Paul Steinmann

List of Publications by Year
in descending order

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591 papers	14,690 citations	20797 60 h-index	38368 95 g-index
623 all docs	623 docs citations	623 times ranked	6980 citing authors

#	Article	IF	Citations
1	Mechanical properties of gray and white matter brain tissue by indentation. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 46, 318-330.	1.5	499
2	Mechanical characterization of human brain tissue. Acta Biomaterialia, 2017, 48, 319-340.	4.1	423
3	Hyperelastic models for rubber-like materials: consistent tangent operators and suitability for Treloarâ€™s data. Archive of Applied Mechanics, 2012, 82, 1183-1217.	1.2	288
4	Fifty Shades of Brain: A Review on the Mechanical Testing and Modeling of Brain Tissue. Archives of Computational Methods in Engineering, 2020, 27, 1187-1230.	6.0	215
5	A finite element method for the computational modelling of cohesive cracks. International Journal for Numerical Methods in Engineering, 2005, 63, 276-289.	1.5	209
6	Physical biology of human brain development. Frontiers in Cellular Neuroscience, 2015, 9, 257.	1.8	204
7	The role of mechanics during brain development. Journal of the Mechanics and Physics of Solids, 2014, 72, 75-92.	2.3	197
8	Brain stiffness increases with myelin content. Acta Biomaterialia, 2016, 42, 265-272.	4.1	194
9	Numerical modelling of non-linear electroelasticity. International Journal for Numerical Methods in Engineering, 2007, 70, 685-704.	1.5	179
10	Geometrically nonlinear higher-gradient elasticity with energetic boundaries. Journal of the Mechanics and Physics of Solids, 2013, 61, 2381-2401.	2.3	179
11	Application of material forces to hyperelastostatic fracture mechanics. I. Continuum mechanical setting. International Journal of Solids and Structures, 2000, 37, 7371-7391.	1.3	170
12	On the continuum formulation of higher gradient plasticity for single and polycrystals. Journal of the Mechanics and Physics of Solids, 2000, 48, 1777-1796.	2.3	165
13	Aspects of Computational Homogenization at Finite Deformations: A Unifying Review From Reuss' to Voigt's Bound. Applied Mechanics Reviews, 2016, 68, .	4.5	156
14	Frame-indifferent beam finite elements based upon the geometrically exact beam theory. International Journal for Numerical Methods in Engineering, 2002, 54, 1775-1788.	1.5	153
15	A micropolar theory of finite deformation and finite rotation multiplicative elastoplasticity. International Journal of Solids and Structures, 1994, 31, 1063-1084.	1.3	152
16	Views on multiplicative elastoplasticity and the continuum theory of dislocations. International Journal of Engineering Science, 1996, 34, 1717-1735.	2.7	149
17	Application of material forces to hyperelastostatic fracture mechanics. II. Computational setting. International Journal of Solids and Structures, 2001, 38, 5509-5526.	1.3	148
18	Thermomechanics of Solids With Lower-Dimensional Energetics: On the Importance of Surface, Interface, and Curve Structures at the Nanoscale. A Unifying Review. Applied Mechanics Reviews, 2013, 65, .	4.5	147

