Alain Goriely

List of Publications by Year
in descending order

258 papers	16,120 citations	29994 54 h-index	18606 119 g-index
276 all docs	276 docs citations	276 times ranked	16387 citing authors

#	Article	IF	Citations
1	Morphological Control for High Performance, Solutionâ€Processed Planar Heterojunction Perovskite Solar Cells. Advanced Functional Materials, 2014, 24, 151-157.	7.8	1,782
2	High-quality bulk hybrid perovskite single crystals within minutes by inverse temperature crystallization. Nature Communications, 2015, 6, 7586.	5.8	1,478
3	Enhanced Photoluminescence and Solar Cell Performance via Lewis Base Passivation of Organicâ€“Inorganic Lead Halide Perovskites. ACS Nano, 2014, 8, 9815-9821.	7.3	1,439
4	Recombination Kinetics in Organic-Inorganic Perovskites: Excitons, Free Charge, and Subgap States. Physical Review Applied, 2014, 2, .	1.5	1,005
5	Neutral Color Semitransparent Microstructured Perovskite Solar Cells. ACS Nano, 2014, 8, 591-598.	7.3	412
6	Perspectives on biological growth and remodeling. Journal of the Mechanics and Physics of Solids, 2011, 59, 863-883.	2.3	371
7	Growth and instability in elastic tissues. Journal of the Mechanics and Physics of Solids, 2005, 53, 2284-2319.	2.3	342
8	Solutionâ€Grown Monocrystalline Hybrid Perovskite Films for Holeâ€Transporterâ€Free Solar Cells. Advanced Materials, 2016, 28, 3383-3390.	11.1	298
9	Mechanics of the brain: perspectives, challenges, and opportunities. Biomechanics and Modeling in Mechanobiology, 2015, 14, 931-965.	1.4	289
10	The Mathematics and Mechanics of Biological Growth. Interdisciplinary Applied Mathematics, 2017, , .	0.2	274
11	Component retention in principal component analysis with application to cDNA microarray data. Biology Direct, 2007, 2, 2.	1.9	214
12	Plasmonicâ€Induced Photon Recycling in Metal Halide Perovskite Solar Cells. Advanced Functional Materials, 2015, 25, 5038-5046.	7.8	198
13	Spontaneous Helix Hand Reversal and Tendril Perversion in Climbing Plants. Physical Review Letters, 1998, 80, 1564-1567.	2.9	179
14	Pure crystal orientation and anisotropic charge transport in large-area hybrid perovskite films. Nature Communications, 2016, 7, 13407.	5.8	170
15	A comparison of hyperelastic constitutive models applicable to brain and fat tissues. Journal of the Royal Society Interface, 2015, 12, 20150486.	1.5	168
16	Differential Growth and Instability in Elastic Shells. Physical Review Letters, 2005, 94, 198103.	2.9	165
17	The Role of Surface Tension in the Crystallization of Metal Halide Perovskites. ACS Energy Letters, 2017, 2, 1782-1788.	8.8	155
18	Growth and remodelling of living tissues: perspectives, challenges and opportunities. Journal of the Royal Society Interface, 2019, 16, 20190233.	1.5	142

