Shiling Pei

List of Publications by Year
in descending order

91 papers	2,074 citations	218677 26 h-index	265206 42 g-index
91 all docs	91 docs citations	91 times ranked	1013 citing authors

#	Article	IF	Citations
1	A Generalized Artificial Neural Network for Displacement-Based Seismic Design of Mass Timber Rocking Walls. Journal of Earthquake Engineering, 2022, 26, 7921-7932.	2.5	1
2	Cyclic Response of Precast, Hollow Bridge Columns with Postpour Section and Socket Connection. Journal of Structural Engineering, 2022, 148, .	3.4	8
3	Prescriptive Seismic Design Procedure for Post-Tensioned Mass Timber Rocking Walls. Journal of Structural Engineering, 2022, 148, .	3.4	8
4	Experimental investigation and numerical modeling of rocking cross laminated timber walls on a flexible foundation. Earthquake Engineering and Structural Dynamics, 2022, 51, 1697-1717.	4.4	5
5	Probabilistic evaluation of railway vehicleâ€™s safety on bridges under random earthquake and track irregularity excitations. Engineering Structures, 2022, 266, 114527.	5.3	8
6	Optimizing displacement-based seismic design of mass timber rocking walls using genetic algorithm. Engineering Structures, 2021, 229, 111603.	5.3	13
7	Simplified Dynamic Model for Postâ€tensioned Crossâ€laminated Timber Rocking Walls. Earthquake Engineering and Structural Dynamics, 2021, 50, 845-862.	4.4	11
8	Energy-based additional damping on bridges to account for vehicle-bridge interaction. Engineering Structures, 2021, 229, 111637.	5.3	6
9	Full-Scale Shake Table Test Damage Data Collection Using Terrestrial Laser-Scanning Techniques. Journal of Structural Engineering, 2021, 147, .	3.4	8
10	Shake-Table Experimental Testing and Performance of Topped and Untopped Cross-Laminated Timber Diaphragms. Journal of Structural Engineering, 2021, 147, .	3.4	15
11	System Identification of UCSD-NHERI Shake-Table Test of Two-Story Structure with Cross-Laminated Timber Rocking Walls. Journal of Structural Engineering, 2021, 147, .	3.4	13
12	Rocking Behavior of High-Aspect-Ratio Cross-Laminated Timber Shear Walls: Experimental and Numerical Investigation. Journal of Architectural Engineering, 2021, 27, .	1.6	5
13	Stochastic event simulation model for quantitative prediction of road tunnel downtime. Tunnelling and Underground Space Technology, 2021, 116, 104092.	6.2	4
14	Long-Term Moisture Monitoring Results of an Eight-Story Mass Timber Building in the Pacific Northwest. Journal of Architectural Engineering, 2021, 27, 06021002.	1.6	1
15	Time-to-Functionality Fragilities for Performance Assessment of Buildings. Journal of Structural Engineering, 2021, 147, .	3.4	8
16	Carbon Impact and Cost of Mass Timber Beamâ€“Column Gravity Systems. Sustainability, 2021, 13, 12966.	3.2	2
17	Efficient evaluation of bridge deformation for running safety of railway vehicles using simplified models. Advances in Structural Engineering, 2020, 23, 454-467.	2.4	13
18	Probabilistic assessment of vehicle derailment based on optimal ground motion intensity measure. Vehicle System Dynamics, 2020, , 1-22.	3.7	11