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19	Experimental study and numerical modelling of VHB 4910 polymer. Computational Materials Science, 2012, 59, 65-74.	1.4	132
20	On higher gradients in continuum-atomistic modelling. International Journal of Solids and Structures, 2003, 40, 6877-6896.	1.3	130
21	Viscoelastic parameter identification of human brain tissue. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 74, 463-476.	1.5	124
22	Rheological characterization of human brain tissue. Acta Biomaterialia, 2017, 60, 315-329.	4.1	124
23	On boundary potential energies in deformational and configurational mechanics. Journal of the Mechanics and Physics of Solids, 2008, 56, 772-800.	2.3	121
24	Isogeometric analysis of 2D gradient elasticity. Computational Mechanics, 2011, 47, 325-334.	2.2	117
25	Computational homogenization in magneto-mechanics. International Journal of Solids and Structures, 2013, 50, 4197-4216.	1.3	115
26	Conservation properties of a time FE method?part II: Time-stepping schemes for non-linear elastodynamics. International Journal for Numerical Methods in Engineering, 2001, 50, 1931-1955.	1.5	111
27	A framework for multiplicative elastoplasticity with kinematic hardening coupled to anisotropic damage. International Journal of Plasticity, 2005, 21, 397-434.	4.1	110
28	A theory of finite deformation magneto-viscoelasticity. International Journal of Solids and Structures, 2013, 50, 3886-3897.	1.3	108
29	More hyperelastic models for rubber-like materials: consistent tangent operators and comparative study. Journal of the Mechanical Behavior of Materials, 2013, 22, 27-50.	0.7	105
30	On the numerical treatment and analysis of finite deformation ductile single crystal plasticity. Computer Methods in Applied Mechanics and Engineering, 1996, 129, 235-254.	3.4	98
31	Computational modeling of growth. Computational Mechanics, 2003, 32, 71-88.	2.2	97
32	A hybrid discontinuous Galerkin/interface method for the computational modelling of failure. Communications in Numerical Methods in Engineering, 2004, 20, 511-519.	1.3	92
33	Theoretical and computational aspects of a thermodynamically consistent framework for geometrically linear gradient damage. Computer Methods in Applied Mechanics and Engineering, 2001, 190, 6555-6576.	3.4	91
34	Two-scale computational homogenization of electro-elasticity at finite strains. Computer Methods in Applied Mechanics and Engineering, 2014, 278, 62-79.	3.4	89
35	Macroscopic simulation and experimental measurement of melt pool characteristics in selective electron beam melting of Ti-6Al-4V. International Journal of Advanced Manufacturing Technology, 2017, 88, 1309-1317.	1.5	88
36	Constrained integration of rigid body dynamics. Computer Methods in Applied Mechanics and Engineering, 2001, 191, 467-488.	3.4	85

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37	A finite element framework for continua with boundary energies. Part II: The three-dimensional case. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 755-765.	3.4	84
38	A small-strain model to simulate the curing of thermosets. Computational Mechanics, 2009, 43, 769-779.	2.2	81
39	Conservation properties of a time FE method. Part I: time-stepping schemes forN-body problems. International Journal for Numerical Methods in Engineering, 2000, 49, 599-638.	1.5	80
40	Studies in elastic fracture mechanics based on the material force method. International Journal for Numerical Methods in Engineering, 2003, 58, 1817-1835.	1.5	80
41	Modelling and simulation of process: machine interaction in grinding. Production Engineering, 2009, 3, 111-120.	1.1	80
42	Micropolar elastoplasticity and its role in localization. International Journal of Plasticity, 1993, 9, 813-831.	4.1	78
43	Modeling threeâ€dimensional crack propagationâ€"A comparison of crack path tracking strategies. International Journal for Numerical Methods in Engineering, 2008, 76, 1328-1352.	1.5	78
44	A finite element framework for continua with boundary energies. Part I: The two-dimensional case. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 2198-2208.	3.4	77
45	Formulation and computation of geometrically non-linear gradient damage. International Journal for Numerical Methods in Engineering, 1999, 46, 757-779.	1.5	76
46	Micro-to-macro transition accounting for general imperfect interfaces. Computer Methods in Applied Mechanics and Engineering, 2017, 317, 274-317.	3.4	73
47	Inherently Energy Conserving Time Finite Elements for Classical Mechanics. Journal of Computational Physics, 2000, 160, 88-116.	1.9	72
48	A formulation for an unsaturated porous medium undergoing large inelastic strains. Computational Mechanics, 2002, 28, 137-151.	2.2	71
49	Comparison of different finite deformation inelastic damage models within multiplicative elastoplasticity for ductile materials. Computational Mechanics, 1994, 13, 458-474.	2.2	70
50	Massâ€“ and volumeâ€“specific views on thermodynamics for open systems. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2003, 459, 2547-2568.	1.0	70
51	Conservation properties of a time FE method?part III: Mechanical systems with holonomic constraints. International Journal for Numerical Methods in Engineering, 2002, 53, 2271-2304.	1.5	69
52	Theory and numerics of a thermodynamically consistent framework for geometrically linear gradient plasticity. International Journal for Numerical Methods in Engineering, 2001, 51, 1437-1467.	1.5	67
53	General imperfect interfaces. Computer Methods in Applied Mechanics and Engineering, 2014, 275, 76-97.	3.4	67
54	A theoretical and computational framework for anisotropic continuum damage mechanics at large strains. International Journal of Solids and Structures, 2001, 38, 9505-9523.	1.3	66

