Klaus Hackl

List of Publications by Year
in descending order

206 papers	2,615 citations	236925 25 h-index	233421 45 g-index
218 all docs	218 docs citations	218 times ranked	1444 citing authors

#	Article	IF	Citations
1	Multiscale modeling of cancellous bone considering full coupling of mechanical, electric and magnetic effects. Biomechanics and Modeling in Mechanobiology, 2022, 21, 163-187.	2.8	6
2	A thermodynamic framework for unified continuum models for the healing of damaged soft biological tissue. Journal of the Mechanics and Physics of Solids, 2022, 158, 104662.	4.8	8
3	Inverse modeling of cancellous bone using artificial neural networks. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2022, 102, .	1.6	1
4	Model-free data-driven simulation of inelastic materials using structured data sets, tangent space information and transition rules. Computational Mechanics, 2022, 70, 425-435.	4.0	11
5	Mechanical and hydrodynamic characteristics of emerged porous Gyroid breakwaters based on triply periodic minimal surfaces. Ocean Engineering, 2022, 254, 111392.	4.3	12
6	A hybrid exploration approach for the prediction of geological changes ahead of mechanized tunnel excavation. Journal of Applied Geophysics, 2022, 203, 104684.	2.1	5
7	Sensitivity analysis of non-local damage in soft biological tissues. International Journal for Numerical Methods in Biomedical Engineering, 2021, 37, e3427.	2.1	2
8	Variational regularization of damage models based on the emulated RVE. Continuum Mechanics and Thermodynamics, 2021, 33, 69-95.	2.2	8
9	A fully coupled two-phase bone material model. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000144.	0.2	3
10	A MULTISCALE VISION-ILLUSTRATIVE APPLICATIONS FROM BIOLOGY TO ENGINEERING. International Journal for Multiscale Computational Engineering, 2021, 19, 39-73.	1.2	10
11	Topology and material optimization of anisotropic materials including a filter to smooth fiber pathways. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000113.	0.2	2
12	Seismic exploration in tunneling using full waveform inversion with a frequency domain model. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000141.	0.2	1
13	The effective equations for the ultrasonic response of wet cortical bone. Mathematical Methods in the Applied Sciences, 2021, 44, 9096-9109.	2.3	1
14	Acoustic waveform inversion in frequency domain: Application to a tunnel environment. Underground Space (China), 2021, 6, 560-576.	7.5	3
15	Data-Driven simulation of inelastic materials using structured data sets and tangential transition rules. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000241.	0.2	0
16	Modeling of Microstructures in a Cosserat Continuum Using Relaxed Energies: Analytical and Numerical Aspects. Advances in Mechanics and Mathematics, 2021, , 57-87.	0.7	5
17	Modeling of wear processes by a regularized damage-plasticity model based on the emulated RVE. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	0
18	Simulations of a multiscale bone material model. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	2