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19	Seismic Performance Factors for Cross-Laminated Timber Shear Wall Systems in the United States. Journal of Structural Engineering, 2020, 146, .	3.4	32
20	Pres-Lam Buildings: State-of-the-Art. Journal of Structural Engineering, 2020, 146, .	3.4	36
21	A Data-Driven Approach for Direct Assessment and Analysis of Traffic Tunnel Resilience. Springer Series in Geomechanics and Geoengineering, 2020, , 168-177.	0.1	1
22	Full-Scale Shake Table Testing of Cross-Laminated Timber Rocking Shear Walls with Replaceable Components. Journal of Structural Engineering, 2019, 145, .	3.4	39
23	Small scale tests on the performance of adhesives used in cross laminated timber (CLT) at elevated temperatures. International Journal of Adhesion and Adhesives, 2019, 95, 102436.	2.9	22
24	Structure Moisture Monitoring of an 8-Story Mass Timber Building in the Pacific Northwest. Journal of Architectural Engineering, 2019, 25, .	1.6	23
25	Experimental Seismic Response of a Resilient 2-Story Mass-Timber Building with Post-Tensioned Rocking Walls. Journal of Structural Engineering, 2019, 145, .	3.4	86
26	Lateral behavior of panelized CLT walls: A pushover analysis based on minimal resistance assumption. Engineering Structures, 2019, 191, 469-478.	5.3	11
27	Experimental seismic behavior of a two-story CLT platform building. Engineering Structures, 2019, 183, 408-422.	5.3	61
28	Simplified Mechanistic Model for Seismic Response Prediction of Coupled Cross-Laminated Timber Rocking Walls. Journal of Structural Engineering, 2019, 145, .	3.4	10
29	Operational resilience of traffic tunnels: An example case study. , 2019, , 5129-5138.		1
30	A response spectrum-based indicator for structural damage prediction. Engineering Structures, 2018, 166, 546-555.	5.3	6
31	Experimental Investigation of Seismic Uncertainty Propagation through Shake Table Tests. Journal of Structural Engineering, 2018, 144, 06017009.	3.4	3
32	Fatigue Performance Analysis of Damaged Steel Beams Strengthened with Prestressed Unbonded CFRP Plates. Journal of Bridge Engineering, 2018, 23, .	2.9	22
33	An integrated explicitâ€“implicit algorithm for vehicleâ€“railâ€“bridge dynamic simulations. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2018, 232, 1895-1913.	2.0	17
34	Direct displacement design of tall cross laminated timber platform buildings with inter-story isolation. Engineering Structures, 2018, 167, 740-749.	5.3	24
35	Reduction of Vehicle-Induced Vibration of Railway Bridges due to Distribution of Axle Loads through Track. Shock and Vibration, 2018, 2018, 1-14.	0.6	4
36	Systematic experimental investigation to support the development of seismic performance factors for cross laminated timber shear wall systems. Engineering Structures, 2018, 172, 392-404.	5.3	52

