

Klaus Hackl

List of Publications by Year in descending order

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206
papers

2,615
citations

236925

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45
g-index

218
all docs

218
docs citations

218
times ranked

1444
citing authors

#	ARTICLE	IF	CITATIONS
1	Non-convex potentials and microstructures in finite-strain plasticity. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2002, 458, 299-317.	2.1	296
2	Intrasubject repeatability of gait analysis data in normal and spastic children. Clinical Biomechanics, 2000, 15, 134-139.	1.2	184
3	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
4	Generalized standard media and variational principles in classical and finite strain elastoplasticity. Journal of the Mechanics and Physics of Solids, 1997, 45, 667-688.	4.8	95
5	Effective relaxation for microstructure simulations: algorithms and applications. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 5143-5175.	6.6	70
6	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
7	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
8	A micromechanical model for pretextured polycrystalline shape-memory alloys including elastic anisotropy. Continuum Mechanics and Thermodynamics, 2008, 19, 499-510.	2.2	62
9	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
10	The evolution of laminates in finite crystal plasticity: a variational approach. Continuum Mechanics and Thermodynamics, 2011, 23, 63-85.	2.2	58
11	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
12	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
13	Application of the multiscale FEM to the modeling of cancellous bone. Biomechanics and Modeling in Mechanobiology, 2010, 9, 87-102.	2.8	47
14	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
15	Micromechanical concept for the analysis of damage evolution in thermo-viscoelastic and quasi-brittle materials. International Journal of Solids and Structures, 2003, 40, 1567-1584.	2.7	36
16	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
17	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
18	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

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19	Stability, bifurcation and chaos of non-linear structures with control. I. Autonomous case. International Journal of Non-Linear Mechanics, 1993, 28, 441-454.	2.6	29
20	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
21	The principle of the minimum of the dissipation potential for non-isothermal processes. Continuum Mechanics and Thermodynamics, 2014, 26, 259-268.	2.2	29
22	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
23	Microstructural evolution during multiaxial deformation of pseudoelastic NiTi studied by first-principles-based micromechanical modeling. Acta Materialia, 2009, 57, 3856-3867.	7.9	28
24	Topology optimization with anisotropic materials, including a filter to smooth fiber pathways. Structural and Multidisciplinary Optimization, 2020, 61, 2135-2154.	3.5	27
25	Stability, bifurcation and chaos of non-linear structures with control. II. Non-autonomous case. International Journal of Non-Linear Mechanics, 1993, 28, 549-565.	2.6	26
26	A variational growth approach to topology optimization. Structural and Multidisciplinary Optimization, 2015, 52, 293-304.	3.5	25
27	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
28	A thermo-mechanically coupled field model for shape memory alloys. Continuum Mechanics and Thermodynamics, 2014, 26, 859-877.	2.2	21
29	Adaptive Concurrent Topology Optimization of Coated Structures with Nonperiodic Infill for Additive Manufacturing. CAD Computer Aided Design, 2020, 129, 102918.	2.7	21
30	Improved thermodynamic treatment of vacancy-mediated diffusion and creep. Acta Materialia, 2016, 108, 347-354.	7.9	19
31	An accurate and fast regularization approach to thermodynamic topology optimization. International Journal for Numerical Methods in Engineering, 2019, 117, 991-1017.	2.8	19
32	Rate theory of nonlocal gradient damage-gradient viscoelasticity. International Journal of Plasticity, 2003, 19, 675-706.	8.8	18
33	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
34	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
35	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
36	A relaxation-based approach to damage modeling. Continuum Mechanics and Thermodynamics, 2017, 29, 291-310.	2.2	18

