Hasan Demirkoparan

List of Publications by Year
in descending order

33 papers	437 citations	623734 14 h-index	794594 19 g-index
33 all docs	33 docs citations	33 times ranked	157 citing authors

#	Article	IF	Citations
1	Swelling of an internally pressurized nonlinearly elastic tube with fiber reinforcing. International Journal of Solids and Structures, 2007, 44, 4009-4029.	2.7	51
2	Bulging bifurcation of inflated circular cylinders of doubly fiber-reinforced hyperelastic material under axial loading and swelling. Mathematics and Mechanics of Solids, 2017, 22, 666-682.	2.4	30
3	Torsional Swelling of a Hyperelastic Tube with Helically Wound Reinforcement. Journal of Elasticity, 2008, 92, 61-90.	1.9	28
4	On dissolution and reassembly of filamentary reinforcing networks in hyperelastic materials. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2009, 465, 867-894.	2.1	22
5	Morphoelastic fiber remodeling in pressurized thick-walled cylinders with application to soft tissue collagenous tubes. European Journal of Mechanics, A/Solids, 2019, 77, 103800.	3.7	21
6	Magic angles for fiber reinforcement in rubber-elastic tubes subject to pressure and swelling. International Journal of Non-Linear Mechanics, 2015, 68, 87-95.	2.6	20
7	Chemomechanics and homeostasis in active strain stabilized hyperelastic fibrous microstructures. International Journal of Non-Linear Mechanics, 2013, 56, 86-93.	2.6	19
8	Hyperelastic modeling of the combined effects of tissue swelling and deformation-related collagen renewal in fibrous soft tissue. Biomechanics and Modeling in Mechanobiology, 2018, 17, 1543-1567.	2.8	19
9	The effect of fiber recruitment on the swelling of a pressurized anisotropic non-linearly elastic tube. International Journal of Non-Linear Mechanics, 2007, 42, 258-270.	2.6	18
10	Bulging initiation and propagation in fiber-reinforced swellable Mooneyâ€“Rivlin membranes. Journal of Engineering Mathematics, 2021, 128, 1.	1.2	16
11	Fibrillar Collagen: A Review of the Mechanical Modeling of Strain-Mediated Enzymatic Turnover. Applied Mechanics Reviews, 2021, 73, .	10.1	16
12	Time-evolving collagen-like structural fibers in soft tissues: biaxial loading and spherical inflation. Mechanics of Time-Dependent Materials, 2017, 21, 1-29.	4.4	15
13	Swelling and axial propagation of bulging with application to aneurysm propagation in arteries. Mathematics and Mechanics of Solids, 2020, 25, 1459-1471.	2.4	15
14	Stress-Swelling Finite Element Modeling of Cervical Response With Homeostatic Collagen Fiber Distributions. Journal of Biomechanical Engineering, 2020, 142, .	1.3	15
15	On collagen fiber morphoelasticity and homeostatic remodeling tone. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 113, 104154.	3.1	14
16	Uniaxial load analysis under stretch-dependent fiber remodeling applicable to collagenous tissue. Journal of Engineering Mathematics, 2015, 95, 325-345.	1.2	13
17	Hyperelastic Internal Balance by Multiplicative Decomposition of the Deformation Gradient. Archive for Rational Mechanics and Analysis, 2014, 214, 923-970.	2.4	11
18	Swellingâ€“twist interaction in fiber-reinforced hyperelastic materials: the example of azimuthal shear. Journal of Engineering Mathematics, 2018, 109, 63-84.	1.2	11

#	Article	IF	Citations
19	Hyperelastic models for the swelling of soft material plugs in confined spaces. International Journal of Non-Linear Mechanics, 2018, 106, 297-309.	2.6	10
20	On prismatic and bending bifurcations of fiber-reinforced elastic membranes under swelling with application to aortic aneurysms. Mathematics and Mechanics of Solids, 2023, 28, 108-123.	2.4	10
21	Bulging of inflated membranes made of fiber reinforced materials with different natural configurations. European Journal of Mechanics, A/Solids, 2022, 96, 104670.	3.7	10
22	Emergence of fibrous fan morphologies in deformation directed reformation of hyperelastic filamentary networks. Journal of Engineering Mathematics, 2010, 68, 37-56.	1.2	8
23	Torsion of a fiber reinforced hyperelastic cylinder for which the fibers can undergo dissolution and reassembly. International Journal of Engineering Science, 2010, 48, 1179-1201.	5.0	7
24	Finite Stretching and Shearing of an Internally Balanced Elastic Solid. Journal of Elasticity, 2015, 121, 1-23.	1.9	7
25	A constitutive model for an internally balanced compressible elastic material. Mathematics and Mechanics of Solids, 2017, 22, 372-400.	2.4	7
26	Swelling-induced twisting and shearing in fiber composites: the effect of the base matrix mechanical response. Emergent Materials, 2020, 3, 87-101.	5.7	7
27	Modeling stretch-dependent collagen fiber density. Mechanics Research Communications, 2021, 116, 103740.	1.8	5
28	Simple shearing and azimuthal shearing of an internally balanced compressible elastic material. International Journal of Non-Linear Mechanics, 2016, 79, 99-114.	2.6	4
29	Material swelling with partial confinement in the internally balanced generalization of hyperelasticity. Mathematics and Mechanics of Solids, 2023, 28, 229-250.	2.4	4
30	Evolution of the Fiber Density in Biological Tissues. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 103-104.	0.2	3
31	Fiber Remodeling During Torsion of a Fiber Reinforced Hyperelastic Cylinderâ€"Unloading Behavior. Journal of Elasticity, 2011, 104, 163-185.	1.9	1
32	Evolution of Mechanical Properties in Tissues Undergoing Deformation-Related Fiber Remodeling Processes. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 113-114.	0.2	0
33	Fiber Remodeling During Torsion of a Fiber Reinforced Hyperelastic Cylinderâ€"Unloading Behavior. , 2011, , 163-185.		0