Masoud Darbandi

List of Publications by Year
in descending order

87 papers	1,026 citations	430874 18 h-index	477307 29 g-index
88 all docs	88 docs citations	88 times ranked	425 citing authors

#	Article	IF	Citations
1	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
2	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
3	Extended Implicit PIS-ALE Method to Efficient Simulation of Turbulent Flow Domains with Moving Boundaries. Journal of Aerospace Engineering, 2021, 34, .	1.4	1
4	A new developed semi-full-scale approach to facilitate the CFD simulation of shell and tube heat exchangers. Chemical Engineering Science, 2021, 245, 116836.	3.8	14
5	Soot Evolution in a JP-Fueled Gas-Turbine Swirl Combustor. , 2020, , .		0
6	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
7	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
8	Developing the Actuator Disk Model to Predict the Fluidâ€"Structure Interaction in Numerical Simulation of Multimegawatt Wind Turbine Blades. Journal of Energy Resources Technology, Transactions of the ASME, 2020, 142, .	2.3	3
9	Numerical Study to Evaluate Soot Formation in a JP Combustor Equipped to Different Types of Swirler. , 2019, , .		0
10	Robust 1-D Fluid Flow and Heat Transfer Predictions in Gas Turbine Cooling Passages. , 2019, , .		1
11	Numerical study of species separation in rarefied gas mixture flow through micronozzles using DSMC. Physics of Fluids, 2019, 31, .	4.0	29
12	An improved actuator disc model for the numerical prediction of the far-wake region of a horizontal axis wind turbine and its performance. Energy Conversion and Management, 2019, 185, 482-495.	9.2	21
13	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
14	Exhaust Soot Investigation in a JP Combustor Working at Various Wall Temperature Considerations. , 2018, , .		1
15	Thermal radiation transfer calculations in combustion fields using the SLW model coupled with a modified reference approach. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 205, 105-113.	2.3	9
16	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
17	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
18	DPD simulation of non-Newtonian electroosmotic fluid flow in nanochannel. Molecular Simulation, 2018, 44, 1444-1453.	2.0	16

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19	Thermal Performance of a Kerosene-Fired Variable-Mixing Oxy-Fuel Burner. , 2018, , .		1
20	Numerical Simulation of Soot Formation in a JP Combustor Using Different Surrogate Fuels. , 2018, , .		1
21	Detailed-Chemistry Study of Soot Nano-Aerosol Formation in a Stagnation-Point Reverse-Flow Combustor. , 2017, , .		0
22	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
23	Analysis of Smoke-Aerosol Formation in Pressurized Turbulent Kerosene/Air Flames Using Different Soot Models. , 2017, , .		2
24	Numerical Study of Soot Nano-Aerosol Formation in a JP Combustor Embedded with a Mini-Scale Air-Distributor. , 2017, , .		2
25	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
26	Application of an Optimized SLW Model in CFD Simulation of a Furnace. , 2016, , 389-399.		0
27	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
28	A Mini-Scale Primary-Air Injector Mass-Flow-Rate Effect on Soot Nano-Aerosol Formation in a JP-Fueled Gas-Turbine Combustor. , 2016, , .		2
29	The Effects of Baffle Plate on Soot Nano-Aerosol and Pollutant Productions in a JP-Fueled Combustor. , 2016, , .		2
30	The Effect of Soot nano-Particles Injection on Two-Phase Smoke Aerosol Formation in a Kerosene-Fired Burner. , 2016, , .		2
31	On Radiative Heat Transfer Modeling in Numerical Simulation of a Heavy Duty Steam Generator. , 2016, , .		2
32	Megawatt Wind Turbine Far Wake and Performance Predictions Using the Unsteady Actuator Line Model. , 2016, , .		1
33	A new bi-implicit finite volume element method for coupled systems of turbulent flow and aerosol-combustion dynamics. Journal of Coupled Systems and Multiscale Dynamics, 2016, 4, 43-59.	0.2	16
34	Developing an All-speed Finite Volume Method to Predict Short Duration Pressure Peaks of Water Column Separation. , 2015, , .		0
35	Effect of Injector Position on the Mixing Performance in Micro/Nanomixers. , 2015, , .		0
36	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

