Alena V Favorskaya

List of Publications by Year
in descending order

60 papers	523 citations	623574 14 h-index	794469 19 g-index
64 all docs	64 docs citations	64 times ranked	48 citing authors

#	Article	IF	Citations
1	Modelling the wave phenomena in acoustic and elastic media with sharp variations of physical properties using the grid€characteristic method. Geophysical Prospecting, 2018, 66, 1485-1502.	1.0	54
2	Wave responses from oil reservoirs in the Arctic shelf zone. Doklady Earth Sciences, 2016, 466, 214-217.	0.2	29
3	Grid-characteristic method on embedded hierarchical grids and its application in the study of seismic waves. Computational Mathematics and Mathematical Physics, 2017, 57, 1771-1777.	0.2	21
4	Numerical modeling of dynamic wave effects in rock masses. Doklady Mathematics, 2017, 95, 287-290.	0.1	18
5	Application of the Grid-Characteristic Method to the Seismic Isolation Model. Smart Innovation, Systems and Technologies, 2019, , 167-181.	0.5	18
6	Numerical Modeling of Wave Processes During Shelf Seismic Exploration. Procedia Computer Science, 2016, 96, 920-929.	1.2	17
7	Modeling the impact of wheelsets with flat spots on a railway track. Procedia Computer Science, 2018, 126, 1100-1109.	1.2	17
8	Numerical simulation of wave propagation in anisotropic media. Doklady Mathematics, 2014, 90, 778-780.	0.1	16
9	A study of high-order grid-characteristic methods on unstructured grids. Numerical Analysis and Applications, 2016, 9, 171-178.	0.2	16
10	Numerical simulation of destruction processes by the grid-characteristic method. Procedia Computer Science, 2018, 126, 1281-1288.	1.2	16
11	Investigation of Seismic Stability of High-Rising Buildings Using Grid-Characteristic Method. Procedia Computer Science, 2019, 154, 305-310.	1.2	16
12	Grid-Characteristic Method on Joint Structured Regular and Curved Grids for Modeling Coupled Elastic and Acoustic Wave Phenomena in Objects of Complex Shape. Lobachevskii Journal of Mathematics, 2020, 41, 512-525.	0.1	16
13	Grid-characteristic method using Chimera meshes for simulation of elastic waves scattering on geological fractured zones. Journal of Computational Physics, 2021, 446, 110637.	1.9	16
14	Grid-characteristic method on unstructured tetrahedral meshes. Computational Mathematics and Mathematical Physics, 2014, 54, 837-847.	0.2	15
15	Numerical Modeling of Non-destructive Testing of Composites. Procedia Computer Science, 2016, 96, 930-938.	1.2	14
16	Numerical simulation of earthquakes impact on facilities by grid-characteristic method. Procedia Computer Science, 2017, 112, 1206-1215.	1.2	13
17	Modeling of Ultrasonic Waves in Fractured Rails with an Explicit Approach. Doklady Mathematics, 2018, 98, 401-404.	0.1	13
18	Explanation the difference in destructed areas simulated using various failure criteria by the wave dynamics analysis. Procedia Computer Science, 2018, 126, 1091-1099.	1.2	13

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19	A novel method for investigation of acoustic and elastic wave phenomena using numerical experiments. Theoretical and Applied Mechanics Letters, 2020, 10, 307-314.	1.3	12
20	Numerical simulation of fracturing in geological medium. Procedia Computer Science, 2017, 112, 1216-1224.	1.2	11
21	Boundary Conditions for Modeling the Impact of Wheels on Railway Track. Computational Mathematics and Mathematical Physics, 2020, 60, 1539-1554.	0.2	11
22	Grid-Characteristic Method. Smart Innovation, Systems and Technologies, 2018, , 117-160.	0.5	11
23	Grid-characteristic method on unstructured tetrahedral grids. Doklady Mathematics, 2014, 90, 781-783.	0.1	10
24	Combined grid-characteristic method for the numerical solution of three-dimensional dynamical elastoplastic problems. Computational Mathematics and Mathematical Physics, 2014, 54, 1176-1189.	0.2	8
25	Application of the grid-characteristic method on unstructured tetrahedral meshes to the solution of direct problems in seismic exploration of fractured layers. Computational Mathematics and Mathematical Physics, 2015, 55, 1733-1742.	0.2	8
26	The use of multiple waves to obtain information on an underlying geological structure. Procedia Computer Science, 2018, 126, 1110-1119.	1.2	8
27	Study of Seismic Isolation by Full-Wave Numerical Modeling. Doklady Earth Sciences, 2018, 481, 1070-1072.	0.2	8
28	Two approaches to the calculation of air subdomains: theoretical estimation and practical results. Procedia Computer Science, 2018, 126, 1082-1090.	1.2	7
29	Types of elastic and acoustic wave phenomena scattered on gas- and fluid-filled fractures. Procedia Computer Science, 2020, 176, 2556-2565.	1.2	7
30	Study the Elastic Waves Propagation in Multistory Buildings, Taking into Account Dynamic Destruction. Smart Innovation, Systems and Technologies, 2020, , 189-199.	0.5	7
31	CALCULATION OF SEISMIC RESISTANCE OF VARIOUS STRUCTURES USING THE GRID-CHARACTERISTIC METHOD. Radioelektronika, Nanosistemy, Informacionnye Tehnologii, 2019, 11, 345-350.	0.2	7
32	Combination of Grid-Characteristic Method on Regular Computational Meshes with Discontinuous Galerkin Method for Simulation of Elastic Wave Propagation. Lobachevskii Journal of Mathematics, 2021, 42, 1652-1660.	0.1	6
33	Accounting for curved boundaries in rocks by using curvilinear and Chimera grids. Procedia Computer Science, 2021, 192, 3787-3794.	1.2	6
34	A novel method for wave phenomena investigation. Procedia Computer Science, 2019, 159, 1208-1215.	1.2	5
35	Elastic Wave Scattering on a Gas-Filled Fracture Perpendicular to Plane P-Wave Front. Smart Innovation, Systems and Technologies, 2020, , 213-224.	0.5	5
36	Numerical modeling of ultrasound beam forming in elastic medium. Procedia Computer Science, 2017, 112, 1488-1496.	1.2	4

