanics of Mosaic Ciliated Tissues. <i>Physical Review Letters</i> , <b>2021</b> , 127, 198102	7.4	1
214	The fluid dynamics of collective vortex structures of plant-animal worms. <i>Journal of Fluid Mechanics</i> , <b>2021</b> , 914,	3.7	2
213	Direct measurement of unsteady microscale Stokes flow using optically driven microspheres. <i>Physical Review Fluids</i> , <b>2021</b> , 6,	2.8	1
212	Comment on "Faceting and Flattening of Emulsion Droplets: A Mechanical Model". <i>Physical Review Letters</i> , <b>2021</b> , 126, 259801	7.4	2
211	Turing's Diffusive Threshold in Random Reaction-Diffusion Systems. <i>Physical Review Letters</i> , <b>2021</b> , 126, 238101	7.4	7
210	An "occlusive thrombosis-on-a-chip" microfluidic device for investigating the effect of anti-thrombotic drugs. <i>Lab on A Chip</i> , <b>2021</b> , 21, 4104-4117	7.2	5
209	Morphoelasticity of large bending deformations of cell sheets during development. <i>Physical Review E</i> , <b>2021</b> , 103, 022411	2.4	1
208	Geometry of catenoidal soap film collapse induced by boundary deformation. <i>Physical Review E</i> , <b>2021</b> , 104, 035105	2.4	0
207	Swirling Instability of the Microtubule Cytoskeleton. <i>Physical Review Letters</i> , <b>2021</b> , 126, 028103	7.4	11
206	Motility and phototaxis of <i>Gonium</i> , the simplest differentiated colonial alga. <i>Physical Review E</i> , <b>2020</b> , 101, 022416	2.4	9
205	CCDC61/VFL3 Is a Paralog of SAS6 and Promotes Ciliary Functions. <i>Structure</i> , <b>2020</b> , 28, 674-689.e11	5.2	12
204	Stress-Induced Dinoflagellate Bioluminescence at the Single Cell Level. <i>Physical Review Letters</i> , <b>2020</b> , 125, 028102	7.4	6
203	Optimal Design of Multilayer Fog Collectors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 7736-7743	3.5	18
202	Subpopulations and stability in microbial communities. <i>Physical Review Research</i> , <b>2020</b> , 2,	3.9	3
201	Nuclear crowding and nonlinear diffusion during interkinetic nuclear migration in the zebrafish retina. <i>ELife</i> , <b>2020</b> , 9,	8.9	8

200	A Compact Eulerian Representation of Axisymmetric Inviscid Vortex Sheet Dynamics. <i>Communications on Pure and Applied Mathematics</i> , <b>2020</b> , 73, 239-256	2.5	1
199	A theory for the slip and drag of superhydrophobic surfaces with surfactant. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 883,	3.7	7
198	Stability of dancing Volvox. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 903,	3.7	6
197	Nonlinear and nonlocal elasticity in coarse-grained differential-tension models of epithelia. <i>Physical Review E</i> , <b>2019</b> , 99, 022411	2.4	5
196	Shape-shifting polyhedral droplets. <i>Physical Review Research</i> , <b>2019</b> , 1,	3.9	10
195	Swimming eukaryotic microorganisms exhibit a universal speed distribution. <i>ELife</i> , <b>2019</b> , 8,	8.9	15
194	Microbial mutualism at a distance: The role of geometry in diffusive exchanges. <i>Physical Review E</i> , <b>2018</b> , 97, 022411	2.4	10
193	Why Clothes Don't Fall Apart: Tension Transmission in Staple Yarns. <i>Physical Review Letters</i> , <b>2018</b> , 120, 158001	7.4	11
192	Time Irreversibility and Criticality in the Motility of a Flagellate Microorganism. <i>Physical Review Letters</i> , <b>2018</b> , 121, 058103	7.4	20
191	The noisy basis of morphogenesis: Mechanisms and mechanics of cell sheet folding inferred from developmental variability. <i>PLoS Biology</i> , <b>2018</b> , 16, e2005536	9.7	13
190	The role of tumbling frequency and persistence in optimal run-and-tumble chemotaxis. <i>IMA Journal of Applied Mathematics</i> , <b>2018</b> , 83, 700-719	1	2