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55	An ALE formulation based on spatial and material settings of continuum mechanics. Part 1: Generic hyperelastic formulation. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 4207-4222.	3.4	66
56	A finite strain framework for the simulation of polymer curing. Part I: elasticity. Computational Mechanics, 2009, 44, 621-630.	2.2	66
57	On the spatial formulation of anisotropic multiplicative elasto-plasticity. Computer Methods in Applied Mechanics and Engineering, 2003, 192, 3431-3470.	3.4	65
58	Nonlinear electro- and magneto-elastostatics: Material and spatial settings. International Journal of Solids and Structures, 2007, 44, 7891-7905.	1.3	65
59	On thermo-viscoelastic experimental characterization and numerical modelling of VHB polymer. International Journal of Non-Linear Mechanics, 2020, 118, 103263.	1.4	65
60	A unifying treatise on variational principles for gradient and micromorphic continua. Philosophical Magazine, 2005, 85, 3875-3895.	0.7	62
61	On thermomechanical solids with boundary structures. International Journal of Solids and Structures, 2010, 47, 3245-3253.	1.3	61
62	Computational multiscale modelling of heterogeneous material layers. Engineering Fracture Mechanics, 2009, 76, 793-812.	2.0	60
63	Modelling, simulation and experimental validation of heat transfer in selective laser melting of the polymeric material PA12. Computational Materials Science, 2014, 93, 239-248.	1.4	60
64	Unified magnetomechanical homogenization framework with application to magnetorheological elastomers. Mathematics and Mechanics of Solids, 2014, 19, 193-211.	1.5	58
65	Constrained dynamics of geometrically exact beams. Computational Mechanics, 2003, 31, 49-59.	2.2	57
66	A unified computational framework for bulk and surface elasticity theory: a curvilinear-coordinate-based finite element methodology. Computational Mechanics, 2014, 54, 745-762.	2.2	57
67	Towards microstructure-informed material models for human brain tissue. Acta Biomaterialia, 2020, 104, 53-65.	4.1	57
68	Studies of validity of the Cauchyâ€“Born rule by direct comparison of continuum and atomistic modelling. Modelling and Simulation in Materials Science and Engineering, 2007, 15, S271-S281.	0.8	56
69	On the mechanics of continua with boundary energies and growing surfaces. Journal of the Mechanics and Physics of Solids, 2013, 61, 1446-1463.	2.3	56
70	Theory and numerics of ductile micropolar elastoplastic damage. International Journal for Numerical Methods in Engineering, 1995, 38, 583-606.	1.5	55
71	Theory and numerics of geometrically non-linear open system mechanics. International Journal for Numerical Methods in Engineering, 2003, 58, 1593-1615.	1.5	55
72	On spatial and material settings of hyperelastostatic crystal defects. Journal of the Mechanics and Physics of Solids, 2002, 50, 1743-1766.	2.3	54

