Luciano Teresi

List of Publications by Year
in descending order

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84	1,684	331259 21	315357 38
papers	citations	h-index	g-index

87	87	87	1459
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Transient analysis of swelling-induced large deformations in polymer gels. Journal of the Mechanics and Physics of Solids, 2013, 61, 205-218.	2.3	156
2	An electromechanical model of cardiac tissue: Constitutive issues and electrophysiological effects. Progress in Biophysics and Molecular Biology, 2008, 97, 562-573.	1.4	107
3	Thermally Driven Giant Bending of Liquid Crystal Elastomer Films with Hybrid Alignment. Macromolecules, 2010, 43, 4362-4369.	2.2	107
4	On the Active Response of Soft Living Tissues. Journal of Elasticity, 2007, 88, 27-39.	0.9	102
5	Elastic energies for nematic elastomers. European Physical Journal E, 2009, 29, 191-204.	0.7	98
6	Dynamics of Electro-Opto-Mechanical Effects in Swollen Nematic Elastomers. Macromolecules, 2008, 41, 9389-9396.	2.2	63
7	Bite of the Cats: Relationships between Functional Integration and Mechanical Performance as Revealed by Mandible Geometry. Systematic Biology, 2013, 62, 878-900.	2.7	63
8	Statistical Shape Modeling of the Left Ventricle: Myocardial Infarct Classification Challenge. IEEE Journal of Biomedical and Health Informatics, 2018, 22, 503-515.	3.9	61
9	Testing convergent and parallel adaptations in talpids humeral mechanical performance by means of geometric morphometrics and finite element analysis. Journal of Morphology, 2012, 273, 696-711.	0.6	49
10	Morphological integration and functional modularity in the crocodilian skull. Integrative Zoology, 2014, 9, 498-516.	1.3	45
11	A damage mechanics approach to stress softening and its application to rubber. European Journal of Mechanics, A/Solids, 2001, 20, 873-892.	2.1	38
12	Torsion of the human left ventricle: Experimental analysis and computational modeling. Progress in Biophysics and Molecular Biology, 2011, 107, 112-121.	1.4	38
13	Modeling helicoid to spiral-ribbon transitions of twist-nematic elastomers. Soft Matter, 2013, 9, 3081.	1.2	38
14	Anisotropic swelling of thin gel sheets. Soft Matter, 2015, 11, 1492-1499.	1.2	34
15	Transient instabilities in the swelling dynamics of a hydrogel sphere. Journal of Applied Physics, 2017, 122, .	1.1	28
16	A multi-physics approach for modeling hygroscopic behavior in wood low-tech architectural adaptive systems. CAD Computer Aided Design, 2019, 106, 43-53.	1.4	28
17	Novel design of drug delivery in stented arteries: A numerical comparative study. Mathematical Biosciences and Engineering, 2009, 6, 493-508.	1.0	27
18	Digging adaptation in insectivorous subterranean eutherians. The enigma ofMesoscalops montanensisunveiled by geometric morphometrics and finite element analysis. Journal of Morphology, 2015, 276, 1157-1171.	0.6	27

