Davide Marenduzzo

List of Publications by Year
in descending order

252	11,946	22099	39575
papers	citations	h-index	g-index

279	279	279	7382
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The depletion attraction: an underappreciated force driving cellular organization. Journal of Cell Biology, 2006, 175, 681-686.	2.3	341
2	Continuum Theory of Phase Separation Kinetics for Active Brownian Particles. Physical Review Letters, 2013, 111, 145702.	2.9	303
3	Localisation of DivIVA by targeting to negatively curved membranes. EMBO Journal, 2009, 28, 2272-2282.	3.5	292
4	Phase behaviour of active Brownian particles: the role of dimensionality. Soft Matter, 2014, 10, 1489-1499.	1.2	282
5	Phase separation and rotor self-assembly in active particle suspensions. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 4052-4057.	3.3	258
6	Activity-Induced Phase Separation and Self-Assembly in Mixtures of Active and Passive Particles. Physical Review Letters, 2015, 114, 018301.	2.9	254
7	Scalar Ï†4 field theory for active-particle phase separation. Nature Communications, 2014, 5, 4351.	5.8	247
8	Arrested phase separation in reproducing bacteria creates a generic route to pattern formation. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 11715-11720.	3.3	241
9	Steady-state hydrodynamic instabilities of active liquid crystals: Hybrid lattice Boltzmann simulations. Physical Review E, 2007, 76, 031921.	0.8	227
10	Pattern Formation in Self-Propelled Particles with Density-Dependent Motility. Physical Review Letters, 2012, 108, 248101.	2.9	227
11	Nonspecific bridging-induced attraction drives clustering of DNA-binding proteins and genome organization. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E3605-11.	3.3	219
12	Polymers with spatial or topological constraints: Theoretical and computational results. Physics Reports, 2011, 504, 1-73.	10.3	202
13	Spontaneous symmetry breaking in active droplets provides a generic route to motility. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 12381-12386.	3.3	183
14	DNAâ€“DNA interactions in bacteriophage capsids are responsible for the observed DNA knotting. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 22269-22274.	3.3	173
15	Entropy-Driven Genome Organization. Biophysical Journal, 2006, 90, 3712-3721.	0.2	164
16	HMGB2 Loss upon Senescence Entry Disrupts Genomic Organization and Induces CTCF Clustering across Cell Types. Molecular Cell, 2018, 70, 730-744.e6.	4.5	164
17	Simulated binding of transcription factors to active and inactive regions folds human chromosomes into loops, rosettes and topological domains. Nucleic Acids Research, 2016, 44, 3503-3512.	6.5	157
18	Entropic organization of interphase chromosomes. Journal of Cell Biology, 2009, 186, 825-834.	2.3	144

#	Article	IF	Citations
19	A Self-Quenched Defect Glass in a Colloid-Nematic Liquid Crystal Composite. Science, 2011, 334, 79-83.	6.0	139
20	Shearing Active Gels Close to the Isotropic-Nematic Transition. Physical Review Letters, 2008, 101, 068102.	2.9	137
21	Mechanically Driven Growth of Quasi-Two-Dimensional Microbial Colonies. Physical Review Letters, 2013, 111, 168101.	2.9	132
22	Polymer Simulations of Heteromorphic Chromatin Predict the 3D Folding of Complex Genomic Loci. Molecular Cell, 2018, 72, 786-797.e11.	4.5	131
23	Dynamical Scaling of the DNA Unzipping Transition. Physical Review Letters, 2001, 88, 028102.	2.9	126
24	Structure of Blue Phase III of Cholesteric Liquid Crystals. Physical Review Letters, 2011, 106, 107801.	2.9	123
25	A growing bacterial colony in two dimensions as an active nematic. Nature Communications, 2018, 9, 4190.	5.8	120
26	Polymer Packaging and Ejection in Viral Capsids: Shape Matters. Physical Review Letters, 2006, 96, 208102.	2.9	112
27	Clustering and Pattern Formation in Chemorepulsive Active Colloids. Physical Review Letters, 2015, 115, 258301.	2.9	111
28	Dynamic Monte Carlo versus Brownian dynamics: A comparison for self-diffusion and crystallization in colloidal fluids. Journal of Chemical Physics, 2010, 132, 194102.	1.2	109
29	Light-induced self-assembly of active rectification devices. Science Advances, 2016, 2, e1501850.	4.7	105
30	Nonequilibrium Chromosome Looping via Molecular Slip Links. Physical Review Letters, 2017, 119, 138101.	2.9	105
31	Topological friction strongly affects viral DNA ejection. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 20081-20086.	3.3	103
32	A minimal physical model captures the shapes of crawling cells. Nature Communications, 2015, 6, 5420.	5.8	103
33	Colloids in a bacterial bath: simulations and experiments. Soft Matter, 2011, 7, 5228.	1.2	99
34	Lattice Boltzmann algorithm for threeâ€“dimensional liquidâ€“crystal hydrodynamics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2004, 362, 1745-1754.	1.6	98
35	Hydrodynamics and Rheology of Active Liquid Crystals: A Numerical Investigation. Physical Review Letters, 2007, 98, 118102.	2.9	97
36	What are the molecular ties that maintain genomic loops?. Trends in Genetics, 2007, 23, 126-133.	2.9	97

