Gautam I Menon

List of Publications by Year
in descending order

70 papers	1,522 citations	361413 20 h-index	345221 36 g-index
80 all docs	80 docs citations	80 times ranked	1360 citing authors

#	Article	IF	Citations
1	Cell adhesion strength and tractions are mechano-diagnostic features of cellular invasiveness. Soft Matter, 2022, 18, 4378-4388.	2.7	6
2	Comparing COVID-19 vaccine allocation strategies in India: A mathematical modelling study. International Journal of Infectious Diseases, 2021, 103, 431-438.	3.3	178
3	COVID-19 Pandemic in India: Through the Lens of Modeling. Global Health, Science and Practice, 2021, 9, 220-228.	1.7	12
4	Optimizing testing for COVID-19 in India. PLoS Computational Biology, 2021, 17, e1009126.	3.2	12
5	Phototaxis in Cyanobacteria: From Mutants to Models of Collective Behavior. MBio, 2021, 12, e0239821.	4.1	7
6	Nonequilibrium Biophysical Processes Influence the Large-Scale Architecture of the Cell Nucleus. Biophysical Journal, 2020, 118, 2229-2244.	0.5	22
7	Cell Morphology and Substrate Ligand Density Determines Adhesion Strength and Remodelling Under Dynamic Shear. Biophysical Journal, 2020, 118, 604a.	0.5	0
8	Disorder-induced enhancement of local hexatic correlations in two-dimensional fluids. Journal of Physics Condensed Matter, 2020, 32, 184003.	1.8	1
9	Information integration and collective motility in phototactic cyanobacteria. PLoS Computational Biology, 2020, 16, e1007807.	3.2	7
10	Chromatin as an active polymeric material. Emerging Topics in Life Sciences, 2020, 4, 111-118.	2.6	1
11	Altered kinetics of circulating progenitor cells in cardiopulmonary bypass (CPB) associated vasoplegic patients: A pilot study. PLoS ONE, 2020, 15, e0242375.	2.5	0
12	Editorial overview: Biophysical and computational methods. Current Opinion in Structural Biology, 2020, 64, vi-viii.	5.7	0
13	Title is missing!. , 2020, 15, e0242375.		0
14	Title is missing!. , 2020, 15, e0242375.		0
15	Title is missing!. , 2020, 15, e0242375.		0
16	Title is missing!. , 2020, 15, e0242375.		0
17	Title is missing!. , 2020, 15, e0242375.		0
18	Title is missing!. , 2020, 15, e0242375.		0

#	Article	IF	Citations
19	Biophysics of Cell-Substrate Interactions Under Shear. Frontiers in Cell and Developmental Biology, 2019, 7, 251.	3.7	27
20	Chromatin Compaction, Auxeticity, and the Epigenetic Landscape of Stem Cells. Physical Review X, 2019, 9, .	8.9	7
21	Orientational correlations in fluids with quenched disorder. Journal of Chemical Physics, 2019, 151, 124501.	3.0	3
22	Confined crowded polymers near attractive surfaces. Journal of Chemical Physics, 2019, 151, 244901.	3.0	3
23	Modeling cell-substrate de-adhesion dynamics under fluid shear. Physical Biology, 2018, 15, 046006.	1.8	12
24	Cargo crowding at actinâ€rich regions along axons causes local traffic jams. Traffic, 2018, 19, 166-181.	2.7	30
25	Role of genetic heterogeneity in determining the epidemiological severity of H1N1 influenza. PLoS Computational Biology, 2018, 14, e1006069.	3.2	14
26	Chromatin as active matter. Journal of Statistical Mechanics: Theory and Experiment, 2017, 2017, 014001.	2.3	14
27	Vortex-core order and field-driven supersolidity. Physical Review B, 2017, 96, .	3.2	7
28	Phototaxis as a Collective Phenomenon in Cyanobacterial Colonies. Scientific Reports, 2017, 7, 17799.	3.3	20
29	Chromosome positioning from activity-based segregation. Nucleic Acids Research, 2014, 42, 4145-4159.	14.5	125
30	Correlated Spatio-Temporal Fluctuations in Chromatin Compaction States Characterize Stem Cells. Biophysical Journal, 2013, 104, 553-564.	0.5	73
31	Stretching and Bending Fluctuations of Short DNA Molecules. Biophysical Journal, 2013, 104, 463-471.	0.5	25
32	Suppression of the melting line in a weakly disordered flux-line system. Physical Review B, 2012, 85, .	3.2	6
33	Thermodynamic behaviour of two-dimensional vesicles revisited. European Physical Journal E, 2012, 35, 9706.	1.6	4
34	Active Matter. , 2010, , 193-218.		20
35	A coupled map lattice model for rheological chaos in sheared nematic liquid crystals. Chaos, 2010, 20, 043123.	2.5	5
36	Driven disordered polymorphic solids: Phases and phase transitions, dynamical coexistence and peak effect anomalies. Physical Review B, 2010, 81, .	3.2	28

