Sumesh P Thampi

List of Publications by Year
in descending order

56 papers	2,056 citations	331670 21 h-index	243625 44 g-index
56 all docs	56 docs citations	56 times ranked	1722 citing authors

#	Article	IF	Citations
1	Topological defects in epithelia govern cell death and extrusion. Nature, 2017, 544, 212-216.	27.8	511
2	Velocity Correlations in an Active Nematic. Physical Review Letters, 2013, 111, 118101.	7.8	163
3	Stabilization of active matter by flow-vortex lattices and defect ordering. Nature Communications, 2016, 7, 10557.	12.8	115
4	Defect-Mediated Morphologies in Growing Cell Colonies. Physical Review Letters, 2016, 117, 048102.	7.8	114
5	Instabilities and topological defects in active nematics. Europhysics Letters, 2014, 105, 18001.	2.0	111
6	Vorticity, defects and correlations in active turbulence. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130366.	3.4	99
7	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
8	Biphasic, Lyotropic, Active Nematics. Physical Review Letters, 2014, 113, 248303.	7.8	81
9	Active micromachines: Microfluidics powered by mesoscale turbulence. Science Advances, 2016, 2, e1501854.	10.3	63
10	Isotropic discrete Laplacian operators from lattice hydrodynamics. Journal of Computational Physics, 2013, 234, 1-7.	3.8	62
11	Active turbulence in active nematics. European Physical Journal: Special Topics, 2016, 225, 651-662.	2.6	53
12	Do Liquid Drops Roll or Slide on Inclined Surfaces?. Langmuir, 2013, 29, 3339-3346.	3.5	50
13	Active nematic materials with substrate friction. Physical Review E, 2014, 90, 062307.	2.1	48
14	Pervaporation from a Dense Membrane:Â Roles of Permeantâ˘'Membrane Interactions, Kelvin Effect, and Membrane Swelling. Langmuir, 2004, 20, 4708-4714.	3.5	38
15	Intrinsic free energy in active nematics. Europhysics Letters, 2015, 112, 28004.	2.0	36
16	Patterns in Drying Drops Dictated by Curvature-Driven Particle Transport. Langmuir, 2018, 34, 11473-11483.	3.5	33
17	Lattice-Boltzmann-Langevin simulations of binary mixtures. Physical Review E, 2011, 84, 046709.	2.1	31
18	Flow States and Transitions of an Active Nematic in a Three-Dimensional Channel. Physical Review Letters, 2020, 125, 148002.	7.8	30

#	Article	IF	Citations
19	Active transport in a channel: stabilisation by flow or thermodynamics. Soft Matter, 2019, 15, 1597-1604.	2.7	25
20	Activity Induced Nematic Order in Isotropic Liquid Crystals. Journal of Statistical Physics, 2020, 180, 699-709.	1.2	25
21	Lattice differential operators for computational physics. Europhysics Letters, 2013, 101, 50006.	2.0	24
22	Robust Method to Determine Critical Micelle Concentration via Spreading Oil Drops on Surfactant Solutions. Langmuir, 2020, 36, 8100-8110.	3.5	22
23	Beyond Coffee Rings: Drying Drops of Colloidal Dispersions on Inclined Substrates. ACS Omega, 2020, 5, 11262-11270.	3.5	20
24	The possible equilibrium shapes of static pendant drops. Journal of Chemical Physics, 2010, 133, 144707.	3.0	19
25	Sparse Game Changers Restore Collective Motion in Panicked Human Crowds. Physical Review Letters, 2019, 122, 048002.	7.8	19
26	Minimum energy shapes of one-side-pinned static drops on inclined surfaces. Physical Review E, 2011, 84, 046304.	2.1	15
27	Driven active and passive nematics. Molecular Physics, 2015, 113, 2656-2665.	1.7	14
28	Morphological evolution of domains in spinodal decomposition. Physical Review E, 2015, 91, 010101.	2.1	13
29	Transition from Linear to Circular Motion in Active Spherical-Cap Colloids. Langmuir, 2019, 35, 4718-4725.	3.5	13
30	Patterns from drops drying on inclined substrates. Soft Matter, 2021, 17, 7670-7681.	2.7	11
31	Flow transitions and length scales of a channel-confined active nematic. Soft Matter, 2021, 17, 10640-10648.	2.7	11
32	Confinement induced trajectory of a squirmer in a two dimensional channel. Fluid Dynamics Research, 2019, 51, 065504.	1.3	10
33	Dynamics and stability of a concentric compound particle â€“ a theoretical study. Soft Matter, 2019, 15, 7605-7615.	2.7	10
34	Analysis of phase change during pervaporation with single component permeation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2006, 290, 263-272.	4.7	8
35	Deformation dynamics of an active compound particle in an imposed shear flowâ€”a theoretical study. Journal Physics D: Applied Physics, 2020, 53, 314001.	2.8	8
36	Universal evolution of a viscousâ€“capillary spreading drop. Soft Matter, 2016, 12, 6073-6078.	2.7	6

