Hui-Hui Dai

List of Publications by Year
in descending order

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102	1,463	430843	434170
papers	citations	18 h-index	31 g-index

105	105	105	571
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A numerical comparison of the uniformly valid asymptotic plate equations with a 3D model: Clamped rectangular incompressible elastic plates. Mathematics and Mechanics of Solids, 2022, 27, 1370-1396.	2.4	13
2	A uniform framework for the dynamic behavior of linearized anisotropic elastic rods. Mathematics and Mechanics of Solids, 2022, 27, 1429-1454.	2.4	1
3	Asymptotic beam theory for non-classical elastic materials. International Journal of Mechanical Sciences, 2021, 189, 105950.	6.7	9
4	Stiffness distribution of a spherical gel structure and bifurcation analysis with application to stem-cell differentiation. International Journal of Non-Linear Mechanics, 2021, 129, 103640.	2.6	2
5	On a consistent rod theory for a linearized anisotropic elastic material: I. Asymptotic reduction method. Mathematics and Mechanics of Solids, 2021, 26, 217-229.	2.4	10
6	Bending-induced director reorientation of a nematic liquid crystal elastomer bonded to a hyperelastic substrate. Journal of Applied Physics, 2021, 129, 104701.	2.5	8
7	New refined model for curved linear anisotropic rods with circular cross section. Applications in Engineering Science, 2021, 6, 100046.	0.8	2
8	On propagation of waves in pressurized fiber-reinforced hyperelastic tubes based on a reduced model. Journal of Sound and Vibration, 2021, 515, 116476.	3.9	1
9	Computing wrinkling and restabilization of stretched sheets based on a consistent finite-strain plate theory. Computer Methods in Applied Mechanics and Engineering, 2021, 384, 113986.	6.6	7
10	Buckling of an elastic layer based on implicit constitution: Incremental theory and numerical framework. International Journal of Engineering Science, 2021, 169, 103568.	5.0	6
11	On the derivation of an admissibility condition for phase boundary propagation in an SMA bar based on a 3-D formulation. Wave Motion, 2020, 92, 102442.	2.0	4
12	Stress-free configurations induced by a family of locally incompatible growth functions. Journal of the Mechanics and Physics of Solids, 2020, 137, 103834.	4.8	12
13	Analytical study on growth-induced bending deformations of multi-layered hyperelastic plates. International Journal of Non-Linear Mechanics, 2020, 119, 103370.	2.6	18
14	On a consistent finite-strain plate model of nematic liquid crystal elastomers. Journal of the Mechanics and Physics of Solids, 2020, 145, 104169.	4.8	15
15	A refined dynamic finite-strain shell theory for incompressible hyperelastic materials: equations and two-dimensional shell virtual work principle. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200031.	2.1	12
16	On a consistent finite-strain shell theory for incompressible hyperelastic materials. Mathematics and Mechanics of Solids, 2019, 24, 1320-1339.	2.4	11
17	An incremental plate theory for polymer gels in equilibrium. Mechanics Research Communications, 2019, 96, 49-55.	1.8	3
18	On a uniformly-valid asymptotic plate theory. International Journal of Non-Linear Mechanics, 2019, 112, 117-125.	2.6	28

