

# Xing-Huai Huang

## List of Publications by Year in descending order

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Version: 2024-02-01

91  
papers

1,910  
citations

236833

25  
h-index

302012

39  
g-index

92  
all docs

92  
docs citations

92  
times ranked

909  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Earthquake Mitigation Study on Viscoelastic Dampers for Reinforced Concrete Structures. JVC/Journal of Vibration and Control, 2007, 13, 29-43.  | 1.5 | 95        |
| 2  | Equivalent fractional Kelvin model and experimental study on viscoelastic damper. JVC/Journal of Vibration and Control, 2015, 21, 2536-2552.  | 1.5 | 80        |
| 3  | Parameters optimization of vibration isolation and mitigation system for precision platforms using non-dominated sorting genetic algorithm. Mechanical Systems and Signal Processing, 2019, 128, 191-201. | 4.4 | 80        |
| 4  | Experimental and Theoretical Study of High-Energy Dissipation-Viscoelastic Dampers Based on Acrylate-Rubber Matrix. Journal of Engineering Mechanics - ASCE, 2020, 146, .                                 | 1.6 | 80        |
| 5  | Optimal design of tuned mass damper inerter with a Maxwell element for mitigating the vortex-induced vibration in bridges. Mechanical Systems and Signal Processing, 2021, 148, 107180.                   | 4.4 | 73        |
| 6  | Design, performance test and analysis on magnetorheological damper for earthquake mitigation. Structural Control and Health Monitoring, 2013, 20, 956-970.  | 1.9 | 70        |
| 7  | Energy damage detection strategy based on acceleration responses for long-span bridge structures. Engineering Structures, 2007, 29, 609-617.  | 2.6 | 65        |
| 8  | Energy Damage Detection Strategy Based on Strain Responses for Long-Span Bridge Structures. Journal of Bridge Engineering, 2011, 16, 644-652.   | 1.4 | 52        |
| 9  | Performance tests and mathematical model considering magnetic saturation for magnetorheological damper. Journal of Intelligent Material Systems and Structures, 2012, 23, 1331-1349.                      | 1.4 | 48        |
| 10 | Dynamic Analysis and Parameter Optimization of Pipelines with Multidimensional Vibration Isolation and Mitigation Device. Journal of Pipeline Systems Engineering and Practice, 2021, 12, .               | 0.9 | 48        |
| 11 | A synthetic optimization analysis method on structures with viscoelastic dampers. Soil Dynamics and Earthquake Engineering, 2003, 23, 683-689.  | 1.9 | 47        |
| 12 | Optimal analysis and experimental study on structures with viscoelastic dampers. Journal of Sound and Vibration, 2004, 273, 607-618.  | 2.1 | 45        |
| 13 | Neuro-fuzzy control strategy for earthquake-excited nonlinear magnetorheological structures. Soil Dynamics and Earthquake Engineering, 2008, 28, 717-727.   | 1.9 | 45        |
| 14 | Novel Data-Driven Framework for Predicting Residual Strength of Corroded Pipelines. Journal of Pipeline Systems Engineering and Practice, 2021, 12, .   | 0.9 | 45        |
| 15 | Vibration suppression on a platform by using vibration isolation and mitigation devices. Nonlinear Dynamics, 2016, 83, 1341-1353.   | 2.7 | 44        |
| 16 | Damage Detection for Space Truss Structures Based on Strain Mode under Ambient Excitation. Journal of Engineering Mechanics - ASCE, 2012, 138, 1215-1223.   | 1.6 | 40        |
| 17 | Wind vibration control of stay cables using magnetorheological dampers under optimal equivalent control algorithm. Journal of Sound and Vibration, 2019, 443, 732-747.                                    | 2.1 | 40        |
| 18 | Damage Identification of Pipeline Based on Ultrasonic Guided Wave and Wavelet Denoising. Journal of Pipeline Systems Engineering and Practice, 2021, 12, .  | 0.9 | 32        |

