Julia M Yeomans

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/1565938/publications.pdf

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334 papers 18,448 citations

69 h-index 122 g-index

348 all docs 348 docs citations

times ranked

348

8707 citing authors

#	Article	IF	CITATIONS
1	Lattice Boltzmann Simulation of Nonideal Fluids. Physical Review Letters, 1995, 75, 830-833.	7.8	1,114
2	Lattice Boltzmann simulations of liquid-gas and binary fluid systems. Physical Review E, 1996, 54, 5041-5052.	2.1	1,110
3	Pancake bouncing on superhydrophobic surfaces. Nature Physics, 2014, 10, 515-519.	16.7	748
4	Meso-scale turbulence in living fluids. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 14308-14313.	7.1	747
5	Topological defects in epithelia govern cell death and extrusion. Nature, 2017, 544, 212-216.	27.8	511
6	Active nematics. Nature Communications, 2018, 9, 3246.	12.8	414
7	Symmetry breaking in drop bouncing on curved surfaces. Nature Communications, 2015, 6, 10034.	12.8	340
8	Impalement of fakir drops. Europhysics Letters, 2008, 81, 26006.	2.0	273
9	The 2020 motile active matter roadmap. Journal of Physics Condensed Matter, 2020, 32, 193001.	1.8	242
10	Steady-state hydrodynamic instabilities of active liquid crystals: Hybrid lattice Boltzmann simulations. Physical Review E, 2007, 76, 031921.	2.1	227
11	Modeling Contact Angle Hysteresis on Chemically Patterned and Superhydrophobic Surfaces. Langmuir, 2007, 23, 6019-6032.	3.5	223
12	Modeling Droplets on Superhydrophobic Surfaces:Â Equilibrium States and Transitions. Langmuir, 2005, 21, 2624-2629.	3.5	208
13	Lattice Boltzmann simulations of contact line motion. I. Liquid-gas systems. Physical Review E, 2004, 69, 031602.	2.1	206
14	Three-dimensional colloidal crystals in liquid crystalline blue phases. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5188-5192.	7.1	205
15	Transport coefficients of a mesoscopic fluid dynamics model. Journal of Chemical Physics, 2003, 119, 6388-6395.	3.0	178
16	Lattice Boltzmann simulations of liquid crystal hydrodynamics. Physical Review E, 2001, 63, 056702.	2.1	176
17	Hydrodynamics of Topological Defects in Nematic Liquid Crystals. Physical Review Letters, 2002, 88, 105504.	7.8	168
18	Velocity Correlations in an Active Nematic. Physical Review Letters, 2013, 111, 118101.	7.8	163

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19	Dynamics of short polymer chains in solution. Europhysics Letters, 2000, 52, 231-237.	2.0	161
20	A Lattice Boltzmann Model of Binary-Fluid Mixtures. Europhysics Letters, 1995, 32, 463-468.	2.0	160
21	Lattice Boltzmann simulations of contact line motion. II. Binary fluids. Physical Review E, 2004, 69, 031603.	2.1	152
22	Hydrodynamic Interaction between Two Swimmers at Low Reynolds Number. Physical Review Letters, 2007, 99, 228103.	7.8	152
23	Hydrodynamic synchronization at low Reynolds number. Soft Matter, 2011, 7, 3074.	2.7	151
24	Anisotropic Drop Morphologies on Corrugated Surfaces. Langmuir, 2008, 24, 7299-7308.	3.5	147
25	Breakdown of Scale Invariance in the Coarsening of Phase-Separating Binary Fluids. Physical Review Letters, 1998, 80, 1429-1432.	7.8	142
26	Shearing Active Gels Close to the Isotropic-Nematic Transition. Physical Review Letters, 2008, 101, 068102.	7.8	137
27	The collapse transition on superhydrophobic surfaces. Europhysics Letters, 2008, 81, 36003.	2.0	135
28	Lattice Boltzmann simulations of contact line motion in a liquid-gas system. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2002, 360, 485-495.	3.4	133
29	Onset of meso-scale turbulence in active nematics. Nature Communications, 2017, 8, 15326.	12.8	120
30	Directed percolation: a finite-size renormalisation group approach. Journal of Physics A, 1981, 14, L163-L168.	1.6	119
31	Stabilization of active matter by flow-vortex lattices and defect ordering. Nature Communications, 2016, 7, 10557.	12.8	115
32	Defect-Mediated Morphologies in Growing Cell Colonies. Physical Review Letters, 2016, 117, 048102.	7.8	114
33	Polymer Packaging and Ejection in Viral Capsids: Shape Matters. Physical Review Letters, 2006, 96, 208102.	7.8	112
34	Lattice Boltzmann Study of Hydrodynamic Spinodal Decomposition. Physical Review Letters, 1995, 75, 4031-4034.	7.8	111
35	Instabilities and topological defects in active nematics. Europhysics Letters, 2014, 105, 18001.	2.0	111
36	A lattice Boltzmann model of ternary fluid mixtures. Europhysics Letters, 1999, 45, 314-320.	2.0	110