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19	Shape-programming of hyperelastic plates through differential growth: an analytical approach. Soft Matter, 2019, 15, 2391-2399.	2.7	15
20	New refined models for curved beams in both linear and nonlinear settings. Mathematics and Mechanics of Solids, 2019, 24, 2295-2319.	2.4	5
21	On a consistent dynamic finite-strain shell theory and its linearization. Mathematics and Mechanics of Solids, 2019, 24, 2335-2360.	2.4	5
22	Pointwise error estimate for a consistent beam theory. Analysis and Applications, 2018, 16, 103-132.	2.2	11
23	On a consistent finite-strain plate theory of growth. Journal of the Mechanics and Physics of Solids, 2018, 111, 184-214.	4.8	26
24	Uniqueness condition for dynamical phase transitions in a shape memory alloy bar. Mechanics Research Communications, 2018, 93, 169-173.	1.8	4
25	Stress-free bending of a neo-Hookean plate induced by growth: Exact solution and experiments. International Journal of Non-Linear Mechanics, 2018, 106, 280-287.	2.6	12
26	Pattern Transitions in a Soft Cylindrical Shell. Physical Review Letters, 2018, 120, 215503.	7.8	32
27	Wave patterns in a nonclassic nonlinearly-elastic bar under Riemann data. International Journal of Non-Linear Mechanics, 2017, 91, 76-85.	2.6	7
28	Analytical study on stress-induced phase transitions in geometrically graded shape memory alloy layers. Part II: Analyses on geometrical shapes, loading procedures and boundary conditions. Mechanics of Materials, 2017, 112, 114-128.	3.2	5
29	Theta Function Solutions of the 3 + 1-Dimensional Jimbo-Miwa Equation. Mathematical Problems in Engineering, 2017, 2017, 1-9.	1.1	5
30	Analytical study on stress-induced phase transitions in geometrically graded shape memory alloy layers. Part I: Asymptotic equation and analytical solutions. Mechanics of Materials, 2017, 112, 40-55.	3.2	11
31	Wave Propagation in a Shape Memory Alloy Bar Under an Impulsive Loading. Journal of Applied Mechanics, Transactions ASME, 2016, 83, .	2.2	7
32	On a Consistent Dynamic Finite-Strain Plate Theory and Its Linearization. Journal of Elasticity, 2016, 125, 149-183.	1.9	21
33	On a consistent finite-strain shell theory based on 3-D nonlinear elasticity. International Journal of Solids and Structures, 2016, 97-98, 137-149.	2.7	14
34	Determining the up-down-up response through tension tests of a pre-twisted shape memory alloy tube. International Journal of Plasticity, 2016, 85, 52-76.	8.8	14
35	Periodic-wave solutions of the two-dimensional Toda lattice equation by a direct method. Advances in Difference Equations, 2016, 2016, .	3.5	1
36	On a consistent finite-strain plate theory for incompressible hyperelastic materials. International Journal of Solids and Structures, 2016, 78-79, 101-109.	2.7	39

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37	Global Structure Stability for the Wave Catching-Up Phenomenon in a Prestressed Two-Material Bar. SIAM Journal on Applied Mathematics, 2015, 75, 585-604.	1.8	3
38	Swelling and instability of a gel annulus. Acta Mechanica Sinica/Lixue Xuebao, 2015, 31, 627-636.	3.4	12
39	Closed-form solutions for inhomogeneous states of a slender 3-D SMA cylinder undergoing stress-induced phase transitions. International Journal of Engineering Science, 2015, 88, 40-63.	5.0	11
40	Pitchfork and octopus bifurcations in a hyperelastic tube subjected to compression: Analytical post-bifurcation solutions and imperfection sensitivity. Mathematics and Mechanics of Solids, 2015, 20, 25-52.	2.4	13
41	Molecular dynamic simulations of the water absorbency of hydrogels. Journal of Molecular Modeling, 2015, 21, 231.	1.8	22
42	Critical thickness ratio for buckled and wrinkled fruits and vegetables. Europhysics Letters, 2014, 108, 44003.	2.0	20
43	A dissipation-rate reserving DG method for wave catching-up phenomena in a nonlinearly elastic composite bar. Journal of Computational Physics, 2014, 258, 405-430.	3.8	2
44	Compression of a hyperelastic layer-substrate structure: Transitions between buckling and surface modes. International Journal of Engineering Science, 2014, 80, 74-89.	5.0	16
45	On a consistent finite-strain plate theory based on three-dimensional energy principle. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20140494.	2.1	40
46	Asymptotic solutions and new insights for cylinder and coreâ€“shell polymer gels in a solvent. Soft Matter, 2013, 9, 8664.	2.7	10
47	Primary and secondary bifurcations of a compressible hyperelastic layer: Asymptotic model equations and solutions. International Journal of Non-Linear Mechanics, 2013, 52, 58-72.	2.6	16
48	Analytical study on the stress-induced phase or variant transformation in slender shape memory alloy samples. Meccanica, 2013, 48, 943-970.	2.0	5
49	Propagation stresses in phase transitions of an SMA wire: New analytical formulas based on an internal-variable model. International Journal of Plasticity, 2013, 42, 101-119.	8.8	20
50	A Variable-Coefficient Manakov Model and Its Explicit Solutions through the Generalized Dressing Method. Chinese Physics Letters, 2013, 30, 060201.	3.3	12
51	Mathematical theory and analytical solutions for the wave catching-up phenomena in a nonlinearly elastic composite bar. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 3882-3901.	2.1	5
52	ANALYTICAL SOLUTIONS FOR THE POST-BUCKLING STATES OF AN INCOMPRESSIBLE HYPERELASTIC LAYER. Analysis and Applications, 2012, 10, 21-46.	2.2	15
53	Elliptic-Spline Solutions for Large Localizations in a Circular Blatzâ€“Ko Cylinder Due to Geometric Softening. SIAM Journal on Applied Mathematics, 2012, 72, 181-200.	1.8	7
54	Solution for a nonlocal elastic bar in tension. Science China: Physics, Mechanics and Astronomy, 2012, 55, 1059-1065.	5.1	14

