

Alain Goriely

List of Publications by Citations

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257
papers

12,825
citations

49
h-index

108
g-index

276
ext. papers

14,460
ext. citations

4.8
avg, IF

7.02
L-index

#	Paper	IF	Citations
257	Morphological Control for High Performance, Solution-Processed Planar Heterojunction Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2014 , 24, 151-157	15.6	1639
256	Enhanced photoluminescence and solar cell performance via Lewis base passivation of organic-inorganic lead halide perovskites. <i>ACS Nano</i> , 2014 , 8, 9815-21	16.7	1194
255	High-quality bulk hybrid perovskite single crystals within minutes by inverse temperature crystallization. <i>Nature Communications</i> , 2015 , 6, 7586	17.4	1164
254	Recombination Kinetics in Organic-Inorganic Perovskites: Excitons, Free Charge, and Subgap States. <i>Physical Review Applied</i> , 2014 , 2,	4.3	874
253	Neutral color semitransparent microstructured perovskite solar cells. <i>ACS Nano</i> , 2014 , 8, 591-8	16.7	365
252	Perspectives on biological growth and remodeling. <i>Journal of the Mechanics and Physics of Solids</i> , 2011 , 59, 863-883	5	307
251	Growth and instability in elastic tissues. <i>Journal of the Mechanics and Physics of Solids</i> , 2005 , 53, 2284-2319	15.9	290
250	Solution-Grown Monocrystalline Hybrid Perovskite Films for Hole-Transporter-Free Solar Cells. <i>Advanced Materials</i> , 2016 , 28, 3383-90	24	238
249	Mechanics of the brain: perspectives, challenges, and opportunities. <i>Biomechanics and Modeling in Mechanobiology</i> , 2015 , 14, 931-65	3.8	217
248	The Mathematics and Mechanics of Biological Growth. <i>Interdisciplinary Applied Mathematics</i> , 2017 ,	0.7	173
247	Plasmonic-Induced Photon Recycling in Metal Halide Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2015 , 25, 5038-5046	15.6	167
246	Spontaneous Helix Hand Reversal and Tendril Perversion in Climbing Plants. <i>Physical Review Letters</i> , 1998 , 80, 1564-1567	7.4	147
245	Component retention in principal component analysis with application to cDNA microarray data. <i>Biology Direct</i> , 2007 , 2, 2	7.2	146
244	Differential growth and instability in elastic shells. <i>Physical Review Letters</i> , 2005 , 94, 198103	7.4	145
243	Pure crystal orientation and anisotropic charge transport in large-area hybrid perovskite films. <i>Nature Communications</i> , 2016 , 7, 13407	17.4	140
242	Helices. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 9398-403	11.5	121
241	Integrability and Nonintegrability of Dynamical Systems. <i>Advanced Series in Nonlinear Dynamics</i> , 2001 ,		114

