Martin Schagerl

List of Publications by Year
in descending order

70 papers	731 citations	759233 12 h-index	580821 25 g-index
73 all docs	73 docs citations	73 times ranked	520 citing authors

#	Article	IF	Citations
1	Framework for Strain Measurements at Cyclic Loaded Structures with Planar Elastoresistive Sensors Applying Electrical Impedance Tomography. Lecture Notes in Civil Engineering, 2023, , 805-815.	0.4	1
2	Evaluation of spatial strain distribution by elastoresistive thin-film sensors using 2D Electrical Impedance Tomography. Materials Today: Proceedings, 2022, 62, 2440-2445.	1.8	1
3	Shear property measurement of additively manufactured continuous fibre reinforced plastics by in-plane torsion testing. Additive Manufacturing, 2022, 55, 102805.	3.0	3
4	Damage identification using wave damage interaction coefficients predicted by deep neural networks. Ultrasonics, 2022, 124, 106743.	3.9	14
5	In situ laser-ultrasonic monitoring of Poissonâ€™s ratio and bulk sound velocities of steel plates during thermal processes. Acta Materialia, 2022, 235, 118097.	7.9	9
6	Correction factors for in-plane shear strength and stiffness testing of flat angle-ply composite laminates with high Poissonâ€™s ratios. Polymers and Polymer Composites, 2022, 30, 096739112211145.	1.9	0
7	Material modelling and property mapping for structural FEA of thin-walled additively manufactured components. Virtual and Physical Prototyping, 2021, 16, 97-112.	10.4	6
8	On the Capability of Measuring Actual Strain Values With Electrical Impedance Tomography Using Planar Silkscreen Printed Elastoresistive Sensors. IEEE Sensors Journal, 2021, 21, 5798-5808.	4.7	11
9	Enhanced characterization of the yield behavior of sheet metal at torsional load using digital image correlation methods. Continuum Mechanics and Thermodynamics, 2021, 33, 475-483.	2.2	0
10	Structural Response Prediction of Thin-Walled Additively Manufactured Parts Considering Orthotropy, Thickness Dependency and Scatter. Materials, 2021, 14, 2463.	2.9	6
11	Design, simulation, testing and application of laser-sintered conformal lattice structures on component level. Rapid Prototyping Journal, 2021, 27, 43-57.	3.2	3
12	Structural health monitoring of aerospace sandwich structures via strain measurements along zero-strain trajectories. Engineering Failure Analysis, 2021, 126, 105454.	4.0	13
13	Vibration-Based Thermal Health Monitoring for Face Layer Debonding Detection in Aerospace Sandwich Structures. Applied Sciences (Switzerland), 2021, 11, 211.	2.5	5
14	Crack Identification in Necked Double Shear Lugs by Means of the Electro-Mechanical Impedance Method. Sensors, 2021, 21, 44.	3.8	9
15	Development of Aircraft Spoiler Demonstrators for Cost-Efficient Investigations of SHM Technologies under Quasi-Realistic Loading Conditions. Aerospace, 2021, 8, 320.	2.2	5
16	Improved current injection pattern for the detection of delaminations in carbon fiber reinforced polymer plates using electrical impedance tomography. Structural Health Monitoring, 2021, 20, 2747-2757.	7.5	7
17	Considering inhomogeneous material properties for stiffness and failure prediction of thin-walled additively manufactured parts. Procedia Structural Integrity, 2021, 34, 78-86.	0.8	0
18	Fatigue behaviour of discontinuous carbon-fibre reinforced specimens and structural parts. International Journal of Fatigue, 2020, 131, 105289.	5.7	9

