

Masoud Darbandi

List of Publications by Year in descending order

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87
papers

1,026
citations

430874

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docs citations

88
times ranked

425
citing authors

#	ARTICLE	IF	CITATIONS
1	Extending the Navier–Stokes solutions to transition regime in two-dimensional micro- and nanochannel flows using information preservation scheme. <i>Physics of Fluids</i> , 2009, 21, .	4.0	77
2	Study of subsonic–supersonic gas flow through micro/nanoscale nozzles using unstructured DSMC solver. <i>Microfluidics and Nanofluidics</i> , 2011, 10, 321-335.	2.2	74
3	Direct Simulation Monte Carlo Solution of Subsonic Flow Through Micro/Nanoscale Channels. <i>Journal of Heat Transfer</i> , 2009, 131, .	2.1	56
4	Modelling of Natural Convection Flows with Large Temperature Differences: A Benchmark Problem for Low Mach Number Solvers. Part 2. Contributions to the June 2004 conference. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2005, 39, 617-621.	1.9	44
5	DSMC simulation of subsonic flow through nanochannels and micro/nano backward-facing steps. <i>International Communications in Heat and Mass Transfer</i> , 2011, 38, 1443-1448.	5.6	43
6	Recommendations on performance of parallel DSMC algorithm in solving subsonic nanoflows. <i>Applied Mathematical Modelling</i> , 2012, 36, 2314-2321.	4.2	40
7	Developing implicit pressure-weighted upwinding scheme to calculate steady and unsteady flows on unstructured grids. <i>International Journal for Numerical Methods in Fluids</i> , 2008, 56, 115-141.	1.6	35
8	General Pressure-Correction Strategy to Include Density Variation in Incompressible Algorithms. <i>Journal of Thermophysics and Heat Transfer</i> , 2003, 17, 372-380.	1.6	32
9	Multiblock hybrid grid finite volume method to solve flow in irregular geometries. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006, 196, 321-336.	6.6	32
10	Numerical Simulation of Thermobuoyant Flow with Large Temperature Variation. <i>Journal of Thermophysics and Heat Transfer</i> , 2006, 20, 285-296.	1.6	32
11	Numerical study of species separation in rarefied gas mixture flow through micronozzles using DSMC. <i>Physics of Fluids</i> , 2019, 31, .	4.0	29
12	A hybrid DSMC/Navier–Stokes frame to solve mixed rarefied/nonrarefied hypersonic flows over nano–plate and micro–cylinder. <i>International Journal for Numerical Methods in Fluids</i> , 2013, 72, 937-966.	1.6	27
13	Developing Consistent Inlet Boundary Conditions to Study the Entrance Zone in Microchannels. <i>Journal of Thermophysics and Heat Transfer</i> , 2007, 21, 596-607.	1.6	25
14	Solving turbulent diffusion flame in cylindrical frame applying an improved advective kinetics scheme. <i>Theoretical and Computational Fluid Dynamics</i> , 2015, 29, 413-431.	2.2	25
15	Applying a hybrid DSMC/Navier–Stokes frame to explore the effect of splitter catalyst plates in micro/nanopropulsion systems. <i>Sensors and Actuators A: Physical</i> , 2013, 189, 409-419.	4.1	23
16	An improved actuator disc model for the numerical prediction of the far-wake region of a horizontal axis wind turbine and its performance. <i>Energy Conversion and Management</i> , 2019, 185, 482-495.	9.2	21
17	Three-dimensional compressible–incompressible turbulent flow simulation using a pressure-based algorithm. <i>Computers and Fluids</i> , 2008, 37, 747-766.	2.5	20
18	Conceptual linearization of Euler governing equations to solve high speed compressible flow using a pressure-based method. <i>Numerical Methods for Partial Differential Equations</i> , 2008, 24, 583-604.	3.6	20

