

Lakshminarayanan Mahadevan

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363
ext. papers

28,369
ext. citations

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L-index

#	Paper	IF	Citations
326	Biomimetic 4D printing. <i>Nature Materials</i> , 2016 , 15, 413-8	27	1682
325	Elastic behavior of cross-linked and bundled actin networks. <i>Science</i> , 2004 , 304, 1301-5	33.3	933
324	Geometry and physics of wrinkling. <i>Physical Review Letters</i> , 2003 , 90, 074302	7.4	929
323	How the Venus flytrap snaps. <i>Nature</i> , 2005 , 433, 421-5	50.4	672
322	Nested self-similar wrinkling patterns in skins. <i>Nature Materials</i> , 2005 , 4, 293-7	27	662
321	Microtubules can bear enhanced compressive loads in living cells because of lateral reinforcement. <i>Journal of Cell Biology</i> , 2006 , 173, 733-41	7.3	503
320	Non-equilibration of hydrostatic pressure in blebbing cells. <i>Nature</i> , 2005 , 435, 365-9	50.4	470
319	Adaptive fluid-infused porous films with tunable transparency and wettability. <i>Nature Materials</i> , 2013 , 12, 529-34	27	400
318	The cytoplasm of living cells behaves as a poroelastic material. <i>Nature Materials</i> , 2013 , 12, 253-61	27	389
317	Phototactic guidance of a tissue-engineered soft-robotic ray. <i>Science</i> , 2016 , 353, 158-62	33.3	371
316	On the growth and form of the gut. <i>Nature</i> , 2011 , 476, 57-62	50.4	325
315	Villification: how the gut gets its villi. <i>Science</i> , 2013 , 342, 212-8	33.3	323
314	Self-organization of a mesoscale bristle into ordered, hierarchical helical assemblies. <i>Science</i> , 2009 , 323, 237-40	33.3	323
313	Life and times of a cellular bleb. <i>Biophysical Journal</i> , 2008 , 94, 1836-53	2.9	318
312	On the growth and form of cortical convolutions. <i>Nature Physics</i> , 2016 , 12, 588-593	16.2	312
311	Thin films. Wrinkling of an elastic sheet under tension. <i>Nature</i> , 2002 , 419, 579-80	50.4	294
310	The Cheerios effect. <i>American Journal of Physics</i> , 2005 , 73, 817-825	0.7	287

309	Rationally designed complex, hierarchical microarchitectures. <i>Science</i> , 2013 , 340, 832-7	33.3	275
308	Hygromorphs: from pine cones to biomimetic bilayers. <i>Journal of the Royal Society Interface</i> , 2009 , 6, 951-7	4.1	275
307	Strain-induced alignment in collagen gels. <i>PLoS ONE</i> , 2009 , 4, e5902	3.7	270
306	Quantifying cell-generated mechanical forces within living embryonic tissues. <i>Nature Methods</i> , 2014 , 11, 183-9	21.6	257
305	How the cucumber tendril coils and overwinds. <i>Science</i> , 2012 , 337, 1087-91	33.3	252
304	Programming curvature using origami tessellations. <i>Nature Materials</i> , 2016 , 15, 583-8	27	248
303	Onset of buckling in drying droplets of colloidal suspensions. <i>Physical Review Letters</i> , 2005 , 94, 018302	7.4	248
302	Gyrification from constrained cortical expansion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 12667-72	11.5	240
301	A quantitative analysis of contractility in active cytoskeletal protein networks. <i>Biophysical Journal</i> , 2008 , 94, 3126-36	2.9	227
300	Physical limits and design principles for plant and fungal movements. <i>Science</i> , 2005 , 308, 1308-10	33.3	226
299	Geometric mechanics of periodic pleated origami. <i>Physical Review Letters</i> , 2013 , 110, 215501	7.4	222
298	Motility powered by supramolecular springs and ratchets. <i>Science</i> , 2000 , 288, 95-100	33.3	212
297	The universal dynamics of cell spreading. <i>Current Biology</i> , 2007 , 17, 694-9	6.3	204
296	Fluid-flow-induced flutter of a flag. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 1829-34	11.5	201
295	Tissue tectonics: morphogenetic strain rates, cell shape change and intercalation. <i>Nature Methods</i> , 2009 , 6, 458-64	21.6	200
294	Signal processing by the HOG MAP kinase pathway. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 7165-70	11.5	200
293	Elasticity of an interfacial particle raft. <i>Europhysics Letters</i> , 2004 , 68, 212-218	1.6	189
292	Cell shape changes indicate a role for extrinsic tensile forces in <i>Drosophila</i> germ-band extension. <i>Nature Cell Biology</i> , 2009 , 11, 859-64	23.4	178

