

Amaresh Dalal

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

101
papers

1,641
citations

25
h-index

36
g-index

112
ext. papers

1,888
ext. citations

3.2
avg, IF

5.28
L-index

#	Paper	IF	Citations
101	Interfacial dynamics of viscous droplets impacting a superhydrophobic candle soot surface: Overview and comparison. <i>Physics of Fluids</i> , 2022 , 34, 012121	4.4	5
100	Evolution of jets during drop impact on a deep liquid pool. <i>Physics of Fluids</i> , 2022 , 34, 022110	4.4	3
99	Numerical Investigation of Free Convection in a Porous Corrugated Cavity Filled With Silver (Ag) Dispersed Nano-Fluid. <i>Journal of Thermal Science and Engineering Applications</i> , 2021 , 13,	1.9	1
98	Electrohydrodynamic-induced interactions between droplets. <i>Journal of Fluid Mechanics</i> , 2021 , 915,	3.7	3
97	Numerical Analysis of Conjugate Heat Transfer in a Planar Sudden Expansion Flow. <i>Journal of the Institution of Engineers (India): Series C</i> , 2021 , 102, 981	0.9	
96	Development of a phase change solver for concentrated energy beam applications. <i>International Communications in Heat and Mass Transfer</i> , 2021 , 126, 105469	5.8	
95	Electric-Discharge-Mediated Jetting, Crowning, Bursting, and Atomization of a Droplet. <i>Physical Review Applied</i> , 2021 , 15,	4.3	1
94	Discerning the self-healing, shear-thinning characteristics and therapeutic efficacy of hydrogel drug carriers migrating through constricted microchannel resembling blood microcapillary. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021 , 626, 127070	5.1	2
93	Study of Pool Boiling Through Numerical Approach 2020 , 607-644		
92	Magnetowetting dynamics of sessile ferrofluid drops on soft surfaces. <i>Soft Matter</i> , 2020 , 16, 970-982	3.6	7
91	A new GreenGauss reconstruction on unstructured meshes. Part I: Gradient reconstruction. <i>Journal of Computational Physics</i> , 2020 , 422, 108325	4.1	7
90	A computational analysis of the role of particle diameter on the fluidization behavior in a bubbling gas-solid fluidized bed. <i>Computational Particle Mechanics</i> , 2020 , 7, 555-565	3	4
89	Dynamics of formation and oscillation of non-spherical drops. <i>Chemical Engineering Science</i> , 2019 , 201, 413-423	4.4	5
88	Coalescence dynamics of a compound drop on a deep liquid pool. <i>Journal of Fluid Mechanics</i> , 2019 , 866,	3.7	21
87	Mesoscale understanding of capillarity driven two-phase flow in a packed bed architecture. <i>International Journal of Heat and Mass Transfer</i> , 2019 , 136, 116-127	4.9	4
86	Influence of electric field on deformation of a drop in shear flow. <i>Physics of Fluids</i> , 2019 , 31, 042102	4.4	10
85	Deciphering Hydrodynamic and Drug-Resistant Behaviors of Metastatic EMT Breast Cancer Cells Moving in a Constricted Microcapillary. <i>Journal of Clinical Medicine</i> , 2019 , 8,	5.1	8

