Pavel Lyubutin

List of Publications by Year
in descending order

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58	154	1477746 6	1473754 9
papers	citations	h-index	g-index

59	59	59	99
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Evaluation of elastic modulus of carbon fiber reinforced polymers using an optical extensometer. Journal of Physics: Conference Series, 2020, 1611, 012019.	0.3	1
2	Algorithm for J-Integral Measurements by Digital Image Correlation. IOP Conference Series: Materials Science and Engineering, 2020, 731, 012003.	0.3	0
3	Estimation of the stiffness of CFRP under cyclic tension using DIC. AIP Conference Proceedings, 2020, , .	0.3	0
4	Parallel computations by GPU for displacement vectors fields construction. AIP Conference Proceedings, 2020, , .	0.3	0
5	Lamb Wave Ultrasonic Detection of Barely Visible Impact Damages of CFRP. Russian Journal of Nondestructive Testing, 2019, 55, 89-101.	0.3	4
6	In situ estimation of fatigue crack parameters by digital image correlation under cyclic loading with single overload. IOP Conference Series: Materials Science and Engineering, 2019, 511, 012014.	0.3	0
7	DEVELOPMENT OF THE DIGITAL IMAGE CORRELATION METHOD TO STUDY DEFORMATION AND FRACTURE PROCESSES OF STRUCTURAL MATERIALS. PNRPU Mechanics Bulletin, 2019, , .	0.1	2
8	Non-destructive testing of honeycomb CFRP panel by means of shearography. AIP Conference Proceedings, 2018, , .	0.3	2
9	Algorithm for J-integral measurement by digital image correlation method. , 2018, , .		4
10	Algorithm of digital image preprocessing for constructing displacement vector fields. AIP Conference Proceedings, 2018, , .	0.3	0
11	Experimental application of Lamb wave technique for testing of CRFP. AIP Conference Proceedings, 2018, , .	0.3	1
12	The algorithm of crack and crack tip coordinates detection in optical images during fatigue test. IOP Conference Series: Materials Science and Engineering, 2017, 177, 012019.	0.3	1
13	Application of Lucasâ€“Kanade algorithm with weight coefficient bilateral filtration for the digital image correlation method. IOP Conference Series: Materials Science and Engineering, 2017, 177, 012039.	0.3	0
14	Effect of the mesh size of the vector displacement field on the strain estimate in the digital image correlation method. Journal of Applied Mechanics and Technical Physics, 2017, 58, 425-434.	0.1	4
15	Algorithm of fatigue crack detection and determination of its tip position in optical images. Optoelectronics, Instrumentation and Data Processing, 2017, 53, 237-244.	0.2	3
16	Detecting barely visible impact damages of honeycomb and laminate CFRP using digital shearography. AIP Conference Proceedings, 2017, , .	0.3	2
17	Applying an Ultrasonic Lamb Wave Based Rechnique to Testing the Condition of V96ts3T12 Aluminum Alloy. Russian Journal of Nondestructive Testing, 2017, 53, 817-829.	0.3	12
18	Estimating mechanical state of AA2024 specimen under tension with the use of Lamb wave based ultrasonic technique. Molecular Crystals and Liquid Crystals, 2017, 655, 94-102.	0.4	3

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19	Efficiency of Bilateral Filter Application in Problems of Optical Flow Calculation. Optoelectronics, Instrumentation and Data Processing, 2017, 53, 583-590.	0.2	0
20	Application of a Lamb waves based technique for structural health monitoring of GFRP undercyclic loading. IOP Conference Series: Materials Science and Engineering, 2016, 124, 012084.	0.3	1
21	Application of bilateral filtration with weight coefficients for similarity metric calculation in optical flow computation algorithm. AIP Conference Proceedings, 2016, , .	0.3	0
22	Effect of vacuum arc ion beam treatment on the structure and mechanical properties of 30CrMnSiNi2A steel. Physical Mesomechanics, 2016, 19, 392-406.	1.0	2
23	Investigation of Acoustic Parameters for Structural Health Monitoring of Sandwich Panel under Cyclic Load. Key Engineering Materials, 2016, 712, 319-323.	0.4	1
24	Complex algorithm of optical flow determination by weighted full search. AIP Conference Proceedings, 2016, , .	0.3	0
25	Algorithm of crack tracking during fatigue test through calculating the optical flow. AIP Conference Proceedings, 2016, , .	0.3	0
26	Development of high resolution shearography device for non-destructive testing of composite materials. AIP Conference Proceedings, 2015, , .	0.3	3
27	Lamb wave ultrasonic evaluation of welded AA2024 specimens at tensile static and fatigue testing. IOP Conference Series: Materials Science and Engineering, 2015, 93, 012025.	0.3	1
28	Surface Layer Modification of 12Cr1MoV and 30CrMnSiNi2 Steels by Zr+ Ion Beam to Improve the Fatigue Durability. Procedia Technology, 2015, 19, 313-319.	1.1	6
29	Selection of parameters of the three-dimensional recursive search algorithm in constructing displacement vector fields with the use of the hierarchical approach. Optoelectronics, Instrumentation and Data Processing, 2015, 51, 124-133.	0.2	5
30	Application of meso- and fracture mechanics to material affected by a network of thermal fatigue cracks. International Journal of Fatigue, 2015, 76, 33-38.	2.8	2
31	Aluminum Foil Based Fatigue Sensor for Structural Health Monitoring of Carbon Fiber Composites. Procedia Technology, 2015, 19, 307-312.	1.1	6
32	Fatigue life enhancement by irradiation of 12Cr1MoV steel with a Zr+ ion beam. Mesoscale deformation and fracture. Physical Mesomechanics, 2015, 18, 261-272.	1.0	12
33	Quantitative Analysis of a Network of Thermal-Fatigue Cracks on the Surface of a Material. Materials Science, 2015, 50, 805-816.	0.3	0
34	Development of optical flow computation algorithms for strain measurement of solids. Computer Optics, 2015, 39, 94-100.	1.3	3
35	Investigation of various criteria for evaluation of aluminum thin foil â€˜â€˜smart sensorsâ€™â€™ images. IOP Conference Series: Materials Science and Engineering, 2014, 66, 012024.	0.3	3
36	Investigation of “smart sensor's” behavior during cyclic test of carbon fiber reinforce polymer. , 2014, , .		1