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37	Solving turbulent diffusion flame in cylindrical frame applying an improved advective kinetics scheme. Theoretical and Computational Fluid Dynamics, 2015, 29, 413-431.	2.2	25
38	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
39	Details Study of Ambient Wind Effect on Heat Dissipation Capacity of Thermal-Powerplant Dry Cooling-Towers. , 2014, , .		0
40	The Study of Air-Cooled Condenser (ACC) Under Wind Velocity and Environmental Temperature Conditions. , 2014, , .		0
41	Assessment of Combined Natural Convection-Radiation in a Participating Square Cavity Including Compressibility Effects. , 2014, , .		3
42	Extending a Numerical Procedure to Simulate the Micro/Nanoscale Soot Formation in Ethylene-Air Turbulent Flame Using Acetylene-Route Nucleation. , 2014, , .		10
43	A Compressible Approach to Solve Combined Natural Convection-Radiation Heat Transfer in Participating Media. Numerical Heat Transfer, Part B: Fundamentals, 2014, 66, 446-469.	0.9	11
44	Extending a Hybrid Finite-Volume-Element Method to Solve Laminar Diffusive Flame. Numerical Heat Transfer, Part B: Fundamentals, 2014, 66, 181-210.	0.9	19
45	Mixing Enhancement of Two Gases in a Microchannel Using DSMC. Applied Mechanics and Materials, 2013, 307, 166-169.	0.2	3
46	Developing an ordering-based renumbering approach for triangular unstructured grids. Engineering With Computers, 2013, 29, 225-243.	6.1	5
47	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
48	A hybrid DSMC/Navierâ€"Stokes frame to solve mixed rarefied/nonrarefied hypersonic flows over nanoâ€plateâ€‰andâ€‰microâ€cylinder. International Journal for Numerical Methods in Fluids, 2013, 72, 937-966.	1.6	27
49	Applying a hybrid DSMC/Navierâ€"Stokes frame to explore the effect of splitter catalyst plates in micro/nanopropulsion systems. Sensors and Actuators A: Physical, 2013, 189, 409-419.	4.1	23
50	Numerical Simulation of Turbulent Reacting flow in a Combustion Chamber Using Detailed Chemical Kinetics. , 2013, , .		6
51	CFD Simulation of Natural Draught Cooling Tower Wind-Covering. Applied Mechanics and Materials, 2013, 307, 279-284.	0.2	3
52	A Direct Simulation Monte Carlo Study on the Effect of Temperature Gradient on the Gas Mixing in Microgeometries. , 2013, , .		0
53	Recommendations on performance of parallel DSMC algorithm in solving subsonic nanoflows. Applied Mathematical Modelling, 2012, 36, 2314-2321.	4.2	40
54	Numerical Simulation of Low-Mach-Number Laminar Mixing and Reacting Flows Using a Dual-Purpose Pressure-Based Algorithm. Numerical Heat Transfer, Part B: Fundamentals, 2011, 59, 495-514.	0.9	10