240	Tendril Perversion in Intrinsically Curved Rods. <i>Journal of Nonlinear Science</i> , 2002 , 12, 241-281	2.8	112
239	A comparison of hyperelastic constitutive models applicable to brain and fat tissues. <i>Journal of the Royal Society Interface</i> , 2015 , 12, 0486	4.1	109
238	The Role of Surface Tension in the Crystallization of Metal Halide Perovskites. <i>ACS Energy Letters</i> , 2017 , 2, 1782-1788	20.1	103
237	Circumferential buckling instability of a growing cylindrical tube. <i>Journal of the Mechanics and Physics of Solids</i> , 2011 , 59, 525-537	5	102
236	Are Room-Temperature Ionic Liquids Dilute Electrolytes?. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 159-63	6.4	101
235	Riemann-Cartan Geometry of Nonlinear Dislocation Mechanics. <i>Archive for Rational Mechanics and Analysis</i> , 2012 , 205, 59-118	2.3	101
234	Towards a classification of Euler-Kirchhoff filaments. <i>Journal of Mathematical Physics</i> , 1999 , 40, 2830-2866	2	101
233	Nonlinear dynamics of filaments I. Dynamical instabilities. <i>Physica D: Nonlinear Phenomena</i> , 1997 , 105, 20-44	3.3	99
232	A mathematical model of tumor-immune interactions. <i>Journal of Theoretical Biology</i> , 2012 , 294, 56-73	2.3	90
231	Morphomechanical Innovation Drives Explosive Seed Dispersal. <i>Cell</i> , 2016 , 166, 222-33	56.2	86
230	How to characterize a nonlinear elastic material? A review on nonlinear constitutive parameters in isotropic finite elasticity. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2017 , 473, 20170607	2.4	85
229	Bistable helices. <i>Physical Review Letters</i> , 2000 , 84, 1631-4	7.4	84
228	A family of hyperelastic models for human brain tissue. <i>Journal of the Mechanics and Physics of Solids</i> , 2017 , 106, 60-79	5	83
227	Reversible Size Control of Silver Nanoclusters via Ligand-Exchange. <i>Chemistry of Materials</i> , 2015 , 27, 4289-4297	9.6	82
226	Automated synthesis of photovoltaic-quality colloidal quantum dots using separate nucleation and growth stages. <i>ACS Nano</i> , 2013 , 7, 10158-66	16.7	77
225	Whip waves. <i>Physica D: Nonlinear Phenomena</i> , 2003 , 184, 192-225	3.3	77
224	On the definition and modeling of incremental, cumulative, and continuous growth laws in morphoelasticity. <i>Biomechanics and Modeling in Mechanobiology</i> , 2007 , 6, 289-96	3.8	74
223	Integrability, partial integrability, and nonintegrability for systems of ordinary differential equations. <i>Journal of Mathematical Physics</i> , 1996 , 37, 1871-1893	1.2	74

222	Growth and remodelling of living tissues: perspectives, challenges and opportunities. <i>Journal of the Royal Society Interface</i> , 2019 , 16, 20190233	4.1	70
221	Positive or negative Poynting effect? The role of adscititious inequalities in hyperelastic materials. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2011 , 467, 3633-3646	2.4	64
220	Mechanics of climbing and attachment in twining plants. <i>Physical Review Letters</i> , 2006 , 97, 184302	7.4	61
219	Biomechanical models of hyphal growth in actinomycetes. <i>Journal of Theoretical Biology</i> , 2003 , 222, 211-233	8.3	61
218	The Nonlinear Dynamics of Filaments. <i>Nonlinear Dynamics</i> , 2000 , 21, 101-133	5	61
217	Universal canonical forms for time-continuous dynamical systems. <i>Physical Review A</i> , 1989 , 40, 4119-4122	2.6	60
216	Nonlinear Euler buckling. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2008 , 464, 3003-3019	2.4	59
215	Twisted Elastic Rings and the Rediscoveries of Michell's Instability. <i>Journal of Elasticity</i> , 2006 , 84, 281-299	2.5	59
214	Morphoelastic rods. Part I: A single growing elastic rod. <i>Journal of the Mechanics and Physics of Solids</i> , 2013 , 61, 398-427	5	56
213	Instabilities in elastomers and in soft tissues. <i>Quarterly Journal of Mechanics and Applied Mathematics</i> , 2006 , 59, 615-630	1	56
212	On the Dynamics of Elastic Strips. <i>Journal of Nonlinear Science</i> , 2001 , 11, 3-45	2.8	55
211	Nonlinear dynamics of filaments II. Nonlinear analysis. <i>Physica D: Nonlinear Phenomena</i> , 1997 , 105, 45-61	3.3	54
210	Double Charged Surface Layers in Lead Halide Perovskite Crystals. <i>Nano Letters</i> , 2017 , 17, 2021-2027	11.5	52
209	New Amplitude Equations for Thin Elastic Rods. <i>Physical Review Letters</i> , 1996 , 77, 3537-3540	7.4	50
208	Tissue tension and axial growth of cylindrical structures in plants and elastic tissues. <i>Europhysics Letters</i> , 2008 , 84, 58004	1.6	49
207	Riemann-Cartan geometry of nonlinear disclination mechanics. <i>Mathematics and Mechanics of Solids</i> , 2013 , 18, 91-102	2.3	47
206	Neuromechanics. <i>Advances in Applied Mechanics</i> , 2015 , 79-139	10	47
205	Combining mechanical and chemical effects in the deformation and failure of a cylindrical electrode particle in a Li-ion battery. <i>International Journal of Solids and Structures</i> , 2015 , 54, 66-81	3.1	45