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73	Theory and numerics of geometrically non-linear gradient plasticity. International Journal of Engineering Science, 2003, 41, 1603-1629.	2.7	54
74	On the localization properties of multiplicative hyperelasto-plastic continua with strong discontinuities. International Journal of Solids and Structures, 1997, 34, 969-990.	1.3	53
75	Conservation properties of a time FE method. Part IV: Higher order energy and momentum conserving schemes. International Journal for Numerical Methods in Engineering, 2005, 63, 1849-1897.	1.5	53
76	A comprehensive characterization of the electro-mechanically coupled properties of VHB 4910 polymer. Archive of Applied Mechanics, 2015, 85, 523-537.	1.2	53
77	On Spatial and Material Settings of Thermo-Hyperelastodynamics. Journal of Elasticity, 2002, 66, 109-157.	0.9	52
78	Objective energyâ€“momentum conserving integration for the constrained dynamics of geometrically exact beams. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 2313-2333.	3.4	52
79	On molecular statics and surface-enhanced continuum modeling of nano-structures. Computational Materials Science, 2013, 69, 510-519.	1.4	52
80	A unifying treatise of variational principles for two types of micropolar continua. Acta Mechanica, 1997, 121, 215-232.	1.1	51
81	Geometrically nonlinear continuum thermomechanics with surface energies coupled to diffusion. Journal of the Mechanics and Physics of Solids, 2011, 59, 2116-2133.	2.3	51
82	Molecular dynamics study of ferroelectric domain nucleation and domain switching dynamics. Scientific Reports, 2017, 7, 806.	1.6	51
83	A thermodynamically consistent approach to microplane theory. Part II. Dissipation and inelastic constitutive modeling. International Journal of Solids and Structures, 2001, 38, 2933-2952.	1.3	50
84	An ALE formulation based on spatial and material settings of continuum mechanics. Part 2: Classification and applications. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 4223-4245.	3.4	50
85	A 2-D coupled BEMâ€“FEM simulation of electro-elastostatics at large strain. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 1124-1133.	3.4	50
86	Size and curvature regulate pattern selection in the mammalian brain. Extreme Mechanics Letters, 2015, 4, 193-198.	2.0	50
87	On deformational and configurational mechanics of micromorphic hyperelasticity â€“ Theory and computation. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 4027-4044.	3.4	49
88	Continuum-kinematics-inspired peridynamics. Mechanical problems. Journal of the Mechanics and Physics of Solids, 2019, 131, 125-146.	2.3	49
89	A variational approach towards the modeling of magnetic field-induced strains in magnetic shape memory alloys. Journal of the Mechanics and Physics of Solids, 2012, 60, 1179-1200.	2.3	48
90	Micro-to-macro transitions for continua with surface structure at the microscale. International Journal of Solids and Structures, 2013, 50, 2561-2572.	1.3	48

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91	Modeling and simulation of viscous electro-active polymers. European Journal of Mechanics, A/Solids, 2014, 48, 112-128.	2.1	48
92	The discrete null space method for the energy-consistent integration of constrained mechanical systems. PartÂIII: Flexible multibody dynamics. Multibody System Dynamics, 2008, 19, 45-72.	1.7	47
93	Computational electroâ€elasticity and magnetoâ€elasticity for quasiâ€incompressible media immersed in free space. International Journal for Numerical Methods in Engineering, 2016, 108, 1307-1342.	1.5	47
94	A finite strain framework for the simulation of polymer curing. Part II. Viscoelasticity and shrinkage. Computational Mechanics, 2010, 46, 363-375.	2.2	46
95	Micro-to-macro transitions for heterogeneous material layers accounting for in-plane stretch. Journal of the Mechanics and Physics of Solids, 2012, 60, 1221-1239.	2.3	46
96	Nonlinear magneto-viscoelasticity of transversally isotropic magneto-active polymers. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20140082.	1.0	46
97	Geometrical Foundations of Continuum Mechanics. Lecture Notes in Applied Mathematics and Mechanics, 2015, , .	1.1	45
98	A framework for geometrically nonlinear continuum damage mechanics. International Journal of Engineering Science, 1998, 36, 1793-1814.	2.7	44
99	On spatial and material settings of hyperelastodynamics. Acta Mechanica, 2002, 156, 193-218.	1.1	44
100	A DAE Approach to Flexible Multibody Dynamics. Multibody System Dynamics, 2002, 8, 365-389.	1.7	44
101	RVE-based studies on the coupled effects of void size and void shape on yield behavior and void growth at micron scales. International Journal of Plasticity, 2006, 22, 1195-1216.	4.1	44
102	Dynamic performance of dielectric elastomers utilized as acoustic actuators. Applied Physics A: Materials Science and Processing, 2012, 107, 531-538.	1.1	44
103	Theoretical and computational aspects of non-classical thermoelasticity. Computer Methods in Applied Mechanics and Engineering, 2006, 196, 516-527.	3.4	43
104	On the C¹ continuous discretization of nonâ€linear gradient elasticity: A comparison of NEM and FEM based on Bernsteinâ€“BÃ©zier patches. International Journal for Numerical Methods in Engineering, 2010, 82, 1282-1307.	1.5	43
105	Phenomenological modelling of self-healing polymers based on integrated healing agents. Computational Mechanics, 2013, 52, 681-692.	2.2	43
106	Thermomechanical finite element simulations of selective electron beam melting processes: performance considerations. Computational Mechanics, 2014, 54, 109-122.	2.2	43
107	On spatial and material settings of thermo-hyperelastodynamics for open systems. Acta Mechanica, 2003, 160, 179-217.	1.1	42
108	Towards a thermo-magneto-mechanical coupling framework for magneto-rheological elastomers. International Journal of Solids and Structures, 2017, 128, 117-132.	1.3	42