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55	DSMC simulation of subsonic flow through nanochannels and micro/nano backward-facing steps. International Communications in Heat and Mass Transfer, 2011, 38, 1443-1448.	5.6	43
56	Study of subsonicâ€"supersonic gas flow through micro/nanoscale nozzles using unstructured DSMC solver. Microfluidics and Nanofluidics, 2011, 10, 321-335.	2.2	74
57	A reduced domain strategy for local mesh movement application in unstructured grids. Applied Numerical Mathematics, 2011, 61, 1001-1016.	2.1	9
58	Numerical simulation of two-phase flow in airlift pumps using the Physical Influence Scheme. Progress in Computational Fluid Dynamics, 2010, 10, 186.	0.2	12
59	Numerical Simulation of Orifice Cavitating Flows Using Two-Fluid and Three-Fluid Cavitation Models. Numerical Heat Transfer; Part A: Applications, 2010, 58, 505-526.	2.1	11
60	A Directional Renumbering Strategy for Improving Unstructured Grid Data Structure. , 2010, , .		2
61	Novel Boundary Condition Implementation to Model Electroosmotic Phenomenon in Microchannels. , 2009, , .		2
62	Direct Simulation Monte Carlo Solution of Subsonic Flow Through Micro/Nanoscale Channels. Journal of Heat Transfer, 2009, 131, .	2.1	56
63	Advancement in Numerical Study of Gas Flow and Heat Transfer in a Microscale. Journal of Thermophysics and Heat Transfer, 2009, 23, 205-208.	1.6	18
64	Extending the Navierâ€"Stokes solutions to transition regime in two-dimensional micro- and nanochannel flows using information preservation scheme. Physics of Fluids, 2009, 21, .	4.0	77
65	Solution of Thermally Developing Zone in Short Micro-/Nanoscale Channels. Journal of Heat Transfer, 2009, 131, .	2.1	17
66	Recommendations on Enhancing the Efficiency of Algebraic Multigrid Preconditioned GMRES in Solving Coupled Fluid Flow Equations. Numerical Heat Transfer, Part B: Fundamentals, 2009, 55, 232-256.	0.9	12
67	A Study on Flow Through an Orifice With Prediction of Cavitation and Hydraulic Flip. , 2009, , .		3
68	Three-dimensional compressibleâ€"incompressible turbulent flow simulation using a pressure-based algorithm. Computers and Fluids, 2008, 37, 747-766.	2.5	20
69	Conceptual linearization of Euler governing equations to solve high speed compressible flow using a pressure-based method. Numerical Methods for Partial Differential Equations, 2008, 24, 583-604.	3.6	20
70	Developing implicit pressure-weighted upwinding scheme to calculate steady and unsteady flows on unstructured grids. International Journal for Numerical Methods in Fluids, 2008, 56, 115-141.	1.6	35
71	Microflow in Lid-Driven Microcavity with Various Aspect Ratios. , 2008, , .		3
72	Efficient multilevel restrictionâ€"prolongation expressions for hybrid finite volume element method. International Journal of Computational Fluid Dynamics, 2008, 22, 29-38.	1.2	11

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73	Developing Consistent Inlet Boundary Conditions to Study the Entrance Zone in Microchannels. Journal of Thermophysics and Heat Transfer, 2007, 21, 596-607.	1.6	25
74	Using fully implicit conservative statements to close open boundaries passing through recirculations. International Journal for Numerical Methods in Fluids, 2007, 53, 371-389.	1.6	19
75	Modification of the Standard k-epsilon Turbulence Model for Multi-Element Airfoil Application Using Optimization Technique. , 2006, , .		0
76	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
77	Multiblock hybrid grid finite volume method to solve flow in irregular geometries. Computer Methods in Applied Mechanics and Engineering, 2006, 196, 321-336.	6.6	32
78	Numerical Simulation of Thermobuoyant Flow with Large Temperature Variation. Journal of Thermophysics and Heat Transfer, 2006, 20, 285-296.	1.6	32
79	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. ESAIM: Mathematical Modelling and Numerical Analysis, 2005, 39, 617-621.	1.9	44
80	Evaluation of Different k-omega and k-epsilon Turbulence Models in a New Curvilinear Formulation. , 2005, , .		2
81	A MODIFIED PRESSURE-BASED ALGORITHM TO SOLVE FLOW FIELDS WITH SHOCK AND EXPANSION WAVES. Numerical Heat Transfer, Part B: Fundamentals, 2004, 46, 497-504.	0.9	14
82	A Modified Upwind-Biased Strategy to Calculate Flow on Structured-Unstructured Grid Topologies. , 2004, , .		2
83	Parallel Computation of a Fully Implicit Finite Volume Method using Different Ordering Strategies. , 2004, , .		2
84	A Finite Element Volume Method to Simulate Flow on Mixed Element Shapes. , 2003, , .		2
85	Thermobuoyancy Treatment for Electronic Packaging Using an Improved Advection Scheme. Journal of Electronic Packaging, Transactions of the ASME, 2003, 125, 244-250.	1.8	17
86	The Performance of a Physical Influence Scheme in Structured Triangular Grids. , 2003, , .		4
87	General Pressure-Correction Strategy to Include Density Variation in Incompressible Algorithms. Journal of Thermophysics and Heat Transfer, 2003, 17, 372-380.	1.6	32