Jure Ravnik

List of Publications by Year in descending order

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112	1,044	393982	500791
papers	citations	19 h-index	28 g-index

114	114	114	651
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Velocityâ€“vorticity formulation for 3D natural convection in an inclined enclosure by BEM. International Journal of Heat and Mass Transfer, 2008, 51, 4517-4527.	2.5	78
2	A numerical study of nanofluid natural convection in a cubic enclosure with a circular and an ellipsoidal cylinder. International Journal of Heat and Mass Transfer, 2015, 89, 596-605.	2.5	51
3	The wavelet transform for BEM computational fluid dynamics. Engineering Analysis With Boundary Elements, 2004, 28, 1303-1314.	2.0	50
4	NanoRound: A benchmark study on the numerical approach in nanofluids' simulation. International Communications in Heat and Mass Transfer, 2019, 108, 104292.	2.9	49
5	Analysis of three-dimensional natural convection of nanofluids by BEM. Engineering Analysis With Boundary Elements, 2010, 34, 1018-1030.	2.0	47
6	Combined single domain and subdomain BEM for 3D laminar viscous flow. Engineering Analysis With Boundary Elements, 2009, 33, 420-424.	2.0	36
7	A gradient free integral equation for diffusionâ€“convection equation with variable coefficient and velocity. Engineering Analysis With Boundary Elements, 2013, 37, 683-690.	2.0	35
8	Integral equation formulation of an unsteady diffusionâ€“convection equation with variable coefficient and velocity. Computers and Mathematics With Applications, 2014, 66, 2477-2488.	1.4	31
9	Comparison between wavelet and fast multipole data sparse approximations for Poisson and kinematics boundary â€“ domain integral equations. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 1473-1485.	3.4	26
10	Two-dimensional velocity-vorticity based LES for the solution of natural convection in a differentially heated enclosure by wavelet transform based BEM and FEM. Engineering Analysis With Boundary Elements, 2006, 30, 671-686.	2.0	25
11	High gradient magnetic particle separation in viscous flows by 3D BEM. Computational Mechanics, 2013, 51, 465-474.	2.2	25
12	Can CFD establish a connection to a milder COVID-19 disease in younger people? Aerosol deposition in lungs of different age groups based on Lagrangian particle tracking in turbulent flow. Computational Mechanics, 2021, 67, 1497-1513.	2.2	25
13	Numerical simulation of dilute particle laden flows by wavelet BEMâ€“FEM. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 789-805.	3.4	23
14	Freeze-drying modeling of vial using BEM. Engineering Analysis With Boundary Elements, 2017, 77, 145-156.	2.0	22
15	BEM numerical simulation of coupled heat, air and moisture flow through a multilayered porous solid. Engineering Analysis With Boundary Elements, 2017, 74, 24-33.	2.0	22
16	3-D boundary elementâ€“finite element method for velocityâ€“vorticity formulation of the Navierâ€“Stokes equations. Engineering Analysis With Boundary Elements, 2007, 31, 259-266.	2.0	21
17	A novel model for the lift force acting on a prolate spheroidal particle in an arbitrary non-uniform flow. Part I. Lift force due to the streamwise flow shear. International Journal of Multiphase Flow, 2018, 104, 103-112.	1.6	21
18	Settling characteristics of nonspherical porous sludge flocs with nonhomogeneous mass distribution. Water Research, 2019, 158, 159-170.	5.3	21