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109	An Arlequin-based method to couple molecular dynamics and finite element simulations of amorphous polymers and nanocomposites. Computer Methods in Applied Mechanics and Engineering, 2013, 260, 109-129.	3.4	41
110	Secondary instabilities modulate cortical complexity in the mammalian brain. Philosophical Magazine, 2015, 95, 3244-3256.	0.7	41
111	Homogenization of Composites with Extended General interfaces: Comprehensive Review and Unified Modeling. Applied Mechanics Reviews, 2021, , .	4.5	41
112	Numerical modeling of thermo-electro-viscoelasticity with field-dependent material parameters. International Journal of Non-Linear Mechanics, 2018, 106, 13-24.	1.4	40
113	Energy-conserving integration of constrained Hamiltonian systems ? a comparison of approaches. Computational Mechanics, 2004, 33, 174-185.	2.2	39
114	A fictitious energy approach for shape optimization. International Journal for Numerical Methods in Engineering, 2010, 82, 269-302.	1.5	39
115	Wrinkling instabilities in soft bilayered systems. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160163.	1.6	39
116	Experimental and numerical investigations of the electro-viscoelastic behavior of VHB 4905TM. European Journal of Mechanics, A/Solids, 2019, 77, 103797.	2.1	39
117	Modeling the porous and viscous responses of human brain tissue behavior. Computer Methods in Applied Mechanics and Engineering, 2020, 369, 113128.	3.4	39
118	Anisotropic damage coupled to plasticity: Modelling based on the effective configuration concept. International Journal for Numerical Methods in Engineering, 2002, 54, 1409-1430.	1.5	38
119	A geometrically nonlinear FE approach for the simulation of strong and weak discontinuities. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 5037-5052.	3.4	38
120	Towards the algorithmic treatment of 3D strong discontinuities. Communications in Numerical Methods in Engineering, 2006, 23, 97-108.	1.3	38
121	Timeâ€dependent fibre reorientation of transversely isotropic continuaâ€”Finite element formulation and consistent linearization. International Journal for Numerical Methods in Engineering, 2008, 73, 1413-1433.	1.5	38
122	On the comparison of two approaches to compute material forces for inelastic materials. Application to single-slip crystal-plasticity. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 5411-5428.	3.4	37
123	Natural element analysis of the Cahnâ€“Hilliard phase-field model. Computational Mechanics, 2010, 46, 471-493.	2.2	37
124	On 3-D coupled BEMâ€“FEM simulation of nonlinear electro-elastostatics. Computer Methods in Applied Mechanics and Engineering, 2012, 201-204, 82-90.	3.4	37
125	Application of the material force method to isotropic continuum damage. Computational Mechanics, 2003, 30, 171-184.	2.2	35
126	Geometrically non-linear anisotropic inelasticity based on fictitious configurations: Application to the coupling of continuum damage and multiplicative elasto-plasticity. International Journal for Numerical Methods in Engineering, 2003, 56, 2233-2266.	1.5	35