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37	Three-dimensional numerical simulation of soft-tissue wound healing using constrained-mixture anisotropic hyperelasticity and gradient-enhanced damage mechanics. <i>Journal of the Royal Society Interface</i> , 2020, 17, 20190708.	3.4	18
38	Surface energies and size-effects in shape-memory-alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004, 378, 499-502.	5.6	17
39	Finite element simulations of poly-crystalline shape memory alloys based on a micromechanical model. <i>Computational Mechanics</i> , 2011, 47, 505-517.	4.0	17
40	A novel approach to the modelling of single-crystalline materials undergoing martensitic phase-transformations. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 481-482, 371-375.	5.6	16
41	High-temperature deformation and recrystallization: A variational analysis and its application to olivine aggregates. <i>Journal of Geophysical Research: Solid Earth</i> , 2013, 118, 943-967.	3.4	16
42	An evolutionary topology optimization approach with variationally controlled growth. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016, 310, 780-801.	6.6	16
43	Dissipation distances in multiplicative elastoplasticity. <i>Lecture Notes in Applied and Computational Mechanics</i> , 2003, , 87-100.	2.2	16
44	A fully-relaxed variationally-consistent framework for inelastic micro-sphere models: Finite viscoelasticity. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 127, 1-19.	4.8	15
45	On the Calculation of Microstructures for Inelastic Materials using Relaxed Energies. <i>Solid Mechanics and Its Applications</i> , 2003, , 77-86.	0.2	15
46	The fundamental role of nonlocal and local balance laws of material forces in finite elastoplasticity and damage mechanics. <i>International Journal of Solids and Structures</i> , 2006, 43, 3940-3959.	2.7	14
47	Experimental verification of a micromechanical model for polycrystalline shape memory alloys in dependence of martensite orientation distributions. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 481-482, 347-350.	5.6	14
48	Integrity of Micro-Hotplates During High-Temperature Operation Monitored by Digital Holographic Microscopy. <i>Journal of Microelectromechanical Systems</i> , 2010, 19, 1175-1179.	2.5	14
49	Modelling the kinetics of a triple junction. <i>Acta Materialia</i> , 2012, 60, 4704-4711.	7.9	14
50	Optimized growth and reorientation of anisotropic material based on evolution equations. <i>Computational Mechanics</i> , 2018, 62, 47-66.	4.0	14
51	Gradient-enhanced continuum models of healing in damaged soft tissues. <i>Biomechanics and Modeling in Mechanobiology</i> , 2019, 18, 1443-1460.	2.8	14
52	Relaxed Potentials and Evolution Equations for Inelastic Microstructures. <i>IUTAM Symposium on Cellular, Molecular and Tissue Mechanics</i> , 2008, , 27-39.	0.2	14
53	Dynamical evolution of fracture process region in ductile materials. <i>International Journal of Plasticity</i> , 2009, 25, 995-1010.	8.8	13
54	A study on the principle of maximum dissipation for coupled and non-coupled non-isothermal processes in materials. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2011, 467, 2422-2426.	2.1	13