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37	Predicting the three-dimensional folding of cis-regulatory regions in mammalian genomes using bioinformatic data and polymer models. Genome Biology, 2016, 17, 59.	3.8	97
38	Bridging-induced phase separation induced by cohesin SMC protein complexes. Science Advances, 2021, 7, .	4.7	95
39	Phase diagram of force-induced DNA unzipping in exactly solvable models. Physical Review E, 2001, 64, 031901.	0.8	92
40	Transcription-driven genome organization: a model for chromosome structure and the regulation of gene expression tested through simulations. Nucleic Acids Research, 2018, 46, 9895-9906.	6.5	92
41	Knotting of random ring polymers in confined spaces. Journal of Chemical Physics, 2006, 124, 064903.	1.2	88
42	Nonlinear dynamics and rheology of active fluids: Simulations in two dimensions. Physical Review E, 2011, 83, 041910.	0.8	84
43	Phoretic Interactions Generically Induce Dynamic Clusters and Wave Patterns in Active Colloids. Physical Review Letters, 2017, 118, 268001.	2.9	81
44	Lattice Boltzmann simulations of liquid crystalline fluids: active gels and blue phases. Soft Matter, 2009, 5, 3791.	1.2	79
45	Biopolymer organization upon confinement. Journal of Physics Condensed Matter, 2010, 22, 283102.	0.7	79
46	Motility-induced phase separation and coarsening in active matter. Comptes Rendus Physique, 2015, 16, 316-331.	0.3	77
47	Ephemeral Protein Binding to DNA Shapes Stable Nuclear Bodies and Chromatin Domains. Biophysical Journal, 2017, 112, 1085-1093.	0.2	77
48	Colloids in Cholesterics: Size-Dependent Defects and Non-Stokesian Microrheology. Physical Review Letters, 2010, 105, 178302.	2.9	76
49	Role of Correlations in the Collective Behavior of Microswimmer Suspensions. Physical Review Letters, 2017, 119, 028005.	2.9	74
50	Active Model H: Scalar Active Matter in a Momentum-Conserving Fluid. Physical Review Letters, 2015, 115, 188302.	2.9	73
51	Shaping epigenetic memory via genomic bookmarking. Nucleic Acids Research, 2018, 46, 83-93.	6.5	73
52	Enhanced diffusion of tracer particles in dilute bacterial suspensions. Soft Matter, 2014, 10, 2748.	1.2	71
53	RNA polymerase II is required for spatial chromatin reorganization following exit from mitosis. Science Advances, 2021, 7, eabg8205.	4.7	70
54	Dynamics of polymer packaging. Journal of Chemical Physics, 2004, 121, 8635.	1.2	69

