Jung-Wuk Hong

List of Publications by Year
in descending order

71 papers	1,443 citations	361413 20 h-index	361022 35 g-index
72 all docs	72 docs citations	72 times ranked	1212 citing authors

#	Article	IF	Citations
1	A coupling approach of discretized peridynamics with finite element method. Computer Methods in Applied Mechanics and Engineering, 2012, 245-246, 163-175.	6.6	151
2	Fracturing patterns of rock-like materials in compression captured with peridynamics. Engineering Fracture Mechanics, 2015, 144, 176-193.	4.3	93
3	Discretized peridynamics for linear elastic solids. Computational Mechanics, 2012, 50, 579-590.	4.0	70
4	Hygro effects on the low-velocity impact behavior of unidirectional CFRP composite plates for aircraft applications. Composite Structures, 2016, 135, 276-285.	5.8	56
5	Impact fracture analysis enhanced by contact of peridynamic and finite element formulations. International Journal of Impact Engineering, 2016, 87, 108-119.	5.0	55
6	Bio-inspired bimaterial composites patterned using three-dimensional printing. Composites Part B: Engineering, 2019, 165, 594-603.	12.0	52
7	The mechanism of fracture coalescence in pre-cracked rock-type material with three flaws. Engineering Geology, 2017, 223, 31-47.	6.3	49
8	Review of analytical and empirical estimations for incident blast pressure. KSCE Journal of Civil Engineering, 2017, 21, 2211-2225.	1.9	45
9	Discretized peridynamics for brittle and ductile solids. International Journal for Numerical Methods in Engineering, 2012, 89, 1028-1046.	2.8	44
10	Multifunctional Polymer Nanocomposites Reinforced by 3D Continuous Ceramic Nanofillers. ACS Nano, 2018, 12, 9126-9133.	14.6	44
11	Impact resistance of nacre-like composites diversely patterned by 3D printing. Composite Structures, 2020, 238, 111951.	5.8	44
12	Time Reversal Based Piezoelectric Transducer Self-diagnosis Under Varying Temperature. Journal of Nondestructive Evaluation, 2010, 29, 75-91.	2.4	40
13	Analysis of impact of large commercial aircraft on a prestressed containment building. Nuclear Engineering and Design, 2013, 265, 431-449.	1.7	37
14	Crack coalescence morphology in rock-like material under compression. International Journal of Fracture, 2017, 203, 211-236.	2.2	37
15	High‑Contrast Optical Modulation from Strain‑Induced Nanogaps at 3D Heterogeneous Interfaces. Advanced Science, 2020, 7, 1903708.	11.2	36
16	Parallel programming of a peridynamics code coupled with finite element method. International Journal of Fracture, 2017, 203, 99-114.	2.2	28
17	Coupling and enrichment schemes for finite element and finite sphere discretizations. Computers and Structures, 2005, 83, 1386-1395.	4.4	26
18	An electromechanical impedance-based method for tensile force estimation and damage diagnosis of post-tensioning systems. Smart Structures and Systems, 2016, 17, 107-122.	1.9	24