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|----|---|-----|-----------|
| 19 | Experimental study on vertical performance of multidimensional earthquake isolation and mitigation devices for long-span reticulated structures. JVC/Journal of Vibration and Control, 2012, 18, 1971-1985.                             | 1.5 | 31        |
| 20 | Viscoelastic Properties of Magnetorheological Elastomers for Damping Applications. Macromolecular Materials and Engineering, 2014, 299, 1116-1125.  | 1.7 | 31        |
| 21 | Experimental and theoretical study on a building structure controlled by multi-dimensional earthquake isolation and mitigation devices. Nonlinear Dynamics, 2017, 89, 723-740.  | 2.7 | 30        |
| 22 | Seismic behavior and damage evolution for retrofitted RC frames using haunch viscoelastic damping braces. Engineering Structures, 2019, 199, 109583.  | 2.6 | 29        |
| 23 | Horizontal shaking table tests on structures using innovative earthquake mitigation devices. Journal of Sound and Vibration, 2009, 325, 34-48.  | 2.1 | 27        |
| 24 | Safety and Stability of Light-Rail Train Running on Multispan Bridges with Deformation. Journal of Bridge Engineering, 2016, 21, .  | 1.4 | 26        |
| 25 | A physical model-free ant colony optimization network algorithm and full scale experimental investigation on ceiling temperature distribution in the utility tunnel fire. International Journal of Thermal Sciences, 2022, 174, 107436. | 2.6 | 26        |
| 26 | Experimental study on horizontal performance of multi-dimensional earthquake isolation and mitigation devices for long-span reticulated structures. JVC/Journal of Vibration and Control, 2012, 18, 941-952.                            | 1.5 | 25        |
| 27 | Parameters Design of TMD Mitigating Vortex-Induced Vibration of the Hong Kongâ€Žuhaiâ€ŽMacao Bridge Deep-Water Nonnavigable Bridge. Journal of Bridge Engineering, 2019, 24, .  | 1.4 | 25        |
| 28 | Optimization analysis on parameters of multi-dimensional earthquake isolation and mitigation device based on genetic algorithm. Nonlinear Dynamics, 2013, 72, 757-765.  | 2.7 | 22        |
| 29 | A Compact Experimentally Validated Model of Magnetorheological Fluids. Journal of Vibration and Acoustics, Transactions of the ASME, 2016, 138, .   | 1.0 | 22        |
| 30 | Intelligent Vibration Isolation and Mitigation of a Platform by Using MR and VE Devices. Journal of Aerospace Engineering, 2016, 29, .  | 0.8 | 21        |
| 31 | Performance tests and modeling on high damping magnetorheological elastomers based on bromobutyl rubber. Journal of Intelligent Material Systems and Structures, 2018, 29, 1025-1037.   | 1.4 | 19        |
| 32 | Experimental and theoretical study on a novel multi-dimensional vibration isolation and mitigation device for large-scale pipeline structure. Mechanical Systems and Signal Processing, 2019, 129, 546-567.                             | 4.4 | 19        |
| 33 | Performance tests and microstructureâ€Žbased sigmoid model for a threeâ€Žcoil magnetorheological damper. Structural Control and Health Monitoring, 2021, 28, e2819.   | 1.9 | 19        |
| 34 | Testing and modeling of a CLEMR damper and its application in structural vibration reduction. Nonlinear Dynamics, 2012, 70, 1575-1588.  | 2.7 | 18        |
| 35 | Study of the properties of a multi-dimensional earthquake isolation device for reticulated structures. Journal of Constructional Steel Research, 2013, 88, 63-78.   | 1.7 | 18        |
| 36 | Simulation of stochastic wind field for large complex structures based on modified Fourier spectrum. Journal of Zhejiang University: Science A, 2011, 12, 238-246.  | 1.3 | 17        |

