

S K Lai

List of Publications by Year in descending order

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63
papers

1,138
citations

394390

19
h-index

477281

29
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63
all docs

63
docs citations

63
times ranked

782
citing authors

#	ARTICLE	IF	CITATIONS
1	Newton's harmonic balancing approach for accurate solutions to nonlinear cubic-quintic Duffing oscillators. <i>Applied Mathematical Modelling</i> , 2009, 33, 852-866.	4.2	96
2	Vibrations of graphene nanoplatelet reinforced functionally gradient piezoelectric composite microplate based on nonlocal theory. <i>Composite Structures</i> , 2020, 236, 111813.	5.8	68
3	A nonlinear multi-stable piezomagnetoelastic harvester array for low-intensity, low-frequency, and broadband vibrations. <i>Mechanical Systems and Signal Processing</i> , 2019, 122, 87-102.	8.0	58
4	On the nano-structural dependence of nonlocal dynamics and its relationship to the upper limit of nonlocal scale parameter. <i>Applied Mathematical Modelling</i> , 2019, 69, 127-141.	4.2	52
5	Analytical approximations to nonlinear vibration of an electrostatically actuated microbeam. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2012, 17, 1947-1955.	3.3	38
6	DSC regularized Dirac-delta method for dynamic analysis of FG graphene platelet-reinforced porous beams on elastic foundation under a moving load. <i>Composite Structures</i> , 2021, 255, 112865.	5.8	37
7	Accurate analytical perturbation approach for large amplitude vibration of functionally graded beams. <i>International Journal of Non-Linear Mechanics</i> , 2012, 47, 473-480.	2.6	34
8	A magnetic levitation-based tristable hybrid energy harvester for scavenging energy from low-frequency structural vibration. <i>Engineering Structures</i> , 2020, 221, 110789.	5.3	33
9	DSC ANALYSIS FOR BUCKLING AND VIBRATION OF RECTANGULAR PLATES WITH ELASTICALLY RESTRAINED EDGES AND LINEARLY VARYING IN-PLANE LOADING. <i>International Journal of Structural Stability and Dynamics</i> , 2009, 09, 511-531.	2.4	32
10	DSC-element method for free vibration analysis of rectangular Mindlin plates. <i>International Journal of Mechanical Sciences</i> , 2010, 52, 548-560.	6.7	30
11	Analytical asymptotic approximations for large amplitude nonlinear free vibration of a dielectric elastomer balloon. <i>Nonlinear Dynamics</i> , 2017, 88, 2255-2264.	5.2	30
12	A low-frequency, broadband and tri-hybrid energy harvester with septuple-stable nonlinearity-enhanced mechanical frequency up-conversion mechanism for powering portable electronics. <i>Nano Energy</i> , 2019, 64, 103943.	16.0	30
13	Design and performance enhancement of a force-amplified piezoelectric stack energy harvester under pressure fluctuations in hydraulic pipeline systems. <i>Sensors and Actuators A: Physical</i> , 2020, 309, 112031.	4.1	27
14	Gap separation effect on thermoacoustic wave generation by heated suspended CNT nano-thin film. <i>Applied Thermal Engineering</i> , 2015, 86, 135-142.	6.0	25
15	DSC-Ritz element method for vibration analysis of rectangular Mindlin plates with mixed edge supports. <i>European Journal of Mechanics, A/Solids</i> , 2010, 29, 619-628.	3.7	24
16	Stochastic meshless method for nonlinear vibration analysis of composite plate reinforced with carbon fibers. <i>Aerospace Science and Technology</i> , 2020, 105, 105919.	4.8	24
17	Thermal effect on vibration and buckling analysis of thin isotropic/orthotropic rectangular plates with crack defects. <i>Engineering Structures</i> , 2018, 177, 444-458.	5.3	23
18	Superelasticity and wrinkles controlled by twisting circular graphene. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 338, 634-656.	6.6	23

