Yair Shokef

List of Publications by Year
in descending order

60 papers	1,589 citations	394421 19 h-index	302126 39 g-index
61 all docs	61 docs citations	61 times ranked	1652 citing authors

#	Article	IF	Citations
1	Real-time steering of curved sound beams in a feedback-based topological acoustic metamaterial. Mechanical Systems and Signal Processing, 2021, 153, 107479.	8.0	20
2	Putting a spin on metamaterials: Mechanical incompatibility as magnetic frustration. SciPost Physics, 2021, 10, .	4.9	6
3	Topologically protected steady cycles in an icelike mechanical metamaterial. Physical Review Research, 2021, 3, .	3.6	6
4	Mean-field interactions between living cells in linear and nonlinear elastic matrices. Physical Review E, 2021, 104, 024411.	2.1	7
5	Introduction to force transmission by nonlinear biomaterials. Soft Matter, 2021, 17, 10172-10176.	2.7	6
6	Non-Newtonian Topological Mechanical Metamaterials Using Feedback Control. Physical Review Letters, 2020, 125, 256802.	7.8	33
7	Topology Restricts Quasidegeneracy in Sheared Square Colloidal Ice. Physical Review Letters, 2020, 124, 238003.	7.8	6
8	Topological defects produce exotic mechanics in complex metamaterials. Nature Physics, 2020, 16, 307-311.	16.7	36
9	Response evolution of mechanical metamaterials under architectural transformations. New Journal of Physics, 2020, 22, 023030.	2.9	8
10	Target finding in fibrous biological environments. New Journal of Physics, 2020, 22, 103008.	2.9	5
11	Arrested states in persistent active matter: Gelation without attraction. Physical Review Research, 2020, 2, .	3.6	22
12	Feedback-based Topological Mechanical Metamaterials. , 2020, , .		1
13	Constraint relaxation leads to jamming. Physical Review E, 2020, 102, 062155.	2.1	0
14	Kinetically constrained model for gravity-driven granular flow and clogging. Physical Review E, 2019, 100, 032137.	2.1	2
15	Mechanical Interaction between Cells Facilitates Molecular Transport. Advanced Biology, 2019, 3, e1900192.	3.0	16
16	Motion of active tracer in a lattice gas with cross-shaped particles. Journal of Chemical Physics, 2019, 150, 144508.	3.0	12
17	Elastic interactions between anisotropically contracting circular cells. Physical Review E, 2019, 99, 032418.	2.1	12
18	Multiple peaks in the displacement distribution of active random walkers. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 113209.	2.3	0

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19	Attraction Controls the Entropy of Fluctuations in Isosceles Triangular Networks. Entropy, 2018, 20, 122.	2.2	4
20	Hydrodynamics in kinetically constrained lattice-gas models. Physical Review E, 2017, 95, 022124.	2.1	10
21	Shape regulation generates elastic interaction between living cells. New Journal of Physics, 2017, 19, 063011.	2.9	15
22	Attraction Controls the Inversion of Order by Disorder in Buckled Colloidal Monolayers. Physical Review Letters, 2017, 118, 218002.	7.8	10
23	Jamming versus caging in three dimensional jamming percolation. Journal of Statistical Mechanics: Theory and Experiment, 2016, 2016, 054051.	2.3	6
24	Combinatorial design of textured mechanical metamaterials. Nature, 2016, 535, 529-532.	27.8	289
25	Relation between structure of blocked clusters and relaxation dynamics in kinetically constrained models. Physical Review E, 2015, 92, 032133.	2.1	7
26	Response of adherent cells to mechanical perturbations of the surrounding matrix. Soft Matter, 2015, 11, 1412-1424.	2.7	24
27	Jamming percolation in three dimensions. Europhysics Letters, 2014, 106, 16003.	2.0	11
28	Jamming by shape in kinetically constrained models. Physical Review E, 2014, 89, 032204.	2.1	8
29	Finite-density effects in the Fredrickson-Andersen and Kob-Andersen kinetically-constrained models. Journal of Chemical Physics, 2014, 141, 064110.	3.0	4
30	Nonlinear Elasticity in the Interaction of Living Cells with their Mechanical Environment. Biophysical Journal, 2013, 104, 479a.	0.5	0
31	Buckled colloidal monolayers connect geometric frustration in soft and hard matter. Soft Matter, 2013, 9, 6565.	2.7	9
32	Fluxoid quantization effects in high-T_c superconducting double networks. Journal of Physics: Conference Series, 2012, 400, 022109.	0.4	0
33	Dichotomic fluxoid quantization effects in a superconducting double network. Journal of Physics: Conference Series, 2012, 400, 022110.	0.4	0
34	Jamming transition of kinetically constrained models in rectangular systems. Physical Review E, 2012, 86, 051133.	2.1	9
35	Scaling Laws for the Response of Nonlinear Elastic Media with Implications for Cell Mechanics. Physical Review Letters, 2012, 108, 178103.	7.8	51
36	Fluctuation-Dissipation Relations in Minimal Models for Active Driving. Biophysical Journal, 2011, 100, 596a.	0.5	0