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55	Numerical simulation of propagation of solitary deformation waves in a compressible hyperelastic rod. Mathematics and Computers in Simulation, 2012, 82, 1348-1362.	4.4	6
56	An internal-variable rod model for stress-induced phase transitions in a slender SMA layer. II. Analytical solutions for the outer loop and inner loops. Mechanics of Materials, 2012, 45, 83-102.	3.2	9
57	An internal-variable rod model for stress-induced phase transitions in a slender SMA layer. I: Asymptotic equations and a two-phase solution. Mechanics of Materials, 2012, 45, 117-134.	3.2	9
58	An analytical study on the instability phenomena during the phase transitions in a thin strip under uniaxial tension. Journal of the Mechanics and Physics of Solids, 2012, 60, 691-710.	4.8	8
59	Some analytical formulas for the equilibrium states of a swollen hydrogel shell. Soft Matter, 2011, 7, 8473.	2.7	18
60	Weakly nonlinear long waves in a prestretched Blatzâ€“Ko cylinder: Solitary, kink and periodic waves. Wave Motion, 2011, 48, 761-772.	2.0	9
61	An Analytical Study on the Post-Peak Structural Response. Journal of Applied Mechanics, Transactions ASME, 2011, 78, .	2.2	3
62	Instabilities induced by phase transformation fronts coalescence during the phase transitions in a thin SMA layer: Mechanism and analytical descriptions. International Journal of Engineering Science, 2010, 48, 1146-1163.	5.0	7
63	Phase transitions induced by extension in a slender SMA cylinder: Analytical solutions for the hysteresis loop based on a quasi-3D continuum model. International Journal of Plasticity, 2010, 26, 467-487.	8.8	16
64	Asymptotic Bifurcation Solutions for Compressions of a Clamped Nonlinearly Elastic Rectangle: Transition Region and Barrelling to a Corner-like Profile. SIAM Journal on Applied Mathematics, 2010, 70, 2673-2692.	1.8	12
65	On the application of a generalized dressing method to the integration of variable-coefficient coupled Hirota equations. Journal of Mathematical Physics, 2009, 50, .	1.1	7
66	An analytical study of the instability of a superelastic shape memory alloy cylinder subject to practical boundary conditions. Smart Materials and Structures, 2009, 18, 024007.	3.5	9
67	Multi-soliton and multi-cuspon solutions of a Camassaâ€“Holm hierarchy and their interactions. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 055203.	2.1	5
68	Conditions for Strong Ellipticity of Anisotropic ElasticÂMaterials. Journal of Elasticity, 2009, 97, 1-13.	1.9	72
69	Conditions for strong ellipticity and M-eigenvalues. Frontiers of Mathematics in China, 2009, 4, 349-364.	0.7	71
70	An analytical study on the geometrical size effect on phase transitions in a slender compressible hyperelastic cylinder. International Journal of Non-Linear Mechanics, 2009, 44, 219-229.	2.6	13
71	Nonlinear travelling waves in a hyperelastic rod composed of a compressible Mooneyâ€“Rivlin material. International Journal of Non-Linear Mechanics, 2009, 44, 499-510.	2.6	15
72	Deltons, peakons and other traveling-wave solutions of a Camassaâ€“Holm hierarchy. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 2454-2460.	2.1	1