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37	The influence of the ice field on the seismic exploration in the Arctic region. Procedia Computer Science, 2019, 159, 870-877.	1.2	4
38	Wave Processes Modelling in Geophysics. Smart Innovation, Systems and Technologies, 2018, , 187-218.	0.5	4
39	Calculation of the destruction of ice structures by the grid-characteristic method on structured grids. Procedia Computer Science, 2021, 192, 3768-3776.	1.2	4
40	Combined method for the numerical solution of dynamic three-dimensional elastoplastic problems. Doklady Mathematics, 2015, 91, 111-113.	0.1	3
41	Development and Applications of Computational Methods. Smart Innovation, Systems and Technologies, 2019, , 3-7.	0.5	3
42	Elastic and acoustic approximations for solving direct problems of human head ultrasonic study. Procedia Computer Science, 2020, 176, 2566-2575.	1.2	3
43	Migration of Elastic Fields Based on Kirchhoff and Rayleigh Integrals. Smart Innovation, Systems and Technologies, 2018, , 241-265.	0.5	3
44	Numerical solution of seismic exploration problems in the Arctic region by applying the grid-characteristic method. Computational Mathematics and Mathematical Physics, 2016, 56, 1128-1141.	0.2	2
45	Numerical modeling of influence of ice formations under seismic impacts based on grid-characteristic method. Procedia Computer Science, 2017, 112, 1497-1505.	1.2	2
46	Numerical simulation of cone object destruction under a short high-energy pulse. Procedia Computer Science, 2019, 159, 1095-1102.	1.2	2
47	CALCULATION OF THE STRESS STATE OF A RAILWAY TRACK WITH UNSUPPORTED SLEEPERS USING THE GRID-CHARACTERISTIC METHOD. Journal of Applied Mechanics and Technical Physics, 2021, 62, 344-350.	0.1	2
48	Computation the Bridges Earthquake Resistance by the Grid-Characteristic Method. Smart Innovation, Systems and Technologies, 2020, , 179-187.	0.5	2
49	Theory and Practice of Wave Processes Modelling. Smart Innovation, Systems and Technologies, 2018, , 1-6.	0.5	1
50	Fall of shock wave from a supersonic aircraft into the geological media. Procedia Computer Science, 2020, 176, 2546-2555.	1.2	1
51	Computation of Seismic Resistance of an Ice Island by the Grid-Characteristic Method on Combined Grids. Computational Mathematics and Mathematical Physics, 2021, 61, 1339-1352.	0.2	1
52	Icebergs Explosions for Prevention of Offshore Collision: Computer Simulation and Analysis. Smart Innovation, Systems and Technologies, 2020, , 201-210.	0.5	1
53	Ultrasonic Waves Modeling in Fractured Rails with Explicit Approach. Proceedings of the Academy of Sciences, 2018, 481, 20-23.	0.1	1
54	Interpolation on Unstructured Triangular Grids. Smart Innovation, Systems and Technologies, 2018, , 7-44.	0.5	0

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55	The Comparison of Two Approaches to Modeling the Seismic Waves Spread in the Heterogeneous 2D Medium with Gas Cavities. Smart Innovation, Systems and Technologies, 2021, , 101-114.	0.5	0
56	Numerical Simulation of Seismic Wave Propagation in Coastal Zones. Doklady Earth Sciences, 2021, 497, 252-254.	0.2	0
57	Recent Advances in Numerical Methods, Machine Learning, and Computer Science. Smart Innovation, Systems and Technologies, 2021, , 1-5.	0.5	0
58	Application of Implicit Grid-Characteristic Methods for Modeling Wave Processes in Linear Elastic Media. Smart Innovation, Systems and Technologies, 2021, , 151-160.	0.5	0
59	Interpolation on Unstructured Tetrahedral Grids. Smart Innovation, Systems and Technologies, 2018, , 45-73.	0.5	0
60	Piecewise Linear Interpolation on Unstructured Tetrahedral Grids. Smart Innovation, Systems and Technologies, 2018, , 75-115.	0.5	0