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19	A mathematical model of tumorâ€“immune interactions. Journal of Theoretical Biology, 2012, 294, 56-73.	0.8	136
20	Tendril Perversion in Intrinsically Curved Rods. Journal of Nonlinear Science, 2002, 12, 241-281.	1.0	135
21	Helices. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 9398-9403.	3.3	134
22	A family of hyperelastic models for human brain tissue. Journal of the Mechanics and Physics of Solids, 2017, 106, 60-79.	2.3	130
23	Morphomechanical Innovation Drives Explosive Seed Dispersal. Cell, 2016, 166, 222-233.	13.5	128
24	Riemannâ€“Cartan Geometry of Nonlinear Dislocation Mechanics. Archive for Rational Mechanics and Analysis, 2012, 205, 59-118.	1.1	127
25	Circumferential buckling instability of a growing cylindrical tube. Journal of the Mechanics and Physics of Solids, 2011, 59, 525-537.	2.3	119
26	How to characterize a nonlinear elastic material? A review on nonlinear constitutive parameters in isotropic finite elasticity. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20170607.	1.0	119
27	Are Room-Temperature Ionic Liquids Dilute Electrolytes?. Journal of Physical Chemistry Letters, 2015, 6, 159-163.	2.1	118
28	Towards a classification of Eulerâ€“Kirchhoff filaments. Journal of Mathematical Physics, 1999, 40, 2830-2866.	0.5	114
29	Nonlinear dynamics of filaments I. Dynamical instabilities. Physica D: Nonlinear Phenomena, 1997, 105, 20-44.	1.3	106
30	Reversible Size Control of Silver Nanoclusters via Ligand-Exchange. Chemistry of Materials, 2015, 27, 4289-4297.	3.2	106
31	Automated Synthesis of Photovoltaic-Quality Colloidal Quantum Dots Using Separate Nucleation and Growth Stages. ACS Nano, 2013, 7, 10158-10166.	7.3	97
32	On the definition and modeling of incremental, cumulative, and continuous growth laws in morphoelasticity. Biomechanics and Modeling in Mechanobiology, 2007, 6, 289-296.	1.4	91
33	Bistable Helices. Physical Review Letters, 2000, 84, 1631-1634.	2.9	88
34	Multiphysics of Prionlike Diseases: Progression and Atrophy. Physical Review Letters, 2018, 121, 158101.	2.9	83
35	A physics-based model explains the prion-like features of neurodegeneration in Alzheimerâ€™s disease, Parkinsonâ€™s disease, and amyotrophic lateral sclerosis. Journal of the Mechanics and Physics of Solids, 2019, 124, 264-281.	2.3	83
36	Whip waves. Physica D: Nonlinear Phenomena, 2003, 184, 192-225.	1.3	81

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37	Integrability, partial integrability, and nonintegrability for systems of ordinary differential equations. Journal of Mathematical Physics, 1996, 37, 1871-1893.	0.5	80
38	Positive or negative Poynting effect? The role of adscititious inequalities in hyperelastic materials. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 3633-3646.	1.0	80
39	Morphoelastic rods. Part I: A single growing elastic rod. Journal of the Mechanics and Physics of Solids, 2013, 61, 398-427.	2.3	79
40	Mechanics of Climbing and Attachment in Twining Plants. Physical Review Letters, 2006, 97, 184302.	2.9	76
41	Biomechanical models of hyphal growth in actinomycetes. Journal of Theoretical Biology, 2003, 222, 211-218.	0.8	72
42	Universal canonical forms for time-continuous dynamical systems. Physical Review A, 1989, 40, 4119-4122.	1.0	71
43	Prion-like spreading of Alzheimerâ€™s disease within the brainâ€™s connectome. Journal of the Royal Society Interface, 2019, 16, 20190356.	1.5	71
44	The Nonlinear Dynamics of Filaments. Nonlinear Dynamics, 2000, 21, 101-133.	2.7	70
45	Instabilities in elastomers and in soft tissues. Quarterly Journal of Mechanics and Applied Mathematics, 2006, 59, 615-630.	0.5	69
46	Nonlinear Euler buckling. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2008, 464, 3003-3019.	1.0	67
47	Twisted Elastic Rings and the Rediscoveries of Michell's Instability. Journal of Elasticity, 2006, 84, 281-299.	0.9	65
48	On the Dynamics of Elastic Strips. Journal of Nonlinear Science, 2001, 11, 3-45.	1.0	62
49	Combining mechanical and chemical effects in the deformation and failure of a cylindrical electrode particle in a Li-ion battery. International Journal of Solids and Structures, 2015, 54, 66-81.	1.3	61
50	Double Charged Surface Layers in Lead Halide Perovskite Crystals. Nano Letters, 2017, 17, 2021-2027.	4.5	60
51	Nonlinear dynamics of filaments II. Nonlinear analysis. Physica D: Nonlinear Phenomena, 1997, 105, 45-61.	1.3	58
52	Riemannâ€“Cartan geometry of nonlinear disclination mechanics. Mathematics and Mechanics of Solids, 2013, 18, 91-102.	1.5	58
53	Neuromechanics. Advances in Applied Mechanics, 2015, , 79-139.	1.4	56
54	Tissue tension and axial growth of cylindrical structures in plants and elastic tissues. Europhysics Letters, 2008, 84, 58004.	0.7	55