189	Evaporation-driven convective flows in suspensions of nonmotile bacteria. <i>Physical Review Fluids</i> , <b>2018</b> , 3,	2.8	10
188	Are theoretical results 'Results'?. <i>ELife</i> , <b>2018</b> , 7,	8.9	15
187	Nonlinear concentration patterns and bands in autochemotactic suspensions. <i>Physical Review E</i> , <b>2018</b> , 98,	2.4	12
186	Embryonic Inversion in : The Flipping and Peeling of Elastic Lips. <i>Physical Review E</i> , <b>2018</b> , 98,	2.4	3
185	Coffee stains, cell receptors, and time crystals: Lessons from the old literature. <i>Physics Today</i> , <b>2018</b> , 71, 32-38	0.9	17
184	Theory of Shape-Shifting Droplets. <i>Physical Review Letters</i> , <b>2017</b> , 118, 088001	7.4	20
183	Localised dynactin protects growing microtubules to deliver mRNA to the posterior cortex of the oocyte. <i>ELife</i> , <b>2017</b> , 6,	8.9	8

182	Scattering of biflagellate microswimmers from surfaces. <i>Physical Review E</i> , <b>2017</b> , 96, 023102	2.4	48
181	Spontaneous oscillations of elastic filaments induced by molecular motors. <i>Journal of the Royal Society Interface</i> , <b>2017</b> , 14,	4.1	39
180	Traces of surfactants can severely limit the drag reduction of superhydrophobic surfaces. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, 7254-7259	11.5	39
179	Directed collective motion of bacteria under channel confinement. <i>New Journal of Physics</i> , <b>2016</b> , 18, 075002	2.9	129
178	A model for the effects of germanium on silica biomineralization in choanoflagellates. <i>Journal of the Royal Society Interface</i> , <b>2016</b> , 13,	4.1	9
177	Motility of Colonial Choanoflagellates and the Statistics of Aggregate Random Walkers. <i>Physical Review Letters</i> , <b>2016</b> , 116, 038102	7.4	23
176	Instabilities and Solitons in Minimal Strips. <i>Physical Review Letters</i> , <b>2016</b> , 117, 017801	7.4	8
175	Ferromagnetic and antiferromagnetic order in bacterial vortex lattices. <i>Nature Physics</i> , <b>2016</b> , 12, 341-345	6.2	104
174	Soap-film dynamics and topological transitions under continuous deformation*. <i>Physical Review Fluids</i> , <b>2016</b> , 1,	2.8	4
173	Elastohydrodynamic Synchronization of Adjacent Beating Flagella. <i>Physical Review Fluids</i> , <b>2016</b> , 1,	2.8	32
172	Long-range interactions, wobbles, and phase defects in chains of model cilia. <i>Physical Review Fluids</i> , <b>2016</b> , 1, 081201	2.8	18
171	Aerotaxis in the closest relatives of animals. <i>ELife</i> , <b>2016</b> , 5,	8.9	18
170	Commentary: A biology journal provides a lesson in peer review. <i>Physics Today</i> , <b>2016</b> , 69, 10-11	0.9	3
169	Squirmer with swirl: a model for swimming. <i>Journal of Fluid Mechanics</i> , <b>2016</b> , 798, 165-186	3.7	63
168	Filter-feeding, near-field flows, and the morphologies of colonial choanoflagellates. <i>Physical Review E</i> , <b>2016</b> , 94, 052401	2.4	15
167	Batchelor Prize Lecture Fluid dynamics at the scale of the cell. <i>Journal of Fluid Mechanics</i> , <b>2016</b> , 807, 1-39	3.7	17
166	Coordinated beating of algal flagella is mediated by basal coupling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, E2784-93	11.5	89
165	The Evolution of Silicon Transport in Eukaryotes. <i>Molecular Biology and Evolution</i> , <b>2016</b> , 33, 3226-3248	8.3	62

164	From Chemical Gardens to Chemobrionics. <i>Chemical Reviews</i> , <b>2015</b> , 115, 8652-703	68.1	155
163	Dynamics of a Volvox embryo turning itself inside out. <i>Physical Review Letters</i> , <b>2015</b> , 114, 178101	7.4	44
162	A physical perspective on cytoplasmic streaming. <i>Interface Focus</i> , <b>2015</b> , 5, 20150030	3.9	74