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37	Spinodal Decomposition to a Lamellar Phase: Effects of Hydrodynamic Flow. Physical Review Letters, 1997, 78, 1695-1698.	7.8	109
38	Emergence of Active Nematic Behavior in Monolayers of Isotropic Cells. Physical Review Letters, 2019, 122, 048004.	7.8	107
39	The Theory and Application of Axial Ising Models. Solid State Physics, 1988, 41, 151-200.	0.5	106
40	Phase separation under shear in two-dimensional binary fluids. Physical Review E, 1999, 59, 4366-4373.	2.1	102
41	Mesoscopic modelling of colloids in chiral nematics. Faraday Discussions, 2010, 144, 159-169.	3.2	100
42	Sustained Oscillations of Epithelial Cell Sheets. Biophysical Journal, 2019, 117, 464-478.	0.5	100
43	Vorticity, defects and correlations in active turbulence. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130366.	3.4	99
44	Jetting Micron-Scale Droplets onto Chemically Heterogeneous Surfaces. Langmuir, 2003, 19, 9818-9822.	3.5	98
45	Lattice Boltzmann algorithm for three–dimensional liquid–crystal hydrodynamics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2004, 362, 1745-1754.	3.4	98
46	Hydrodynamics and Rheology of Active Liquid Crystals: A Numerical Investigation. Physical Review Letters, 2007, 98, 118102.	7.8	97
47	Spontaneous flow states in active nematics: A unified picture. Europhysics Letters, 2009, 85, 18008.	2.0	96
48	Three-component model and tricritical points: A renormalization-group study. Two dimensions. Physical Review B, 1981, 23, 3448-3459.	3.2	94
49	Liquid Crystal Microfluidics for Tunable Flow Shaping. Physical Review Letters, 2013, 110, 048303.	7.8	94
50	Drop dynamics on chemically patterned surfaces. Europhysics Letters, 2006, 73, 740-746.	2.0	93
51	Modeling microscopic swimmers at low Reynolds number. Journal of Chemical Physics, 2007, 126, 064703.	3.0	93
52	A Monte Carlo study of the asymmetric clock or chiral Potts model in two dimensions. European Physical Journal B, 1982, 46, 311-318.	1.5	90
53	Stabilizing the blue phases. Physical Review E, 2006, 74, 061706.	2.1	90
54	Dancing disclinations in confined active nematics. Soft Matter, 2017, 13, 3853-3862.	2.7	90

