

Larisa Beilina

List of Publications by Year in descending order

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67
papers

1,092
citations

430874

18
h-index

477307

29
g-index

77
all docs

77
docs citations

77
times ranked

255
citing authors

#	ARTICLE	IF	CITATIONS
1	Approximate Global Convergence and Adaptivity for Coefficient Inverse Problems. , 2012, , .		192
2	A Globally Convergent Numerical Method for a Coefficient Inverse Problem. SIAM Journal of Scientific Computing, 2008, 31, 478-509.	2.8	80
3	Adaptivity with relaxation for ill-posed problems and global convergence for a coefficient inverse problem. Journal of Mathematical Sciences, 2010, 167, 279-325.	0.4	61
4	A POSTERIORI ERROR ESTIMATION IN COMPUTATIONAL INVERSE SCATTERING. Mathematical Models and Methods in Applied Sciences, 2005, 15, 23-35.	3.3	49
5	Blind backscattering experimental data collected in the field and an approximately globally convergent inverse algorithm. Inverse Problems, 2012, 28, 095007.	2.0	46
6	Picosecond scale experimental verification of a globally convergent algorithm for a coefficient inverse problem. Inverse Problems, 2010, 26, 045003.	2.0	40
7	<i>A posteriori</i> error estimates for the adaptivity technique for the Tikhonov functional and global convergence for a coefficient inverse problem. Inverse Problems, 2010, 26, 045012.	2.0	37
8	Reconstruction of the Refractive Index from Experimental Backscattering Data Using a Globally Convergent Inverse Method. SIAM Journal of Scientific Computing, 2014, 36, B273-B293.	2.8	37
9	Imaging of Buried Objects from Experimental Backscattering Time-Dependent Measurements Using a Globally Convergent Inverse Algorithm. SIAM Journal on Imaging Sciences, 2015, 8, 757-786.	2.2	37
10	An Adaptive Hybrid FEM/FDM Method for an Inverse Scattering Problem in Scanning Acoustic Microscopy. SIAM Journal of Scientific Computing, 2006, 28, 382-402.	2.8	36
11	Reconstruction of dielectrics from experimental data via a hybrid globally convergent/adaptive inverse algorithm. Inverse Problems, 2010, 26, 125009.	2.0	36
12	Globally strongly convex cost functional for a coefficient inverse problem. Nonlinear Analysis: Real World Applications, 2015, 22, 272-288.	1.7	36
13	Synthesis of global convergence and adaptivity for a hyperbolic coefficient inverse problem in 3D. Journal of Inverse and Ill-Posed Problems, 2010, 18, .	1.0	31
14	Reconstruction of shapes and refractive indices from backscattering experimental data using the adaptivity. Inverse Problems, 2014, 30, 105007.	2.0	30
15	A new approximate mathematical model for global convergence for a coefficient inverse problem with backscattering data. Journal of Inverse and Ill-Posed Problems, 2012, 20, 513-565.	1.0	28
16	Adaptive finite element method for a coefficient inverse problem for Maxwell's system. Applicable Analysis, 2011, 90, 1461-1479.	1.3	25
17	Energy estimates and numerical verification of the stabilized Domain Decomposition Finite Element/Finite Difference approach for time-dependent Maxwell's system. Open Mathematics, 2013, 11, .	1.0	25
18	Why a minimizer of the Tikhonov functional is closer to the exact solution than the first guess. Journal of Inverse and Ill-Posed Problems, 2011, 19, 83-105.	1.0	22