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19	Accurate approximate analytical solutions for nonlinear free vibration of systems with serial linear and nonlinear stiffness. <i>Journal of Sound and Vibration</i> , 2007, 307, 720-736.	3.9	19
20	Pinned modes in lossy lattices with local gain and nonlinearity. <i>Physical Review E</i> , 2012, 86, 036608.	2.1	19
21	Nonlinear wave propagation in porous materials based on the Biot theory. <i>Journal of the Acoustical Society of America</i> , 2017, 142, 756-770.	1.1	19
22	Accurate Higher-Order Analytical Approximate Solutions to Large-Amplitude Oscillating Systems with a General Non-Rational Restoring Force. <i>Nonlinear Dynamics</i> , 2005, 42, 267-281.	5.2	18
23	Accurate higher-order analytical approximate solutions to nonconservative nonlinear oscillators and application to van der Pol damped oscillators. <i>International Journal of Mechanical Sciences</i> , 2006, 48, 483-492.	6.7	18
24	Analytical analysis for large-amplitude oscillation of a rotational pendulum system. <i>Applied Mathematics and Computation</i> , 2011, 217, 6115-6124.	2.2	18
25	Interfacial thermal conductance in multilayer graphene/phosphorene heterostructure. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 465301.	2.8	18
26	Comparisons of nonlinear vibrations among pure polymer plate and graphene platelet reinforced composite plates under combined transverse and parametric excitations. <i>Composite Structures</i> , 2021, 265, 113767.	5.8	18
27	Nonlinear vibration of a two-mass system with nonlinear stiffnesses. <i>Nonlinear Dynamics</i> , 2007, 49, 233-249.	5.2	17
28	Nonlinear dynamic behavior of single-layer graphene under uniformly distributed loads. <i>Composites Part B: Engineering</i> , 2019, 165, 473-490.	12.0	17
29	Application of a generalized Senatorâ€™Bapat perturbation technique to nonlinear dynamical systems with an irrational restoring force. <i>Computers and Mathematics With Applications</i> , 2010, 60, 2078-2086.	2.7	16
30	Study on asymptotic analytical solutions using HAM for strongly nonlinear vibrations of a restrained cantilever beam with an intermediate lumped mass. <i>Numerical Algorithms</i> , 2011, 58, 293-314.	1.9	16
31	On Asymptotic Analysis for Large Amplitude Nonlinear Free Vibration of Simply Supported Laminated Plates. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2009, 131, .	1.6	15
32	Nonlocal scale effect on Rayleigh wave propagation in porous fluid-saturated materials. <i>International Journal of Mechanical Sciences</i> , 2018, 148, 459-466.	6.7	15
33	Exact solutions for oscillators with quadratic damping and mixed-parity nonlinearity. <i>Physica Scripta</i> , 2012, 85, 045006.	2.5	14
34	Suppressing homoclinic chaos for a weak periodically excited non-smooth oscillator. <i>Nonlinear Dynamics</i> , 2020, 99, 1621-1642.	5.2	13
35	Application of a modified Lindstedtâ€™PoincarÃ© method in coupled TDOF systems with quadratic nonlinearity and a constant external excitation. <i>Archive of Applied Mechanics</i> , 2009, 79, 411-431.	2.2	12
36	Thermo-acoustics generated by periodically heated thin line array. <i>Journal of Sound and Vibration</i> , 2018, 427, 28-40.	3.9	12

