

Ioannis Sarris

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Impact of Binary Chemical Reaction and Activation Energy on Heat and Mass Transfer of Marangoni Driven Boundary Layer Flow of a Non-Newtonian Nanofluid. <i>Processes</i> , 2021, 9, 702.	2.8	186
2	NATURAL CONVECTION IN A 2D ENCLOSURE WITH SINUSOIDAL UPPER WALL TEMPERATURE. <i>Numerical Heat Transfer; Part A: Applications</i> , 2002, 42, 513-530.	2.1	144
3	Effect of Magnetohydrodynamics on Heat Transfer Behaviour of a Non-Newtonian Fluid Flow over a Stretching Sheet under Local Thermal Non-Equilibrium Condition. <i>Fluids</i> , 2021, 6, 264.	1.7	121
4	On the Limits of Validity of the Low Magnetic Reynolds Number Approximation in MHD Natural-Convection Heat Transfer. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , 2006, 50, 157-180.	0.9	109
5	Magneto-Bioconvection Flow of Williamson Nanofluid over an Inclined Plate with Gyrotactic Microorganisms and Entropy Generation. <i>Fluids</i> , 2021, 6, 109.	1.7	85
6	Crucial effect of aggregations in CNT-water nanofluid magnetohydrodynamic natural convection. <i>Thermal Science and Engineering Progress</i> , 2019, 11, 263-271.	2.7	81
7	MHD natural convection in a laterally and volumetrically heated square cavity. <i>International Journal of Heat and Mass Transfer</i> , 2005, 48, 3443-3453.	4.8	80
8	Magnetohydrodynamic natural convection in a vertical cylindrical cavity with sinusoidal upper wall temperature. <i>International Journal of Heat and Mass Transfer</i> , 2009, 52, 250-259.	4.8	60
9	Effect of radiation and Navier slip boundary of Walters's liquid B flow over a stretching sheet in a porous media. <i>International Journal of Heat and Mass Transfer</i> , 2018, 127, 1327-1337.	4.8	60
10	An MHD couple stress fluid due to a perforated sheet undergoing linear stretching with heat transfer. <i>International Journal of Heat and Mass Transfer</i> , 2017, 105, 157-167.	4.8	58
11	Natural convection in rectangular tanks heated locally from below. <i>International Journal of Heat and Mass Transfer</i> , 2004, 47, 3549-3563.	4.8	55
12	Activation Energy Impact on Flow of AA7072-AA7075/Water-Based Hybrid Nanofluid through a Cone, Wedge and Plate. <i>Micromachines</i> , 2022, 13, 302.	2.9	53
13	Analytical study of the magnetohydrodynamic natural convection of a nanofluid filled horizontal shallow cavity with internal heat generation. <i>International Journal of Heat and Mass Transfer</i> , 2019, 130, 862-873.	4.8	52
14	Dynamo transition in low-dimensional models. <i>Physical Review E</i> , 2008, 78, 036409.	2.1	49
15	A theoretical model for the magnetohydrodynamic natural convection of a CNT-water nanofluid incorporating a renovated Hamilton-Crosser model. <i>International Journal of Heat and Mass Transfer</i> , 2019, 135, 548-560.	4.8	45
16	Micromixing Efficiency of Particles in Heavy Metal Removal Processes under Various Inlet Conditions. <i>Water (Switzerland)</i> , 2019, 11, 1135.	2.7	42
17	Natural convection of liquid metal in a vertical annulus with lateral and volumetric heating in the presence of a horizontal magnetic field. <i>International Journal of Heat and Mass Transfer</i> , 2011, 54, 3347-3356.	4.8	40
18	On the magnetic aggregation of Fe ₃ O ₄ nanoparticles. <i>Computer Methods and Programs in Biomedicine</i> , 2021, 198, 105778.	4.7	40

