

Nirmal Manna

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79
papers

801
citations

16
h-index

25
g-index

95
ext. papers

1,285
ext. citations

2.5
avg, IF

5.42
L-index

#	Paper	IF	Citations
79	Heat Transfer Enhancement and Entropy Generation in a Square Enclosure in the Presence of Adiabatic and Isothermal Blocks. <i>Numerical Heat Transfer; Part A: Applications</i> , 2013 , 64, 577-596	2.3	58
78	Analysis of heat transfer and pumping power for bottom-heated porous cavity saturated with Cu-water nanofluid. <i>Powder Technology</i> , 2018 , 326, 356-369	5.2	55
77	Magneto-hydrodynamic thermal convection of CuAl ₂ O ₃ /water hybrid nanofluid saturated with porous media subjected to half-sinusoidal nonuniform heating. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021 , 143, 1727-1753	4.1	45
76	Magneto-hydrodynamic Marangoni flow in bottom-heated lid-driven cavity. <i>Journal of Molecular Liquids</i> , 2018 , 251, 249-266	6	39
75	Effects of half-sinusoidal nonuniform heating during MHD thermal convection in CuAl ₂ O ₃ /water hybrid nanofluid saturated with porous media. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021 , 143, 1665-1688	4.1	37
74	Heat Transfer and Entropy Generation in a Porous Square Enclosure in Presence of an Adiabatic Block. <i>Transport in Porous Media</i> , 2016 , 111, 305-329	3.1	35
73	Enhanced convective heat transfer in lid-driven porous cavity with aspiration. <i>International Journal of Heat and Mass Transfer</i> , 2017 , 114, 430-452	4.9	33
72	Enhanced thermal energy transport using adiabatic block inside lid-driven cavity. <i>International Journal of Heat and Mass Transfer</i> , 2016 , 100, 407-427	4.9	33
71	Influence of Heater Aspect Ratio on Natural Convection in a Rectangular Enclosure. <i>Heat Transfer Engineering</i> , 2016 , 37, 125-139	1.7	27
70	Heat transfer assessment of an alternately active bi-heater undergoing transient natural convection. <i>International Journal of Heat and Mass Transfer</i> , 2015 , 83, 450-464	4.9	23
69	Role of surface undulation during mixed bioconvective nanofluid flow in porous media in presence of oxytactic bacteria and magnetic fields. <i>International Journal of Mechanical Sciences</i> , 2021 , 211, 106778	5.5	21
68	Merit of non-uniform over uniform heating in a porous cavity. <i>International Communications in Heat and Mass Transfer</i> , 2016 , 78, 135-144	5.8	18
67	Thermal management of heating element in a ventilated enclosure. <i>International Communications in Heat and Mass Transfer</i> , 2015 , 66, 84-92	5.8	18
66	Effect of multibanded magnetic field on convective heat transport in linearly heated porous systems filled with hybrid nanofluid. <i>Physics of Fluids</i> , 2021 , 33, 053604	4.4	18
65	Mixed Convection Heat Transfer in a Grooved Channel with Injection. <i>Numerical Heat Transfer; Part A: Applications</i> , 2015 , 68, 663-685	2.3	16
64	Effect of surface waviness on MHD thermo-gravitational convection of CuAl ₂ O ₃ /water hybrid nanofluid in a porous oblique enclosure. <i>Physica Scripta</i> , 2021 , 96, 105002	2.6	16
63	Magnetic force vectors as a new visualization tool for magnetohydrodynamic convection. <i>International Journal of Thermal Sciences</i> , 2021 , 167, 107004	4.1	16