291	Self-organized origami. <i>Science</i> , 2005 , 307, 1740	33.3	172
290	The shape of a long leaf. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 22049-54	11.5	171
289	Bending gradients: how the intestinal stem cell gets its home. <i>Cell</i> , 2015 , 161, 569-580	56.2	170
288	Relating microstructure to rheology of a bundled and cross-linked F-actin network in vitro. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 9636-41	11.5	169
287	Peeling from a biomimetically patterned thin elastic film. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2004 , 460, 2725-2735	2.4	163
286	Photosynthetic artificial organelles sustain and control ATP-dependent reactions in a protocellular system. <i>Nature Biotechnology</i> , 2018 , 36, 530-535	44.5	163
285	Unfolding the sulcus. <i>Physical Review Letters</i> , 2011 , 106, 105702	7.4	162
284	Conical dislocations in crumpling. <i>Nature</i> , 1999 , 401, 46-49	50.4	158
283	Elasticity of floppy and stiff random networks. <i>Physical Review Letters</i> , 2008 , 101, 215501	7.4	154
282	Geometry, mechanics, and electronics of singular structures and wrinkles in graphene. <i>Physical Review Letters</i> , 2010 , 105, 156603	7.4	152
281	Kinks, rings, and rackets in filamentous structures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003 , 100, 12141-6	11.5	151
280	Multifunctional ferrofluid-infused surfaces with reconfigurable multiscale topography. <i>Nature</i> , 2018 , 559, 77-82	50.4	146
279	Sickle cell vasoocclusion and rescue in a microfluidic device. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 20496-500	11.5	144
278	Growth, geometry, and mechanics of a blooming lily. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 5516-21	11.5	143
277	Conical Surfaces and Crescent Singularities in Crumpled Sheets. <i>Physical Review Letters</i> , 1998 , 80, 2358-2361	7.4	143
276	Scaling macroscopic aquatic locomotion. <i>Nature Physics</i> , 2014 , 10, 758-761	16.2	141
275	Scaling of F-actin network rheology to probe single filament elasticity and dynamics. <i>Physical Review Letters</i> , 2004 , 93, 188102	7.4	140
274	Photoinduced deformations of beams, plates, and films. <i>Physical Review Letters</i> , 2004 , 92, 134302	7.4	140

273	Shape-shifting structured lattices via multimaterial 4D printing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 20856-20862	11.5	138
272	Bacillus spores as building blocks for stimuli-responsive materials and nanogenerators. <i>Nature Nanotechnology</i> , 2014 , 9, 137-41	28.7	130
271	Optimal vein density in artificial and real leaves. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 9140-4	11.5	129
270	Experimental study of coating flows in a partially-filled horizontally Rotating cylinder. <i>Experiments in Fluids</i> , 1997 , 23, 1-13	2.5	121
269	Magnetic self-assembly of three-dimensional surfaces from planar sheets. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 3924-9	11.5	112
268	Hydraulic control of mammalian embryo size and cell fate. <i>Nature</i> , 2019 , 571, 112-116	50.4	111
267	Dynamics of fracture in drying suspensions. <i>Langmuir</i> , 2006 , 22, 7144-7	4	107
266	Capillary rise between elastic sheets. <i>Journal of Fluid Mechanics</i> , 2006 , 548, 141	3.7	106
265	Implications of a poroelastic cytoplasm for the dynamics of animal cell shape. <i>Seminars in Cell and Developmental Biology</i> , 2008 , 19, 215-23	7.5	104
264	New directions in mechanics. <i>Mechanics of Materials</i> , 2005 , 37, 231-259	3.3	104
263	A tissue-engineered scale model of the heart ventricle. <i>Nature Biomedical Engineering</i> , 2018 , 2, 930-941	19	103
262	Flip-flop-induced relaxation of bending energy: implications for membrane remodeling. <i>Biophysical Journal</i> , 2009 , 97, 3113-22	2.9	101
261	How kelp produce blade shapes suited to different flow regimes: A new wrinkle. <i>Integrative and Comparative Biology</i> , 2008 , 48, 834-51	2.8	101
260	Programming shape using kirigami tessellations. <i>Nature Materials</i> , 2019 , 18, 999-1004	27	100
259	Dissolution-driven convection in a Hele-Shaw cell. <i>Physics of Fluids</i> , 2013 , 25, 024101	4.4	98
258	Biomimetic ratcheting motion of a soft, slender, sessile gel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 23-6	11.5	98
257	Dynamics of chromatin decondensation reveals the structural integrity of a mechanically prestressed nucleus. <i>Biophysical Journal</i> , 2008 , 95, 3028-35	2.9	95
256	Localized and extended deformations of elastic shells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 7913-8	11.5	95

