Salvatore Federico

List of Publications by Year
in descending order

76 papers	1,584 citations	279778 23 h-index	330122 37 g-index
88 all docs	88 docs citations	88 times ranked	994 citing authors

#	Article	IF	Citations
1	Theory of uniformity applied to elastic dielectric materials and piezoelectricity. European Journal of Mechanics, A/Solids, 2022, 91, 104391.	3.7	4
2	The Protective Function of Directed Asymmetry in the Pericellular Matrix Enveloping Chondrocytes. Annals of Biomedical Engineering, 2022, 50, 39-55.	2.5	6
3	The Truesdell rate in Continuum Mechanics. Zeitschrift Fur Angewandte Mathematik Und Physik, 2022, 73, 1.	1.4	3
4	Strain-mediated propagation of magnetic domain-walls in cubic magnetostrictive materials. Ricerche Di Matematica, 2021, 70, 81-97.	1.0	7
5	Chondrocyte Deformations Under Mild Dynamic Loading Conditions. Annals of Biomedical Engineering, 2021, 49, 846-857.	2.5	3
6	The domain of existence of solitary waves in fluid-filled thin elastic tubes. Mathematics and Mechanics of Solids, 2021, 26, 1354-1375.	2.4	0
7	Analysis of solitary waves in fluid-filled thin-walled electroactive tubes. Mechanics Research Communications, 2021, 113, 103654.	1.8	4
8	Collagen fibres determine the crack morphology in articular cartilage. Acta Biomaterialia, 2021, 126, 301-314.	8.3	18
9	Eshelbyâ€™s inclusion problem in large deformations. Zeitschrift Fur Angewandte Mathematik Und Physik, 2021, 72, 1.	1.4	4
10	Preface to the Special Issue in Memory of Prof. Gaetano Giaquinta (1945â€“2016). Mathematics and Mechanics of Solids, 2020, 25, 1042-1045.	2.4	0
11	Effect of structural distortions on articular cartilage permeability under large deformations. Biomechanics and Modeling in Mechanobiology, 2020, 19, 317-334.	2.8	11
12	Magnetostriction in transversely isotropic hexagonal crystals. Physical Review B, 2020, 101, .	3.2	10
13	Effect of cracks on the local deformations of articular cartilage. Journal of Biomechanics, 2020, 110, 109970.	2.1	4
14	Consistent numerical implementation of hypoelastic constitutive models. Zeitschrift Fur Angewandte Mathematik Und Physik, 2020, 71, 1.	1.4	6
15	Fluorescence recovery after photobleaching: direct measurement of diffusion anisotropy. Biomechanics and Modeling in Mechanobiology, 2020, 19, 2397-2412.	2.8	5
16	Anisotropic Diffusivity Tensor in Articular Cartilage: Effective Medium Approach. Journal of Biomechanical Engineering, 2020, 142, .	1.3	0
17	Anelastic reorganisation of fibre-reinforced biological tissues. Computing and Visualization in Science, 2019, 20, 95-109.	1.2	12
18	Eshelby force and power for uniform bodies. Acta Mechanica, 2019, 230, 1663-1684.	2.1	10

