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	Non-local multi-continua upscaling for flows in heterogeneous fractured media. Journal of Computational Physics, 2018, 372, 22-34.	3.8	72
2	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
3	Multiscale model reduction for shale gas transport in poroelastic fractured media. Journal of Computational Physics, 2018, 353, 356-376.	3.8	51
4	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
5	Coupling of multiscale and multi-continuum approaches. GEM - International Journal on Geomathematics, 2017, 8, 9-41.	1.6	39
6	Constrained energy minimization based upscaling for coupled flow and mechanics. Journal of Computational Physics, 2019, 376, 660-674.	3.8	39
7	Multiscale model reduction for shale gas transport in fractured media. Computational Geosciences, 2016, 20, 953-973.	2.4	38
8	Generalized multiscale finite element methods for problems in perforated heterogeneous domains. Applicable Analysis, 2016, 95, 2254-2279.	1.3	36
9	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
10	Online adaptive local multiscale model reduction for heterogeneous problems in perforated domains. Applicable Analysis, 2017, 96, 2002-2031.	1.3	35
11	Splitting schemes for poroelasticity and thermoelasticity problems. Computers and Mathematics With Applications, 2014, 67, 2185-2198.	2.7	33
12	Nonlocal multicontinua upscaling for multicontinua flow problems in fractured porous media. Journal of Computational and Applied Mathematics, 2019, 355, 258-267.	2.0	31
13	Generalized multiscale finite elements for simulation of elastic-wave propagation in fractured media. Geophysics, 2018, 83, WA9-WA20.	2.6	29
14	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
15	Mixed GMsFEM for second order elliptic problem in perforated domains. Journal of Computational and Applied Mathematics, 2016, 304, 84-99.	2.0	27
16	Computational identification of the right-hand side of a parabolic equation. Computational Mathematics and Mathematical Physics, 2015, 55, 1015-1021.	0.8	25
17	Multiscale model reduction for transport and flow problems in perforated domains. Journal of Computational and Applied Mathematics, 2018, 330, 519-535.	2.0	25
18	Learning macroscopic parameters in nonlinear multiscale simulations using nonlocal multicontinua upscaling techniques. Journal of Computational Physics, 2020, 412, 109323.	3.8	25

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19	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
20	Multiscale Finite Element Method for heat transfer problem during artificial ground freezing. Journal of Computational and Applied Mathematics, 2020, 371, 112605.	2.0	24
21	On numerical homogenization of shale gas transport. Journal of Computational and Applied Mathematics, 2016, 301, 44-52.	2.0	23
22	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
23	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
24	Generalized multiscale multicontinuum model for fractured vuggy carbonate reservoirs. Journal of Computational and Applied Mathematics, 2020, 366, 112370.	2.0	18
25	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
26	Generalized Multiscale Finite Element Method for the poroelasticity problem in multicontinuum media. Journal of Computational and Applied Mathematics, 2020, 374, 112783.	2.0	18
27	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
28	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
29	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
30	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
31	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
32	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
33	Splitting scheme for poroelasticity and thermoelasticity problems. Computational Mathematics and Mathematical Physics, 2014, 54, 1305-1315.	0.8	11
34	Mathematical modeling of heat transfer problems in the permafrost. AIP Conference Proceedings, 2014, , .	0.4	11
35	An Accurate Approximation of the Two-Phase Stefan Problem with Coefficient Smoothing. Mathematics, 2020, 8, 1924.	2.2	11
36	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

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37	Multiscale model reduction of the wave propagation problem in viscoelastic fractured media. Geophysical Journal International, 2019, 217, 558-571.	2.4	10
38	Constraint energy minimizing generalized multiscale finite element method for dual continuum model. Communications in Mathematical Sciences, 2020, 18, 663-685.	1.0	10
39	Multiscale Model Reduction of the Unsaturated Flow Problem in Heterogeneous Porous Media with Rough Surface Topography. Mathematics, 2020, 8, 904.	2.2	9
40	Computational Algorithm for Identification of the Right-Hand Side of the Parabolic Equation. Lecture Notes in Computer Science, 2015, , 385-392.	1.3	8
41	Numerical simulation of thermal stabilization of filter soils. Mathematical Models and Computer Simulations, 2015, 7, 154-164.	0.5	8
42	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
43	Finite Element Simulation of Thermo-Mechanical Model with Phase Change. Computation, 2021, 9, 5.	2.0	8
44	An Online Generalized Multiscale Finite Element Method for Unsaturated Filtration Problem in Fractured Media. Mathematics, 2021, 9, 1382.	2.2	8
45	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
46	Multiscale model reduction for the Allen–Cahn problem in perforated domains. Journal of Computational and Applied Mathematics, 2021, 381, 113010.	2.0	7
47	Mathematical Modeling of Thermal Stabilization of Vertical Wells on High Performance Computing Systems. Lecture Notes in Computer Science, 2014, , 636-643.	1.3	7
48	REITERATED MULTISCALE MODEL REDUCTION USING THE GENERALIZED MULTISCALE FINITE ELEMENT METHOD. International Journal for Multiscale Computational Engineering, 2016, 14, 535-554.	1.2	7
49	Generalized Multiscale Finite Element Method for piezoelectric problem in heterogeneous media. Engineering Analysis With Boundary Elements, 2022, 135, 12-25.	3.7	7
50	Mixed Generalized Multiscale Finite Element Method for Darcy-Forchheimer Model. Mathematics, 2019, 7, 1212.	2.2	6
51	Multiscale dimension reduction for flow and transport problems in thin domain with reactive boundaries. Journal of Computational Physics, 2021, 442, 110512.	3.8	6
52	Numerical Simulation of Thermoelasticity Problems on High Performance Computing Systems. Lecture Notes in Computer Science, 2015, , 364-370.	1.3	5
53	Numerical simulation of the temperature dynamics of railway foundation material in permafrost. Mathematical Models and Computer Simulations, 2017, 9, 292-304.	0.5	5
54	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