#	Article	IF	Citations
37	Fluctuating dynamics of nematic liquid crystals using the stochastic method of lines. Journal of Chemical Physics, 2010, 133, 044112.	3.0	15
38	Asymptotic behaviour of convex and column-convex lattice polygons with fixed area and varying perimeter. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P07029.	2.3	2
39	Universality class of the reversible-irreversible transition in sheared suspensions. Physical Review E, 2009, 79, 061108.	2.1	59
40	Biaxiality at the isotropic-nematic interface with planar anchoring. Physical Review E, 2009, 80, 041705.	2.1	9
41	The isotropic-nematic interface with an oblique anchoring condition. Journal of Chemical Physics, 2009, 131, 174701.	3.0	8
42	Asymptotic Behavior of Inflated Lattice Polygons. Journal of Statistical Physics, 2008, 131, 393-404.	1.2	3
43	Numerical method of lines for the relaxational dynamics of nematic liquid crystals. Physical Review E, 2008, 78, 026707.	2.1	25
44	Regular and chaotic states in a local map description of sheared nematic liquid crystals. Physical Review E, 2008, 78, 011706.	2.1	1
45	Phase transitions in pressurized semiflexible polymer rings. Physical Review E, 2008, 77, 041802.	2.1	7
46	Driven disordered periodic media with an underlying structural phase transition. Physical Review B, 2007, 75, .	3.2	12
47	Nonequilibrium states of driven disordered polymorphic solids. Physica A: Statistical Mechanics and Its Applications, 2007, 384, 69-74.	2.6	1
48	Collective effects in models for interacting molecular motors and motor-microtubule mixtures. Physica A: Statistical Mechanics and Its Applications, 2006, 372, 96-112.	2.6	8
49	The glass transition and liquid-gas spinodal boundaries of metastable liquids. Europhysics Letters, 2006, 75, 922-928.	2.0	6
50	Distribution Functions, Loop Formation Probabilities, and Force-Extension Relations in a Model for Short Double-Stranded DNA Molecules. Physical Review Letters, 2005, 94, 138102.	7.8	56
51	Self-organized pattern formation in motor-microtubule mixtures. Physical Review E, 2004, 70, 031905.	2.1	75
52	Surface effects on the pancake vortex phase diagram. Physica C: Superconductivity and Its Applications, 2004, 404, 119-122.	1.2	0
53	A biologically inspired ratchet model of two coupled Brownian motors. Physica A: Statistical Mechanics and Its Applications, 2003, 318, 40-47.	2.6	37
54	Modelling Pattern Formation in Motor-Microtubule Mixtures. Physica Scripta, 2003, T106, 26.	2.5	1

#	Article	IF	Citations
55	Two-component fluid membranes near repulsive walls: Linearized hydrodynamics of equilibrium and nonequilibrium states. Physical Review E, 2002, 66, 031914.	2.1	31
56	Phase behavior of type-II superconductors with quenched point pinning disorder: A phenomenological proposal. Physical Review B, 2002, 65, .	3.2	58
57	A NEW PHENOMENOLOGY FOR THE DISORDERED MIXED PHASE. Modern Physics Letters B, 2001, 15, 1023-1030.	1.9	3
58	Universal properties of interacting Brownian motors. Physical Review E, 1999, 59, 2578-2586.	2.1	72
59	Crystallization and vitrification of semiflexible living polymers: A lattice model. Physical Review E, 1999, 59, 787-802.	2.1	19
60	Muon-spin rotation spectra in the mixed phase of high-Tcsuperconductors: Thermal fluctuations and disorder effects. Physical Review B, 1999, 60, 7607-7622.	3.2	13
61	Conservation laws and integrability of a one-dimensional model of diffusing dimers. Journal of Statistical Physics, 1997, 86, 1237-1263.	1.2	35
62	Reentrant peak effect via magnetization studies in NbSe2. European Physical Journal D, 1996, 46, 3105-3106.	0.4	3
63	On the magnetic study of the peak effect in the anisotropic superconductor 2H-NbSe2 evidence for reentrant behavior. Physica C: Superconductivity and Its Applications, 1996, 256, 119-141.	1.2	9
64	Reentrant Peak Effect and Melting of a Flux Line Lattice in 2H-NbSe2. Physical Review Letters, 1996, 76, 4600-4603.	7.8	88
65	Density-functional theory of flux-lattice melting in high-Tcsuperconductors. Physical Review B, 1996, 54, 16192-16205.	3.2	38
66	Sponge Phase Transitions from a Lattice Mode. Molecular Crystals and Liquid Crystals, 1996, 288, 93-104.	0.3	0
67	Glass Formation in a Lattice Model for Living Polymers. Physical Review Letters, 1995, 75, 4638-4641.	7.8	7
68	Effects of pinning disorder on the correlations and freezing of the flux liquid in layered superconductors. Physical Review Letters, 1994, 73, 1023-1026.	7.8	51
69	Freezing of the vortex liquid in high-Tcsuperconductors: A density-functional approach. Physical Review Letters, 1991, 67, 3444-3447.	7.8	87
70	Phototactic cyanobacteria as an active matter system. Indian Journal of Physics, 0, , .	1.8	0