Dmitrii N Tumakov

List of Publications by Year
in descending order

58 papers	206 citations	1307594 7 h-index	1281871 11 g-index
61 all docs	61 docs citations	61 times ranked	71 citing authors

#	Article	IF	Citations
1	An Effect of Binarization on Handwritten Digits Recognition by Hierarchical Neural Networks. Lecture Notes in Networks and Systems, 2022, , 94-106.	0.7	1
2	YOLOv4-Based CNN Model versus Nested Contours Algorithm in the Suspicious Lesion Detection on the Mammography Image: A Direct Comparison in the Real Clinical Settings. Journal of Imaging, 2022, 8, 88.	3.0	11
3	Using Wolfram Mathematica computing tools for designing a dual-band tooth-shaped microstrip antenna. AIP Conference Proceedings, 2022, , .	0.4	1
4	Elimination of Defects in Mammograms Caused by a Malfunction of the Device Matrix. Journal of Imaging, 2022, 8, 128.	3.0	5
5	Application of Neural Networks to Simulate a Monopole Microstrip Four-Tooth-Shaped Antenna. Communications in Computer and Information Science, 2021, , 106-119.	0.5	1
6	Recognition of Handwritten Digits Based on Images Spectrum Decomposition. , 2021, , .		1
7	Arylamine Analogs of Methylene Blue: Substituent Effect on Aggregation Behavior and DNA Binding. International Journal of Molecular Sciences, 2021, 22, 5847.	4.1	9
8	Solving the Problem of Electromagnetic Wave Diffraction by a Flat Screen Using CUDA. Lobachevskii Journal of Mathematics, 2021, 42, 1335-1344.	0.9	1
9	Application of the Collocation Method for Solving the Problem of Diffraction of an Electromagnetic Wave by a Rectangular Metal Plate. Lobachevskii Journal of Mathematics, 2021, 42, 1355-1369.	0.9	1
10	Combined Convolutional and Perceptron Neural Networks for Handwritten Digits Recognition. , 2020, , .		8
11	Solving Problem of Electromagnetic Wave Diffraction by a Metal Plate Using CUDA. , 2020, , .		4
12	Relationship Between Base Frequency of the Koch-Type Wire Dipole and Various Dimensions. , 2020, , .		2
13	Designing a Single-Band Monopole Six-Tooth-Shaped Antenna with Preset Matching. , 2020, , .		2
14	Convolution Neural Network Learning Features for Handwritten Digit Recognition. , 2020, , .		4
15	Hierarchical Convolutional Neural Network for Handwritten Digits Recognition. Procedia Computer Science, 2020, 171, 1927-1934.	2.0	17
16	Miniaturization of a Koch-Type Fractal Antenna for Wi-Fi Applications. Fractal and Fractional, 2020, 4, 25.	3.3	15
17	Designing a Dual-Band Printed Monopole Symmetric Tooth-Shaped Antenna. Lobachevskii Journal of Mathematics, 2020, 41, 1354-1362.	0.9	3
18	Parallel Box-Counting Method for Evaluating the Fractal Dimension of Analytically Defined Curves. Communications in Computer and Information Science, 2020, , 86-97.	0.5	0