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19	Variational based effective models for inelastic materials. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	1
20	Variational Modeling and Finite-Element Simulation of Functional Fatigue in Polycrystalline Shape Memory Alloys. Journal of Optimization Theory and Applications, 2020, 184, 98-124.	1.5	2
21	Are Onsager's reciprocal relations necessary to apply Thermodynamic Extremal Principles?. Journal of the Mechanics and Physics of Solids, 2020, 135, 103780.	4.8	7
22	Constraints in thermodynamic extremal principles for non-local dissipative processes. Continuum Mechanics and Thermodynamics, 2020, 32, 1337-1345.	2.2	1
23	Adaptive Concurrent Topology Optimization of Coated Structures with Nonperiodic Infill for Additive Manufacturing. CAD Computer Aided Design, 2020, 129, 102918.	2.7	21
24	On the treatment of non-reciprocal rate-independent kinetics via thermodynamic extremal principles. Journal of the Mechanics and Physics of Solids, 2020, 145, 104149.	4.8	4
25	Three-dimensional numerical simulation of soft-tissue wound healing using constrained-mixture anisotropic hyperelasticity and gradient-enhanced damage mechanics. Journal of the Royal Society Interface, 2020, 17, 20190708.	3.4	18
26	Topology optimization with anisotropic materials, including a filter to smooth fiber pathways. Structural and Multidisciplinary Optimization, 2020, 61, 2135-2154.	3.5	27
27	Forward and inverse problems in piezoelectricity using isogeometric symmetric Galerkin boundary element method and level set method. Engineering Analysis With Boundary Elements, 2020, 113, 118-132.	3.7	4
28	Variational Methods for the Modelling of Inelastic Solids. Oberwolfach Reports, 2019, 15, 255-309.	0.0	0
29	A Concept for the Estimation of Soil-Tool Abrasive Wear Using ASTM-G65 Test Data. International Journal of Civil Engineering, 2019, 17, 103-111.	2.0	11
30	A canonical rate-independent model of geometrically linear isotropic gradient plasticity with isotropic hardening and plastic spin accounting for the Burgers vector. Continuum Mechanics and Thermodynamics, 2019, 31, 1477-1502.	2.2	9
31	PREFACE: MULTISCALE PLASTICITY AND RELATED TOPICS. International Journal for Multiscale Computational Engineering, 2019, 17, v.	1.2	0
32	A FAST AND ROBUST NUMERICAL TREATMENT OF A GRADIENT-ENHANCED MODEL FOR BRITTLE DAMAGE. International Journal for Multiscale Computational Engineering, 2019, 17, 151-180.	1.2	23
33	Influence of bulk energy and triple junction mobility on interface kinetics - A tool for interpretation of experiments. Acta Materialia, 2019, 174, 310-318.	7.9	2
34	Gradient-enhanced continuum models of healing in damaged soft tissues. Biomechanics and Modeling in Mechanobiology, 2019, 18, 1443-1460.	2.8	14
35	A fully-relaxed variationally-consistent framework for inelastic micro-sphere models: Finite viscoelasticity. Journal of the Mechanics and Physics of Solids, 2019, 127, 1-19.	4.8	15
36	Structural and material optimization based on thermodynamic principles. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900112.	0.2	0

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37	An Efficient Treatment of the Laplacian in a Gradient‐Enhanced Damage Model. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900125.	0.2	0
38	Numerical investigation of wear processes by a gradient‐enhanced damage‐plasticity model. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900234.	0.2	0
39	A variational material model for shape memory alloys under thermal cycling. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900052.	0.2	0
40	Evaluation of source signature during Full Waveform Inversion for seismic reconnaissance in tunneling. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900089.	0.2	3
41	Comparison of thermodynamic topology optimization with SIMP. Continuum Mechanics and Thermodynamics, 2019, 31, 521-548.	2.2	11
42	An accurate and fast regularization approach to thermodynamic topology optimization. International Journal for Numerical Methods in Engineering, 2019, 117, 991-1017.	2.8	19
43	Hypoplastic particle finite element model for cutting tool-soil interaction simulations: Numerical analysis and experimental validation. Underground Space (China), 2018, 3, 61-71.	7.5	12
44	Modeling of Microstructures in a Cosserat Continuum Using Relaxed Energies. Springer INdAM Series, 2018, , 103-125.	0.5	6
45	Optimized growth and reorientation of anisotropic material based on evolution equations. Computational Mechanics, 2018, 62, 47-66.	4.0	14
46	A polytree-based adaptive polygonal finite element method for multi-material topology optimization. Computer Methods in Applied Mechanics and Engineering, 2018, 332, 712-739.	6.6	60
47	On the Identification of the Contact Parameters of the Discrete Element Method for Complex Particle Ensembles. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800112.	0.2	0
48	On a relaxation‐based and time‐incremental approach to damage modeling. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800131.	0.2	0
49	Effect of grain orientations on the thermal grain boundary grooving in a three‐dimensional setting. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800268.	0.2	0
50	The effect of plasticity on damage evolution using a relaxation-based material model. Journal of the Mechanical Behavior of Materials, 2018, 27, .	1.8	3
51	Finite element investigations on the cyclic behavior of shape memory alloys. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800125.	0.2	0
52	On an accurate and fast regularization approach to thermodynamic based topology optimization. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800137.	0.2	1
53	A variational approach to the modelling of grooving in a three-dimensional setting. Acta Materialia, 2017, 129, 331-342.	7.9	6
54	Modeling the Cyclic Behavior of Shape Memory Alloys. Shape Memory and Superelasticity, 2017, 3, 124-138.	2.2	10