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19	Effect of strain rate on transient local strain variations in articular cartilage. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 95, 60-66.	3.1	14
20	Growth and remodelling from the perspective of Noetherâ€™s theorem. Mechanics Research Communications, 2019, 97, 89-95.	1.8	10
21	Remodelling of biological tissues with fibre recruitment and reorientation in the light of the theory of material uniformity. Mechanics Research Communications, 2019, 96, 56-61.	1.8	3
22	Eshelbyâ€™s inclusion theory in light of Noetherâ€™s theorem. Mathematics and Mechanics of Complex Systems, 2019, 7, 247-285.	0.9	9
23	Force measurements during running on different instrumented treadmills. Journal of Biomechanics, 2019, 84, 263-268.	2.1	11
24	Tensor representation of magnetostriction for all crystal classes. Mathematics and Mechanics of Solids, 2019, 24, 2814-2843.	2.4	15
25	An Allenâ€“Cahn approach to the remodelling of fibre-reinforced anisotropic materials. Journal of Engineering Mathematics, 2018, 109, 139-172.	1.2	19
26	A compression system for studying depth-dependent mechanical properties of articular cartilage under dynamic loading conditions. Medical Engineering and Physics, 2018, 60, 103-108.	1.7	10
27	On the constitutive modelling of recruitment and damage of collagen fibres in soft biological tissues. European Journal of Mechanics, A/Solids, 2018, 72, 483-496.	3.7	35
28	Orthotropic hydraulic permeability of arrays of parallel cylinders. Physical Review E, 2017, 96, 033112.	2.1	6
29	Transversely isotropic higher-order averaged structure tensors. Zeitschrift Fur Angewandte Mathematik Und Physik, 2017, 68, 1.	1.4	5
30	Non-Darcian flow in fibre-reinforced biological tissues. Meccanica, 2017, 52, 3299-3320.	2.0	12
31	Relation between Eshelby stress and Eshelby fourth-order tensor within an ellipsoidal inclusion. Acta Mechanica, 2017, 228, 1045-1069.	2.1	7
32	A biomechanical evaluation of <scp>CNT</scp>â€grown bone. Journal of Biomedical Materials Research - Part A, 2016, 104, 465-475.	4.0	8
33	Finite element modeling of finite deformable, biphasic biological tissues with transversely isotropic statistically distributed fibers: toward a practical solution. Zeitschrift Fur Angewandte Mathematik Und Physik, 2016, 67, 1.	1.4	5
34	Efficient evaluation of the material response of tissues reinforced by statistically oriented fibres. Zeitschrift Fur Angewandte Mathematik Und Physik, 2016, 67, 1.	1.4	10
35	Material description of fluxes in terms of differential forms. Continuum Mechanics and Thermodynamics, 2016, 28, 379-390.	2.2	10
36	The linear elasticity tensor of incompressible materials. Mathematics and Mechanics of Solids, 2015, 20, 643-662.	2.4	26

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37	Some remarks on metric and deformation. Mathematics and Mechanics of Solids, 2015, 20, 522-539.	2.4	11
38	Non-Linear Model for Compression Tests on Articular Cartilage. Journal of Biomechanical Engineering, 2015, 137, .	1.3	12
39	Microstructural computational modelling of soft tissues. AIP Conference Proceedings, 2015, , .	0.4	0
40	Remodelling in statistically oriented fibre-reinforced materials and biological tissues. Mathematics and Mechanics of Solids, 2015, 20, 1107-1129.	2.4	40
41	Green-Naghdi rate of the Kirchhoff stress and deformation rate: the elasticity tensor. Zeitschrift Fur Angewandte Mathematik Und Physik, 2015, 66, 1143-1163.	1.4	9
42	Porous Materials with Statistically Oriented Reinforcing Fibres. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2015, , 49-120.	0.6	8
43	Poroelastic materials reinforced by statistically oriented fibres--numerical implementation and application to articular cartilage. IMA Journal of Applied Mathematics, 2014, 79, 1027-1059.	1.6	66
44	Extracellular matrix integrity affects the mechanical behaviour of in-situ chondrocytes under compression. Journal of Biomechanics, 2014, 47, 1004-1013.	2.1	31
45	Mechanical model of the breast for the prediction of deformation during imaging. Medical Engineering and Physics, 2013, 35, 470-478.	1.7	25
46	Mechanical Behaviour of the Human Atria. Annals of Biomedical Engineering, 2013, 41, 1478-1490.	2.5	18
47	Mechanical behaviour of in-situ chondrocytes subjected to different loading rates: a finite element study. Biomechanics and Modeling in Mechanobiology, 2012, 11, 983-993.	2.8	34
48	GRADIENT-DEPENDENT CONSTITUTIVE LAWS FOR A MODEL OF MICROCRACKED BODIES. International Journal for Multiscale Computational Engineering, 2012, 10, 581-597.	1.2	0
49	Covariant formulation of the tensor algebra of non-linear elasticity. International Journal of Non-Linear Mechanics, 2012, 47, 273-284.	2.6	32
50	Growth, mass transfer, and remodeling in fiber-reinforced, multi-constituent materials. International Journal of Non-Linear Mechanics, 2012, 47, 388-401.	2.6	71
51	Elasticity and permeability of porous fibre-reinforced materials under large deformations. Mechanics of Materials, 2012, 44, 58-71.	3.2	83
52	A depth-dependent model of the pericellular microenvironment of chondrocytes in articular cartilage. Computer Methods in Biomechanics and Biomedical Engineering, 2011, 14, 657-664.	1.6	20
53	A continuum model of negatively charged rods finely dispersed in a positively charged fluid. Mechanics Research Communications, 2011, 38, 574-578.	1.8	1
54	Directed transport of Brownian particles in a changing temperature field. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 229801.	2.1	0