255	Soft lubrication: The elastohydrodynamics of nonconforming and conforming contacts. <i>Physics of Fluids</i> , 2005 , 17, 092101	4.4	95
254	Avian egg shape: Form, function, and evolution. <i>Science</i> , 2017 , 356, 1249-1254	33.3	93
253	A simple model for nanofiber formation by rotary jet-spinning. <i>Applied Physics Letters</i> , 2011 , 99, 203107	3.4	88
252	Gravitational collapse of colloidal gels. <i>Physical Review Letters</i> , 2005 , 94, 218302	7.4	88
251	Nonequilibrium scale selection mechanism for columnar jointing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 387-92	11.5	85
250	Geometric mechanics of curved crease origami. <i>Physical Review Letters</i> , 2012 , 109, 114301	7.4	82
249	Excitable patterns in active nematics. <i>Physical Review Letters</i> , 2011 , 106, 218101	7.4	82
248	A biophysical indicator of vaso-occlusive risk in sickle cell disease. <i>Science Translational Medicine</i> , 2012 , 4, 123ra26	17.5	82
247	Mechanosensation and mechanical load modulate the locomotory gait of swimming <i>C. elegans</i> . <i>Journal of Experimental Biology</i> , 2007 , 210, 2383-9	3	82
246	Mechanics of interfacial composite materials. <i>Langmuir</i> , 2006 , 22, 10204-8	4	81
245	The force-velocity relationship for the actin-based motility of <i>Listeria monocytogenes</i> . <i>Current Biology</i> , 2003 , 13, 329-32	6.3	79
244	Fluid rope trick investigated. <i>Nature</i> , 1998 , 392, 140-140	50.4	78
243	Confined developable elastic surfaces: cylinders, cones and the Elastica. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2005 , 461, 671-700	2.4	77
242	Soft lubrication. <i>Physical Review Letters</i> , 2004 , 92, 245509	7.4	76
241	Excitable Dynamics and Yap-Dependent Mechanical Cues Drive the Segmentation Clock. <i>Cell</i> , 2017 , 171, 668-682.e11	56.2	75
240	Axial instability of a free-surface front in a partially filled horizontal rotating cylinder. <i>Physics of Fluids</i> , 1999 , 11, 97-106	4.4	75
239	Shape and dynamics of tip-growing cells. <i>Current Biology</i> , 2009 , 19, 2102-7	6.3	74
238	Nonlinear mechanics of soft fibrous networks. <i>Journal of the Royal Society Interface</i> , 2007 , 4, 99-106	4.1	74

