

Andrzej Katunin

List of Publications by Year in descending order

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Version: 2024-02-01

105
papers

1,653
citations

279798

23
h-index

345221

36
g-index

108
all docs

108
docs citations

108
times ranked

1330
citing authors

#	ARTICLE	IF	CITATIONS
1	A hybrid method for determination of fatigue limit and non-destructive evaluation of composite structures after low-velocity impact loading. <i>Composites Part B: Engineering</i> , 2022, 238, 109898.	12.0	13
2	A reverse engineering approach for modeling of barely visible impact damage by combining results of non-destructive testing and numerical simulations. <i>Procedia Structural Integrity</i> , 2022, 37, 195-202.	0.8	1
3	Damage classification in composite structures based on X-ray computed tomography scans using features evaluation and deep neural networks. <i>Procedia Structural Integrity</i> , 2022, 37, 187-194.	0.8	2
4	Effectiveness of damage identification in composite plates using damage indices based on smoothing polynomials and curvelet transform: A comparative study. <i>Procedia Structural Integrity</i> , 2022, 37, 292-298.	0.8	2
5	Optimal Sensor Placement for Modal-Based Health Monitoring of a Composite Structure. <i>Sensors</i> , 2022, 22, 3867.	3.8	17
6	Identification of structural damage using S-transform from 1D and 2D mode shapes. <i>Measurement: Journal of the International Measurement Confederation</i> , 2021, 173, 108656.	5.0	14
7	Damage Identification in Beams by Post-processing Modal Displacements and Rotations with Haar Wavelet. <i>Lecture Notes in Civil Engineering</i> , 2021, , 817-824.	0.4	2
8	Performance of Damage Identification Based on Directional Wavelet Transforms and Entopic Weights Using Experimental Shearographic Testing Results. <i>Sensors</i> , 2021, 21, 714.	3.8	1
9	Damage identification by wavelet analysis of modal rotation differences. <i>Structures</i> , 2021, 30, 1-10.	3.6	17
10	Modeling of a realistic barely visible impact damage in composite structures based on NDT techniques and numerical simulations. <i>Composite Structures</i> , 2021, 267, 113889.	5.8	17
11	Assessment of Internal Damage in Sandwich Structures by Post-Processing of Mode Shapes Using Curvelet Transform. <i>Materials</i> , 2021, 14, 4517.	2.9	2
12	Quality Control Approach for the Detection of Internal Lower Density Areas in Composite Disks in Industrial Conditions Based on a Combination of NDT Techniques. <i>Sensors</i> , 2021, 21, 7174.	3.8	9
13	Classification of Cracks in Composite Structures Subjected to Low-Velocity Impact Using Distribution-Based Segmentation and Wavelet Analysis of X-ray Tomograms. <i>Sensors</i> , 2021, 21, 8342.	3.8	3
14	Fabrication and application of electrically conducting composites for electromagnetic interference shielding of remotely piloted aircraft systems. <i>Composite Structures</i> , 2020, 232, 111498.	5.8	61
15	Damage Identification and Quantification in Beams Using Wigner-Ville Distribution. <i>Sensors</i> , 2020, 20, 6638.	3.8	9
16	Damage progression in fibre reinforced polymer composites subjected to low-velocity repeated impact loading. <i>Composite Structures</i> , 2020, 252, 112735.	5.8	25
17	Numerical analysis of electrically conductive fillers of composites for aircraft lightning strike protection. <i>Aircraft Engineering and Aerospace Technology</i> , 2020, 92, 1441-1450.	1.2	3
18	Damage Detection in Four Point Bending Test on Benchmark RC Structure Using Feature based Fusion. <i>Procedia Structural Integrity</i> , 2020, 25, 324-333.	0.8	2

