

Saeid Hedayatrasa

List of Publications by Year in descending order

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papers

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citations

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394
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical modeling of wave propagation in functionally graded materials using time-domain spectral Chebyshev elements. <i>Journal of Computational Physics</i> , 2014, 258, 381-404.	3.8	50
2	Towards in-plane local defect resonance for non-destructive testing of polymers and composites. <i>NDT and E International</i> , 2018, 98, 130-133.	3.7	47
3	Optimum design of phononic crystal perforated plate structures for widest bandgap of fundamental guided wave modes and maximized in-plane stiffness. <i>Journal of the Mechanics and Physics of Solids</i> , 2016, 89, 31-58.	4.8	46
4	FEM modeling of ultrasonic vibrothermography of a damaged plate and qualitative study of heating mechanisms. <i>Infrared Physics and Technology</i> , 2013, 61, 101-110.	2.9	39
5	In-plane local defect resonances for efficient vibrothermography of impacted carbon fiber-reinforced polymers (CFRP). <i>NDT and E International</i> , 2019, 102, 218-225.	3.7	39
6	Optimal design of tunable phononic bandgap plates under equibiaxial stretch. <i>Smart Materials and Structures</i> , 2016, 25, 055025.	3.5	33
7	Optimization and experimental validation of stiff porous phononic plates for widest complete bandgap of mixed fundamental guided wave modes. <i>Mechanical Systems and Signal Processing</i> , 2018, 98, 786-801.	8.0	31
8	Adaptive spectral band integration in flash thermography: Enhanced defect detectability and quantification in composites. <i>Composites Part B: Engineering</i> , 2020, 202, 108305.	12.0	29
9	Numerical study and topology optimization of 1D periodic bimaterial phononic crystal plates for bandgaps of low order Lamb waves. <i>Ultrasonics</i> , 2015, 57, 104-124.	3.9	26
10	Maximizing bandgap width and in-plane stiffness of porous phononic plates for tailoring flexural guided waves: Topology optimization and experimental validation. <i>Mechanics of Materials</i> , 2017, 105, 188-203.	3.2	26
11	On the application of an optimized Frequency-Phase Modulated waveform for enhanced infrared thermal wave radar imaging of composites. <i>Optics and Lasers in Engineering</i> , 2021, 138, 106411.	3.8	25
12	Performance of frequency and/or phase modulated excitation waveforms for optical infrared thermography of CFRPs through thermal wave radar: A simulation study. <i>Composite Structures</i> , 2019, 225, 111177.	5.8	24
13	Backside delamination detection in composites through local defect resonance induced nonlinear source behavior. <i>Journal of Sound and Vibration</i> , 2020, 479, 115360.	3.9	22
14	Robust and baseline-free full-field defect detection in complex composite parts through weighted broadband energy mapping of mode-removed guided waves. <i>Mechanical Systems and Signal Processing</i> , 2021, 151, 107360.	8.0	21
15	Novel discrete frequency-phase modulated excitation waveform for enhanced depth resolvability of thermal wave radar. <i>Mechanical Systems and Signal Processing</i> , 2019, 132, 512-522.	8.0	18
16	Probing the limits of full-field linear local defect resonance identification for deep defect detection. <i>Ultrasonics</i> , 2020, 105, 106130.	3.9	17
17	Multi-scale gapped smoothing algorithm for robust baseline-free damage detection in optical infrared thermography. <i>NDT and E International</i> , 2020, 112, 102247.	3.7	15
18	Defect Detection and Depth Estimation in CFRP Through Phase of Transient Response of Flash Thermography. <i>IEEE Transactions on Industrial Informatics</i> , 2022, 18, 2364-2373.	11.3	14

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19	Efficient automated extraction of local defect resonance parameters in fiber reinforced polymers using data compression and iterative amplitude thresholding. <i>Journal of Sound and Vibration</i> , 2019, 463, 114958.	3.9	13
20	Non-Destructive Testing of Composites by Ultrasound, Local Defect Resonance and Thermography. <i>Proceedings (mdpi)</i> , 2018, 2, 554.	0.2	12
21	Self-reference broadband local wavenumber estimation (SRB-LWE) for defect assessment in composites. <i>Mechanical Systems and Signal Processing</i> , 2022, 163, 108142.	8.0	12
22	Vibrothermographic spectroscopy with thermal latency compensation for effective identification of local defect resonance frequencies of a CFRP with BVID. <i>NDT and E International</i> , 2020, 109, 102179.	3.7	11
23	An Experimental Study on the Defect Detectability of Time- and Frequency-Domain Analyses for Flash Thermography. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 8051.	2.5	11
24	Vibro-Thermal Wave Radar: Application of Barker Coded Amplitude Modulation for Enhanced Low-Power Vibrothermographic Inspection of Composites. <i>Materials</i> , 2021, 14, 2436.	2.9	11
25	Nonlinear local wave-direction estimation for in-sight and out-of-sight damage localization in composite plates. <i>NDT and E International</i> , 2021, 119, 102412.	3.7	8
26	134 Investigation to Local Defect Resonance for Non-Destructive Testing of Composites. , 2018, , .		6
27	Introducing Obliquely Perforated Phononic Plates for Enhanced Bandgap Efficiency. <i>Materials</i> , 2018, 11, 1309.	2.9	6
28	Optical Infrared Thermography of CFRP with Artificial Defects: Performance of Various Post-Processing Techniques. <i>Proceedings (mdpi)</i> , 2018, 2, .	0.2	5
29	Nonlinear Elastic Wave Energy Imaging for the Detection and Localization of In-Sight and Out-of-Sight Defects in Composites. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 3924.	2.5	5
30	3D intra-cellular wave dynamics in a phononic plate with ultra-wide bandgap: attenuation, resonance and mode conversion. <i>Smart Materials and Structures</i> , 2022, 31, 035010.	3.5	5
31	Broadband nonlinear elastic wave modulation spectroscopy for damage detection in composites. <i>Structural Health Monitoring</i> , 2022, 21, 424-437.	7.5	4
32	Enhanced low power vibrothermography of impacted CFRP through in-plane local defect resonances. <i>Proceedings of Meetings on Acoustics</i> , 2019, , .	0.3	2
33	Phase inversion in (vibroâ€)thermal wave imaging of materials: Extracting the AC component and filtering nonlinearity. <i>Structural Control and Health Monitoring</i> , 2022, 29, e2906.	4.0	2
34	Full wave field signal processing techniques for NDT of composites:A case study. <i>Proceedings of Meetings on Acoustics</i> , 2019, , .	0.3	1
35	A theoretical framework for acoustically produced luminescence: From thermometry to ultrasound pressure field mapping. <i>Journal of Luminescence</i> , 2022, 248, 118940.	3.1	1
36	Sweep vibrothermography and thermal response derivative spectroscopy for identification of local defect resonance frequencies of impacted CFRP. <i>Proceedings of Meetings on Acoustics</i> , 2019, , .	0.3	0

#	ARTICLE	IF	CITATIONS
37	Optimisation of Porous 2D PhPs with Respect to In-Plane Stiffness. Springer Theses, 2018, , 95-134.	0.1	0
38	Optimisation of Bi-material Layered 1D Phononic Crystal Plates (PhPs). Springer Theses, 2018, , 57-94.	0.1	0