161	Instability of a Möbius strip minimal surface and a link with systolic geometry. <i>Physical Review Letters</i> , <b>2015</b> , 114, 127801	7.4	6
160	Green Algae as Model Organisms for Biological Fluid Dynamics. <i>Annual Review of Fluid Mechanics</i> , <b>2015</b> , 47, 343-375	22	190
159	Feeding ducks, bacterial chemotaxis, and the Gini index. <i>Physical Review E</i> , <b>2015</b> , 92, 022701	2.4	4
158	Metachronal waves in the flagellar beating of Volvox and their hydrodynamic origin. <i>Journal of the Royal Society Interface</i> , <b>2015</b> , 12, 20141358	4.1	75
157	Elasticity and glocality: initiation of embryonic inversion in Volvox. <i>Journal of the Royal Society Interface</i> , <b>2015</b> , 12,	4.1	14
156	Do dissolving objects converge to a universal shape?. <i>Langmuir</i> , <b>2015</b> , 31, 4145-50	4	12
155	Cortical microtubule nucleation can organise the cytoskeleton of Drosophila oocytes to define the anteroposterior axis. <i>ELife</i> , <b>2015</b> , 4,	8.9	35
154	Controlling active self-assembly through broken particle-shape symmetry. <i>Physical Review E</i> , <b>2014</b> , 89, 010302	2.4	54
153	Fluid flows created by swimming bacteria drive self-organization in confined suspensions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 9733-8	11.5	238
152	Instability of a gravity current within a soap film. <i>Journal of Fluid Mechanics</i> , <b>2014</b> , 753,	3.7	2
151	Rheotaxis facilitates upstream navigation of mammalian sperm cells. <i>ELife</i> , <b>2014</b> , 3, e02403	8.9	141
150	Flagellar synchronization through direct hydrodynamic interactions. <i>ELife</i> , <b>2014</b> , 3, e02750	8.9	157
149	Rhythmicity, recurrence, and recovery of flagellar beating. <i>Physical Review Letters</i> , <b>2014</b> , 113, 238103	7.4	45
148	Lag, lock, sync, slip: the many 'phases' of coupled flagella. <i>Journal of the Royal Society Interface</i> , <b>2014</b> , 11, 20131160	4.1	62
147	Boundary singularities produced by the motion of soap films. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 8339-44	11.5	14

146	Author response: Rheotaxis facilitates upstream navigation of mammalian sperm cells <b>2014</b> ,		3
145	Membrane viscosity determined from shear-driven flow in giant vesicles. <i>Physical Review Letters</i> , <b>2013</b> , 111, 038103	7.4	59
144	Fluid dynamics of bacterial turbulence. <i>Physical Review Letters</i> , <b>2013</b> , 110, 228102	7.4	301
143	Confinement stabilizes a bacterial suspension into a spiral vortex. <i>Physical Review Letters</i> , <b>2013</b> , 110, 268102	7.4	246
142	Swimming like algae: biomimetic soft artificial cilia. <i>Journal of the Royal Society Interface</i> , <b>2013</b> , 10, 20120666	4.6	53
141	A general allometric and life-history model for cellular differentiation in the transition to multicellularity. <i>American Naturalist</i> , <b>2013</b> , 181, 369-80	3.7	22
140	Minimal continuum theories of structure formation in dense active fluids. <i>New Journal of Physics</i> , <b>2013</b> , 15, 045016	2.9	57
139	Cytoplasmic streaming in plant cells emerges naturally by microfilament self-organization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 14132-7	11.5	67
138	Antiphase synchronization in a flagellar-dominance mutant of <i>Chlamydomonas</i> . <i>Physical Review Letters</i> , <b>2013</b> , 111, 158101	7.4	52
137	Ciliary contact interactions dominate surface scattering of swimming eukaryotes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 1187-92	11.5	196
136	Shear-driven circulation patterns in lipid membrane vesicles. <i>Journal of Fluid Mechanics</i> , <b>2012</b> , 705, 165-175	3.7	24
