Dmitry Lukyanenko

List of Publications by Year
in descending order

58 papers	526 citations	758635 12 h-index	794141 19 g-index
67 all docs	67 docs citations	67 times ranked	100 citing authors

#	Article	IF	Citations
1	Solving of the coefficient inverse problems for a nonlinear singularly perturbed reaction-diffusion-advection equation with the final time data. Communications in Nonlinear Science and Numerical Simulation, 2018, 54, 233-247.	1.7	39
2	Solving of the coefficient inverse problem for a nonlinear singularly perturbed two-dimensional reactionâ€“diffusion equation with the location of moving front data. Computers and Mathematics With Applications, 2019, 77, 1245-1254.	1.4	33
3	Blow-up for one Sobolev problem: Theoretical approach and numerical analysis. Journal of Mathematical Analysis and Applications, 2016, 442, 451-468.	0.5	30
4	Asymptotic analysis of solving an inverse boundary value problem for a nonlinear singularly perturbed time-periodic reaction-diffusion-advection equation. Journal of Inverse and Ill-Posed Problems, 2019, 27, 745-758.	0.5	30
5	Blowâ€up phenomena in the model of a space charge stratification in semiconductors: analytical and numerical analysis. Mathematical Methods in the Applied Sciences, 2017, 40, 2336-2346.	1.2	26
6	Instantaneous blow-up versus local solvability for one problem of propagation of nonlinear waves in semiconductors. Journal of Mathematical Analysis and Applications, 2018, 459, 159-181.	0.5	25
7	Solving coefficient inverse problems for nonlinear singularly perturbed equations of the reaction-diffusion-advection type with data on the position of a reaction front. Communications in Nonlinear Science and Numerical Simulation, 2021, 99, 105824.	1.7	25
8	On the blowâ€up phenomena for a 1â€dimensional equation of ion sound waves in a plasma: Analytical and numerical investigation. Mathematical Methods in the Applied Sciences, 2018, 41, 2906-2929.	1.2	19
9	Analytical-Numerical Approach to Describing Time-Periodic Motion of Fronts in Singularly Perturbed Reactionâ€“Advectionâ€“Diffusion Models. Computational Mathematics and Mathematical Physics, 2019, 59, 46-58.	0.2	15
10	Recovering aerosol particle size distribution function on the set of bounded piecewise-convex functions. Inverse Problems in Science and Engineering, 2013, 21, 339-354.	1.2	13
11	Front Dynamics in an Activator-Inhibitor System of Equations. Lecture Notes in Computer Science, 2017, , 492-499.	1.0	13
12	Some features of solving an inverse backward problem for a generalized Burgersâ€™ equation. Journal of Inverse and Ill-Posed Problems, 2020, 28, 641-649.	0.5	13
13	Application of inversion methods in solving ill-posed problems for magnetic parameter identification of steel hull vessel. Journal of Inverse and Ill-Posed Problems, 2011, 18, 1013-1029.	0.5	12
14	Inverse Problem of Recovering the Initial Condition for a Nonlinear Equation of the Reactionâ€“Diffusionâ€“Advection Type by Data Given on the Position of a Reaction Front with a Time Delay. Mathematics, 2021, 9, 342.	1.1	12
15	Use of Asymptotics for New Dynamic Adapted Mesh Construction for Periodic Solutions with an Interior Layer of Reaction-Diffusion-Advection Equations. Lecture Notes in Computer Science, 2017, , 107-118.	1.0	12
16	Blow-up of solutions of a full non-linear equation of ion-sound waves in a plasma with non-coercive non-linearities. Izvestiya Mathematics, 2018, 82, 283-317.	0.1	11
17	Use of asymptotic analysis for solving the inverse problem of source parameters determination of nitrogen oxide emission in the atmosphere. Inverse Problems in Science and Engineering, 2021, 29, 365-377.	1.2	11
18	The Problem of the Non-Uniqueness of the Solution to the Inverse Problem of Recovering the Symmetric States of a Bistable Medium with Data on the Position of an Autowave Front. Symmetry, 2021, 13, 860.	1.1	9

