Homayoun Emdad

List of Publications by Year
in descending order

57 papers	607 citations	623734 14 h-index	677142 22 g-index
57 all docs	57 docs citations	57 times ranked	613 citing authors

#	Article	IF	Citations
1	Numerical analysis of stochastic dispersion of micro-particles in turbulent flows in a realistic model of human nasal/upper airway. Journal of Aerosol Science, 2014, 67, 188-206.	3.8	57
2	Finite element modeling of functionally graded piezoelectric harvesters. Composite Structures, 2015, 129, 165-176.	5.8	56
3	A new model to solve fluid–hypo-elastic solid interaction using the smoothed particle hydrodynamics (SPH) method. European Journal of Mechanics, B/Fluids, 2011, 30, 184-194.	2.5	38
4	An accurate model for numerical prediction of piezoelectric energy harvesting from fluid structure interaction problems. Smart Materials and Structures, 2014, 23, 095034.	3.5	34
5	Effect of flow pulsation on fluidization degree of gas-solid fluidized beds by using coupled CFD-DEM. Advanced Powder Technology, 2018, 29, 3527-3541.	4.1	31
6	Transient numerical simulation of airflow and fibrous particles in a human upper airway model. Journal of Aerosol Science, 2020, 140, 105480.	3.8	29
7	Thermal analysis of vaulted roofs. Energy and Buildings, 2008, 40, 265-275.	6.7	26
8	Numerical investigation of turbulent airflow and microparticle deposition in a realistic model of human upper airway using LES. Computers and Fluids, 2017, 157, 43-54.	2.5	25
9	Numerical study of multiphase droplet dynamics and contact angles by smoothed particle hydrodynamics. Applied Mathematical Modelling, 2016, 40, 8493-8512.	4.2	23
10	Comparative study on the accuracy of solitary wave generations in an ISPH-based numerical wave flume. Applied Ocean Research, 2016, 54, 115-136.	4.1	23
11	Numerical simulation of blood flow in a flexible stenosed abdominal real aorta. Scientia Iranica, 2011, 18, 1297-1305.	0.4	22
12	Complete flow field computation around an ACV (air-cushion vehicle) using 3D VOF with Lagrangian propagation in computational domain. Computers and Structures, 2008, 86, 627-641.	4.4	20
13	Adjoint shape optimization of airfoils with attached Gurney flap. Aerospace Science and Technology, 2015, 41, 216-228.	4.8	19
14	New velocity-slip and temperature-jump boundary conditions for Navier–Stokes computation of gas mixture flows in microgeometries. Mechanics Research Communications, 2011, 38, 417-424.	1.8	18
15	Incompressible SPH simulation of landslide impulse-generated water waves. Natural Hazards, 2016, 82, 1779-1802.	3.4	15
16	A Comprehensive Study and Optimization of Magnetic Nanoparticle Drug Delivery to Cancerous Tissues via External Magnetic Field. Journal of Testing and Evaluation, 2019, 47, 681-703.	0.7	15
17	Dynamical analysis of carbon nanotubes conveying water considering carbon–water bond potential energy and nonlocal effects. Computational Materials Science, 2011, 50, 828-834.	3.0	14
18	Using vorticity to define conditions at multiple open boundaries for simulating flow in a simplified vortex settling basin. International Journal for Numerical Methods in Fluids, 2007, 54, 1-28.	1.6	11

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19	Numerical and analytical investigation of irrigant penetration into dentinal microtubules. Computers in Biology and Medicine, 2017, 89, 1-17.	7.0	10
20	Numerical investigation of the flow field and cut-off characteristics of supersonic/hypersonic impactors. Journal of Aerosol Science, 2011, 42, 65-77.	3.8	9
21	3D numerical investigation of the fluid mechanics in a partially liquefied vitreous humor due to saccadic eye movement. Computers in Biology and Medicine, 2020, 125, 103955.	7.0	9
22	Determination of Magnetic Nanoparticles Injection Characteristics for Optimal Hyperthermia Treatment of an Arbitrary Cancerous Cells Distribution. Journal of Testing and Evaluation, 2020, 48, 905-921.	0.7	9
23	On the numerical simulation of the nonbreaking solitary waves run up on sloping beaches. Computers and Mathematics With Applications, 2015, 70, 2270-2281.	2.7	7
24	Aerodynamic Multi-Parameter Optimization of NACA0012 Airfoil Using Suction/Blowing Jet Technique. Arabian Journal for Science and Engineering, 2017, 42, 1727-1735.	3.0	7
25	Performing Effective Drug Delivery and Hyperthermia Based on Biological and Treatment Parameters: A Comprehensive Eulerian-Lagrangian Approach. Journal of Computational and Theoretical Nanoscience, 2016, 13, 6628-6641.	0.4	7
26	Eulerian ISPH Method for Simulating Internal Flows. Journal of Applied Fluid Mechanics, 2016, 9, 1477-1490.	0.2	7
27	The importance of thermal mass diffusion effects in solution of Navier–Stokes equations for some gas mixture problems. Fluid Dynamics Research, 2005, 37, 173-182.	1.3	6
28	Experimental investigation of bounce phenomenon. Scientia Iranica, 2011, 18, 416-422.	0.4	6
29	Multicomponent fluid flow analysis using a new set of conservation equations. Fluid Dynamics Research, 2008, 40, 343-363.	1.3	5
30	Analysis of pressure field in time domain using nonlinear reduced frequency approach in unsteady transonic flows. International Journal of Numerical Methods for Heat and Fluid Flow, 2010, 20, 655-669.	2.8	5
31	Effect of temperature level on parallel mixing of two gas streams. Mechanics Research Communications, 2011, 38, 141-145.	1.8	4
32	Investigation of the common nose cone shapes in different gas mixtures in high Knudsen numbers. Scientia Iranica, 2012, 19, 1511-1518.	0.4	4
33	Numerical simulation of wave propagation in a realistic model of the human external ear. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 1797-1810.	1.6	4
34	Modified variable mass incompressible SPH method for simulating internal fluid flows. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2016, 38, 2009-2027.	1.6	4
35	Optimization of focused multi-site injection therapy to provide the desired temperature pattern for arbitrary tumor configuration based on MNP hyperthermia: Implementation of dual phase lag bioheat equation. Ain Shams Engineering Journal, 2021, 12, 901-915.	6.1	4
36	Importance of molecular interaction description on the hydrodynamics of gas mixtures. Scientia Iranica, 2011, 18, 1287-1296.	0.4	3

