

Zhong-xian Liu

List of Publications by Year in descending order

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64
papers

1,028
citations

430442

18
h-index

476904

29
g-index

65
all docs

65
docs citations

65
times ranked

369
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental and numerical studies of ultra-high performance concrete targets against high-velocity projectile impacts. <i>Engineering Structures</i> , 2018, 173, 166-179.	2.6	98
2	Experimental investigation of seismic behavior of ultra-high performance steel fiber reinforced concrete columns. <i>Engineering Structures</i> , 2017, 152, 129-148.	2.6	62
3	Mechanical anisotropy of ultra-high performance fibre-reinforced concrete for 3D printing. <i>Cement and Concrete Composites</i> , 2022, 125, 104310.	4.6	54
4	The scattering of plane P, SV waves by twin lining tunnels with imperfect interfaces embedded in an elastic half-space. <i>Tunnelling and Underground Space Technology</i> , 2019, 85, 319-330.	3.0	53
5	Development and preliminary mix design of ultra-high-performance concrete based on geopolymer. <i>Construction and Building Materials</i> , 2021, 308, 125110.	3.2	43
6	The indirect boundary integral equation method for the broadband scattering of plane P, SV and Rayleigh waves by a hill topography. <i>Engineering Analysis With Boundary Elements</i> , 2019, 98, 184-202.	2.0	41
7	Diffraction of plane SV waves by a cavity in poroelastic half-space. <i>Earthquake Engineering and Engineering Vibration</i> , 2009, 8, 29-46.	1.1	37
8	Experimental investigation on the cyclic behaviors of ultra-high-performance steel fiber reinforced concrete filled thin-walled steel tubular columns. <i>Thin-Walled Structures</i> , 2019, 140, 1-20.	2.7	37
9	Scattering of plane P 1 waves and dynamic stress concentration by a lined tunnel in a fluid-saturated poroelastic half-space. <i>Tunnelling and Underground Space Technology</i> , 2017, 67, 71-84.	3.0	35
10	An indirect boundary element method to model the 3-D scattering of elastic waves in a fluid-saturated poroelastic half-space. <i>Engineering Analysis With Boundary Elements</i> , 2016, 66, 91-108.	2.0	32
11	A three-dimensional indirect boundary integral equation method for the scattering of seismic waves in a poroelastic layered half-space. <i>Engineering Analysis With Boundary Elements</i> , 2022, 135, 167-181.	2.0	28
12	IBIEM modelling of the amplification of seismic waves by a three-dimensional layered alluvial basin. <i>Geophysical Journal International</i> , 2016, 204, 999-1023.	1.0	26
13	Experimental investigation on the dynamic behaviors of UHPFRC after exposure to high temperature. <i>Construction and Building Materials</i> , 2019, 227, 116679.	3.2	26
14	The multi-domain FMM-IBEM to model elastic wave scattering by three-dimensional inclusions in infinite domain. <i>Engineering Analysis With Boundary Elements</i> , 2015, 60, 95-105.	2.0	25
15	A three-dimensional indirect boundary integral equation method for modeling elastic wave scattering in a layered half-space. <i>International Journal of Solids and Structures</i> , 2019, 169, 81-94.	1.3	22
16	Protective effect of unbonded prestressed ultra-high performance reinforced concrete slab against gas explosion in buried utility tunnel. <i>Chemical Engineering Research and Design</i> , 2021, 149, 370-384.	2.7	22
17	Wave function expansion method for the scattering of SH waves by two symmetrical circular cavities in two bonded exponentially graded half spaces. <i>Engineering Analysis With Boundary Elements</i> , 2019, 106, 389-396.	2.0	21
18	The IBIEM Solution to the Scattering of Plane SV Waves around a Canyon in Saturated Poroelastic Half-Space. <i>Journal of Earthquake Engineering</i> , 2015, 19, 956-977.	1.4	20

