

Alan D Freed

List of Publications by Year in descending order

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46
papers

3,500
citations

471061

17
h-index

301761

39
g-index

49
all docs

49
docs citations

49
times ranked

2418
citing authors

#	ARTICLE	IF	CITATIONS
1	A Predictor-Corrector Approach for the Numerical Solution of Fractional Differential Equations. <i>Nonlinear Dynamics</i> , 2002, 29, 3-22.	2.7	1,743
2	Detailed Error Analysis for a Fractional Adams Method. <i>Numerical Algorithms</i> , 2004, 36, 31-52.	1.1	724
3	Elastic Model for Crimped Collagen Fibrils. <i>Journal of Biomechanical Engineering</i> , 2005, 127, 587-593.	0.6	151
4	Maturation and Adaptive Modulation of Left Ventricular Torsional Biomechanics. <i>Circulation</i> , 2006, 113, 2534-2541.	1.6	151
5	Invariant formulation for dispersed transverse isotropy in aortic heart valves. <i>Biomechanics and Modeling in Mechanobiology</i> , 2005, 4, 100-117.	1.4	116
6	Fractional Order Viscoelasticity of the Aortic Valve Cusp: An Alternative to Quasilinear Viscoelasticity. <i>Journal of Biomechanical Engineering</i> , 2005, 127, 700-708.	0.6	92
7	Viscoplasticity with creep and plasticity bounds. <i>International Journal of Plasticity</i> , 1993, 9, 213-242.	4.1	76
8	Natural Strain. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 1995, 117, 379-385.	0.8	48
9	An implicit elastic theory for lung parenchyma. <i>International Journal of Engineering Science</i> , 2013, 62, 31-47.	2.7	39
10	A promising approach for modeling biological fibers. <i>Acta Mechanica</i> , 2016, 227, 1609-1619.	1.1	34
11	Soft Solids. <i>Modeling and Simulation in Science, Engineering and Technology</i> , 2014, , .	0.4	31
12	Anisotropy in hypoelastic soft-tissue mechanics, I: Theory. <i>Journal of Mechanics of Materials and Structures</i> , 2008, 3, 911-928.	0.4	29
13	Inverse Parameter Fitting of Biological Tissues: A Response Surface Approach. <i>Annals of Biomedical Engineering</i> , 2005, 33, 1819-1830.	1.3	24
14	Thermoviscoplastic analysis of fibrous periodic composites by the use of triangular subvolumes. <i>Composites Science and Technology</i> , 1994, 50, 71-84.	3.8	22
15	Hypoelastic soft tissues. <i>Acta Mechanica</i> , 2010, 213, 205-222.	1.1	21
16	Hypo-elastic model for lung parenchyma. <i>Biomechanics and Modeling in Mechanobiology</i> , 2012, 11, 557-573.	1.4	19
17	Conjugate stress/strain base pairs for planar analysis of biological tissues. <i>Journal of Mechanics of Materials and Structures</i> , 2017, 12, 219-247.	0.4	18
18	Hypoelastic soft tissues. Part I: Theory. <i>Acta Mechanica</i> , 2010, 213, 189-204.	1.1	17

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19	Viscoplastic Model Development With an Eye Toward Characterization. Journal of Engineering Materials and Technology, Transactions of the ASME, 1995, 117, 8-13.	0.8	16
20	Anisotropy in hypoelastic soft-tissue mechanics, II: Simple extensional experiments. Journal of Mechanics of Materials and Structures, 2009, 4, 1005-1025.	0.4	15
21	On the use of convected coordinate systems in the mechanics of continuous media derived from a QR factorization of F. International Journal of Engineering Science, 2018, 127, 145-161.	2.7	14
22	A decomposition of Laplace stretch with applications in inelasticity. Acta Mechanica, 2019, 230, 3423-3429.	1.1	14
23	A versatile biaxial testing platform for soft tissues. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 114, 104144.	1.5	12
24	Stress/strain basis pairs for anisotropic materials. Composites Part B: Engineering, 2017, 120, 152-158.	5.9	11
25	Laplace stretch: Eulerian and Lagrangian formulations. Zeitschrift Fur Angewandte Mathematik Und Physik, 2020, 71, 1.	0.7	10
26	A constitutive model for elastic-plastic materials using scalar conjugate stress/strain base pairs. Journal of the Mechanics and Physics of Solids, 2021, 155, 104535.	2.3	8
27	A simple and practical representation of compatibility condition derived using a QR decomposition of the deformation gradient. Acta Mechanica, 2020, 231, 3289-3304.	1.1	7
28	Renewal creep theory. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1995, 26, 829-843.	1.1	5
29	A viscoelastic model for describing the response of biological fibers. Acta Mechanica, 2016, 227, 3367-3380.	1.1	5
30	Anisotropic conjugate stress/strain base pair approach for laminates undergoing large deformations. Materialia, 2019, 6, 100318.	1.3	5
31	Application of QR framework in modeling the constitutive behavior of porcine coronary sinus tissue. Mechanics of Soft Materials, 2021, 3, 1.	0.4	4
32	Extracting material parameters of silicone elastomers under biaxial tensile tests using virtual fields method and investigating the effect of missing deformation data close to specimen edges on parameter identification. Mechanics of Advanced Materials and Structures, 2022, 29, 6421-6435.	1.5	4
33	Characterizing the non-linear mechanical behavior of native and biomimetic engineered tissues in 1D with physically meaningful parameters. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 102, 103509.	1.5	3
34	Characterizing geometrically necessary dislocations using an elastic-plastic decomposition of Laplace stretch. Zeitschrift Fur Angewandte Mathematik Und Physik, 2020, 71, 1.	0.7	3
35	Transverse-Isotropic Elastic and Viscoelastic Solids. Journal of Engineering Materials and Technology, Transactions of the ASME, 2004, 126, 38-44.	0.8	2
36	Application of the Gram-Schmidt factorization of the deformation gradient to a cone and plate rheometer. Physics of Fluids, 2021, 33, .	1.6	2

#	ARTICLE	IF	CITATIONS
37	Coordinate indexing: On the use of Eulerian and Lagrangian Laplace stretches. Applications in Engineering Science, 2021, 5, 100029.	0.5	2
38	Stirling Engine - Approach for Long-Term Durability Assessment. , 1992, , .		1
39	Strain. Modeling and Simulation in Science, Engineering and Technology, 2014, , 47-75.	0.4	1
40	High temperature viscoplastic ratchetting: Material response or modeling artifact. , 1991, , .		0
41	Implicit Elasticity. Modeling and Simulation in Science, Engineering and Technology, 2014, , 161-208.	0.4	0
42	Viscoelasticity. Modeling and Simulation in Science, Engineering and Technology, 2014, , 209-275.	0.4	0
43	FE vibration analyses of novel conforming meta-structures and standard lattices for simple bricks and a topology-optimized aerodynamic bracket. Scientific Reports, 2020, 10, 21484.	1.6	0
44	Deformation. Modeling and Simulation in Science, Engineering and Technology, 2014, , 23-46.	0.4	0
45	Explicit Elasticity. Modeling and Simulation in Science, Engineering and Technology, 2014, , 109-159.	0.4	0
46	On the use of QR kinematics in studying the Eshelby energyâ€“momentum tensor. International Journal of Solids and Structures, 2022, , 111854.	1.3	0