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55	Weyl geometry and the nonlinear mechanics of distributed point defects. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 3902-3922.	1.0	54
56	Dynamics of Ion Transport in Ionic Liquids. Physical Review Letters, 2015, 115, 106101.	2.9	54
57	Is it safe to lift COVID-19 travel bans? The Newfoundland story. Computational Mechanics, 2020, 66, 1081-1092.	2.2	54
58	New Amplitude Equations for Thin Elastic Rods. Physical Review Letters, 1996, 77, 3537-3540.	2.9	53
59	Necessary and Sufficient Conditions for Finite Time Singularities in Ordinary Differential Equations. Journal of Differential Equations, 2000, 161, 422-448.	1.1	51
60	On the mechanical stability of growing arteries. IMA Journal of Applied Mathematics, 2010, 75, 549-570.	0.8	51
61	Mechanical basis of morphogenesis and convergent evolution of spiny seashells. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 6015-6020.	3.3	51
62	Possible role of differential growth in airway wall remodeling in asthma. Journal of Applied Physiology, 2011, 110, 1003-1012.	1.2	50
63	Size and curvature regulate pattern selection in the mammalian brain. Extreme Mechanics Letters, 2015, 4, 193-198.	2.0	50
64	Self-Similar Tip Growth in Filamentary Organisms. Physical Review Letters, 2003, 90, 108101.	2.9	47
65	Symmetry Breaking in Wrinkling Patterns: Gyri Are Universally Thicker than Sulci. Physical Review Letters, 2018, 121, 228002.	2.9	47
66	The magneto-elastica : from self-buckling to self-assembly. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20130609.	1.0	44
67	Mechanical growth and morphogenesis of seashells. Journal of Theoretical Biology, 2012, 311, 69-79.	0.8	43
68	Vibrations of post-buckled rods: The singular inextensible limit. Journal of Sound and Vibration, 2012, 331, 704-720.	2.1	43
69	Numerical simulation of shear and the Poynting effects by the finite element method: An application of the generalised empirical inequalities in non-linear elasticity. International Journal of Non-Linear Mechanics, 2013, 49, 1-14.	1.4	43
70	Rotation, inversion and perversion in anisotropic elastic cylindrical tubes and membranes. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20130011.	1.0	43
71	Nonlinear dynamics of filaments. III. Instabilities of helical rods. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1997, 453, 2583-2601.	1.0	42
72	Chirality of Coiled Coils: Elasticity Matters. Physical Review Letters, 2008, 100, 038105.	2.9	42

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73	Differential growth and residual stress in cylindrical elastic structures. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 3607-3630.	1.6	42
74	Multiscale integration of environmental stimuli in plant tropism produces complex behaviors. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 32226-32237.	3.3	42
75	Global and local mobility as a barometer for COVID-19 dynamics. Biomechanics and Modeling in Mechanobiology, 2021, 20, 651-669.	1.4	42
76	Shape of a Cracking Whip. Physical Review Letters, 2002, 88, 244301.	2.9	41
77	Is the Donnan effect sufficient to explain swelling in brain tissue slices?. Journal of the Royal Society Interface, 2014, 11, 20140123.	1.5	41
78	Nonlinear elastic inclusions in isotropic solids. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20130415.	1.0	40
79	On the modeling of fiber dispersion in fiber-reinforced elastic materials. International Journal of Non-Linear Mechanics, 2015, 75, 92-106.	1.4	40
80	Temperature-Induced Lattice Relaxation of Perovskite Crystal Enhances Optoelectronic Properties and Solar Cell Performance. Journal of Physical Chemistry Letters, 2017, 8, 137-143.	2.1	39
81	The mechanics of decompressive craniectomy: Personalized simulations. Computer Methods in Applied Mechanics and Engineering, 2017, 314, 180-195.	3.4	39
82	The counterbend phenomenon in flagellar axonemes and cross-linked filament bundles. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12180-12185.	3.3	38
83	Dynamic buckling of morphoelastic filaments. Physical Review E, 2006, 74, 010901.	0.8	35
84	Curvature delays growth-induced wrinkling. Physical Review E, 2018, 98, .	0.8	35
85	Spatially-extended nucleation-aggregation-fragmentation models for the dynamics of prion-like neurodegenerative protein-spreading in the brain and its connectome. Journal of Theoretical Biology, 2020, 486, 110102.	0.8	35
86	Protein-protein interactions in neurodegenerative diseases: A conspiracy theory. PLoS Computational Biology, 2020, 16, e1008267.	1.5	35
87	Dynamics of helical strips. Physical Review E, 2000, 61, 4508-4517.	0.8	34
88	Mathematical modeling of hyphal tip growth. Fungal Biology Reviews, 2008, 22, 77-83.	1.9	34
89	Controlling coverage of solution cast materials with unfavourable surface interactions. Applied Physics Letters, 2014, 104, .	1.5	34
90	An Autonomous Oscillation Times and Executes Centriole Biogenesis. Cell, 2020, 181, 1566-1581.e27.	13.5	33