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|----|--|-----|-----------|
| 37 | BP neural network-based adaptive spatial-temporal data generation technology for predicting ceiling temperature in tunnel fire and full-scale experimental verification. <i>Fire Safety Journal</i> , 2022, 130, 103577.             | 1.4 | 16        |
| 38 | An Improved Updatable Backpropagation Neural Network for Temperature Prognosis in Tunnel Fires. <i>Journal of Performance of Constructed Facilities</i> , 2022, 36, .  | 1.0 | 15        |
| 39 | Damage Detection Strategy Using Strain-Mode Residual Trends for Long-Span Bridges. <i>Journal of Computing in Civil Engineering</i> , 2015, 29, .  | 2.5 | 14        |
| 40 | Development of hybrid test system for three-dimensional viscoelastic damping frame structures based on Matlab-OpenSees combined programming. <i>Soil Dynamics and Earthquake Engineering</i> , 2021, 144, 106681.                    | 1.9 | 14        |
| 41 | Mathematical modeling and test verification of viscoelastic materials considering microstructures and ambient temperature influence. <i>Mechanics of Advanced Materials and Structures</i> , 2022, 29, 7063-7074.                    | 1.5 | 13        |
| 42 | Modeling and analysis of a viscoelastic micro-vibration isolation and mitigation platform for spacecraft. <i>JVC/Journal of Vibration and Control</i> , 2018, 24, 4337-4352.   | 1.5 | 12        |
| 43 | Investigation of Mechanical and Damping Performances of Cylindrical Viscoelastic Dampers in Wide Frequency Range. <i>Actuators</i> , 2021, 10, 71.   | 1.2 | 12        |
| 44 | Mitigation of Vortex-Induced Vibration in Bridges Using Semiactive Tuned Mass Dampers. <i>Journal of Bridge Engineering</i> , 2021, 26, .  | 1.4 | 12        |
| 45 | Single-double chains micromechanical model and experimental verification of MR fluids with MWCNTs/GO composites coated ferromagnetic particles. <i>Journal of Intelligent Material Systems and Structures</i> , 2021, 32, 1523-1536. | 1.4 | 12        |
| 46 | Properties Tests and Mathematical Modeling of Viscoelastic Damper at Low Temperature With Fractional Order Derivative. <i>Frontiers in Materials</i> , 2019, 6, .  | 1.2 | 10        |
| 47 | Theoretical and Experimental Research of Viscoelastic Damping Limb-Like-Structure Device with Coupling Nonlinear Characteristics. <i>International Journal of Structural Stability and Dynamics</i> , 2021, 21, .                    | 1.5 | 10        |
| 48 | Dynamic Properties and Energy Dissipation Study of Sandwich Viscoelastic Damper Considering Temperature Influence. <i>Buildings</i> , 2021, 11, 470.   | 1.4 | 10        |
| 49 | A Fractional-Order Generalized Thermoelastic Problem of a Bilayer Piezoelectric Plate for Vibration Control. <i>Journal of Heat Transfer</i> , 2017, 139, .  | 1.2 | 9         |
| 50 | Distributed Strain Damage Identification Technique for Long-Span Bridges Under Ambient Excitation. <i>International Journal of Structural Stability and Dynamics</i> , 2018, 18, 1850133.  | 1.5 | 9         |
| 51 | Multidimensional vibration reduction control of the frame structure with magnetorheological damper. <i>Structural Control and Health Monitoring</i> , 2020, 27, e2572.   | 1.9 | 9         |
| 52 | A continuum damage-based three-dimensional fracture simulation method for brittle-like materials. <i>International Journal of Damage Mechanics</i> , 2022, 31, 508-531.  | 2.4 | 9         |
| 53 | Bistable inclined beam connected in series for quasi-zero stiffness. <i>Mechanics of Advanced Materials and Structures</i> , 2023, 30, 1285-1298.  | 1.5 | 9         |
| 54 | Experimental and numerical studies on new multi-dimensional earthquake isolation and mitigation device: Horizontal properties. <i>Science China Technological Sciences</i> , 2010, 53, 2658-2667.                                    | 2.0 | 8         |