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19	4D-Analysis of Left Ventricular Heart Cycle Using Procrustes Motion Analysis. PLoS ONE, 2014, 9, e86896.	1.1	27
20	The shadow of forgotten ancestors differently constrains the fate of Alligatoroidea and Crocodyloidea. Global Ecology and Biogeography, 2009, 18, 30-40.	2.7	24
21	Modeling and simulation of fish swimming with active muscles. Journal of Theoretical Biology, 2016, 409, 18-26.	0.8	23
22	The elastic metric: A review of elasticity with large distortions. International Journal of Non-Linear Mechanics, 2013, 56, 34-42.	1.4	22
23	Critical voltages and blocking stresses in nematic gels. European Physical Journal E, 2007, 24, 303-10.	0.7	21
24	Steady and transient analysis of anisotropic swelling in fibered gels. Journal of Applied Physics, 2015, 118, .	1.1	20
25	Continuum theory of swelling material surfaces with applications to thermo-responsive gel membranes and surface mass transport. Journal of the Mechanics and Physics of Solids, 2016, 89, 96-109.	2.3	20
26	Non-invasive assessment of functional strain lines in the real human left ventricle via speckle tracking echocardiography. Journal of Biomechanics, 2015, 48, 465-471.	0.9	19
27	New finite element study protocol: Clinical simulation of orthodontic tooth movement. International Orthodontics, 2017, 15, 165-179.	0.6	18
28	Variation in the shape and mechanical performance of the lower jaws in ceratopsid dinosaurs (Ornithischia, Ceratopsia). Journal of Anatomy, 2015, 227, 631-646.	0.9	17
29	On Variational Approaches to Plate Modes. Meccanica, 1997, 32, 143-156.	1.2	16
30	Swelling and growth: a constitutive framework for active solids. Meccanica, 2017, 52, 3443-3456.	1.2	16
31	Homeostatic Left Heart integration and disintegration links atrio-ventricular covariationâ€™s dyshomeostasis in Hypertrophic Cardiomyopathy. Scientific Reports, 2017, 7, 6257.	1.6	16
32	A New 4D Trajectory-Based Approach Unveils Abnormal LV Revolution Dynamics in Hypertrophic Cardiomyopathy. PLoS ONE, 2015, 10, e0122376.	1.1	16
33	Do the ornamented osteoderms influence the heat conduction through the skin? A finite element analysis in Crocodylomorpha. Journal of Thermal Biology, 2017, 69, 39-53.	1.1	15
34	Morphologically normalized left ventricular motion indicators from MRI feature tracking characterize myocardial infarction. Scientific Reports, 2017, 7, 12259.	1.6	15
35	Strain induced shape formation in fibred cylindrical tubes. Journal of the Mechanics and Physics of Solids, 2012, 60, 1420-1431.	2.3	14
36	Structure of tracheae and the functional implications for collapse in the American cockroach. Bioinspiration and Biomimetics, 2015, 10, 066011.	1.5	14

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37	Actuation performances of anisotropic gels. Journal of Applied Physics, 2016, 120, .	1.1	14
38	The TPS Direct Transport: A New Method for Transporting Deformations in the Size-and-Shape Space. International Journal of Computer Vision, 2017, 124, 384-408.	10.9	14
39	Driving water cavitation in a hydrogel cavity. Soft Matter, 2018, 14, 2310-2321.	1.2	14
40	Growth-induced compatible strains. Mathematics and Mechanics of Solids, 2017, 22, 62-71.	1.5	12
41	Mathematical model for isometric and isotonic muscle contractions. Journal of Theoretical Biology, 2017, 425, 1-10.	0.8	12
42	A one-dimensional model for blood flow in prestressed vessels. European Journal of Mechanics, A/Solids, 2005, 24, 23-33.	2.1	11
43	Nonâ€invasive prediction of genotype positiveâ€“phenotype negative in hypertrophic cardiomyopathy by 3D modern shape analysis. Experimental Physiology, 2019, 104, 1688-1700.	0.9	11
44	Electromechanical modeling of anisotropic cardiac tissues. Mathematics and Mechanics of Solids, 2013, 18, 576-591.	1.5	10
45	Copeâ€™s Rule and the Universal Scaling Law of Ornament Complexity. American Naturalist, 2015, 186, 165-175.	1.0	10
46	COMPARING SHAPE TRAJECTORIES OF BIOLOGICAL SOFT TISSUES IN THE SIZE-AND-SHAPE SPACE. , 2015, , .		10
47	Left Atrial trajectory impairment in Hypertrophic Cardiomyopathy disclosed by Geometric Morphometrics and Parallel Transport. Scientific Reports, 2016, 6, 34906.	1.6	9
48	The decomposition of deformation: New metrics to enhance shape analysis in medical imaging.. Medical Image Analysis, 2018, 46, 35-56.	7.0	9
49	A simplified mechanical modeling for myocardial contractions and the ventricular pressureâ€“volume relationships. Mechanics Research Communications, 2011, 38, 532-535.	1.0	8
50	Dynamics of active swelling in contractile polymer gels. Journal of the Mechanics and Physics of Solids, 2020, 135, 103807.	2.3	8
51	Mechanics of active gel spheres under bulk contraction. International Journal of Mechanical Sciences, 2021, 193, 106147.	3.6	8
52	Multiphysics of bio-hybrid systems: shape control and electro-induced motion. Smart Materials and Structures, 2014, 23, 045043.	1.8	7
53	Systo-Diastolic LV Shape Analysis by Geometric Morphometrics and Parallel Transport Highly Discriminates Myocardial Infarction. Lecture Notes in Computer Science, 2016, , 119-129.	1.0	7
54	A direct theory of affine rods. European Journal of Mechanics, A/Solids, 2002, 21, 653-667.	2.1	6