135	A ratchet trap for Leidenfrost drops. <i>Journal of Fluid Mechanics</i> , <b>2012</b> , 696, 215-227	3.7	64
134	Hydrodynamic synchronization and metachronal waves on the surface of the colonial alga <i>Volvox carteri</i> . <i>Physical Review Letters</i> , <b>2012</b> , 109, 268102	7.4	106
133	Individual to Collective Dynamics of Swimming Bacteria. <i>The IMA Volumes in Mathematics and Its Applications</i> , <b>2012</b> , 73-82	0.5	
132	Meso-scale turbulence in living fluids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 14308-13	11.5	549
131	Cytoplasmic streaming in <i>Drosophila</i> oocytes varies with kinesin activity and correlates with the microtubule cytoskeleton architecture. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 15109-14	11.5	85
130	Dance of the microswimmers. <i>Physics Today</i> , <b>2012</b> , 65, 30-35	0.9	49
129	Shape of a ponytail and the statistical physics of hair fiber bundles. <i>Physical Review Letters</i> , <b>2012</b> , 108, 078101	7.4	12

128	Collective chemotactic dynamics in the presence of self-generated fluid flows. <i>Physical Review E</i> , <b>2012</b> , 86, 040902	2.4	35
127	Coupling of active motion and advection shapes intracellular cargo transport. <i>Physical Review Letters</i> , <b>2012</b> , 109, 028104	7.4	23
126	Spontaneous circulation of confined active suspensions. <i>Physical Review Letters</i> , <b>2012</b> , 109, 168105	7.4	100
125	Fluctuations, dynamics, and the stretch-coil transition of single actin filaments in extensional flows. <i>Physical Review Letters</i> , <b>2012</b> , 108, 038103	7.4	70
124	Topological constraints and their breakdown in dynamical evolution. <i>Nonlinearity</i> , <b>2012</b> , 25, R85-R98	1.7	10
123	Fluid dynamics and noise in bacterial cell-cell and cell-surface scattering. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 10940-5	11.5	486
122	Emergence of synchronized beating during the regrowth of eukaryotic flagella. <i>Physical Review Letters</i> , <b>2011</b> , 107, 148103	7.4	54
121	Growth and instability of a laminar plume in a strongly stratified environment. <i>Journal of Fluid Mechanics</i> , <b>2011</b> , 671, 184-206	3.7	8
120	THE FLAGELLAR PHOTORESPONSE IN VOLVOX SPECIES (VOLVOCEAE, CHLOROPHYCEAE). <i>Journal of Phycology</i> , <b>2011</b> , 47, 580-583	3	10
119	Dynamics of swimming bacteria: transition to directional order at high concentration. <i>Physical Review E</i> , <b>2011</b> , 83, 061907	2.4	92
118	Flagellar phenotypic plasticity in volvoclean algae correlates with Péclet number. <i>Journal of the Royal Society Interface</i> , <b>2011</b> , 8, 1409-17	4.1	9
117	Insights into the evolution of vitamin B12 auxotrophy from sequenced algal genomes. <i>Molecular Biology and Evolution</i> , <b>2011</b> , 28, 2921-33	8.3	167
116	Fidelity of adaptive phototaxis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 11171-6	11.5	97
115	Soap-film Mobius strip changes topology with a twist singularity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 21979-21984	11.5	35
114	Direct measurement of the flow field around swimming microorganisms. <i>Physical Review Letters</i> , <b>2010</b> , 105, 168101	7.4	277
113	Fluid velocity fluctuations in a suspension of swimming protists. <i>Physical Review Letters</i> , <b>2010</b> , 105, 188101	7.4	28
112	On the mechanisms of icicle evolution. <i>Journal of Fluid Mechanics</i> , <b>2010</b> , 647, 287-308	3.7	12
111	Measurement of cytoplasmic streaming in single plant cells by magnetic resonance velocimetry. <i>Journal of Fluid Mechanics</i> , <b>2010</b> , 642, 5-14	3.7	27

110	Cytoplasmic streaming enables the distribution of molecules and vesicles in large plant cells. <i>Protoplasma</i> , <b>2010</b> , 240, 99-107	3.4	101