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55	Enhanced bacterial swimming speeds in macromolecular polymer solutions. Nature Physics, 2019, 15, 554-558.	16.7	90
56	Mesoscale simulations: Lattice Boltzmann and particle algorithms. Physica A: Statistical Mechanics and Its Applications, 2006, 369, 159-184.	2.6	86
57	Upstream Swimming in Microbiological Flows. Physical Review Letters, 2016, 116, 028104.	7.8	84
58	Celebrating Soft Matter's 10th Anniversary: Cell division: a source of active stress in cellular monolayers. Soft Matter, 2015, 11, 7328-7336.	2.7	82
59	Biphasic, Lyotropic, Active Nematics. Physical Review Letters, 2014, 113, 248303.	7.8	81
60	Lattice Boltzmann modelling of droplets on chemically heterogeneous surfaces. Future Generation Computer Systems, 2004, 20, 993-1001.	7.5	80
61	Capillary filling in patterned channels. Physical Review E, 2008, 77, 067301.	2.1	80
62	Confined Active Nematic Flow in Cylindrical Capillaries. Physical Review Letters, 2013, 110, 026001.	7.8	80
63	Polymer collapse in the presence of hydrodynamic interactions. European Physical Journal E, 2002, 9, 63-66.	1.6	78
64	Fluid transport by individual microswimmers. Journal of Fluid Mechanics, 2013, 726, 5-25.	3.4	78
65	The application of the ANNNI model to polytypic behaviour. Acta Crystallographica Section B: Structural Science, 1984, 40, 448-454.	1.8	77
66	Kinetics of the polymer collapse transition: The role of hydrodynamics. Physical Review E, 2005, 71, 061804.	2.1	76
67	Pancake Bouncing: Simulations and Theory and Experimental Verification. Langmuir, 2014, 30, 13021-13032.	3 . 5	75
68	Wetting on spherical and cylindrical substrates: Global phase diagrams. Physical Review B, 1989, 40, 666-679.	3.2	73
69	Knot-Controlled Ejection of a Polymer from a Virus Capsid. Physical Review Letters, 2009, 102, 088101.	7.8	72
70	Critical properties of site- and bond-diluted Ising ferromagnets. Journal of Physics C: Solid State Physics, 1979, 12, 347-360.	1.5	71
71	Dynamics of polymer packaging. Journal of Chemical Physics, 2004, 121, 8635.	3.0	69
72	Shear thinning in dilute polymer solutions. Journal of Chemical Physics, 2006, 125, 194906.	3.0	69

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73	Investigating the nature of active forces in tissues reveals how contractile cells can form extensile monolayers. Nature Materials, 2021, 20, 1156-1166.	27.5	69
74	Bacteria solve the problem of crowding by moving slowly. Nature Physics, 2021, 17, 205-210.	16.7	68
75	Kinetic Theory Derivation of the Transport Coefficients of Stochastic Rotation Dynamicsâ€. Journal of Physical Chemistry B, 2005, 109, 6505-6513.	2.6	67
76	Lattice-Boltzmann simulations of droplet evaporation. Soft Matter, 2014, 10, 8267-8275.	2.7	67
77	Hydrodynamics of micro-swimmers in films. Journal of Fluid Mechanics, 2016, 806, 35-70.	3.4	65
78	Active micromachines: Microfluidics powered by mesoscale turbulence. Science Advances, 2016, 2, e1501854.	10.3	63
79	Interface properties of the two-dimensional Blume-Emery-Griffiths model. Journal of Physics A, 1983, 16, 2789-2800.	1.6	61
80	Simulations of liquid crystal hydrodynamics in the isotropic and nematic phases. Europhysics Letters, 2000, 52, 481-487.	2.0	61
81	Reconfigurable flows and defect landscape of confined active nematics. Communications Physics, 2019, 2, .	5. 3	60
82	Dissipative particle dynamics: The equilibrium for finite time steps. Europhysics Letters, 1997, 37, 511-516.	2.0	59
83	Contact line dynamics in binary lattice Boltzmann simulations. Physical Review E, 2008, 78, 056709.	2.1	59
84	Designing Synthetic, Pumping Cilia That Switch the Flow Direction in Microchannels. Langmuir, 2008, 24, 12102-12106.	3.5	59
85	Fluid Mixing by Curved Trajectories of Microswimmers. Physical Review Letters, 2013, 111, 188101.	7.8	59
86	Dumb-bell swimmers. Europhysics Letters, 2008, 83, 34006.	2.0	57
87	Modeling Receding Contact Lines on Superhydrophobic Surfaces. Langmuir, 2010, 26, 18162-18168.	3.5	57
88	Lévy fluctuations and mixing in dilute suspensions of algae and bacteria. Journal of the Royal Society Interface, 2011, 8, 1314-1331.	3.4	56
89	Sensory registration and informational persistence Journal of Experimental Psychology: Human Perception and Performance, 1986, 12, 343-360.	0.9	54
90	Enhanced Motility of a Microswimmer in Rigid and Elastic Confinement. Physical Review Letters, 2013, 111, 138101.	7.8	53