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73	Solitary waves in a slender tube composed of an incompressible nonlinear elastic material. Computers and Mathematics With Applications, 2008, 55, 620-635.	2.7	1
74	On constructing the analytical solutions for localizations in a slender cylinder composed of an incompressible hyperelastic material. International Journal of Solids and Structures, 2008, 45, 2613-2628.	2.7	13
75	Bifurcation to a corner-like formation in a slender nonlinearly elastic cylinder: asymptotic solution and mechanism. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2008, 464, 1587-1613.	2.1	8
76	Corner instabilities in a slender nonlinearly elastic cylinder: analytical solutions and formation mechanism. Comptes Rendus Mathematique, 2007, 345, 55-58.	0.3	3
77	On a three-dimensional axisymmetric boundary-value problem of nonlinear elastic deformation: Asymptotic solution and exponentially small error. International Journal of Engineering Science, 2007, 45, 951-967.	5.0	2
78	Asymptotic Axially Symmetric Deformations for Perfectly Elastic Neo-Hookean and Mooney Materials. Journal of Elasticity, 2007, 86, 113-137.	1.9	3
79	Phase transitions in a slender cylinder composed of an incompressible elastic material. I. Asymptotic model equation. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2006, 462, 75-95.	2.1	42
80	Phase transitions in a slender cylinder composed of an incompressible elastic material. II. Analytical solutions for two boundary-value problems. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2006, 462, 419-438.	2.1	20
81	The propagation of impact-induced tensile waves in a kind of phase-transforming materials. Journal of Computational and Applied Mathematics, 2006, 190, 57-73.	2.0	6
82	On Constructing the Unique Solution for the Necking in a Hyper-Elastic Rod. Journal of Elasticity, 2006, 82, 215-241.	1.9	8
83	On the Cauchy Problem of the Camassa-Holm Equation. Frontiers of Mathematics in China, 2006, 1, 144-159.	0.7	9
84	Global structure stability of impact-induced tensile waves in a rubber-like material. IMA Journal of Applied Mathematics, 2006, 71, 14-33.	1.6	9
85	The interaction of the Ï‰-soliton and Ï‰-cuspon of the Camassaâ€“Holm equation. Journal of Physics A, 2005, 38, L685-L694.	1.6	15
86	Nonlinear Interaction of an Elastic Pulse With a Frictional Contact Interface Between Two Anisotropic Dissimilar Media. Journal of Vibration and Acoustics, Transactions of the ASME, 2004, 126, 108-117.	1.6	3
87	Singular Dynamics with Application to Singular Waves in Physical Problems. Journal of the Physical Society of Japan, 2004, 73, 1151-1155.	1.6	9
88	Asmptoticaliy Approximate Model Equations for Weakly Nonlinear Long Waves in Compressible Elastic Rods and their Comparisons with Other Simplified Model Equations. Mathematics and Mechanics of Solids, 2004, 9, 61-79.	2.4	17
89	Addendum and corrigendum to â€œTransmission of elastic waves through a frictional contact interface between two anisotropic dissimilar mediaâ€•[Wave Motion 37 (2003) 137â€“156]. Wave Motion, 2004, 39, 275-278.	2.0	2
90	Non-existence of one-dimensional stress problems in solidâ€“solid phase transitions and uniqueness conditions for incompressible phase-transforming materials. Comptes Rendus Mathematique, 2004, 338, 981-984.	0.3	9

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91	Asmptotically Approximate Model Equations for Weakly Nonlinear Long Waves in Compressible Elastic Rods and Their Comparisons with Other Simplified Model Equations. Mathematics and Mechanics of Solids, 2004, 9, 61-79.	2.4	34
92	Transmission of elastic waves through a frictional contact interface between two anisotropic dissimilar media. Wave Motion, 2003, 37, 137-156.	2.0	6
93	Solitary waves in an inhomogeneous rod composed of a general hyperelastic material. Wave Motion, 2002, 35, 55-69.	2.0	36
94	Nonlinear Plane Waves in Finite Deformable Infinite Mooney Elastic Materials. Journal of Elasticity, 2002, 67, 71-80.	1.9	7
95	Nonlinear degree and partial stability for quasilinear hyperbolic systems and the application to plane elastic waves in hyperelastic materials. Physics Letters, Section A: General, Atomic and Solid State Physics, 2001, 289, 313-322.	2.1	2
96	Head-on collision between two solitary waves in a compressible Mooneyâ€“Rivlin elastic rod. Wave Motion, 2000, 32, 93-111.	2.0	19
97	Solitary shock waves and other travelling waves in a general compressible hyperelastic rod. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2000, 456, 331-363.	2.1	151
98	New Finite-Dimensional Completely Integrable Systems Associated with the Sine-Gordon Equation. Journal of the Physical Society of Japan, 1999, 68, 2878-2881.	1.6	19
99	Exact Solutions of a Variable-Coefficient KdV Equation Arising in a Shallow Water. Journal of the Physical Society of Japan, 1999, 68, 1854-1858.	1.6	8
100	Transformations for the Camassa-Holm Equation, Its High-Frequency Limit and the Sinh-Gordon Equation. Journal of the Physical Society of Japan, 1998, 67, 3655-3657.	1.6	66
101	On a consistent rod theory for a linearized anisotropic elastic material II. Verification and parametric study. Mathematics and Mechanics of Solids, 0, , 108128652110349.	2.4	3
102	A novel reduced model for a linearized anisotropic rod with doubly symmetric a cross-section: I. Theory. Mathematics and Mechanics of Solids, 0, , 108128652210945.	2.4	2