62	A novel multi-banding application of magnetic field to convective transport system filled with porous medium and hybrid nanofluid. <i>Physica Scripta</i> , 2021 , 96, 065001	2.6	15
61	MHD convection in a partially driven cavity with corner heating. <i>SN Applied Sciences</i> , 2019 , 1, 1	1.8	15
60	Buoyancy-driven fluid and energy flow in protruded heater enclosure. <i>Meccanica</i> , 2016 , 51, 2159-2184	2.1	14
59	Heatlines and other visualization techniques for confined heat transfer systems. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 118, 1069-1079	4.9	14
58	Mixed Convection Heat Transfer in a Grooved Channel in the Presence of a Baffle. <i>Numerical Heat Transfer; Part A: Applications</i> , 2015 , 67, 1097-1118	2.3	13
57	Effect of active wall location in a partially heated enclosure. <i>International Communications in Heat and Mass Transfer</i> , 2015 , 61, 69-77	5.8	13
56	Proper orthogonal decomposition of thermally-induced flow structure in an enclosure with alternately active localized heat sources. <i>International Journal of Heat and Mass Transfer</i> , 2016 , 94, 373-379	4.9	13
55	Convective heat transfer enhancement: effect of multi-frequency heating. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2019 , 29, 3822-3856	4.5	11
54	Numerical study of blood flow through different double bell-shaped stenosed coronary artery during the progression of the disease, atherosclerosis. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2010 , 20, 670-698	4.5	11
53	Thermo-bioconvection of oxytactic microorganisms in porous media in the presence of magnetic field. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2021 , 31, 1638-1661	4.5	11
52	Influence of different bell-shaped stenoses on the progression of the disease, atherosclerosis. <i>Journal of Mechanical Science and Technology</i> , 2011 , 25, 1933-1947	1.6	9
51	Transport phenomena in a sidewall-moving bottom-heated cavity using heatlines. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2017 , 42, 193-211	1	8
50	Study of leakage flow through a spool valve under blocked-actuator port condition: Simulation and experiment. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2014 , 228, 1405-1417	1.3	8
49	Numerical Simulation of Laminar Confined Radial Flow Between Parallel Circular Discs. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2012 , 134,	2.1	8
48	A NUMERICAL STUDY ON THE PERFORMANCE OF A SUDDEN EXPANSION WITH MULTISTEPS AS A DIFFUSER. <i>International Journal of Applied Mechanics</i> , 2011 , 03, 779-802	2.4	7
47	Enhanced magnetohydrodynamic thermal convection in a partially driven cavity packed with a nanofluid-saturated porous medium. <i>Mathematical Methods in the Applied Sciences</i> ,	2.3	7
46	Mixed convection in a baffled grooved channel. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2015 , 40, 835-849	1	6
45	Study on the effect of steady, simple pulsatile and physiological pulsatile flows through a stenosed artery. <i>Heat and Mass Transfer</i> , 2014 , 50, 1343-1352	2.2	6

44	A multiphase model for determination of minimum circulation ratio of natural circulation boiler for a wide range of pressure. <i>International Journal of Heat and Mass Transfer</i> , 2020 , 150, 119293	4.9	6
43	Energy-saving method of heat transfer enhancement during magneto-thermal convection in typical thermal cavities adopting aspiration. <i>SN Applied Sciences</i> , 2020 , 2, 1	1.8	6
42	Magnetohydrodynamic thermal characteristics of water-based hybrid nanofluid-filled non-Darcian porous wavy enclosure: effect of undulation. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2021 , ahead-of-print,	4.5	6
41	Hydrodynamic and thermal interactions of a cluster of solid particles in a pool of liquid of different Prandtl numbers using two-fluid model. <i>Heat and Mass Transfer</i> , 2013 , 49, 1659-1679	2.2	5
40	Role of aspiration to enhance MHD convection in protruded heater cavity. <i>Progress in Computational Fluid Dynamics</i> , 2020 , 20, 363	0.7	5
39	A narrative loom of hybrid nanofluid-filled wavy walled tilted porous enclosure imposing a partially active magnetic field. <i>International Journal of Mechanical Sciences</i> , 2022 , 217, 107028	5.5	5
38	Thermal instability-driven multiple solutions in a grooved channel. <i>Numerical Heat Transfer; Part A: Applications</i> , 2016 , 70, 776-790	2.3	5
37	Magnetohydrodynamic bioconvection of oxytactic microorganisms in porous media saturated with Cu-water nanofluid. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2021 , ahead-of-print,	4.5	5
36	Forced convection past a semi-circular cylinder at incidence with a downstream circular cylinder: Thermofluidic transport and stability analysis. <i>Physics of Fluids</i> , 2021 , 33, 023603	4.4	5
35	Thermo-fluidic transport process in a novel M-shaped cavity packed with non-Darcian porous medium and hybrid nanofluid: Application of artificial neural network (ANN). <i>Physics of Fluids</i> , 2022 , 34, 033608	4.4	5
34	Analysis of Entropy Generation during the Convective Quenching of a Cluster of Balls. <i>Numerical Heat Transfer; Part A: Applications</i> , 2014 , 66, 689-711	2.3	4
33	Magnetohydrodynamic mixed bioconvection of oxytactic microorganisms in a nanofluid-saturated porous cavity heated with a bell-shaped curved bottom. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2021 , ahead-of-print,	4.5	4
32	Molten Drop to Coolant Heat Transfer During Premixing of Fuel Coolant Interaction. <i>Energy, Environment, and Sustainability</i> , 2018 , 201-235	0.8	3
31	Experimental studies of flow through radial channels using PIV technique. <i>Journal of Visualization</i> , 2014 , 17, 221-233	1.6	3
30	Implementation of partial magnetic fields to magneto-thermal convective systems operated using hybrid-nanoliquid and porous media. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 095440622110601	1.3	3
29	Positional impacts of partial wall translations on hybrid nanofluid flow in porous media: Real Coded Genetic Algorithm (RCGA). <i>International Journal of Mechanical Sciences</i> , 2022 , 217, 107030	5.5	3
28	Two-phase thermo-hydraulic model of a 210 MW thermal power plant boiler for designing the riser-downcomer circuit. <i>Thermal Science and Engineering Progress</i> , 2020 , 18, 100537	3.6	3
27	Buoyancy driven flow in a parallelogrammic enclosure with an obstructive block and magnetic field. <i>Materials Today: Proceedings</i> , 2021 , 44, 3164-3171	1.4	3