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55	A discontinuous phase field approach to variational growth-based topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2016, 54, 81-94.	3.5	13
56	On the existence, uniqueness and completeness of displacements and stress functions in linear elasticity. <i>Journal of Elasticity</i> , 1988, 19, 3-23.	1.9	12
57	Linking mathematics with engineering applications at an early stage – implementation, experimental set-up and evaluation of a pilot project. <i>European Journal of Engineering Education</i> , 2016, 41, 172-191.	2.3	12
58	Hypoplastic particle finite element model for cutting tool-soil interaction simulations: Numerical analysis and experimental validation. <i>Underground Space (China)</i> , 2018, 3, 61-71.	7.5	12
59	Mechanical and hydrodynamic characteristics of emerged porous Gyroid breakwaters based on triply periodic minimal surfaces. <i>Ocean Engineering</i> , 2022, 254, 111392.	4.3	12
60	APPLICATION OF A BIPHASIC REPRESENTATIVE VOLUME ELEMENT TO THE SIMULATION OF WAVE PROPAGATION THROUGH CANCELLOUS BONE. <i>Journal of Computational Acoustics</i> , 2011, 19, 111-138.	1.0	11
61	A coupled dissipation functional for modeling the functional fatigue in polycrystalline shape memory alloys. <i>European Journal of Mechanics, A/Solids</i> , 2016, 55, 110-121.	3.7	11
62	A Concept for the Estimation of Soil-Tool Abrasive Wear Using ASTM-G65 Test Data. <i>International Journal of Civil Engineering</i> , 2019, 17, 103-111.	2.0	11
63	Comparison of thermodynamic topology optimization with SIMP. <i>Continuum Mechanics and Thermodynamics</i> , 2019, 31, 521-548.	2.2	11
64	Model-free data-driven simulation of inelastic materials using structured data sets, tangent space information and transition rules. <i>Computational Mechanics</i> , 2022, 70, 425-435.	4.0	11
65	On the representation of anisotropic elastic materials by symmetric irreducible tensors. <i>Continuum Mechanics and Thermodynamics</i> , 1999, 11, 353-369.	2.2	10
66	Modeling the Cyclic Behavior of Shape Memory Alloys. <i>Shape Memory and Superelasticity</i> , 2017, 3, 124-138.	2.2	10
67	A MULTISCALE VISION-ILLUSTRATIVE APPLICATIONS FROM BIOLOGY TO ENGINEERING. <i>International Journal for Multiscale Computational Engineering</i> , 2021, 19, 39-73.	1.2	10
68	A variational approach to grooving and wetting. <i>Acta Materialia</i> , 2013, 61, 1581-1591.	7.9	9
69	A canonical rate-independent model of geometrically linear isotropic gradient plasticity with isotropic hardening and plastic spin accounting for the Burgers vector. <i>Continuum Mechanics and Thermodynamics</i> , 2019, 31, 1477-1502.	2.2	9
70	Micromechanics of Tension-Compression Asymmetry of Polycrystalline Shape-Memory-Alloys. <i>Materialwissenschaft Und Werkstofftechnik</i> , 2004, 35, 284-288.	0.9	8
71	Inverse problem for wave propagation in a perturbed layered half-space. <i>Mathematical and Computer Modelling</i> , 2007, 45, 21-33.	2.0	8
72	A model for high temperature creep of single crystal superalloys based on nonlocal damage and viscoplastic material behavior. <i>Continuum Mechanics and Thermodynamics</i> , 2014, 26, 551-562.	2.2	8

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73	Variational regularization of damage models based on the emulated RVE. Continuum Mechanics and Thermodynamics, 2021, 33, 69-95.	2.2	8
74	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
75	Generation and evolution of inelastic microstructures –an overview. GAMM Mitteilungen, 2012, 35, 91-106.	5.5	7
76	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
77	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
78	Frequency Domain Waveform Inversion in a Tunnel Environment. Proceedings in Applied Mathematics and Mechanics, 2013, 13, 323-324.	0.2	7
79	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
80	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
81	Relaxation and the Computation of Effective Energies and Microstructures in Solid Mechanics. , 2006, , 197-224.		7
82	Time-Continuous Evolution of Microstructures in Finite Plasticity. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 117-130.	0.2	7
83	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
84	Density gradient enhanced topology optimization of continuum structures. Proceedings in Applied Mathematics and Mechanics, 2003, 3, 292-293.	0.2	6
85	Solution-precipitation creep –“continuum mechanical formulation and micromechanical modelling. Archive of Applied Mechanics, 2005, 74, 773-779.	2.2	6
86	Investigation of the influence of reflection on the attenuation of cancellous bone. Biomechanics and Modeling in Mechanobiology, 2013, 12, 185-199.	2.8	6
87	A variational approach to the modelling of grooving in a three-dimensional setting. Acta Materialia, 2017, 129, 331-342.	7.9	6
88	Modeling of Microstructures in a Cosserat Continuum Using Relaxed Energies. Springer INdAM Series, 2018, , 103-125.	0.5	6
89	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
90	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