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19	Using fully implicit conservative statements to close open boundaries passing through recirculations. <i>International Journal for Numerical Methods in Fluids</i> , 2007, 53, 371-389.	1.6	19
20	Extending a Hybrid Finite-Volume-Element Method to Solve Laminar Diffusive Flame. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , 2014, 66, 181-210.	0.9	19
21	Advancement in Numerical Study of Gas Flow and Heat Transfer in a Microscale. <i>Journal of Thermophysics and Heat Transfer</i> , 2009, 23, 205-208.	1.6	18
22	Thermobuoyancy Treatment for Electronic Packaging Using an Improved Advection Scheme. <i>Journal of Electronic Packaging, Transactions of the ASME</i> , 2003, 125, 244-250.	1.8	17
23	Solution of Thermally Developing Zone in Short Micro-/Nanoscale Channels. <i>Journal of Heat Transfer</i> , 2009, 131, .	2.1	17
24	DPD simulation of non-Newtonian electroosmotic fluid flow in nanochannel. <i>Molecular Simulation</i> , 2018, 44, 1444-1453.	2.0	16
25	A new bi-implicit finite volume element method for coupled systems of turbulent flow and aerosol-combustion dynamics. <i>Journal of Coupled Systems and Multiscale Dynamics</i> , 2016, 4, 43-59.	0.2	16
26	A MODIFIED PRESSURE-BASED ALGORITHM TO SOLVE FLOW FIELDS WITH SHOCK AND EXPANSION WAVES. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , 2004, 46, 497-504.	0.9	14
27	A new developed semi-full-scale approach to facilitate the CFD simulation of shell and tube heat exchangers. <i>Chemical Engineering Science</i> , 2021, 245, 116836.	3.8	14
28	Recommendations on Enhancing the Efficiency of Algebraic Multigrid Preconditioned GMRES in Solving Coupled Fluid Flow Equations. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , 2009, 55, 232-256.	0.9	12
29	Numerical simulation of two-phase flow in airlift pumps using the Physical Influence Scheme. <i>Progress in Computational Fluid Dynamics</i> , 2010, 10, 186.	0.2	12
30	Efficient multilevel restrictionâ€‘prolongation expressions for hybrid finite volume element method. <i>International Journal of Computational Fluid Dynamics</i> , 2008, 22, 29-38.	1.2	11
31	Numerical Simulation of Orifice Cavitating Flows Using Two-Fluid and Three-Fluid Cavitation Models. <i>Numerical Heat Transfer; Part A: Applications</i> , 2010, 58, 505-526.	2.1	11
32	A Compressible Approach to Solve Combined Natural Convection-Radiation Heat Transfer in Participating Media. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , 2014, 66, 446-469.	0.9	11
33	Numerical Simulation of Low-Mach-Number Laminar Mixing and Reacting Flows Using a Dual-Purpose Pressure-Based Algorithm. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , 2011, 59, 495-514.	0.9	10
34	Extending a Numerical Procedure to Simulate the Micro/Nanoscale Soot Formation in Ethylene-Air Turbulent Flame Using Acetylene-Route Nucleation. , 2014, , .		10
35	A reduced domain strategy for local mesh movement application in unstructured grids. <i>Applied Numerical Mathematics</i> , 2011, 61, 1001-1016.	2.1	9
36	Thermal radiation transfer calculations in combustion fields using the SLW model coupled with a modified reference approach. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2018, 205, 105-113.	2.3	9

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37	Numerical study on NOx reduction in a large-scale heavy fuel oil-fired boiler using suitable burner adjustments. Energy, 2020, 199, 117371.	8.8	9
38	Thermal Wall Model Effect on the Lid-Driven Nanocavity Flow Simulation using the Molecular Dynamics Method. Numerical Heat Transfer, Part B: Fundamentals, 2013, 63, 248-261.	0.9	8
39	Extending a low-order upwind-biased scheme to solve turbulent flames using detailed chemistry model. Numerical Heat Transfer, Part B: Fundamentals, 2018, 73, 343-362.	0.9	7
40	Numerical study to evaluate the important parameters affecting the hydrodynamic performance of manta ray's in flapping motion. Applied Ocean Research, 2021, 109, 102559.	4.1	7
41	Numerical Simulation of Turbulent Reacting flow in a Combustion Chamber Using Detailed Chemical Kinetics. , 2013, , .		6
42	Firm structure of the separated turbulent shear layer behind modified backward-facing step geometries. International Journal of Numerical Methods for Heat and Fluid Flow, 2006, 16, 803-826.	2.8	5
43	Developing an ordering-based renumbering approach for triangular unstructured grids. Engineering With Computers, 2013, 29, 225-243.	6.1	5
44	Detail study on improving micro/nano gas mixer performances in slip and transitional flow regimes. Sensors and Actuators B: Chemical, 2015, 218, 78-88.	7.8	5
45	Numerical study of flow-induced oscillations of two rigid plates elastically hinged at the two ends of a stationary plate in a cross-flow. Journal of Fluids and Structures, 2016, 66, 147-169.	3.4	5
46	Advances in non-gray radiation calculation in combusting environments using a modified reference approach. Heat and Mass Transfer, 2018, 54, 2705-2713.	2.1	5
47	The Performance of a Physical Influence Scheme in Structured Triangular Grids. , 2003, , .		4
48	Microflow in Lid-Driven Microcavity with Various Aspect Ratios. , 2008, , .		3
49	A Study on Flow Through an Orifice With Prediction of Cavitation and Hydraulic Flip. , 2009, , .		3
50	Mixing Enhancement of Two Gases in a Microchannel Using DSMC. Applied Mechanics and Materials, 2013, 307, 166-169.	0.2	3
51	CFD Simulation of Natural Draught Cooling Tower Wind-Covering. Applied Mechanics and Materials, 2013, 307, 279-284.	0.2	3
52	Assessment of Combined Natural Convection-Radiation in a Participating Square Cavity Including Compressibility Effects. , 2014, , .		3
53	Quantifying the Direct Influence of Diffusive Mass Transfer in Rarefied Gas Mixing Simulations. Journal of Fluids Engineering, Transactions of the ASME, 2018, 140, .	1.5	3
54	Developing the Actuator Disk Model to Predict the Fluid-Structure Interaction in Numerical Simulation of Multimegawatt Wind Turbine Blades. Journal of Energy Resources Technology, Transactions of the ASME, 2020, 142, .	2.3	3