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37	Modeling the impact of corrosion on seismic performance of multi-span simply-supported bridges. Construction and Building Materials, 2018, 185, 193-205.	7.2	43
38	A Frequency Domain Solution to Vehicle Induced Vibration of Railway Bridges. , 2018, , 745-755.		0
39	Analytical and Experimental Lateral-Load Response of Self-Centering Posttensioned CLT Walls. Journal of Structural Engineering, 2017, 143, .	3.4	63
40	Seismic Design of Cross-Laminated Timber Platform Buildings Using a Coupled Shearwall Concept. Journal of Architectural Engineering, 2017, 23, .	1.6	11
41	Vehicle-induced random vibration of railway bridges: a spectral approach. International Journal of Rail Transportation, 2017, 5, 191-212.	2.7	20
42	An approach to quantify the influence of ground motion uncertainty on elastoplastic system acceleration in incremental dynamic analysis. Advances in Structural Engineering, 2017, 20, 1744-1756.	2.4	3
43	Fatigue assessment and stress analysis of cope-hole details in welded joints of steel truss bridge. International Journal of Fatigue, 2017, 100, 136-147.	5.7	19
44	Uncertainty quantification for seismic responses of bilinear SDOF systems: A semi-closed-form estimation. Soil Dynamics and Earthquake Engineering, 2017, 93, 18-28.	3.8	6
45	Experiment study on fatigue performance of perforated shear connectors. International Journal of Steel Structures, 2017, 17, 957-967.	1.3	6
46	Experimental Investigation of Self-Centering Cross-Laminated Timber Walls. Journal of Structural Engineering, 2017, 143, .	3.4	96
47	Theoretical and Experimental Studies of the Internal Force Transfer Mechanism of Perfobond Rib Shear Connector Group. Journal of Bridge Engineering, 2017, 22, .	2.9	44
48	Energy Consumption Analysis of Multistory Cross-Laminated Timber Residential Buildings: A Comparative Study. Journal of Architectural Engineering, 2016, 22, .	1.6	21
49	Effect of vertical ground motion on earthquake-induced derailment of railway vehicles over simply-supported bridges. Journal of Sound and Vibration, 2016, 383, 277-294.	3.9	55
50	Partially Earth-Anchored Cable Bridge: Ultralong-Span System Suitable for Carbon-Fiber-Reinforced Plastic Cables. Journal of Bridge Engineering, 2016, 21, 06016003.	2.9	5
51	Vehicle-Induced Lateral Vibration of Railway Bridges: An Analytical-Solution Approach. Journal of Bridge Engineering, 2016, 21, .	2.9	9
52	Cross-Laminated Timber for Seismic Regions: Progress and Challenges for Research and Implementation. Journal of Structural Engineering, 2016, 142, .	3.4	100
53	Impact of train-induced vibration on railway cable-stayed bridges fatigue evaluation. Baltic Journal of Road and Bridge Engineering, 2016, 11, 102-110.	0.8	2
54	Probabilistic evaluation approach for nonlinear vehicleâ€"bridge dynamic performances. Journal of Sound and Vibration, 2015, 339, 143-156.	3.9	25

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55	Structure-borne noise of railway composite bridge: Numerical simulation and experimental validation. Journal of Sound and Vibration, 2015, 353, 378-394.	3.9	46
56	Variability in Wood-Frame Building Damage using Broad-Band Synthetic Ground Motions: A Comparative Numerical Study with Recorded Motions. Journal of Earthquake Engineering, 2014, 18, 389-406.	2.5	0
57	Evaluation of Truck Impact Hazards for Interstate Overpasses. Transportation Research Record, 2014, 2402, 1-8.	1.9	3
58	Overview of a Project to Quantify Seismic Performance Factors for Cross Laminated Timber Structures in the United States. RILEM Bookseries, 2014, , 531-541.	0.4	9
59	Force Modification Factors for CLT Structures for NBCC. , 2014, , 543-553.		19
60	Analytical study on seismic force modification factors for cross-laminated timber buildings. Canadian Journal of Civil Engineering, 2013, 40, 887-896.	1.3	45
61	A regional perspective on defining seismic performance objectives for woodframe buildings. Structural Safety, 2013, 43, 50-59.	5.3	1
62	Implementation of Plan Irregularity Rapid Visual Screening Tool for Wood-Frame, Single-Family Dwellings. Journal of Earthquake Engineering, 2013, 17, 497-516.	2.5	2
63	Dual-Objective-Based Tornado Design Philosophy. Journal of Structural Engineering, 2013, 139, 251-263.	3.4	59
64	Performance-Based Seismic Design of Midrise Woodframe Buildings. Journal of Structural Engineering, 2013, 139, 1294-1302.	3.4	23
65	Approximate R-Factor for Cross-Laminated Timber Walls in Multistory Buildings. Journal of Architectural Engineering, 2013, 19, 245-255.	1.6	73
66	Experimental Study of Collapse Limits for Wood Frame Shear Walls. Journal of Structural Engineering, 2013, 139, 1489-1497.	3.4	26
67	Effect of Plan Configuration on Seismic Performance of Single-Story Wood-Frame Dwellings. Natural Hazards Review, 2012, 13, 24-33.	1.5	11
68	Collapse Testing and Analysis of a Light-Frame Wood Garage Wall. Journal of Structural Engineering, 2012, 138, 492-501.	3.4	19
69	Making the Case for Improved Structural Design: Tornado Outbreaks of 2011. Leadership and Management in Engineering, 2012, 12, 254-270.	0.3	59
70	Damage Assessment of a Full-Scale Six-Story Wood-Frame Building Following Triaxial Shake Table Tests. Journal of Performance of Constructed Facilities, 2012, 26, 17-25.	2.0	14
71	Nonlinear Time-History Analysis of a Six-Story Wood Platform Frame Buildings in Vancouver, British Columbia. Earthquake Spectra, 2012, 28, 621-637.	3.1	5
72	A procedure for rapid visual screening for seismic safety of wood-frame dwellings with plan irregularity. Engineering Structures, 2012, 36, 351-359.	5.3	8