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55	Simulations of Knotting in Confined Circular DNA. Biophysical Journal, 2008, 95, 3591-3599.	0.2	69
56	Threading Dynamics of Ring Polymers in a Gel. ACS Macro Letters, 2014, 3, 255-259.	2.3	69
57	Thermodynamics of DNA Packaging Inside a Viral Capsid: The Role of DNA Intrinsic Thickness. Journal of Molecular Biology, 2003, 330, 485-492.	2.0	68
58	Interfacial self-assembly of a bacterial hydrophobin. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5419-5424.	3.3	68
59	Stretching of a Polymer below theΘPoint. Physical Review Letters, 2003, 90, 088301.	2.9	66
60	Intracellular Facilitated Diffusion: Searchers, Crowders, and Blockers. Physical Review Letters, 2013, 111, 108101.	2.9	66
61	Motility-induced phase separation in an active dumbbell fluid. Europhysics Letters, 2014, 108, 56004.	0.7	66
62	Hydrodynamic oscillations and variable swimming speed in squirmers close to repulsive walls. Soft Matter, 2016, 12, 7959-7968.	1.2	65
63	Mechanistic modeling of chromatin folding to understand function. Nature Methods, 2020, 17, 767-775.	9.0	62
64	Filling an Emulsion Drop with Motile Bacteria. Physical Review Letters, 2014, 113, 268101.	2.9	61
65	Self-assembly of colloid-cholesteric composites provides a possible route to switchable optical materials. Nature Communications, 2014, 5, 3954.	5.8	60
66	Polymer Modeling Predicts Chromosome Reorganization in Senescence. Cell Reports, 2019, 28, 3212-3223.e6.	2.9	60
67	Facilitated Diffusion on Mobile DNA: Configurational Traps and Sequence Heterogeneity. Physical Review Letters, 2012, 109, 168103.	2.9	59
68	Pattern formation in chemically interacting active rotors with self-propulsion. Soft Matter, 2016, 12, 7259-7264.	1.2	58
69	Depletion Effects and Loop Formation in Self-Avoiding Polymers. Physical Review Letters, 2006, 97, 178302.	2.9	56
70	Exploiting native forces to capture chromosome conformation in mammalian cell nuclei. Molecular Systems Biology, 2016, 12, 891.	3.2	52
71	Synergy of topoisomerase and structural-maintenance-of-chromosomes proteins creates a universal pathway to simplify genome topology. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 8149-8154.	3.3	51
72	Soft matter science and the COVID-19 pandemic. Soft Matter, 2020, 16, 8310-8324.	1.2	51

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73	An introduction to the physics of active matter. Physica A: Statistical Mechanics and Its Applications, 2015, 418, 65-77.	1.2	50
74	Numerical calculations of the phase diagram of cubic blue phases in cholesteric liquid crystals. Physical Review E, 2005, 71, 011703.	0.8	49
75	Colloids in liquid crystals: a lattice Boltzmann study. Journal of Materials Chemistry, 2010, 20, 10547.	6.7	49
76	Switching dynamics in cholesteric blue phases. Soft Matter, 2011, 7, 3295.	1.2	49
77	Stochastic Model of Supercoiling-Dependent Transcription. Physical Review Letters, 2016, 117, 018101.	2.9	49
78	Spontaneous flow in polar active fluids: the effect of a phenomenological self propulsion-like term. European Physical Journal E, 2016, 39, 1.	0.7	48
79	Mechanical denaturation of DNA: existence of a low-temperature denaturation. Journal of Physics A, 2001, 34, L751-L758.	1.6	45
80	Permeative Flows in Cholesteric Liquid Crystals. Physical Review Letters, 2004, 92, 188301.	2.9	45
81	Nonequilibrium steady states in polar active fluids. Soft Matter, 2011, 7, 7453.	1.2	45
82	Contractile and chiral activities codetermine the helicity of swimming droplet trajectories. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 4631-4636.	3.3	44
83	Polymer model with Epigenetic Recoloring Reveals a Pathway for the de novo Establishment and 3D Organization of Chromatin Domains. Physical Review X, 2016, 6, .	2.8	42
84	Solid-Liquid Transition of Deformable and Overlapping Active Particles. Physical Review Letters, 2020, 125, 038003.	2.9	42
85	Glass transitions in the cellular Potts model. Europhysics Letters, 2016, 116, 28009.	0.7	41
86	Elasticity of Semiflexible Polymers with and without Self-Interactions. Macromolecules, 2003, 36, 10095-10102.	2.2	40
87	Ejection Dynamics of Polymeric Chains from Viral Capsids: Effect of Solvent Quality. Biophysical Journal, 2008, 94, 4159-4164.	0.2	40
88	Ordering dynamics of blue phases entails kinetic stabilization of amorphous networks. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 13212-13215.	3.3	40
89	Rotation and propulsion in 3D active chiral droplets. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 22065-22070.	3.3	40
90	Extrusion without a motor: a new take on the loop extrusion model of genome organization. Nucleus, 2018, 9, 95-103.	0.6	38

