Ching-Tai Ng

List of Publications by Year
in descending order

95	2,391	159585 30	243625 44
papers	citations	h-index	g-index

97	97	97	1325
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Scattering analysis of nonlinear Lamb waves at delaminations in composite laminates. JVC/Journal of Vibration and Control, 2022, 28, 1311-1323.	2.6	11
2	Understanding the interaction of the fundamental Lamb-wave modes with material discontinuity: finite element analysis and experimental validation. Structural Health Monitoring, 2022, 21, 640-665.	7.5	5
3	Numerical and experimental investigations on mode conversion of guided waves in partially immersed plates. Measurement: Journal of the International Measurement Confederation, 2022, 190, 110750.	5.0	5
4	Quasistatic pulse generation of ultrasonic guided waves propagation in composites. Journal of Sound and Vibration, 2022, 524, 116764.	3.9	15
5	Effective elastic properties of a weakly nonlinear particulate composite. International Journal of Non-Linear Mechanics, 2022, 141, 103949.	2.6	2
6	Assessment of damage in composites using static component generation of ultrasonic guided waves. Smart Materials and Structures, 2022, 31, 045025.	3.5	14
7	Wave mixing with the fundamental mode of edge waves for evaluation of material nonlinearities. Journal of Sound and Vibration, 2022, 527, 116855.	3.9	7
8	The performance optimization of combinational harmonic generation for quasi-synchronous Lamb wave mixing. , 2022, , .		1
9	Early damage detection of metallic plates with one side exposed to water using the second harmonic generation of ultrasonic guided waves. Thin-Walled Structures, 2022, 176, 109284.	5.3	9
10	Feasibility of early fatigue damage evaluation using the Neutron diffraction method. Engineering Failure Analysis, 2022, 141, 106603.	4.0	3
11	Damage detection with the fundamental mode of edge waves. Structural Health Monitoring, 2021, 20, 74-83.	7.5	14
12	Scattering characteristics of quasi-Scholte waves at blind holes in metallic plates with one side exposed to water. NDT and E International, 2021, 117, 102379.	3.7	12
13	Enhancing the performance of stochastic subspace identification method via energy-oriented categorization of modal components. Engineering Structures, 2021, 233, 111917.	5.3	24
14	Static component generation and measurement of nonlinear guided waves with group velocity mismatch. JASA Express Letters, 2021, 1, .	1.1	6
15	Effect of randomly distributed voids on effective linear and nonlinear elastic properties of isotropic materials. International Journal of Solids and Structures, 2021, 216, 83-93.	2.7	7
16	Sensor Networks for Structures Health Monitoring: Placement, Implementations, and Challengesâ€”A Review. Vibration, 2021, 4, 551-584.	1.9	30
17	The fundamental ultrasonic edge wave mode: Propagation characteristics and potential for distant damage detection. Ultrasonics, 2021, 114, 106369.	3.9	16
18	Debonding detection in rebar-reinforced concrete structures using second harmonic generation of longitudinal guided wave. NDT and E International, 2021, 122, 102496.	3.7	25