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19	Strain measurements along zero-strain trajectories as possible structural health monitoring method for debonding initiation and propagation in aircraft sandwich structures. Procedia Structural Integrity, 2020, 28, 1473-1480.	0.8	5
20	On the fatigue and fracture behavior of necked double shear lugs for aircraft applications. Materialwissenschaft Und Werkstofftechnik, 2020, 51, 284-296.	0.9	1
21	Review of Structural Health Monitoring Methods Regarding a Multi-Sensor Approach for Damage Assessment of Metal and Composite Structures. Sensors, 2020, 20, 826.	3.8	106
22	Boundary conformal design of laser sintered sandwich cores and simulation of graded lattice cells using a forward homogenizationÂapproach. Materials and Design, 2020, 190, 108539.	7.0	11
23	Thickness dependent anisotropy of mechanical properties and inhomogeneous porosity characteristics in laser-sintered polyamide 12 specimens. Additive Manufacturing, 2020, 33, 101141.	3.0	13
24	Impact behavior and fractography of additively manufactured polymers: Laser sintering, multijet fusion, and hot lithography. Additive Manufacturing, 2019, 29, 100816.	3.0	10
25	Strength Analysis of Additively Manufactured Titanium Load Introduction Elements. Lightweight Design Worldwide, 2019, 12, 42-49.	0.1	0
26	In situ spatial strain monitoring of a single-lap joint using inkjet-printed carbon nanotube embedded thin films. Structural Health Monitoring, 2019, 18, 1479-1490.	7.5	14
27	Manufacturing and Costs of Current Sandwich and Future Monolithic Designs of Spoilers. Journal of Aircraft, 2019, 56, 85-93.	2.4	3
28	Application of Kalman filter based neutral axis tracking for crack length quantification in beam structures. , 2019, , .		2
29	Experimental measurements of vibrations of artificial sub-surface cracks and evaluation of identification potential for the electro-mechanical impedance method. , 2019, , .		1
30	Application of electrical impedance tomography to an anisotropic carbon fiber-reinforced polymer composite laminate for damage localization. Composites Science and Technology, 2018, 160, 231-236.	7.8	65
31	Fatigue strength and weight optimization of threaded connections in tie-rods for aircraft structures. Procedia Engineering, 2018, 213, 374-382.	1.2	10
32	Biomechanical testing of zirconium dioxide osteosynthesis system for Le Fort I advancement osteotomy fixation. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 77, 34-39.	3.1	7
33	On the back calculation of material strength values from strength test results. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800342.	0.2	2
34	Damage mechanisms under static and fatigue loading at locally compacted regions in a high pressure resin transfer molded carbon fiber non-crimp fabric. Composites Part A: Applied Science and Manufacturing, 2018, 115, 57-65.	7.6	11
35	Characterization of the spatial elastoresistivity of inkjet-printed carbon nanotube thin films. Smart Materials and Structures, 2018, 27, 105009.	3.5	17
36	Thickness dependency of mechanical properties of laser-sintered polyamide lightweight structures. Additive Manufacturing, 2018, 23, 25-33.	3.0	17