237	Drops can bounce from perfectly hydrophilic surfaces. <i>Europhysics Letters</i> , 2014 , 108, 24001	1.6	73
236	Elastic Rod Model of a DNA Loop in the Lac Operon. <i>Physical Review Letters</i> , 1999 , 83, 4900-4903	7.4	71
235	Nanopottery: coiling of electrospun polymer nanofibers. <i>Nano Letters</i> , 2010 , 10, 2138-40	11.5	70
234	Surface sulci in squeezed soft solids. <i>Physical Review Letters</i> , 2013 , 110, 024302	7.4	69
233	Twisting graphene nanoribbons into carbon nanotubes. <i>Physical Review B</i> , 2012 , 85,	3.3	68
232	Termite mounds harness diurnal temperature oscillations for ventilation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 11589-93	11.5	67
231	Animal cell hydraulics. <i>Journal of Cell Science</i> , 2009 , 122, 3233-41	5.3	66
230	Measuring the work of adhesion between a soft confined film and a flexible plate. <i>Langmuir</i> , 2005 , 21, 1277-81	4	66
229	Biased migration of confined neutrophil-like cells in asymmetric hydraulic environments. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 21006-11	11.5	65
228	Multiscale Method for Simulating Protein-DNA Complexes. <i>Multiscale Modeling and Simulation</i> , 2004 , 2, 527-553	1.8	64
227	Physiological and pathological population dynamics of circulating human red blood cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 20587-92	11.5	63
226	The Föppl-von Kármán equations for plates with incompatible strains. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2011 , 467, 402-426	2.4	63
225	Limbless undulatory propulsion on land. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 3179-84	11.5	63
224	Flagellar dynamics of a connected chain of active, polar, Brownian particles. <i>Journal of the Royal Society Interface</i> , 2014 , 11, 20130884	4.1	62
223	Solid friction between soft filaments. <i>Nature Materials</i> , 2015 , 14, 583-8	27	60
222	Banding, excitability and chaos in active nematic suspensions. <i>Nonlinearity</i> , 2012 , 25, 2245-2269	1.7	60
221	Swarming, swirling and stasis in sequestered bristle-bots. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2013 , 469, 20120637	2.4	60
220	Peeling, healing, and bursting in a lubricated elastic sheet. <i>Physical Review Letters</i> , 2004 , 93, 137802	7.4	60

219	Forward and inverse problems in the mechanics of soft filaments. <i>Royal Society Open Science</i> , 2018 , 5, 171628	3.3	58
218	Growth patterns for shape-shifting elastic bilayers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 11597-11602	11.5	57
217	Control of shape and size of nanopillar assembly by adhesion-mediated elastocapillary interaction. <i>ACS Nano</i> , 2010 , 4, 6323-31	16.7	57
216	Sensorimotor control during isothermal tracking in <i>Caenorhabditis elegans</i> . <i>Journal of Experimental Biology</i> , 2006 , 209, 4652-62	3	57
215	Controlled growth and form of precipitating microsculptures. <i>Science</i> , 2017 , 355, 1395-1399	33.3	55
214	The elements of draping. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 1806-10	11.5	55
213	Lift-off instability during the impact of a drop on a solid surface. <i>Physical Review Letters</i> , 2014 , 112, 134501	11.5	53
212	Evolution of spur-length diversity in <i>Aquilegia</i> petals is achieved solely through cell-shape anisotropy. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2012 , 279, 1640-5	4.4	53
211	Bending stiffness of a crystalline actin bundle. <i>Journal of Molecular Biology</i> , 2004 , 337, 255-61	6.5	53
210	Self-sustained lift and low friction via soft lubrication. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 5847-9	11.5	53
209	How wet paper curls. <i>Europhysics Letters</i> , 2011 , 93, 54001	1.6	51
208	Folding of viscous sheets and filaments. <i>Europhysics Letters</i> , 2000 , 52, 532-538	1.6	50
207	BMP signaling controls buckling forces to modulate looping morphogenesis of the gut. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 2277-2282	11.5	49
206	Structural basis for cooperative DNA binding by CAP and lac repressor. <i>Structure</i> , 2004 , 12, 123-32	5.2	48
205	Rippling instability of a collapsing bubble. <i>Science</i> , 2000 , 287, 1468-71	33.3	48
204	Directional memory arises from long-lived cytoskeletal asymmetries in polarized chemotactic cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 1267-72	11.5	47
203	Scale and nature of sulcification patterns. <i>Physical Review Letters</i> , 2012 , 109, 025701	7.4	47
202	Hydrodynamics of writing with ink. <i>Physical Review Letters</i> , 2011 , 107, 264501	7.4	47

