

Jens Elgeti

List of Publications by Year in descending order

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Version: 2024-02-01

47
papers

4,618
citations

218677

26
h-index

223800

46
g-index

49
all docs

49
docs citations

49
times ranked

3831
citing authors

#	ARTICLE	IF	CITATIONS
1	Physics of microswimmersâ€™ single particle motion and collective behavior: a review. Reports on Progress in Physics, 2015, 78, 056601.	20.1	1,029
2	Fluidization of tissues by cell division and apoptosis. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 20863-20868.	7.1	379
3	Physics of active jamming during collective cellular motion in a monolayer. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 15314-15319.	7.1	334
4	Emergence of metachronal waves in cilia arrays. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 4470-4475.	7.1	313
5	Wall accumulation of self-propelled spheres. Europhysics Letters, 2013, 101, 48003.	2.0	221
6	Hydrodynamics of Sperm Cells near Surfaces. Biophysical Journal, 2010, 99, 1018-1026.	0.5	197
7	Stress Clamp Experiments on Multicellular Tumor Spheroids. Physical Review Letters, 2011, 107, 188102.	7.8	188
8	Alignment of cellular motility forces with tissue flow as a mechanism for efficient wound healing. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 2452-2459.	7.1	184
9	Cooperation of sperm in two dimensions: Synchronization, attraction, and aggregation through hydrodynamic interactions. Physical Review E, 2008, 78, 061903.	2.1	164
10	Self-propelled rods near surfaces. Europhysics Letters, 2009, 85, 38002.	2.0	142
11	Spermatozoa as Functional Components of Robotic Microswimmers. Advanced Materials, 2017, 29, 1606301.	21.0	125
12	Self-propelled worm-like filaments: spontaneous spiral formation, structure, and dynamics. Soft Matter, 2015, 11, 7181-7190.	2.7	117
13	Run-and-tumble dynamics of self-propelled particles in confinement. Europhysics Letters, 2015, 109, 58003.	2.0	97
14	Myosin II Activity Softens Cells in Suspension. Biophysical Journal, 2015, 108, 1856-1869.	0.5	96
15	Dissipative particle dynamics simulations for biological tissues: rheology and competition. Physical Biology, 2011, 8, 026014.	1.8	92
16	Isotropic stress reduces cell proliferation in tumor spheroids. New Journal of Physics, 2012, 14, 055008.	2.9	84
17	Active Polymers â€™ Emergent Conformational and Dynamical Properties: A Brief Review. Journal of the Physical Society of Japan, 2017, 86, 101014.	1.6	79
18	Human sperm steer with second harmonics of the flagellar beat. Nature Communications, 2017, 8, 1415.	12.8	79

#	ARTICLE	IF	CITATIONS
19	Microswimmers near surfaces. <i>European Physical Journal: Special Topics</i> , 2016, 225, 2333-2352.	2.6	64
20	Collective dynamics of self-propelled semiflexible filaments. <i>Soft Matter</i> , 2018, 14, 4483-4494.	2.7	63
21	Mechanical Control of Cell flow in Multicellular Spheroids. <i>Physical Review Letters</i> , 2013, 110, 138103.	7.8	57
22	Motility-sorting of self-propelled particles in microchannels. <i>Europhysics Letters</i> , 2014, 107, 36003.	2.0	57
23	Dynamics of self-propelled filaments pushing a load. <i>Soft Matter</i> , 2016, 12, 8495-8505.	2.7	57
24	Giant adsorption of microswimmers: Duality of shape asymmetry and wall curvature. <i>Physical Review E</i> , 2015, 91, 050302.	2.1	45
25	Sperm motility in modulated microchannels. <i>New Journal of Physics</i> , 2019, 21, 013016.	2.9	35
26	Defect hydrodynamics in 2D polar active fluids. <i>Soft Matter</i> , 2011, 7, 3177.	2.7	34
27	Interface dynamics of competing tissues. <i>New Journal of Physics</i> , 2016, 18, 083020.	2.9	24
28	The steering gaits of sperm. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2020, 375, 20190149.	4.0	24
29	Reconstruction of the three-dimensional beat pattern underlying swimming behaviors of sperm. <i>European Physical Journal E</i> , 2021, 44, 87.	1.6	23
30	Detachment and fracture of cellular aggregates. <i>Soft Matter</i> , 2013, 9, 2282.	2.7	22
31	Quantitative modelling of nutrient-limited growth of bacterial colonies in microfluidic cultivation. <i>Journal of the Royal Society Interface</i> , 2018, 15, 20170713.	3.4	21
32	Conformations, hydrodynamic interactions, and instabilities of sedimenting semiflexible filaments. <i>Soft Matter</i> , 2015, 11, 7337-7344.	2.7	20
33	Nematic liquid crystals at rough and fluctuating interfaces. <i>European Physical Journal E</i> , 2005, 18, 407-415.	1.6	19
34	Tissue homeostasis: A tensile state. <i>Europhysics Letters</i> , 2015, 109, 58005.	2.0	19
35	Generalized Archimedes' principle in active fluids. <i>Physical Review E</i> , 2017, 96, 032606.	2.1	19
36	A minimal model for structure, dynamics, and tension of monolayered cell colonies. <i>Communications Physics</i> , 2021, 4, .	5.3	15

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37	Alignment of cell division axes in directed epithelial cell migration. <i>New Journal of Physics</i> , 2014, 16, 115005.	2.9	13
38	Mechanics of tissue competition: interfaces stabilize coexistence. <i>New Journal of Physics</i> , 2019, 21, 063017.	2.9	12
39	Forces in inhomogeneous open active-particle systems. <i>Physical Review E</i> , 2017, 96, 052409.	2.1	11
40	Instability and fingering of interfaces in growing tissue. <i>New Journal of Physics</i> , 2020, 22, 083005.	2.9	10
41	Response to Comment on Article: Hydrodynamics of Sperm Cells Near Surfaces. <i>Biophysical Journal</i> , 2011, 100, 2321-2324.	0.5	8
42	Tissue evolution: mechanical interplay of adhesion, pressure, and heterogeneity. <i>New Journal of Physics</i> , 2020, 22, 033048.	2.9	7
43	The role of thickness inhomogeneities in hierarchical cortical folding. <i>NeuroImage</i> , 2021, 231, 117779.	4.2	6
44	Multi-ciliated microswimmersâ€“metachronal coordination and helical swimming. <i>European Physical Journal E</i> , 2021, 44, 76.	1.6	6
45	Chiral-filament self-assembly on curved manifolds. <i>Soft Matter</i> , 2020, 16, 10548-10557.	2.7	3
46	Mechanical Pressure Arrests the Growth of Tumor Spheroids. <i>Biophysical Journal</i> , 2013, 104, 492a.	0.5	2
47	Microswimmers: Spermatozoa as Functional Components of Robotic Microswimmers (<i>Adv. Mater.</i>) Tj ETQq1 1 0.784314 rgBJ /Overl	21.0	0