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19	Influence of Air Cooling on the Fatigue of a Polymer Composite Under Self-Heating. <i>Mechanics of Composite Materials</i> , 2020, 56, 93-102.	1.4	1
20	Analysis of selected parameters in numerical modeling of low-velocity impact damage in composite structures. <i>Procedia Structural Integrity</i> , 2020, 25, 19-26.	0.8	6
21	Remarks on quasi-static and interlaminar fracture toughness tests of composite structures. <i>Procedia Structural Integrity</i> , 2020, 25, 13-18.	0.8	3
22	Impact Damage Evaluation in Composite Structures Based on Fusion of Results of Ultrasonic Testing and X-ray Computed Tomography. <i>Sensors</i> , 2020, 20, 1867.	3.8	30
23	Determination of fatigue limit of polymeric composites in fully reversed bending loading mode using self-heating effect. <i>Journal of Composite Materials</i> , 2019, 53, 83-91.	2.4	13
24	Identification of multiple damage using modal rotation obtained with shearography and undecimated wavelet transform. <i>Mechanical Systems and Signal Processing</i> , 2019, 116, 725-740.	8.0	31
25	Identification of material properties of a laminated plate from measurements of natural frequencies and modal rotations. <i>Procedia Structural Integrity</i> , 2019, 17, 971-978.	0.8	5
26	Early Crack Detection of Reinforced Concrete Structure Using Embedded Sensors. <i>Sensors</i> , 2019, 19, 3879.	3.8	42
27	Reconstruction of Barely Visible Impact Damage in Composite Structures Based on Non-Destructive Evaluation Results. <i>Sensors</i> , 2019, 19, 4629.	3.8	34
28	Embedded ultrasonic transmission sensors and signal processing techniques for structural change detection in the Gliwice bridge. <i>Procedia Structural Integrity</i> , 2019, 17, 387-394.	0.8	11
29	Minimizing self-heating based fatigue degradation in polymeric composites by air cooling. <i>Procedia Structural Integrity</i> , 2019, 18, 20-27.	0.8	7
30	Criticality of the Self-Heating Effect in Polymers and Polymer Matrix Composites during Fatigue, and Their Application in Non-Destructive Testing. <i>Polymers</i> , 2019, 11, 19.	4.5	45
31	Impact damage assessment in polymer matrix composites using self-heating based vibrothermography. <i>Composite Structures</i> , 2019, 214, 214-226.	5.8	18
32	Addressing the detection capability for scalable energy consumption using primary data acquisition system of embedded ultrasonic sensors in SHM. , 2019, , .		1
33	Application of wavelet analysis to differences in modal rotations for damage identification. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 561, 012024.	0.6	6
34	Enhancement of damage identification in composite structures with self-heating based vibrothermography. <i>Optik</i> , 2019, 181, 545-554.	2.9	5
35	Vibration-Based Damage Identification Using Wavelet Transform and a Numerical Model of Shearography. <i>International Journal of Structural Stability and Dynamics</i> , 2019, 19, 1950038.	2.4	13
36	Vibration-Based Non-Destructive Evaluation of Internal Damage in Foam Cored Sandwich Structures Using Wavelet Analysis. , 2019, 24, .		2

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37	Evaluation of Criticality of Self-Heating of Polymer Composites by Estimating the Heat Dissipation Rate. <i>Mechanics of Composite Materials</i> , 2018, 54, 53-60.	1.4	17
38	Evaluation of Structural Degradation of Polymeric Composites Subjected to Self-Heating by the Thermal Diffusivity Analysis. <i>Arabian Journal for Science and Engineering</i> , 2018, 43, 4541-4547.	3.0	6
39	Vibration-Based Damage Identification and Condition Monitoring in Mechanical Structures and Components. <i>Shock and Vibration</i> , 2018, 2018, 1-2.	0.6	3
40	Enhancement of shearography-based damage identification using best tree wavelet packet analysis. <i>MATEC Web of Conferences</i> , 2018, 204, 06002.	0.2	2
41	Analysis of defect detectability in polymeric composites using self-heating based vibrothermography. <i>Composite Structures</i> , 2018, 201, 760-765.	5.8	17
42	Spectroscopic evaluation of structural changes in composite materials subjected to self-heating effect. <i>Composite Structures</i> , 2018, 204, 192-197.	5.8	4
43	Self-heating based vibrothermography – A non-destructive testing method for polymeric composite structures. <i>AIP Conference Proceedings</i> , 2018, , .	0.4	1
44	A Concept of Thermographic Method for Non-Destructive Testing of Polymeric Composite Structures Using Self-Heating Effect. <i>Sensors</i> , 2018, 18, 74.	3.8	14
45	Design of the composite casing of microstrip antenna for the aerospace satellite. <i>Aircraft Engineering and Aerospace Technology</i> , 2018, 90, 788-805.	1.2	2
46	Variable Surface Temperature Distribution as a Criticality Indicator of the Self-Heating Effect in Composites. <i>Advances in Materials Science</i> , 2018, 18, 5-12.	1.0	1
47	Characterization of damage evolution during fatigue of composite structures accompanied with self-heating effect by means of acoustic emission. <i>Journal of Vibroengineering</i> , 2018, 20, 954-962.	1.0	5
48	Detection of structural changes in concrete using embedded ultrasonic sensors based on autoregressive model. <i>Diagnostyka</i> , 2018, 20, 103-110.	0.8	10
49	Efficiency assessment of wavelet transforms and wavelets for damage localization in beams using shearography. <i>Diagnostyka</i> , 2018, 19, 71-79.	0.8	2
50	Analysis of influence of fibre type and orientation on dynamic properties of polymer laminates for evaluation of their damping and self-heating. <i>Science and Engineering of Composite Materials</i> , 2017, 24, 387-399.	1.4	3
51	Criticality of self-heating in degradation processes of polymeric composites subjected to cyclic loading: A multiphysical approach. <i>Archives of Civil and Mechanical Engineering</i> , 2017, 17, 806-815.	3.8	31
52	Synthesis and testing of a conducting polymeric composite material for lightning strike protection applications. <i>AIP Conference Proceedings</i> , 2017, , .	0.4	8
53	Damage resistance of CSA-doped PANI/epoxy CFRP composite during passing the artificial lightning through the aircraft rivet. <i>Engineering Failure Analysis</i> , 2017, 82, 116-122.	4.0	19
54	Domination of self-heating effect during fatigue of polymeric composites. <i>Procedia Structural Integrity</i> , 2017, 5, 93-98.	0.8	14