201	Genetic and Mechanical Regulation of Intestinal Smooth Muscle Development. <i>Cell</i> , 2019 , 179, 90-105.e26.2	11.2	44
200	Neuromimetic Circuits with Synaptic Devices Based on Strongly Correlated Electron Systems. <i>Physical Review Applied</i> , 2014 , 2,	4.3	41
199	Cooperative adhesion and friction of compliant nanohairs. <i>Nano Letters</i> , 2010 , 10, 4509-13	11.5	41
198	Statistical dynamics of flowing red blood cells by morphological image processing. <i>PLoS Computational Biology</i> , 2009 , 5, e1000288	5	41
197	Hydrodynamical models for the chaotic dripping faucet. <i>Journal of Fluid Mechanics</i> , 2005 , 526, 1-17	3.7	41
196	Colliding Waves in a Model Excitable Medium: Preservation, Annihilation, and Bifurcation. <i>Physical Review Letters</i> , 1997 , 79, 2803-2806	7.4	40
195	Power-limited contraction dynamics of <i>Vorticella convallaria</i> : an ultrafast biological spring. <i>Biophysical Journal</i> , 2008 , 94, 265-72	2.9	40
194	The dynamics of sperm cooperation in a competitive environment. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2014 , 281,	4.4	39
193	Why subduction zones are curved. <i>Tectonics</i> , 2010 , 29, n/a-n/a	4.3	39
192	Controlling the orientation and synaptic differentiation of myotubes with micropatterned substrates. <i>Biophysical Journal</i> , 2009 , 97, 2771-9	2.9	39
191	Gait and speed selection in slender inertial swimmers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 3874-9	11.5	37
190	Elastohydrodynamics of a sliding, spinning and sedimenting cylinder near a soft wall. <i>Journal of Fluid Mechanics</i> , 2015 , 779, 181-196	3.7	37
189	Digital instability of a confined elastic meniscus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 12545-8	11.5	37
188	Superficial wrinkles in stretched, drying gelatin films. <i>Langmuir</i> , 2006 , 22, 3622-6	4	36
187	Crack-front instability in a confined elastic film. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2006 , 462, 3233-3251	2.4	35
186	Recovery of locomotion after injury in <i>Drosophila melanogaster</i> depends on proprioception. <i>Journal of Experimental Biology</i> , 2016 , 219, 1760-71	3	34
185	Density-gradient-free microfluidic centrifugation for analytical and preparative separation of nanoparticles. <i>Nano Letters</i> , 2014 , 14, 2365-71	11.5	34
184	Statistical mechanics of developable ribbons. <i>Physical Review Letters</i> , 2010 , 104, 238104	7.4	34

183	Balancing on tightropes and slacklines. <i>Journal of the Royal Society Interface</i> , 2012 , 9, 2097-108	4.1	34
182	Elastic platonic shells. <i>Physical Review Letters</i> , 2013 , 111, 177801	7.4	32
181	Solar-powered ventilation of African termite mounds. <i>Journal of Experimental Biology</i> , 2017 , 220, 3260-3269	3.7	32
180	Organ size control via hydraulically gated oscillations. <i>Development (Cambridge)</i> , 2017 , 144, 4422-4427	6.6	32
179	Four-phase merging in sessile compound drops. <i>Journal of Fluid Mechanics</i> , 2002 , 451, 411-420	3.7	31
178	Elastic instability-mediated actuation by a supra-molecular polymer. <i>Nature Physics</i> , 2016 , 12, 926-930	16.2	31
177	Evaporation-driven ring and film deposition from colloidal droplets. <i>Journal of Fluid Mechanics</i> , 2015 , 781,	3.7	30
176	How things get stuck: kinetics, elasto-hydrodynamics, and soft adhesion. <i>Physical Review Letters</i> , 2012 , 108, 226104	7.4	30
175	Elastohydrodynamics of wet bristles, carpets and brushes. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2011 , 467, 1665-1685	2.4	30
174	Dynamics of surfactant-driven fracture of particle rafts. <i>Physical Review Letters</i> , 2006 , 96, 178301	7.4	30
173	Collective mechanical adaptation of honeybee swarms. <i>Nature Physics</i> , 2018 , 14, 1193-1198	16.2	30
172	Microtubules soften due to cross-sectional flattening. <i>ELife</i> , 2018 , 7,	8.9	29
171	Elastic configurations of self-supported oxide membranes for fuel cells. <i>Journal of Power Sources</i> , 2013 , 222, 359-366	8.9	29
170	The viscous catenary. <i>Journal of Fluid Mechanics</i> , 2003 , 478, 71-80	3.7	29
169	Macroscopic magnetic frustration. <i>Physical Review Letters</i> , 2012 , 109, 257203	7.4	28
168	Botanical ratchets. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2009 , 276, 2243-7	4.4	28
167	Physical basis for the adaptive flexibility of Bacillus spore coats. <i>Journal of the Royal Society Interface</i> , 2012 , 9, 3156-60	4.1	28
166	Dynamics of poroelastic filaments. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2004 , 460, 1995-2020	2.4	28