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91	Non-equilibrium effects of molecular motors on polymers. Soft Matter, 2019, 15, 5995-6005.	1.2	38
92	Physical principles of retroviral integration in the human genome. Nature Communications, 2019, 10, 575.	5.8	38
93	The dynamics of colloidal intrusions in liquid crystals: a simulation perspective. Liquid Crystals Reviews, 2014, 2, 1-27.	1.1	36
94	Cubic blue phases in electric fields. Europhysics Letters, 2008, 81, 66004.	0.7	35
95	Models for twistable elastic polymers in Brownian dynamics, and their implementation for LAMMPS. Journal of Chemical Physics, 2014, 140, 135103.	1.2	35
96	Mechanical unfolding of directed polymers in a poor solvent: Critical exponents. Physical Review E, 2003, 67, 041802.	0.8	34
97	Defect hydrodynamics in 2D polar active fluids. Soft Matter, 2011, 7, 3177.	1.2	34
98	Non-specific (entropic) forces as major determinants of the structure of mammalian chromosomes. Chromosome Research, 2011, 19, 53-61.	1.0	34
99	Rheology of Cholesteric Blue Phases. Physical Review Letters, 2005, 95, 097801.	2.9	33
100	Is the kinetoplast DNA a percolating network of linked rings at its critical point?. Physical Biology, 2015, 12, 036001.	0.8	33
101	Monte Carlo and event-driven dynamics of Brownian particles with orientational degrees of freedom. Journal of Chemical Physics, 2011, 135, 124106.	1.2	32
102	Flow of Deformable Droplets: Discontinuous Shear Thinning and Velocity Oscillations. Physical Review Letters, 2017, 119, 208002.	2.9	32
103	Quantifying Disorder through Conditional Entropy: An Application to Fluid Mixing. PLoS ONE, 2013, 8, e65617.	1.1	32
104	Self-assembling knots of controlled topology by designing the geometry of patchy templates. Nature Communications, 2015, 6, 6423.	5.8	31
105	Inferring the Diameter of a Biopolymer from Its Stretching Response. Biophysical Journal, 2005, 89, 80-86.	0.2	30
106	Dynamics of self-threading ring polymers in a gel. Soft Matter, 2014, 10, 5936-5944.	1.2	30
107	Lattice Boltzmann algorithm to simulate isotropic-nematic emulsions. Physical Review E, 2006, 74, 041708.	0.8	29
108	Lateral Dynamics of Proteins with Polybasic Domain on Anionic Membranes: A Dynamic Monte-Carlo Study. Biophysical Journal, 2011, 100, 1261-1270.	0.2	29

