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List of Publications by Year in descending order

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27 papers	1,065 citations	516710 16 h-index	526287 27 g-index
27 all docs	27 docs citations	27 times ranked	1348 citing authors

#	Article	IF	Citations
1	Multiscale modeling of 3D nano-architected materials under large deformations. International Journal of Solids and Structures, 2022, 252, 111839.	2.7	1
2	Dislocation precipitate bypass through elastically mismatched precipitates. Modelling and Simulation in Materials Science and Engineering, 2021, 29, 025005.	2.0	6
3	Enhancing Hierarchical Multiscale Off-Road Mobility Model by Neural Network Surrogate Model. Journal of Computational and Nonlinear Dynamics, 2021, 16, .	1.2	5
4	Accelerated scale bridging with sparsely approximated Gaussian learning. Journal of Computational Physics, 2020, 403, 109049.	3.8	4
5	Analytic model for the Orowan dislocation-precipitate bypass mechanism. Materialia, 2020, 11, 100671.	2.7	42
6	Analytic model for the line tension of a bowing dislocation segment. Philosophical Magazine Letters, 2019, 99, 77-86.	1.2	5
7	Mastering the scales: a survey on the benefits of multiscale computing software. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180147.	3.4	30
8	Modeling the effect of dislocation density on the strength statistics in nanoindentation. Modelling and Simulation in Materials Science and Engineering, 2018, 26, 015009.	2.0	7
9	Accelerated scale-bridging through adaptive surrogate model evaluation. Journal of Computational Science, 2018, 27, 91-106.	2.9	22
10	LAMMPS integrated materials engine (LIME) for efficient automation of particle-based simulations: application to equation of state generation. Modelling and Simulation in Materials Science and Engineering, 2017, 25, 055006.	2.0	14
11	Modeling Insight into Battery Electrolyte Electrochemical Stability and Interfacial Structure. Accounts of Chemical Research, 2017, 50, 2886-2894.	15.6	234
12	Prismatic and helical dislocation loop generation from defects. Acta Materialia, 2016, 103, 217-228.	7.9	17
13	The role of free surfaces on the formation of prismatic dislocation loops. Scripta Materialia, 2015, 103, 65-68.	5.2	15
14	Towards high throughput screening of electrochemical stability of battery electrolytes. Nanotechnology, 2015, 26, 354003.	2.6	160
15	Capturing the effects of free surfaces on void strengthening with dislocation dynamics. Acta Materialia, 2015, 101, 40-47.	7.9	28
16	A multiply parallel implementation of finite element-based discrete dislocation dynamics for arbitrary geometries. Modelling and Simulation in Materials Science and Engineering, 2014, 22, 035014.	2.0	33
17	An algorithm for massively parallel dislocation dynamics simulations of small scale plasticity. Journal of Computational Science, 2013, 4, 401-411.	2.9	9
18	Higher-order adaptive finite-element methods for orbital-free density functional theory. Journal of Computational Physics, 2012, 231, 6596-6621.	3.8	28

#	Article	IF	Citations
19	A call to arms for task parallelism in multiâ€scale materials modeling. International Journal for Numerical Methods in Engineering, 2011, 86, 744-764.	2.8	30
20	Experimental validation of large-scale simulations of dynamic fracture along weak planes. International Journal of Impact Engineering, 2009, 36, 888-898.	5.0	9
21	Embedded polycrystal plasticity and adaptive sampling. International Journal of Plasticity, 2008, 24, 242-266.	8.8	72
22	Fracture and fragmentation of simplicial finite element meshes using graphs. International Journal for Numerical Methods in Engineering, 2008, 73, 1547-1570.	2.8	31
23	Polycrystal Plasticity Based Predictions of Strain Localization in Metal Forming. Journal of Engineering Materials and Technology, Transactions of the ASME, 2008, 130, .	1.4	5
24	Numerical modelling and experimental validation of dynamic fracture events along weak planes. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 3833-3840.	6.6	30
25	Non-periodic finite-element formulation of orbital-free density functional theory. Journal of the Mechanics and Physics of Solids, 2007, 55, 669-696.	4.8	57
26	Nanovoid deformation in aluminum under simple shear. Acta Materialia, 2005, 53, 2893-2900.	7.9	78
27	Nanovoid Cavitation by Dislocation Emission in Aluminum. Physical Review Letters, 2004, 93, 165503.	7.8	93