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91	An introduction to the hydrodynamics of swimming microorganisms. European Physical Journal: Special Topics, 2014, 223, 1771-1785.	2.6	53
92	Active turbulence in active nematics. European Physical Journal: Special Topics, 2016, 225, 651-662.	2.6	53
93	Variation of the Contact Time of Droplets Bouncing on Cylindrical Ridges with Ridge Size. Langmuir, 2017, 33, 7583-7587.	3.5	52
94	Polar jets of swimming bacteria condensed by a patterned liquid crystal. Nature Physics, 2020, 16, 481-487.	16.7	51
95	Lattice Boltzmann simulations of lamellar and droplet phases. Physical Review E, 1998, 58, 480-485.	2.1	50
96	Drop dynamics on hydrophobic and superhydrophobic surfaces. Faraday Discussions, 2010, 146, 153.	3.2	50
97	Numerical calculations of the phase diagram of cubic blue phases in cholesteric liquid crystals. Physical Review E, 2005, 71, 011703.	2.1	49
98	Swimmer-tracer scattering at low Reynolds number. Soft Matter, 2010, 6, 4268.	2.7	49
99	A circle swimmer at low Reynolds number. European Physical Journal E, 2012, 35, 70.	1.6	48
100	Active nematic materials with substrate friction. Physical Review E, 2014, 90, 062307.	2.1	48
101	Axial Ising model with third-neighbour interactions. Journal of Physics C: Solid State Physics, 1985, 18, L393-L399.	1.5	47
102	Anisotropy in the annihilation dynamics of umbilic defects in nematic liquid crystals. Physical Review E, 2012, 85, 021703.	2.1	47
103	Topology and Morphology of Self-Deforming Active Shells. Physical Review Letters, 2019, 123, 208001.	7.8	47
104	Permeative Flows in Cholesteric Liquid Crystals. Physical Review Letters, 2004, 92, 188301.	7.8	45
105	Modeling a tethered polymer in Poiseuille flow. Journal of Chemical Physics, 2005, 122, 164903.	3.0	44
106	Finite-size scaling of two-dimensional axial next-nearest-neighbor Ising models. Physical Review B, 1985, 31, 7166-7170.	3.2	43
107	Hydrodynamics of domain growth in nematic liquid crystals. Physical Review E, 2003, 67, 051705.	2.1	43
108	Anisotropy of Water Droplets on Single Rectangular Posts. Langmuir, 2009, 25, 5619-5625.	3.5	43

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109	Multi-scale statistics of turbulence motorized by active matter. Journal of Fluid Mechanics, 2017, 822, 762-773.	3.4	43
110	Three-component model and tricritical points: A renormalization-group study. II. General dimensions and the three-phase monohedron. Physical Review B, 1981, 24, 2825-2840.	3.2	42
111	Wavevector scaling and the phase diagram of the chiral clock model. Journal of Physics A, 1984, 17, L179-L184.	1.6	42
112	Capillary Condensation Between Spheres. Europhysics Letters, 1992, 18, 439-444.	2.0	42
113	Flow injection of polymers into nanopores. Soft Matter, 2009, 5, 4575.	2.7	42
114	Length-dependent translocation of polymers through nanochannels. Soft Matter, 2012, 8, 1884-1892.	2.7	42
115	The effect of attractive monomer-monomer interactions on adsorption of a polymer chain. Journal of Physics A, 1991, 24, 827-849.	1.6	41
116	Flexoelectric Surface Switching of Bistable Nematic Devices. Physical Review Letters, 2001, 87, 275505.	7.8	41
117	Periodic Droplet Formation in Chemically Patterned Microchannels. Physical Review Letters, 2003, 91, 108303.	7.8	40
118	Ejection Dynamics of Polymeric Chains from Viral Capsids: Effect of Solvent Quality. Biophysical Journal, 2008, 94, 4159-4164.	0.5	40
119	Scattering of low-Reynolds-number swimmers. Physical Review E, 2008, 78, 045302.	2.1	40
120	Confinement Induced Splay-to-Bend Transition of Colloidal Rods. Physical Review Letters, 2012, 109, 108303.	7.8	40
121	Modelling capillary filling dynamics using lattice Boltzmann simulations. European Physical Journal: Special Topics, 2009, 171, 63-71.	2.6	39
122	Focusing and Sorting of Ellipsoidal Magnetic Particles in Microchannels. Physical Review Letters, 2017, 119, 198002.	7.8	39
123	Controlling Drop Size and Polydispersity Using Chemically Patterned Surfaces. Langmuir, 2007, 23, 956-959.	3.5	37
124	Numerical results for the blue phases. Liquid Crystals, 2009, 36, 1215-1227.	2.2	37
125	Capillary filling in microchannels patterned by posts. Physical Review E, 2009, 80, 056309.	2.1	37
126	Superhydrophobicity on Hairy Surfaces. Langmuir, 2010, 26, 16071-16083.	3.5	37