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73	Construction and Experimental Seismic Performance of a Full-scale Six-story Light-frame Wood Building. Procedia Engineering, 2011, 14, 1599-1605.	1.2	9
74	Shake table testing of a full-scale seven-story steelâ€"wood apartment building. Engineering Structures, 2011, 33, 757-766.	5.3	34
75	Seismic Numerical Modeling of a Six-Story Light-Frame Wood Building: Comparison with Experiments. Journal of Earthquake Engineering, 2011, 15, 924-941.	2.5	29
76	IDA Comparison of IBC-Designed and DDD-Designed Six-Story Light-Frame Wood Buildings. Journal of Performance of Constructed Facilities, 2011, 25, 138-142.	2.0	4
77	Influence of structural properties and hazard level on seismic loss estimation for light-frame wood structures. Engineering Structures, 2010, 32, 2183-2191.	5.3	6
78	Empirical loss analysis to support definition of seismic performance objectives for woodframe buildings. Structural Safety, 2010, 32, 209-219.	5.3	9
79	Experimental Seismic Response of a Full-Scale Six-Story Light-Frame Wood Building. Journal of Structural Engineering, 2010, 136, 1262-1272.	3.4	119
80	Simplified Direct Displacement Design of Six-Story Woodframe Building and Pretest Seismic Performance Assessment. Journal of Structural Engineering, 2010, 136, 813-825.	3.4	75
81	Three-Dimensional Seismic Response of a Full-Scale Light-Frame Wood Building: Numerical Study. Journal of Structural Engineering, 2010, 136, 56-65.	3.4	38
82	Experimental seismic behavior of a five-storey double-midply wood shear wall in a full scale building. Canadian Journal of Civil Engineering, 2010, 37, 1261-1269.	1.3	11
83	Validation of the Neeswood PBSD Procedure: Testing of a Full-Scale Six-Story Building at Japan's E-Defense. , 2010, , .		0
84	Coupled shearâ€bending formulation for seismic analysis of stacked wood shear wall systems. Earthquake Engineering and Structural Dynamics, 2009, 38, 1631-1647.	4.4	43
85	Methodology for earthquake-induced loss estimation: An application to woodframe buildings. Structural Safety, 2009, 31, 31-42.	5.3	60
86	Systematic Seismic Design for Manageable Loss in Wood-Framed Buildings. Earthquake Spectra, 2009, 25, 851-868.	3.1	7
87	Performance-Based Seismic Design of Wood Frame Buildings Using a Probabilistic System Identification Concept. Journal of Structural Engineering, 2008, 134, 240-247.	3.4	13
88	Tiered Approach to Performance-Based Seismic Design of Wood Frame Buildings. , 2008, , .		2
89	Evolutionary Parameter Hysteretic Model for Wood Shear Walls. Journal of Structural Engineering, 2007, 133, 1118-1129.	3.4	65
90	Performance of a Woodframe Structure during Full-Scale Shake-Table Tests: Drift, Damage, and Effect of Partition Wall. Journal of Performance of Constructed Facilities, 2007, 21, 35-43.	2.0	10

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91	Sensitivity analysis of road tunnel resilience through data-driven stochastic simulation. , 0, , .		0