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55	A comparative analysis of the strain-line pattern in the human left ventricle: experiments vs modelling. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2016, 4, 164-173.	1.3	6
56	The heart function as a motor-brake system. Journal of Theoretical Biology, 2019, 467, 23-30.	0.8	6
57	The conceptual framework of ontogenetic trajectories: parallel transport allows the recognition and visualization of pure deformation patterns. Evolution & Development, 2016, 18, 182-200.	1.1	5
58	Torsional deformations in incompressible fibre-reinforced cylindrical pipes. European Journal of Mechanics, A/Solids, 2010, 29, 266-273.	2.1	4
59	Advantages in the torsional performances of a simplified cylindrical geometry due to transmural differential contractile properties. European Journal of Mechanics, A/Solids, 2012, 36, 173-179.	2.1	4
60	Electromechanical Modelling of Cardiac Tissue. , 2010, , 421-449.		4
61	A direct theory of affine bodies. International Journal of Engineering Science, 2000, 38, 865-878.	2.7	3
62	Local and global energies for shape analysis in medical imaging. International Journal for Numerical Methods in Biomedical Engineering, 2020, 36, e3252.	1.0	3
63	Transporting Deformations of Face Emotions in the Shape Spaces: A Comparison of Different Approaches. Journal of Mathematical Imaging and Vision, 2021, 63, 875-893.	0.8	3
64	On the strainâ€”line patterns in a real human left ventricle. , 2013, , 19-24.		3
65	Patient-specific modeling of left ventricle mechanics. Acta Mechanica Sinica/Lixue Xuebao, 2022, 38, .	1.5	3
66	Shape deformation from metric â€™s transport. International Journal of Non-Linear Mechanics, 2020, 119, 103326.	1.4	2
67	Modeling solvent dynamics in polymers with solvent-filled cavities. Mechanics of Soft Materials, 2020, 2, 1.	0.4	2
68	Continuum Mechanics Meets Echocardiographic Imaging: Investigation on the Principal Strain Lines in Human Left Ventricle. Lecture Notes in Computational Vision and Biomechanics, 2015, , 41-54.	0.5	2
69	Lie groups and the compatibility conditions for continua with rigid structure. International Journal of Engineering Science, 1997, 35, 1195-1202.	2.7	1
70	The Influence of Initial Stresses on Blood Vessel Mechanics. Journal of Mechanics in Medicine and Biology, 2003, 03, 215-229.	0.3	1
71	STRAIN ANALYSIS OF CARDIAC TISSUES FROM 3D ULTRASOUND IMAGES USING SNAKES AND SPECKLE TRACKING. Journal of Mechanics in Medicine and Biology, 2015, 15, 1540012.	0.3	1
72	Numerical modelling of structural cooling in Mediterranean climate. International Journal of Ventilation, 0, , 1-18.	0.2	1

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73	Diffusion-driven stress relaxation of gels under incremental planar extensions. Mechanics of Materials, 2019, 134, 106-114.	1.7	1
74	Swelling effects on localized adhesion of an elastic ribbon. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20190067.	1.0	1
75	Target metric and Shell Shaping. Curved and Layered Structures, 2021, 8, 13-25.	0.5	1
76	Mechanical Response of Helically Wound Fiber-Reinforced Incompressible Non-linearly Elastic Pipes. Lecture Notes in Applied and Computational Mechanics, 2010, , 79-87.	2.0	1
77	Morphing of soft structures driven by active swelling: a numerical study. International Journal of Non-Linear Mechanics, 2022, 141, 103951.	1.4	1
78	Constitutive identification of affine rods. Mechanics Research Communications, 2003, 30, 61-68.	1.0	0
79	Strain analysis of cardiac tissues from 3D ultrasound images through speckle tracking. , 2013, , .		0
80	Mechanics of Bioâ€“hybrid Systems. Procedia IUTAM, 2015, 12, 145-153.	1.2	0
81	Muscle Contraction and Pressure-Volume Loops in the Left-Heart. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, S43-S44.	0.9	0
82	Parallel transport of local strains. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2019, 7, 520-528.	1.3	0
83	Morphing of soft tubes by anisotropic growth. Acta Mechanica, 0, , 1.	1.1	0
84	Stress-free morphing by means of compatible distortions. Physical Review E, 2022, 106, .	0.8	0