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55	A polytree-based adaptive approach to limit analysis of cracked structures. Computer Methods in Applied Mechanics and Engineering, 2017, 313, 1006-1039.	6.6	67
56	A relaxation-based approach to damage modeling. Continuum Mechanics and Thermodynamics, 2017, 29, 291-310.	2.2	18
57	Grain boundary kinetics in polycrystalline material using orientation dependent interface energy. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 477-478.	0.2	1
58	Finite element implementation and simulation of the functional fatigue in shape memory alloys. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 479-480.	0.2	0
59	Topology and material orientation optimization based on evolution equations. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 739-740.	0.2	1
60	Numerical modeling of dynamic recrystallization in polycrystals. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 441-442.	0.2	0
61	The coupling of plasticity with a relaxation-based approach to damage modeling. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 275-276.	0.2	0
62	A COUPLED COMPUTATIONAL APPROACH FOR THE SIMULATION OF SOIL EXCAVATION AND TRANSPORT IN EARTH-PRESSURE BALANCE SHIELD MACHINES. International Journal for Multiscale Computational Engineering, 2017, 15, 239-264.	1.2	6
63	APPLICATION OF THE MULTISCALE FEM TO THE DETERMINATION OF MACROSCOPIC DEFORMATIONS CAUSED BY DISSOLUTION-PRECIPITATION CREEP. International Journal for Multiscale Computational Engineering, 2016, 14, 95-111.	1.2	3
64	A variational model for the functional fatigue in polycrystalline shape memory alloys. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 405-406.	0.2	0
65	A relaxation–based approach to damage modeling. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 173-174.	0.2	3
66	An evolutionary topology optimization approach with variationally controlled growth. Computer Methods in Applied Mechanics and Engineering, 2016, 310, 780-801.	6.6	16
67	An evolution equation based approach to topology optimization. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 693-694.	0.2	0
68	Relating DEM contact parameters to macroscopic material parameters. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 563-564.	0.2	1
69	Calibration and Finite Element Implementation of an Energy-Based Material Model for Shape Memory Alloys. Shape Memory and Superelasticity, 2016, 2, 247-253.	2.2	3
70	A discontinuous phase field approach to variational growth-based topology optimization. Structural and Multidisciplinary Optimization, 2016, 54, 81-94.	3.5	13
71	Linking mathematics with engineering applications at an early stage – implementation, experimental set-up and evaluation of a pilot project. European Journal of Engineering Education, 2016, 41, 172-191.	2.3	12
72	Improved thermodynamic treatment of vacancy-mediated diffusion and creep. Acta Materialia, 2016, 108, 347-354.	7.9	19

