Kaiping Yu

List of Publications by Year
in descending order

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101 papers	1,884 citations	201575 27 h-index	345118 36 g-index
102 all docs	102 docs citations	102 times ranked	1054 citing authors

#	Article	IF	Citations
1	Analytical modeling and validation of multi-mode piezoelectric energy harvester. Mechanical Systems and Signal Processing, 2019, 124, 613-631.	4.4	77
2	Estimation of modal parameters using the sparse component analysis based underdetermined blind source separation. Mechanical Systems and Signal Processing, 2014, 45, 302-316.	4.4	70
3	Vibration and acoustic responses of composite and sandwich panels under thermal environment. Composite Structures, 2015, 131, 1040-1049.	3.1	65
4	A high-staticâ€“low-dynamic-stiffness vibration isolator with the auxiliary system. Nonlinear Dynamics, 2018, 94, 1549-1567.	2.7	54
5	Accurate modeling and analysis of a typical nonlinear vibration isolator with quasi-zero stiffness. Nonlinear Dynamics, 2020, 100, 2141-2165.	2.7	53
6	Buckling and vibro-acoustic response of the clamped composite laminated plate in thermal environment. International Journal of Mechanical Sciences, 2016, 119, 370-382.	3.6	50
7	Enhanced vibration isolation performance of quasi-zero-stiffness isolator by introducing tunable nonlinear inerter. Communications in Nonlinear Science and Numerical Simulation, 2021, 95, 105654.	1.7	50
8	Parameter selection for model updating with global sensitivity analysis. Mechanical Systems and Signal Processing, 2019, 115, 483-496.	4.4	49
9	A quasi-zero-stiffness device capable of vibration isolation and energy harvesting using piezoelectric buckled beams. Energy, 2021, 233, 121146.	4.5	48
10	Sandwich piezoelectric energy harvester: Analytical modeling and experimental validation. Energy Conversion and Management, 2018, 176, 69-85.	4.4	42
11	Dial-in Topological Metamaterials Based on Bistable Stewart Platform. Scientific Reports, 2018, 8, 112.	1.6	41
12	Superharmonic resonance of the quasi-zero-stiffness vibration isolator and its effect on the isolation performance. Nonlinear Dynamics, 2020, 100, 95-117.	2.7	41
13	A new family of generalizedâ€Î± time integration algorithms without overshoot for structural dynamics. Earthquake Engineering and Structural Dynamics, 2008, 37, 1389-1409.	2.5	40
14	Dynamic modeling and robust nonlinear control of a six-DOF active micro-vibration isolation manipulator with parameter uncertainties. Mechanism and Machine Theory, 2015, 92, 407-435.	2.7	40
15	On the characteristics of a quasi-zero-stiffness vibration isolator with viscoelastic damper. Applied Mathematical Modelling, 2020, 88, 367-381.	2.2	40
16	A novel family of controllably dissipative composite integration algorithms for structural dynamic analysis. Nonlinear Dynamics, 2019, 96, 2475-2507.	2.7	39
17	Thermal vibration characteristics of fiber-reinforced mullite sandwich structure with ceramic foams core. Composite Structures, 2015, 131, 99-106.	3.1	37
18	Piecewise shear deformation theory and finite element formulation for vibration analysis of laminated composite and sandwich plates in thermal environments. Composite Structures, 2017, 160, 1060-1083.	3.1	35