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19	Boundary element formulations for the numerical solution of two-dimensional diffusion problems with variable coefficients. Computers and Mathematics With Applications, 2012, 64, 2695-2711.	1.4	20
20	Fast single domainâ€“subdomain BEM algorithm for 3D incompressible fluid flow and heat transfer. International Journal for Numerical Methods in Engineering, 2009, 77, 1627-1645.	1.5	19
21	Simulation of 3D flow in porous media by boundary element method. Engineering Analysis With Boundary Elements, 2011, 35, 1256-1264.	2.0	19
22	Predicting Free-Surface Vortices with Single-Phase Simulations. Engineering Applications of Computational Fluid Mechanics, 2014, 8, 193-210.	1.5	19
23	A method for natural gas forecasting and preliminary allocation based on unique standard natural gas consumption profiles. Energy, 2019, 180, 149-162.	4.5	19
24	Daftardar-Jafari method for solving nonlinear thin film flow problem. Arab Journal of Basic and Applied Sciences, 2018, 25, 20-27.	1.0	17
25	Application limits of Jefferyâ€™s theory for elongated particle torques in turbulence: a DNS assessment. Acta Mechanica, 2018, 229, 827-839.	1.1	17
26	Fast boundary-domain integral method for unsteady convection-diffusion equation with variable diffusivity using the modified Helmholtz fundamental solution. Numerical Algorithms, 2019, 82, 1441-1466.	1.1	16
27	Choice of a turbulence model for pump intakes. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2011, 225, 764-778.	0.8	15
28	BEM and FEM analysis of fluidâ€“structure interaction in a double tank. Engineering Analysis With Boundary Elements, 2016, 67, 13-25.	2.0	15
29	A numerical model of the shortbread baking process in a forced convection oven. Applied Thermal Engineering, 2017, 111, 1304-1311.	3.0	15
30	Fast boundary-domain integral method for heat transfer simulations. Engineering Analysis With Boundary Elements, 2019, 99, 222-232.	2.0	13
31	Lyophilization model of mannitol water solution in a laboratory scale lyophilizer. Journal of Drug Delivery Science and Technology, 2018, 45, 28-38.	1.4	12
32	BEM simulation of compressible fluid flow in an enclosure induced by thermoacoustic waves. Engineering Analysis With Boundary Elements, 2009, 33, 561-571.	2.0	11
33	Analytic and numerical solutions for linear and nonlinear multidimensional wave equations. Arab Journal of Basic and Applied Sciences, 2020, 27, 166-182.	1.0	11
34	Numerical analysis of performance uncertainty of heat exchangers operated with nanofluids. International Journal of Thermofluids, 2022, 14, 100144.	4.0	11
35	Numerical simulation of three-dimensional double-diffusive natural convection in porous media by boundary element method. Engineering Analysis With Boundary Elements, 2017, 76, 69-79.	2.0	10
36	A novel model for the lift force acting on a prolate spheroidal particle in arbitrary non-uniform flow. Part II. Lift force taking into account the non-streamwise flow shear. International Journal of Multiphase Flow, 2019, 111, 232-240.	1.6	10

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37	Effects of controlled nucleation on freeze-drying lactose and mannitol aqueous solutions. Drying Technology, 2018, 36, 1263-1272.	1.7	9
38	Risk Assessment of Infection by Airborne Droplets and Aerosols at Different Levels of Cardiovascular Activity. Archives of Computational Methods in Engineering, 2021, 28, 4297-4316.	6.0	9
39	Acceleration of a BEM based solution of the velocityâ€"vorticity formulation of the Navierâ€"Stokes equations by the cross approximation method. Engineering Analysis With Boundary Elements, 2017, 82, 17-26.	2.0	8
40	Semi-analytical method for solving Fokker-Planckâ€™s equations. Journal of the Association of Arab Universities for Basic and Applied Sciences, 2017, 24, 254-262.	1.0	8
41	Stochastic-deterministic boundary element modelling of transcranial electric stimulation using a three layer head model. Engineering Analysis With Boundary Elements, 2021, 123, 70-83.	2.0	8
42	Hybrid LES/URANS simulation of turbulent natural convection by BEM. Engineering Analysis With Boundary Elements, 2015, 61, 16-26.	2.0	7
43	On Constitutive Models for the Momentum Transfer to Particles in Fluid-Dominated Two-Phase Flows. Advanced Structured Materials, 2018, , 1-25.	0.3	7
44	Uncertainty quantification and sensitivity analysis of transcranial electric stimulation for 9-subdomain human head model. Engineering Analysis With Boundary Elements, 2022, 135, 1-11.	2.0	7
45	On shear lift force modelling for non-spherical particles in turbulent flows. AIP Conference Proceedings, 2013, , .	0.3	6
46	High gradient magnetic particle separation in a channel with bifurcations. Engineering Analysis With Boundary Elements, 2014, 49, 22-30.	2.0	6
47	Stochastic modelling of nanofluids using the fast Boundary-Domain Integral Method. Engineering Analysis With Boundary Elements, 2019, 107, 185-197.	2.0	6
48	A novel two-way coupling model for Euler-Lagrange simulations of multiphase flow. Engineering Analysis With Boundary Elements, 2020, 119, 119-132.	2.0	6
49	Experimental and stochastic analysis of lyophilisation. European Journal of Pharmaceutics and Biopharmaceutics, 2021, 159, 108-122.	2.0	6
50	A sigmoid regression and artificial neural network models for day-ahead natural gas usage forecasting. Cleaner and Responsible Consumption, 2021, 3, 100040.	1.6	6
51	Development of the Banach contraction method for the solution of nonlinear thin film flows of non-Newtonian fluids. Arab Journal of Basic and Applied Sciences, 2018, 25, 122-131.	1.0	5
52	Velocityâ€"vorticity RANS turbulence modeling by boundary element method. Engineering Analysis With Boundary Elements, 2014, 39, 44-52.	2.0	4
53	Coupled BEMâ€"FEM analysis of flow and heat transfer over a solar thermal collector. Engineering Analysis With Boundary Elements, 2014, 45, 20-28.	2.0	4
54	BEM-Based Algorithm for URANS Simulations of Flow over a Square Cylinder. Strojniski Vestnik/Journal of Mechanical Engineering, 2015, 61, 254-264.	0.6	4