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19	Finite element analysis of cyclic lateral responses for large diameter monopiles in clays under different loading patterns. <i>Computers and Geotechnics</i> , 2021, 134, 104104.	2.3	20
20	Dynamic Green's function for a three-dimensional concentrated load in the interior of a poroelastic layered half-space using a modified stiffness matrix method. <i>Engineering Analysis With Boundary Elements</i> , 2015, 60, 51-66.	2.0	18
21	The fast multi-pole indirect BEM for solving high-frequency seismic wave scattering by three-dimensional superficial irregularities. <i>Engineering Analysis With Boundary Elements</i> , 2018, 90, 86-99.	2.0	17
22	Calibration of CSCM model for numerical modeling of UHPCFTWST columns against monotonic lateral loading. <i>Engineering Structures</i> , 2021, 240, 112396.	2.6	17
23	Comparative study on square and rectangular UHPFRC-Filled steel tubular (CFST) columns under axial compression. <i>Structures</i> , 2021, 34, 2054-2068.	1.7	17
24	Diffraction of plane P waves by a canyon of arbitrary shape in poroelastic half-space (I): Formulation. <i>Earthquake Science</i> , 2009, 22, 215-222.	0.4	16
25	Two-dimensional FM-IBEM solution to the broadband scattering of elastic waves in a fluid-saturated poroelastic half-space. <i>Engineering Analysis With Boundary Elements</i> , 2019, 104, 300-319.	2.0	16
26	Diffraction of plane P waves by a canyon of arbitrary shape in poroelastic half-space (II): Numerical results and discussion. <i>Earthquake Science</i> , 2009, 22, 223-230.	0.4	12
27	The diffraction of Rayleigh waves by a fluid-saturated alluvial valley in a poroelastic half-space modeled by MFS. <i>Computers and Geosciences</i> , 2016, 91, 33-48.	2.0	12
28	Numerical study of ultra-high-performance steel fibre-reinforced concrete columns under monotonic push loading. <i>Advances in Structural Engineering</i> , 2018, 21, 1234-1248.	1.2	12
29	Dynamic interaction of twin vertically overlapping lined tunnels in an elastic half space subjected to incident plane waves. <i>Earthquake Science</i> , 2016, 29, 185-201.	0.4	11
30	Seismic response of tunnel near fault fracture zone under incident SV waves. <i>Underground Space (China)</i> , 2021, 6, 695-708.	3.4	11
31	Seismic Interaction between a Lined Tunnel and a Hill under Plane SV Waves by IBEM. <i>International Journal of Structural Stability and Dynamics</i> , 2019, 19, 1950004.	1.5	10
32	The method of fundamental solutions for the elastic wave scattering in a double-porosity dual-permeability medium. <i>Applied Mathematical Modelling</i> , 2021, 97, 721-740.	2.2	10
33	3D-printing ultra-high performance fiber-reinforced concrete under triaxial confining loads. <i>Additive Manufacturing</i> , 2022, 50, 102568.	1.7	10
34	Study of Material Composition Effects on the Mechanical Properties of Soil-Rock Mixtures. <i>Advances in Civil Engineering</i> , 2018, 2018, 1-10.	0.4	9
35	Numerical Experiments on Triaxial Compression Strength of Soil-Rock Mixture. <i>Advances in Civil Engineering</i> , 2019, 2019, 1-15.	0.4	9
36	A 2.5D IBEM to investigate the 3D seismic response of 2D topographies in a multi-layered transversely isotropic half-space. <i>Engineering Analysis With Boundary Elements</i> , 2020, 113, 382-401.	2.0	9