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91	A framework for nonlinear shells based on generalized stress and strain measures. <i>International Journal of Solids and Structures</i> , 1997, 34, 1609-1632.	2.7	5
92	On microstructures occurring in a model of finite-strain elastoplasticity involving a single slip-system. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2000, 80, 421-422.	1.6	5
93	Homogenisation of random composites via the multiscale finite-element method. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2004, 4, 326-327.	0.2	5
94	A mechanical model for dissolutionâ€“precipitation creep based on the minimum principle of the dissipation potential. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2015, 471, 20140994.	2.1	5
95	On the numerical simulation of material inhomogeneities due to martensitic phase transformations in poly-crystals. , 2009, , .		5
96	Modeling of Microstructures in a Cosserat Continuum Using Relaxed Energies: Analytical and Numerical Aspects. <i>Advances in Mechanics and Mathematics</i> , 2021, , 57-87.	0.7	5
97	A hybrid exploration approach for the prediction of geological changes ahead of mechanized tunnel excavation. <i>Journal of Applied Geophysics</i> , 2022, 203, 104684.	2.1	5
98	Incremental Variational Principles in Damage Mechanics. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2003, 2, 216-217.	0.2	4
99	Thermodynamically consistent nonlocal theory of ductile damage. <i>Mechanics Research Communications</i> , 2004, 31, 355-363.	1.8	4
100	Estimation of crack density due to fragmentation of brittle ellipsoidal inhomogeneities embedded in a ductile matrix. <i>Archive of Applied Mechanics</i> , 2005, 74, 439-448.	2.2	4
101	Prediction of microstructural patterns in monocrystalline shape memory alloys using global energy minimization. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 481-482, 362-365.	5.6	4
102	Numerical simulations of poly-crystalline shape-memory alloys based on a micromechanical model. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2009, 9, 339-340.	0.2	4
103	Configurational forces and couples in fracture mechanics accounting for microstructures and dissipation. <i>International Journal of Solids and Structures</i> , 2010, 47, 2380-2389.	2.7	4
104	On the treatment of non-reciprocal rate-independent kinetics via thermodynamic extremal principles. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 145, 104149.	4.8	4
105	Forward and inverse problems in piezoelectricity using isogeometric symmetric Galerkin boundary element method and level set method. <i>Engineering Analysis With Boundary Elements</i> , 2020, 113, 118-132.	3.7	4
106	Acoustic Green's Function Approximations. <i>Journal of Computational Acoustics</i> , 1998, 06, 435-452.	1.0	3
107	A micromechanical model for single-crystal shape-memory-alloys. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2004, 4, 298-299.	0.2	3
108	Theoretical Prediction on Martensitic Transformation Start-Strain of Nitinol. <i>Materials Transactions</i> , 2006, 47, 720-723.	1.2	3

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109	Variational modeling of shape memory alloys – an overview. International Journal of Materials Research, 2011, 102, 643-651.	0.3	3
110	Variational modeling of microstructures in plasticity. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2014, , 65-129.	0.6	3
111	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
112	APPLICATION OF THE MULTISCALE FEM TO THE DETERMINATION OF MACROSCOPIC DEFORMATIONS CAUSED BY DISSOLUTION-PRECIPIATION CREEP. International Journal for Multiscale Computational Engineering, 2016, 14, 95-111.	1.2	3
113	A relaxation-based approach to damage modeling. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 173-174.	0.2	3
114	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
115	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
116	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
117	A fully coupled two-phase bone material model. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000144.	0.2	3
118	Acoustic waveform inversion in frequency domain: Application to a tunnel environment. Underground Space (China), 2021, 6, 560-576.	7.5	3
119	Asymptotic Methods in Underwater Acoustics. International Society for Analysis, Applications and Computation, 1998, , 229-240.	0.1	3
120	Cosserat Parameter Identification within the Frame of the Discrete Element Method. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 447-448.	0.2	2
121	A Variational Approach to Dynamic Recrystallization Using Probability Distributions. Proceedings in Applied Mathematics and Mechanics, 2013, 13, 275-276.	0.2	2
122	Modelling of shear localization in solids by means of energy relaxation. Asia Pacific Journal on Computational Engineering, 2014, 1, .	2.2	2
123	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
124	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
125	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
126	Sensitivity analysis of non-local damage in soft biological tissues. International Journal for Numerical Methods in Biomedical Engineering, 2021, 37, e3427.	2.1	2