#	ARTICLE	IF	CITATIONS
19	Globally convergent and adaptive finite element methods in imaging of buried objects from experimental backscattering radar measurements. <i>Journal of Computational and Applied Mathematics</i> , 2015, 289, 371-391.	2.0	20
20	Reconstruction from blind experimental data for an inverse problem for a hyperbolic equation. <i>Inverse Problems</i> , 2014, 30, 025002.	2.0	18
21	Lipschitz stability for an inverse hyperbolic problem of determining two coefficients by a finite number of observations. <i>Inverse Problems</i> , 2018, 34, 015001.	2.0	17
22	<i>a posteriori</i> error estimates in a globally convergent FEM for a hyperbolic coefficient inverse problem. <i>Inverse Problems</i> , 2010, 26, 115007.	2.0	15
23	Domain decomposition finite element/finite difference method for the conductivity reconstruction in a hyperbolic equation. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2016, 37, 222-237.	3.3	15
24	An Adaptive Finite Element Method in Quantitative Reconstruction of Small Inclusions from Limited Observations. <i>Applied Mathematics and Information Sciences</i> , 2018, 12, 1-19.	0.5	13
25	Numerical Linear Algebra: Theory and Applications. , 2017, , .		12
26	Optimization approach for the simultaneous reconstruction of the dielectric permittivity and magnetic permeability functions from limited observations. <i>Inverse Problems and Imaging</i> , 2015, 9, 1-25.	1.1	12
27	An adaptive finite element method in reconstruction of coefficients in Maxwell's equations from limited observations. <i>Applications of Mathematics</i> , 2016, 61, 253-286.	0.9	11
28	The philosophy of the approximate global convergence for multidimensional coefficient inverse problems. <i>Complex Variables and Elliptic Equations</i> , 2012, 57, 277-299.	0.8	8
29	Quantitative Image Recovery From Measured Blind Backscattered Data Using a Globally Convergent Inverse Method. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2013, 51, 2937-2948.	6.3	8
30	An Adaptive Finite Element/Finite Difference Domain Decomposition Method for Applications in Microwave Imaging. <i>Electronics (Switzerland)</i> , 2022, 11, 1359.	3.1	8
31	Nonobtuse Tetrahedral Partitions that Refine Locally Towards Fichera-Like Corners. <i>Applications of Mathematics</i> , 2005, 50, 569-581.	0.9	7
32	Relaxation property for the adaptivity for ill-posed problems. <i>Applicable Analysis</i> , 2014, 93, 223-253.	1.3	7
33	New <i>a posteriori</i> error estimates for adaptivity technique and global convergence for the hyperbolic coefficient inverse problem. <i>Journal of Mathematical Sciences</i> , 2011, 172, 449-476.	0.4	6
34	An adaptive finite element method for Fredholm integral equations of the first kind and its verification on experimental data. <i>Open Mathematics</i> , 2013, 11, .	1.0	6
35	Microwave thermometry with potential application in non-invasive monitoring of hyperthermia. <i>Journal of Inverse and Ill-Posed Problems</i> , 2020, 28, 739-750.	1.0	6
36	Approximate global convergence and quasireversibility for a coefficient inverse problem with backscattering data. <i>Journal of Mathematical Sciences</i> , 2012, 181, 126-163.	0.4	5