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109	Colloidal Templating at a Cholesteric-Oil Interface: Assembly Guided by an Array of Disclination Lines. Physical Review Letters, 2013, 110, 187801.	2.9	29
110	Bistable Defect Structures In Blue Phase Devices. Physical Review Letters, 2011, 107, 237803.	2.9	28
111	Phase separation dynamics on curved surfaces. Soft Matter, 2013, 9, 1178-1187.	1.2	28
112	Active polar fluid flow in finite droplets. European Physical Journal E, 2014, 37, 8.	0.7	28
113	The Bacterial Hydrophobin BslA is a Switchable Ellipsoidal Janus Nanocolloid. Langmuir, 2015, 31, 11558-11563.	1.6	28
114	Hydrodynamic instabilities in active cholesteric liquid crystals. European Physical Journal E, 2017, 40, 50.	0.7	28
115	Nucleosome positions alone can be used to predict domains in yeast chromosomes. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 17307-17315.	3.3	28
116	Bridging-induced microphase separation: photobleaching experiments, chromatin domains and the need for active reactions. Briefings in Functional Genomics, 2020, 19, 111-118.	1.3	28
117	Thermodynamics of blue phases in electric fields. Physical Review E, 2010, 81, 031706.	0.8	27
118	Colloids in Active Fluids: Anomalous Microrheology and Negative Drag. Physical Review Letters, 2012, 109, 028103.	2.9	27
119	Bulk rheology and microrheology of active fluids. European Physical Journal E, 2012, 35, 98.	0.7	27
120	Activity-induced clustering in model dumbbell swimmers: The role of hydrodynamic interactions. Physical Review E, 2014, 90, 022303.	0.8	27
121	Nonequilibrium Theory of Epigenomic Microphase Separation in the Cell Nucleus. Physical Review Letters, 2019, 123, 228101.	2.9	27
122	Space exploration by the promoter of a long human gene during one transcription cycle. Nucleic Acids Research, 2013, 41, 2216-2227.	6.5	26
123	Topological constraints strongly affect chromatin reconstitution in silico. Nucleic Acids Research, 2015, 43, 63-73.	6.5	26
124	Self-Assembly and Nonlinear Dynamics of Dimeric Colloidal Rotors in Cholesterics. Physical Review Letters, 2011, 107, 267802.	2.9	25
125	A simple model for DNA bridging proteins and bacterial or human genomes: bridging-induced attraction and genome compaction. Journal of Physics Condensed Matter, 2015, 27, 064119.	0.7	24
126	Interplay between shear flow and elastic deformations in liquid crystals. Journal of Chemical Physics, 2004, 121, 582.	1.2	23

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127	Colloidal particles at the interface between an isotropic liquid and a chiral liquid crystal. Soft Matter, 2012, 8, 8422.	1.2	23
128	Ring Polymers: Threadings, Knot Electrophoresis and Topological Glasses. Polymers, 2017, 9, 349.	2.0	23
129	Geometry of Compact Tubes and Protein Structures. Complexus, 2003, 1, 4-13.	0.7	22
130	Three-dimensional dynamic Monte Carlo simulations of elastic actin-like ratchets. Journal of Chemical Physics, 2005, 123, 174908.	1.2	22
131	Rheology of distorted nematic liquid crystals. Europhysics Letters, 2003, 64, 406-412.	0.7	21
132	Physics of thick polymers. Journal of Polymer Science, Part B: Polymer Physics, 2005, 43, 650-679.	2.4	21
133	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.	1.0	21
134	Cytoplasmic streaming in plant cells: the role of wall slip. Journal of the Royal Society Interface, 2012, 9, 1398-1408.	1.5	21
135	Active Growth and Pattern Formation in Membrane-Protein Systems. Physical Review Letters, 2018, 120, 258001.	2.9	20
136	Transcriptional Bursts in a Nonequilibrium Model for Gene Regulation by Supercoiling. Biophysical Journal, 2019, 117, 369-376.	0.2	20
137	Lamellar ordering, droplet formation and phase inversion in exotic active emulsions. Scientific Reports, 2019, 9, 2801.	1.6	20
138	A new interpolation formula for semiflexible polymers. Biophysical Chemistry, 2005, 115, 251-254.	1.5	19
139	Modeling a Self-Avoiding Chromatin Loop: Relation to the Packing Problem, Action-at-a-Distance, and Nuclear Context. Structure, 2006, 14, 197-204.	1.6	19
140	Spiral and never-settling patterns in active systems. Physical Review E, 2014, 89, 012711.	0.8	19
141	Facilitated diffusion on confined DNA. Physical Review E, 2012, 85, 021919.	0.8	18
142	Rheology of cubic blue phases. Soft Matter, 2013, 9, 10243.	1.2	18
143	Microfluidic flow of cholesteric liquid crystals. Soft Matter, 2016, 12, 9223-9237.	1.2	18
144	Motility of active nematic films driven by â€œactive anchoringâ€• Soft Matter, 2017, 13, 6137-6144.	1.2	18