#	Article	IF	Citations
19	An optimal regularization method for convolution equations on the sourcewise represented set. Journal of Inverse and Ill-Posed Problems, 2015, 23, 465-475.	0.5	8
20	Application of Asymptotic Analysis for Solving the Inverse Problem of Determining the Coefficient of Linear Amplification in Burgersâ€™ Equation. Moscow University Physics Bulletin (English Translation of) Tj ETQq0 0 0 rgBT /Overlock 10	0.1	8
21	Analytic-Numerical Approach to Solving Singularly Perturbed Parabolic Equations with the Use of Dynamic Adapted Meshes. Modelirovanie I Analiz Informacionnyh Sistem, 2016, 23, 334-341.	0.1	8
22	Magnetic parameters inversion method with full tensor gradient data. Inverse Problems and Imaging, 2019, 13, 745-754.	0.6	8
23	Algorithms for solving inverse problems in the optics of layered media based on comparing the extrema of spectral characteristics. Computational Mathematics and Mathematical Physics, 2017, 57, 867-875.	0.2	7
24	Application of a Three-Dimensional Radiative Transfer Model to Retrieve the Species Composition of a Mixed Forest Stand from Canopy Reflected Radiation. Remote Sensing, 2018, 10, 1661.	1.8	7
25	Magnetic susceptibility inversion method with full tensor gradient data using low-temperature SQUIDs. Petroleum Science, 2019, 16, 794-807.	2.4	7
26	Asymptotic-Numerical Method for the Location and Dynamics of Internal Layers in Singular Perturbed Parabolic Problems. Lecture Notes in Computer Science, 2017, , 721-729.	1.0	7
27	Dynamically Adapted Mesh Construction for the Efficient Numerical Solution of a Singular Perturbed Reaction-diffusion-advection Equation. Modelirovanie I Analiz Informacionnyh Sistem, 2017, 24, 322-338.	0.1	7
28	Self-compensation of errors in optical coating production with monochromatic monitoring. Optics Express, 2021, 29, 44275.	1.7	7
29	Using Lagrange principle for solving two-dimensional integral equation with a positive kernel. Inverse Problems in Science and Engineering, 2016, 24, 811-831.	1.2	6
30	Raising the Accuracy of Monitoring the Optical Coating Deposition by Application of a Nonlocal Algorithm of Data Analysis. Journal of Applied and Industrial Mathematics, 2020, 14, 330-339.	0.1	6
31	Stable Method for Optical Monitoring the Deposition of Multilayer Optical Coatings. Computational Mathematics and Mathematical Physics, 2020, 60, 2056-2063.	0.2	6
32	On Some Features of the Numerical Solving of Coefficient Inverse Problems for an Equation of the Reaction-Diffusion-Advection-Type with Data on the Position of a Reaction Front. Mathematics, 2021, 9, 2894.	1.1	6
33	Analyticâ€"Numerical Investigation of Combustion in a Nonlinear Medium. Computational Mathematics and Mathematical Physics, 2018, 58, 1499-1509.	0.2	5
34	3D surface topography imaging in SEM with improved backscattered electron detector: Arrangement and reconstruction algorithm. Ultramicroscopy, 2019, 207, 112830.	0.8	5
35	Reconstruction of Magnetic Susceptibility Using Full Magnetic Gradient Data. Computational Mathematics and Mathematical Physics, 2020, 60, 1000-1007.	0.2	5
36	Inverse Problem for an Equation of the Reaction-Diffusion-Advection Type with Data on the Position of a Reaction Front: Features of the Solution in the Case of a Nonlinear Integral Equation in a Reduced Statement. Mathematics, 2021, 9, 2342.	1.1	5

