

# Xiang Liu

## List of Publications by Year in descending order

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39  
papers

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citations

567281

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docs citations

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times ranked

324  
citing authors

#	ARTICLE	IF	CITATIONS
1	Probability analysis of train-bridge coupled system considering track irregularities and parameter uncertainty. <i>Mechanics Based Design of Structures and Machines</i> , 2023, 51, 2918-2935.	4.7	17
2	Seismic-Induced Geometric Irregularity of Rail Alignment under Transverse Random Earthquake. <i>Journal of Earthquake Engineering</i> , 2023, 27, 575-596.	2.5	12
3	Study on the dynamic response correction factor of a coupled high-speed train“track”bridge system under near-fault earthquakes. <i>Mechanics Based Design of Structures and Machines</i> , 2022, 50, 3303-3321.	4.7	32
4	Effects of foundation settlement on comfort of riding on high-speed train-track-bridge coupled systems. <i>Mechanics Based Design of Structures and Machines</i> , 2022, 50, 2760-2778.	4.7	15
5	Lateral girder displacement effect on the safety and comfortability of the high-speed rail train operation. <i>Vehicle System Dynamics</i> , 2022, 60, 3215-3239.	3.7	20
6	Extended Wittrick“Williams algorithm for eigenvalue solution of stochastic dynamic stiffness method. <i>Mechanical Systems and Signal Processing</i> , 2022, 166, 108354.	8.0	6
7	Corrigendum to “An exact dynamic stiffness method for multibody systems consisting of beams and rigid-bodies, <i>Mechanical Systems and Signal Processing</i> 150 (2021) 107264, by X. Liu, Ch. Sun, J.R. Banerjee, H-Ch. Dan, L. Chang” <i>Mechanical Systems and Signal Processing</i> , 2022, 164, 108257.	8.0	0
8	Closed-form dynamic stiffness formulation for exact modal analysis of tapered and functionally graded beams and their assemblies. <i>International Journal of Mechanical Sciences</i> , 2022, 214, 106887.	6.7	16
9	Dynamic stiffness method for exact longitudinal free vibration of rods and trusses using simple and advanced theories. <i>Applied Mathematical Modelling</i> , 2022, 104, 401-420.	4.2	11
10	Theoretical and Experimental Investigation on Dynamic Response of Asphalt Pavement Under Vibration Compaction. <i>Frontiers in Materials</i> , 2022, 8, .	2.4	2
11	Exact wave propagation analysis of lattice structures based on the dynamic stiffness method and the Wittrick“Williams algorithm. <i>Mechanical Systems and Signal Processing</i> , 2022, 174, 109044.	8.0	13
12	Extension of the Wittrick-Williams Algorithm for Free Vibration Analysis of Hybrid Dynamic Stiffness Models Connecting Line and Point Nodes. <i>Mathematics</i> , 2022, 10, 57.	2.2	3
13	A highly accurate spectral dynamic stiffness method for efficient broadband modal and dynamic response analysis of membranes assemblies with arbitrary boundary conditions. <i>Computers and Structures</i> , 2022, 267, 106797.	4.4	4
14	An analytical framework for broadband dynamic analysis of plate built-up structures with uncertain viscoelastic boundary or connection conditions. <i>Mechanical Systems and Signal Processing</i> , 2022, 177, 109121.	8.0	2
15	Free vibration analysis of FG-CNTRC conical shell panels using the kernel particle Ritz element-free method. <i>Composite Structures</i> , 2021, 255, 112987.	5.8	28
16	An exact dynamic stiffness method for multibody systems consisting of beams and rigid-bodies. <i>Mechanical Systems and Signal Processing</i> , 2021, 150, 107264.	8.0	34
17	Stochastic finite element method based on point estimate and Karhunen“Lo“ve expansion. <i>Archive of Applied Mechanics</i> , 2021, 91, 1257-1271.	2.2	11
18	Spectral dynamic stiffness theory for free vibration analysis of plate structures stiffened by beams with arbitrary cross-sections. <i>Thin-Walled Structures</i> , 2021, 160, 107391.	5.3	14

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19	Dynamic response limit of high-speed railway bridge under earthquake considering running safety performance of train. Journal of Central South University, 2021, 28, 968-980.	3.0	43
20	Dynamic response of asphalt pavement under vibration rolling load: Theory and calibration. Soil Dynamics and Earthquake Engineering, 2021, 143, 106633.	3.8	13
21	Running test on high-speed railway track-simply supported girder bridge systems under seismic action. Bulletin of Earthquake Engineering, 2021, 19, 3779-3802.	4.1	21
22	Stochastic dynamic stiffness for damped taut membranes. Computers and Structures, 2021, 248, 106483.	4.4	6
23	A Hybrid Method to Obtain the Wheel-Rail Contact Point at Extreme Positions. International Journal of Structural Stability and Dynamics, 2021, 21, .	2.4	0
24	A highly accurate analytical spectral flexibility formulation for buckling and wrinkling of orthotropic rectangular plates. International Journal of Mechanical Sciences, 2020, 168, 105311.	6.7	23
25	Mechanical properties of Nomex honeycomb sandwich panels under dynamic impact. Composite Structures, 2020, 235, 111814.	5.8	72
26	Investigating the Effect of Dimension Parameters on Sound Transmission Losses in Nomex Honeycomb Sandwich. Applied Sciences (Switzerland), 2020, 10, 3109.	2.5	7
27	Exact free vibration analysis for membrane assemblies with general classical boundary conditions. Journal of Sound and Vibration, 2020, 485, 115484.	3.9	21
28	Stochastic Analysis of Train-Bridge System Using the Karhunen-Loève Expansion and the Point Estimate Method. International Journal of Structural Stability and Dynamics, 2020, 20, 2050025.	2.4	44
29	Exact Free Vibration Analysis for Plate Built-Up Structures under Comprehensive Combinations of Boundary Conditions. Shock and Vibration, 2020, 2020, 1-21.	0.6	1
30	Experimental investigation on dynamic response of asphalt pavement using SmartRock sensor under vibrating compaction loading. Construction and Building Materials, 2020, 247, 118592.	7.2	60
31	An analytical spectral stiffness method for buckling of rectangular plates on Winkler foundation subject to general boundary conditions. Applied Mathematical Modelling, 2020, 86, 36-53.	4.2	26
32	Application of KLE-PEM for Random Dynamic Analysis of Nonlinear Train-Track-Bridge System. Shock and Vibration, 2020, 2020, 1-10.	0.6	5
33	Train-bridge system dynamics analysis with uncertain parameters based on new point estimate method. Engineering Structures, 2019, 199, 109454.	5.3	64
34	Transient unsaturated flow in the drainage layer of a highway: solution and drainage performance. Road Materials and Pavement Design, 2019, 20, 528-553.	4.0	17
35	Buckling-resistant thin annular plates in tension. Mathematics and Mechanics of Solids, 2014, 19, 925-951.	2.4	11
36	Semi-analytical approximations for a class of multi-parameter eigenvalue problems related to tensile buckling. Zeitschrift Fur Angewandte Mathematik Und Physik, 2013, 64, 863-883.	1.4	3

#	ARTICLE	IF	CITATIONS
37	On the bifurcations of the Lamé solutions in plane-strain elasticity. International Journal of Non-Linear Mechanics, 2012, 47, 135-143.	2.6	1
38	Upper bound analysis of slope stability with nonlinear failure criterion based on strength reduction technique. Central South University, 2010, 17, 836-844.	0.5	33
39	Study of resonance condition of railway bridge subjected to train loads with a four-beam system. Mechanics Based Design of Structures and Machines, 0, , 1-21.	4.7	4