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145	Colloidal Spherocylinders at an Interface: Flipper Dynamics and Bilayer Formation. Physical Review Letters, 2017, 119, 018001.	2.9	18
146	Nonequilibrium-Driven Motion in Actin Networks: Comet Tails and Moving Beads. Physical Review Letters, 2007, 98, 238302.	2.9	17
147	Influence of ions on genome packaging and ejection: A molecular dynamics study. Journal of Chemical Physics, 2011, 135, 095101.	1.2	17
148	Domain formation on curved membranes: phase separation or Turing patterns?. Soft Matter, 2013, 9, 9311.	1.2	17
149	A single nucleotide resolution model for large-scale simulations of double stranded DNA. Soft Matter, 2016, 12, 9458-9470.	1.2	17
150	Topological and entropic repulsion in biopolymers. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, L09002.	0.9	17
151	Stepwise unfolding of collapsed polymers. European Physical Journal E, 2004, 15, 83-93.	0.7	16
152	Continuum model for polymers with finite thickness. Journal of Physics A, 2005, 38, L277-L283.	1.6	16
153	Rheology of lamellar liquid crystals in two and three dimensions: a simulation study. Soft Matter, 2012, 8, 3817.	1.2	16
154	Topological patterns in two-dimensional gel electrophoresis of DNA knots. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E5471-7.	3.3	16
155	Chemotactic Sensing towards Ambient and Secreted Attractant Drives Collective Behaviour of E. coli. PLoS ONE, 2013, 8, e74878.	1.1	16
156	DNA sequence from the unzipping force? One mutation problem. Journal of Physics A, 2002, 35, L349-L356.	1.6	15
157	Dynamics of fibers growing inside soft vesicles. Europhysics Letters, 2007, 80, 48004.	0.7	15
158	Switching and defect dynamics in multistable liquid crystal devices. Applied Physics Letters, 2010, 97, .	1.5	15
159	Chemotactic clusters in confined run-and-tumble bacteria: a numerical investigation. Soft Matter, 2014, 10, 157-165.	1.2	15
160	Curvature-driven positioning of Turing patterns in phase-separating curved membranes. Soft Matter, 2016, 12, 3888-3896.	1.2	15
161	capC-MAP: software for analysis of Capture-C data. Bioinformatics, 2019, 35, 4773-4775.	1.8	15
162	Complex small-world regulatory networks emerge from the 3D organisation of the human genome. Nature Communications, 2021, 12, 5756.	5.8	15

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163	Growth of a semi-flexible polymer close to a fluctuating obstacle: application to cytoskeletal actin fibres and testing of ratchet models. Journal of Physics Condensed Matter, 2006, 18, S357-S374.	0.7	14
164	Geometry of proteins: Hydrogen bonding, sterics, and marginally compact tubes. Physical Review E, 2006, 73, 031921.	0.8	14
165	Kinetics of Solute Partitioning into Ultrathin Nafion Films on Electrode Surfaces:â€‰ Theory and Experimental Measurement. Journal of Physical Chemistry C, 2007, 111, 294-302.	1.5	14
166	Computer Simulations of DNA Packing inside Bacteriophages: Elasticity, Electrostatics and Entropy. Computational and Mathematical Methods in Medicine, 2008, 9, 317-325.	0.7	14
167	Nonequilibrium Phase Transition in the Sedimentation of Reproducing Particles. Physical Review Letters, 2008, 101, 100602.	2.9	14
168	Domain growth in cholesteric blue phases: Hybrid lattice Boltzmann simulations. Computers and Mathematics With Applications, 2010, 59, 2360-2369.	1.4	14
169	Different pulling modes in DNA overstretching: A theoretical analysis. Physical Review E, 2010, 81, 051926.	0.8	14
170	Magnetic polymer models for epigenetics-driven chromosome folding. Physical Review E, 2019, 100, 052410.	0.8	14
171	Nonequilibrium dynamics and action at a distance in transcriptionally driven DNA supercoiling. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	14
172	Stall, Spiculate, or Run Away: The Fate of Fibers Growing towards Fluctuating Membranes. Physical Review Letters, 2006, 97, 098101.	2.9	13
173	Spontaneous motility of passive emulsion droplets in polar active gels. Soft Matter, 2014, 10, 7826-7837.	1.2	13
174	Switching hydrodynamics in liquid crystal devices: a simulation perspective. Soft Matter, 2014, 10, 4580.	1.2	13
175	Pattern Formation in Polymerizing Actin Flocks: Spirals, Spots, and Waves without Nonlinear Chemistry. Physical Review Letters, 2016, 117, 238002.	2.9	13
176	An introduction to the statistical physics of active matter: motility-induced phase separation and the â€œgeneric instabilityâ€•of active gels. European Physical Journal: Special Topics, 2016, 225, 2065-2077.	1.2	13
177	Epigenetic Transitions and Knotted Solitons in Stretched Chromatin. Scientific Reports, 2017, 7, 14642.	1.6	13
178	Permeative flows in cholesterics: Shear and Poiseuille flows. Journal of Chemical Physics, 2006, 124, 204906.	1.2	12
179	Non-equilibrium dynamics of an active colloidal â€œchuckerâ€• Journal of Chemical Physics, 2010, 132, 204904.	1.2	12
180	Shearing self-propelled suspensions: Arrest of coarsening and suppression of giant density fluctuations. Physical Review E, 2011, 84, 031930.	0.8	12