165	Crack street: the cycloidal wake of a cylinder tearing through a thin sheet. <i>Physical Review Letters</i> , 2003 , 91, 215507	7.4	28
164	Persistence of a pinch in a pipe. <i>Europhysics Letters</i> , 2007 , 77, 40003	1.6	27
163	Rotation of an immersed cylinder sliding near a thin elastic coating. <i>Physical Review Fluids</i> , 2017 , 2,	2.8	27
162	Controlled gliding and perching through deep-reinforcement-learning. <i>Physical Review Fluids</i> , 2019 , 4,	2.8	27
161	On the growth and form of shoots. <i>Journal of the Royal Society Interface</i> , 2017 , 14,	4.1	26
160	Infochemistry: encoding information as optical pulses using droplets in a microfluidic device. <i>Journal of the American Chemical Society</i> , 2009 , 131, 12420-9	16.4	26
159	Equilibrium of an elastically confined liquid drop. <i>Journal of Applied Physics</i> , 2008 , 103, 093519	2.5	25
158	Morphogenesis of termite mounds. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 3379-3384	11.5	24
157	Aging in complex interdependency networks. <i>Physical Review E</i> , 2014 , 89, 022811	2.4	24
156	Slicing softly with shear. <i>Physical Review Letters</i> , 2012 , 109, 244301	7.4	24
155	Settling and swimming of flexible fluid-lubricated foils. <i>Physical Review Letters</i> , 2007 , 99, 224503	7.4	24
154	A generalized theory of viscous and inviscid flutter. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2010 , 466, 141-156	2.4	23
153	Shape and motion of a ruck in a rug. <i>Physical Review Letters</i> , 2009 , 103, 174302	7.4	23
152	Multi-stability of free spontaneously curved anisotropic strips. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2012 , 468, 511-530	2.4	23
151	Size control of the inner ear via hydraulic feedback. <i>ELife</i> , 2019 , 8,	8.9	23
150	Dynamics of evaporative colloidal patterning. <i>Physics of Fluids</i> , 2015 , 27, 092105	4.4	22
149	Mechanical Coupling Coordinates the Co-elongation of Axial and Paraxial Tissues in Avian Embryos. <i>Developmental Cell</i> , 2020 , 55, 354-366.e5	10.2	22
148	Self-Excited Motions of Volatile Drops on Swellable Sheets. <i>Physical Review Letters</i> , 2020 , 124, 258002	7.4	21

147	Models for elastic shells with incompatible strains. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2014 , 470, 20130604	2.4	21
146	Flow-induced channelization in a porous medium. <i>Europhysics Letters</i> , 2012 , 98, 58003	1.6	21
145	The size, shape, and dynamics of cellular blebs. <i>Europhysics Letters</i> , 2012 , 100, 28004	1.6	21
144	Solenoids and plectonemes in stretched and twisted elastomeric filaments. <i>Physical Review Letters</i> , 2005 , 95, 057801	7.4	21
143	The shallow turn of a worm. <i>Journal of Experimental Biology</i> , 2011 , 214, 1554-9	3	20
142	Stored elastic energy powers the 60-microm extension of the <i>Limulus polyphemus</i> sperm actin bundle. <i>Journal of Cell Biology</i> , 2003 , 162, 1183-8	7.3	20
141	Strategies for cell shape control in tip-growing cells. <i>American Journal of Botany</i> , 2012 , 99, 1577-82	2.7	19
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1 Geometric control of topological dynamics in a singing saw.. *Proceedings of the National Academy of Sciences of the United States of America*, **2022**, 119, e2117241119 11.5