

John Toner

List of Publications by Year in descending order

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papers

4,373
citations

304368

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253896

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45
all docs

45
docs citations

45
times ranked

2271
citing authors

#	ARTICLE	IF	CITATIONS
1	Susceptibility of Polar Flocks to Spatial Anisotropy. Physical Review Letters, 2022, 128, .	2.9	13
2	Hydrodynamic theory of flocking at a solid-liquid interface: Long-range order and giant number fluctuations. Physical Review E, 2021, 104, 064611.	0.8	2
3	Swarming Bottom Feeders: Flocking at Solid-Liquid Interfaces. Physical Review Letters, 2021, 127, 268004.	2.9	2
4	Moving, Reproducing, and Dying Beyond Flatland: Malthusian Flocks in Dimensions d . Physical Review Letters, 2020, 125, 098003.	2.9	12
5	Universality class for a nonequilibrium state of matter: A d -dimensional expansion study of Malthusian flocks. Physical Review E, 2020, 102, 022610.	0.8	4
6	Darcy's Law without Friction in Active Nematic Rheology. Physical Review Letters, 2020, 124, 187801.	2.9	6
7	Rolled Up or Crumpled: Phases of Asymmetric Tethered Membranes. Physical Review Letters, 2019, 122, 218002.	2.9	7
8	Giant number fluctuations in dry active polar fluids: A shocking analogy with lightning rods. Journal of Chemical Physics, 2019, 150, 154120.	1.2	7
9	Statistical mechanics of asymmetric tethered membranes: Spiral and crumpled phases. Physical Review E, 2019, 99, 053004.	0.8	4
10	Hydrodynamic theory of flocking in the presence of quenched disorder. Physical Review E, 2018, 98, .	0.8	32
11	Incompressible polar active fluids in the moving phase in dimensions d > 2. New Journal of Physics, 2018, 20, 113035.	1.2	19
12	Swarming in the Dirt: Ordered Flocks with Quenched Disorder. Physical Review Letters, 2018, 121, 248002.	2.9	36
13	Squeezed in three dimensions, moving in two: Hydrodynamic theory of three-dimensional incompressible easy-plane polar active fluids. Physical Review E, 2018, 98, .	0.8	3
14	Long-time anomalous swimmer diffusion in smectic liquid crystals. Physical Review E, 2018, 97, 062606.	0.8	13
15	Geometry of thresholdless active flow in nematic microfluidics. Physical Review Fluids, 2017, 2, .	1.0	33
16	Emergent smectic order in simple active particle models. New Journal of Physics, 2016, 18, 063015.	1.2	26
17	Following fluctuating signs: Anomalous active superdiffusion of swimmers in anisotropic media. Physical Review E, 2016, 93, 062610.	0.8	17
18	Mapping two-dimensional polar active fluids to two-dimensional soap and one-dimensional sandblasting. Nature Communications, 2016, 7, 12215.	5.8	45

#	ARTICLE	IF	CITATIONS
19	Critical phenomenon of the order-disorder transition in incompressible active fluids. <i>New Journal of Physics</i> , 2015, 17, 042002.	1.2	45
20	Macroscopic traveling packet and soliton states of quasi-one-dimensional flocks. <i>Physical Review E</i> , 2014, 89, 052711.	0.8	3
21	Universality for Moving Stripes: A Hydrodynamic Theory of Polar Active Smectics. <i>Physical Review Letters</i> , 2013, 111, 088701.	2.9	39
22	Live Soap: Stability, Order, and Fluctuations in Apolar Active Smectics. <i>Physical Review Letters</i> , 2013, 110, 118102.	2.9	32
23	Reply to "Comment on "Fluctuation-induced first-order transition in p -wave superconductors". <i>Physical Review B</i> , 2013, 87,	1.1	0
24	Reanalysis of the hydrodynamic theory of fluid, polar-ordered flocks. <i>Physical Review E</i> , 2012, 86, 031918.	0.8	106
25	Birth, Death, and Flight: A Theory of Malthusian Flocks. <i>Physical Review Letters</i> , 2012, 108, 088102.	2.9	58
26	Fast wandering of slow birds. <i>Physical Review E</i> , 2011, 84, 061913.	0.8	0
27	Skyrmion versus vortex flux lattices in p -wave superconductors. <i>Physical Review B</i> , 2009, 79, .	1.1	16
28	Fluctuation-induced first-order transition in p -wave superconductors. <i>Physical Review B</i> , 2009, 79, .	1.1	6
29	Goldstone modes and electromagnon fluctuations in the conical cycloid state of a multiferroic. <i>Physical Review B</i> , 2008, 78, .	1.1	9
30	Quenched Dislocation Enhanced Supersolid Ordering. <i>Physical Review Letters</i> , 2008, 100, 035302.	2.9	39
31	Ginzburg-Landau theory for the conical cycloid state in multiferroics: Applications to CoCr_2O_4 . <i>Physical Review B</i> , 2008, 78, .	1.1	5
32	Hydrodynamics and phases of flocks. <i>Annals of Physics</i> , 2005, 318, 170-244.	1.0	746
33	Elasticity, fluctuations, and vortex pinning in ferromagnetic superconductors: A columnar elastic glass. <i>Physical Review B</i> , 2005, 71, .	1.1	3
34	"Soft" Anharmonic Vortex Glass in Ferromagnetic Superconductors. <i>Physical Review Letters</i> , 2001, 87, .	2.9	22
35	A Discotic Disguised as a Smectic: A Hybrid Columnar Bragg Glass. <i>Physical Review Letters</i> , 2000, 85, 4309-4312.	2.9	17
36	Nonequilibrium Fluctuations, Traveling Waves, and Instabilities in Active Membranes. <i>Physical Review Letters</i> , 2000, 84, 3494-3497.	2.9	205

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37	Two New Topologically Ordered Glass Phases of Smectics Confined in Anisotropic Random Media. Physical Review Letters, 1999, 83, 1363-1366.	2.9	27
38	Flocks, herds, and schools: A quantitative theory of flocking. Physical Review E, 1998, 58, 4828-4858.	0.8	1,198
39	Sound Waves and the Absence of Galilean Invariance in Flocks. Physical Review Letters, 1998, 80, 4819-4822.	2.9	116
40	Long-Range Order in a Two-Dimensional Dynamical XY Model: How Birds Fly Together. Physical Review Letters, 1995, 75, 4326-4329.	2.9	917
41	New phase of matter in lamellar phases of tethered, crystalline membranes. Physical Review Letters, 1990, 64, 1741-1744.	2.9	23
42	Breakdown of conventional hydrodynamics for smectic-A, hexatic-B, and cholesteric liquid crystals. Physical Review A, 1983, 28, 1618-1636.	1.0	90
43	Renormalization-group treatment of the dislocation loop model of the smectic-A to nematic transition. Physical Review B, 1982, 26, 462-465.	1.1	88
44	Viscosities Diverge as $1/\eta$ in Smectic-A Liquid Crystals. Physical Review Letters, 1982, 49, 51-53.	2.9	66
45	Smectic, cholesteric, and Rayleigh-Benard order in two dimensions. Physical Review B, 1981, 23, 316-334.	1.1	210