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55	NUMERICAL AND EXPERIMENTAL MODELING OF LYOPHILIZATION OF LACTOSE AND MANNITOL WATER SOLUTIONS IN VIALS. Computational Thermal Sciences, 2020, 12, 401-415.	0.5	4
56	A Model for Translation and Rotation Resistance Tensors for Superellipsoidal Particles in Stokes Flow. Journal of Marine Science and Engineering, 2022, 10, 369.	1.2	4
57	Numerical Simulation of Particle Movement in Cellular Flows under the Influence of Magnetic Forces. International Journal of Simulation Modelling, 2014, 13, 300-311.	0.6	3
58	Towards a unified shear-induced lift model for prolate spheroidal particles moving in arbitrary non-uniform flow. Computers and Fluids, 2020, 196, 104323.	1.3	3
59	Boundary-domain integral method and homotopy analysis method for systems of nonlinear boundary value problems in environmental engineering. Arab Journal of Basic and Applied Sciences, 2020, 27, 121-133.	1.0	3
60	Fast Boundary-Domain Integral Method with the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e1145" altimg="si2.svg"><mml:msup><mml:mrow><mml:mi mathvariant="script">H</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msup></mml:math>-matrix formulation for large scale numerical investigations. Engineering Analysis With Boundary Elements, 2022, 138, 1-12.	2.0	3
61	Numerical Simulation of Compressible Fluid Flow in an Enclosure Induced by Thermoacoustic Waves. AIP Conference Proceedings, 2007, , .	0.3	2
62	Numerical Simulations of Wind Induced Particle Contamination in Gypsum Landfill Surroundings. Environmental Modeling and Assessment, 2011, 16, 479-489.	1.2	2
63	Two efficient methods for solving SchlÃ¶milchâ€™s integral equation. International Journal of Intelligent Computing and Cybernetics, 2017, 10, 287-309.	1.6	2
64	BEM model for radiative transport phenomena in optically thick compressible viscous fluids. Engineering Analysis With Boundary Elements, 2018, 96, 1-13.	2.0	2
65	Stochastic-Deterministic Boundary Integral Method for Transcranial Electric Stimulation: A Cylindrical Head Representation. , 2019, , .		2
66	Numerical simulation of mixed convection of a nanofluid in a circular pipe with different numerical models. Journal of Thermal Analysis and Calorimetry, 2020, 145, 2525.	2.0	2
67	Natural convection around a 3D hotstrip simulated by BEM. , 2009, , .		2
68	Nanofluid natural convection around a cylinder by BEM. , 2015, , .		2
69	Cooling analysis of a light emitting diode automotive fog lamp. Thermal Science, 2017, 21, 757-766.	0.5	2
70	A hybrid analyticalâ€“numerical model for calculating the maximum elastic force acting on a flow-driven elastic prolate spheroidal particle during its collision with a rigid wall. Computational Mechanics, 2022, 69, 1021-1029.	2.2	2
71	Spherical porous particle drying using BEM approach. Engineering Analysis With Boundary Elements, 2019, 108, 158-167.	2.0	1
72	COUPLED BOUNDARY ELEMENT: STOCHASTIC COLLOCATION APPROACH FOR THE UNCERTAINTY ESTIMATION OF SIMULATIONS OF TRANSCRANIAL ELECTRIC STIMULATION. , 2021, , .		1