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73	A coupled dissipation functional for modeling the functional fatigue in polycrystalline shape memory alloys. European Journal of Mechanics, A/Solids, 2016, 55, 110-121.	3.7	11
74	Modeling the evolution of microstructures in finite plasticity. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 297-298.	0.2	0
75	A micromechanical model for the transformation induced plasticity in polycrystalline steels. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 371-372.	0.2	0
76	A mechanical model for dissolution–precipitation creep based on the minimum principle of the dissipation potential. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20140994.	2.1	5
77	A variational viscosity-limit approach to the evolution of microstructures in finite crystal plasticity. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150110.	2.1	2
78	Variational prediction of the mechanical behavior of shape memory alloys based on thermal experiments. Journal of the Mechanics and Physics of Solids, 2015, 80, 86-102.	4.8	18
79	A regularization approach for damage models based on a displacement gradient. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 151-152.	0.2	0
80	Modeling Dynamic Recrystallization in Polycrystalline Materials via Probability Distribution Functions. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 339-340.	0.2	1
81	Forward and Inverse Viscoacoustic Modelling in a Tunnel Environment. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 527-528.	0.2	1
82	A variational material model for transformation-induced plasticity in polycrystalline steels. Journal of the Mechanical Behavior of Materials, 2015, 24, 153-159.	1.8	3
83	A variational growth approach to topology optimization. Structural and Multidisciplinary Optimization, 2015, 52, 293-304.	3.5	25
84	Compendium on the Principle of the Minimum of the Dissipation Potential for Non-Isothermal Processes. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 323-324.	0.2	0
85	The principle of the minimum of the dissipation potential for non-isothermal processes. Continuum Mechanics and Thermodynamics, 2014, 26, 259-268.	2.2	29
86	A thermo-mechanically coupled field model for shape memory alloys. Continuum Mechanics and Thermodynamics, 2014, 26, 859-877.	2.2	21
87	Modelling of shear localization in solids by means of energy relaxation. Asia Pacific Journal on Computational Engineering, 2014, 1, .	2.2	2
88	A model for high temperature creep of single crystal superalloys based on nonlocal damage and viscoplastic material behavior. Continuum Mechanics and Thermodynamics, 2014, 26, 551-562.	2.2	8
89	Variational modeling of microstructures in plasticity. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2014, , 65-129.	0.6	3
90	Modeling and Simulation of Damage Processes based on a Gradient-Enhanced Free Energy Function. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 151-152.	0.2	0

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91	Functional Fatigue in polycrystalline Shape Memory Alloys. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 371-372.	0.2	0
92	Identification of the Velocity Field of 2D and 3D Tunnel Models with Frequency Domain Full Waveform Inversion. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 781-782.	0.2	7
93	A constitutive model for granular materials with microstructures using the concept of energy relaxation. Proceedings in Applied Mathematics and Mechanics, 2013, 13, 187-188.	0.2	1
94	Investigation of the influence of reflection on the attenuation of cancellous bone. Biomechanics and Modeling in Mechanobiology, 2013, 12, 185-199.	2.8	6
95	A variational approach to grooving and wetting. Acta Materialia, 2013, 61, 1581-1591.	7.9	9
96	A condensed variational model for thermo-mechanically coupled phase transformations in polycrystalline shape memory alloys. Journal of the Mechanical Behavior of Materials, 2013, 22, 111-118.	1.8	7
97	A Variational Approach to Dynamic Recrystallization Using Probability Distributions. Proceedings in Applied Mathematics and Mechanics, 2013, 13, 275-276.	0.2	2
98	Frequency Domain Waveform Inversion in a Tunnel Environment. Proceedings in Applied Mathematics and Mechanics, 2013, 13, 323-324.	0.2	7
99	High-temperature deformation and recrystallization: A variational analysis and its application to olivine aggregates. Journal of Geophysical Research: Solid Earth, 2013, 118, 943-967.	3.4	16
100	Design of Computer Models for Describing the Dynamic Behaviour of the Ballast Substructure of Railway Bridges. , 2013, , .		1
101	Contribution of the reflection to the attenuation properties of cancellous bone. Complex Variables and Elliptic Equations, 2012, 57, 425-436.	0.8	0
102	On the interrelation between dissipation and chemical energies in modeling shape memory alloys. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 35-36.	0.2	0
103	Prediction of microstructure in a Cosserat continuum using relaxed energies. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 265-266.	0.2	1
104	Single- and multiscale aspects of the modeling of curing polymers. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 303-304.	0.2	0
105	A vanishing viscosity approach to the evolution of microstructures in finite plasticity. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 305-306.	0.2	0
106	A model for martensitic microstructure, its geometry and interface effects. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 345-346.	0.2	1
107	Viscoelastic effects and shrinkage as accompanying phenomena of the curing of polymers. Single- and multiscale effects. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 435-436.	0.2	0
108	Cosserat Parameter Identification within the Frame of the Discrete Element Method. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 447-448.	0.2	2