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|----|--|-----|-----------|
| 55 | Gradient Chain Structure Model for Characterizing Frequency Dependence of Viscoelastic Materials. <i>Journal of Engineering Mechanics - ASCE</i> , 2020, 146, .  | 1.6 | 8         |
| 56 | An Intelligent Fire Detection Algorithm and Sensor Optimization Strategy for Utility Tunnel Fires. <i>Journal of Pipeline Systems Engineering and Practice</i> , 2022, 13, .                                     | 0.9 | 8         |
| 57 | Robust control of vortex-induced vibration in flexible bridges using an active tuned mass damper. <i>Structural Control and Health Monitoring</i> , 2022, 29, .  | 1.9 | 8         |
| 58 | Analysis on the disaster chain evolution from gas leak to explosion in urban utility tunnels. <i>Engineering Failure Analysis</i> , 2022, 140, 106609.   | 1.8 | 8         |
| 59 | Tests and Modeling of a New Vibration Isolation and Suppression Device. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2017, 139, .                                      | 0.9 | 7         |
| 60 | Design parameters and material-scale damage evolution of seismic upgraded RC frames by viscoelastic haunch bracing dampers. <i>Earthquake Engineering and Structural Dynamics</i> , 2021, 50, 1476-1491.         | 2.5 | 7         |
| 61 | Experimentally-Verified Micromechanical Model of MR Gels Based on Planar Current Loop Model. <i>Journal of Engineering Mechanics - ASCE</i> , 2021, 147, .   | 1.6 | 7         |
| 62 | Study on the Iced Quad-Bundle Transmission Lines Incorporated With Viscoelastic Antigalloping Devices. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2015, 137, .       | 0.9 | 6         |
| 63 | Simultaneous identification of stiffness, mass, and damping using an on-line model updating approach. <i>Structural Control and Health Monitoring</i> , 2017, 24, e1892.   | 1.9 | 6         |
| 64 | Nonstationary Seismic Responses of Nonlinear Structural Systems to Modulated Earthquake Excitations. <i>Journal of Engineering Mechanics - ASCE</i> , 2019, 145, .   | 1.6 | 6         |
| 65 | Internal magnetic field tests and magnetic field coupling model of a three-coil magnetorheological damper. <i>Journal of Intelligent Material Systems and Structures</i> , 2020, 31, 2179-2195.                  | 1.4 | 6         |
| 66 | Seismic performance of viscoelastically damped structures at different ambient temperatures. <i>JVC/Journal of Vibration and Control</i> , 2021, 27, 2819-2834.  | 1.5 | 6         |
| 67 | Microstructure-Based Equivalent Visco-Hyperelastic Model of Viscoelastic Damper. <i>Journal of Engineering Mechanics - ASCE</i> , 2022, 148, .   | 1.6 | 6         |
| 68 | Effect of Control-Structure Interaction Using Torsional Servomotor for Active Tuned Mass Damper Control System. <i>International Journal of Structural Stability and Dynamics</i> , 2022, 22, .                  | 1.5 | 6         |
| 69 | Identification of Multiple Fire Sources in the Utility Tunnel Based on a Constrained Particle Swarm Optimization Algorithm. <i>Fire Technology</i> , 2022, 58, 2825-2845.  | 1.5 | 6         |
| 70 | Track-position and vibration control simulation for strut of the Stewart platform. <i>Journal of Zhejiang University: Science A</i> , 2013, 14, 281-291.   | 1.3 | 5         |
| 71 | Preparation, Property Tests, and Limited Chain Model of Magnetorheological Fluid. <i>Journal of Materials in Civil Engineering</i> , 2015, 27, 04014229.   | 1.3 | 5         |
| 72 | Experimental and Numerical Study on Dynamic Properties of Viscoelastic Microvibration Damper Considering Temperature and Frequency Effects. <i>Journal of Computational and Nonlinear Dynamics</i> , 2016, 11, . | 0.7 | 5         |