84	Experimental characterization of the growth dynamics during capillarity-driven droplet generation. <i>Physical Review E</i> , 2019 , 100, 013106	2.4	1
83	Evaluation of Thermophysical Properties of Menthol-Based Deep Eutectic Solvent as a Thermal Fluid: Forced Convection and Numerical Studies. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 20125-20133	3.9	5
82	Comment on Modifications to the gradient schemes on unstructured cell centered grids for the accurate determination of gradients near conductivity changes[Phys. Fluids 31, 047104 (2019)]. <i>Physics of Fluids</i> , 2019 , 31, 129101	4.4	1
81	Numerical appraisal of three low Mach number algorithms for radiative-convective flows in enclosures. <i>Computers and Mathematics With Applications</i> , 2019 , 77, 2162-2181	2.7	2
80	A parametric study on the droplet detachment process from the ceiling under the effect of gravity. <i>Engineering Computations</i> , 2019 , 36, 445-465	1.4	0
79	Probing the influence of confinement and wettability on droplet displacement behavior: A mesoscale analysis. <i>European Journal of Mechanics, B/Fluids</i> , 2019 , 75, 327-338	2.4	3
78	Coalescence dynamics of unequal sized drops. <i>Physics of Fluids</i> , 2019 , 31, 012105	4.4	25
77	Mesoscopic Modeling of Capillarity-Induced Two-Phase Transport in a Microfluidic Porous Structure. <i>Transport in Porous Media</i> , 2018 , 122, 673-691	3.1	1
76	Towards an improved conservative approach for simulating electrohydrodynamic two-phase flows using volume-of-fluid. <i>Journal of Computational Physics</i> , 2018 , 367, 391-398	4.1	3
75	Dynamics of tongue shaped cavity generated during the impact of high-speed microdrops. <i>Physics of Fluids</i> , 2018 , 30, 042103	4.4	7
74	A parametric study of dispersed laminar gas-particle flows through vertical and horizontal channels. <i>Advanced Powder Technology</i> , 2018 , 29, 1072-1084	4.6	2
73	Effects of specularity and particle-particle restitution coefficients on the hydrodynamic behavior of dispersed gas-particle flows through horizontal channels. <i>Advanced Powder Technology</i> , 2018 , 29, 874-889	4.6	10
72	A generic algorithm for three-dimensional multiphase flows on unstructured meshes. <i>International Journal of Multiphase Flow</i> , 2018 , 106, 228-242	3.6	12
71	Numerical investigation of mixing enhancement for multi-species flows in wavy channels. <i>Chemical Engineering and Processing: Process Intensification</i> , 2018 , 127, 191-205	3.7	15
70	The influence of partitions on predicting heat transfer due to the combined effects of convection and thermal radiation in cubical enclosures. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 121, 1179-1200	4.9	10
69	Thermo-hydraulic transport characteristics of non-Newtonian fluid flows through corrugated channels. <i>International Journal of Thermal Sciences</i> , 2018 , 129, 201-208	4.1	26
68	Numerical assessment of mixing performances in cross-T microchannel with curved ribs. <i>Microsystem Technologies</i> , 2018 , 24, 1949-1963	1.7	18
67	Mesosopic analysis of three-dimensional droplet displacement on wetted grooved wall of a rectangular channel. <i>European Journal of Mechanics, B/Fluids</i> , 2018 , 67, 35-53	2.4	3

