Maria Vasilyeva

List of Publications by Year
in descending order

92 papers	**1,180** citations	304743 **22** h-index	434195 **31** g-index
96 all docs	**96** docs citations	**96** times ranked	**405** citing authors

#	Article	IF	Citations
1	Generalized Multiscale Finite Element Method for piezoelectric problem in heterogeneous media. Engineering Analysis With Boundary Elements, 2022, 135, 12-25.	3.7	7
2	Generalized multiscale discontinuous Galerkin method for convection–diffusion equation in perforated media. Mathematics and Computers in Simulation, 2022, 193, 666-688.	4.4	2
3	Generalized Multiscale Finite Element Method for thermoporoelasticity problems in heterogeneous and fractured media. Journal of Computational and Applied Mathematics, 2022, 407, 113995.	2.0	5
4	Generalized macroscale model for Cosserat elasticity using Generalized Multiscale Finite Element Method. Journal of Computational Physics, 2022, 461, 111011.	3.8	4
5	Mixed Generalized Multiscale Finite Element Method for flow problem in thin domains. Journal of Computational and Applied Mathematics, 2022, 416, 114577.	2.0	2
6	Multiscale model reduction for the Allen–Cahn problem in perforated domains. Journal of Computational and Applied Mathematics, 2021, 381, 113010.	2.0	7
7	Finite Element Simulation of Thermo-Mechanical Model with Phase Change. Computation, 2021, 9, 5.	2.0	8
8	Machine learning for accelerating macroscopic parameters prediction for poroelasticity problem in stochastic media. Computers and Mathematics With Applications, 2021, 84, 185-202.	2.7	15
9	Nonlocal multicontinua with representative volume elements. Bridging separable and non-separable scales. Computer Methods in Applied Mechanics and Engineering, 2021, 377, 113687.	6.6	5
10	An Online Generalized Multiscale Finite Element Method for Unsaturated Filtration Problem in Fractured Media. Mathematics, 2021, 9, 1382.	2.2	8
11	DG-GMsFEM for Problems in Perforated Domains with Non-Homogeneous Boundary Conditions. Computation, 2021, 9, 75.	2.0	2
12	Preconditioning Markov Chain Monte Carlo Method for Geomechanical Subsidence using multiscale method and machine learning technique. Journal of Computational and Applied Mathematics, 2021, 392, 113420.	2.0	17
13	Numerical Solution of the Two-Phase Stefan Problem in the Enthalpy Formulation with Smoothing the Coefficients. Herald of the Bauman Moscow State Technical University, Series Natural Sciences, 2021, , 4-23.	0.5	3
14	Online Coupled Generalized Multiscale Finite Element Method for the Poroelasticity Problem in Fractured and Heterogeneous Media. Fluids, 2021, 6, 298.	1.7	4
15	Multiscale dimension reduction for flow and transport problems in thin domain with reactive boundaries. Journal of Computational Physics, 2021, 442, 110512.	3.8	6
16	Generalized multiscale multicontinuum model for fractured vuggy carbonate reservoirs. Journal of Computational and Applied Mathematics, 2020, 366, 112370.	2.0	18
17	Generalized Multiscale Finite Element method for multicontinua unsaturated flow problems in fractured porous media. Journal of Computational and Applied Mathematics, 2020, 370, 112594.	2.0	18
18	Multiscale Finite Element Method for heat transfer problem during artificial ground freezing. Journal of Computational and Applied Mathematics, 2020, 371, 112605.	2.0	24