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|----|---|-----|-----------|
| 73 | Quasi-zero stiffness isolator based on bistable structures with variable cross-section. Journal of Low Frequency Noise Vibration and Active Control, 2022, 41, 405-416.   | 1.3 | 4         |
| 74 | Experimental and theoretical investigation on energy dissipation capacity of the viscoelastic limb-like-structure devices. Mechanics of Advanced Materials and Structures, 2023, 30, 2121-2134.                 | 1.5 | 4         |
| 75 | Experimental study on seismic performance of prefabricated viscoelastic damping bolted joints. Engineering Structures, 2022, 256, 113933.   | 2.6 | 4         |
| 76 | Prediction of the Thermal Contact Resistance at the Steel-Concrete Interface of CFST Columns with Circular Cross-Section. Mechanics of Advanced Materials and Structures, 2012, 19, 530-542.                    | 1.5 | 3         |
| 77 | An in-time damage identification approach based on the Kalman filter and energy equilibrium theory. Journal of Zhejiang University: Science A, 2015, 16, 105-116.   | 1.3 | 3         |
| 78 | Calculating moisture emissivity of timber members with different surface treatment. Construction and Building Materials, 2021, 269, 121253.   | 3.2 | 3         |
| 79 | Study on Experiment and Modeling of Viscoelastic Damper Considering Interfacial Effect of Matrix Rubber/Carbon Black. Journal of Engineering Materials and Technology, Transactions of the ASME, 2021, 143, .   | 0.8 | 3         |
| 80 | Hybrid seismic isolation of vertical pressure vessels in CO2 capture plant. Structures, 2022, 39, 17-28.  | 1.7 | 3         |
| 81 | A Two-Step Transformation Approach for ESS Model of Viscoelastic Material to Time Domain. Frontiers in Materials, 2019, 6, .  | 1.2 | 2         |
| 82 | Three-dimensional dynamic analysis of ancient buildings with novel high damping isolation trenches. JVC/Journal of Vibration and Control, 2022, 28, 2409-2420.  | 1.5 | 2         |
| 83 | Study of a Novel Nonlinear Viscoelastic Bio-Inspired Multi-Dimensional Vibration Isolation Device. International Journal of Structural Stability and Dynamics, 2022, 22, .                                      | 1.5 | 2         |
| 84 | Design and Experiment on Single-Chip Microprocessor for MRD Coupling Sensing and Control. International Journal of Distributed Sensor Networks, 2012, 8, 637989.  | 1.3 | 1         |
| 85 | Vertical pseudo-dynamic experimental study on long-span reticulated structures with multi-dimensional earthquake isolation and mitigation devices. JVC/Journal of Vibration and Control, 2014, 20, 2326-2337.   | 1.5 | 1         |
| 86 | Horizontal pseudo-dynamic experimental study on long-span reticulated structures with multi-dimensional earthquake isolation and mitigation devices. JVC/Journal of Vibration and Control, 2015, 21, 1086-1099. | 1.5 | 1         |
| 87 | The development and tests of remote data acquisition and transmission system on civil engineering structural vibration. Journal of Asian Architecture and Building Engineering, 2019, 18, 9-15.                 | 1.2 | 1         |
| 88 | A continuum damage-based computational methodology for crack growth simulation of metal films. Bulletin of Materials Science, 2021, 44, 1.  | 0.8 | 1         |
| 89 | A physical minimum dissipative energy-based damage model for crack growth simulation of geoenvironmental structures. International Journal of Fracture, 2021, 231, 79.  | 1.1 | 1         |
| 90 | A user-configurable electric actuator hybrid test platform: Development and applications for viscoelastic damping system seismic testing. Mechanics of Advanced Materials and Structures, 0, , 1-16.            | 1.5 | 1         |

| #  | ARTICLE   | IF | CITATIONS |
|----|---|----|-----------|
| 91 | Stability of single-layer spherical reticulated shell with imperfections. , 2011, , . |    | 0         |