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127	Anisotropic wetting and de-wetting of drops on substrates patterned with polygonal posts. Soft Matter, 2013, 9, 674-683.	2.7	37
128	Tracer trajectories and displacement due to a micro-swimmer near a surface. Journal of Fluid Mechanics, 2015, 773, 498-519.	3.4	37
129	Collective and convective effects compete in patterns of dissolving surface droplets. Soft Matter, 2016, 12, 5787-5796.	2.7	37
130	Using patterned substrates to promote mixing in microchannels. Physical Review E, 2002, 65, 031502.	2.1	36
131	Lattice Boltzmann simulations of attenuation-driven acoustic streaming. Journal of Physics A, 2003, 36, 5683-5694.	1.6	36
132	Stripe Formation in Differentially Forced Binary Systems. Physical Review Letters, 2004, 93, 118001.	7.8	36
133	Modeling the flow of fluid/particle mixtures in microchannels: Encapsulating nanoparticles within monodisperse droplets. Journal of Chemical Physics, 2005, 123, 224706.	3.0	36
134	Hydrodynamics of linked sphere model swimmers. Journal of Physics Condensed Matter, 2009, 21, 204108.	1.8	36
135	Intrinsic free energy in active nematics. Europhysics Letters, 2015, 112, 28004.	2.0	36
136	Many commensurate phases in the chiral Potts or asymmetric clock models. Journal of Physics C: Solid State Physics, 1981, 14, L835-L839.	1.5	34
137	Control of drop positioning using chemical patterning. Applied Physics Letters, 2005, 87, 024103.	3.3	34
138	Imbibition through an array of triangular posts. Journal of Physics Condensed Matter, 2009, 21, 464125.	1.8	34
139	Effect of topology on dynamics of knots in polymers under tension. Europhysics Letters, 2010, 89, 20001.	2.0	34
140	Phase ordering in nematic liquid crystals. Physical Review E, 2001, 64, 021701.	2.1	33
141	Rheology of Cholesteric Blue Phases. Physical Review Letters, 2005, 95, 097801.	7.8	33
142	Submersed micropatterned structures control active nematic flow, topology, and concentration. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	33
143	Tricritical behaviour in a bond-dilute spin model. Journal of Physics C: Solid State Physics, 1983, 16, L345-L351.	1.5	31
144	Phase separation of a binary fluid in the presence of immobile particles: A lattice Boltzmann approach. Journal of Chemical Physics, 2002, 116, 6305-6310.	3.0	31

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145	Lattice Boltzmann simulation of a binary fluid with different phase viscosities and its application to fingering in two dimensions. European Physical Journal B, 2000, 15, 133-141.	1.5	30
146	Pattern Formation in Binary Fluids Confined between Rough, Chemically Heterogeneous Surfaces. Physical Review Letters, 2004, 93, 184501.	7.8	30
147	Flow States and Transitions of an Active Nematic in a Three-Dimensional Channel. Physical Review Letters, 2020, 125, 148002.	7.8	30
148	Critical behaviour of the dilute Ashkin-Teller-Potts model. Journal of Physics C: Solid State Physics, 1980, 13, L239-L244.	1.5	29
149	Analysis of the multiphase region in the three-state chiral clock model. Physica A: Statistical Mechanics and Its Applications, 1984, 127, 1-37.	2.6	29
150	Stimulus duration and partial report performance. Perception & Psychophysics, 1985, 37, 163-169.	2.3	29
151	Polymer translocation: The effect of backflow. Journal of Chemical Physics, 2005, 123, 234903.	3.0	29
152	Lattice Boltzmann algorithm to simulate isotropic-nematic emulsions. Physical Review E, 2006, 74, 041708.	2.1	29
153	Anisotropic hysteresis on ratcheted superhydrophobic surfaces. Soft Matter, 2009, 5, 2704.	2.7	29
154	Twist-induced crossover from two-dimensional to three-dimensional turbulence in active nematics. Physical Review E, 2018, 98, 010601.	2.1	29
155	Critical properties of the site-diluted Ising ferromagnet. Journal of Physics C: Solid State Physics, 1978, 11, L525-L528.	1.5	28
156	Bulk and interface scaling properties of the chiral clock model. Journal of Physics A, 1985, 18, 2343-2355.	1.6	28
157	Collapse transition in a simple polymer model: exact results. Journal of Physics A, 1990, 23, L975-L979.	1.6	28
158	Simulations of liquid crystals in Poiseuille flow. Computational and Theoretical Polymer Science, 2001, 11, 389-395.	1.1	28
159	Hotspots of boundary accumulation: dynamics and statistics of micro-swimmers in flowing films. Journal of the Royal Society Interface, 2016, 13, 20150936.	3.4	28
160	A renormalisation group approach for site-diluted resistor networks. Journal of Physics C: Solid State Physics, 1978, 11, 4095-4104.	1.5	26
161	Multiphase behavior and modulated ordering in soluble Ising models. Physical Review B, 1981, 23, 180-185.	3.2	26
162	Low-temperature analysis of the p-state asymmetric clock model for general p. Journal of Physics C: Solid State Physics, 1982, 15, 7305-7323.	1.5	26

