Alan D Freed

List of Publications by Citations

44 papers	2,828 citations	16 h-index	49 g-index
49 ext. papers	3,182 ext. citations	3.2 avg, IF	5.18 L-index

#	Paper	IF	Citations
44	A Predictor-Corrector Approach for the Numerical Solution of Fractional Differential Equations. *Nonlinear Dynamics*, **2002**, 29, 3-22	5	1417
43	Detailed Error Analysis for a Fractional Adams Method. *Numerical Algorithms*, **2004**, 36, 31-52	2.1	561
42	Maturational and adaptive modulation of left ventricular torsional biomechanics: Doppler tissue imaging observation from infancy to adulthood. *Circulation*, **2006**, 113, 2534-41	16.7	138
41	Elastic model for crimped collagen fibrils. *Journal of Biomechanical Engineering*, **2005**, 127, 587-93	2.1	129
40	Invariant formulation for dispersed transverse isotropy in aortic heart valves: an efficient means for modeling fiber splay. *Biomechanics and Modeling in Mechanobiology*, **2005**, 4, 100-17	3.8	106
39	Fractional order viscoelasticity of the aortic valve cusp: an alternative to quasilinear viscoelasticity. *Journal of Biomechanical Engineering*, **2005**, 127, 700-8	2.1	67
38	Viscoplasticity with creep and plasticity bounds. *International Journal of Plasticity*, **1993**, 9, 213-242	7.6	65
37	Natural Strain. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **1995**, 117, 379-385	1.8	43
36	An Implicit Elastic Theory for Lung Parenchyma. *International Journal of Engineering Science*, **2013**, 62, 31-47	5.7	35
35	A promising approach for modeling biological fibers. *Acta Mechanica*, **2016**, 227, 1609-1619	2.1	27
34	Soft Solids. *Modeling and Simulation in Science, Engineering and Technology*, **2014**,	0.8	25
33	Anisotropy in hypoelastic soft-tissue mechanics, I: Theory. *Journal of Mechanics of Materials and Structures*, **2008**, 3, 911-928	1.2	24
32	Inverse parameter fitting of biological tissues: a response surface approach. *Annals of Biomedical Engineering*, **2005**, 33, 1819-30	4.7	22
31	Thermoviscoplastic analysis of fibrous periodic composites by the use of triangular subvolumes. *Composites Science and Technology*, **1994**, 50, 71-84	8.6	19
30	Conjugate stress/strain base pairs for planar analysis of biological tissues. *Journal of Mechanics of Materials and Structures*, **2017**, 12, 219-247	1.2	16
29	Hypo-elastic model for lung parenchyma. *Biomechanics and Modeling in Mechanobiology*, **2012**, 11, 557-73	3.8	16
28	Hypoelastic Soft Tissues: Part II: In-Plane Biaxial Experiments. *Acta Mechanica*, **2010**, 213, 205-222	2.1	16

27	Viscoplastic Model Development With an Eye Toward Characterization. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **1995**, 117, 8-13	1.8	14
26	Anisotropy in hypoelastic soft-tissue mechanics, II: Simple extensional experiments. *Journal of Mechanics of Materials and Structures*, **2009**, 4, 1005-1025	1.2	13
25	Hypoelastic soft tissues. Part I: Theory. *Acta Mechanica*, **2010**, 213, 189-204	2.1	13
24	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	5.7	12
23	A decomposition of Laplace stretch with applications in inelasticity. *Acta Mechanica*, **2019**, 230, 3423-3429	2.1	12
22	Stress/strain basis pairs for anisotropic materials. *Composites Part B: Engineering*, **2017**, 120, 152-158	10	8
21	A simple and practical representation of compatibility condition derived using a QR decomposition of the deformation gradient. *Acta Mechanica*, **2020**, 231, 3289-3304	2.1	5
20	Renewal creep theory. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **1995**, 26, 829-843	2.3	4
19	Laplace stretch: Eulerian and Lagrangian formulations. *Zeitschrift Fur Angewandte Mathematik Und Physik*, **2020**, 71, 1	1.6	4
18	A viscoelastic model for describing the response of biological fibers. *Acta Mechanica*, **2016**, 227, 3367-3380	2.1	3
17	Anisotropic conjugate stress/strain base pair approach for laminates undergoing large deformations. *Materialia*, **2019**, 6, 100318	3.2	2
16	Transverse-Isotropic Elastic and Viscoelastic Solids. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **2004**, 126, 38-44	1.8	2
15	Coordinate indexing: On the use of Eulerian and Lagrangian Laplace stretches. *Applications in Engineering Science*, **2021**, 5, 100029	0.4	2
14	A versatile biaxial testing platform for soft tissues. *Journal of the Mechanical Behavior of Biomedical Materials*, **2021**, 114, 104144	4.1	2
13	Strain. *Modeling and Simulation in Science, Engineering and Technology*, **2014**, 47-75	0.8	1
12	Stirling Engine - Approach for Long-Term Durability Assessment **1992**,		1
11	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	4.1	1
10	Characterizing geometrically necessary dislocations using an elastic-plastic decomposition of Laplace stretch. *Zeitschrift Fur Angewandte Mathematik Und Physik*, **2020**, 71, 1	1.6	1

9	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	5	1
8	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*,1-15	1.8	0
7	Application of QR framework in modeling the constitutive behavior of porcine coronary sinus tissue. *Mechanics of Soft Materials*, **2021**, 3, 1	2.1	0
6	Application of the Gram–Schmidt factorization of the deformation gradient to a cone and plate rheometer. *Physics of Fluids*, **2021**, 33, 017113	4.4	0
5	Viscoelasticity. *Modeling and Simulation in Science, Engineering and Technology*, **2014**, 209-275	0.8	
4	Implicit Elasticity. *Modeling and Simulation in Science, Engineering and Technology*, **2014**, 161-208	0.8	
3	Deformation. *Modeling and Simulation in Science, Engineering and Technology*, **2014**, 23-46	0.8	
2	Explicit Elasticity. *Modeling and Simulation in Science, Engineering and Technology*, **2014**, 109-159	0.8	
1	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	4.9	