#	Article	IF	Citations
19	Generalized Multiscale Finite Element Method for Elastic Wave Propagation in the Frequency Domain. Computation, 2020, 8, 63.	2.0	4
20	An Accurate Approximation of the Two-Phase Stefan Problem with Coefficient Smoothing. Mathematics, 2020, 8, 1924.	2.2	11
21	Mixed Generalized Multiscale Finite Element Method for a Simplified Magnetohydrodynamics Problem in Perforated Domains. Computation, 2020, 8, 58.	2.0	2
22	Multiscale Model Reduction of the Unsaturated Flow Problem in Heterogeneous Porous Media with Rough Surface Topography. Mathematics, 2020, 8, 904.	2.2	9
23	Generalized Multiscale Finite Element Method for the poroelasticity problem in multicontinuum media. Journal of Computational and Applied Mathematics, 2020, 374, 112783.	2.0	18
24	Learning macroscopic parameters in nonlinear multiscale simulations using nonlocal multicontinua upscaling techniques. Journal of Computational Physics, 2020, 412, 109323.	3.8	25
25	Constraint energy minimizing generalized multiscale finite element method for dual continuum model. Communications in Mathematical Sciences, 2020, 18, 663-685.	1.0	10
26	Multiscale model reduction of fluid flow based on the dual porosity model. Journal of Physics: Conference Series, 2019, 1158, 042025.	0.4	1
27	Upscaling of the single-phase flow and heat transport in fractured geothermal reservoirs using nonlocal multicontinuum method. Computational Geosciences, 2019, 23, 745-759.	2.4	12
28	Nonlocal multicontinuum (NLMC) upscaling of mixed dimensional coupled flow problem for embedded and discrete fracture models. GEM - International Journal on Geomathematics, 2019, 10, 1.	1.6	8
29	Multiscale model reduction of the wave propagation problem in viscoelastic fractured media. Geophysical Journal International, 2019, 217, 558-571.	2.4	10
30	Generalized Multiscale Finite Element Method for Elasticity Problem in Fractured Media. Lecture Notes in Computer Science, 2019, , 137-144.	1.3	0
31	Upscaling method for problems in perforated domains with non-homogeneous boundary conditions on perforations using Non-Local Multi-Continuum method (NLMC). Journal of Computational and Applied Mathematics, 2019, 357, 215-227.	2.0	13
32	Generalized Multiscale Finite Element Method for Poroelasticity Problems in Heterogeneous Media. Lecture Notes in Computer Science, 2019, , 566-573.	1.3	1
33	A Generalized Multiscale Finite Element Method (GMsFEM) for perforated domain flows with Robin boundary conditions. Journal of Computational and Applied Mathematics, 2019, 357, 319-328.	2.0	18
34	Numerical homogenization for poroelasticity problem in heterogeneous media. Journal of Physics: Conference Series, 2019, 1158, 042030.	0.4	1
35	Convolutional neural network for fast prediction of the effective properties of domains with random inclusions. Journal of Physics: Conference Series, 2019, 1158, 042034.	0.4	3
36	Nonlinear Upscaling of Two-Phase Flow Using Non-Local Multi-Continuum Approach. , 2019, , .		1