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91	Elastic cavitation, tube hollowing, and differential growth in plants and biological tissues. Europhysics Letters, 2010, 91, 18001.	0.7	32
92	Necking, beading, and bulging in soft elastic cylinders. Journal of the Mechanics and Physics of Solids, 2021, 147, 104250.	2.3	32
93	Competitive Nucleation Mechanism for CsPbBr₃ Perovskite Nanoplatelet Growth. Journal of Physical Chemistry Letters, 2020, 11, 6535-6543.	2.1	31
94	Dynamic fiber reorientation in a fiber-reinforced hyperelastic material. Mathematics and Mechanics of Solids, 2013, 18, 634-648.	1.5	30
95	On the mechanics of thin films and growing surfaces. Mathematics and Mechanics of Solids, 2013, 18, 561-575.	1.5	30
96	Investigation of PainlevÃ© property under time singularities transformations. Journal of Mathematical Physics, 1992, 33, 2728-2742.	0.5	29
97	Nonlinear dynamics of filaments. IV Spontaneous looping of twisted elastic rods. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1998, 454, 3183-3202.	1.0	29
98	Stochastic isotropic hyperelastic materials: constitutive calibration and model selection. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2018, 474, 20170858.	1.0	29
99	Elastic Growth Models. , 2008, , 1-44.		29
100	Morphoelastic rods III: Differential growth and curvature generation in elastic filaments. Journal of the Mechanics and Physics of Solids, 2020, 142, 104022.	2.3	29
101	Growth, collapse, and stalling in a mechanical model for neurite motility. Physical Review E, 2016, 93, 032410.	0.8	28
102	Neuronal Oscillations on Evolving Networks: Dynamics, Damage, Degradation, Decline, Dementia, and Death. Physical Review Letters, 2020, 125, 128102.	2.9	28
103	Realâ€Space Visualization of Energy Loss and Carrier Diffusion in a Semiconductor Nanowire Array Using 4D Electron Microscopy. Advanced Materials, 2016, 28, 5106-5111.	11.1	27
104	Dynamic Buckling of an Elastic Ring in a Soap Film. Physical Review Letters, 2020, 124, 198003.	2.9	27
105	Finite-time blow-up in dynamical systems. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 250, 311-318.	0.9	26
106	Dimensional, Geometrical, and Physical Constraints in Skull Growth. Physical Review Letters, 2017, 118, 248101.	2.9	26
107	The geometry of discombinations and its applications to semi-inverse problems in anelasticity. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20140403.	1.0	25
108	Revisiting the wrinkling of elastic bilayersÂI: linear analysis. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180076.	1.6	25

