

Charlotte Kuhn

List of Publications by Year in descending order

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56
papers

1,395
citations

623734

14
h-index

330143

37
g-index

57
all docs

57
docs citations

57
times ranked

804
citing authors

#	ARTICLE	IF	CITATIONS
1	A continuum phase field model for fracture. <i>Engineering Fracture Mechanics</i> , 2010, 77, 3625-3634.	4.3	466
2	On degradation functions in phase field fracture models. <i>Computational Materials Science</i> , 2015, 108, 374-384.	3.0	234
3	Phase field approximation of dynamic brittle fracture. <i>Computational Mechanics</i> , 2014, 54, 1141-1161.	4.0	212
4	On phase field modeling of ductile fracture. <i>GAMM Mitteilungen</i> , 2016, 39, 35-54.	5.5	88
5	A phase field modeling approach of cyclic fatigue crack growth. <i>International Journal of Fracture</i> , 2020, 225, 89-100.	2.2	62
6	A phase field approach for multivariant martensitic transformations of stable and metastable phases. <i>Archive of Applied Mechanics</i> , 2013, 83, 849-859.	2.2	40
7	Molecular dynamics and phase field simulations of droplets on surfaces with wettability gradient. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 361, 112773.	6.6	27
8	A combined phase field approach for martensitic transformations and damage. <i>Archive of Applied Mechanics</i> , 2015, 85, 1459-1468.	2.2	24
9	Phase field simulation of thermomechanical fracture. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2009, 9, 191-192.	0.2	23
10	Phase field simulation of fatigue crack propagation under complex load situations. <i>Archive of Applied Mechanics</i> , 2021, 91, 563-577.	2.2	22
11	Phase field modelling of dynamic thermal fracture in the context of irradiation damage. <i>Continuum Mechanics and Thermodynamics</i> , 2017, 29, 977-988.	2.2	19
12	3D phase field simulations of ductile fracture. <i>GAMM Mitteilungen</i> , 2020, 43, e202000008.	5.5	19
13	An investigation of intersonic fracture using a phase field model. <i>Archive of Applied Mechanics</i> , 2016, 86, 321-333.	2.2	15
14	On a phase field approach for martensitic transformations in a crystal plastic material at a loaded surface. <i>Continuum Mechanics and Thermodynamics</i> , 2017, 29, 957-968.	2.2	14
15	Three-dimensional phase field modeling of inhomogeneous gas-liquid systems using the PeTS equation of state. <i>Journal of Chemical Physics</i> , 2018, 149, 064701.	3.0	14
16	Investigating the stability of the phase field solution of equilibrium droplet configurations by eigenvalues and eigenvectors. <i>Computational Materials Science</i> , 2018, 141, 185-192.	3.0	13
17	Simulation of size effects by a phase field model for fracture. <i>Theoretical and Applied Mechanics Letters</i> , 2014, 4, 051008.	2.8	9
18	Lattice Boltzmann simulation of antiplane shear loading of a stationary crack. <i>Computational Mechanics</i> , 2018, 62, 1059-1069.	4.0	9

#	ARTICLE	IF	CITATIONS
19	A Phase Field Approach for Dynamic Fracture. Proceedings in Applied Mathematics and Mechanics, 2013, 13, 87-88.	0.2	7
20	Simulation of Surface Wetting by Droplets Using a Phase Field Model. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 519-520.	0.2	7
21	Surface Wetting with Droplets: A Phase Field Approach. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 501-502.	0.2	7
22	Exponential Finite Elements for a Phase Field Fracture Model. Proceedings in Applied Mathematics and Mechanics, 2010, 10, 121-122.	0.2	6
23	On an Energetic Interpretation of a Phase Field Model for Fracture. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 159-160.	0.2	6
24	Phase field modeling of interface effects on cracks in heterogeneous materials. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900378.	0.2	6
25	Interpretation of parameters in phase field models for fracture. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 161-162.	0.2	5
26	Phase Field Approximation of Dynamic Brittle Fracture. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 143-144.	0.2	4
27	A Monolithic Solution Scheme for a Phase Field Model of Ductile Fracture. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 75-78.	0.2	4
28	A Phase Field Model for Martensitic Transformations. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 261-262.	0.2	3
29	Configurational forces in crystal plasticity: an analysis of the influence of grain boundaries on crack driving forces. Archive of Applied Mechanics, 2014, 84, 1427-1439.	2.2	3
30	A Phase Field Approach for Martensitic Transformations and Crystal Plasticity. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 383-384.	0.2	3
31	Determination of Effective Properties of MMC by Computational Homogenization. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 567-568.	0.2	3
32	Lattice Boltzmann method applied to antiplane shear loading of a stationary crack. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800288.	0.2	3
33	On phase field modeling in the context of cyclic mechanical fatigue. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900104.	0.2	3
34	Investigation of a Phase Field Model for Elasto-Plastic Fracture. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 157-158.	0.2	2
35	Simulation of Laser-Induced Controlled Fracturing Utilizing a Phase Field Model. Journal of Computing and Information Science in Engineering, 2017, 17, .	2.7	2
36	A Navier-Stokes-Korteweg Model for Dynamic Wetting based on the PeTS Equation of State. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900091.	0.2	2

#	ARTICLE	IF	CITATIONS
37	Phase Field Simulations of Wetting Based on Molecular Simulations. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000035.	0.2	2
38	Lattice Boltzmann Simulation of Plane Strain Problems. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000119.	0.2	2
39	Robust implementation of multi-slip crystal plasticity for micro machining simulations based on Fischer-Burmeister complementary functions. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 407-408.	0.2	1
40	Phase field modeling of brittle fracture in materials with anisotropic fracture resistance. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800113.	0.2	1
41	Topology optimization combined with element-by-element solution techniques. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900173.	0.2	1
42	Adaptive Orientation of Exponential Finite Elements for a Phase Field Fracture Model. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000140.	0.2	1
43	Phase Field Modeling of Dynamic Surface Wetting informed by Molecular Simulations. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	1
44	Configurational Forces in Cutting Processes of Microstructured Titanium. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 331-332.	0.2	0
45	Strategies for the Computation of Configurational Forces in Dissipative Media. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 171-172.	0.2	0
46	Simulation of micro cutting considering crystal plastic deformations. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 331-332.	0.2	0
47	Martensitic transformations and damage: A combined phase field approach. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 357-358.	0.2	0
48	On configurational forces in a dynamic phase field model for fracturing. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 171-172.	0.2	0
49	Simulation of micro-cutting considering finite deformation crystal plasticity. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 305-306.	0.2	0
50	Numerical Solution Strategies for a Dynamic Phase Field Fracture Model. Applied Mechanics and Materials, 2017, 869, 29-49.	0.2	0
51	Configurational Forces in a Phase Field Model for Dynamic Brittle Fracture. Advanced Structured Materials, 2018, , 343-364.	0.5	0
52	Deformation behaviour of small scale cp-titanium specimen with large grains. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800360.	0.2	0
53	Modeling of Ductile Fracture by a Phase Field Approach. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800376.	0.2	0
54	Lattice Boltzmann Simulation of the Dynamic Behavior of Solids. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900152.	0.2	0

#	ARTICLE	IF	CITATIONS
55	Phase field modeling of fatigue crack initiation and growth under various loading situations. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000029.	0.2	0
56	Adaptive Exponential Finite Elements for a Phase Field Fracture Model. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	0