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	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
2	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
3	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
4	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
5	Numerical analysis of performance uncertainty of heat exchangers operated with nanofluids. International Journal of Thermofluids, 2022, 14, 100144.	4.0	11
6	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
7	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
8	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
9	Experimental and stochastic analysis of lyophilisation. European Journal of Pharmaceutics and Biopharmaceutics, 2021, 159, 108-122.	2.0	6
10	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
11	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
12	COUPLED BOUNDARY ELEMENT: STOCHASTIC COLLOCATION APPROACH FOR THE UNCERTAINTY ESTIMATION OF SIMULATIONS OF TRANSCRANIAL ELECTRIC STIMULATION. , 2021, , .		1
13	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
14	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
15	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
16	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
17	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
18	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

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19	NUMERICAL AND EXPERIMENTAL MODELING OF LYOPHILIZATION OF LACTOSE AND MANNITOL WATER SOLUTIONS IN VIALS. Computational Thermal Sciences, 2020, 12, 401-415.	0.5	4
20	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
21	NanoRound: A benchmark study on the numerical approach in nanofluids' simulation. International Communications in Heat and Mass Transfer, 2019, 108, 104292.	2.9	49
22	Spherical porous particle drying using BEM approach. Engineering Analysis With Boundary Elements, 2019, 108, 158-167.	2.0	1
23	Stochastic modelling of nanofluids using the fast Boundary-Domain Integral Method. Engineering Analysis With Boundary Elements, 2019, 107, 185-197.	2.0	6
24	Stochastic Boundary-Domain Integral Method for heat transfer simulations. , 2019, , .		0
25	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
26	Settling characteristics of nonspherical porous sludge flocs with nonhomogeneous mass distribution. Water Research, 2019, 158, 159-170.	5.3	21
27	Stochastic-Deterministic Boundary Integral Method for Transcranial Electric Stimulation: A Cylindrical Head Representation. , 2019, , .		2
28	An accelerated Boundaryâ€Domain Integral Method for threeâ€dimensional fluid flow analysis. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900320.	0.2	0
29	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
30	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
31	Fast boundary-domain integral method for heat transfer simulations. Engineering Analysis With Boundary Elements, 2019, 99, 222-232.	2.0	13
32	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
33	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
34	Daftardar-Jafari method for solving nonlinear thin film flow problem. Arab Journal of Basic and Applied Sciences, 2018, 25, 20-27.	1.0	17
35	On Constitutive Models for the Momentum Transfer to Particles in Fluid-Dominated Two-Phase Flows. Advanced Structured Materials, 2018, , 1-25.	0.3	7
36	Effects of controlled nucleation on freeze-drying lactose and mannitol aqueous solutions. Drying Technology, 2018, 36, 1263-1272.	1.7	9

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37	Application limits of Jefferyâ€™s theory for elongated particle torques in turbulence: a DNS assessment. Acta Mechanica, 2018, 229, 827-839.	1.1	17
38	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
39	Simulation of Natural Convection in Porous Media by Boundary Element Method. , 2018, , .		0
40	BEM model for radiative transport phenomena in optically thick compressible viscous fluids. Engineering Analysis With Boundary Elements, 2018, 96, 1-13.	2.0	2
41	NUMERICAL STUDY OF CONVECTIVE HEAT TRANSFER IN AN INCLINED POROUS ENCLOSURE SATURATED WITH NANOFLUID. , 2018, , .		0
42	THE INFLUENCE OF A VIAL STOPPER ON FLOW AND MASS TRANSFER CONDITIONS INSIDE A VIAL. , 2018, , .		1
43	FUNDAMENTAL SOLUTIONS IN COMPUTATIONAL FLUID DYNAMICS. , 2018, , .		0
44	A REVIEW OF MODELLING APPROACHES FOR FLOW AND HEAT TRANSFER IN NANOFLUIDS. WIT Transactions on Engineering Sciences, 2018, , .	0.0	1
45	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
46	Freeze-drying modeling of vial using BEM. Engineering Analysis With Boundary Elements, 2017, 77, 145-156.	2.0	22
47	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
48	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
49	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
50	Two efficient methods for solving SchlÃ¶milchâ€™s integral equation. International Journal of Intelligent Computing and Cybernetics, 2017, 10, 287-309.	1.6	2
51	A numerical model of the shortbread baking process in a forced convection oven. Applied Thermal Engineering, 2017, 111, 1304-1311.	3.0	15
52	Magnetic Susceptibility Determination Based on Microparticles Sedimentation Analysis. International Journal of Simulation Modelling, 2017, 16, 275-288.	0.6	1
53	Cooling analysis of a light emitting diode automotive fog lamp. Thermal Science, 2017, 21, 757-766.	0.5	2
54	BEM and FEM analysis of fluidâ€“structure interaction in a double tank. Engineering Analysis With Boundary Elements, 2016, 67, 13-25.	2.0	15