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109	Modelling the kinetics of a triple junction. Acta Materialia, 2012, 60, 4704-4711.	7.9	14
110	A model for the evolution of laminates in finite‑strain elastoplasticity. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2012, 92, 888-909.	1.6	18
111	Generation and evolution of inelastic microstructures â€•an overview. GAMM Mitteilungen, 2012, 35, 91-106.	5.5	7
112	The influence of particle size and spacing on the fragmentation of nanocomposite anodes for Li batteries. Journal of Power Sources, 2012, 206, 343-348.	7.8	54
113	Performance of mixed and enhanced finite elements for strain localization in hypoplasticity. International Journal for Numerical and Analytical Methods in Geomechanics, 2012, 36, 1125-1150.	3.3	7
114	APPLICATION OF THE MULTISCALE FEM TO THE MODELING OF NONLINEAR COMPOSITES WITH A RANDOM MICROSTRUCTURE. International Journal for Multiscale Computational Engineering, 2012, 10, 213-227.	1.2	29
115	Variational modeling of shape memory alloys â€" an overview. International Journal of Materials Research, 2011, 102, 643-651.	0.3	3
116	Finite element simulations of poly-crystalline shape memory alloys based on a micromechanical model. Computational Mechanics, 2011, 47, 505-517.	4.0	17
117	The evolution of laminates in finite crystal plasticity: a variational approach. Continuum Mechanics and Thermodynamics, 2011, 23, 63-85.	2.2	58
118	Surface energies in microstructure of martensite. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 369-370.	0.2	1
119	Numerical simulation of interface effects in martensitic phase transformation. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 371-372.	0.2	1
120	Application of the Green Tensor to the Modeling of Solution-Precipitation Creep. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 375-376.	0.2	0
121	Simulation of pseudo-plasticity in shape-memory-alloys. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 391-392.	0.2	0
122	Nonlocal damage-viscoplastic model for high temperature creep of single crystal superalloys. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 445-446.	0.2	0
123	Application of Homogenization Techniques to a Seismic Problem. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 541-542.	0.2	0
124	A regularization framework for damage-plasticity models via gradient enhancement of the free energy. International Journal for Numerical Methods in Biomedical Engineering, 2011, 27, 1199-1210.	2.1	70
125	A study on the principle of maximum dissipation for coupled and non-coupled non-isothermal processes in materials. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 1186-1196.	2.1	29
126	A study on the principle of maximum dissipation for coupled and non-coupled non-isothermal processes in materials. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 2422-2426.	2.1	13