204	On the mechanical stability of growing arteries. <i>IMA Journal of Applied Mathematics</i> , 2010 , 75, 549-570	1	45
203	A physics-based model explains the prion-like features of neurodegeneration in Alzheimer's disease, Parkinson's disease, and amyotrophic lateral sclerosis. <i>Journal of the Mechanics and Physics of Solids</i> , 2019 , 124, 264-281	5	45
202	Dynamics of Ion Transport in Ionic Liquids. <i>Physical Review Letters</i> , 2015 , 115, 106101	7.4	44
201	Multiphysics of Prionlike Diseases: Progression and Atrophy. <i>Physical Review Letters</i> , 2018 , 121, 158101	7.4	43
200	Possible role of differential growth in airway wall remodeling in asthma. <i>Journal of Applied Physiology</i> , 2011 , 110, 1003-12	3.7	42
199	Weyl geometry and the nonlinear mechanics of distributed point defects. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2012 , 468, 3902-3922	2.4	42
198	Mechanical basis of morphogenesis and convergent evolution of spiny seashells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 6015-20	11.5	41
197	Self-similar tip growth in filamentary organisms. <i>Physical Review Letters</i> , 2003 , 90, 108101	7.4	41
196	Is it safe to lift COVID-19 travel bans? The Newfoundland story. <i>Computational Mechanics</i> , 2020 , 66, 1-124		40
195	Necessary and Sufficient Conditions for Finite Time Singularities in Ordinary Differential Equations. <i>Journal of Differential Equations</i> , 2000 , 161, 422-448	2.1	39
194	Size and curvature regulate pattern selection in the mammalian brain. <i>Extreme Mechanics Letters</i> , 2015 , 4, 193-198	3.9	38
193	The : from self-buckling to self-assembly. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2014 , 470, 20130609	2.4	38
192	Vibrations of post-buckled rods: The singular inextensible limit. <i>Journal of Sound and Vibration</i> , 2012 , 331, 704-720	3.9	37
191	Differential growth and residual stress in cylindrical elastic structures. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2009 , 367, 3607-30	3	37
190	Nonlinear elastic inclusions in isotropic solids. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2013 , 469, 20130415	2.4	36
189	Numerical simulation of shear and the Poynting effects by the finite element method: An application of the generalised empirical inequalities in non-linear elasticity. <i>International Journal of Non-Linear Mechanics</i> , 2013 , 49, 1-14	2.8	36
188	Rotation, inversion and perversion in anisotropic elastic cylindrical tubes and membranes. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2013 , 469, 20130011	2.4	35
187	Chirality of coiled coils: elasticity matters. <i>Physical Review Letters</i> , 2008 , 100, 038105	7.4	35