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37	Local Solvability and Decay of the Solution of an Equation with Quadratic Noncoercive Nonlineatity. Bulletin of the South Ural State University, Series: Mathematical Modelling, Programming and Computer Software, 2017, 10, 107-123.	0.1	5
38	Comparative Analysis of Algorithms for Solving Inverse Problems Related to Monochromatic Monitoring the Deposition of Multilayer Optical Coatings. Computational Mathematics and Mathematical Physics, 2021, 61, 1504-1510.	0.2	4
39	Recovering the Magnetic Image of Mars from Satellite Observations. Journal of Imaging, 2021, 7, 234.	1.7	4
40	Improving the Accuracy of Broad-Band Monitoring of Optical Coating Deposition. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta, Fizika), 2018, 73, 382-387.	0.1	3
41	Blowâ€up for Josephâ€"Egri equation: Theoretical approach and numerical analysis. Mathematical Methods in the Applied Sciences, 2020, 43, 6771-6800.	1.2	3
42	Correlation of Errors in Monochromatic Monitoring of Optical Coatings Deposition. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta, Fizika), 2020, 75, 578-584.	0.1	3
43	On Phase Correction in Tomographic Research. Journal of Applied and Industrial Mathematics, 2020, 14, 802-810.	0.1	3
44	Numerical simulation of front dynamics in a nonlinear singularly perturbed reactionâ€"diffusion problem. Journal of Computational and Applied Mathematics, 2022, 412, 114294.	1.1	3
45	Online Characterization Algorithms for Optical Coating Production with Broadband Monitoring. Coatings, 2018, 8, 323.	1.2	2
46	Comparison of Algorithms for Determining the Thickness of Optical Coatings Online. Computational Mathematics and Mathematical Physics, 2019, 59, 465-474.	0.2	2
47	SOME METHODS FOR SOLVING OF 3D INVERSE PROBLEM OF MAGNETOMETRY. Eurasian Journal of Mathematical and Computer Applications, 2016, 4, 4-14.	0.2	2
48	Analytical-Numerical Study of Finite-Time Blow-up of the Solution to the Initial-Boundary Value Problem for the Nonlinear Kleinâ€"Gordon Equation. Computational Mathematics and Mathematical Physics, 2020, 60, 1452-1460.	0.2	2
49	Inverse problem of determining the thickness of optical coatings layers from the data of monochromatic control. Moscow University Computational Mathematics and Cybernetics, 2015, 39, 1-5.	0.1	1
50	Reconstruction algorithm of 3D surface in scanning electron microscopy with backscattered electron detector. Journal of Inverse and Ill-Posed Problems, 2021, 29, 753-758.	0.5	1
51	Features of Numerical Reconstruction of a Boundary Condition in an Inverse Problem for a Reactionâ€"Diffusionâ€"Advection Equation with Data on the Position of a Reaction Front. Computational Mathematics and Mathematical Physics, 2022, 62, 441-451.	0.2	1
52	Some Features of the Asymptotic-Numerical Method for the Moving Fronts Description in Two-Dimensional Reaction-Diffusion Problems. Lecture Notes in Computer Science, 2019, , 612-620.	1.0	0
53	Blow-Up of Fronts in Burgers Equation with Nonlinear Amplification: Asymptotics and Numerical Diagnostics. Lecture Notes in Computer Science, 2019, , 72-79.	1.0	0
54	Local solvability and a priori estimates for classical solutions to an equation of Benjaminâ€Bonaâ€Mahonyâ€BÃ¼rgers type. Mathematical Methods in the Applied Sciences, 2020, 43, 9829-9873.	1.2	0

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55	REGULARIZING ALGORITHMS FOR THE DETERMINATION OF THICKNESS OF DEPOSITED LAYERS IN OPTICAL COATING PRODUCTION. Eurasian Journal of Mathematical and Computer Applications, 2018, , 38-47.	0.2	0
56	Diagnostics of Instant Decomposition of Solution in the Nonlinear Equation of Theory of Waves in Semiconductors. Bulletin of the South Ural State University, Series: Mathematical Modelling, Programming and Computer Software, 2019, 12, 104-113.	0.1	0
57	Three-Dimensional Scanning Electron Microscopy of Surface Topography with Consideration of the Effect of the Response Function of the Detector System. Moscow University Physics Bulletin (English) Tj ETQq1 1 0.784314 rgBT /Overl	0.1	0
58	Determination of the Parameters of the First Coating Layer Using Broadband Optical Monitoring of the Deposition Process. Moscow University Physics Bulletin (English Translation of Vestnik) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 617 Td	0.1	0