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19	Influence of Thermophoretic Particle Deposition on the 3D Flow of Sodium Alginate-Based Casson Nanofluid over a Stretching Sheet. <i>Micromachines</i> , 2021, 12, 1474.	2.9	39
20	MHD flow past a circular cylinder using the immersed boundary method. <i>Computers and Fluids</i> , 2010, 39, 345-358.	2.5	36
21	A printed-circuit heat exchanger consideration by exploiting an Al ₂ O ₃ -water nanofluid: Effect of the nanoparticles interfacial layer on heat transfer. <i>Thermal Science and Engineering Progress</i> , 2021, 22, 100818.	2.7	35
22	Analysis of Transient Thermal Distribution in a Convective-Radiative Moving Rod Using Two-Dimensional Differential Transform Method with Multivariate Pade Approximant. <i>Symmetry</i> , 2021, 13, 1793.	2.2	34
23	Heavy Metal Adsorption Using Magnetic Nanoparticles for Water Purification: A Critical Review. <i>Materials</i> , 2021, 14, 7500.	2.9	33
24	A three-dimensional CFD model of direct ethanol fuel cells: Anode flow bed analysis. <i>Solid State Ionics</i> , 2006, 177, 2133-2138.	2.7	32
25	An MHD Fluid Flow over a Porous Stretching/Shrinking Sheet with Slips and Mass Transpiration. <i>Micromachines</i> , 2022, 13, 116.	2.9	32
26	MHD liquid metal flow and heat transfer between vertical coaxial cylinders under horizontal magnetic field. <i>International Journal of Heat and Fluid Flow</i> , 2017, 65, 342-351.	2.4	31
27	Analytical and numerical study of MHD natural convection in a horizontal shallow cavity with heat generation. <i>International Journal of Heat and Mass Transfer</i> , 2014, 75, 19-30.	4.8	30
28	A numerical model for aggregations formation and magnetic driving of spherical particles based on OpenFOAM®. <i>Computer Methods and Programs in Biomedicine</i> , 2017, 142, 21-30.	4.7	30
29	Development of a new theoretical model for blood-CNTs effective thermal conductivity pertaining to hyperthermia therapy of glioblastoma multiform. <i>Computer Methods and Programs in Biomedicine</i> , 2019, 172, 79-85.	4.7	30
30	Thermal and flow investigation of MHD natural convection in a nanofluid-saturated porous enclosure: an asymptotic analysis. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 143, 751-765.	3.6	30
31	Rheological properties of synovial fluid due to viscosupplements: A review for osteoarthritis remedy. <i>Computer Methods and Programs in Biomedicine</i> , 2020, 196, 105644.	4.7	29
32	Convective Flow of Second Grade Fluid Over a Curved Stretching Sheet with Dufour and Soret Effects. <i>International Journal of Applied and Computational Mathematics</i> , 2021, 7, 1.	1.6	26
33	Large-eddy simulations of the turbulent Hartmann flow close to the transitional regime. <i>Physics of Fluids</i> , 2007, 19, 085109.	4.0	25
34	Numerical study of magnetic particles mixing in waste water under an external magnetic field. <i>Journal of Water Supply: Research and Technology - AQUA</i> , 2020, 69, 266-275.	1.4	25
35	Combined Effect of Radiation and Inclined MHD Flow of a Micropolar Fluid Over a Porous Stretching/Shrinking Sheet with Mass Transpiration. <i>International Journal of Applied and Computational Mathematics</i> , 2021, 7, 1.	1.6	25
36	An Effect of Radiation and MHD Newtonian Fluid over a Stretching/Shrinking Sheet with CNTs and Mass Transpiration. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 5466.	2.5	25

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37	Computational analysis of paramagnetic spherical Fe ₃ O ₄ nanoparticles under permanent magnetic fields. <i>Computational Materials Science</i> , 2018, 154, 464-471.	3.0	24
38	Heat transfer improvement by an Al ₂ O ₃ -water nanofluid coolant in printed-circuit heat exchangers of supercritical CO ₂ Brayton cycle. <i>Thermal Science and Engineering Progress</i> , 2020, 20, 100694.	2.7	24
39	Effect of micromagnetorotation on magnetohydrodynamic Poiseuille micropolar flow: analytical solutions and stability analysis. <i>Journal of Fluid Mechanics</i> , 2021, 920, .	3.4	23
40	Entropy Generation in the Magnetohydrodynamic Jeffrey Nanofluid Flow Over a Stretching Sheet with Wide Range of Engineering Application Parameters. <i>International Journal of Applied and Computational Mathematics</i> , 2022, 8, 1.	1.6	23
41	Thermal analysis of the unsteady sheet stretching subject to slip and magnetohydrodynamic effects. <i>Thermal Science and Engineering Progress</i> , 2019, 13, 100367.	2.7	22
42	Exploration of Temperature Distribution through a Longitudinal Rectangular Fin with Linear and Exponential Temperature-Dependent Thermal Conductivity Using DTM-Pade Approximant. <i>Symmetry</i> , 2022, 14, 690.	2.2	22
43	The Impact of Cattaneo-Christov Double Diffusion on Oldroyd-B Fluid Flow over a Stretching Sheet with Thermophoretic Particle Deposition and Relaxation Chemical Reaction. <i>Inventions</i> , 2021, 6, 95.	2.5	21
44	Effect of Micropolar Fluid Properties on the Blood Flow in a Human Carotid Model. <i>Fluids</i> , 2020, 5, 125.	1.7	20
45	Direct numerical simulation of a heat removal configuration for fusion blankets. <i>Energy Conversion and Management</i> , 2007, 48, 2775-2783.	9.2	18
46	ENTROPY GENERATION AND IRREVERSIBILITY ANALYSIS ON FREE CONVECTIVE UNSTEADY MHD CASSON FLUID FLOW OVER A STRETCHING SHEET WITH SORET/DUFOR IN POROUS MEDIA. <i>Special Topics and Reviews in Porous Media</i> , 2020, 11, 595-611.	1.1	17
47	Effect of electromagnetic field on the thermal performance of longitudinal trapezoidal porous fin using DTM-Pade approximant. <i>Heat Transfer</i> , 2022, 51, 3313-3333.	3.0	17
48	The interfacial nanolayer role on magnetohydrodynamic natural convection of an Al ₂ O ₃ -water nanofluid. <i>Heat Transfer Engineering</i> , 2021, 42, 89-105.	1.9	16
49	Box-size dependence and breaking of translational invariance in the velocity statistics computed from three-dimensional turbulent Kolmogorov flows. <i>Physics of Fluids</i> , 2007, 19, 095101.	4.0	15
50	The effect of anode bed geometry on the hydraulic behaviour of PEM fuel cells. <i>Renewable Energy</i> , 2016, 93, 269-279.	8.9	15
51	Carbon Nanoparticles as Sources for a Cost-Effective Water Purification Method: A Comprehensive Review. <i>Fluids</i> , 2020, 5, 230.	1.7	15
52	Impact of thermophoretic particle deposition on heat transfer and nanofluid flow through different geometries: An application to solar energy. <i>Chinese Journal of Physics</i> , 2022, 80, 190-205.	3.9	15
53	Effect of fractal-shaped outer boundary of glioblastoma multiforme on drug delivery. <i>Computer Methods and Programs in Biomedicine</i> , 2019, 178, 191-199.	4.7	14
54	Micromagnetorotation of MHD Micropolar Flows. <i>Symmetry</i> , 2020, 12, 148.	2.2	14