66	Design and performance of a three-dimensional micromixer with curved ribs. <i>Chemical Engineering Research and Design</i> , 2018 , 136, 761-775	5.5	29
65	Effects of specularity and particle-particle restitution coefficients on the recirculation characteristics of dispersed gas-particle flows through a sudden expansion. <i>Advanced Powder Technology</i> , 2018 , 29, 2463-2475	4.6	8
64	Cross-stream migration of drops suspended in Poiseuille flow in the presence of an electric field. <i>Physical Review E</i> , 2018 , 97, 063106	2.4	17
63	Investigations of turbulence-radiation interaction in non-Oberbeck-Boussinesq buoyancy-driven flows. <i>International Journal of Thermal Sciences</i> , 2018 , 134, 298-316	4.1	3
62	Bubble Lifecycle During Heterogeneous Nucleate Boiling. <i>Journal of Heat Transfer</i> , 2018 , 140,	1.8	9
61	Effect of channel confinement on wake dynamics and forced convective heat transfer past a blunt headed cylinder. <i>International Journal of Thermal Sciences</i> , 2018 , 124, 467-476	4.1	9
60	Understanding flow dynamics, viability and metastatic potency of cervical cancer (HeLa) cells through constricted microchannel. <i>Scientific Reports</i> , 2018 , 8, 17357	4.9	12
59	Effect of surface wettability and electric field on transition of film boiling to nucleate boiling. <i>Numerical Heat Transfer; Part A: Applications</i> , 2018 , 74, 1105-1120	2.3	8
58	Analysis of droplet dynamics in a partially obstructed confinement in a three-dimensional channel. <i>Physics of Fluids</i> , 2018 , 30, 102102	4.4	14
57	Sweeping of the entrapped fluid out of the groove in a three-dimensional channel using lattice Boltzmann method. <i>European Journal of Mechanics, B/Fluids</i> , 2018 , 72, 328-339	2.4	4
56	Unified framework for buoyancy induced radiative-convective flow and heat transfer on hybrid unstructured meshes. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 126, 908-925	4.9	5
55	Mesosopic Analysis of Dynamic Droplet Behavior on Wetted Flat and Grooved Surface for Low Viscosity Ratio. <i>Journal of Heat Transfer</i> , 2017 , 139,	1.8	4
54	Migration of a droplet in a cylindrical tube in the creeping flow regime. <i>Physical Review E</i> , 2017 , 95, 033110	1.0	13
53	Saturated film boiling at various gravity levels under the influence of electrohydrodynamic forces. <i>Physics of Fluids</i> , 2017 , 29, 032104	4.4	20
52	Temporal linear stability analysis of an entry flow in a channel with viscous heating. <i>International Journal of Heat and Mass Transfer</i> , 2017 , 109, 922-929	4.9	3
51	Critical assessment of numerical algorithms for convective-radiative heat transfer in enclosures with different geometries. <i>International Journal of Heat and Mass Transfer</i> , 2017 , 108, 627-644	4.9	16
50	Field induced anomalous spreading, oscillation, ejection, spinning, and breaking of oil droplets on a strongly slipping water surface. <i>Faraday Discussions</i> , 2017 , 199, 115-128	3.6	10
49	The regime of large bubble entrapment during a single drop impact on a liquid pool. <i>Physics of Fluids</i> , 2017 , 29, 092101	4.4	31