186	Nonlinear dynamics of filaments. III. Instabilities of helical rods. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 1997 , 453, 2583-2601	2.4	34
185	Shape of a cracking whip. <i>Physical Review Letters</i> , 2002 , 88, 244301	7.4	34
184	Prion-like spreading of Alzheimer's disease within the brain's connectome. <i>Journal of the Royal Society Interface</i> , 2019 , 16, 20190356	4.1	33
183	Controlling coverage of solution cast materials with unfavourable surface interactions. <i>Applied Physics Letters</i> , 2014 , 104, 091602	3.4	33
182	Temperature-Induced Lattice Relaxation of Perovskite Crystal Enhances Optoelectronic Properties and Solar Cell Performance. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 137-143	6.4	32
181	Dynamics of helical strips. <i>Physical Review E</i> , 2000 , 61, 4508-17	2.4	32
180	Is the Donnan effect sufficient to explain swelling in brain tissue slices?. <i>Journal of the Royal Society Interface</i> , 2014 , 11, 20140123	4.1	31
179	Mechanical growth and morphogenesis of seashells. <i>Journal of Theoretical Biology</i> , 2012 , 311, 69-79	2.3	31
178	On the modeling of fiber dispersion in fiber-reinforced elastic materials. <i>International Journal of Non-Linear Mechanics</i> , 2015 , 75, 92-106	2.8	30
177	The counterbend phenomenon in flagellar axonemes and cross-linked filament bundles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 12180-5	11.5	30
176	Dynamic buckling of morphoelastic filaments. <i>Physical Review E</i> , 2006 , 74, 010901	2.4	30
175	The mechanics of decompressive craniectomy: Personalized simulations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017 , 314, 180-195	5.7	28
174	Nonlinear dynamics of filaments. IV Spontaneous looping of twisted elastic rods. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 1998 , 454, 3183-3202	2.4	28
173	Stochastic isotropic hyperelastic materials: constitutive calibration and model selection. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2018 , 474, 20170858	2.4	27
172	Mathematical modeling of hyphal tip growth. <i>Fungal Biology Reviews</i> , 2008 , 22, 77-83	6.8	26
171	Investigation of Painlevé property under time singularities transformations. <i>Journal of Mathematical Physics</i> , 1992 , 33, 2728-2742	1.2	26
170	Elastic cavitation, tube hollowing, and differential growth in plants and biological tissues. <i>Europhysics Letters</i> , 2010 , 91, 18001	1.6	25
169	Symmetry Breaking in Wrinkling Patterns: Gyri Are Universally Thicker than Sulci. <i>Physical Review Letters</i> , 2018 , 121, 228002	7.4	25

168	Growth, collapse, and stalling in a mechanical model for neurite motility. <i>Physical Review E</i> , 2016 , 93, 032410	2.4	24
167	Elastic Growth Models 2008 , 1-44		24
166	Global and local mobility as a barometer for COVID-19 dynamics. <i>Biomechanics and Modeling in Mechanobiology</i> , 2021 , 20, 651-669	3.8	24
165	Real-Space Visualization of Energy Loss and Carrier Diffusion in a Semiconductor Nanowire Array Using 4D Electron Microscopy. <i>Advanced Materials</i> , 2016 , 28, 5106-11	24	23
164	Paws, pads and plants: the enhanced elasticity of cell-filled load-bearing structures. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2015 , 471, 20150107	2.4	23
163	On the mechanics of thin films and growing surfaces. <i>Mathematics and Mechanics of Solids</i> , 2013 , 18, 561-575	2.3	23
162	Curvature delays growth-induced wrinkling. <i>Physical Review E</i> , 2018 , 98,	2.4	23
161	Dynamic fiber reorientation in a fiber-reinforced hyperelastic material. <i>Mathematics and Mechanics of Solids</i> , 2013 , 18, 634-648	2.3	22
160	Finite-time blow-up in dynamical systems. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1998 , 250, 311-318	2.3	22
159	Stress Singularities in Swelling Soft Solids. <i>Physical Review Letters</i> , 2016 , 117, 138001	7.4	21
158	Twist and stretch of helices explained via the Kirchhoff-Love rod model of elastic filaments. <i>Physical Review Letters</i> , 2013 , 111, 108103	7.4	20
157	Growth-induced axial buckling of a slender elastic filament embedded in an isotropic elastic matrix. <i>International Journal of Non-Linear Mechanics</i> , 2013 , 56, 94-104	2.8	20
156	Bulging brains. <i>Journal of Elasticity</i> , 2017 , 129, 197-212	1.5	20
155	The geometry of discombinations and its applications to semi-inverse problems in anelasticity. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2014 , 470, 20140403 ^{2.4}	2.4	20
154	Nonlinear Correction to the Euler Buckling Formula for Compressed Cylinders with Guided-Guided End Conditions. <i>Journal of Elasticity</i> , 2011 , 102, 191-200	1.5	20
153	Estimates of biomechanical forces in Magnaporthe grisea. <i>Mycological Research</i> , 2006 , 110, 755-9		20
152	Spatially-extended nucleation-aggregation-fragmentation models for the dynamics of prion-like neurodegenerative protein-spreading in the brain and its connectome. <i>Journal of Theoretical Biology</i> , 2020 , 486, 110102	2.3	20
151	Competitive Nucleation Mechanism for CsPbBr Perovskite Nanoplatelet Growth. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 6535-6543	6.4	20