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109	A plate theory for nematic liquid crystalline solids. Journal of the Mechanics and Physics of Solids, 2020, 144, 104101.	2.3	25
110	Estimates of biomechanical forces in Magnaporthe grisea. Mycological Research, 2006, 110, 755-759.	2.5	24
111	Cellular blebs: pressure-driven, axisymmetric, membrane protrusions. Biomechanics and Modeling in Mechanobiology, 2014, 13, 463-476.	1.4	24
112	Paws, pads and plants: the enhanced elasticity of cell-filled load-bearing structures. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150107.	1.0	24
113	A model for effects of adaptive immunity on tumor response to chemotherapy and chemoimmunotherapy. Journal of Theoretical Biology, 2015, 380, 569-584.	0.8	24
114	Stress Singularities in Swelling Soft Solids. Physical Review Letters, 2016, 117, 138001.	2.9	24
115	A Geometric Theory of Nonlinear Morphoelastic Shells. Journal of Nonlinear Science, 2016, 26, 929-978.	1.0	24
116	Bulging Brains. Journal of Elasticity, 2017, 129, 197-212.	0.9	24
117	Theory for Durotactic Axon Guidance. Physical Review Letters, 2021, 126, 118101.	2.9	24
118	Growth-induced axial buckling of a slender elastic filament embedded in an isotropic elastic matrix. International Journal of Non-Linear Mechanics, 2013, 56, 94-104.	1.4	23
119	Nonlinear Correction to the Euler Buckling Formula forÂCompressed Cylinders withÂGuided-Guided End Conditions. Journal of Elasticity, 2011, 102, 191-200.	0.9	22
120	Morphomechanics and Developmental Constraints in the Evolution of Ammonites Shell Form. Journal of Experimental Zoology Part B: Molecular and Developmental Evolution, 2016, 326, 437-450.	0.6	22
121	A Mel'nikov vector for N-dimensional mappings. Physics Letters, Section A: General, Atomic and Solid State Physics, 1995, 206, 38-48.	0.9	21
122	Spontaneous Cavitation in Growing Elastic Membranes. Mathematics and Mechanics of Solids, 2010, 15, 57-77.	1.5	21
123	Twist and Stretch of Helices Explained via the Kirchhoff-Love Rod Model of Elastic Filaments. Physical Review Letters, 2013, 111, 108103.	2.9	21
124	The morpho-mechanical basis of ammonite form. Journal of Theoretical Biology, 2015, 364, 220-230.	0.8	21
125	Morphoelastic rods Part II: Growing birods. Journal of the Mechanics and Physics of Solids, 2017, 100, 147-196.	2.3	21
126	Continuum mechanical modeling of axonal growth. Computer Methods in Applied Mechanics and Engineering, 2017, 314, 147-163.	3.4	21

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127	The singularity analysis for nearly integrable systems: homoclinic intersections and local multivaluedness. Physica D: Nonlinear Phenomena, 1995, 85, 93-125.	1.3	20
128	Global contraction or local growth, bleb shape depends on more than just cell structure. Journal of Theoretical Biology, 2015, 380, 83-97.	0.8	20
129	Are Homeostatic States Stable? Dynamical Stability in Morphoelasticity. Bulletin of Mathematical Biology, 2019, 81, 3219-3244.	0.9	20
130	Simple Solution to the Nonlinear Front Problem. Physical Review Letters, 1995, 75, 2047-2050.	2.9	19
131	Surface growth kinematics via local curve evolution. Journal of Mathematical Biology, 2014, 68, 81-108.	0.8	19
132	The twist-fit problem: finite torsional and shear eigenstrains in nonlinear elastic solids. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150596.	1.0	19
133	Finite deformation effects in cellular structures with hyperelastic cell walls. International Journal of Solids and Structures, 2015, 53, 107-128.	1.3	19
134	Trapping shape-controlled nanoparticle nucleation and growth stages via continuous-flow chemistry. Chemical Communications, 2017, 53, 2495-2498.	2.2	19
135	Spontaneous Rotational Inversion in Phycomyces. Physical Review Letters, 2011, 106, 138103.	2.9	18
136	The Mechanics of a Chain or Ring of Spherical Magnets. SIAM Journal on Applied Mathematics, 2013, 73, 2029-2054.	0.8	18
137	Wrinkling, creasing, and folding in fiber-reinforced soft tissues. Extreme Mechanics Letters, 2016, 8, 22-29.	2.0	18
138	Scalar evolution equations for shear waves in incompressible solids: a simple derivation of the Z, ZK, KZK and KP equations. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 1823-1834.	1.0	17
139	Mechanics of human brain organoids. Physical Review E, 2020, 101, 022403.	0.8	17
140	Algebraic degeneracy and partial integrability for systems of ordinary differential equations. Physics Letters, Section A: General, Atomic and Solid State Physics, 1990, 145, 245-249.	0.9	16
141	Propagation of damage in brain tissue: coupling the mechanics of oedema and oxygen delivery. Biomechanics and Modeling in Mechanobiology, 2015, 14, 1197-1216.	1.4	16
142	The mathematical foundations of anelasticity: existence of smooth global intermediate configurations. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2021, 477, 20200462.	1.0	16
143	Pulses, fronts and oscillations of an elastic rod. Physica D: Nonlinear Phenomena, 1999, 132, 373-391.	1.3	15
144	Three mechanical models for blebbing and multi-blebbing. IMA Journal of Applied Mathematics, 2014, 79, 636-660.	0.8	15