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55	Hybrid LES/URANS simulation of turbulent natural convection by BEM. Engineering Analysis With Boundary Elements, 2015, 61, 16-26.	2.0	7
56	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
57	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
58	BEM simulation model for coupled heat, moisture and air transport through a multilayered porous wall. , 2015, , .		1
59	Nanofluid natural convection around a cylinder by BEM. , 2015, , .		2
60	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
61	Velocityâ€“vorticity RANS turbulence modeling by boundary element method. Engineering Analysis With Boundary Elements, 2014, 39, 44-52.	2.0	4
62	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
63	Adsorption in honeycomb adsorber by BEM. Engineering Analysis With Boundary Elements, 2014, 41, 103-110.	2.0	0
64	High gradient magnetic particle separation in a channel with bifurcations. Engineering Analysis With Boundary Elements, 2014, 49, 22-30.	2.0	6
65	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
66	Wavelet compression of integral operators arising from boudary-domain integral method. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 841-842.	0.2	0
67	Predicting Free-Surface Vortices with Single-Phase Simulations. Engineering Applications of Computational Fluid Mechanics, 2014, 8, 193-210.	1.5	19
68	Wavelet compression of parabolic diffusion integral kernels. WIT Transactions on Modelling and Simulation, 2014, , .	0.0	1
69	A BEM and FEM analysis of fluidâ€“structure interaction in a double tank. , 2014, , .		0
70	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
71	High gradient magnetic particle separation in viscous flows by 3D BEM. Computational Mechanics, 2013, 51, 465-474.	2.2	25
72	On shear lift force modelling for non-spherical particles in turbulent flows. AIP Conference Proceedings, 2013, , .	0.3	6

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73	Numerical analysis of fluid flow in a three-dimensional porous enclosure by the Boundary Element Method. , 2013, , .		0
74	Numerical investigation of turbulent natural convection in enclosures. WIT Transactions on Modelling and Simulation, 2013, , .	0.0	0
75	Separation of magnetic particles in channel flows by BEM. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 475-476.	0.2	0
76	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
77	Residual-free bubble shape functions used in BEM for the stability of the solution of the convective-diffusion transport equation. , 2012, , .		0
78	Simulation of ferrofluids by BEM. WIT Transactions on Modelling and Simulation, 2012, , .	0.0	0
79	Fast BEM Based Methods for Heat Transfer Simulation. , 2011, , .		0
80	BEM Based Solution of Turbulent Flow Over Periodic Hills With Heat Transfer. , 2011, , .		0
81	Numerical Simulations of Wind Induced Particle Contamination in Gypsum Landfill Surroundings. Environmental Modeling and Assessment, 2011, 16, 479-489.	1.2	2
82	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
83	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
84	Simulation of 3D flow in porous media by boundary element method. Engineering Analysis With Boundary Elements, 2011, 35, 1256-1264.	2.0	19
85	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
86	Surface Vortex Simulation at Selected Water Temperatures. , 2011, , .		0
87	Three-dimensional natural convection in a porous cavity by the boundary element method. , 2011, , .		0
88	BEM simulation of transient fluid flow phenomena. WIT Transactions on Modelling and Simulation, 2011, , .	0.0	0
89	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
90	Analysis of three-dimensional natural convection of nanofluids by BEM. Engineering Analysis With Boundary Elements, 2010, 34, 1018-1030.	2.0	47

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91	Simulation of flow of nanofluids by BEM. WIT Transactions on Modelling and Simulation, 2010, , .	0.0	1
92	Simulation of fluid flow by BEM. WIT Transactions on State-of-the-art in Science and Engineering, 2010, , 213-225.	0.0	0
93	Turbulence modeling with the boundary element method. , 2010, , .		0
94	Solution of velocity-vorticity URANS by BEM. WIT Transactions on Modelling and Simulation, 2010, , .	0.0	0
95	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
96	Combined single domain and subdomain BEM for 3D laminar viscous flow. Engineering Analysis With Boundary Elements, 2009, 33, 420-424.	2.0	36
97	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
98	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
99	Natural convection around a 3D hotstrip simulated by BEM. , 2009, , .		2
100	Numerical simulation of particle air dispersion around the landfill. , 2009, , .		1
101	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
102	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
103	Influence of linear and non-linear constitutive models on thermoacoustic waves in an enclosure. WIT Transactions on Engineering Sciences, 2008, , .	0.0	0
104	Towards a fast single domain â€“ subdomain BEM algorithm for 3D incompressible fluid flow. WIT Transactions on Modelling and Simulation, 2008, , .	0.0	0
105	Numerical Simulation of Compressible Fluid Flow in an Enclosure Induced by Thermoacoustic Waves. AIP Conference Proceedings, 2007, , .	0.3	2
106	Solution of 3D Velocity-Vorticity Formulation of the Navier-Stokes Equations by Boundary Element Method. AIP Conference Proceedings, 2007, , .	0.3	0
107	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
108	Flow over a square cylinder by BEM. WIT Transactions on Modelling and Simulation, 2007, , .	0.0	0

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109	Numerical analysis of compressible fluid flow in a channel with sharp contractions. WIT Transactions on Modelling and Simulation, 2007, , .	0.0	0
110	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
111	Velocity vorticity-based large eddy simulation with the boundary element method. WIT Transactions on Engineering Sciences, 2006, , .	0.0	0
112	The wavelet transform for BEM computational fluid dynamics. Engineering Analysis With Boundary Elements, 2004, 28, 1303-1314.	2.0	50