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73	Simulation of flow of nanofluids by BEM. WIT Transactions on Modelling and Simulation, 2010, , .	0.0	1
74	Wavelet compression of parabolic diffusion integral kernels. WIT Transactions on Modelling and Simulation, 2014, , .	0.0	1
75	BEM simulation model for coupled heat, moisture and air transport through a multilayered porous wall. , 2015, , .		1
76	Magnetic Susceptibility Determination Based on Microparticles Sedimentation Analysis. International Journal of Simulation Modelling, 2017, 16, 275-288.	0.6	1
77	Numerical simulation of particle air dispersion around the landfill. , 2009, , .		1
78	THE INFLUENCE OF A VIAL STOPPER ON FLOW AND MASS TRANSFER CONDITIONS INSIDE A VIAL. , 2018, , .		1
79	A REVIEW OF MODELLING APPROACHES FOR FLOW AND HEAT TRANSFER IN NANOFLUIDS. WIT Transactions on Engineering Sciences, 2018, , .	0.0	1
80	Numerical drag and lift prediction framework for superellipsoidal particles in multiphase flows. International Journal of Computational Methods and Experimental Measurements, 2022, 10, 38-49.	0.1	1
81	STOKES FLOW INDUCED DRAG AND TORQUE ON ASBESTOS-LIKE FIBRES CANNOT BE ESTIMATED BY A SIMPLISTIC ELLIPSOIDAL APPROXIMATION. WIT Transactions on Engineering Sciences, 2022, , .	0.0	1
82	Solution of 3D Velocity-Vorticity Formulation of the Navier-Stokes Equations by Boundary Element Method. AIP Conference Proceedings, 2007, , .	0.3	0
83	Fast BEM Based Methods for Heat Transfer Simulation. , 2011, , .		0
84	BEM Based Solution of Turbulent Flow Over Periodic Hills With Heat Transfer. , 2011, , .		0
85	Numerical simulation of particles movement in cellular flows under the influence of magnetic forces. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 573-574.	0.2	0
86	Boundary element method based algorithm for simulation of fluid flow in 3D. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 585-586.	0.2	0
87	Surface Vortex Simulation at Selected Water Temperatures. , 2011, , .		0
88	Separation of magnetic particles in channel flows by BEM. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 475-476.	0.2	0
89	Adsorption in honeycomb adsorber by BEM. Engineering Analysis With Boundary Elements, 2014, 41, 103-110.	2.0	0
90	Wavelet compression of integral operators arising from boudary-domain integral method. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 841-842.	0.2	0

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91	Simulation of Natural Convection in Porous Media by Boundary Element Method. , 2018, , .		0
92	Stochastic Boundary-Domain Integral Method for heat transfer simulations. , 2019, , .		0
93	An accelerated Boundaryâ€Domain Integral Method for threeâ€dimensional fluid flow analysis. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900320.	0.2	0
94	Velocity vorticity-based large eddy simulation with the boundary element method. WIT Transactions on Engineering Sciences, 2006, , .	0.0	0
95	Flow over a square cylinder by BEM. WIT Transactions on Modelling and Simulation, 2007, , .	0.0	0
96	Numerical analysis of compressible fluid flow in a channel with sharp contractions. WIT Transactions on Modelling and Simulation, 2007, , .	0.0	0
97	Influence of linear and non-linear constitutive models on thermoacoustic waves in an enclosure. WIT Transactions on Engineering Sciences, 2008, , .	0.0	0
98	Towards a fast single domain â€“ subdomain BEM algorithm for 3D incompressible fluid flow. WIT Transactions on Modelling and Simulation, 2008, , .	0.0	0
99	Simulation of fluid flow by BEM. WIT Transactions on State-of-the-art in Science and Engineering, 2010, , 213-225.	0.0	0
100	Turbulence modeling with the boundary element method. , 2010, , .		0
101	Solution of velocity-vorticity URANS by BEM. WIT Transactions on Modelling and Simulation, 2010, , .	0.0	0
102	Three-dimensional natural convection in a porous cavity by the boundary element method. , 2011, , .		0
103	BEM simulation of transient fluid flow phenomena. WIT Transactions on Modelling and Simulation, 2011, , .	0.0	0
104	URANS and LES methodology for two-dimensional natural convection in a differentially heated cavity by BEM. WIT Transactions on Modelling and Simulation, 2011, , .	0.0	0
105	Residual-free bubble shape functions used in BEM for the stability of the solution of the convective-diffusion transport equation. , 2012, , .		0
106	Simulation of ferrofluids by BEM. WIT Transactions on Modelling and Simulation, 2012, , .	0.0	0
107	Numerical analysis of fluid flow in a three-dimensional porous enclosure by the Boundary Element Method. , 2013, , .		0
108	Numerical investigation of turbulent natural convection in enclosures. WIT Transactions on Modelling and Simulation, 2013, , .	0.0	0

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109	A BEM and FEM analysis of fluidâ€“structure interaction in a double tank. , 2014, , .		0
110	NUMERICAL STUDY OF CONVECTIVE HEAT TRANSFER IN AN INCLINED POROUS ENCLOSURE SATURATED WITH NANOFLUID. , 2018, , .		0
111	FUNDAMENTAL SOLUTIONS IN COMPUTATIONAL FLUID DYNAMICS. , 2018, , .		0
112	Hybrid LES/URANS Simulation Of Rayleigh-Bé–šard Convection Using BEM. CMES - Computer Modeling in Engineering and Sciences, 2020, 123, 1-22.	0.8	0