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19	Vibro-acoustic response of a clamped rectangular sandwich panel in thermal environment. Applied Acoustics, 2018, 132, 82-96.	1.7	35
20	Experimental and simulation investigation of temperature effects on modal characteristics of composite honeycomb structure. Composite Structures, 2018, 201, 816-827.	3.1	35
21	Effect of thermal stresses on frequency band structures of elastic metamaterial plates. Journal of Sound and Vibration, 2018, 413, 101-119.	2.1	34
22	In-plane quasi-zero-stiffness vibration isolator using magnetic interaction and cables: Theoretical and experimental study. Applied Mathematical Modelling, 2021, 96, 497-522.	2.2	34
23	Design and experimental study of a quasi-zero-stiffness vibration isolator incorporating transverse groove springs. Archives of Civil and Mechanical Engineering, 2020, 20, 1.	1.9	32
24	Topological spin-Hall edge states of flexural wave in perforated metamaterial plates. Journal Physics D: Applied Physics, 2018, 51, 325302.	1.3	30
25	New insights into the damping characteristics of a typical quasi-zero-stiffness vibration isolator. International Journal of Non-Linear Mechanics, 2020, 124, 103511.	1.4	30
26	Sound transmission loss of composite and sandwich panels in thermal environment. Composites Part B: Engineering, 2018, 133, 1-14.	5.9	29
27	On the shedding of the ventilated supercavity with velocity disturbance. Ocean Engineering, 2013, 57, 223-229.	1.9	28
28	An alternative to the Bathe algorithm. Applied Mathematical Modelling, 2019, 69, 255-272.	2.2	28
29	Simultaneous energy harvesting and vibration isolation via quasi-zero-stiffness support and radially distributed piezoelectric cantilever beams. Applied Mathematical Modelling, 2021, 100, 152-169.	2.2	27
30	Thermal post-buckling and vibration analysis of a symmetric sandwich beam with clamped and simply supported boundary conditions. Archive of Applied Mechanics, 2018, 88, 543-561.	1.2	25
31	Numerical Study of the Pitching Motions of Supercavitating Vehicles. Journal of Hydrodynamics, 2012, 24, 951-958.	1.3	23
32	Output-only modal estimation using sparse component analysis and density-based clustering algorithm. Measurement: Journal of the International Measurement Confederation, 2018, 126, 120-133.	2.5	23
33	Dynamic isotropy design and analysis of a six-DOF active micro-vibration isolation manipulator on satellites. Robotics and Computer-Integrated Manufacturing, 2018, 49, 408-425.	6.1	23
34	Multi-branch sandwich piezoelectric energy harvester: mathematical modeling and validation. Smart Materials and Structures, 2019, 28, 035010.	1.8	23
35	Successive multivariate variational mode decomposition based on instantaneous linear mixing model. Signal Processing, 2022, 190, 108311.	2.1	23
36	Directly self-starting higher-order implicit integration algorithms with flexible dissipation control for structural dynamics. Computer Methods in Applied Mechanics and Engineering, 2022, 389, 114274.	3.4	23

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37	A piecewise shear deformation theory for free vibration of composite and sandwich panels. Composite Structures, 2015, 124, 111-119.	3.1	22
38	Research on the gas-leakage rate of unsteady ventilated supercavity. Journal of Hydrodynamics, 2010, 22, 736-741.	1.3	20
39	Modal parameter extraction based on Hilbert transform and complex independent component analysis with reference. Mechanical Systems and Signal Processing, 2013, 40, 257-268.	4.4	19
40	Dynamic modeling and experimental analyses of Stewart platform with flexible hinges. JVC/Journal of Vibration and Control, 2019, 25, 151-171.	1.5	19
41	Output-only modal identification based on the variational mode decomposition (VMD) framework. Journal of Sound and Vibration, 2022, 522, 116668.	2.1	17
42	Comparative study of core materials and multi-degree-of-freedom sandwich piezoelectric energy harvester with inner cantilevered beams. Journal Physics D: Applied Physics, 2019, 52, 235501.	1.3	16
43	Experimental investigation on the time-varying modal parameters of a trapezoidal plate in temperature-varying environments by subspace tracking-based method. JVC/Journal of Vibration and Control, 2015, 21, 3305-3319.	1.5	15
44	A second-order accurate three sub-step composite algorithm for structural dynamics. Applied Mathematical Modelling, 2020, 77, 1391-1412.	2.2	15
45	A novel family of composite sub-step algorithms with desired numerical dissipations for structural dynamics. Archive of Applied Mechanics, 2020, 90, 737-772.	1.2	15
46	Abnormal topological refraction into free medium at subwavelength scale in valley phononic crystal plates. Physical Review B, 2021, 103, .	1.1	15
47	Modeling and simulations of supercavitating vehicle with planing force in the longitudinal plane. Applied Mathematical Modelling, 2015, 39, 6008-6020.	2.2	14
48	A novel interval model updating framework based on correlation propagation and matrix-similarity method. Mechanical Systems and Signal Processing, 2022, 162, 108039.	4.4	14
49	Large stroke tri-stable vibration energy harvester: Modelling and experimental validation. Mechanical Systems and Signal Processing, 2022, 168, 108699.	4.4	14
50	Enhanced studies on the composite sub-step algorithm for structural dynamics: The Bathe-like algorithm. Applied Mathematical Modelling, 2020, 80, 33-64.	2.2	13
51	An identical secondâ€order single step explicit integration algorithm with dissipation control for structural dynamics. International Journal for Numerical Methods in Engineering, 2021, 122, 1089-1132.	1.5	13
52	Hamilton's law of variable mass system and time finite element formulations for timeâ€varying structures based on the law. International Journal for Numerical Methods in Engineering, 2014, 99, 711-736.	1.5	12
53	An efficient transient analysis method for linear time-varying structures based on multi-level substructuring method. Computers and Structures, 2015, 146, 76-90.	2.4	11
54	A novel eight-legged vibration isolation platform with dual-pyramid-shape struts. Meccanica, 2019, 54, 873-899.	1.2	11