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163	The axial Ising model with third neighbour interactions: Low temperature expansion. Physica A: Statistical Mechanics and Its Applications, 1985, 134, 84-122.	2.6	26
164	The energetics of polytypic structures: a computer simulation of magnesium silicate spinelloids. Acta Crystallographica Section B: Structural Science, 1985, 41, 231-239.	1.8	26
165	Capillary condensation and prewetting between spheres. Journal of Physics Condensed Matter, 1992, 4, 10133-10138.	1.8	26
166	Line Phase Transitions. Physical Review Letters, 1988, 61, 2221-2224.	7.8	25
167	Active transport in a channel: stabilisation by flow or thermodynamics. Soft Matter, 2019, 15, 1597-1604.	2.7	25
168	Role of Friction in Multidefect Ordering. Physical Review Letters, 2020, 125, 218004.	7.8	25
169	Activity Induced Nematic Order in Isotropic Liquid Crystals. Journal of Statistical Physics, 2020, 180, 699-709.	1.2	25
170	Surface spin-flop and discommensuration transitions in antiferromagnets. Physical Review B, 1999, 59, 6239-6249.	3.2	24
171	Dynamics of sliding drops on superhydrophobic surfaces. Europhysics Letters, 2006, 75, 105-111.	2.0	24
172	Viscous fingering at ultralow interfacial tension. Soft Matter, 2013, 9, 10599.	2.7	24
173	Topological states in chiral active matter: Dynamic blue phases and active half-skyrmions. Journal of Chemical Physics, 2019, 150, 064909.	3.0	24
174	A renormalisation group approach for the mixed Ising model. Journal of Physics C: Solid State Physics, 1979, 12, L169-L172.	1.5	23
175	Adsorption of directed polymers. Journal of Physics A, 1990, 23, L109-L115.	1.6	23
176	Effect of Shear on Droplets in a Binary Mixture. International Journal of Modern Physics C, 1997, 08, 773-782.	1.7	23
177	Interplay between shear flow and elastic deformations in liquid crystals. Journal of Chemical Physics, 2004, 121, 582.	3.0	23
178	Anisotropic imbibition on surfaces patterned with polygonal posts. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 2519-2527.	3.4	23
179	Controlling collective rotational patterns of magnetic rotors. Nature Communications, 2019, 10, 4696.	12.8	23
180	Active nematics with anisotropic friction: the decisive role of the flow aligning parameter. Soft Matter, 2020, 16, 2065-2074.	2.7	23