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37	Estimation of the Kinetics of Fatigue Fracture by the Automated Analysis of Deformation Patterns on the Surfaces of Specimens with Central Holes. Materials Science, 2014, 50, 388-396.	0.3	0
38	Investigation of Sensitivity of Aluminum Foil Based Strain Sensors at Fatigue Damage Evaluation of CFRP. Advanced Materials Research, 2014, 1040, 943-948.	0.3	2
39	Application of aluminum foil for â€œstrain sensingâ€•at fatigue damage evaluation of carbon fiber composite. Science China: Physics, Mechanics and Astronomy, 2014, 57, 59-64.	2.0	8
40	Smoothing of vector fields by using the Bezier surface for strain estimation by the method of digital image correlation. Optoelectronics, Instrumentation and Data Processing, 2014, 50, 61-67.	0.2	4
41	Fatigue damage evaluation of carbon fiber composite using aluminum foil based strain sensors. Engineering Fracture Mechanics, 2014, 129, 45-53.	2.0	12
42	Application of integral-type deformation pickups for evaluating the fatigue damage of carbon composites. Russian Journal of Nondestructive Testing, 2014, 50, 288-298.	0.3	3
43	Incremental approach to determination of image fragment displacements during vector field construction. Optoelectronics, Instrumentation and Data Processing, 2014, 50, 139-147.	0.2	2
44	Effect of bilateral filtration on fractal estimation of optical images of loaded material surfaces. Optoelectronics, Instrumentation and Data Processing, 2013, 49, 234-242.	0.2	1
45	Efficiency of vector field filtration algorithms in estimating material strain by the method of digital image correlation. Optoelectronics, Instrumentation and Data Processing, 2013, 49, 155-163.	0.2	3
46	Application of the fractal dimension for estimating surface images obtained by various detectors. Optoelectronics, Instrumentation and Data Processing, 2013, 49, 34-40.	0.2	3
47	Increase of fatigue strength of 12Cr1МoV steel by surface nanostructuting with Zr⁺ ion beam. , 2012, , .		1
48	Multiscale technique for localized strain investigation of aluminum alloy and carbon fiber composite based on data of strain gauging, digital image correlation and acoustic emission. , 2012, , .		0
49	Investigation of deformation and fracture by acoustic emission data, correlation of digital images, and strain measurements. Inorganic Materials, 2012, 48, 1369-1378.	0.2	2
50	Staging of a localized deformation during tension of specimens of a carbon-carbon composite material with holes of different diameters according to acoustic-emission, surface-deformation mapping, and strain-gauging data. Russian Journal of Nondestructive Testing, 2012, 48, 598-608.	0.3	10
51	Staging of a localized plastic deformation upon the tension of Ð”16AT alloy specimens on the basis of acoustic emission, surface deformation mapping, and strain gauging data. II. Specimens with notches of different depths. Russian Journal of Nondestructive Testing, 2011, 47, 815-823.	0.3	2
52	Staging of a localized plastic deformation during extension of D16AT alloy specimens based on the data of acoustic emission, mapping of surface deformations, and strain gauging. 1. Specimens with holes of different diameters. Russian Journal of Nondestructive Testing, 2011, 47, 611-622.	0.3	5
53	Estimation of mesoscale strain with fatigue crack propagation through quantitative analysis of displacement vector fields by a television-optical measuring complex. Physical Mesomechanics, 2010, 13, 88-95.	1.0	0
54	Calculation of mesoscopic strain characteristics for the study of the behavior of porous ceramics under uniaxial compression. Physical Mesomechanics, 2009, 12, 141-149.	1.0	3

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55	Mesoscale measurement of strains by analyzing optical images of the surface of loaded solids. Journal of Applied Mechanics and Technical Physics, 2006, 47, 905-910.	0.1	7
56	Estimation of Accuracy and Interference Stability of the Method of Constructing Fields of Displacement Vectors. , 2005, , .		0
57	Lamb Wave Based Ultrasonic Technique for AA2024 Fatigue Evaluation. Key Engineering Materials, 0, 685, 399-402.	0.4	1
58	Investigation of Lamb Wave Based Ultrasonic Technique for AA2024 Evaluation at Static Tensile Loading. Key Engineering Materials, 0, 685, 394-398.	0.4	0