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37	Lattice Boltzmann simulations of a radiatively participating fluid in Rayleighâ€"Benard convection. Numerical Heat Transfer; Part A: Applications, 2017, 72, 313-329.	2.1	6
38	Hydrodynamic collision between a microswimmer and a passive particle in a micro-channel. Soft Matter, 2021, 17, 3380-3396.	2.7	6
39	Further Insights into Patterns from Drying Particle Laden Sessile Drops. Langmuir, 2021, 37, 4395-4402.	3.5	6
40	Particle size and substrate wettability dependent patterns in dried pendant drops. Journal of Physics Condensed Matter, 2021, 33, 024003.	1.8	6
41	Helical flow states in active nematics. Physical Review E, 2022, 106, .	2.1	6
42	Modeling polymer crystallisation induced by a moving heat sink. Soft Matter, 2021, 17, 2518-2529.	2.7	5
43	Drops spreading on fluid surfaces: Transition from Laplace to Marangoni regime. Physical Review Fluids, 2021, 6, .	2.5	5
44	Wall-curvature driven dynamics of a microswimmer. Physical Review Fluids, 2021, 6, .	2.5	4
45	Statics and dynamics of drops spreading on a liquid-liquid interface. Physical Review Fluids, 2020, 5, .	2.5	4
46	Dilute dispersion of compound particles: deformation dynamics and rheology. Journal of Fluid Mechanics, 2021, 917, .	3.4	3
47	Boundary layer description of directional polymer crystallisation. Soft Matter, 2021, 17, 7755-7768.	2.7	3
48	Rolling motion in moving droplets. Pramana - Journal of Physics, 2015, 84, 409-421.	1.8	2
49	Reply to â€œComment on â€˜Patterns in Drying Drops Dictated by Curvature-Driven Particle Transportâ€™â€• Langmuir, 2019, 35, 9991-9993.	3.5	2
50	An experimental and theoretical study of the inward particle drift in contact line deposits. Soft Matter, 2022, 18, 2414-2421.	2.7	2
51	Simulation of polyester melt spinning with axial quench for increasing productivity. Journal of Applied Polymer Science, 2010, 116, NA-NA.	2.6	1
52	Collective surfing of two self-propelled swimmers at liquid-air interface aided by self-induced Marangoni flow. Physical Review Fluids, 2021, 6, .	2.5	1
53	Order-stampede transitions in human crowds: The role of individualistic and cooperative forces. Physica A: Statistical Mechanics and Its Applications, 2022, , 127349.	2.6	1
54	A Lattice Boltzmann Method for Electromagnetic Wave Propagation in Medium. , 2020, , .		0

#	Article	IF	Citations
55	Colloidal hydrodynamics using a quasi-steady algorithm in lattice Boltzmann method. Bulletin of Materials Science, 2020, 43, 1.	1.7	0
56	Rotating-Particle Micropump Inspired by Taylorâ€™s Swimming Sheet. Physical Review Applied, 2020, 14, .	3.8	0