109	Enhanced mixing and spatial instability in concentrated bacterial suspensions. <i>Physical Review E</i> , <b>2009</b> , 80, 031903	2.4	139
108	Dynamics of enhanced tracer diffusion in suspensions of swimming eukaryotic microorganisms. <i>Physical Review Letters</i> , <b>2009</b> , 103, 198103	7.4	302
107	Dancing volvox: hydrodynamic bound states of swimming algae. <i>Physical Review Letters</i> , <b>2009</b> , 102, 168101	7.1	219
106	How to track protists in three dimensions. <i>Review of Scientific Instruments</i> , <b>2009</b> , 80, 014301	1.7	33
105	Noise and synchronization in pairs of beating eukaryotic flagella. <i>Physical Review Letters</i> , <b>2009</b> , 103, 168103	7.03	157
104	<i>Chlamydomonas</i> swims with two "gears" in a eukaryotic version of run-and-tumble locomotion. <i>Science</i> , <b>2009</b> , 325, 487-90	33.3	301
103	The elastic basis for the shape of <i>Borrelia burgdorferi</i> . <i>Biophysical Journal</i> , <b>2009</b> , 96, 4409-17	2.9	55
102	Large-Scale Collective Behavior of Swimming Microorganisms at High Concentrations <b>2009</b> , 455-470		
101	VOLVOX BARBERI, THE FASTEST SWIMMER OF THE VOLVOCALES (CHLOROPHYCEAE)(1). <i>Journal of Phycology</i> , <b>2008</b> , 44, 1395-8	3	17
100	Microfluidics of cytoplasmic streaming and its implications for intracellular transport. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2008</b> , 105, 3663-7	11.5	81
99	Nature's microfluidic transporter: rotational cytoplasmic streaming at high Péclet numbers. <i>Physical Review Letters</i> , <b>2008</b> , 101, 178102	7.4	31
98	Concentration dependence of the collective dynamics of swimming bacteria. <i>Physical Review Letters</i> , <b>2007</b> , 98, 158102	7.4	469
97	Fluid dynamics of self-propelled microorganisms, from individuals to concentrated populations. <i>Experiments in Fluids</i> , <b>2007</b> , 43, 737-753	2.5	220
96	Motility, mixing, and multicellularity. <i>Genetic Programming and Evolvable Machines</i> , <b>2007</b> , 8, 115-129	2	15
95	Model for dynamical coherence in thin films of self-propelled microorganisms. <i>Physical Review E</i> , <b>2007</b> , 75, 040901	2.4	130
94	Hermitization and the Poisson bracket-commutator correspondence as a consequence of averaging. <i>Journal of Physics A</i> , <b>2006</b> , 39, 789-803		1
93	Multicellularity and the functional interdependence of motility and molecular transport. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2006</b> , 103, 1353-8	11.5	78



92	Flows driven by flagella of multicellular organisms enhance long-range molecular transport. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2006</b> , 103, 8315-9	11.5	111
91	Dynamic buckling of morphoelastic filaments. <i>Physical Review E</i> , <b>2006</b> , 74, 010901	2.4	30
90	A free-boundary theory for the shape of the ideal dripping icicle. <i>Physics of Fluids</i> , <b>2006</b> , 18, 083101	4.4	27
89	Reversal of bacterial locomotion at an obstacle. <i>Physical Review E</i> , <b>2006</b> , 73, 030901	2.4	68
88	The flagellar cytoskeleton of the spirochetes. <i>Journal of Molecular Microbiology and Biotechnology</i> , <b>2006</b> , 11, 221-7	0.9	61
87	Mapping of the classical kinetic balance equations onto the Schrödinger equation. <i>Nonlinearity</i> , <b>2005</b> , 18, 211-226	1.7	9
86	Mapping of the classical kinetic balance equations onto the Pauli equation. <i>Nonlinearity</i> , <b>2005</b> , 18, 227-235	1.7	6
85	Precipitative growth templated by a fluid jet. <i>Langmuir</i> , <b>2005</b> , 21, 10916-9	4	31
84	Teaching Biological Physics. <i>Physics Today</i> , <b>2005</b> , 58, 46-51	0.9	5