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181	Entropic elasticity and dynamics of the bacterial chromosome: A simulation study. Journal of Chemical Physics, 2017, 147, 044908.	1.2	12
182	Kinetic theory of pattern formation in mixtures of microtubules and molecular motors. Physical Review E, 2018, 97, 022412.	0.8	12
183	Chaotic and periodical dynamics of active chiral droplets. Physica A: Statistical Mechanics and Its Applications, 2020, 559, 125025.	1.2	12
184	Competition between local erasure and long-range spreading of a single biochemical mark leads to epigenetic bistability. Physical Review E, 2020, 101, 042408.	0.8	12
185	Force-induced unfolding of a homopolymer on a fractal lattice: exact results versus mean-field predictions. Journal of Physics A, 2002, 35, L233-L240.	1.6	11
186	Dynamics of an Anchored Polymer Molecule under an Oscillating Force. Physical Review Letters, 2007, 98, 088101.	2.9	11
187	Phase diagrams for DNA denaturation under stretching forces. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, L04001.	0.9	11
188	Soft channel formation and symmetry breaking in exotic active emulsions. Scientific Reports, 2020, 10, 15936.	1.6	11
189	Stretching a self-interacting semiflexible polymer. Europhysics Letters, 2006, 75, 818-824.	0.7	10
190	Hydrodynamic of Active Liquid Crystals: A Hybrid Lattice Boltzmann Approach. Molecular Crystals and Liquid Crystals, 2008, 494, 293-308.	0.4	10
191	Modelling the effect of myosin X motors on filopodia growth. Physical Biology, 2014, 11, 016005.	0.8	10
192	Electric Field Controlled Columnar and Planar Patterning of Cholesteric Colloids. Physical Review Letters, 2015, 114, 177801.	2.9	10
193	Anchoring-driven spontaneous rotations in active gel droplets. Soft Matter, 2017, 13, 5933-5941.	1.2	10
194	Rheology and microrheology of deformable droplet suspensions. Soft Matter, 2018, 14, 9361-9367.	1.2	10
195	Hydrodynamics of non-homogeneous active gels. Soft Matter, 2010, 6, 774.	1.2	9
196	Lateral dynamics of charged lipids and peripheral proteins in spatially heterogeneous membranes: Comparison of continuous and Monte Carlo approaches. Journal of Chemical Physics, 2011, 135, 155103.	1.2	9
197	Flexoelectric switching in cholesteric blue phases. Soft Matter, 2013, 9, 4831.	1.2	9
198	Genome organization: experiments and modeling. Chromosome Research, 2017, 25, 1-4.	1.0	9

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199	Predicting genome organisation and function with mechanistic modelling. Trends in Genetics, 2021, , .	2.9	9
200	Cholesteric Shells: Two-Dimensional Blue Fog and Finite Quasicrystals. Physical Review Letters, 2022, 128, 027801.	2.9	9
201	Tubes near the edge of compactness and folded protein structures *. Journal of Physics Condensed Matter, 2003, 15, S1787-S1796.	0.7	8
202	Switching hydrodynamics in multi-domain, twisted nematic, liquid-crystal devices. Europhysics Letters, 2005, 71, 604-610.	0.7	8
203	Statistics of confined polymers and the melting of a DNA spool. Europhysics Letters, 2009, 85, 38005.	0.7	8
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