48	Forced convective flow and heat transfer past an unconfined blunt headed cylinder. <i>Numerical Heat Transfer; Part A: Applications</i> , 2017 , 72, 372-388	2.3	6
47	Lattice Boltzmann simulations of coalescence of two droplets on a rectangular channel wall considering wetting effects. <i>Progress in Computational Fluid Dynamics</i> , 2017 , 17, 281	0.7	
46	Numerical Simulation of Solidification and Melting Problems on Unstructured Grid. <i>Lecture Notes in Mechanical Engineering</i> , 2017 , 439-448	0.4	
45	A Hybrid Grid Based Algebraic Volume of Fluid Method for Interfacial Flows. <i>Lecture Notes in Mechanical Engineering</i> , 2017 , 1111-1119	0.4	
44	3D Unsteady Numerical Simulation of All-Vanadium Redox Flow Battery. <i>Lecture Notes in Mechanical Engineering</i> , 2017 , 457-466	0.4	
43	LESSONS FROM ANUPRAVAHA: TOWARDS A GENERAL PURPOSE COMPUTATIONAL FRAMEWORK ON HYBRID UNSTRUCTURED MESHES FOR MULTI-PHYSICS APPLICATIONS 2017 ,		3
42	Computation of Flow Coupled with the Electric Field on Unstructured Grid. <i>Lecture Notes in Mechanical Engineering</i> , 2017 , 467-476	0.4	
41	Lattice Boltzmann Modelling of Capillarity-Induced Resonance of Blob Inside a Circular Tube. <i>Lecture Notes in Mechanical Engineering</i> , 2017 , 1121-1130	0.4	
40	Eulerian-Eulerian Modeling of Dispersed Laminar Gas-Particle Flows over an Unstructured Grid. <i>Lecture Notes in Mechanical Engineering</i> , 2017 , 1101-1110	0.4	
39	Computation of Variable Density Flows on Hybrid Unstructured Grids. <i>Lecture Notes in Mechanical Engineering</i> , 2017 , 431-437	0.4	
38	Effects of the inclination angle on natural convection heat transfer and entropy generation in a square porous enclosure. <i>Numerical Heat Transfer; Part A: Applications</i> , 2016 , 70, 1271-1296	2.3	29
37	Numerical investigation of two dimensional natural convection and entropy generation inside a porous square enclosure with sinusoidally heated wall. <i>Progress in Computational Fluid Dynamics</i> , 2016 , 16, 88	0.7	4
36	Effect of superheat and electric field on saturated film boiling. <i>Physics of Fluids</i> , 2016 , 28, 052102	4.4	25
35	Bubble Formation in Film Boiling Including Electrohydrodynamic Forces. <i>Procedia IUTAM</i> , 2015 , 15, 86-94		3
34	Influence of geometry on mobilization of trapped blob. <i>European Journal of Mechanics, B/Fluids</i> , 2015 , 53, 1-10	2.4	3
33	Flow past an Equilateral Triangular Bluff Obstacle: Computational Study of the Effect of Thermal Buoyancy on Flow Physics and Heat Transfer. <i>Numerical Heat Transfer; Part A: Applications</i> , 2015 , 67, 476-495	2.3	4
32	Mesoscopic simulation of blob resonance in a model porous pathway. <i>Microfluidics and Nanofluidics</i> , 2015 , 18, 215-232	2.8	
31	Effect of Channel Confinement on Mixed Convective Flow Past an Equilateral Triangular Cylinder. <i>Journal of Heat Transfer</i> , 2015 , 137,	1.8	9

30	Wettability effects on contact line dynamics of droplet motion in an inclined channel. <i>Physical Review E</i> , 2015 , 91, 053006	2.4	14
29	Effect of Undulations on the Natural Convection Heat Transfer and Entropy Generation Inside a Porous Right-Angled Triangular Enclosure. <i>Numerical Heat Transfer; Part A: Applications</i> , 2015 , 67, 972-991 ³	2.3	20
28	Influence of wavy wall and non-uniform heating on natural convection heat transfer and entropy generation inside porous complex enclosure. <i>Energy</i> , 2015 , 79, 467-481	7.9	95
27	Probing the influence of superhydrophobicity and mixed wettability on droplet displacement behavior. <i>Microfluidics and Nanofluidics</i> , 2014 , 17, 657-674	2.8	17
26	Effect of angle of incidence on mixed convective wake dynamics and heat transfer past a square cylinder in cross flow at Re=100. <i>International Journal of Heat and Mass Transfer</i> , 2014 , 74, 319-332	4.9	32
25	Influence of viscosity ratio and wettability on droplet displacement behavior: A mesoscale analysis. <i>Computers and Fluids</i> , 2014 , 102, 15-31	2.8	11
24	Lattice Boltzmann modeling of two-phase behavior under acoustic excitation: CapillarityWettability interaction. <i>International Journal of Heat and Mass Transfer</i> , 2014 , 74, 460-472	4.9	3
23	Analysis of Entropy Generation During Mixed Convective Heat Transfer of Nanofluids Past a Rotating Circular Cylinder. <i>Journal of Heat Transfer</i> , 2014 , 136,	1.8	25
22	Mixed convective flow stability of nanofluids past a square cylinder by dynamic mode decomposition. <i>International Journal of Heat and Fluid Flow</i> , 2013 , 44, 624-634	2.4	47
21	Analysis of natural convection heat transfer and entropy generation inside porous right-angled triangular enclosure. <i>International Journal of Heat and Mass Transfer</i> , 2013 , 65, 500-513	4.9	42
20	Capillarity-induced resonance of blobs in a 3-D duct: lattice Boltzmann modelling. <i>International Journal of Heat and Mass Transfer</i> , 2013 , 65, 635-648	4.9	11
19	Buoyancy driven flow and heat transfer of nanofluids past a square cylinder in vertically upward flow. <i>International Journal of Heat and Mass Transfer</i> , 2013 , 59, 433-450	4.9	44
18	Simplified Mathematical Model to Evaluate the Performance of the All-Vanadium Redox Flow Battery 2013 ,		1
17	Flow over and forced convection heat transfer around a semi-circular cylinder at incidence. <i>International Journal of Heat and Mass Transfer</i> , 2012 , 55, 5171-5184	4.9	42
16	Analysis of Entropy Generation During Mixed Convective Heat Transfer of Nanofluids Past a Square Cylinder in Vertically Upward Flow. <i>Journal of Heat Transfer</i> , 2012 , 134,	1.8	35
15	Unsteady wake dynamics and heat transfer in forced and mixed convection past a circular cylinder in cross flow for high Prandtl numbers. <i>International Journal of Heat and Mass Transfer</i> , 2011 , 54, 3536-3551	4.9	51
14	Mixed convective heat transfer from two identical square cylinders in cross flow at Re = 100. <i>International Journal of Heat and Mass Transfer</i> , 2010 , 53, 2628-2642	4.9	33
13	A Finite-Volume Method for Navier-Stokes Equations on Unstructured Meshes. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , 2008 , 54, 238-259	1.3	57