150	A Geometric Theory of Nonlinear Morphoelastic Shells. <i>Journal of Nonlinear Science</i> , 2016 , 26, 929-978	2.8	19
149	Dimensional, Geometrical, and Physical Constraints in Skull Growth. <i>Physical Review Letters</i> , 2017 , 118, 248101	7.4	19
148	A Mel'nikov vector for N-dimensional mappings. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1995 , 206, 38-48	2.3	19
147	Revisiting the wrinkling of elastic bilayers 1: linear analysis. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019 , 377, 20180076	3	18
146	Cellular blebs: pressure-driven, axisymmetric, membrane protrusions. <i>Biomechanics and Modeling in Mechanobiology</i> , 2014 , 13, 463-76	3.8	18
145	Spontaneous Cavitation in Growing Elastic Membranes. <i>Mathematics and Mechanics of Solids</i> , 2010 , 15, 57-77	2.3	18
144	Spontaneous rotational inversion in Phycomyces. <i>Physical Review Letters</i> , 2011 , 106, 138103	7.4	18
143	The singularity analysis for nearly integrable systems: homoclinic intersections and local multivaluedness. <i>Physica D: Nonlinear Phenomena</i> , 1995 , 85, 93-125	3.3	18
142	Scalar evolution equations for shear waves in incompressible solids: a simple derivation of the Z, ZK, KZK and KP equations. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2011 , 467, 1823-1834	2.4	17
141	Necking, beading, and bulging in soft elastic cylinders. <i>Journal of the Mechanics and Physics of Solids</i> , 2021 , 147, 104250	5	17
140	Trapping shape-controlled nanoparticle nucleation and growth stages via continuous-flow chemistry. <i>Chemical Communications</i> , 2017 , 53, 2495-2498	5.8	16
139	The Mechanics of a Chain or Ring of Spherical Magnets. <i>SIAM Journal on Applied Mathematics</i> , 2013 , 73, 2029-2054	1.8	16
138	Multiscale integration of environmental stimuli in plant tropism produces complex behaviors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 32226-32237	11.5	15
137	Morphoelastic rods Part II: Growing birods. <i>Journal of the Mechanics and Physics of Solids</i> , 2017 , 100, 147-196	5.96	14
136	Likely equilibria of the stochastic Rivlin cube. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019 , 377, 20180068	3	14
135	A model for effects of adaptive immunity on tumor response to chemotherapy and chemoimmunotherapy. <i>Journal of Theoretical Biology</i> , 2015 , 380, 569-84	2.3	14
134	Global contraction or local growth, bleb shape depends on more than just cell structure. <i>Journal of Theoretical Biology</i> , 2015 , 380, 83-97	2.3	14
133	Finite deformation effects in cellular structures with hyperelastic cell walls. <i>International Journal of Solids and Structures</i> , 2015 , 53, 107-128	3.1	14