83	Stalactite growth as a free-boundary problem. <i>Physics of Fluids</i> , <b>2005</b> , 17, 083101	4.4	29
82	Mapping of the relativistic kinetic balance equations onto the Klein-Gordon and second-order Dirac equations. <i>Nonlinearity</i> , <b>2005</b> , 18, 1295-1304	1.7	5
81	Boundary layer model for vortex fingers in type-II superconductors. <i>Physical Review B</i> , <b>2005</b> , 72,	3.3	8
80	Coiling, entrainment, and hydrodynamic coupling of decelerated fluid jets. <i>Physical Review Letters</i> , <b>2005</b> , 95, 184501	7.4	18
79	Stalactite growth as a free-boundary problem: a geometric law and its platonic ideal. <i>Physical Review Letters</i> , <b>2005</b> , 94, 018501	7.4	62
78	Bacterial swimming and oxygen transport near contact lines. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2005</b> , 102, 2277-82	11.5	390
77	Self-concentration and large-scale coherence in bacterial dynamics. <i>Physical Review Letters</i> , <b>2004</b> , 93, 098103	7.4	681
76	Tubular precipitation and redox gradients on a bubbling template. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2004</b> , 101, 11537-41	11.5	90
75	Dynamic supercoiling bifurcations of growing elastic filaments. <i>Physica D: Nonlinear Phenomena</i> , <b>2004</b> , 190, 266-289	3.3	25

74	Inertially driven buckling and overturning of jets in a Hele-Shaw cell. <i>Physical Review E</i> , <b>2003</b> , 68, 056305	2.4	14
73	Quantum necking in stressed metallic nanowires. <i>Physical Review Letters</i> , <b>2003</b> , 91, 254501	7.4	25
72	Fluid-membrane tethers: minimal surfaces and elastic boundary layers. <i>Physical Review E</i> , <b>2002</b> , 65, 041901	1.4	158
71	Periodic chirality transformations propagating on bacterial flagella. <i>Physical Review Letters</i> , <b>2002</b> , 89, 118102	7.4	35
70	cAMP waves in <i>Dictyostelium</i> territories. <i>Nonlinearity</i> , <b>2002</b> , 15, C1-C5	1.7	7
69	Quantum suppression of the Rayleigh instability in nanowires. <i>Nonlinearity</i> , <b>2001</b> , 14, 167-177	1.7	32
68	Resetting wave forms in <i>dictyostelium</i> territories. <i>Physical Review Letters</i> , <b>2001</b> , 87, 068101	7.4	18
67	Bistable helices. <i>Physical Review Letters</i> , <b>2000</b> , 84, 1631-4	7.4	84
66	Chiral self-propulsion of growing bacterial macrofibers on a solid surface. <i>Physical Review Letters</i> , <b>2000</b> , 84, 1627-30	7.4	35
65	Twirling and whirling: viscous dynamics of rotating elastic filaments. <i>Physical Review Letters</i> , <b>2000</b> , 84, 1623-6	7.4	101
64	Domain of convergence of perturbative solutions for Hele-Shaw flow near interface collapse. <i>Physics of Fluids</i> , <b>1999</b> , 11, 2809-2811	4.4	10
63	Viscous Nonlinear Dynamics of Twist and Writhe. <i>Physical Review Letters</i> , <b>1998</b> , 80, 5232-5235	7.4	96
62	Instabilities and singularities in Hele-Shaw flow. <i>Physics of Fluids</i> , <b>1998</b> , 10, 2701-2723	4.4	44
61	Trapping and wiggling: elastohydrodynamics of driven microfilaments. <i>Biophysical Journal</i> , <b>1998</b> , 74, 1043-60	2.9	164
60	Goldstein and Dorsey Reply. <i>Physical Review Letters</i> , <b>1998</b> , 81, 5036-5036	7.4	3
59	Shapes of flux domains in the intermediate state of type-I superconductors. <i>Physical Review B</i> , <b>1998</b> , 57, 3058-3072	3.3	48
58	Flexive and Propulsive Dynamics of Elastica at Low Reynolds Number. <i>Physical Review Letters</i> , <b>1998</b> , 80, 3879-3882	7.4	205
57	Propagation of a topological transition: The Rayleigh instability. <i>Physics of Fluids</i> , <b>1998</b> , 10, 1052-1057	4.4	50