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55	On the linear elasticity of porous materials. International Journal of Mechanical Sciences, 2010, 52, 175-182.	6.7	12
56	Nonlinear elasticity of biological tissues with statistical fibre orientation. Journal of the Royal Society Interface, 2010, 7, 955-966.	3.4	119
57	Porous Materials Reinforced by Statistically Oriented Fibres. , 2010, , .		0
58	Volumetric-Distortional Decomposition of Deformation and Elasticity Tensor. Mathematics and Mechanics of Solids, 2010, 15, 672-690.	2.4	33
59	A semi-analytical solution for the confined compression ofÂhydrated soft tissue. Meccanica, 2009, 44, 197-205.	2.0	7
60	Convex Fung-type potentials for biological tissues. Meccanica, 2008, 43, 279-288.	2.0	28
61	On the anisotropy and inhomogeneity of permeability in articular cartilage. Biomechanics and Modeling in Mechanobiology, 2008, 7, 367-378.	2.8	98
62	Towards an analytical model of soft biological tissues. Journal of Biomechanics, 2008, 41, 3309-3313.	2.1	90
63	On the permeability of fibre-reinforced porous materials. International Journal of Solids and Structures, 2008, 45, 2160-2172.	2.7	57
64	An energetic approach to the analysis of anisotropic hyperelastic materials. International Journal of Engineering Science, 2008, 46, 164-181.	5.0	27
65	Directed transport of Brownian particles in a changing temperature field. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 015002.	2.1	4
66	Interaction between growth and transport phenomena in living mixtures. Journal of Physics: Conference Series, 2007, 62, 43-71.	0.4	0
67	The Mechanical Behaviour of Chondrocytes Predicted with a Micro-structural Model of Articular Cartilage. Biomechanics and Modeling in Mechanobiology, 2007, 6, 139-150.	2.8	28
68	Considerations on Joint and Articular Cartilage Mechanics. Biomechanics and Modeling in Mechanobiology, 2006, 5, 64-81.	2.8	37
69	An articular cartilage contact model based on real surface geometry. Journal of Biomechanics, 2005, 38, 179-184.	2.1	41
70	Reply to letter to the editor by Dr. Robert W. Mann. Journal of Biomechanics, 2005, 38, 1742-1743.	2.1	0
71	A transversely isotropic, transversely homogeneous microstructural-statistical model of articular cartilage. Journal of Biomechanics, 2005, 38, 2008-2018.	2.1	87
72	The role of material in homogeneities in biological growth. Theoretical and Applied Mechanics, 2005, 32, 21-38.	0.3	6

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73	Effect of Fluid Boundary Conditions on Joint Contact Mechanics and Applications to the Modeling of Osteoarthritic Joints. Journal of Biomechanical Engineering, 2004, 126, 220-225.	1.3	37
74	A method to estimate the elastic properties of the extracellular matrix of articular cartilage. Journal of Biomechanics, 2004, 37, 401-404.	2.1	13
75	A transversely isotropic composite with a statistical distribution of spheroidal inclusions: a geometrical approach to overall properties. Journal of the Mechanics and Physics of Solids, 2004, 52, 2309-2327.	4.8	54
76	Restoration of the symmetries broken by reversible growth in hyperelastic bodies. Theoretical and Applied Mechanics, 2003, , 311-331.	0.3	8