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37	Dynamic Response and Stability Analysis with Newton Harmonic Balance Method for Nonlinear Oscillating Dielectric Elastomer Balloons. <i>International Journal of Structural Stability and Dynamics</i> , 2018, 18, 1850152.	2.4	12
38	Dynamic Weakening of Sandstone Subjected to Repetitive Impact Loading. <i>Rock Mechanics and Rock Engineering</i> , 2019, 52, 2197-2206.	5.4	12
39	Analytical approximate periodic solutions for two-degree-of-freedom coupled van der Pol-Duffing oscillators by extended homotopy analysis method. <i>Acta Mechanica</i> , 2011, 219, 1-14.	2.1	11
40	A new method for computation of eigenvector derivatives with distinct and repeated eigenvalues in structural dynamic analysis. <i>Mechanical Systems and Signal Processing</i> , 2018, 107, 78-92.	8.0	11
41	Nonlinear Free Vibration of an Elastically-Restrained Beam with a Point Mass via the Newton-Harmonic Balancing Approach. <i>International Journal of Nonlinear Sciences and Numerical Simulation</i> , 2009, 10, .	1.0	10
42	Higher-Order Approximate Solutions to a Strongly Nonlinear Duffing Oscillator. <i>International Journal for Computational Methods in Engineering Science and Mechanics</i> , 2006, 7, 201-208.	2.1	8
43	Free vibration analysis of a structural system with a pair of irrational nonlinearities. <i>Applied Mathematical Modelling</i> , 2017, 45, 997-1007.	4.2	8
44	Broadband signal response of thermo-acoustic devices and its applications. <i>Journal of the Acoustical Society of America</i> , 2017, 141, 2430-2439.	1.1	8
45	Highly Directional Acoustic Waves Generated by a Horned Parametric Acoustic Array Loudspeaker. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2019, 141, .	1.6	8
46	Internal Resonance Responses of Rectangular Cross-Ply Composite Plates with Graphene Skins. <i>International Journal of Structural Stability and Dynamics</i> , 2019, 19, 1950057.	2.4	8
47	An Analytical Study for Nonlinear Free and Forced Vibration of Electrostatically Actuated MEMS Resonators. <i>International Journal of Structural Stability and Dynamics</i> , 2019, 19, 1950072.	2.4	8
48	Periodic solutions of multi-degree-of-freedom strongly nonlinear coupled van der Pol oscillators by homotopy analysis method. <i>Acta Mechanica</i> , 2011, 217, 269-285.	2.1	7
49	Extended homotopy analysis method for multi-degree-of-freedom non-autonomous nonlinear dynamical systems and its application. <i>Acta Mechanica</i> , 2012, 223, 2537-2548.	2.1	6
50	A Human-Based Study of Hand's Arm Vibration Exposure Limits for Construction Workers. <i>Journal of Vibration Engineering and Technologies</i> , 2019, 7, 379-388.	2.2	6
51	Accurate approximation to the double sine-Gordon equation. <i>International Journal of Engineering Science</i> , 2007, 45, 258-271.	5.0	5
52	Higher-order approximate solutions for nonlinear vibration of a constant-tension string. <i>Journal of Sound and Vibration</i> , 2008, 317, 440-448.	3.9	5
53	A DSC Regularized Dirac-Delta Method for Flexural Vibration of Elastically Supported FG Beams Subjected to a Moving Load. <i>International Journal of Structural Stability and Dynamics</i> , 2020, 20, 2050039.	2.4	5
54	Application of the DSC-Element method to flexural vibration of skew plates with continuous and discontinuous boundaries. <i>Thin-Walled Structures</i> , 2011, 49, 1080-1090.	5.3	4

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55	Analysis of Large-Amplitude Oscillations in Triple-Well Non-Natural Systems. Journal of Computational and Nonlinear Dynamics, 2019, 14, .	1.2	4
56	Periodic solutions for n -dimensional generalized Liénard type n -Laplacian functional differential system. Nonlinear Analysis: Theory, Methods & Applications, 2009, 71, 5906-5914.	1.1	3
57	Buckling and Vibration of Elastically Restrained Standing Vertical Plates. Journal of Vibration and Acoustics, Transactions of the ASME, 2012, 134, .	1.6	3
58	Bifurcation and Chaotic Analysis for Cable Vibration of a Cable-Stayed Bridge. International Journal of Structural Stability and Dynamics, 2020, 20, 2071004.	2.4	3
59	On nonlinear oscillation response of a negatively dissipated oscillator and its analogy to long Josephson junction. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 368, 289-298.	2.1	2
60	On the reflection and diffraction of carbon nanotube array thin film. Wave Motion, 2019, 90, 196-204.	2.0	2
61	Nonlinear Dynamics and Performance Enhancement of Multi-stable Wideband Energy Harvesting: Theoretical Analysis. IOP Conference Series: Materials Science and Engineering, 2019, 531, 012040.	0.6	1
62	Homotopy Analysis Method for Multi-Degree-of-Freedom Nonlinear Dynamical Systems. , 2010, , .		0
63	Free Vibration Analysis of Cracked Orthotropic Rectangular Plates Under Thermal Effect. Lecture Notes in Civil Engineering, 2020, , 223-233.	0.4	0