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145	A tale of two nested elastic rings. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20170340.	1.0	15
146	Imaging Localized Energy States in Silicon-Doped InGaN Nanowires Using 4D Electron Microscopy. ACS Energy Letters, 2018, 3, 476-481.	8.8	15
147	Five ways to model active processes in elastic solids: Active forces, active stresses, active strains, active fibers, and active metrics. Mechanics Research Communications, 2018, 93, 75-79.	1.0	15
148	Likely equilibria of the stochastic Rivlin cube. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180068.	1.6	15
149	The Anelastic Ericksen Problem: Universal Deformations and Universal Eigenstrains in Incompressible Nonlinear Anelasticity. Journal of Elasticity, 2020, 142, 291-381.	0.9	15
150	Dynamic buckling of an inextensible elastic ring: Linear and nonlinear analyses. Physical Review E, 2020, 101, 053002.	0.8	15
151	Membrane shrinkage and cortex remodelling are predicted to work in harmony to retract blebs. Royal Society Open Science, 2015, 2, 150184.	1.1	14
152	On the stress singularities generated by anisotropic eigenstrains and the hydrostatic stress due to annular inhomogeneities. Journal of the Mechanics and Physics of Solids, 2015, 76, 325-337.	2.3	14
153	The elastic secrets of the chameleon tongue. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20160030.	1.0	14
154	Likely striping in stochastic nematic elastomers. Mathematics and Mechanics of Solids, 2020, 25, 1851-1872.	1.5	14
155	Revisiting the wrinkling of elastic bilayers II: Post-bifurcation analysis. Journal of the Mechanics and Physics of Solids, 2020, 143, 104053.	2.3	14
156	The role of clearance mechanisms in the kinetics of pathological protein aggregation involved in neurodegenerative diseases. Journal of Chemical Physics, 2021, 154, 125101.	1.2	14
157	Universal deformations in anisotropic nonlinear elastic solids. Journal of the Mechanics and Physics of Solids, 2021, 156, 104598.	2.3	14
158	Mathematical models of neuronal growth. Biomechanics and Modeling in Mechanobiology, 2022, 21, 89-118.	1.4	14
159	Singularity confinement and algebraic integrability. Journal of Mathematical Physics, 2004, 45, 1191-1208.	0.5	13
160	Biomechanical model for appressorial design in Magnaporthe grisea. Journal of Theoretical Biology, 2006, 240, 1-8.	0.8	13
161	Morpho-elastodynamics: the long-time dynamics of elastic growth. Journal of Biological Dynamics, 2009, 3, 180-195.	0.8	13
162	The nonlinear dynamics of elastic tubes conveying a fluid. International Journal of Solids and Structures, 2010, 47, 161-168.	1.3	13