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19	Ultrasonic Guided Wave Field Modeling in a One-Side Water-Immersed Steel Plate. Lecture Notes in Civil Engineering, 2021, , 1131-1140.	0.4	4
20	Damage detection of ultra-high-performance fibre-reinforced concrete using a harmonic wave modulation technique. Construction and Building Materials, 2021, 313, 125306.	7.2	8
21	Electrochemically produced graphene with ultra large particles enhances mechanical properties of Portland cement mortar. Construction and Building Materials, 2020, 234, 117403.	7.2	46
22	Investigating the reinforcing mechanism and optimized dosage of pristine graphene for enhancing mechanical strengths of cementitious composites. RSC Advances, 2020, 10, 42777-42789.	3.6	10
23	Influence of pristine graphene particle sizes on physicochemical, microstructural and mechanical properties of Portland cement mortars. Construction and Building Materials, 2020, 264, 120188.	7.2	23
24	Time-Domain Spectral Finite Element Method for Modeling Second Harmonic Generation of Guided Waves Induced by Material, Geometric and Contact Nonlinearities in Beams. International Journal of Structural Stability and Dynamics, 2020, 20, 2042005.	2.4	9
25	Structural Responses of a Supertall Building Subjected to a Severe Typhoon at Landfall. Applied Sciences (Switzerland), 2020, 10, 2965.	2.5	11
26	Plastic buckling and axial crushing of concrete-filled steel tubes: usage of multiple wood blocks. Thin-Walled Structures, 2020, 150, 106487.	5.3	7
27	Generation of higher harmonics with the fundamental edge wave mode. Applied Physics Letters, 2020, 116, .	3.3	21
28	Nonlinear guided wave mixing in pipes for detection of material nonlinearity. Journal of Sound and Vibration, 2020, 485, 115541.	3.9	44
29	Sensor Networks for Structural Health Monitoring. Journal of Sensors, 2020, 2020, 1-2.	1.1	3
30	Measurement of Elastic Nonlinearities Using the Fundamental Edge Wave Mode. Structural Integrity, 2020, , 133-139.	1.4	0
31	Development of Micro-mechanical Models of Fatigue Damage. Structural Integrity, 2020, , 145-150.	1.4	0
32	Debonding detection in CFRP-retrofitted reinforced concrete structures using nonlinear Rayleigh wave. Mechanical Systems and Signal Processing, 2019, 125, 245-256.	8.0	43
33	Second-order harmonic generation of Lamb wave in prestressed plates. Journal of Sound and Vibration, 2019, 460, 114903.	3.9	27
34	Finite element prediction of acoustoelastic effect associated with Lamb wave propagation in pre-stressed plates. Smart Materials and Structures, 2019, 28, 095007.	3.5	22
35	Double-skin concrete-timber-filled steel columns under compression. Engineering Structures, 2019, 200, 109537.	5.3	9
36	Ambient- and oven-cured geopolymer concretes under active confinement. Construction and Building Materials, 2019, 228, 116722.	7.2	30

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37	Mode Conversion and Scattering of Lamb Waves at Delaminations in Composite Laminates. Journal of Aerospace Engineering, 2019, 32, .	1.4	23
38	Time-domain spectral finite element method for analysis of torsional guided waves scattering and mode conversion by cracks in pipes. Mechanical Systems and Signal Processing, 2019, 128, 305-317.	8.0	51
39	Large acoustoelastic effect for Lamb waves propagating in an incompressible elastic plate. Journal of the Acoustical Society of America, 2019, 145, 1221-1229.	1.1	8
40	On the determination of the third-order elastic constants of homogeneous isotropic materials utilising Rayleigh waves. Ultrasonics, 2019, 96, 96-103.	3.9	19
41	CFRP-reinforced concrete-filled steel tubes with timber core under axial loading. Composite Structures, 2019, 217, 37-49.	5.8	22
42	Bolted joint integrity monitoring with second harmonic generated by guided waves. Structural Health Monitoring, 2019, 18, 193-204.	7.5	43
43	Comparative evaluation of in situ stress monitoring with Rayleigh waves. Structural Health Monitoring, 2019, 18, 205-215.	7.5	18
44	Second Harmonic Generation of Guided Wave at Crack-Induced Debonding in FRP-Strengthened Metallic Plates. International Journal of Structural Stability and Dynamics, 2019, 19, 1940006.	2.4	16
45	Rayleigh wave propagation and scattering characteristics at debondings in fibre-reinforced polymer-retrofitted concrete structures. Structural Health Monitoring, 2019, 18, 303-317.	7.5	42
46	Mechanics and Evaluation of Early Damage. Structural Integrity, 2019, , 359-365.	1.4	2
47	Mode shape scaling and implications in modal identification with known input. Engineering Structures, 2018, 156, 411-416.	5.3	8
48	Implication of changing loading conditions on structural health monitoring utilising guided waves. Smart Materials and Structures, 2018, 27, 025003.	3.5	43
49	Effect of central and non-central frequency components on the quality of damage imaging. Journal of Civil Structural Health Monitoring, 2018, 8, 49-61.	3.9	5
50	Influence of crack opening and incident wave angle on second harmonic generation of Lamb waves. Smart Materials and Structures, 2018, 27, 055013.	3.5	27
51	Second harmonic generation at fatigue cracks by low-frequency Lamb waves: Experimental and numerical studies. Mechanical Systems and Signal Processing, 2018, 99, 760-773.	8.0	112
52	Railway ballast damage detection by Markov chain Monte Carlo-based Bayesian method. Structural Health Monitoring, 2018, 17, 706-724.	7.5	22
53	Investigation of feeding behaviour in C. elegans reveals distinct pharmacological and antibacterial effects of nicotine. Invertebrate Neuroscience, 2018, 18, 14.	1.8	9
54	Higher harmonic generation of Rayleigh wave at debondings in FRP-retrofitted concrete structures. Smart Materials and Structures, 2018, 27, 105038.	3.5	17