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55	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
56	A Generalized Multiscale Finite Element Method for Thermoelasticity Problems. Lecture Notes in Computer Science, 2017, , 713-720.	1.3	4
57	Generalized Multiscale Finite Element Method for Elastic Wave Propagation in the Frequency Domain. Computation, 2020, 8, 63.	2.0	4
58	Online Coupled Generalized Multiscale Finite Element Method for the Poroelasticity Problem in Fractured and Heterogeneous Media. Fluids, 2021, 6, 298.	1.7	4
59	Generalized macroscale model for Cosserat elasticity using Generalized Multiscale Finite Element Method. Journal of Computational Physics, 2022, 461, 111011.	3.8	4
60	ITERATIVE SOLUTION OF THE PRESSURE PROBLEM FOR THE MULTIPHASE FILTRATION. Mathematical Modelling and Analysis, 2012, 17, 532-548.	1.5	3
61	Splitting Scheme for Poroelasticity and Thermoelasticity Problems. Lecture Notes in Computer Science, 2015, , 241-248.	1.3	3
62	The numerical solution of the boundary inverse problem for a parabolic equation. AIP Conference Proceedings, 2016, , .	0.4	3
63	Numerical solution of an inverse filtration problem. Lobachevskii Journal of Mathematics, 2016, 37, 777-786.	0.9	3
64	Numerical simulation of the convective heat transfer on high-performance computing systems. AIP Conference Proceedings, 2016, , .	0.4	3
65	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
66	Multiscale simulation of the heat and mass transfer with Brinkman model. Journal of Physics: Conference Series, 2019, 1392, 012063.	0.4	3
67	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
68	SPACE-TIME NONLINEAR UPSCALING FRAMEWORK USING NONLOCAL MULTICONTINUUM APPROACH. International Journal for Multiscale Computational Engineering, 2019, 17, 529-550.	1.2	3
69	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
70	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
71	Mixed Generalized Multiscale Finite Element Method for a Simplified Magnetohydrodynamics Problem in Perforated Domains. Computation, 2020, 8, 58.	2.0	2
72	DG-GMsFEM for Problems in Perforated Domains with Non-Homogeneous Boundary Conditions. Computation, 2021, 9, 75.	2.0	2

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73	GMsFEM on unstructured grids for single-phase flow in fractured porous media. Journal of Physics: Conference Series, 2019, 1392, 012071.	0.4	2
74	Generalized multiscale discontinuous Galerkin method for convection–diffusion equation in perforated media. Mathematics and Computers in Simulation, 2022, 193, 666-688.	4.4	2
75	Mixed Generalized Multiscale Finite Element Method for flow problem in thin domains. Journal of Computational and Applied Mathematics, 2022, 416, 114577.	2.0	2
76	Simulation of elastic wave propagation in fractured media with multiscale finite elements. , 2016, , .		1
77	Generalized multiscale finite element method for non-Newtonian fluid flow in perforated domain. AIP Conference Proceedings, 2016, , .	0.4	1
78	Numerical simulation of the two-phase fluid filtration in heterogeneous media. Journal of Applied and Industrial Mathematics, 2017, 11, 289-295.	0.4	1
79	Numerical simulation of the transport and flow problems in perforated domains using generalized multiscale finite element method. AIP Conference Proceedings, 2018, , .	0.4	1
80	Numerical homogenization for wave propagation in fractured media. AIP Conference Proceedings, 2018, , .	0.4	1
81	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
82	Multiscale model reduction of fluid flow based on the dual porosity model. Journal of Physics: Conference Series, 2019, 1158, 042025.	0.4	1
83	Generalized Multiscale Finite Element Method for Poroelasticity Problems in Heterogeneous Media. Lecture Notes in Computer Science, 2019, , 566-573.	1.3	1
84	Numerical homogenization for poroelasticity problem in heterogeneous media. Journal of Physics: Conference Series, 2019, 1158, 042030.	0.4	1
85	Nonlinear Upscaling of Two-Phase Flow Using Non-Local Multi-Continuum Approach. , 2019, , .		1
86	Generalized Multiscale Inversion for Heterogeneous Problems. Communications in Computational Physics, 2019, 25, .	1.7	1
87	Multiscale Finite Element Method for scattering problem in heterogeneous domain. Journal of Physics: Conference Series, 2019, 1392, 012067.	0.4	1
88	On Two-Scale Convergence of Fluid-Structure Interaction Problems with Applications to Poroelasticity. , 2017, , .		0
89	Generalized Multiscale Finite Element Method for Elasticity Problem in Fractured Media. Lecture Notes in Computer Science, 2019, , 137-144.	1.3	0
90	Generalized Multiscale Discontinuous Galerkin Method for Helmholtz Problem in Fractured Media. Lecture Notes in Computer Science, 2019, , 250-257.	1.3	0

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91	Generalized Multiscale Finite Element Method for Unsaturated Filtration Problem in Heterogeneous Medium. Lecture Notes in Computer Science, 2019, , 517-524.	1.3	0
92	Numerical Simulation of Natural Convection in a Freezing Soil. Uchenye Zapiski Kazanskogo Universiteta Seriya Fiziko-Matematicheskie Nauki, 2019, 161, 327-340.	0.0	0