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19	Advanced aircraft analysis of an F-4 Phantom on a reinforced concrete building. Nuclear Engineering and Design, 2014, 273, 505-528.	1.7	23
20	Finite element analysis for the evaluation of the low-velocity impact response of a composite plate. Advanced Composite Materials, 2019, 28, 271-285.	1.9	23
21	Micro-crack detection with nonlinear wave modulation technique and its application to loaded cracks. NDT and E International, 2019, 107, 102132.	3.7	20
22	The effects of stacking sequence on the penetration-resistant behaviors of T800 carbon fiber composite plates under low-velocity impact loading. Carbon Letters, 2015, 16, 107-115.	5.9	20
23	Longitudinal differences in the mechanical properties of the thoracic aorta depend on circumferential regions. Journal of Biomedical Materials Research - Part A, 2013, 101A, 1525-1529.	4.0	19
24	Effect of second hardening on floor response spectrum of a base-isolated nuclear power plant. Nuclear Engineering and Design, 2017, 322, 138-147.	1.7	19
25	Flexible Protective Film: Ultrahard, Yet Flexible Hybrid Nanocomposite Reinforced by 3D Inorganic Nanoshell Structures. Advanced Functional Materials, 2021, 31, 2010254.	14.9	19
26	Focused Electric-Field Polymer Writing: Toward Ultralarge, Multistimuli-Responsive Membranes. ACS Nano, 2020, 14, 12173-12183.	14.6	18
27	Rationally Designed TiO_2 Nanostructures of Continuous Pore Network for Fastâ€Responding and Highly Sensitive Acetone Sensor. Small Methods, 2021, 5, e2100941.	8.6	18
28	Study on effect of laser-induced ablation for Lamb waves in a thin plate. Ultrasonics, 2019, 91, 121-128.	3.9	17
29	A vision-based approach for autonomous crack width measurement with flexible kernel. Automation in Construction, 2020, 110, 103019.	9.8	17
30	Applications of an Instantaneous Damage Detection Technique toÂPlates with Additional Complexities. Journal of Nondestructive Evaluation, 2010, 29, 189-205.	2.4	16
31	Modeling of three-dimensional Lamb wave propagation excited by laser pulses. Ultrasonics, 2015, 55, 113-122.	3.9	16
32	Dynamic crack branching and curving in brittle polymers. International Journal of Solids and Structures, 2016, 100-101, 332-340.	2.7	16
33	Xâ€Ray Computed Microtomography Imaging of Abiotic Carbonate Precipitation in Porous Media From a Supersaturated Solution: Insights Into Effect of CO_2 Mineral Trapping on Permeability. Water Resources Research, 2019, 55, 3835-3855.	4.2	16
34	Morphological aspects of crack growth in rock materials with various flaws. International Journal for Numerical and Analytical Methods in Geomechanics, 2019, 43, 1854-1866.	3.3	15
35	Interdigitated Three-Dimensional Heterogeneous Nanocomposites for High-Performance Mechanochromic Smart Membranes. ACS Nano, 2022, 16, 68-77.	14.6	15
36	Hygroscopic effects on the penetration-resistance behavior of a specially-orthotropic CFRP composite plates. Composite Structures, 2017, 176, 1073-1080.	5.8	13

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37	On the Reliable Solution of Contact Problems in Engineering Design. International Journal of Mechanics and Materials in Design, 2004, 1, 3-16.	3.0	11
38	Parallelization of a finite element Fortran code using OpenMP library. Advances in Engineering Software, 2017, 104, 28-37.	3.8	11
39	Parametric studies on smoothed particle hydrodynamic simulations for accurate estimation of open surface flow force. International Journal of Naval Architecture and Ocean Engineering, 2020, 12, 85-101.	2.3	11
40	Comparative study on the breaking waves by a piston-type wavemaker in experiments and SPH simulations. Coastal Engineering Journal, 2020, 62, 267-284.	1.9	11
41	Characterization of wavelet coefficients for ultrasonic signals. Journal of Applied Physics, 2010, 107, 114909.	2.5	10
42	Post-buckling analysis of space frames using concept of hybrid arc-length methods. International Journal of Non-Linear Mechanics, 2014, 58, 76-88.	2.6	10
43	Coupling of non‐ordinary state‐based peridynamics and finite element method with reduced boundary effect. International Journal for Numerical Methods in Engineering, 2021, 122, 4033-4054.	2.8	10
44	Parameter estimation for wavelet transformed ultrasonic signals. NDT and E International, 2011, 44, 32-40.	3.7	9
45	Effective numerical approach to assess low-cycle fatigue behavior of pipe elbows. Nuclear Engineering and Technology, 2018, 50, 758-766.	2.3	9
46	Investigation on the impact resistance of 3D printed nacre-like composites. Thin-Walled Structures, 2022, 177, 109392.	5.3	9
47	Investigation on the resistance of steel-plate concrete walls under high-velocity impact. Journal of Constructional Steel Research, 2019, 162, 105732.	3.9	7
48	Irregular lattice model for geometrically nonlinear dynamics of structures. Mechanics Research Communications, 2020, 107, 103554.	1.8	7
49	Analysis of transmitted ultrasound signals through apples at different storage times using the continuous wavelet transformation. International Journal of Precision Engineering and Manufacturing, 2012, 13, 1949-1954.	2.2	6
50	Experimental and Numerical Investigations of High-Speed Projectile Impacts on 7075-T651 Aluminum Plates. Materials, 2019, 12, 2736.	2.9	6
51	A Semi-Infinite Numerical Wave Tank Using Discrete Particle Simulations. Journal of Marine Science and Engineering, 2020, 8, 159.	2.6	6
52	Periodic nonlinear waves resulting from the contact interaction of a crack. Journal of Applied Physics, 2017, 122, 124303.	2.5	5
53	Development of a Mole-Like Drilling Robot System for Shallow Drilling. IEEE Access, 2018, 6, 76454-76463.	4.2	5
54	Detection of Micro-Cracks in Metals Using Modulation of PZT-Induced Lamb Waves. Materials, 2020, 13, 3823.	2.9	5

