Suriyanarayanan Vaikuntanathan

List of Publications by Year
in descending order

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36	1,115	394421	395702
papers	citations	19 h-index	33 g-index

37	37	37	1376
all docs	docs citations	times ranked	citing authors

#	ARTICLE	IF	CITATIONS
1	From predicting to learning dissipation from pair correlations of active liquids. Journal of Chemical Physics, 2022, 157, .	3.0	4
2	Organization and Self-Assembly Away from Equilibrium: Toward Thermodynamic Design Principles. Annual Review of Condensed Matter Physics, 2021, 12, 273-290.	14.5	13
3	Energy rectification in active gyroscopic networks under time-periodic modulations. Physical Review E, 2021, 104, 014601.	2.1	2
4	A strong nonequilibrium bound for sorting of cross-linkers on growing biopolymers. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	4
5	Mechanism for the Generation of Robust Circadian Oscillations through Ultransensitivity and Differential Binding Affinity. Journal of Physical Chemistry B, 2021, 125, 11179-11187.	2.6	0
6	Fluctuating hydrodynamics of chiral active fluids. Nature Physics, 2021, 17, 1260-1269.	16.7	41
7	Rectification in Nonequilibrium Parity Violating Metamaterials. Physical Review X, 2020, 10, .	8.9	7
8	Tuning shape and internal structure of protein dropletsviabiopolymer filaments. Soft Matter, 2020, 16, 5659-5668.	2.7	22
9	High chemical affinity increases the robustness of biochemical oscillations. Physical Review E, 2020, 101, 012410.	2.1	12
10	Nucleation and shape dynamics of model nematic tactoids around adhesive colloids. Journal of Chemical Physics, 2020, 152, 084901.	3.0	3
11	Robust oscillations in multi-cyclic Markov state models of biochemical clocks. Journal of Chemical Physics, 2020, 152, 055101.	3.0	9
12	Dissipation controls transport and phase transitions in active fluids: mobility, diffusion and biased ensembles. New Journal of Physics, 2020, 22, 013052.	2.9	42
13	How Dissipation Constrains Fluctuations in Nonequilibrium Liquids: Diffusion, Structure, and Biased Interactions. Physical Review X, 2019, 9, .	8.9	37
14	Self-organizing motors divide active liquid droplets. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11125-11130.	7.1	44
15	Topological Waves in Fluids with Odd Viscosity. Physical Review Letters, 2019, 122, 128001.	7.8	129
16	Interface height fluctuations and surface tension of driven liquids with time-dependent dynamics. Journal of Chemical Physics, 2019, 150, 094708.	3.0	9
17	Nanocrystals in Molten Salts and Ionic Liquids: Experimental Observation of Ionic Correlations Extending beyond the Debye Length. ACS Nano, 2019, 13, 5760-5770.	14.6	48
18	A mechanism for anomalous transport in chiral active liquids. Journal of Chemical Physics, 2019, 151, 194108.	3.0	12

#	Article	IF	Citations
19	Energy dissipation and fluctuations in a driven liquid. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3569-3574.	7.1	27
20	Describing screening in dense ionic fluids with a charge-frustrated Ising model. Journal of Chemical Physics, 2018, 149, 164505.	3.0	20
21	Topological localization in out-of-equilibrium dissipative systems. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E9031-E9040.	7.1	43
22	Topologically protected modes in non-equilibrium stochastic systems. Nature Communications, 2017, 8, 13881.	12.8	45
23	Liquid behavior of cross-linked actin bundles. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2131-2136.	7.1	106
24	Driven optical matter: Dynamics of electrodynamically coupled nanoparticles in an optical ring vortex. Physical Review E, 2017, 95, 022604.	2.1	47
25	Pre-Transition Effects Mediate Forces of Assembly between Transmembrane Proteins: The Orderphobic Effect. Biophysical Journal, 2016, 110, 567a.	0.5	1
26	Design principles for nonequilibrium self-assembly. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14231-14236.	7.1	74
27	Biological Implications of Dynamical Phases in Non-equilibrium Networks. Journal of Statistical Physics, 2016, 162, 1183-1202.	1.2	5
28	Necessity of capillary modes in a minimal model of nanoscale hydrophobic solvation. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E2224-30.	7.1	30
29	Pre-transition effects mediate forces of assembly between transmembrane proteins. ELife, 2016, 5, e13150.	6.0	56
30	A Fundamental Force that Regulates Nano-Clustering of Proteins in Biological Membranes. Biophysical Journal, 2015, 108, 18a.	0.5	0
31	Efficiency and large deviations in time-asymmetric stochastic heat engines. New Journal of Physics, 2014, 16, 102003.	2.9	47
32	Putting Water on a Lattice: The Importance of Long Wavelength Density Fluctuations in Theories of Hydrophobic and Interfacial Phenomena. Physical Review Letters, 2014, 112, 020603.	7.8	29
33	Dynamic phase transitions in simple driven kinetic networks. Physical Review E, 2014, 89, 062108.	2.1	44
34	Adsorption of solutes at liquidâ€“vapor interfaces: insights from lattice gas models. Faraday Discussions, 2013, 160, 63-74.	3.2	15
35	Escorted Free Energy Simulations: Improving Convergence by Reducing Dissipation. Physical Review Letters, 2008, 100, 190601.	7.8	83
36	Mean-field theory for the structure of strongly interacting active liquids. Journal of Chemical Physics, 0, , .	3.0	3