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37	Generalized Multiscale Discontinuous Galerkin Method for Helmholtz Problem in Fractured Media. Lecture Notes in Computer Science, 2019, , 250-257.	1.3	0
38	Generalized Multiscale Finite Element Method for Unsaturated Filtration Problem in Heterogeneous Medium. Lecture Notes in Computer Science, 2019, , 517-524.	1.3	0
39	Nonlocal multicontinua upscaling for multicontinua flow problems in fractured porous media. Journal of Computational and Applied Mathematics, 2019, 355, 258-267.	2.0	31
40	Embedded fracture model in numerical simulation of the fluid flow and geo-mechanics using Generalized Multiscale Finite Element Method. Journal of Physics: Conference Series, 2019, 1392, 012075.	0.4	2
41	Multiscale simulation of the heat and mass transfer with Brinkman model. Journal of Physics: Conference Series, 2019, 1392, 012063.	0.4	3
42	Mixed Generalized Multiscale Finite Element Method for Darcy-Forchheimer Model. Mathematics, 2019, 7, 1212.	2.2	6
43	Multiscale modeling of heat and mass transfer in fractured media for enhanced geothermal systems applications. Applied Mathematical Modelling, 2019, 67, 159-178.	4.2	43
44	Constrained energy minimization based upscaling for coupled flow and mechanics. Journal of Computational Physics, 2019, 376, 660-674.	3.8	39
45	SPACE-TIME NONLINEAR UPSCALING FRAMEWORK USING NONLOCAL MULTICONTINUUM APPROACH. International Journal for Multiscale Computational Engineering, 2019, 17, 529-550.	1.2	3
46	Generalized Multiscale Inversion for Heterogeneous Problems. Communications in Computational Physics, 2019, 25, .	1.7	1
47	Numerical Simulation of Natural Convection in a Freezing Soil. Uchenye Zapiski Kazanskogo Universiteta Seriya Fiziko-Matematicheskie Nauki, 2019, 161, 327-340.	0.0	0
48	GMsFEM on unstructured grids for single-phase flow in fractured porous media. Journal of Physics: Conference Series, 2019, 1392, 012071.	0.4	2
49	Multiscale Finite Element Method for scattering problem in heterogeneous domain. Journal of Physics: Conference Series, 2019, 1392, 012067.	0.4	1
50	Multiscale model reduction for fluid infiltration simulation through dual-continuum porous media with localized uncertainties. Journal of Computational and Applied Mathematics, 2018, 336, 127-146.	2.0	12
51	Multiscale model reduction for shale gas transport in poroelastic fractured media. Journal of Computational Physics, 2018, 353, 356-376.	3.8	51
52	Generalized multiscale finite elements for simulation of elastic-wave propagation in fractured media. Geophysics, 2018, 83, WA9-WA20.	2.6	29
53	Multiscale model reduction for transport and flow problems in perforated domains. Journal of Computational and Applied Mathematics, 2018, 330, 519-535.	2.0	25
54	Generalized multiscale discontinuous Galerkin method for solving the heat problem with phase change. Journal of Computational and Applied Mathematics, 2018, 340, 645-652.	2.0	17

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55	Multiscale model reduction of the flow problem in fractured porous media using mixed generalized multiscale finite element method. AIP Conference Proceedings, 2018, , .	0.4	2
56	Numerical Solution of a Fluid Filtration Problem in a Fractured Medium by Using the Domain Decomposition Method. Journal of Applied and Industrial Mathematics, 2018, 12, 785-796.	0.4	7
57	Numerical simulation of the transport and flow problems in perforated domains using generalized multiscale finite element method. AIP Conference Proceedings, 2018, , .	0.4	1
58	Numerical homogenization for wave propagation in fractured media. AIP Conference Proceedings, 2018, , .	0.4	1
59	Mathematical modeling of the fluid flow and geo-mechanics in the fractured porous media using generalized multiscale finite element method. AIP Conference Proceedings, 2018, , .	0.4	1
60	Multiscale model reduction for pore-scale simulation of Li-ion batteries using GMsFEM. Journal of Computational and Applied Mathematics, 2018, 344, 73-88.	2.0	10
61	Non-local multi-continua upscaling for flows in heterogeneous fractured media. Journal of Computational Physics, 2018, 372, 22-34.	3.8	72
62	A Generalized Multiscale Finite Element Method for Thermoelasticity Problems. Lecture Notes in Computer Science, 2017, , 713-720.	1.3	4
63	Numerical simulation of the temperature dynamics of railway foundation material in permafrost. Mathematical Models and Computer Simulations, 2017, 9, 292-304.	0.5	5
64	Coupling of multiscale and multi-continuum approaches. GEM - International Journal on Geomathematics, 2017, 8, 9-41.	1.6	39
65	Multiscale model reduction for shale gas transport in a coupled discrete fracture and dual-continuum porous media. Journal of Natural Gas Science and Engineering, 2017, 48, 65-76.	4.4	67
66	A conservative local multiscale model reduction technique for Stokes flows in heterogeneous perforated domains. Journal of Computational and Applied Mathematics, 2017, 321, 389-405.	2.0	23
67	On Two-Scale Convergence of Fluid-Structure Interaction Problems with Applications to Poroelasticity. , 2017, , .		0
68	Numerical simulation of the two-phase fluid filtration in heterogeneous media. Journal of Applied and Industrial Mathematics, 2017, 11, 289-295.	0.4	1
69	Online adaptive local multiscale model reduction for heterogeneous problems in perforated domains. Applicable Analysis, 2017, 96, 2002-2031.	1.3	35
70	The numerical solution of the boundary inverse problem for a parabolic equation. AIP Conference Proceedings, 2016, , .	0.4	3
71	Simulation of elastic wave propagation in fractured media with multiscale finite elements. , 2016, , .		1
72	Multiscale model reduction for shale gas transport in fractured media. Computational Geosciences, 2016, 20, 953-973.	2.4	38