#	Article	IF	Citations
19	Fast method for designing a well-matched symmetrical four-tooth-shaped microstrip antenna for Wi-Fi applications. Journal of Physics: Conference Series, 2019, 1158, 042029.	0.4	11
20	Designing the Four-Tooth-Shaped Microstrip Antenna for Wi-Fi Applications. , 2019, , .		7
21	The Faster Methods for Computing Bessel Functions of the First Kind of an Integer Order with Application to Graphic Processors. Lobachevskii Journal of Mathematics, 2019, 40, 1725-1738.	0.9	2
22	Solving the Problem of Elastic Waves Diffraction by a Fluid-Saturated Porous Gradient Layer Using a Second-Order Finite-Difference Scheme. Lobachevskii Journal of Mathematics, 2019, 40, 1739-1752.	0.9	1
23	Technique for Teaching Parallel Programming via Solving a Computational Electrodynamics Problems. Communications in Computer and Information Science, 2019, , 149-158.	0.5	1
24	On Optimal Thickness of the Curve at Calculating the Fractal Dimension Using the Box-Counting Method. Journal of Computational and Theoretical Nanoscience, 2019, 16, 5233-5237.	0.4	2
25	Over-Determined Boundary Value Problem Method in the Theory of Mixed Problems for Acoustic Equations in Spherical Regions. Lobachevskii Journal of Mathematics, 2018, 39, 1099-1107.	0.9	0
26	Second-Order Accurate Finite-Difference Scheme for Solving the Problem of Elastic Wave Diffraction by the Anisotropic Gradient Layer. Lobachevskii Journal of Mathematics, 2018, 39, 1053-1065.	0.9	2
27	Designing the Symmetrical Eight-Tooth-Shaped Microstrip Antenna for Wi-Fi Applications. , 2018, , .		3
28	Designing a Koch-Type Wire Antenna by Regression Analysis. , 2018, , .		3
29	Method of Selecting an Optimal Activation Function in Perceptron for Recognition of Simple Objects. , 2018, , .		5
30	Recovery of parameters of a homogeneous elastic layer using neural networks. Journal of Fundamental and Applied Sciences, 2018, 9, 1202.	0.2	4
31	Bandwidth Enhancement of Symmetrical Fourth-Teeth-Shaped Microstrip Antenna. Helix, 2018, 8, 2275-2283.	0.1	7
32	On electrical characteristics of comb-shaped microstrip antennas. , 2017, , .		10
33	Modeling of the Koch-type wire dipole. Applied Mathematical Modelling, 2017, 51, 341-360.	4.2	12
34	METHOD OF CALCULATING RESONANCE FREQUENCIES OF MICROSTRIP LINES. Far East Journal of Mathematical Sciences, 2017, 101, 1265-1276.	0.0	0
35	APPROXIMATION ERROR OF ONE FINITE-DIFFERENCE SCHEME FOR THE PROBLEM OF DIFFRACTION BY A GRADIENT LAYER. Far East Journal of Mathematical Sciences, 2017, 101, 1253-1264.	0.0	0
36	Application of a second order accurate finite-difference method to problems of diffraction of elastic waves by gradient layers. IOP Conference Series: Materials Science and Engineering, 2016, 158, 012008.	0.6	2

#	Article	IF	Citations
37	On Peculiarities of Propagation of a Plane Elastic Wave through a Gradient Anisotropic Layer. Advances in Acoustics and Vibration, 2015, 2015, 1-7.	0.5	1
38	A new approach to investigation of Maxwell equations in spherical coordinates. Lobachevskii Journal of Mathematics, 2015, 36, 15-27.	0.9	5
39	On Optimal Frequencies for Reconstruction of a One-Dimensional Profile of Gradient Layerâ€™s Refractive Index. International Journal of Optics, 2014, 2014, 1-7.	1.4	1
40	On some of the peculiarities of propagation of an elastic wave through a gradient transversely isotropic layer. , 2014, , .		0
41	Diffraction of an elastic wave by the jump inhomogeneity in the elastic layer. , 2013, , .		0
42	Peculiarities of propagation of a plane elastic wave through a gradient layer. , 2013, , .		3
43	Diffraction of a Plane Elastic Wave by a Gradient Transversely Isotropic Layer. Advances in Acoustics and Vibration, 2013, 2013, 1-8.	0.5	7
44	Diffraction of an electromagnetic wave by gaps between plates. Lobachevskii Journal of Mathematics, 2012, 33, 364-373.	0.9	14
45	Elastic wave propagation through a layer with graded-index distribution of density. , 2012, , .		5
46	Peculiarities of electromagnetic wave propagation through layers with ridge-shaped refractive index distribution. , 2012, , .		0
47	An over-determined boundary problem for the Helmholtz equation in a semiinfinite domain with a curvilinear boundary. Russian Mathematics, 2010, 54, 66-73.	0.4	3
48	Eigen waves of semi-opened waveguide structures. , 2008, , .		0
49	Regularization by the integral identities method for integral and series equations in diffraction problems. , 0, , .		2
50	Electromagnetic wave diffraction on an N-branching of a plane waveguide. , 0, , .		0
51	The classes of solving of the Helmholz equation in halfplane. , 0, , .		0
52	Physical education classes with distance learning as a catalyst for adaptation potential increase of students during the COVID-19 pandemic. , 0, , .		0
53	Iterative method for solving the problem of scattering of an electromagnetic wave by a partially shielded conducting sphere. Applied Mathematical Sciences, 0, 8, 5887-5898.	0.1	2
54	Forced oscillations of the elastic strip with a longitudinal crack. Applied Mathematical Sciences, 0, 9, 6883-6890.	0.1	0

#	Article	IF	Citations
55	Analysis of the fault tolerance of the distributed data storage with controlled redundancy. Applied Mathematical Sciences, 0, 9, 7011-7025.	0.1	1
56	Model for reliable location of information in storage systems. Applied Mathematical Sciences, 0, 9, 7027-7042.	0.1	0
57	On completeness of the system of eigenfunctions of the Dirichlet problem for Lame equations in the strip. Advanced Studies in Theoretical Physics, 0, 9, 811-820.	0.2	0
58	Reducing the problem of waveguide excitation by currents in cross-section to a system of integral volterra equations. 3c Tic, 0, , 106-125.	0.6	2