132	The twist-fit problem: finite torsional and shear eigenstrains in nonlinear elastic solids. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2015 , 471, 20150596	2.4	14
131	Simple Solution to the Nonlinear Front Problem. <i>Physical Review Letters</i> , 1995 , 75, 2047-2050	7.4	14
130	Algebraic degeneracy and partial integrability for systems of ordinary differential equations. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1990 , 145, 245-249	2.3	14
129	Protein-protein interactions in neurodegenerative diseases: A conspiracy theory. <i>PLoS Computational Biology</i> , 2020 , 16, e1008267	5	14
128	A plate theory for nematic liquid crystalline solids. <i>Journal of the Mechanics and Physics of Solids</i> , 2020 , 144, 104101	5	14
127	The morpho-mechanical basis of ammonite form. <i>Journal of Theoretical Biology</i> , 2015 , 364, 220-30	2.3	13
126	Wrinkling, creasing, and folding in fiber-reinforced soft tissues. <i>Extreme Mechanics Letters</i> , 2016 , 8, 22-29	3.9	13
125	Three mechanical models for blebbing and multi-blebbing. <i>IMA Journal of Applied Mathematics</i> , 2014 , 79, 636-660	1	13
124	Morphomechanics and Developmental Constraints in the Evolution of Ammonites Shell Form. <i>Journal of Experimental Zoology Part B: Molecular and Developmental Evolution</i> , 2016 , 326, 437-450	1.8	13
123	Propagation of damage in brain tissue: coupling the mechanics of oedema and oxygen delivery. <i>Biomechanics and Modeling in Mechanobiology</i> , 2015 , 14, 1197-216	3.8	12
122	Continuum mechanical modeling of axonal growth. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017 , 314, 147-163	5.7	12
121	Surface growth kinematics via local curve evolution. <i>Journal of Mathematical Biology</i> , 2014 , 68, 81-108	2	12
120	Stability Estimates for a Twisted Rod Under Terminal Loads: A Three-dimensional Study. <i>Journal of Elasticity</i> , 2012 , 109, 75-93	1.5	12
119	Pulses, fronts and oscillations of an elastic rod. <i>Physica D: Nonlinear Phenomena</i> , 1999 , 132, 373-391	3.3	12
118	Morphoelastic rods III: Differential growth and curvature generation in elastic filaments. <i>Journal of the Mechanics and Physics of Solids</i> , 2020 , 142, 104022	5	12
117	Global and local mobility as a barometer for COVID-19 dynamics 2020 ,		12
116	The elastic secrets of the chameleon tongue. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2016 , 472, 20160030	2.4	12
115	Likely Cavitation in Stochastic Elasticity. <i>Journal of Elasticity</i> , 2019 , 137, 27-42	1.5	12

