

Nitin P Daphalapurkar

List of Publications by Year in descending order

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papers

953
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471509

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docs citations

30
times ranked

999
citing authors

#	ARTICLE	IF	CITATIONS
1	A Three-Dimensional Computational Human Head Model That Captures Live Human Brain Dynamics. <i>Journal of Neurotrauma</i> , 2017, 34, 2154-2166.	3.4	99
2	A scaling law for the dynamic strength of brittle solids. <i>Acta Materialia</i> , 2013, 61, 3509-3521.	7.9	95
3	Determination of Mechanical Properties of Sand Grains by Nanoindentation. <i>Experimental Mechanics</i> , 2011, 51, 719-728.	2.0	85
4	Predicting variability in the dynamic failure strength of brittle materials considering pre-existing flaws. <i>Journal of the Mechanics and Physics of Solids</i> , 2011, 59, 297-319.	4.8	66
5	Simulation of dynamic crack growth using the generalized interpolation material point (GIMP) method. <i>International Journal of Fracture</i> , 2007, 143, 79-102.	2.2	64
6	Characterization of the linearly viscoelastic behavior of human tympanic membrane by nanoindentation. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2009, 2, 82-92.	3.1	61
7	Indirect traumatic optic neuropathy. <i>Military Medical Research</i> , 2016, 3, 2.	3.4	60
8	Tomography and Simulation of Microstructure Evolution of a Closed-Cell Polymer Foam in Compression. <i>Mechanics of Advanced Materials and Structures</i> , 2008, 15, 594-611.	2.6	56
9	A 3D Computational Head Model Under Dynamic Head Rotation and Head Extension Validated Using Live Human Brain Data, Including the Falx and the Tentorium. <i>Annals of Biomedical Engineering</i> , 2019, 47, 1923-1940.	2.5	44
10	A Method for Measuring Linearly Viscoelastic Properties of Human Tympanic Membrane Using Nanoindentation. <i>Journal of Biomechanical Engineering</i> , 2008, 130, 014501.	1.3	40
11	On Compressive Brittle Fragmentation. <i>Journal of the American Ceramic Society</i> , 2016, 99, 2159-2169.	3.8	37
12	Multiscale simulation from atomistic to continuum “coupling molecular dynamics (MD) with the material point method (MPM). <i>Philosophical Magazine</i> , 2006, 86, 2971-2994.	1.6	35
13	The Importance of Structural Anisotropy in Computational Models of Traumatic Brain Injury. <i>Frontiers in Neurology</i> , 2015, 6, 28.	2.4	34
14	Kinetics of a fast moving twin boundary in nickel. <i>Acta Materialia</i> , 2014, 68, 82-92.	7.9	33
15	Orientation dependence of the nucleation and growth of partial dislocations and possible twinning mechanisms in aluminum. <i>Journal of the Mechanics and Physics of Solids</i> , 2012, 60, 277-294.	4.8	23
16	Effect of bulk modulus on deformation of the brain under rotational accelerations. <i>Shock Waves</i> , 2018, 28, 127-139.	1.9	23
17	Quantitative In Situ Studies of Dynamic Fracture in Brittle Solids Using Dynamic X-ray Phase Contrast Imaging. <i>Experimental Mechanics</i> , 2018, 58, 1423-1437.	2.0	20
18	The effective compliance of spatially evolving planar wing-cracks. <i>Journal of the Mechanics and Physics of Solids</i> , 2018, 111, 503-529.	4.8	14

#	ARTICLE	IF	CITATIONS
19	A crystal plasticity model for body-centered cubic molybdenum: Experiments and simulations. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 738, 283-294.	5.6	13
20	The Biomechanics of Indirect Traumatic Optic Neuropathy Using a Computational Head Model With a Biofidelic Orbit. <i>Frontiers in Neurology</i> , 2020, 11, 346.	2.4	13
21	Modeling dynamic fragmentation of heterogeneous brittle materials. <i>International Journal of Impact Engineering</i> , 2017, 99, 85-101.	5.0	10
22	Ultra-high-strain-rate shearing and deformation twinning in nanocrystalline aluminum. <i>Meccanica</i> , 2015, 50, 561-574.	2.0	9
23	Data integration for materials research. <i>Integrating Materials and Manufacturing Innovation</i> , 2016, 5, 143-153.	2.6	6
24	Stability of ideal fcc twin boundaries. <i>Journal of the Mechanics and Physics of Solids</i> , 2014, 73, 228-241.	4.8	4
25	A micro-mechanical modeling approach for dynamic fragmentation in brittle multi-phase materials. <i>International Journal of Solids and Structures</i> , 2018, 134, 116-129.	2.7	4
26	An anisotropic damage model based on dislocation-mediated nucleation of cracks under high-rate compression. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 137, 103818.	4.8	2
27	Simulation of harmonic shear waves in the human brain and comparison with measurements from magnetic resonance elastography. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 118, 104449.	3.1	2
28	Designer materials for a secure future. , 2012, , .		0