Geralf Htter

List of Publications by Citations

43 papers	563 citations	14 h-index	22 g-index
46 ext. papers	677 ext. citations	2.9 avg, IF	4.89 L-index

#	Paper	IF	Citations
43	Micromechanisms of fracture in nodular cast iron: From experimental findings towards modeling strategies – A review. *Engineering Fracture Mechanics*, **2015**, 144, 118-141	4.2	65
42	Simulation of fatigue crack growth with a cyclic cohesive zone model. *International Journal of Fracture*, **2014**, 188, 23-45	2.3	47
41	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	3.1	39
40	Homogenization of a Cauchy continuum towards a micromorphic continuum. *Journal of the Mechanics and Physics of Solids*, **2017**, 99, 394-408	5	35
39	Simulation of crack propagation using a gradient-enriched ductile damage model based on dilatational strain. *Engineering Fracture Mechanics*, **2012**, 95, 13-28	4.2	35
38	An efficient FE-implementation of implicit gradient-enhanced damage models to simulate ductile failure. *Engineering Fracture Mechanics*, **2018**, 199, 41-60	4.2	29
37	Size effects in ductile failure of porous materials containing two populations of voids. *European Journal of Mechanics, A/Solids*, **2014**, 45, 8-19	3.7	29
36	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	7.6	28
35	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	2.3	26
34	Micromechanical modeling of crack propagation in nodular cast iron with competing ductile and cleavage failure. *Engineering Fracture Mechanics*, **2015**, 147, 388-397	4.2	18
33	Consistent simulation of ductile crack propagation with discrete 3D voids. *Computational Materials Science*, **2013**, 80, 61-70	3.2	18
32	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	3.7	17
31	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	3.1	16
30	Micromorphic homogenization of a porous medium: elastic behavior and quasi-brittle damage. *Continuum Mechanics and Thermodynamics*, **2015**, 27, 1059-1072	3.5	16
29	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	5	14
28	Size effects due to secondary voids during ductile crack propagation. *International Journal of Solids and Structures*, **2014**, 51, 839-847	3.1	13
27	On the identification and uniqueness of constitutive parameters for a non-local GTN-model. *Engineering Fracture Mechanics*, **2020**, 229, 106817	4.2	12

26	Numerical investigation of low cycle fatigue mechanism in nodular cast iron. *International Journal of Fatigue*, **2018**, 113, 290-298	5	11
25	Application of a microstrain continuum to size effects in bending and torsion of foams. *International Journal of Engineering Science*, **2016**, 101, 81-91	5.7	11
24	Ductile crack propagation by plastic collapse of the intervoid ligaments. *International Journal of Fracture*, **2012**, 176, 81-96	2.3	11
23	A first-order strain gradient damage model for simulating quasi-brittle failure in porous elastic solids. *Archive of Applied Mechanics*, **2013**, 83, 955-967	2.2	9
22	Kinematics and constitutive relations in the stress-gradient theory: interpretation by homogenization. *International Journal of Solids and Structures*, **2020**, 193-194, 90-97	3.1	8
21	Analytical solutions of the simple shear problem for micromorphic models and other generalized continua. *Archive of Applied Mechanics*, **2021**, 91, 2237-2254	2.2	8
20	Simulation of local instabilities during crack propagation in the ductile–brittle transition region. *European Journal of Mechanics, A/Solids*, **2011**, 30, 195-203	3.7	7
19	An extended Coleman–Noll procedure for generalized continuum theories. *Continuum Mechanics and Thermodynamics*, **2016**, 28, 1935-1941	3.5	7
18	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	2.3	7
17	An efficient monolithic solution scheme for FE2 problems. *Computer Methods in Applied Mechanics and Engineering*, **2021**, 382, 113886	5.7	7
16	Micromechanical Modeling of Crack Propagation with Competing Ductile and Cleavage Failure **2014**, 3, 428-433		5
15	Analytical solutions of the cylindrical bending problem for the relaxed micromorphic continuum and other generalized continua. *Continuum Mechanics and Thermodynamics*, **2021**, 33, 1505-1539	3.5	5
14	Micromorphic homogenisation and its application to a model of ductile damage. *Proceedings in Applied Mathematics and Mechanics*, **2017**, 17, 599-600	0.2	2
13	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	3.3	2
12	Analytical solution of the cylindrical torsion problem for the relaxed micromorphic continuum and other generalized continua (including full derivations). *Mathematics and Mechanics of Solids*,10812865211023	2.3	2
11	Micromechanical simulation of fatigue in nodular cast iron under stress-controlled loading. *Material Design and Processing Communications*, **2021**, 3, e214	0.9	1
10	A Novel Micromechanics Approach for Understanding of Fatigue in Nodular Cast Iron. *Procedia Structural Integrity*, **2018**, 13, 607-612	1	1
9	Influence of the Foam Morphology on the Mechanical Behavior of Flow-Through Foam Filters During Filtration Processes. *Advanced Engineering Materials*,2100784	3.5	1

8	A Hybrid Approach Employing Neural Networks to Simulate the Elasto-Plastic Deformation Behavior of 3D-Foam Structures. *Advanced Engineering Materials*,2100641	3.5	0
7	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	1	0
6	Micromorphic Homogenisation of a Porous Medium: Application to Size Effects and Quasi-Brittle Damage. *Proceedings in Applied Mathematics and Mechanics*, **2016**, 16, 347-348	0.2	
5	Meinhard Kuna: Physics and Engineering at the Crack Tip - A Retrospective **2016**, 3-22		
4	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	
3	Micromechanical Modeling of Crack Initiation and Propagation in the Ductile-Brittle Transition Region. *Key Engineering Materials*, **2016**, 713, 58-61	0.4	
2	Characterising Fatigue Behaviour of Nodular Cast Iron Using Micromechanical Simulations. *MATEC Web of Conferences*, **2019**, 300, 13002	0.3	
1	A hybrid approach for the multi-scale simulation of irreversible material behavior incorporating neural networks. *Proceedings in Applied Mathematics and Mechanics*, **2021**, 20, e202000248	0.2	