56	Selection for spiral waves in the social amoebae <i>Dictyostelium</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1997</b> , 94, 13719-23	11.5	68
55	Pearling and Pinching: Propagation of Rayleigh Instabilities. <i>Physical Review Letters</i> , <b>1997</b> , 78, 2555-2558	7.4	62
54	Competing patterns of signaling activity in <i>dictyostelium discoideum</i> . <i>Physical Review Letters</i> , <b>1996</b> , 76, 1174-1177	7.4	169
53	Front Propagation in the Pearling Instability of Tubular Vesicles. <i>Journal De Physique II</i> , <b>1996</b> , 6, 767-796		49
52	Hydrodynamics of monolayer domains at the air-water interface. <i>Physics of Fluids</i> , <b>1996</b> , 8, 843-854	4.4	63
51	Interface proliferation and the growth of labyrinths in a reaction-diffusion system. <i>Physical Review E</i> , <b>1996</b> , 53, 3933-3957	2.4	94
50	Traveling-Wave Chemotaxis. <i>Physical Review Letters</i> , <b>1996</b> , 77, 775-778	7.4	46
49	Current-loop model for the intermediate state of type-I superconductors. <i>Physical Review Letters</i> , <b>1996</b> , 76, 3818-3821	7.4	40
48	Nonlinear dynamics of stiff polymers. <i>Physical Review Letters</i> , <b>1995</b> , 75, 1094-1097	7.4	117
47	Attracting manifold for a viscous topology transition. <i>Physical Review Letters</i> , <b>1995</b> , 75, 3665-3668	7.4	28
46	Domain Shape Relaxation and the Spectrum of Thermal Fluctuations in Langmuir Monolayers. <i>The Journal of Physical Chemistry</i> , <b>1994</b> , 98, 9626-9636		41
45	Hydrodynamics of fingering instabilities in dipolar fluids. <i>Physical Review E</i> , <b>1994</b> , 50, 298-307	2.4	101
44	Nonlocal contour dynamics model for chemical front motion. <i>Physical Review Letters</i> , <b>1994</b> , 72, 1120-1123	7.4	69
43	Labyrinthine pattern formation in magnetic fluids. <i>Science</i> , <b>1993</b> , 261, 1012-5	33.3	124
42	Finite-time singularity formation in Hele-Shaw systems. <i>Physical Review E</i> , <b>1993</b> , 47, 4182-4196	2.4	61
41	Topology transitions and singularities in viscous flows. <i>Physical Review Letters</i> , <b>1993</b> , 70, 3043-3046	7.4	78
40	Droplet breakup in a model of the Hele-Shaw cell. <i>Physical Review E</i> , <b>1993</b> , 47, 4169-4181	2.4	121
39	Dynamics of pattern formation in magnetic fluids. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>1993</b> , 80, 29-37	5.1	0

38	Dynamics of pattern formation in magnetic fluids. <i>Journal of Magnetism and Magnetic Materials</i> , <b>1993</b> , 122, 267-270	2.8	6
37	Topological Transitions in Hele-Shaw Flow <b>1993</b> , 167-188		7
36	Solitons, Euler's Equation, and the Geometry of Curve Motion <b>1993</b> , 93-109		3
35	Internal dynamics of DNA probed by transient electric birefringence. <i>Physical Review Letters</i> , <b>1992</b> , 68, 1430-1433	7.4	13
34	Dynamics of labyrinthine pattern formation in magnetic fluids. <i>Physical Review A</i> , <b>1992</b> , 46, 4894-4904	2.6	137
33	Solitons, Euler's equation, and vortex patch dynamics. <i>Physical Review Letters</i> , <b>1992</b> , 69, 555-558	7.4	39
32	Comment on: Rectilinear diameters and extended corresponding states theory. <i>Journal of Chemical Physics</i> , <b>1991</b> , 95, 9424-9425	3.9	2
31	Hydrodynamic and interfacial patterns with broken space-time symmetry. <i>Physical Review A</i> , <b>1991</b> , 43, 6700-6721	2.6	67
30	Thermodynamics of rough colloidal surfaces. <i>Physical Review Letters</i> , <b>1991</b> , 66, 1551-1554	7.4	12
29	The Korteweg-de Vries hierarchy as dynamics of closed curves in the plane. <i>Physical Review Letters</i> , <b>1991</b> , 67, 3203-3206	7.4	196
28	Electric double layers near modulated surfaces. <i>Physical Review A</i> , <b>1990</b> , 41, 5504-5515	2.6	44