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127	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
128	An effective model for cancellous bone with a viscous interstitial fluid *. Applicable Analysis, 0, , 1-12.	1.3	2
129	Simulations of a multiscale bone material model. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	2
130	On the Calculation of Plastic Spin in a Model of Crystal Plasticity Based on Symmetric Tensors. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2000, 80, 451-452.	1.6	1
131	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
132	Numerical aspects of X-SIMP-based topology optimization. Proceedings in Applied Mathematics and Mechanics, 2004, 4, 336-337.	0.2	1
133	Computational Microstructures in Phase Transition Solids and Finite-Strain Elastoplasticity. GAMM Mitteilungen, 2006, 29, 215-246.	5.5	1
134	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
135	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
136	Surface energies in microstructure of martensite. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 369-370.	0.2	1
137	Numerical simulation of interface effects in martensitic phase transformation. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 371-372.	0.2	1
138	Prediction of microstructure in a Cosserat continuum using relaxed energies. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 265-266.	0.2	1
139	A model for martensitic microstructure, its geometry and interface effects. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 345-346.	0.2	1
140	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
141	Design of Computer Models for Describing the Dynamic Behaviour of the Ballast Substructure of Railway Bridges. , 2013, , .		1
142	Modeling Dynamic Recrystallization in Polycrystalline Materials via Probability Distribution Functions. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 339-340.	0.2	1
143	Forward and Inverse Viscoacoustic Modelling in a Tunnel Environment. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 527-528.	0.2	1
144	Relating DEM contact parameters to macroscopic material parameters. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 563-564.	0.2	1

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145	Grain boundary kinetics in polycrystalline material using orientation dependent interface energy. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 477-478.	0.2	1
146	Topology and material orientation optimization based on evolution equations. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 739-740.	0.2	1
147	On an accurate and fast regularization approach to thermodynamic based topology optimization. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800137.	0.2	1
148	Constraints in thermodynamic extremal principles for non-local dissipative processes. Continuum Mechanics and Thermodynamics, 2020, 32, 1337-1345.	2.2	1
149	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
150	The effective equations for the ultrasonic response of wet cortical bone. Mathematical Methods in the Applied Sciences, 2021, 44, 9096-9109.	2.3	1
151	A Survey on Time-Integration Algorithms for Convex and Nonconvex Elastoplasticity. Nonconvex Optimization and Its Applications, 2001, , 123-136.	0.1	1
152	Variational Concepts with Applications to Microstructural Evolution. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 79-90.	0.2	1
153	Solution-Precipitation Creep Modeling and Extended FE Implementation. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 105-116.	0.2	1
154	Inverse modeling of cancellous bone using artificial neural networks. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2022, 102, .	1.6	1
155	Variational based effective models for inelastic materials. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	1
156	On the genericity of a bifurcation point of infinite type and multiple solutions of an elastic membrane. Nonlinear Analysis: Theory, Methods & Applications, 1993, 21, 911-923.	1.1	0
157	Numerische Berechnung von Mikrostrukturen bei inelastischen Materialien mittels relaxierter Energien. Proceedings in Applied Mathematics and Mechanics, 2003, 2, 192-193.	0.2	0
158	Numerical simulation of microstructures based on incremental variational formulations and relaxation methods. Proceedings in Applied Mathematics and Mechanics, 2003, 3, 284-285.	0.2	0
159	Numerical simulation of microstructures via higher-order rank-one relaxation. Proceedings in Applied Mathematics and Mechanics, 2004, 4, 221-222.	0.2	0
160	Finite-element formulations of shear localization in granular materials. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 4030003-4030004.	0.2	0
161	Estimation of material properties of cancellous bone using multiscale FEM. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 4020015-4020016.	0.2	0
162	Effective parameters of cancellous bone. Proceedings in Applied Mathematics and Mechanics, 2008, 8, 10175-10176.	0.2	0

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163	A Model for the Evolution of Laminates. Proceedings in Applied Mathematics and Mechanics, 2009, 9, 43-46.	0.2	0
164	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
165	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
166	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
167	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
168	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
169	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
170	Simulation of pseudo-plasticity in shape-memory-alloys. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 391-392.	0.2	0
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