

Gautam I Menon

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/252631/publications.pdf>

Version: 2024-02-01

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	Comparing COVID-19 vaccine allocation strategies in India: A mathematical modelling study. International Journal of Infectious Diseases, 2021, 103, 431-438.	3.3	178
2	Chromosome positioning from activity-based segregation. Nucleic Acids Research, 2014, 42, 4145-4159.	14.5	125
3	Reentrant Peak Effect and Melting of a Flux Line Lattice in 2H-NbSe ₂ . Physical Review Letters, 1996, 76, 4600-4603.	7.8	88
4	Freezing of the vortex liquid in high-T _c superconductors: A density-functional approach. Physical Review Letters, 1991, 67, 3444-3447.	7.8	87
5	Self-organized pattern formation in motor-microtubule mixtures. Physical Review E, 2004, 70, 031905.	2.1	75
6	Correlated Spatio-Temporal Fluctuations in Chromatin Compaction States Characterize Stem Cells. Biophysical Journal, 2013, 104, 553-564.	0.5	73
7	Universal properties of interacting Brownian motors. Physical Review E, 1999, 59, 2578-2586.	2.1	72
8	Universality class of the reversible-irreversible transition in sheared suspensions. Physical Review E, 2009, 79, 061108.	2.1	59
9	Phase behavior of type-II superconductors with quenched point pinning disorder: A phenomenological proposal. Physical Review B, 2002, 65, .	3.2	58
10	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
11	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
12	Density-functional theory of flux-lattice melting in high-T _c superconductors. Physical Review B, 1996, 54, 16192-16205.	3.2	38
13	A biologically inspired ratchet model of two coupled Brownian motors. Physica A: Statistical Mechanics and Its Applications, 2003, 318, 40-47.	2.6	37
14	Conservation laws and integrability of a one-dimensional model of diffusing dimers. Journal of Statistical Physics, 1997, 86, 1237-1263.	1.2	35
15	Two-component fluid membranes near repulsive walls: Linearized hydrodynamics of equilibrium and nonequilibrium states. Physical Review E, 2002, 66, 031914.	2.1	31
16	Cargo crowding at actin-rich regions along axons causes local traffic jams. Traffic, 2018, 19, 166-181.	2.7	30
17	Driven disordered polymorphic solids: Phases and phase transitions, dynamical coexistence and peak effect anomalies. Physical Review B, 2010, 81, .	3.2	28
18	Biophysics of Cell-Substrate Interactions Under Shear. Frontiers in Cell and Developmental Biology, 2019, 7, 251.	3.7	27

#	ARTICLE	IF	CITATIONS
19	Numerical method of lines for the relaxational dynamics of nematic liquid crystals. <i>Physical Review E</i> , 2008, 78, 026707.	2.1	25
20	Stretching and Bending Fluctuations of Short DNA Molecules. <i>Biophysical Journal</i> , 2013, 104, 463-471.	0.5	25
21	Nonequilibrium Biophysical Processes Influence the Large-Scale Architecture of the Cell Nucleus. <i>Biophysical Journal</i> , 2020, 118, 2229-2244.	0.5	22
22	Active Matter. , 2010, , 193-218.		20
23	Phototaxis as a Collective Phenomenon in Cyanobacterial Colonies. <i>Scientific Reports</i> , 2017, 7, 17799.	3.3	20
24	Crystallization and vitrification of semiflexible living polymers: A lattice model. <i>Physical Review E</i> , 1999, 59, 787-802.	2.1	19
25	Fluctuating dynamics of nematic liquid crystals using the stochastic method of lines. <i>Journal of Chemical Physics</i> , 2010, 133, 044112.	3.0	15
26	Chromatin as active matter. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2017, 2017, 014001.	2.3	14
27	Role of genetic heterogeneity in determining the epidemiological severity of H1N1 influenza. <i>PLoS Computational Biology</i> , 2018, 14, e1006069.	3.2	14
28	Muon-spin rotation spectra in the mixed phase of high-T _c superconductors: Thermal fluctuations and disorder effects. <i>Physical Review B</i> , 1999, 60, 7607-7622.	3.2	13
29	Driven disordered periodic media with an underlying structural phase transition. <i>Physical Review B</i> , 2007, 75, .	3.2	12
30	Modeling cell-substrate de-adhesion dynamics under fluid shear. <i>Physical Biology</i> , 2018, 15, 046006.	1.8	12
31	COVID-19 Pandemic in India: Through the Lens of Modeling. <i>Global Health, Science and Practice</i> , 2021, 9, 220-228.	1.7	12
32	Optimizing testing for COVID-19 in India. <i>PLoS Computational Biology</i> , 2021, 17, e1009126.	3.2	12
33	On the magnetic study of the peak effect in the anisotropic superconductor 2H-NbSe ₂ evidence for reentrant behavior. <i>Physica C: Superconductivity and Its Applications</i> , 1996, 256, 119-141.	1.2	9
34	Biaxiality at the isotropic-nematic interface with planar anchoring. <i>Physical Review E</i> , 2009, 80, 041705.	2.1	9
35	Collective effects in models for interacting molecular motors and motor-microtubule mixtures. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2006, 372, 96-112.	2.6	8
36	The isotropic-nematic interface with an oblique anchoring condition. <i>Journal of Chemical Physics</i> , 2009, 131, 174701.	3.0	8