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127	APPLICATION OF A BIPHASIC REPRESENTATIVE VOLUME ELEMENT TO THE SIMULATION OF WAVE PROPAGATION THROUGH CANCELLOUS BONE. Journal of Computational Acoustics, 2011, 19, 111-138.	1.0	11
128	Application of the multiscale FEM to the modeling of cancellous bone. Biomechanics and Modeling in Mechanobiology, 2010, 9, 87-102.	2.8	47
129	Configurational forces and couples in fracture mechanics accounting for microstructures and dissipation. International Journal of Solids and Structures, 2010, 47, 2380-2389.	2.7	4
130	On the thermo-mechanically coupled simulation of poly-crystalline Shape Memory Alloys. Proceedings in Applied Mathematics and Mechanics, 2010, 10, 295-296.	0.2	0
131	Formation of persistent slip band–structures during cyclic loading in finite–strain crystal plasticity. Proceedings in Applied Mathematics and Mechanics, 2010, 10, 301-302.	0.2	0
132	Numerical simulation of shear band formation in elastic material by energy relaxation. Proceedings in Applied Mathematics and Mechanics, 2010, 10, 335-336.	0.2	0
133	A Micromechanical Model for Polycrystalline Shape Memory Alloys – Formulation and Numerical Validation. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 91-103.	0.2	0
134	Integrity of Micro-Hotplates During High-Temperature Operation Monitored by Digital Holographic Microscopy. Journal of Microelectromechanical Systems, 2010, 19, 1175-1179.	2.5	14
135	Variational Concepts with Applications to Microstructural Evolution. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 79-90.	0.2	1
136	Solution-Precipitation Creep – Modeling and Extended FE Implementation. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 105-116.	0.2	1
137	Time-Continuous Evolution of Microstructures in Finite Plasticity. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 117-130.	0.2	7
138	An Incremental Strategy for Modeling Laminate Microstructures in Finite Plasticity – Energy Reduction, Laminate Orientation and Cyclic Behavior. Lecture Notes in Applied and Computational Mechanics, 2010, , 117-134.	2.2	7
139	Investigation of the acoustic properties of the cancellous bone. , 2010, , .		0
140	A micromechanical model for martensitic phase–transformations in shape–memory alloys based on energy–relaxation. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2009, 89, 792-809.	1.6	36
141	Time-continuous modeling of microstructures in single-slip finite elasto-plasticity based on energy relaxation. Proceedings in Applied Mathematics and Mechanics, 2009, 9, 35-38.	0.2	1
142	A Model for the Evolution of Laminates. Proceedings in Applied Mathematics and Mechanics, 2009, 9, 43-46.	0.2	0
143	A variational coupled damage-plasticity model via gradient enhancement of the free energy function. Proceedings in Applied Mathematics and Mechanics, 2009, 9, 199-200.	0.2	1
144	Numerical simulations of poly-crystalline shape-memory alloys based on a micromechanical model. Proceedings in Applied Mathematics and Mechanics, 2009, 9, 339-340.	0.2	4

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145	Simulation of diffusional processes from the microscopic and macroscopic point of view. Proceedings in Applied Mathematics and Mechanics, 2009, 9, 429-430.	0.2	0
146	Dynamical evolution of fracture process region in ductile materials. International Journal of Plasticity, 2009, 25, 995-1010.	8.8	13
147	Microstructural evolution during multiaxial deformation of pseudoelastic NiTi studied by first-principles-based micromechanical modeling. Acta Materialia, 2009, 57, 3856-3867.	7.9	28
148	On the numerical simulation of material inhomogeneities due to martensitic phase transformations in poly-crystals. , 2009, , .		5
149	Multiscale modeling for cancellous bone by using shell elements. , 2009, , 249-252.		0
150	A micromechanical model for pretextured polycrystalline shape-memory alloys including elastic anisotropy. Continuum Mechanics and Thermodynamics, 2008, 19, 499-510.	2.2	62
151	Effective parameters of cancellous bone. Proceedings in Applied Mathematics and Mechanics, 2008, 8, 10175-10176.	0.2	0
152	Prediction of microstructural patterns in monocrystalline shape memory alloys using global energy minimization. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 481-482, 362-365.	5.6	4
153	An upper bound to the free energy of n-variant polycrystalline shape memory alloys. Journal of the Mechanics and Physics of Solids, 2008, 56, 2832-2843.	4.8	33
154	Experimental verification of a micromechanical model for polycrystalline shape memory alloys in dependence of martensite orientation distributions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 481-482, 347-350.	5.6	14
155	A novel approach to the modelling of single-crystalline materials undergoing martensitic phase-transformations. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 481-482, 371-375.	5.6	16
156	Hard X-ray studies of stress-induced phase transformations of superelastic NiTi shape memory alloys under uniaxial load. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 481-482, 414-419.	5.6	42
157	On the relation between the principle of maximum dissipation and inelastic evolution given by dissipation potentials. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2008, 464, 117-132.	2.1	156
158	Relaxed Potentials and Evolution Equations for Inelastic Microstructures. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2008, , 27-39.	0.2	14
159	On the calculation of energy-minimizing phase fractions in shape memory alloys. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 2401-2412.	6.6	18
160	Inverse problem for wave propagation in a perturbed layered half-space. Mathematical and Computer Modelling, 2007, 45, 21-33.	2.0	8
161	Finite-element formulations of shear localization in granular materials. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 4030003-4030004.	0.2	0
162	Estimation of material properties of cancellous bone using multiscale FEM. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 4020015-4020016.	0.2	0