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37	Two-fluid analysis of a gas mixing problem. Scientia Iranica, 2013, , .	0.4	3
38	Viscous and Inviscid Solutions of Some Gas Mixture Problems. Heat Transfer Research, 2011, 42, 233-250.	1.6	3
39	Reconstruction and prediction of the in-cylinder pressure attractor of an internal combustion engine using locally constant models. Nonlinear Dynamics, 2007, 48, 437-447.	5.2	2
40	Feedback control of laminar flow behind backward-facing step by POD analysis and using perturbed Navierâ€"Stokes equations. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2012, 226, 648-659.	2.1	2
41	An efficient approach for calculation of pitching moment in nonlinear reduced frequency method at low Mach number transonic flows. International Journal for Numerical Methods in Fluids, 2012, 68, 287-301.	1.6	2
42	Feedback control of laminar flow separation on NACA23012 airfoil by POD analysis and using perturbed Navierâ€"Stokes equations. International Journal for Numerical Methods in Fluids, 2018, 86, 269-289.	1.6	2
43	Inhalability of micro-particles through the human nose breathing at high free-stream airflow velocities. Building and Environment, 2020, 179, 106948.	6.9	2
44	Piezoelectric energy harvesting from vertical piezoelectric beams in the horizontal fluid flows. Scientia Iranica, 2017, .	0.4	2
45	Dual-Code Thin-Layer Parabolized Navier-Stokes Strategy for Supersonic Flows over Spinning Bodies. Journal of Spacecraft and Rockets, 2003, 40, 893-897.	1.9	1
46	Investigation of the effect of nozzle shape on supersonic/hypersonic impactors designed for size discrimination of nanoparticles. Particuology, 2014, 16, 60-68.	3.6	1
47	Experimental investigations on the integrated bubbly wake strength of two different scale ship models. Ships and Offshore Structures, 2022, 17, 1812-1823.	1.9	1
48	Transonic and Supersonic Inviscid Flow Equations in 3-D Eccentric Nozzles. , 2002, , 1225.		0
49	Dual-Code TLNS-PNS Strategy for 3-D Supersonic Flows over Spinning Bodies. , 2002, , .		0
50	A New Method for Obtaining Non-Autonomous, Reduced-Order Model of Flow Using Proper Orthogonal Decomposition (POD) and Optimal Control of the Resultant Nonlinear Model. , 2005, , 797.		0
51	A robust algorithm for computing fluid flows on highly nonâ€"smooth staggered grids. International Journal for Numerical Methods in Fluids, 2009, 59, 1011-1033.	1.6	0
52	Parameter Study of Dynamical Behavior of Carbon Nanotubes Conveying Water Considering Carbon-Water Bond. , 2010, , .		0
53	Numerical Investigation of Irrigant Penetration Into Dentinal Microtubules. , 2014, , .		0
54	LES of Turbulent Airflow Field and Microparticle Deposition in a Realistic Model of Human Upper Airways. , 2014, , .		0

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55	Numerical Simulation of Airflow and Ellipsoidal Particle Deposition in Human Upper Respiratory Tract. , 2018, , .		0
56	Analysis of flow at the vicinity of vegetation stems in the floodplain of a compound open channel. International Journal of River Basin Management, 2020, 18, 295-306.	2.7	0
57	A 3-D Thin Layer Navier-Stokes Code for Supersonic Laminar and Turbulent Flows. , 2002, , .		0