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55	Lightning strike resistance of an electrically conductive CFRP with a CSA-doped PANI/epoxy matrix. <i>Composite Structures</i> , 2017, 181, 203-213.	5.8	26
56	Characterization of failure mechanisms of composite structures subjected to fatigue dominated by the self-heating effect. <i>Composite Structures</i> , 2017, 180, 1-8.	5.8	27
57	Modeling and synthesis of all-polymeric conducting composite material for aircraft lightning strike protection applications. <i>Materials Today: Proceedings</i> , 2017, 4, 8010-8015.	1.8	4
58	Evolution of a fracture mechanism in a polymeric composite subjected to fatigue with the self-heating effect. <i>Procedia Structural Integrity</i> , 2017, 5, 416-421.	0.8	2
59	Synthesis and characterization of the electrically conductive polymeric composite for lightning strike protection of aircraft structures. <i>Composite Structures</i> , 2017, 159, 773-783.	5.8	60
60	Localizing impact damage of composite structures with modified RAPID algorithm and non-circular PZT arrays. <i>Archives of Civil and Mechanical Engineering</i> , 2017, 17, 178-187.	3.8	33
61	Electrically conductive carbon fibre-reinforced composite for aircraft lightning strike protection. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 201, 012008.	0.6	13
62	Enhancement of Damage Detectability in Aircraft Structures Using the Fusion of NDT Results. <i>Fatigue of Aircraft Structures</i> , 2017, 2017, 55-74.	0.3	2
63	Identification of Delamination in Composite Beams using the Fractal Dimension-Based Damage Identification Algorithm. <i>Fatigue of Aircraft Structures</i> , 2017, 2017, 5-16.	0.3	1
64	Generalized chemical distance distribution in all-sided critical percolation clusters. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	1
65	Modeling and simulation of longwall scraper conveyor considering operational faults. <i>Studia Geotechnica Et Mechanica</i> , 2016, 38, 15-27.	0.5	12
66	Concept of a Conducting Composite Material for Lightning Strike Protection. <i>Advances in Materials Science</i> , 2016, 16, 32-46.	1.0	37
67	Lightning Strike Protection of Aircraft Composite Structures: Analysis and Comparative Study. <i>Fatigue of Aircraft Structures</i> , 2016, 2016, 49-54.	0.3	8
68	Modelling the electro-mechanical properties of PPy/epoxy conductive composites. <i>Computational Materials Science</i> , 2016, 113, 88-97.	3.0	13
69	The effect of reaction medium on the conductivity and morphology of polyaniline doped with camphorsulfonic acid. <i>Synthetic Metals</i> , 2016, 214, 45-49.	3.9	36
70	Multi-Objective Meta-Evolution Method for Large-Scale Optimization Problems. <i>Studies in Computational Intelligence</i> , 2016, , 165-182.	0.9	1
71	Analysis of critical percolation clusters of mixtures of conducting and dielectric polymers. <i>Journal of Applied Mathematics and Computational Mechanics</i> , 2016, 15, 59-69.	0.7	4
72	On the convergence of multicomplex M-J sets to the Steinmetz hypersolids. <i>Journal of Applied Mathematics and Computational Mechanics</i> , 2016, 15, 67-74.	0.7	2