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163	An upper bound to the free energy of mixing by twin-compatible lamination for n-variant martensitic phase transformations. Continuum Mechanics and Thermodynamics, 2007, 18, 443-453.	2.2	49
164	Theoretical Prediction on Martensitic Transformation Start-Strain of Nitinol. Materials Transactions, 2006, 47, 720-723.	1.2	3
165	The fundamental role of nonlocal and local balance laws of material forces in finite elastoplasticity and damage mechanics. International Journal of Solids and Structures, 2006, 43, 3940-3959.	2.7	14
166	Computational Microstructures in Phase Transition Solids and Finiteâ€Strain Elastoplasticity. GAMM Mitteilungen, 2006, 29, 215-246.	5.5	1
167	Relaxation and the Computation of Effective Energies and Microstructures in Solid Mechanics. , 2006, , 197-224.		7
168	On the Analysis of Damage Localization as Precursor of Macro-Cracks. , 2006, , 531-532.		0
169	Estimation of crack density due to fragmentation of brittle ellipsoidal inhomogeneities embedded in a ductile matrix. Archive of Applied Mechanics, 2005, 74, 439-448.	2.2	4
170	Solution-precipitation creepâ€"continuum mechanical formulation and micromechanical modelling. Archive of Applied Mechanics, 2005, 74, 773-779.	2.2	6
171	Numerical simulation of microstructures via higher-order rank-one relaxation. Proceedings in Applied Mathematics and Mechanics, 2004, 4, 221-222.	0.2	0
172	Micro-Mechanical Modelling of the Constitutive Behaviour of NiTi Shape Memory Alloys. Proceedings in Applied Mathematics and Mechanics, 2004, 4, 272-273.	0.2	1
173	A micromechanical model for single-crystal shape-memory-alloys. Proceedings in Applied Mathematics and Mechanics, 2004, 4, 298-299.	0.2	3
174	Homogenisation of random composites via the multiscale finite-element method. Proceedings in Applied Mathematics and Mechanics, 2004, 4, 326-327.	0.2	5
175	Numerical aspects of X-SIMP-based topology optimization. Proceedings in Applied Mathematics and Mechanics, 2004, 4, 336-337.	0.2	1
176	Micromechanics of Tension-Compression Asymmetry of Polycrystalline Shape-Memory-Alloys. Materialwissenschaft Und Werkstofftechnik, 2004, 35, 284-288.	0.9	8
177	Thermodynamically consistent nonlocal theory of ductile damage. Mechanics Research Communications, 2004, 31, 355-363.	1.8	4
178	Surface energies and size-effects in shape-memory-alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 378, 499-502.	5.6	17
179	A micromechanical model for polycrystalline shape-memory alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 378, 503-506.	5.6	34
180	Effective relaxation for microstructure simulations: algorithms and applications. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 5143-5175.	6.6	70

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181	Adaptive Wavelet-Algorithms for Inelastic Shells. Lecture Notes in Applied and Computational Mechanics, 2004, , 53-60.	2.2	0
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