

Thorsten Bartel

List of Publications by Year in descending order

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Version: 2024-02-01

39
papers

297
citations

933447

10
h-index

888059

17
g-index

40
all docs

40
docs citations

40
times ranked

191
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermodynamic and relaxation-based modeling of the interaction between martensitic phase transformations and plasticity. <i>Journal of the Mechanics and Physics of Solids</i> , 2011, 59, 1004-1019.	4.8	48
2	A micromechanical model for martensitic phase transformations in shape-memory alloys based on energy-relaxation. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2009, 89, 792-809.	1.6	36
3	On the thermomechanical coupling in dissipative materials: A variational approach for generalized standard materials. <i>Journal of the Mechanics and Physics of Solids</i> , 2015, 82, 218-234.	4.8	35
4	Implementation of numerical integration schemes for the simulation of magnetic SMA constitutive response. <i>Smart Materials and Structures</i> , 2012, 21, 094007.	3.5	27
5	Towards the simulation of Selective Laser Melting processes via phase transformation models. <i>Computers and Mathematics With Applications</i> , 2019, 78, 2267-2281.	2.7	23
6	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
7	An energy-barrier-based computational micro-sphere model for phase-transformations interacting with plasticity. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 293, 232-265.	6.6	12
8	A computational micro-sphere model applied to the simulation of phase-transformations. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2010, 90, 605-622.	1.6	11
9	Evaluation of different approaches for modeling phase transformations in machining simulation. <i>Production Engineering</i> , 2015, 9, 437-449.	2.3	11
10	A computational phase transformation model for selective laser melting processes. <i>Computational Mechanics</i> , 2020, 66, 1321-1342.	4.0	11
11	Numerical energy relaxation to model microstructure evolution in functional magnetic materials. <i>GAMM Mitteilungen</i> , 2015, 38, 171-196.	5.5	8
12	A kinematically-enhanced relaxation scheme for the modeling of displacive phase transformations. <i>Journal of Intelligent Material Systems and Structures</i> , 2015, 26, 701-717.	2.5	6
13	A phenomenological model for the simulation of functional fatigue in shape memory alloy wires. <i>Meccanica</i> , 2017, 52, 973-988.	2.0	6
14	Simulation of magnetised microstructure evolution based on a micromagnetics-inspired FE framework: application to magnetic shape memory behaviour. <i>Archive of Applied Mechanics</i> , 2019, 89, 1085-1102.	2.2	6
15	On the incorporation of a micromechanical material model into the inherent strain method Application to the modeling of selective laser melting. <i>GAMM Mitteilungen</i> , 2021, 44, e202100015.	5.5	6
16	Phase-transformations interacting with plasticity – A micro-sphere model applied to TRIP steel. <i>Computational Materials Science</i> , 2012, 64, 12-16.	3.0	5
17	A Gibbs-energy-barrier-based computational micro-sphere model for the simulation of martensitic phase-transformations. <i>International Journal for Numerical Methods in Engineering</i> , 2014, 97, 851-877.	2.8	5
18	Investigations on enhanced Fischer-Burmeister NCP functions: application to a rate-dependent model for ferroelectrics. <i>Archive of Applied Mechanics</i> , 2019, 89, 995-1010.	2.2	5

#	ARTICLE	IF	CITATIONS
19	An energy-relaxation-based framework for the modeling of magnetic shape memory alloys – Simulation of three-dimensional effects under homogeneous loading conditions. International Journal of Solids and Structures, 2021, 208-209, 221-234.	2.7	4
20	Partially relaxed energy potentials for the modelling of microstructures – application to shape memory alloys. GAMM Mitteilungen, 2012, 35, 59-74.	5.5	3
21	A finite element framework for the modelling and simulation of phase transforming magnetic solids using energy relaxation concepts. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800415.	0.2	3
22	A micro-sphere approach applied to the modelling of phase-transformations. Proceedings in Applied Mathematics and Mechanics, 2010, 10, 315-316.	0.2	2
23	Interaction of phase-transformations and plasticity - a multi-phase micro-sphere approach. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 417-418.	0.2	2
24	Modelling and simulation of cyclic thermomechanical behaviour of NiTi wires using a weak discontinuity approach. International Journal of Fracture, 2016, 202, 281-293.	2.2	2
25	An energy-relaxation-based framework for the modelling of magnetic shape memory alloys – Simulation of key response features under homogeneous loading conditions. International Journal of Solids and Structures, 2020, 182-183, 162-178.	2.7	2
26	On Variationally-Consistent Homogenization Approaches in Multi-Phase Magnetic Solids. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 517-518.	0.2	1
27	A thermodynamically consistent modelling framework for strongly time-dependent bainitic phase transitions. International Journal of Solids and Structures, 2021, 232, 111172.	2.7	1
28	Simulation of phase-transformations based on numerical minimization of intersecting Gibbs energy potentials. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 277-278.	0.2	0
29	An Advanced Energy Relaxation Scheme for the Modeling of Displacive Phase Transformations. , 2013, , .		0
30	Modeling of Single Crystal Magnetostriction Based on Numerical Energy Relaxation Techniques. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 399-400.	0.2	0
31	Numerical Modeling of Functional Fatigue in NiTi Wires. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 341-342.	0.2	0
32	Rank-One Convexification Approach for the Modeling of Magnetic Shape Memory Response. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 311-312.	0.2	0
33	Extending a finite strain hyperelastic micro-sphere framework towards phase transformations. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 381-382.	0.2	0
34	Towards the Embedding of Relaxation-based Magnetostriction Models into a Micromagnetically-Motivated Finite Element Framework. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 433-434.	0.2	0
35	Towards a micromagnetics-inspired framework for the modelling of variant switching in magnetic shape memory alloys. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 399-400.	0.2	0
36	Investigations on different Fischer-Burmeister functions applied to the modelling of ferroelectrics. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800331.	0.2	0

#	ARTICLE	IF	CITATIONS
37	A thermomechanical modelling framework for selective laser melting based on phase transformations. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900059.	0.2	0
38	Preface on mechanics of additive manufacturingâ€™Part I. GAMM Mitteilungen, 2021, 44, e202100016.	5.5	0
39	Preface on mechanics of additive manufacturingâ€™Part <scp>II</scp>. GAMM Mitteilungen, 2021, 44, e202100020.	5.5	0