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55	Internal cooling sensitivity analysis to improve the thermal performance of gas turbine blade using a developed robust conjugate heat transfer method. International Journal of Engine Research, 2023, 24, 949-964.	2.3	3
56	A Finite Element Volume Method to Simulate Flow on Mixed Element Shapes. , 2003, , .		2
57	A Modified Upwind-Biased Strategy to Calculate Flow on Structured-Unstructured Grid Topologies. , 2004, , .		2
58	Parallel Computation of a Fully Implicit Finite Volume Method using Different Ordering Strategies. , 2004, , .		2
59	Evaluation of Different k-omega and k-epsilon Turbulence Models in a New Curvilinear Formulation. , 2005, , .		2
60	Novel Boundary Condition Implementation to Model Electroosmotic Phenomenon in Microchannels. , 2009, , .		2
61	A Directional Renumbering Strategy for Improving Unstructured Grid Data Structure. , 2010, , .		2
62	A Mini-Scale Primary-Air Injector Mass-Flow-Rate Effect on Soot Nano-Aerosol Formation in a JP-Fueled Gas-Turbine Combustor. , 2016, , .		2
63	The Effects of Baffle Plate on Soot Nano-Aerosol and Pollutant Productions in a JP-Fueled Combustor. , 2016, , .		2
64	The Effect of Soot nano-Particles Injection on Two-Phase Smoke Aerosol Formation in a Kerosene-Fired Burner. , 2016, , .		2
65	On Radiative Heat Transfer Modeling in Numerical Simulation of a Heavy Duty Steam Generator. , 2016, , .		2
66	Analysis of Smoke-Aerosol Formation in Pressurized Turbulent Kerosene/Air Flames Using Different Soot Models. , 2017, , .		2
67	Numerical Study of Soot Nano-Aerosol Formation in a JP Combustor Embedded with a Mini-Scale Air-Distributor. , 2017, , .		2
68	Numerical Study on the Effects of Fuel Injector Cone-Angle on Soot Nano-Particles, CO, and CO2 Pollutions in a Combustion Chamber Burning Kerosene. , 2015, , .		1
69	Megawatt Wind Turbine Far Wake and Performance Predictions Using the Unsteady Actuator Line Model. , 2016, , .		1
70	Numerical Study of Inlet Turbulators Effect on the Thermal Characteristics of a Jet Propulsion-Fueled Combustor and Its Hazardous Pollutants Emission. Journal of Heat Transfer, 2017, 139, .	2.1	1
71	Exhaust Soot Investigation in a JP Combustor Working at Various Wall Temperature Considerations. , 2018, , .		1
72	Thermal Performance of a Kerosene-Fired Variable-Mixing Oxy-Fuel Burner. , 2018, , .		1

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73	Numerical Simulation of Soot Formation in a JP Combustor Using Different Surrogate Fuels. , 2018, , .		1
74	Robust 1-D Fluid Flow and Heat Transfer Predictions in Gas Turbine Cooling Passages. , 2019, , .		1
75	Effect of oxygen enrichment in spectral thermal radiation in an unconfined turbulent bluff-body flame. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 247, 106958.	2.3	1
76	Extended Implicit PIS-ALE Method to Efficient Simulation of Turbulent Flow Domains with Moving Boundaries. Journal of Aerospace Engineering, 2021, 34, .	1.4	1
77	Modification of the Standard k-epsilon Turbulence Model for Multi-Element Airfoil Application Using Optimization Technique. , 2006, , .		0
78	A Direct Simulation Monte Carlo Study on the Effect of Temperature Gradient on the Gas Mixing in Microgeometries. , 2013, , .		0
79	Details Study of Ambient Wind Effect on Heat Dissipation Capacity of Thermal-Powerplant Dry Cooling-Towers. , 2014, , .		0
80	The Study of Air-Cooled Condenser (ACC) Under Wind Velocity and Environmental Temperature Conditions. , 2014, , .		0
81	Developing an All-speed Finite Volume Method to Predict Short Duration Pressure Peaks of Water Column Separation. , 2015, , .		0
82	Effect of Injector Position on the Mixing Performance in Micro/Nanomixers. , 2015, , .		0
83	Application of an Optimized SLW Model in CFD Simulation of a Furnace. , 2016, , 389-399.		0
84	Blockage-Ratio Effect of a Bluff-Body Stabilized Flame on Aerosol Behavior of Carbonaceous (Soot) Nano-PM in a Combustor Burning Jet Propulsion Fuel. , 2016, , .		0
85	Detailed-Chemistry Study of Soot Nano-Aerosol Formation in a Stagnation-Point Reverse-Flow Combustor. , 2017, , .		0
86	Numerical Study to Evaluate Soot Formation in a JP Combustor Equipped to Different Types of Swirler. , 2019, , .		0
87	Soot Evolution in a JP-Fueled Gas-Turbine Swirl Combustor. , 2020, , .		0