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55	Interval model updating using universal grey mathematics and Gaussian process regression model. Mechanical Systems and Signal Processing, 2020, 141, 106455.	4.4	11
56	A truly self-starting implicit family of integration algorithms with dissipation control for nonlinear dynamics. Nonlinear Dynamics, 2020, 102, 2503-2530.	2.7	11
57	A new modeling method for flexible multibody systems. Multibody System Dynamics, 2015, 35, 179-190.	1.7	10
58	Noniterative Integration Algorithms with Controllable Numerical Dissipations for Structural Dynamics. International Journal of Computational Methods, 2019, 16, 1850111.	0.8	10
59	Nonlinear aeroelastic analysis of the folding fin with freeplay under thermal environment. Chinese Journal of Aeronautics, 2020, 33, 2357-2371.	2.8	10
60	Further Assessment of Three Bathe Algorithms and Implementations for Wave Propagation Problems. International Journal of Structural Stability and Dynamics, 2021, 21, 2150073.	1.5	10
61	Two third-order explicit integration algorithms with controllable numerical dissipation for second-order nonlinear dynamics. Computer Methods in Applied Mechanics and Engineering, 2022, 395, 114945.	3.4	10
62	Modal density of sandwich panels based on an improved ordinary sandwich panel theory. Composite Structures, 2015, 131, 927-938.	3.1	9
63	Error estimation of load identification based on linear sensitivity analysis and interval technique. Structural and Multidisciplinary Optimization, 2017, 55, 423-436.	1.7	9
64	Generalized thermoelastic band structures of Rayleigh wave in one-dimensional phononic crystals. Meccanica, 2018, 53, 923-935.	1.2	9
65	A Simple Truly Self-Starting and L-Stable Integration Algorithm for Structural Dynamics. International Journal of Applied Mechanics, 2020, 12, 2050119.	1.3	9
66	On minimum cavitation number of the ventilated supercavity in water tunnel. Science China: Physics, Mechanics and Astronomy, 2013, 56, 1945-1951.	2.0	8
67	Affine arithmetic applied to transient statistical energy analysis of a two-oscillator system. Mechanics Research Communications, 2015, 70, 12-16.	1.0	8
68	Modal density and mode counts of sandwich panels in thermal environments. Composite Structures, 2016, 153, 69-80.	3.1	8
69	A multi-state model updating method for structures in high-temperature environments. Measurement: Journal of the International Measurement Confederation, 2018, 121, 317-326.	2.5	7
70	Time discontinuous finite element method for transient response analysis of linear time-varying structures. Meccanica, 2018, 53, 703-726.	1.2	7
71	Impact Series Shaker Excitation Approach for Structural Modal Testing in Thermal Environments. Experimental Techniques, 2018, 42, 429-438.	0.9	7
72	A novel real-time modal analysis method for operational time-varying structural systems based on short-time extension of multivariate VMD. Structures, 2022, 37, 389-402.	1.7	7