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37	Manufacturing of artificial sub-surface cracks to investigate non-linear features of electro-mechanical impedance measurements. , 2018, , .		1
38	Updating the finite element model for electrical impedance tomography using self-organizing map. , 2018, , .		0
39	Characterization of the spatial elastoresistivity of inkjet-printed carbon nanotube thin films for strain-state sensing. Proceedings of SPIE, 2017, , .	0.8	3
40	Comparison of electrical impedance tomography inverse solver approaches for damage sensing. , 2017, , .		3
41	Characterizing the Conductivity and Enhancing the Piezoresistivity of Carbon Nanotube-Polymeric Thin Films. Materials, 2017, 10, 724.	2.9	5
42	The effect of fiber waviness on the fatigue life of CFRP materials. International Journal of Fatigue, 2016, 90, 139-147.	5.7	48
43	Through-thickness fatigue behavior of non-crimp fabrics featuring manufacturing defects. Procedia Structural Integrity, 2016, 2, 158-165.	0.8	1
44	The effect of ply folds as manufacturing defect on the fatigue life of CFRP materials. Frattura Ed Integrita Strutturale, 2016, 10, 76-81.	0.9	6
45	STRENGTH AND WEIGHT EQUIVALENT SUBSTITUTION OF LARGE SANDWICH PANELS BY MONOLITHIC CFRP STRUCTURES. , 2016, , .		1
46	Elastic body impact on sandwich panels at low and intermediate velocity. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2015, 229, 221-231.	1.3	1
47	On the folding of plates which buckle before and beyond the elastic limit. Proceedings in Applied Mathematics and Mechanics, 2013, 13, 111-112.	0.2	2
48	Prediction of the collapse mode of axially crushed profiles. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 2013, 166, 456-464.	0.8	5
49	Geometrically exact solution of a buckling column with asymmetric boundary conditions. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 203-204.	0.2	2
50	Stress concentrations at free edges of shear webs. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 221-222.	0.2	0
51	On the magnitude of surface stresses of buckled plates. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 269-270.	0.2	0
52	A composite view on Windenburg's problem: Buckling and minimum stiffness requirements of compressively loaded orthotropic plates with edge reinforcements. International Journal of Mechanical Sciences, 2010, 52, 471-484.	6.7	10
53	Modelling, Dynamics and Control of Tethered Satellite Systems. Nonlinear Dynamics, 2006, 43, 73-96.	5.2	75
54	A semi-analytical model for local post-buckling analysis of stringer- and frame-stiffened cylindrical panels. Thin-Walled Structures, 2006, 44, 102-114.	5.3	50

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55	Slumping instabilities of elastic membranes holding liquids and gases. International Journal of Non-Linear Mechanics, 2005, 40, 1112-1138.	2.6	19
56	Propagation of small waves in inextensible strings. Wave Motion, 2002, 35, 339-353.	2.0	5
57	Dynamical Analysis of the Deployment Process of Tethered Satellite Systems. Solid Mechanics and Its Applications, 2002, , 345-354.	0.2	3
58	Relative equilibria of tethered satellite systems and their stability for very stiff tethers. Dynamical Systems, 2001, 16, 253-278.	0.4	10
59	Stability of Relative Equilibria. Part I: Comparison of Four Methods. Meccanica, 2000, 35, 325-351.	2.0	9
60	On the paradox of the free falling folded chain. Acta Mechanica, 1997, 125, 155-168.	2.1	46
61	Smart Structural Health Monitoring Validated on a Simple Plate under Compressive Loading. Key Engineering Materials, 0, 569-570, 1052-1059.	0.4	0
62	Using X-FEM for Progressive Damage Simulation of Laminated Composites Featuring Manufacturing Imperfections. Key Engineering Materials, 0, 713, 139-142.	0.4	0
63	An Inkjet-Printed Carbon Nanotube Strain Distribution Sensor for Quasi Real-Time Strain Monitoring of Lightweight Design Materials. Advances in Science and Technology, 0, , .	0.2	8
64	Electro-Mechanical Impedance Measurements as a Possible SHM Method for Sandwich Debonding Detection. Key Engineering Materials, 0, 742, 763-777.	0.4	6
65	Implications of free-edge effect at thin plain-woven carbon fiber reinforced plastic laminates with out-of-plane waviness under cyclic loading. Journal of Composite Materials, 0, , 002199832110417.	2.4	1
66	Optimal Placement of Fiber Optical Sensors along Zero-strain Trajectories to Detect Damages in Thin-walled Structures with Highest Sensitivity. , 0, , .		6
67	Model-based Evaluation of Electro-mechanical Impedance Measurements for Detection and Size Identification of Face Layer Debondings in Sandwich Panels. , 0, , .		2
68	Evaluation of the E/M Impedance Method as a SHM Technique for Large Civil Aircraft Spoilers: Analytical, Numerical and Experimental Studies Performed with Simple Structures. , 0, , .		1
69	Observing the Fracture Behavior of a Center Crack Via Electrical Impedance Tomography using Inkjet-printed Carbon Nanotube Thin Films. , 0, , .		3
70	Application of the Scattering Analysis Method for Guided Waves Measured by Laser Scanning Vibrometry. , 0, , .		2