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181	Model for binary alloys: An Ising model with isotropic competing interactions. Physical Review B, 1989, 40, 479-492.	3.2	22
182	Creating Localized Mixing Stations within Microfluidic Channels. Langmuir, 2001, 17, 7186-7190.	3.5	22
183	Hydrodynamic Synchronisation of Model Microswimmers. Journal of Statistical Physics, 2009, 137, 1001-1013.	1.2	22
184	Multi-particle collision dynamics algorithm for nematic fluids. Soft Matter, 2015, 11, 5101-5110.	2.7	22
185	Rheology of distorted nematic liquid crystals. Europhysics Letters, 2003, 64, 406-412.	2.0	21
186	Lattice Boltzmann simulations of spontaneous flow in active liquid crystals: The role of boundary conditions. Journal of Non-Newtonian Fluid Mechanics, 2008, 149, 56-62.	2.4	21
187	Confining blue phase colloids to thin layers. Soft Matter, 2011, 7, 10144.	2.7	21
188	Active Ciliated Surfaces Expel Model Swimmers. Langmuir, 2013, 29, 12770-12776.	3.5	21
189	Coherent motion of dense active matter. European Physical Journal: Special Topics, 2019, 227, 2401-2411.	2.6	21
190	Magnetically-actuated artificial cilium: a simple theoretical model. Soft Matter, 2019, 15, 3864-3871.	2.7	21
191	Phase separation in two-dimensional fluids: The role of noise. Physical Review E, 1999, 59, R4741-R4744.	2.1	20
192	Lattice Boltzmann simulations of phase separation in chemically reactive binary fluids. Physical Review E, 2006, 73, 066124.	2.1	20
193	Flexoelectric Blue Phases. Physical Review Letters, 2007, 99, 067801.	7.8	20
194	Confinement of knotted polymers in a slit. Molecular Physics, 2011, 109, 1289-1295.	1.7	20
195	Stirring by swimmers in confined microenvironments. Journal of Statistical Mechanics: Theory and Experiment, 2014, 2014, P04030.	2.3	20
196	Playful topology. Nature Materials, 2014, 13, 1004-1005.	27. 5	20
197	Competition between self-attraction and adsorption in directed self-avoiding polymers. Physica A: Statistical Mechanics and Its Applications, 1991, 177, 443-452.	2.6	19
198	An interface potential approach to capillary condensation in a rectangular groove. Journal of Physics A, 1992, 25, 4275-4283.	1.6	19

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199	Quantum Fluctuations in the Axial Next-Nearest-Neighbor Ising Model. Physical Review Letters, 1995, 74, 3045-3048.	7.8	18
200	Easier sieving through narrower pores: fluctuations and barrier crossing in flow-driven polymer translocation. Soft Matter, 2012, 8, 4306.	2.7	18
201	Electric-field-induced shape transition of nematic tactoids. Physical Review E, 2017, 96, 022706.	2.1	18
202	Surface spin-flop phases and bulk discommensurations in antiferromagnets. Journal of Physics A, 1997, 30, L233-L238.	1.6	17
203	Lattice Boltzmann simulations of complex fluids: viscoelastic effects under oscillatory shear. Faraday Discussions, 1999, 112, 237-248.	3.2	17
204	Entrainment and scattering in microswimmer-colloid interactions. Physical Review Fluids, 2017, 2, .	2.5	17
205	Critical properties of the mixed Ising ferromagnet. Journal of Physics C: Solid State Physics, 1980, 13, 85-101.	1.5	16
206	The energetics of polytypic structures: further applications of the ANNNI model. Acta Crystallographica Section B: Structural Science, 1985, 41, 310-319.	1.8	16
207	Domain Motion in Confined Liquid Crystals. Journal of Statistical Physics, 2002, 107, 187-202.	1.2	16
208	Lattice Boltzmann study of convective drop motion driven by nonlinear chemical kinetics. Physical Review E, 2008, 78, 046308.	2.1	16
209	CUDA simulations of active dumbbell suspensions. Chemical Physics, 2010, 375, 557-567.	1.9	16
210	PHASE ORDERING IN FLUIDS., 2000, , 61-84.		16
211	Acoustic enhancement of diffusion in a porous material. Ultrasonics, 2003, 41, 531-538.	3.9	15
212	Lattice Boltzmann simulations of drop dynamics. Mathematics and Computers in Simulation, 2006, 72, 160-164.	4.4	15
213	Nature's engines: active matter. Europhysics News, 2017, 48, 21-25.	0.3	15
214	Dynamics of individual Brownian rods in a microchannel flow. Soft Matter, 2019, 15, 5810-5814.	2.7	15
215	Active matter invasion. Soft Matter, 2019, 15, 7538-7546.	2.7	15
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