114	Likely striping in stochastic nematic elastomers. <i>Mathematics and Mechanics of Solids</i> , 2020 , 25, 1851-1872	7.2	11
113	Dynamic Buckling of an Elastic Ring in a Soap Film. <i>Physical Review Letters</i> , 2020 , 124, 198003	7.4	11
112	Imaging Localized Energy States in Silicon-Doped InGaN Nanowires Using 4D Electron Microscopy. <i>ACS Energy Letters</i> , 2018 , 3, 476-481	20.1	11
111	A tale of two nested elastic rings. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2017 , 473, 20170340	2.4	11
110	Membrane shrinkage and cortex remodelling are predicted to work in harmony to retract blebs. <i>Royal Society Open Science</i> , 2015 , 2, 150184	3.3	11
109	On the stress singularities generated by anisotropic eigenstrains and the hydrostatic stress due to annular inhomogeneities. <i>Journal of the Mechanics and Physics of Solids</i> , 2015 , 76, 325-337	5	11
108	Synaptic bistability due to nucleation and evaporation of receptor clusters. <i>Physical Review Letters</i> , 2012 , 108, 028101	7.4	11
107	Self-diffusion in remodeling and growth. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2012 , 63, 339-355	1.6	11
106	Anticavitation and Differential Growth in Elastic Shells. <i>Journal of Elasticity</i> , 2011 , 102, 117-132	1.5	11
105	Morpho-elastodynamics: the long-time dynamics of elastic growth. <i>Journal of Biological Dynamics</i> , 2009 , 3, 180-95	2.4	11
104	The nonlinear dynamics of elastic tubes conveying a fluid. <i>International Journal of Solids and Structures</i> , 2010 , 47, 161-168	3.1	11
103	Biomechanical model for appressorial design in Magnaporthe grisea. <i>Journal of Theoretical Biology</i> , 2006 , 240, 1-8	2.3	11
102	Singularity confinement and algebraic integrability. <i>Journal of Mathematical Physics</i> , 2004 , 45, 1191-1208	2	11
101	Growth induced curve dynamics for filamentary micro-organisms. <i>Journal of Mathematical Biology</i> , 2005 , 51, 355-66	2	11
100	. <i>Regular and Chaotic Dynamics</i> , 2000 , 5, 95	1.6	11
99	Likely equilibria of stochastic hyperelastic spherical shells and tubes. <i>Mathematics and Mechanics of Solids</i> , 2019 , 24, 2066-2082	2.3	11
98	Likely chirality of stochastic anisotropic hyperelastic tubes. <i>International Journal of Non-Linear Mechanics</i> , 2019 , 114, 9-20	2.8	10
97	Influence of constraints on axial growth reduction of cylindrical Li-ion battery electrode particles. <i>Journal of Power Sources</i> , 2015 , 279, 746-758	8.9	10

96	An Autonomous Oscillation Times and Executes Centriole Biogenesis. <i>Cell</i> , 2020 , 181, 1566-1581.e27	56.2	10
95	Nonlinear morphoelastic plates I: Genesis of residual stress. <i>Mathematics and Mechanics of Solids</i> , 2011 , 16, 812-832	2.3	10
94	Repeat protein architectures predicted by a continuum representation of fold space. <i>Protein Science</i> , 2006 , 15, 753-60	6.3	10
93	. <i>Regular and Chaotic Dynamics</i> , 2000 , 5, 3	1.6	10
92	Are Homeostatic States Stable? Dynamical Stability in Morphoelasticity. <i>Bulletin of Mathematical Biology</i> , 2019 , 81, 3219-3244	2.1	10
91	Mechanics of human brain organoids. <i>Physical Review E</i> , 2020 , 101, 022403	2.4	9
90	Five ways to model active processes in elastic solids: Active forces, active stresses, active strains, active fibers, and active metrics. <i>Mechanics Research Communications</i> , 2018 , 93, 75-79	2.2	9
89	THE DIFFERENTIAL GEOMETRY OF PROTEINS AND ITS APPLICATIONS TO STRUCTURE DETERMINATION. <i>Biophysical Reviews and Letters</i> , 2008 , 03, 77-101	1.2	9
88	Elastic coiled-coils act as energy buffers in the ATP synthase. <i>International Journal of Non-Linear Mechanics</i> , 2008 , 43, 1064-1073	2.8	8
87	Continuous representations of proteins: construction of coordinate models from curvature profiles. <i>Journal of Structural Biology</i> , 2007 , 158, 267-81	3.4	8
86	The Dynamics of Stretchable Rods in the Inertial Case. <i>Nonlinear Dynamics</i> , 2006 , 43, 173-195	5	8
85	Neuronal Oscillations on Evolving Networks: Dynamics, Damage, Degradation, Decline, Dementia, and Death. <i>Physical Review Letters</i> , 2020 , 125, 128102	7.4	8
84	The anelastic Ericksen problem: universal eigenstrains and deformations in compressible isotropic elastic solids. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2016 , 472, 20160690	2.4	8
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