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55	A baselineâ€free and nonâ€contact method for detection and imaging of structural damage using 3D laser vibrometry. Structural Control and Health Monitoring, 2017, 24, e1894.	4.0	38
56	A modelâ€based method for damage detection with guided waves. Structural Control and Health Monitoring, 2017, 24, e1884.	4.0	32
57	Niching particle swarm optimization techniques for multimodal buckling maximization of composite laminates. Applied Soft Computing Journal, 2017, 57, 495-503.	7.2	10
58	Modelling and analysis of nonlinear guided waves interaction at a breathing crack using time-domain spectral finite element method. Smart Materials and Structures, 2017, 26, 085002.	3.5	42
59	Locating delaminations in laminated composite beams using nonlinear guided waves. Engineering Structures, 2017, 131, 207-219.	5.3	71
60	Higher harmonic generation of guided waves at delaminations in laminated composite beams. Structural Health Monitoring, 2017, 16, 400-417.	7.5	65
61	Guided wave-based identification of multiple cracks in beams using a Bayesian approach. Mechanical Systems and Signal Processing, 2017, 84, 324-345.	8.0	68
62	Scattering of the fundamental anti-symmetric Lamb wave at through-thickness notches in isotropic plates. Journal of Civil Structural Health Monitoring, 2016, 6, 447-459.	3.9	24
63	A probabilistic approach for quantitative identification of multiple delaminations in laminated composite beams using guided waves. Engineering Structures, 2016, 127, 602-614.	5.3	45
64	Effect of uniaxial stress on the propagation of higher-order Lamb wave modes. International Journal of Non-Linear Mechanics, 2016, 86, 104-111.	2.6	45
65	Optimum design of phononic crystal perforated plate structures for widest bandgap of fundamental guided wave modes and maximized in-plane stiffness. Journal of the Mechanics and Physics of Solids, 2016, 89, 31-58.	4.8	46
66	Reconstruction of baseline time-trace under changing environmental and operational conditions. Smart Materials and Structures, 2016, 25, 035018.	3.5	26
67	On Accuracy of Analytical Modeling of Lamb Wave Scattering at Delaminations in Multilayered Isotropic Plates. International Journal of Structural Stability and Dynamics, 2015, 15, 1540010.	2.4	21
68	Numerical analysis of shear transfer across an initially uncrack reinforced concrete member. Engineering Structures, 2015, 102, 296-309.	5.3	17
69	An efficient finite element model for buckling analysis of grid stiffened laminated composite plates. Composite Structures, 2015, 122, 41-50.	5.8	59
70	A two-stage approach for quantitative damage imaging in metallic plates using Lamb waves. Earthquake and Structures, 2015, 8, 821-841.	1.0	27
71	Mode conversion and scattering analysis of guided waves at delaminations in laminated composite beams. Structural Monitoring and Maintenance, 2015, 2, 213-236.	1.7	12
72	Bayesian model updating approach for experimental identification of damage in beams using guided waves. Structural Health Monitoring, 2014, 13, 359-373.	7.5	46