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37	Effective Temperature of Red-Blood-Cell Membrane Fluctuations. Physical Review Letters, 2011, 106, 238103.	7.8	125
38	Single-loop-like energy oscillations and staircase vortex occupation in superconducting double networks. Physical Review B, 2011, 84, .	3.2	3
39	Order by disorder in the antiferromagnetic Ising model on an elastic triangular lattice. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11804-11809.	7.1	27
40	Jamming mechanisms and density dependence in a kinetically constrained model. Europhysics Letters, 2010, 90, 26005.	2.0	18
41	Randomness-induced redistribution of vibrational frequencies in amorphous solids. Physical Review B, 2009, 80, .	3.2	14
42	Stripes, Zigzags, and Slow Dynamics in Buckled Hard Spheres. Physical Review Letters, 2009, 102, 048303.	7.8	34
43	Geometric frustration in buckled colloidal monolayers. Nature, 2008, 456, 898-903.	27.8	199
44	Frequency-dependent fluctuation-dissipation relations in granular gases. Physical Review E, 2008, 77, 051301.	2.1	21
45	Isolated nonequilibrium systems in contact. Physical Review E, 2007, 76, 030101.	2.1	14
46	Nonequilibrium Statistical Mechanics of Dividing Cell Populations. Physical Review Letters, 2007, 99, 138102.	7.8	17
47	Energy distribution and effective temperatures in a driven dissipative model. Physical Review E, 2006, 74, 051111.	2.1	14
48	Fluctuation-dissipation relations in driven dissipative systems. Physical Review E, 2006, 73, 046132.	2.1	21
49	Studying Hydrodynamic Instability Using Shock-Tube Experiments. Astrophysics and Space Science, 2005, 298, 305-312.	1.4	2
50	Two-dimensional simulations of plastic-shell, direct-drive implosions on OMEGA. Physics of Plasmas, 2005, 12, 032702.	1.9	126
51	Multidimensional analysis of direct-drive, plastic-shell implosions on OMEGA. Physics of Plasmas, 2005, 12, 056307.	1.9	95
52	Comment on â€œTemperature in Nonequilibrium Systems with Conserved Energyâ€. Physical Review Letters, 2005, 94, 208901; author reply 208902.	7.8	3
53	Exactly Solvable Model for Driven Dissipative Systems. Physical Review Letters, 2004, 93, 240601.	7.8	31
54	Scaling in the shockâ€"bubble interaction. Laser and Particle Beams, 2003, 21, 335-339.	1.0	12

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55	Modeling turbulent mixing in inertial confinement fusion implosions. Laser and Particle Beams, 2003, 21, 355-361.	1.0	3
56	Role of friction in compaction and segregation of granular materials. Physical Review E, 2003, 68, 061301.	2.1	50
57	A general buoyancy–drag model for the evolution of the Rayleigh–Taylor and Richtmyer–Meshkov instabilities. Laser and Particle Beams, 2003, 21, 347-353.	1.0	33
58	Optical and plasma smoothing of laser imprinting in targets driven by lasers with SSD bandwidths up to 1 THz. Physics of Plasmas, 2001, 8, 2331-2337.	1.9	31
59	Nonlinear evolution of broad-bandwidth, laser-imprinted nonuniformities in planar targets accelerated by 351-nm laser light. Physics of Plasmas, 1999, 6, 4022-4036.	1.9	22
60	Studies in the nonlinear evolution of the Rayleigh–Taylor and Richtmyer–Meshkov instabilities and their role in inertial confinement fusion. Laser and Particle Beams, 1999, 17, 465-475.	1.0	10