27	Stretched-exponential relaxation of electric birefringence in polymer solutions. <i>Physical Review Letters</i> , <b>1990</b> , 64, 1043-1046	7.4	50
26	Defects and traveling-wave states in nonequilibrium patterns with broken parity. <i>Physical Review A</i> , <b>1990</b> , 41, 5731-5734	2.6	16
25	Geometrical and topological aspects of electric double layers near curved surfaces. <i>Physical Review Letters</i> , <b>1990</b> , 65, 508-511	7.4	61
24	Continuum theory of critical phenomena in polymer solutions: Formalism and mean field approximation. <i>Journal of Chemical Physics</i> , <b>1989</b> , 90, 7448-7460	3.9	8
23	Structural phase transitions of interacting membranes. <i>Physical Review A</i> , <b>1989</b> , 40, 1025-1035	2.6	43
22	Fluctuating pseudoatoms in metallic fluids. <i>Journal of Chemical Physics</i> , <b>1989</b> , 91, 1843-1854	3.9	22
21	Liquid-vapor asymmetry at the critical point. <i>Accounts of Chemical Research</i> , <b>1989</b> , 22, 77-82	24.3	10

20	Parity-breaking transitions of modulated patterns in hydrodynamic systems. <i>Physical Review Letters</i> , <b>1989</b> , 63, 1954-1957	7.4	117
19	Model for lamellar phases of interacting lipid membranes. <i>Physical Review Letters</i> , <b>1988</b> , 61, 2213-2216	7.4	69
18	Stretched-exponential relaxation of birefringence in a critical binary mixture. <i>Physical Review B</i> , <b>1988</b> , 38, 7223-7226	3.3	41
17	Broken particle-hole symmetry in critical fluids. <i>Journal of Chemical Physics</i> , <b>1988</b> , 88, 7059-7065	3.9	28
16	Revised scaling variables in systems with many-body interactions. <i>Physical Review A</i> , <b>1987</b> , 35, 4770-4780	2.6	8
15	Three-body interactions, scaling variables, and singular diameters in the coexistence curves of fluids. <i>Physical Review B</i> , <b>1987</b> , 36, 599-614	3.3	50
14	Beyond the pair-potential model of fluids at the liquid-vapor critical point. <i>Physical Review Letters</i> , <b>1987</b> , 58, 41-44	7.4	54
13	Model for phase equilibria in micellar solutions of nonionic surfactants. <i>Journal of Chemical Physics</i> , <b>1986</b> , 84, 3367-3378	3.9	80
12	Interaction-driven asymmetric coexistence curves and the singular diameter. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>1985</b> , 112, 53-56	2.3	2
11	Thermodynamic functions and critical properties from a cluster-decimation approximation. <i>Journal of Physics A</i> , <b>1985</b> , 18, 1275-1287		10
10	Origin of the singular diameter in the coexistence curve of a metal. <i>Physical Review Letters</i> , <b>1985</b> , 55, 2164-2167	7.4	73
9	Phenomenological theory of multiply reentrant solubility. <i>Journal of Chemical Physics</i> , <b>1985</b> , 83, 1246-1254	3.9	30
8	Potts model for solvent effects on polymer conformation. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>1984</b> , 104, 285-289	2.3	9
7	On the theory of lower critical solution points in hydrogen-bonded mixtures. <i>Journal of Chemical Physics</i> , <b>1984</b> , 80, 5340-5341	3.9	107
6	Theory of multiple phase separations in binary mixtures: Phase diagrams, thermodynamic properties, and comparisons with experiments. <i>Journal of Chemical Physics</i> , <b>1983</b> , 78, 1492-1512	3.9	92
5	Substituent effects on intermolecular hydrogen bonding from a lattice gas theory for lower critical solution points: Comparison with experiments on aqueous solutions of alkylpyridines. <i>Journal of Chemical Physics</i> , <b>1983</b> , 79, 4439-4447	3.9	37
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- 1 Cellular organization in lab-evolved and extant multicellular species obeys a maximum entropy law 1