

Ilia K Marchevsky

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	The Modified LS-STAG Method Application for Planar Viscoelastic Flow Computation in a 4:1 Contraction Channel. Herald of the Bauman Moscow State Technical University, Series Natural Sciences, 2021, , 46-63.	0.5	1
2	On the Scope of Lagrangian Vortex Methods for Two-Dimensional Flow Simulations and the POD Technique Application for Data Storing and Analyzing. Entropy, 2021, 23, 118.	2.2	10
3	Validation of a newly developed implementation of the PFEM-2 method using an open-source framework. , 2021, , .		1
4	Double Layer Potential Density Reconstruction Procedure for 3D Vortex Methods. Lecture Notes in Computational Science and Engineering, 2020, , 287-295.	0.3	3
5	Flow simulation around 3D bodies by using Lagrangian vortex loops method with boundary condition satisfaction with respect to tangential velocity components. Aerospace Science and Technology, 2019, 94, 105374.	4.8	12
6	Numerical Simulation in Coupled Hydroelastic Problems by Using the LS-STAG Immersed Boundary Method. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2019, , 133-145.	0.2	0
7	On the Efficiency of the Parallel Algorithms in VM2D Open Source Code for 2D Flows Simulation Using Vortex Methods. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2019, , 147-159.	0.2	1
8	The approximate calculation of 2D field strength with a Coulomb potential by using multipole expansion. Journal of Physics: Conference Series, 2019, 1301, 012010.	0.4	0
9	On the Calculation of the Vortex Sheet and Point Vortices Effects at Approximate Solution of the Boundary Integral Equation in 2D Vortex Methods of Computational Hydrodynamics. Fluid Dynamics, 2019, 54, 991-1001.	0.9	12
10	The VM2D Open Source Code for Incompressible Flow Simulation by Using Meshless Lagrangian Vortex Methods on CPU and GPU. , 2019, , .		0
11	NUMERICAL SCHEMES FOR VORTEX SHEET INTENSITY COMPUTATION IN VORTEX METHODS TAKING INTO ACCOUNT THE CURVILINEARITY OF THE AIRFOIL SURFACE LINE. , 2019, , .		0
12	FAST METHODS FOR VORTEX INFLUENCE COMPUTATION IN MESHLESS LAGRANGIAN VORTEX METHODS FOR 2D INCOMPRESSIBLE FLOWS SIMULATION. , 2019, , .		1
13	NUMERICAL COMPUTATION OF DOUBLE SURFACE INTEGRALS OVER TRIANGULAR CELLS FOR VORTEX SHEET INTENSITY RECONSTRUCTION ON BODY SURFACE IN 3D VORTEX METHODS. WIT Transactions on Engineering Sciences, 2019, , .	0.0	0
14	Implementation of an iterative algorithm for the coupled heat transfer in case of high-speed flow around a body. Computers and Fluids, 2018, 172, 483-491.	2.5	9
15	Numerical simulation in 2D strongly coupled FSI problems for incompressible flows by using vortex method. AIP Conference Proceedings, 2018, , .	0.4	4
16	On the high-accuracy approach to flow simulation around the airfoils by using vortex method. IOP Conference Series: Materials Science and Engineering, 2018, 468, 012009.	0.6	0
17	On investigation and efficient software implementation of fast methods for vortex influence computation in 2D flow simulation. AIP Conference Proceedings, 2018, , .	0.4	1
18	Comparison of WENO and HWENO limiters for the RKDG method implementation. AIP Conference Proceedings, 2018, , .	0.4	2

#	ARTICLE	IF	CITATIONS
19	Improved algorithm of boundary integral equation approximation in 2D vortex method for flow simulation around curvilinear airfoil. AIP Conference Proceedings, 2018, , .	0.4	5
20	VM2D: Open Source Code for 2D Incompressible Flow Simulation by Using Vortex Methods. Communications in Computer and Information Science, 2018, , 251-265.	0.5	2
21	A hybrid pressure-based solver for nonideal single-phase fluid flows at all speeds. International Journal for Numerical Methods in Fluids, 2018, 88, 79-99.	1.6	42
22	Vortex Sheet Intensity Computation in Incompressible Flow Simulation Around an Airfoil by Using Vortex Methods. Mathematical Models and Computer Simulations, 2018, 10, 276-287.	0.5	24
23	Using Big Analytics Tools in Performance of Gas Dynamics and Acoustics Tasks. Herald of the Bauman Moscow State Technical University, Series Natural Sciences, 2018, , .	0.5	6
24	Numerical simulation of the flow around two circular airfoils positioned across the stream using the LS-STAG method. Journal of Machinery Manufacture and Reliability, 2017, 46, 114-119.	0.5	9
25	Open Source Code for 2D Incompressible Flow Simulation by Using Meshless Lagrangian Vortex Methods. , 2017, , .		6
26	Exact analytical formulae for linearly distributed vortex and source sheets in uence computation in 2D vortex methods. Journal of Physics: Conference Series, 2017, 918, 012013.	0.4	12
27	Simulation of droplet impact onto a deep pool for large Froude numbers in different open-source codes. Journal of Physics: Conference Series, 2017, 918, 012037.	0.4	2
28	Numerical Simulation of Wind Turbine Rotors Autorotation by Using the Modified LS-STAG Immersed Boundary Method. International Journal of Rotating Machinery, 2017, 2017, 1-7.	0.8	6
29	Numerical scheme of the second order of accuracy for vortex methods for incompressible flow simulation around airfoils. Russian Aeronautics, 2017, 60, 398-405.	0.2	20
30	Modification of the LS-STAG Immersed Boundary Method for Simulating Turbulent Flows. Herald of the Bauman Moscow State Technical University, Series Natural Sciences, 2017, , .	0.5	0
31	Numerical simulation of the flow around two fixed circular airfoils positioned in tandem using the LS-STAG method. Journal of Machinery Manufacture and Reliability, 2016, 45, 130-136.	0.5	11
32	On the dynamic stability of an elastically fixed high-drag airfoil under vortical parametric excitations. Mechanics of Solids, 2016, 51, 349-356.	0.7	4
33	On the estimations of efficiency and error of fast algorithm in vortex element method. Proceedings of the Institute for System Programming of RAS, 2016, 28, 259-274.	0.1	2
34	High-Order Numerical Scheme for Vortex Layer Intensity Computation in Two-Dimensional Aerohydrodynamics Problems Solved by Vortex Element Method. Herald of the Bauman Moscow State Technical University, Series Natural Sciences, 2016, , .	0.5	3
35	Parallel Implementation of Vortex Element Method on CPUs and GPUs. Procedia Computer Science, 2015, 66, 73-82.	2.0	7
36	OpenFOAM iterative methods efficiency analysis for linear systems solving. Proceedings of the Institute for System Programming of RAS, 2013, 24, 71-86.	0.1	4

#	ARTICLE	IF	CITATIONS
37	Numerical simulation of wind resonance of a circular profile by means of the vortex element method. Journal of Machinery Manufacture and Reliability, 2009, 38, 420-424.	0.5	3