26	Wall Shear Stress Characteristics for the Progression of the Disease, Atherosclerosis. <i>Journal of the Institution of Engineers (India): Series C</i> , 2015 , 96, 311-323	0.9	2
25	Heat transfer partitioning model of film boiling of particle cluster in a liquid pool: implementation in a CFD code. <i>Heat and Mass Transfer</i> , 2015 , 51, 1149-1166	2.2	2
24	Mixed Convection in a Ventilated Enclosure with Different Heater Position. <i>Lecture Notes in Mechanical Engineering</i> , 2017 , 363-374	0.4	2
23	A Two-Phase Flow Model for Thermal Design of the Riser-Downcomer System Pertaining to a 600 MW Subcritical Boiler. <i>Journal of Thermal Science and Engineering Applications</i> , 2021 , 13,	1.9	2
22	Impact of side injection on heat removal from truncated conical heat-generating porous bed: thermal non-equilibrium approach. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021 , 143, 3741-3760	4.1	2
21	Thermo-magnetic convection of nanofluid in a triangular cavity with a heated inverted triangular object. <i>Materials Today: Proceedings</i> , 2021 ,	1.4	2
20	Effect of axially varying heat flux on thermo-hydraulic characteristics and circulation ratio of riser tubes of natural circulation boiler. <i>Energy</i> , 2022 , 244, 123158	7.9	1
19	Thermal convection in an inclined cavity under the influence of partial magnetic field. <i>IOP Conference Series: Materials Science and Engineering</i> , 2021 , 1080, 012029	0.4	1
18	Effect of partial magnetic field on thermo gravitational convection in an inclined cavity. <i>IOP Conference Series: Materials Science and Engineering</i> , 2021 , 1080, 012030	0.4	1
17	Integrated thermal modeling, analysis, and sequential design of heat exchanger surfaces of a natural circulation RDF boiler including evaporator tubes. <i>Applied Thermal Engineering</i> , 2022 , 211, 118455 ^{5.8}	5.8	1
16	Analysis of geometrical shape impact on thermal management of practical fluids using square and circular cavities. <i>European Physical Journal: Special Topics</i> ,1	2.3	1
15	Thermal magneto-hydrodynamics in a ventilated porous enclosure. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2020 , 45, 1	1	0
14	Effect of partial wall motion on MHD mixed convection heat transfer undergoing in a porous cavity filled with Cu-water nanofluid with a centrally mounted heat source. <i>IOP Conference Series: Materials Science and Engineering</i> , 2021 , 1080, 012025	0.4	0
13	Forced convection and entropy generation past a series of porous bodies with internal heat generation. <i>Physica Scripta</i> , 2021 , 96, 125009	2.6	0
12	Assessment of thermal performance of hybrid nanofluid flow in a tilted porous enclosure by imposing partial magnetic fields. <i>Waves in Random and Complex Media</i> ,1-34	1.9	0
11	Impact of Magnetic Field on Thermal Convection in a Linearly Heated Porous Cavity. <i>Lecture Notes on Multidisciplinary Industrial Engineering</i> , 2019 , 503-522	0.3	
10	MHD Convection with Heat Generation in a Porous Cavity. <i>Lecture Notes on Multidisciplinary Industrial Engineering</i> , 2019 , 547-569	0.3	
9	Magneto-thermal convection in lid-driven cavity. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2020 , 45, 1	1	

8	Magneto-Convective Heat Transfer in a Cavity Under Partial Magnetic Fields. <i>Lecture Notes in Mechanical Engineering</i> , 2021 , 117-130	0.4
7	MHD Thermal Convection of Nanofluid Saturated Porous Cavity Heated Linearly. <i>Lecture Notes in Mechanical Engineering</i> , 2021 , 33-46	0.4
6	MHD Convection in Cavity Under Partially Applied Magnetic Fields. <i>Lecture Notes in Mechanical Engineering</i> , 2021 , 131-145	0.4
5	Unsteady development of Marangoni convection in a sidewall moving open cavity. <i>IOP Conference Series: Materials Science and Engineering</i> , 2021 , 1080, 012024	0.4
4	Thermal Management of Nanofluid Filled Porous Cavity Utilized for Solar Heating System. <i>Journal of the Institution of Engineers (India): Series C</i> ,1	0.9
3	Electro-thermal Convection in a Rectangular Enclosure. <i>Lecture Notes in Mechanical Engineering</i> , 2021 , 103-113	0.4
2	Hydrothermal performance of hybrid nanofluid in a complex wavy porous cavity imposing a magnetic field. <i>Materials Today: Proceedings</i> , 2022 , 52, 419-426	1.4
1	Fluid Mechanics in Arterial Diseases. <i>Advances in Mechatronics and Mechanical Engineering</i> , 2022 , 153-178.5	