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37	Investigation on the mechanical characteristics of multiscale mono/hybrid steel fibre-reinforced dry UHPC. <i>Cement and Concrete Composites</i> , 2022, 133, 104681.	4.6	9
38	The method of fundamental solution for 3D wave scattering in a fluid-saturated poroelastic infinite domain. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2018, 42, 1866-1889.	1.7	8
39	A fast multipole accelerated indirect boundary element method for broadband scattering of elastic waves in a fluid-saturated poroelastic domain. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2018, 42, 2133-2160.	1.7	8
40	Nonlinear seismic response and amplification effect of 3D sedimentary basin based on bounding surface constitutive model. <i>Soil Dynamics and Earthquake Engineering</i> , 2022, 158, 107292.	1.9	8
41	An IBEM solution to the scattering of plane SH-waves by a lined tunnel in elastic wedge space. <i>Earthquake Science</i> , 2015, 28, 71-86.	0.4	7
42	Dynamic behaviors of reinforced NSC and UHPC columns protected by aluminum foam layer against low-velocity impact. <i>Journal of Building Engineering</i> , 2021, 34, 101910.	1.6	7
43	Diffraction of plane P waves around an alluvial valley in poroelastic half-space. <i>Earthquake Science</i> , 2010, 23, 35-43.	0.4	6
44	The method of fundamental solution for elastic wave scattering and dynamic stress concentration in a fluid-saturated poroelastic layered half-plane. <i>Engineering Analysis With Boundary Elements</i> , 2017, 84, 154-167.	2.0	6
45	Three-dimensional IBEM solution to seismic wave scattering by a near-fault sedimentary basin. <i>Engineering Analysis With Boundary Elements</i> , 2022, 140, 220-242.	2.0	6
46	The Diffraction of Rayleigh Waves by Twin Circular Cavities in a Poroelastic Half-Space. <i>Journal of Earthquake Engineering</i> , 2018, 22, 970-987.	1.4	5
47	Scattering of seismic waves by three-dimensional large-scale hill topography simulated by a fast parallel IBEM. <i>Earthquake Engineering and Engineering Vibration</i> , 2020, 19, 855-873.	1.1	5
48	Diffraction of elastic waves by a fluid-filled crack in a fluid-saturated poroelastic half-space. <i>Geophysical Journal International</i> , 2021, 225, 1530-1553.	1.0	4
49	Indirect boundary element method for modelling 2D poroelastic wave diffraction by cavities and cracks in half space. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2021, 45, 2048-2077.	1.7	4
50	Three-dimensional preconditioned FM-IBEM solution to broadband-frequency seismic wave scattering in a layered sedimentary basin. <i>Engineering Analysis With Boundary Elements</i> , 2021, 133, 1-18.	2.0	4
51	Three-Dimensional Nonlinear Seismic Response of Immersed Tunnel in Horizontally Layered Site under Obliquely Incident SV Waves. <i>Shock and Vibration</i> , 2019, 2019, 1-17.	0.3	3
52	Interaction between a tunnel and alluvial valley under plane SV waves of earthquakes by IBIEM. <i>European Journal of Environmental and Civil Engineering</i> , 2021, 25, 2217-2235.	1.0	3
53	Simulation of the spatially correlated multiple-station earthquake ground motions of the coupled alluvial valley-hill terrain. <i>Engineering Analysis With Boundary Elements</i> , 2020, 118, 41-53.	2.0	3
54	A fast-multi-pole accelerated method of fundamental solutions for 2-D broadband scattering of SH waves in an infinite half space. <i>Journal of Vibroengineering</i> , 2019, 21, 250-264.	0.5	3

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55	Microstructure and mechanical behaviour of 3D printed ultra-high performance concrete after elevated temperatures. Additive Manufacturing, 2022, 58, 103032.	1.7	3
56	Scattering of elastic waves by a 3-D inclusion in a poroelastic half space. Engineering Analysis With Boundary Elements, 2019, 108, 133-148.	2.0	2
57	Amplification Effect of Ground Motion in Offshore Meandering Sedimentary Valley. Shock and Vibration, 2021, 2021, 1-27.	0.3	2
58	Prediction and Modeling for Local Site Amplification Effect of Ground Motion: Exploring Optimized Machine Learning Approaches. Pure and Applied Geophysics, 2022, 179, 1805-1827.	0.8	2
59	The method of fundamental solutions for three-dimensional scattering of elastic waves in layered half space. WIT Transactions on Modelling and Simulation, 2013, , .	0.0	1
60	IBIEM Analysis of Dynamic Response of a Shallowly Buried Lined Tunnel Based on Viscous-Slip Interface Model. Advances in Civil Engineering, 2019, 2019, 1-14.	0.4	0
61	Scattering of Plane P_1 Wave by an Inclusion in a Three-Dimension Poroelastic Half-Space. Mathematical Problems in Engineering, 2020, 2020, 1-16.	0.6	0
62	The FM-IBEM simulation for three dimensional seismic wave scattering by arbitrary layered media. European Journal of Environmental and Civil Engineering, 0, , 1-20.	1.0	0
63	Simulation of Spatially Correlated Multipoint Ground Motions in a Saturated Alluvial Valley. Shock and Vibration, 2021, 2021, 1-11.	0.3	0
64	A probability-based efficient assessment of seismic wave scattering in complex topography with geo-property uncertainty. Waves in Random and Complex Media, 0, , 1-25.	1.6	0