#	ARTICLE	IF	CITATIONS
37	Reconstruction of Dielectric Constants of Core and Cladding of Optical Fibers Using Propagation Constants Measurements. Research Letters in Physics, 2014, 2014, 1-9.	0.2	5
38	A Posteriori Error Estimates for Fredholm Integral Equations of the First Kind. Springer Proceedings in Mathematics and Statistics, 2013, , 75-93.	0.2	5
39	Convergence of Explicit P_1 Finite-Element Solutions to Maxwell's Equations. Springer Proceedings in Mathematics and Statistics, 2020, , 91-103.	0.2	3
40	An adaptive finite element method for solving 3D electromagnetic volume integral equation with applications in microwave thermometry. Journal of Computational Physics, 2022, 459, 111122.	3.8	3
41	Adaptive algorithm for an inverse electromagnetic scattering problem. Applicable Analysis, 2009, 88, 15-28.	1.3	2
42	Globally Convergent Numerical Methods for Coefficient Inverse Problems for Imaging Inhomogeneities. Computing in Science and Engineering, 2010, , .	1.2	2
43	Iterative regularization and adaptivity for an electromagnetic coefficient inverse problem. AIP Conference Proceedings, 2017, , .	0.4	2
44	Determining the conductivity for a nonautonomous hyperbolic operator in a cylindrical domain. Mathematical Methods in the Applied Sciences, 2018, 41, 2012-2030.	2.3	2
45	Approximate Global Convergence in Imaging of Land Mines from Backscattered Data. Springer Proceedings in Mathematics and Statistics, 2013, , 15-36.	0.2	2
46	Time-Adaptive FEM for Distributed Parameter Identification in Biological Models. Springer Proceedings in Mathematics and Statistics, 2013, , 37-50.	0.2	2
47	Adaptive optimization algorithm for the computational design of nanophotonic structures. , 2016, , .		1
48	Reconstruction of annular bi-layered media in cylindrical waveguide section. Journal of Mathematics in Industry, 2017, 7, .	1.2	1
49	Application of the finite element method in a quantitative imaging technique. Journal of Computational Methods in Sciences and Engineering, 2017, 16, 755-771.	0.2	1
50	Time-adaptive FEM for distributed parameter identification in mathematical model of HIV infection with drug therapy. Springer Proceedings in Mathematics and Statistics, 2015, , 111-124.	0.2	1
51	Convergence of Stabilized P_1 Finite Element Scheme for Time Harmonic Maxwell's Equations. Springer Proceedings in Mathematics and Statistics, 2020, , 33-43.	0.2	1
52	A POSTERIORI ERROR ESTIMATION IN BIOMEDICAL IMAGING. , 2007, , .		0
53	Recent Advances in Numerical Methods for Inverse Problems Resolution. , 2010, , .		0
54	Global convergence for Inverse Problems. , 2010, , .		0

#	ARTICLE	IF	CITATIONS
55	Adaptive Finite Element Method for an Electromagnetic Coefficient Inverse Problem. , 2010, , .		0
56	Hybrid Discontinuous Finite Elementâ•Finite Difference Method for Maxwellâ€™s Equations. , 2010, , .		0
57	Adaptive finite element method for the solution of electromagnetic inverse problem using limited observations. , 2016, , .		0
58	Finite element schemes for Fermi equation. AIP Conference Proceedings, 2017, , .	0.4	0
59	Adaptive finite element method in nanophotonic simulations. AIP Conference Proceedings, 2017, , .	0.4	0
60	Preface for the session â€œRecent Progress in Electromagnetic Field Theory and New Trends in Inverse Problemsâ€• AIP Conference Proceedings, 2017, , .	0.4	0
61	Quantitative imaging technique using the layer-stripping algorithm. AIP Conference Proceedings, 2017, , .	0.4	0
62	Time-Adaptive Determination of Drug Efficacy in Mathematical Model of HIV Infection. Differential Equations and Dynamical Systems, 2024, 32, 313-347.	1.0	0
63	Approximate Globally Convergent Algorithm with Applications in Electrical Prospecting. Springer Proceedings in Mathematics and Statistics, 2013, , 29-40.	0.2	0
64	Adaptive Approximate Globally Convergent Algorithm with Backscattered Data. Springer Proceedings in Mathematics and Statistics, 2013, , 1-20.	0.2	0
65	Methods of Quantitative Reconstruction of Shapes and Refractive Indices from Experimental data. Springer Proceedings in Mathematics and Statistics, 2015, , 13-41.	0.2	0
66	Uniqueness, Stability and Numerical Reconstruction of a Time and Space-Dependent Conductivity for an Inverse Hyperbolic Problem. Springer Proceedings in Mathematics and Statistics, 2018, , 133-145.	0.2	0
67	Numerical Studies of the Lagrangian Approach for Reconstruction of the Conductivity in a Waveguide. Springer Proceedings in Mathematics and Statistics, 2018, , 93-117.	0.2	0