

John Biggins

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5961870/publications.pdf>

Version: 2024-02-01

30
papers

1,060
citations

623734

14
h-index

454955

30
g-index

30
all docs

30
docs citations

30
times ranked

1276
citing authors

#	ARTICLE	IF	CITATIONS
1	Gyrification from constrained cortical expansion. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12667-12672.	7.1	332
2	Magnesium Nanoparticle Plasmonics. Nano Letters, 2018, 18, 3752-3758.	9.1	91
3	Surface Sulci in Squeezed Soft Solids. Physical Review Letters, 2013, 110, 024302.	7.8	80
4	Elasticity of polydomain liquid crystal elastomers. Journal of the Mechanics and Physics of Solids, 2012, 60, 573-590.	4.8	72
5	Mechanics of mouse blastocyst hatching revealed by a hydrogel-based microdeformation assay. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 10375-10380.	7.1	59
6	Semisoft elastic response of nematic elastomers to complex deformations. Physical Review E, 2008, 78, 041704.	2.1	56
7	Digital instability of a confined elastic meniscus. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12545-12548.	7.1	44
8	Mechanics of invagination and folding: Hybridized instabilities when one soft tissue grows on another. Physical Review E, 2015, 92, 022720.	2.1	43
9	Plateau-Rayleigh instability in solids is a simple phase separation. Physical Review E, 2017, 95, 053106.	2.1	34
10	Tents, Chairs, Tacos, Kites, and Rods: Shapes and Plasmonic Properties of Singly Twinned Magnesium Nanoparticles. ACS Nano, 2020, 14, 5968-5980.	14.6	32
11	Finite-wavelength surface-tension-driven instabilities in soft solids, including instability in a cylindrical channel through an elastic solid. Physical Review E, 2016, 94, 023107.	2.1	27
12	Growth and shape of a chain fountain. Europhysics Letters, 2014, 106, 44001.	2.0	23
13	Decoration of plasmonic Mg nanoparticles by partial galvanic replacement. Journal of Chemical Physics, 2019, 151, 244708.	3.0	18
14	Ballooning, bulging, and necking: An exact solution for longitudinal phase separation in elastic systems near a critical point. Physical Review E, 2020, 102, 033007.	2.1	17
15	Defective nematogenesis: Gauss curvature in programmable shape-responsive sheets with topological defects. Soft Matter, 2020, 16, 10935-10945.	2.7	15
16	Opportunities and Challenges for Alternative Nanoplasmonic Metals: Magnesium and Beyond. Journal of Physical Chemistry C, 2022, 126, 10630-10643.	3.1	13
17	Peristaltic Elastic Instability in an Inflated Cylindrical Channel. Physical Review Letters, 2019, 122, 068003.	7.8	12
18	Evolving, complex topography from combining centers of Gaussian curvature. Physical Review E, 2020, 102, 013003.	2.1	12

#	ARTICLE	IF	CITATIONS
19	Shape programming lines of concentrated Gaussian curvature. <i>Journal of Applied Physics</i> , 2021, 129, .	2.5	12
20	Fluid-driven fingering instability of a confined elastic meniscus. <i>Europhysics Letters</i> , 2015, 110, 34001.	2.0	11
21	Meniscus instabilities in thin elastic layers. <i>Soft Matter</i> , 2018, 14, 7680-7689.	2.7	11
22	Giant deformations and soft-inflation in LCE balloons. <i>Europhysics Letters</i> , 2020, 132, 36001.	2.0	9
23	Large deformation analysis of spontaneous twist and contraction in nematic elastomer fibers with helical director. <i>Journal of Applied Physics</i> , 2021, 129, .	2.5	7
24	Textured deformations in liquid crystal elastomers. <i>Liquid Crystals</i> , 2009, 36, 1139-1156.	2.2	6
25	On the identification of twinning in body-centred cubic nanoparticles. <i>Nanoscale</i> , 2020, 12, 22009-22013.	5.6	6
26	Metric mechanics with nontrivial topology: Actuating irises, cylinders, and evertors. <i>Physical Review E</i> , 2021, 104, 065004.	2.1	6
27	Pattern selection when a layer buckles on a soft substrate. <i>Soft Matter</i> , 2019, 15, 3751-3770.	2.7	4
28	Interfacial metric mechanics: stitching patterns of shape change in active sheets. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2022, 478, .	2.1	4
29	Exactly isochoric deformations of soft solids. <i>Europhysics Letters</i> , 2014, 108, 64001.	2.0	2
30	Beyond Simple Crystal Systems: Identifying Twinning in Body-Centered Tetragonal Nanoparticles. <i>Crystal Growth and Design</i> , 2022, 22, 653-660.	3.0	2