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73	Numerical solution of an inverse filtration problem. Lobachevskii Journal of Mathematics, 2016, 37, 777-786.	0.9	3
74	Numerical simulation of the convective heat transfer on high-performance computing systems. AIP Conference Proceedings, 2016, , .	0.4	3
75	Generalized multiscale finite element method for non-Newtonian fluid flow in perforated domain. AIP Conference Proceedings, 2016, , .	0.4	1
76	A generalized multiscale finite element method for poroelasticity problems II: Nonlinear coupling. Journal of Computational and Applied Mathematics, 2016, 297, 132-146.	2.0	24
77	Mixed GMsFEM for second order elliptic problem in perforated domains. Journal of Computational and Applied Mathematics, 2016, 304, 84-99.	2.0	27
78	On numerical homogenization of shale gas transport. Journal of Computational and Applied Mathematics, 2016, 301, 44-52.	2.0	23
79	Generalized multiscale finite element methods for problems in perforated heterogeneous domains. Applicable Analysis, 2016, 95, 2254-2279.	1.3	36
80	A generalized multiscale finite element method for elastic wave propagation in fractured media. GEM - International Journal on Geomathematics, 2016, 7, 163-182.	1.6	28
81	A Generalized Multiscale Finite Element Method for poroelasticity problems I: Linear problems. Journal of Computational and Applied Mathematics, 2016, 294, 372-388.	2.0	36
82	REITERATED MULTISCALE MODEL REDUCTION USING THE GENERALIZED MULTISCALE FINITE ELEMENT METHOD. International Journal for Multiscale Computational Engineering, 2016, 14, 535-554.	1.2	7
83	Computational identification of the right-hand side of a parabolic equation. Computational Mathematics and Mathematical Physics, 2015, 55, 1015-1021.	0.8	25
84	Splitting Scheme for Poroelasticity and Thermoelasticity Problems. Lecture Notes in Computer Science, 2015, , 241-248.	1.3	3
85	Computational Algorithm for Identification of the Right-Hand Side of the Parabolic Equation. Lecture Notes in Computer Science, 2015, , 385-392.	1.3	8
86	Numerical Simulation of Thermoelasticity Problems on High Performance Computing Systems. Lecture Notes in Computer Science, 2015, , 364-370.	1.3	5
87	Numerical simulation of thermal stabilization of filter soils. Mathematical Models and Computer Simulations, 2015, 7, 154-164.	0.5	8
88	Splitting schemes for poroelasticity and thermoelasticity problems. Computers and Mathematics With Applications, 2014, 67, 2185-2198.	2.7	33
89	Splitting scheme for poroelasticity and thermoelasticity problems. Computational Mathematics and Mathematical Physics, 2014, 54, 1305-1315.	0.8	11
90	Mathematical modeling of heat transfer problems in the permafrost. AIP Conference Proceedings, 2014, , .	0.4	11

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91	Mathematical Modeling of Thermal Stabilization of Vertical Wells on High Performance Computing Systems. Lecture Notes in Computer Science, 2014, , 636-643.	1.3	7
92	ITERATIVE SOLUTION OF THE PRESSURE PROBLEM FOR THE MULTIPHASE FILTRATION. Mathematical Modelling and Analysis, 2012, 17, 532-548.	1.5	3