#	ARTICLE	IF	CITATIONS
37	Class Formation in a Lattice Model for Living Polymers. <i>Physical Review Letters</i> , 1995, 75, 4638-4641.	7.8	7
38	Phase transitions in pressurized semiflexible polymer rings. <i>Physical Review E</i> , 2008, 77, 041802.	2.1	7
39	Vortex-core order and field-driven supersolidity. <i>Physical Review B</i> , 2017, 96, .	3.2	7
40	Chromatin Compaction, Auxeticity, and the Epigenetic Landscape of Stem Cells. <i>Physical Review X</i> , 2019, 9, .	8.9	7
41	Information integration and collective motility in phototactic cyanobacteria. <i>PLoS Computational Biology</i> , 2020, 16, e1007807.	3.2	7
42	Phototaxis in Cyanobacteria: From Mutants to Models of Collective Behavior. <i>MBio</i> , 2021, 12, e0239821.	4.1	7
43	The glass transition and liquid-gas spinodal boundaries of metastable liquids. <i>Europhysics Letters</i> , 2006, 75, 922-928.	2.0	6
44	Suppression of the melting line in a weakly disordered flux-line system. <i>Physical Review B</i> , 2012, 85, .	3.2	6
45	Cell adhesion strength and tractions are mechano-diagnostic features of cellular invasiveness. <i>Soft Matter</i> , 2022, 18, 4378-4388.	2.7	6
46	A coupled map lattice model for rheological chaos in sheared nematic liquid crystals. <i>Chaos</i> , 2010, 20, 043123.	2.5	5
47	Thermodynamic behaviour of two-dimensional vesicles revisited. <i>European Physical Journal E</i> , 2012, 35, 9706.	1.6	4
48	Reentrant peak effect via magnetization studies in NbSe ₂ . <i>European Physical Journal D</i> , 1996, 46, 3105-3106.	0.4	3
49	A NEW PHENOMENOLOGY FOR THE DISORDERED MIXED PHASE. <i>Modern Physics Letters B</i> , 2001, 15, 1023-1030.	1.9	3
50	Asymptotic Behavior of Inflated Lattice Polygons. <i>Journal of Statistical Physics</i> , 2008, 131, 393-404.	1.2	3
51	Orientalional correlations in fluids with quenched disorder. <i>Journal of Chemical Physics</i> , 2019, 151, 124501.	3.0	3
52	Confined crowded polymers near attractive surfaces. <i>Journal of Chemical Physics</i> , 2019, 151, 244901.	3.0	3
53	Asymptotic behaviour of convex and column-convex lattice polygons with fixed area and varying perimeter. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2010, 2010, P07029.	2.3	2
54	Modelling Pattern Formation in Motor-Microtubule Mixtures. <i>Physica Scripta</i> , 2003, T106, 26.	2.5	1

#	ARTICLE	IF	CITATIONS
55	Nonequilibrium states of driven disordered polymorphic solids. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2007, 384, 69-74.	2.6	1
56	Regular and chaotic states in a local map description of sheared nematic liquid crystals. <i>Physical Review E</i> , 2008, 78, 011706.	2.1	1
57	Disorder-induced enhancement of local hexatic correlations in two-dimensional fluids. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 184003.	1.8	1
58	Chromatin as an active polymeric material. <i>Emerging Topics in Life Sciences</i> , 2020, 4, 111-118.	2.6	1
59	Sponge Phase Transitions from a Lattice Mode. <i>Molecular Crystals and Liquid Crystals</i> , 1996, 288, 93-104.	0.3	0
60	Surface effects on the pancake vortex phase diagram. <i>Physica C: Superconductivity and Its Applications</i> , 2004, 404, 119-122.	1.2	0
61	Cell Morphology and Substrate Ligand Density Determines Adhesion Strength and Remodelling Under Dynamic Shear. <i>Biophysical Journal</i> , 2020, 118, 604a.	0.5	0
62	Altered kinetics of circulating progenitor cells in cardiopulmonary bypass (CPB) associated vasoplegic patients: A pilot study. <i>PLoS ONE</i> , 2020, 15, e0242375.	2.5	0
63	Editorial overview: Biophysical and computational methods. <i>Current Opinion in Structural Biology</i> , 2020, 64, vi-viii.	5.7	0
64	Title is missing!. , 2020, 15, e0242375.		0
65	Title is missing!. , 2020, 15, e0242375.		0
66	Title is missing!. , 2020, 15, e0242375.		0
67	Title is missing!. , 2020, 15, e0242375.		0
68	Title is missing!. , 2020, 15, e0242375.		0
69	Title is missing!. , 2020, 15, e0242375.		0
70	Phototactic cyanobacteria as an active matter system. <i>Indian Journal of Physics</i> , 0, , .	1.8	0