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127	Numerical modelling of thermomechanical solids with mechanically energetic (generalised) Kapitza interfaces. Computational Materials Science, 2012, 65, 542-551.	1.4	35
128	Computational homogenization of material layers with micromorphic mesostructure. Philosophical Magazine, 2008, 88, 3603-3631.	0.7	34
129	Classification of Concepts in Thermodynamically Consistent Generalized Plasticity. Journal of Engineering Mechanics - ASCE, 2009, 135, 156-170.	1.6	34
130	Simulation of fracture in heterogeneous elastic materials with cohesive zone models. International Journal of Fracture, 2011, 168, 15-29.	1.1	34
131	Aspects of non-associated single crystal plasticity: Influence of non-schmid effects and localization analysis. International Journal of Solids and Structures, 1998, 35, 4437-4456.	1.3	33
132	Finite element embedded localization band for finite strain plasticity based on a regularized strong discontinuity. International Journal for Numerical and Analytical Methods in Geomechanics, 1999, 4, 171-194.	1.0	33
133	Multiscale modelling for composites with energetic interfaces at the micro- or nanoscale. Mathematics and Mechanics of Solids, 2015, 20, 1130-1145.	1.5	33
134	Modelling of iron-filled magneto-active polymers with a dispersed chain-like microstructure. European Journal of Mechanics, A/Solids, 2015, 50, 132-151.	2.1	33
135	Anisotropic damage with the MCR effect coupled to plasticity. International Journal of Engineering Science, 2003, 41, 1535-1551.	2.7	32
136	Material forces in open system mechanics. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 2357-2381.	3.4	32
137	On some mixed variational principles in magneto-elastostatics. International Journal of Non-Linear Mechanics, 2013, 51, 157-169.	1.4	32
138	On material interfaces in thermomechanical solids. Archive of Applied Mechanics, 2005, 75, 31-41.	1.2	31
139	Towards optimization of crack resistance of composite materials by adjustment of fiber shapes. Engineering Fracture Mechanics, 2011, 78, 944-960.	2.0	31
140	Relationships between the admissible range of surface material parameters and stability of linearly elastic bodies. Philosophical Magazine, 2012, 92, 3540-3563.	0.7	31
141	A view on anisotropic finite hyper-elasticity. European Journal of Mechanics, A/Solids, 2003, 22, 71-87.	2.1	30
142	On the propagation of second-sound in linear and nonlinear media: Results from Greenâ€“Naghdi theory. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 4418-4424.	0.9	30
143	A finite element framework for continua with boundary energies. Part III: The thermomechanical case. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 1963-1977.	3.4	30
144	Modelling the mechanical aspects of the curing process of magneto-sensitive elastomeric materials. International Journal of Solids and Structures, 2015, 58, 257-269.	1.3	30

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145	A numerical study of different projection-based model reduction techniques applied to computational homogenisation. Computational Mechanics, 2017, 60, 613-625.	2.2	30
146	Alginate-based hydrogels show the same complex mechanical behavior as brain tissue. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 111, 103979.	1.5	30
147	Generalized parameter identification for finite viscoelasticity. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 3315-3334.	3.4	29
148	A finite element formulation for strong discontinuities in fluidâ€saturated porous media. International Journal for Numerical and Analytical Methods in Geomechanics, 1999, 4, 133-152.	1.0	28
149	Mechanics of extended continua: modeling and simulation of elastic microstretch materials. Computational Mechanics, 2007, 40, 651-666.	2.2	28
150	Microâ€“macro characterisation of DGEBA-based epoxies as a preliminary to polymer interphase modelling. International Journal of Adhesion and Adhesives, 2009, 29, 478-487.	1.4	28
151	On some mixed variational principles in electro-elastostatics. International Journal of Non-Linear Mechanics, 2012, 47, 341-354.	1.4	27
152	Computational homogenization of nanoâ€materials accounting for size effects via surface elasticity. GAMM Mitteilungen, 2015, 38, 285-312.	2.7	27
153	A novel spectral formulation for transversely isotropic magneto-elasticity. Mathematics and Mechanics of Solids, 2017, 22, 1158-1176.	1.5	27
154	The computational framework for continuum-kinematics-inspired peridynamics. Computational Mechanics, 2020, 66, 795-824.	2.2	27
155	Performance of enhanced finite element formulations in localized failure computations. Computer Methods in Applied Mechanics and Engineering, 1991, 90, 845-867.	3.4	26
156	On the Comparison of Two Strategies to Formulate Orthotropic Hyperelasticity. Journal of Elasticity, 2001, 62, 171-201.	0.9	26
157	A note on the generation of periodic granular microstructures based on grain size distributions. International Journal for Numerical and Analytical Methods in Geomechanics, 2008, 32, 509-522.	1.7	26
158	Secret and joy of configurational mechanics: From foundations in continuum mechanics to applications in computational mechanics. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2009, 89, 614-630.	0.9	26
159	Finite element analysis of an inelastic interface in ultrasonic welded metal/fibre-reinforced polymer joints. Computational Materials Science, 2010, 50, 184-190.	1.4	26
160	Nonperiodic stochastic boundary conditions for molecular dynamics simulations of materials embedded into a continuum mechanics domain. Journal of Chemical Physics, 2011, 134, 154108.	1.2	26
161	Thermo-elastic deformations of the workpiece when dry turning aluminum alloys - A finite element model to predict thermal effects in the workpiece. CIRP Journal of Manufacturing Science and Technology, 2014, 7, 233-245.	2.3	26
162	Localization within the Framework of Micropolar Elasto-Plasticity. , 1991, , 296-313.		26

