Saeid Hedayatrasa

List of Publications by Year
in descending order

38	637	516710 16	610901 24
papers	citations	h-index	g-index

38	38	38	394
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Defect Detection and Depth Estimation in CFRP Through Phase of Transient Response of Flash Thermography. IEEE Transactions on Industrial Informatics, 2022, 18, 2364-2373.	11.3	14
2	Broadband nonlinear elastic wave modulation spectroscopy for damage detection in composites. Structural Health Monitoring, 2022, 21, 424-437.	7.5	4
3	Self-reference broadband local wavenumber estimation (SRB-LWE) for defect assessment in composites. Mechanical Systems and Signal Processing, 2022, 163, 108142.	8.0	12
4	Phase inversion in (vibroâ€)thermal wave imaging of materials: Extracting the AC component and filtering nonlinearity. Structural Control and Health Monitoring, 2022, 29, e2906.	4.0	2
5	3D intra-cellular wave dynamics in a phononic plate with ultra-wide bandgap: attenuation, resonance and mode conversion. Smart Materials and Structures, 2022, 31, 035010.	3.5	5
6	A theoretical framework for acoustically produced luminescence: From thermometry to ultrasound pressure field mapping. Journal of Luminescence, 2022, 248, 118940.	3.1	1
7	Robust and baseline-free full-field defect detection in complex composite parts through weighted broadband energy mapping of mode-removed guided waves. Mechanical Systems and Signal Processing, 2021, 151, 107360.	8.0	21
8	On the application of an optimized Frequency-Phase Modulated waveform for enhanced infrared thermal wave radar imaging of composites. Optics and Lasers in Engineering, 2021, 138, 106411.	3.8	25
9	Nonlinear local wave-direction estimation for in-sight and out-of-sight damage localization in composite plates. NDT and E International, 2021, 119, 102412.	3.7	8
10	Vibro-Thermal Wave Radar: Application of Barker Coded Amplitude Modulation for Enhanced Low-Power Vibrothermographic Inspection of Composites. Materials, 2021, 14, 2436.	2.9	11
11	Vibrothermographic spectroscopy with thermal latency compensation for effective identification of local defect resonance frequencies of a CFRP with BVID. NDT and E International, 2020, 109, 102179.	3.7	11
12	An Experimental Study on the Defect Detectability of Time- and Frequency-Domain Analyses for Flash Thermography. Applied Sciences (Switzerland), 2020, 10, 8051.	2.5	11
13	Adaptive spectral band integration in flash thermography: Enhanced defect detectability and quantification in composites. Composites Part B: Engineering, 2020, 202, 108305.	12.0	29
14	Backside delamination detection in composites through local defect resonance induced nonlinear source behavior. Journal of Sound and Vibration, 2020, 479, 115360.	3.9	22
15	Nonlinear Elastic Wave Energy Imaging for the Detection and Localization of In-Sight and Out-of-Sight Defects in Composites. Applied Sciences (Switzerland), 2020, 10, 3924.	2.5	5
16	Probing the limits of full-field linear local defect resonance identification for deep defect detection. Ultrasonics, 2020, 105, 106130.	3.9	17
17	Multi-scale gapped smoothing algorithm for robust baseline-free damage detection in optical infrared thermography. NDT and E International, 2020, 112, 102247.	3.7	15
18	Novel discrete frequency-phase modulated excitation waveform for enhanced depth resolvability of thermal wave radar. Mechanical Systems and Signal Processing, 2019, 132, 512-522.	8.0	18

#	Article	IF	Citations
19	Enhanced low power vibrothermography of impacted CFRP through in-plane local defect resonances. Proceedings of Meetings on Acoustics, 2019, , .	0.3	2
20	Efficient automated extraction of local defect resonance parameters in fiber reinforced polymers using data compression and iterative amplitude thresholding. Journal of Sound and Vibration, 2019, 463, 114958.	3.9	13
21	Performance of frequency and/or phase modulated excitation waveforms for optical infrared thermography of CFRPs through thermal wave radar: A simulation study. Composite Structures, 2019, 225, 111177.	5.8	24
22	Sweep vibrothermography and thermal response derivative spectroscopy for identification of local defect resonance frequencies of impacted CFRP. Proceedings of Meetings on Acoustics, 2019, , .	0.3	0
23	Full wave field signal processing techniques for NDT of composites:A case study. Proceedings of Meetings on Acoustics, 2019, , .	0.3	1
24	In-plane local defect resonances for efficient vibrothermography of impacted carbon fiber-reinforced polymers (CFRP). NDT and E International, 2019, 102, 218-225.	3.7	39
25	134 Investigation to Local Defect Resonance for Non-Destructive Testing of Composites. , 2018, , .		6
26	Non-Destructive Testing of Composites by Ultrasound, Local Defect Resonance and Thermography. Proceedings (mdpi), 2018, 2, 554.	0.2	12
27	Towards in-plane local defect resonance for non-destructive testing of polymers and composites. NDT and E International, 2018, 98, 130-133.	3.7	47
28	Introducing Obliquely Perforated Phononic Plates for Enhanced Bandgap Efficiency. Materials, 2018, 11, 1309.	2.9	6
29	Optical Infrared Thermography of CFRP with Artificial Defects: Performance of Various Post-Processing Techniques. Proceedings (mdpi), 2018, 2, .	0.2	5
30	Optimization and experimental validation of stiff porous phononic plates for widest complete bandgap of mixed fundamental guided wave modes. Mechanical Systems and Signal Processing, 2018, 98, 786-801.	8.0	31
31	Optimisation of Porous 2D PhPs with Respect to In-Plane Stiffness. Springer Theses, 2018, , 95-134.	0.1	0
32	Optimisation of Bi-material Layered 1D Phononic Crystal Plates (PhPs). Springer Theses, 2018, , 57-94.	0.1	0
33	Maximizing bandgap width and in-plane stiffness of porous phononic plates for tailoring flexural guided waves: Topology optimization and experimental validation. Mechanics of Materials, 2017, 105, 188-203.	3.2	26
34	Optimal design of tunable phononic bandgap plates under equibiaxial stretch. Smart Materials and Structures, 2016, 25, 055025.	3.5	33
35	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
36	Numerical study and topology optimization of 1D periodic bimaterial phononic crystal plates for bandgaps of low order Lamb waves. Ultrasonics, 2015, 57, 104-124.	3.9	26

#	Article	IF	Citations
37	Numerical modeling of wave propagation in functionally graded materials using time-domain spectral Chebyshev elements. Journal of Computational Physics, 2014, 258, 381-404.	3.8	50
38	FEM modeling of ultrasonic vibrothermography of a damaged plate and qualitative study of heating mechanisms. Infrared Physics and Technology, 2013, 61, 101-110.	2.9	39