Geralf Hütter

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/9029278/publications.pdf Version: 2024-02-01



<u> <u>Cedaie Ηδίμττερ</u></u>

#	Article	IF	CITATIONS
1	Micromechanisms of fracture in nodular cast iron: From experimental findings towards modeling strategies – A review. Engineering Fracture Mechanics, 2015, 144, 118-141.	2.0	75
2	Simulation of fatigue crack growth with a cyclic cohesive zone model. International Journal of Fracture, 2014, 188, 23-45.	1.1	61
3	A hybrid approach to simulate the homogenized irreversible elastic–plastic deformations and damage of foams by neural networks. International Journal of Plasticity, 2020, 126, 102624.	4.1	60
4	An efficient FE-implementation of implicit gradient-enhanced damage models to simulate ductile failure. Engineering Fracture Mechanics, 2018, 199, 41-60.	2.0	54
5	Simulation of ductile crack initiation and propagation by means of a non-local Gurson-model. International Journal of Solids and Structures, 2013, 50, 662-671.	1.3	53
6	Homogenization of a Cauchy continuum towards a micromorphic continuum. Journal of the Mechanics and Physics of Solids, 2017, 99, 394-408.	2.3	47
7	Simulation of crack propagation using a gradient-enriched ductile damage model based on dilatational strain. Engineering Fracture Mechanics, 2012, 95, 13-28.	2.0	40
8	A modeling approach for the complete ductile–brittle transition region: cohesive zone in combination with a non-local Gurson-model. International Journal of Fracture, 2014, 185, 129-153.	1.1	33
9	Size effects in ductile failure of porous materials containing two populations of voids. European Journal of Mechanics, A/Solids, 2014, 45, 8-19.	2.1	33
10	On the micro-macro relation for the microdeformation in the homogenization towards micromorphic and micropolar continua. Journal of the Mechanics and Physics of Solids, 2019, 127, 62-79.	2.3	26
11	On the identification and uniqueness of constitutive parameters for a non-local GTN-model. Engineering Fracture Mechanics, 2020, 229, 106817.	2.0	26
12	Influence of carbide particles on crack initiation and propagation with competing ductile-brittle transition in ferritic steel. Theoretical and Applied Fracture Mechanics, 2017, 92, 89-98.	2.1	24
13	An efficient monolithic solution scheme for FE2 problems. Computer Methods in Applied Mechanics and Engineering, 2021, 382, 113886.	3.4	21
14	Micromechanical modeling of crack propagation in nodular cast iron with competing ductile and cleavage failure. Engineering Fracture Mechanics, 2015, 147, 388-397.	2.0	20
15	Consistent simulation of ductile crack propagation with discrete 3D voids. Computational Materials Science, 2013, 80, 61-70.	1.4	19
16	Micromorphic homogenization of a porous medium: elastic behavior and quasi-brittle damage. Continuum Mechanics and Thermodynamics, 2015, 27, 1059-1072.	1.4	19
17	A micromechanical gradient extension of Gurson's model of ductile damage within the theory of microdilatational media. International Journal of Solids and Structures, 2017, 110-111, 15-23.	1.3	19
18	Analytical solutions of the simple shear problem for micromorphic models and other generalized continua. Archive of Applied Mechanics, 2021, 91, 2237-2254.	1.2	18

Geralf Hütter

#	Article	IF	CITATIONS
19	Size effects due to secondary voids during ductile crack propagation. International Journal of Solids and Structures, 2014, 51, 839-847.	1.3	17
20	Application of a microstrain continuum to size effects in bending and torsion of foams. International Journal of Engineering Science, 2016, 101, 81-91.	2.7	16
21	Analytical solutions of the cylindrical bending problem for the relaxed micromorphic continuum and other generalized continua. Continuum Mechanics and Thermodynamics, 2021, 33, 1505-1539.	1.4	16
22	Numerical investigation of low cycle fatigue mechanism in nodular cast iron. International Journal of Fatigue, 2018, 113, 290-298.	2.8	15
23	Ductile crack propagation by plastic collapse of the intervoid ligaments. International Journal of Fracture, 2012, 176, 81-96.	1.1	11
24	An extended Coleman–Noll procedure for generalized continuum theories. Continuum Mechanics and Thermodynamics, 2016, 28, 1935-1941.	1.4	11
25	A first-order strain gradient damage model for simulating quasi-brittle failure in porous elastic solids. Archive of Applied Mechanics, 2013, 83, 955-967.	1.2	9
26	Dislocation pile-up and cleavage: effects of strain gradient plasticity on micro-crack initiation in ferritic steel. International Journal of Fracture, 2018, 214, 1-15.	1.1	9
27	Analytical solution of the cylindrical torsion problem for the relaxed micromorphic continuum and other generalized continua (including full derivations). Mathematics and Mechanics of Solids, 2022, 27, 507-553.	1.5	9
28	A Hybrid Approach Employing Neural Networks to Simulate the Elastoâ^'Plastic Deformation Behavior of 3Dâ€Foam Structures. Advanced Engineering Materials, 2022, 24, 2100641.	1.6	9
29	Kinematics and constitutive relations in the stress-gradient theory: interpretation by homogenization. International Journal of Solids and Structures, 2020, 193-194, 90-97.	1.3	8
30	Influence of topology and porosity on size effects in stripes of cellular material with honeycomb structure under shear, tension and bending. Mechanics of Materials, 2021, 154, 103727.	1.7	8
31	Simulation of local instabilities during crack propagation in the ductile–brittle transition region. European Journal of Mechanics, A/Solids, 2011, 30, 195-203.	2.1	7
32	Micromechanical Modeling of Crack Propagation with Competing Ductile and Cleavage Failure. , 2014, 3, 428-433.		6
33	Micromorphic homogenisation and its application to a model of ductile damage. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 599-600.	0.2	6
34	Influence of the Foam Morphology on the Mechanical Behavior of Flowâ€Through Foam Filters During Filtration Processes. Advanced Engineering Materials, 2022, 24, 2100784.	1.6	3
35	A Novel Micromechanics Approach for Understanding of Fatigue in Nodular Cast Iron. Procedia Structural Integrity, 2018, 13, 607-612.	0.3	2
36	Micromechanical simulation of fatigue in nodular cast iron under stressâ€controlled loading. Material Design and Processing Communications, 2021, 3, e214.	0.5	2

Geralf Hütter

#	Article	IF	CITATIONS
37	Coleman–Noll Procedure for Classical and Generalized Continuum Theories. , 2018, , 1-8.		1
38	Effect of Gradient Plasticity on Crack Initiation and Propagation in the Ductile-Brittle Transition Region of Ferritic Steel. Procedia Structural Integrity, 2018, 13, 45-50.	0.3	1
39	A hybrid approach for the multiâ€scale simulation of irreversible material behavior incorporating neural networks. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000248.	0.2	1
40	Simulation of Crack Propagation under Small-Scale Yielding by means of a Non-local GTN-Model. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 157-158.	0.2	0
41	Micromechanical Modeling of Crack Initiation and Propagation in the Ductile-Brittle Transition Region. Key Engineering Materials, 2016, 713, 58-61.	0.4	0
42	Micromorphic Homogenisation of a Porous Medium: Application to Size Effects and Quasiâ€Brittle Damage. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 347-348.	0.2	0
43	Meinhard Kuna: Physics and Engineering at the Crack Tip—A Retrospective. , 2016, , 3-22.		0
44	Characterising Fatigue Behaviour of Nodular Cast Iron Using Micromechanical Simulations. MATEC Web of Conferences, 2019, 300, 13002.	0.1	0
45	Efficient monolithic solution of FE2 problems. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	0