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73	Percolation thresholds of 3D all-sided percolation clusters in non-cubic domains. Journal of Applied Mathematics and Computational Mechanics, 2016, 15, 63-69.	0.7	4
74	Evolution of Static and Dynamic Properties of Gfrp Laminates during Ageing in Deionized and Seawater. Advanced Composites Letters, 2015, 24, 096369351502400.	1.3	7
75	Nondestructive Damage Assessment of Composite Structures Based on Wavelet Analysis of Modal Curvatures: State-of-the-Art Review and Description of Wavelet-Based Damage Assessment Benchmark. Shock and Vibration, 2015, 2015, 1-19.	0.6	17
76	Automated identification and classification of internal defects in composite structures using computed tomography and 3D wavelet analysis. Archives of Civil and Mechanical Engineering, 2015, 15, 436-448.	3.8	30
77	Electrical percolation in composites of conducting polymers and dielectrics. Journal of Polymer Engineering, 2015, 35, 731-741.	1.4	24
78	Damage identification in aircraft composite structures: A case study using various non-destructive testing techniques. Composite Structures, 2015, 127, 1-9.	5.8	246
79	Stone impact damage identification in composite plates using modal data and quincunx wavelet analysis. Archives of Civil and Mechanical Engineering, 2015, 15, 251-261.	3.8	41
80	On a visualization of the convergence of the boundary of generalized Mandelbrot set to (n-1)-sphere. Journal of Applied Mathematics and Computational Mechanics, 2015, 14, 63-69.	0.7	5
81	Damage detection and classification in composite structure after water-jet cutting using computed tomography and wavelet analysis. , 2015, , 557-561.		2
82	Characterisation of Impact Damage of Composite Structures Using Wavelet-Based Fusion of Ultrasonic and Optical Images. Advanced Composites Letters, 2014, 23, 096369351402300.	1.3	2
83	Meta-optimization method for wavelet-based damage identification in composite structures. , 2014, , .		5
84	Vibration-based spatial damage identification in honeycomb-core sandwich composite structures using wavelet analysis. Composite Structures, 2014, 118, 385-391.	5.8	68
85	Damage assessment in composite plates using fractional wavelet transform of modal shapes with optimized selection of spatial wavelets. Engineering Applications of Artificial Intelligence, 2014, 30, 73-85.	8.1	38
86	Three-dimensional octonion wavelet transform. Journal of Applied Mathematics and Computational Mechanics, 2014, 13, 33-38.	0.7	4
87	Clustering of Delaminations in Composite Rotors Using Self-Organizing Maps. Advances in Intelligent Systems and Computing, 2014, , 149-159.	0.6	1
88	Structural Diagnostics of Composite Beams Using Optimally Selected Fractional B-spline Wavelets. Advances in Intelligent Systems and Computing, 2014, , 475-486.	0.6	1
89	Stress concentration at the circular hole of cyclically bent layered composite plate within the framework of a moment theory of thermoviscoelasticity. Journal of Applied Mathematics and Computational Mechanics, 2014, 13, 75-83.	0.7	1
90	Crack identification in composite elements with non-linear geometry using spatial wavelet transform. Archives of Civil and Mechanical Engineering, 2013, 13, 287-296.	3.8	26

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91	SiC Nanofibres Produced by the Combustion Synthesis as the Nanocomposites Fillers. <i>Macromolecular Symposia</i> , 2013, 327, 94-98.	0.7	3
92	Spatial damage identification in composite plates using multiwavelets. <i>Journal of Applied Mathematics and Computational Mechanics</i> , 2013, 12, 69-78.	0.7	3
93	On the symmetry of bioctonionic Julia sets. <i>Journal of Applied Mathematics and Computational Mechanics</i> , 2013, 12, 23-28.	0.7	2
94	Influence of heating rate on evolution of dynamic properties of polymeric laminates. <i>Plastics, Rubber and Composites</i> , 2012, 41, 233-239.	2.0	23
95	Thermal fatigue of polymeric composites under repeated loading. <i>Journal of Reinforced Plastics and Composites</i> , 2012, 31, 1037-1044.	3.1	20
96	Fatigue and Thermal Failure of Polymeric Composites Subjected to Cyclic Loading. <i>Advanced Composites Letters</i> , 2012, 21, 096369351202100.	1.3	19
97	Self-heating of polymeric laminated composite plates under the resonant vibrations: Theoretical and experimental study. <i>Polymer Composites</i> , 2012, 33, 138-146.	4.6	34
98	Solution of plane Dirichlet problem using compactly supported 2D wavelet scaling functions. <i>Scientific Research of the Institute of Mathematics and Computer Science</i> , 2012, 11, 31-40.	0.2	3
99	The conception of the fatigue model for layered composites considering thermal effects. <i>Archives of Civil and Mechanical Engineering</i> , 2011, 11, 333-343.	3.8	11
100	Stationary Self-Heating of the Circular and Annular Composite Plates Hinged on the Boundary under Axisymmetric Cyclic Loading. <i>Advanced Composites Letters</i> , 2011, 20, 096369351102000.	1.3	1
101	Damage identification in composite plates using two-dimensional B-spline wavelets. <i>Mechanical Systems and Signal Processing</i> , 2011, 25, 3153-3167.	8.0	78
102	Evaluation of self-activating temperature influence on cracks initiation in GRP laminates. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2009, 9, 403-404.	0.2	1
103	Recent Research on Thermal Fatigue of Composite Elements of Transport Means. <i>Key Engineering Materials</i> , 0, 588, 243-248.	0.4	1
104	Faults diagnosis using self-organizing maps: A case study on the DAMADICS benchmark problem. , 0, , .		6
105	A Concept of Automatic Tuning of Longwall Scraper Conveyor Model. , 0, , .		2