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55	Influence of Zinc Content on the Mechanical Behaviors of Cu-Zn Alloys by Molecular Dynamics. Materials, 2020, 13, 2062.	2.9	5
56	Coupling of SPH and Voronoi-cell lattice models for simulating fluid–structure interaction. Computational Particle Mechanics, 2021, 8, 813-823.	3.0	5
57	Nondimensionalized semi-empirical equation to predict secondary load cycles on vertical cylinders of different diameters. Ocean Engineering, 2021, 230, 108968.	4.3	5
58	Fracture simulations using edge-based smoothed finite element method for isotropic damage model via Delaunay/Voronoi dual tessellations. International Journal of Damage Mechanics, 2022, 31, 348-373.	4.2	5
59	Estimation of viscoelastic parameters in Prony series from shear wave propagation. Journal of Applied Physics, 2016, 119, .	2.5	4
60	Unmanned Aerial Vehicle Impacts on Heat-Strengthened Glass. IEEE Access, 2019, 7, 104269-104278.	4.2	4
61	Molecular dynamics evaluation of the effects of zinc on the mechanical properties of aluminum alloys. Computational Materials Science, 2019, 159, 66-72.	3.0	3
62	Blast Response Simulation of the Alfred Murrah Building Reinforced by Use of HPFRCC. International Journal of Concrete Structures and Materials, 2021, 15, .	3.2	3
63	Finite element simulation of guided waves generated by laser pulses. Proceedings of SPIE, 2012, , .	0.8	2
64	Mechanical impedance measurement and damage detection using noncontact laser ultrasound. Optics Letters, 2014, 39, 3130.	3.3	2
65	Collision mechanism of unmanned aerial vehicles onto glass panels. International Journal of Micro Air Vehicles, 2021, 13, 175682932110605.	1.3	2
66	Compatible coupling of discrete elements and finite elements using Delaunay–Voronoi dual tessellations. Computational Particle Mechanics, 2022, 9, 1351-1365.	3.0	2
67	Finite Element Analysis-Based Damage Metric for Airtightness Performance Evaluation of Concrete Tube Structures. KSCE Journal of Civil Engineering, 2021, 25, 1385-1398.	1.9	1
68	Simulation of structural vibrations using Voronoi-cell lattice models. Journal of Mechanical Science and Technology, 2022, 36, 647-654.	1.5	1
69	SPH-Based Wave Tank Simulations. Journal of the Computational Structural Engineering Institute of Korea, 2021, 34, 59-69.	0.4	0
70	Numerical Computation of Hydraulic Conductivity of Sand Using X-ray Microtomography Imaging of a Pore Structure. Korean Society of Hazard Mitigation, 2019, 19, 187-192.	0.2	0
71	Effect of Crack Closure on Magnitude of Modulated Wave. International Journal of Structural Stability and Dynamics, 2020, 20, 2041018.	2.4	0