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163	The anelastic Ericksen problem: universal eigenstrains and deformations in compressible isotropic elastic solids. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20160690.	1.0	13
164	Likely chirality of stochastic anisotropic hyperelastic tubes. International Journal of Non-Linear Mechanics, 2019, 114, 9-20.	1.4	13
165	Predicting brain atrophy from tau pathology: a summary of clinical findings and their translation into personalized models. Brain Multiphysics, 2021, 2, 100039.	0.8	13
166	Growth induced curve dynamics for filamentary micro-organisms. Journal of Mathematical Biology, 2005, 51, 355-366.	0.8	12
167	Anticavitation and Differential Growth in Elastic Shells. Journal of Elasticity, 2011, 102, 117-132.	0.9	12
168	Stability Estimates for a Twisted Rod Under Terminal Loads: A Three-dimensional Study. Journal of Elasticity, 2012, 109, 75-93.	0.9	12
169	Synaptic Bistability Due to Nucleation and Evaporation of Receptor Clusters. Physical Review Letters, 2012, 108, 028101.	2.9	12
170	Self-diffusion in remodeling and growth. Zeitschrift Fur Angewandte Mathematik Und Physik, 2012, 63, 339-355.	0.7	12
171	Likely Cavitation in Stochastic Elasticity. Journal of Elasticity, 2019, 137, 27-42.	0.9	12
172	Universal displacements in linear elasticity. Journal of the Mechanics and Physics of Solids, 2020, 135, 103782.	2.3	12
173	Instabilities in liquid crystal elastomers. MRS Bulletin, 2021, 46, 784-794.	1.7	12
174	Liquid crystal elastomers wrinkling. Nonlinearity, 2021, 34, 5599-5629.	0.6	12
175	Nematic liquid crystalline elastomers are aeolotropic materials. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2021, 477, 20210259.	1.0	12
176	Title is missing!. Regular and Chaotic Dynamics, 2000, 5, 3.	0.3	12
177	The physical basis of mollusk shell chiral coiling. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	12
178	Centrioles generate a local pulse of Polo/PLK1 activity to initiate mitotic centrosome assembly. EMBO Journal, 2022, 41, e110891.	3.5	12
179	Influence of constraints on axial growth reduction of cylindrical Li-ion battery electrode particles. Journal of Power Sources, 2015, 279, 746-758.	4.0	11
180	Likely equilibria of stochastic hyperelastic spherical shells and tubes. Mathematics and Mechanics of Solids, 2019, 24, 2066-2082.	1.5	11

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181	Mechanics unlocks the morphogenetic puzzle of interlocking bivalved shells. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 43-51.	3.3	11
182	Elastocytosis. Journal of the Mechanics and Physics of Solids, 2020, 145, 104133.	2.3	11
183	Title is missing!. Regular and Chaotic Dynamics, 2000, 5, 95.	0.3	11
184	Active filaments I: Curvature and torsion generation. Journal of the Mechanics and Physics of Solids, 2022, 164, 104918.	2.3	11
185	PainlevÃ© analysis and normal forms. , 1994, , 211-238.		10
186	PainlevÃ© analysis and normal forms theory. Physica D: Nonlinear Phenomena, 2001, 152-153, 124-144.	1.3	10
187	Repeat protein architectures predicted by a continuum representation of fold space. Protein Science, 2006, 15, 753-760.	3.1	10
188	Nonlinear morphoelastic plates I: Genesis of residual stress. Mathematics and Mechanics of Solids, 2011, 16, 812-832.	1.5	10
189	Random blebbing motion: A simple model linking cell structural properties to migration characteristics. Physical Review E, 2017, 96, 012409.	0.8	10
190	Controllable rotational inversion in nanostructures with dual chirality. Nanoscale, 2018, 10, 6343-6348.	2.8	10
191	A computational framework for the morpho-elastic development of molluskan shells by surface and volume growth. PLoS Computational Biology, 2019, 15, e1007213.	1.5	10
192	Continuous representations of proteins: Construction of coordinate models from curvature profiles. Journal of Structural Biology, 2007, 158, 267-281.	1.3	9
193	THE DIFFERENTIAL GEOMETRY OF PROTEINS AND ITS APPLICATIONS TO STRUCTURE DETERMINATION. Biophysical Reviews and Letters, 2008, 03, 77-101.	0.9	9
194	Nonlinear Poisson effects in soft honeycombs. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20140363.	1.0	9
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