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73	Application of Bayesian-designed artificial neural networks in Phase II structural health monitoring benchmark studies. Australian Journal of Structural Engineering, 2014, 15, .	1.1	27
74	Special Issue on Structural Health Monitoring of Civil Structures. Structural Health Monitoring, 2014, 13, 345-346.	7.5	2
75	On the selection of advanced signal processing techniques for guided wave damage identification using a statistical approach. Engineering Structures, 2014, 67, 50-60.	5.3	53
76	Single-Plant Biocomposite from Ricinus Communis: Preparation, Properties and Environmental Performance. Journal of Polymers and the Environment, 2013, 21, 366-374.	5.0	12
77	Prediction and Measurement of Lamb Wave from Debondings at Structural Features in Composite Laminates. Key Engineering Materials, 2013, 558, 139-148.	0.4	3
78	Scattering characteristics of Lamb waves from debondings at structural features in composite laminates. Journal of the Acoustical Society of America, 2012, 132, 115-123.	1.1	28
79	Analytical and finite element prediction of Lamb wave scattering at delaminations in quasi-isotropic composite laminates. Journal of Sound and Vibration, 2012, 331, 4870-4883.	3.9	70
80	Probabilistic Damage Characterisation in Beams using Guided Waves. Procedia Engineering, 2011, 14, 490-497.	1.2	5
81	Scattering of the fundamental anti-symmetric Lamb wave at delaminations in composite laminates. Journal of the Acoustical Society of America, 2011, 129, 1288-1296.	1.1	84
82	Influence of stacking sequence on scattering characteristics of the fundamental anti-symmetric Lamb wave at through holes in composite laminates. Journal of the Acoustical Society of America, 2011, 129, 1280-1287.	1.1	36
83	Scattering analysis of fundamental anti-symmetric Lamb wave at delaminations in composite laminates. Australian Journal of Mechanical Engineering, 2011, 8, 197-205.	2.1	7
84	EXPERIMENTAL MEASUREMENT AND NUMERICAL SIMULATION OF FUNDAMENTAL ANTI-SYMMETRIC LAMB WAVE SCATTERING IN COMPOSITES. , 2011, , .		0
85	APPLICATION OF BAYESIAN APPROACH FOR DAMAGE CHARACTERIZATION IN BEAMS UTILIZING GUIDED WAVES. , 2011, , .		0
86	Guided wave damage characterisation in beams utilising probabilistic optimisation. Engineering Structures, 2009, 31, 2842-2850.	5.3	37
87	A Lamb-wave-based technique for damage detection in composite laminates. Smart Materials and Structures, 2009, 18, 074006.	3.5	116
88	Integrated piezoceramic transducers for imaging damage in composite laminates. Proceedings of SPIE, 2009, , .	0.8	7
89	A probabilistic method for the detection of obstructed cracks of beam-type structures using spatial wavelet transform. Probabilistic Engineering Mechanics, 2008, 23, 237-245.	2.7	38
90	The selection of pattern features for structural damage detection using an extended Bayesian ANN algorithm. Engineering Structures, 2008, 30, 2762-2770.	5.3	82

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91	Multicrack Detection on Semirigidly Connected Beams Utilizing Dynamic Data. Journal of Engineering Mechanics - ASCE, 2008, 134, 90-99.	2.9	22
92	Closure to â€œReliability Analysis of Single-Degree-of-Freedom Elastoplastic Systems. I: Critical Excitationsâ€•by Siu-Kui Au, Heung-Fai Lam, and Ching-Tai Ng. Journal of Engineering Mechanics - ASCE, 2008, 134, 924-925.	2.9	0
93	Reliability Analysis of Single-Degree-of-Freedom Elastoplastic Systems. II: Suboptimal Excitations. Journal of Engineering Mechanics - ASCE, 2007, 133, 1081-1085.	2.9	0
94	Reliability Analysis of Single-Degree-of-Freedom Elastoplastic Systems. I: Critical Excitations. Journal of Engineering Mechanics - ASCE, 2007, 133, 1072-1080.	2.9	12
95	Experimental characterization of multiple cracks in a cantilever beam utilizing transient vibration data following a probabilistic approach. Journal of Sound and Vibration, 2007, 305, 34-49.	3.9	39