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163	Application of the material force method to thermo-hyperelasticity. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 3303-3325.	3.4	25
164	On configurational forces in multiplicative elastoplasticity. International Journal of Solids and Structures, 2007, 44, 4442-4471.	1.3	25
165	Modeling and simulation of first and second sound in solids. International Journal of Solids and Structures, 2008, 45, 6067-6073.	1.3	25
166	Degree of cure-dependent modelling for polymer curing processes at small-strain. Part I: consistent reformulation. Computational Mechanics, 2014, 53, 777-787.	2.2	25
167	On rate-dependent dissipation effects in electro-elasticity. International Journal of Non-Linear Mechanics, 2014, 62, 1-11.	1.4	25
168	Can CFD establish a connection to a milder COVID-19 disease in younger people? Aerosol deposition in lungs of different age groups based on Lagrangian particle tracking in turbulent flow. Computational Mechanics, 2021, 67, 1497-1513.	2.2	25
169	Classical results for a non-classical theory: remarks on thermodynamic relations in Greenâ€“Naghdi thermo-hyperelasticity. Continuum Mechanics and Thermodynamics, 2007, 19, 59-66.	1.4	24
170	On local tracking algorithms for the simulation of three-dimensional discontinuities. Computational Mechanics, 2008, 42, 395-406.	2.2	24
171	Material and Spatial Motion Problems in Nonlinear Electro- and Magneto-elastostatics. Mathematics and Mechanics of Solids, 2010, 15, 239-257.	1.5	24
172	Modelling and computation of curing and damage of thermosets. Computational Materials Science, 2012, 53, 359-367.	1.4	24
173	A multi-scale approach to model the curing process in magneto-sensitive polymeric materials. International Journal of Solids and Structures, 2015, 69-70, 34-44.	1.3	24
174	On nonlinear thermo-electro-elasticity. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20160170.	1.0	24
175	On the influence of inhomogeneous stiffness and growth on mechanical instabilities in the developing brain. International Journal of Solids and Structures, 2018, 132-133, 31-41.	1.3	24
176	FE2 simulations of magnetorheological elastomers: influence of microscopic boundary conditions, microstructures and free space on the macroscopic responses of MREs. International Journal of Solids and Structures, 2020, 193-194, 338-356.	1.3	24
177	A two-field computational model couples cellular brain development with cortical folding. Brain Multiphysics, 2021, 2, 100025.	0.8	24
178	On the simulation of cohesive fatigue effects in grain boundaries of a piezoelectric mesostructure. International Journal of Solids and Structures, 2008, 45, 4687-4708.	1.3	23
179	Numerical modelling of thermomechanical solids with highly conductive energetic interfaces. International Journal for Numerical Methods in Engineering, 2013, 93, 551-574.	1.5	23
180	Effect of the cutting condition and the reinforcement phase on the thermal load of the workpiece when dry turning aluminum metal matrix composites. International Journal of Advanced Manufacturing Technology, 2016, 82, 1317-1334.	1.5	23

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181	Modeling of additively manufactured materials using gradient-enhanced crystal plasticity. Computers and Mathematics With Applications, 2019, 78, 2338-2350.	1.4	23
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