12	A Numerical Study of Fluid Flow and Heat Transfer around a Square Cylinder at Incidence using Unstructured Grids. <i>Numerical Heat Transfer; Part A: Applications</i> , 2008 , 54, 890-913	2.3	27
11	Heatline method for the visualization of natural convection in a complicated cavity. <i>International Journal of Heat and Mass Transfer</i> , 2008 , 51, 263-272	4.9	71
10	Numerical study of laminar natural convection in a complicated cavity heated from top with sinusoidal temperature and cooled from other sides. <i>Computers and Fluids</i> , 2007 , 36, 680-700	2.8	20
9	Numerical Study of Laminar Forced Convection Fluid Flow and Heat Transfer From a Triangular Cylinder Placed in a Channel. <i>Journal of Heat Transfer</i> , 2007 , 129, 646-656	1.8	49
8	A numerical study of natural convection around a square, horizontal, heated cylinder placed in an enclosure. <i>International Journal of Heat and Mass Transfer</i> , 2006 , 49, 4608-4623	4.9	130
7	Numerical simulation of unconfined flow past a triangular cylinder. <i>International Journal for Numerical Methods in Fluids</i> , 2006 , 52, 801-821	1.9	94
6	Natural Convection in a Cavity With a Wavy Wall Heated From Below and Uniformly Cooled From the Top and Both Sides. <i>Journal of Heat Transfer</i> , 2006 , 128, 717-725	1.8	34
5	Natural Convection in a Rectangular Cavity Heated from Below and Uniformly Cooled from the Top and Both Sides. <i>Numerical Heat Transfer; Part A: Applications</i> , 2006 , 49, 301-322	2.3	34
4	Laminar Natural Convection Inside a Wavy Enclosure Heated From Top and Uniformly Cooled From the Bottom and Both Sides 2005 , 123		
3	Laminar natural convection in an inclined complicated cavity with spatially variable wall temperature. <i>International Journal of Heat and Mass Transfer</i> , 2005 , 48, 3833-3854	4.9	50
2	Laminar natural convection in an inclined complicated cavity with spatially variable wall temperature. <i>International Journal of Heat and Mass Transfer</i> , 2005 , 48, 2986-3007	4.9	18
1	Laminar Natural Convection in a Complicated Cavity With Spatially Variable Upper Wall Temperature 2003 , 633		3