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73	Missile flutter experiment and data analysis using wavelet transform. Journal of Sound and Vibration, 2004, 269, 899-912.	2.1	6
74	Supercavity Motion With Inertial Force in the Vertical Plane. Journal of Hydrodynamics, 2012, 24, 752-759.	1.3	6
75	Successive multivariate variational mode decomposition. Multidimensional Systems and Signal Processing, 2022, 33, 917-943.	1.7	6
76	Modeling and simulation of supercavity with inertial force in the horizontal curvilinear motion. China Ocean Engineering, 2014, 28, 31-42.	0.6	5
77	A New Method for Optimal Regularization Parameter Determination in the Inverse Problem of Load Identification. Shock and Vibration, 2016, 2016, 1-16.	0.3	5
78	Generalized thermoelastic wave band gaps in phononic crystals without energy dissipation. Journal Physics D: Applied Physics, 2016, 49, 025502.	1.3	5
79	A Generalized Structure-Dependent Semi-Explicit Method for Structural Dynamics. Journal of Computational and Nonlinear Dynamics, 2018, 13, .	0.7	5
80	Theoretical and experimental investigation of a bi-stable piezoelectric energy harvester incorporating fluid-induced vibration. Energy Conversion and Management, 2022, 255, 115307.	4.4	5
81	Adaptive sliding mode controller design for a supercavitating vehicle. , 2010, , .		4
82	A hybrid method of multi-objective particle swarm optimization and k-means clustering and its application to modal parameter estimation in the timeâ€“frequency domain. JVC/Journal of Vibration and Control, 2020, 26, 769-778.	1.5	4
83	A time integral formulation and algorithm for structural dynamics with nonlinear stiffness. Acta Mechanica Sinica/Lixue Xuebao, 2006, 22, 479-485.	1.5	3
84	Modeling of the Propulsion Hydrodynamics for the Water Strider Locomotion on Water Surface. Procedia Engineering, 2015, 126, 280-284.	1.2	3
85	Stochastic model updating method for estimates of arbitrary distributed parameters using resampling technique. Applied Mathematical Modelling, 2022, 105, 387-405.	2.2	3
86	On the gas leakage way of supercavity and vehicle vibration. Journal of Hydrodynamics, 2010, 22, 823-828.	1.3	2
87	Development of composite sub-step explicit dissipative algorithms with truly self-starting property. Nonlinear Dynamics, 2021, 103, 1911.	2.7	2
88	On the stability of periodic motions of a two-body system with flexible connection in an elliptical orbit. Nonlinear Dynamics, 2021, 104, 3479-3496.	2.7	2
89	A novel instantaneous frequency estimation method for operational time-varying systems using short-time multivariate variational mode decomposition. JVC/Journal of Vibration and Control, 0, , 107754632211096.	1.5	2
90	Modal identification of double-layer hollow stiffened plate structure using variational mode decomposition based on high-speed digital image correlation. Aerospace Systems, 2022, 5, 429-444.	0.7	2

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91	Accelerated motion control of a supercavitating vehicle. , 2010, , .		1
92	A new method for determining the Tikhonov regularization parameter of load identification. , 2015, , .		1
93	Nonlinear system identification framework of folding fins with freeplay using backbone curves. Chinese Journal of Aeronautics, 2022, 35, 183-194.	2.8	1
94	Model updating applied to an missile structure. , 2011, , .		0
95	Composition-dependent mechanical and thermal transport properties of carbon/silicon core/shell nanowires. Journal of Shanghai Jiaotong University (Science), 2012, 17, 743-747.	0.5	0
96	Modeling and active vibration control of six-DOF manipulator through Î¼-synthesis with parameter uncertainties. Proceedings of SPIE, 2015, , .	0.8	0
97	Effects of hysteresis of static contact angle (HSCA) and boundary slip on the hydrodynamics of water striders. Acta Mechanica Sinica/Lixue Xuebao, 2017, 33, 40-61.	1.5	0
98	Parameter selection for model updating based on the global sensitivity method. Journal of Physics: Conference Series, 2018, 1106, 012004.	0.3	0
99	Time-Varying Modal Parameters Identification by Subspace Tracking Algorithm and Its Validation Method. Shock and Vibration, 2018, 2018, 1-12.	0.3	0
100	Experimental Study of a Multipoint Random Dynamic Loading Identification Method Based on Weighted Average Technique. Shock and Vibration, 2019, 2019, 1-10.	0.3	0
101	A two-step unconditionally stable explicit method with controllable numerical dissipations. Earthquake Engineering and Engineering Vibration, 2019, 18, 285-299.	1.1	0