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55	A theoretical model for salt ion drift due to electric field suitable to seawater desalination. <i>Desalination</i> , 2020, 473, 114163.	8.2	13
56	Magnetohydrodynamic and radiation effects on the heat transfer of a continuously stretching/shrinking sheet with mass transpiration of the horizontal boundary. <i>Chinese Journal of Physics</i> , 2021, 72, 700-715.	3.9	13
57	A computational tool for the estimation of the optimum gradient magnetic field for the magnetic driving of the spherical particles in the process of cleaning water. , 0, 99, 27-33.		13
58	Impact of Electroosmosis and Wall Properties in Modelling Peristaltic Mechanism of a Jeffrey Liquid through a Microchannel with Variable Fluid Properties. <i>Inventions</i> , 2021, 6, 73.	2.5	13
59	3D features in the calendering of thermoplastics: A computational investigation. <i>Polymer Engineering and Science</i> , 2014, 54, 1712-1722.	3.1	12
60	Recurrence quantification analysis of MHD turbulent channel flow. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2019, 531, 121741.	2.6	11
61	A Computational Study on Magnetic Nanoparticles Hyperthermia of Ellipsoidal Tumors. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 9526.	2.5	11
62	The Impact of Reduced Gravity on Oscillatory Mixed Convective Heat Transfer around a Non-Conducting Heated Circular Cylinder. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 5081.	2.5	11
63	Uncertainty quantification implementations in human hemodynamic flows. <i>Computer Methods and Programs in Biomedicine</i> , 2021, 203, 106021.	4.7	10
64	Dispersed-phase structural anisotropy in homogeneous magnetohydrodynamic turbulence at low magnetic Reynolds number. <i>Physics of Fluids</i> , 2008, 20, 025101.	4.0	9
65	Transition of an electromagnetically driven liquid metal flow from laminar to turbulent in a toroidal square duct. <i>Europhysics Letters</i> , 2013, 101, 44005.	2.0	9
66	Electric field distribution and diffuse layer thickness study due to salt ion movement in water desalination. <i>Desalination</i> , 2020, 490, 114549.	8.2	9
67	Simulation of magnetic nanoparticles crossing through a simplified blood-brain barrier model for Glioblastoma multiforme treatment. <i>Computer Methods and Programs in Biomedicine</i> , 2021, 212, 106477.	4.7	9
68	Buoyancy-assisted mixed convection in a vertical channel with spatially periodic wall temperature. <i>International Journal of Thermal Sciences</i> , 2013, 65, 28-38.	4.9	8
69	Mixing of Particles in Micromixers under Different Angles and Velocities of the Incoming Water. <i>Proceedings (mdpi)</i> , 2018, 2, 577.	0.2	8
70	Time Evolution Study of the Electric Field Distribution and Charge Density Due to Ion Movement in Salty Water. <i>Water (Switzerland)</i> , 2021, 13, 2185.	2.7	8
71	Effects of channel size, wall wettability, and electric field strength on ion removal from water in nanochannels. <i>Scientific Reports</i> , 2022, 12, 641.	3.3	8
72	Study of Non-Newtonian biomagnetic blood flow in a stenosed bifurcated artery having elastic walls. <i>Scientific Reports</i> , 2021, 11, 23835.	3.3	8

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73	Numerical Simulation of a Fire Accident in a Longitudinally Ventilated Railway Tunnel and Tenability Analysis. Applied Sciences (Switzerland), 2022, 12, 5667.	2.5	8
74	Laminar Free Convection in a Square Enclosure Driven by the Lorentz Force. Numerical Heat Transfer; Part A: Applications, 2010, 58, 923-942.	2.1	7
75	Assessment of air flow distribution and hazardous release dispersion around a single obstacle using Reynolds-averaged Navier-Stokes equations. Heliyon, 2019, 5, e01482.	3.2	7
76	An Optimized Method for 3D Magnetic Navigation of Nanoparticles inside Human Arteries. Fluids, 2021, 6, 97.	1.7	7
77	Analysis of magnetohydrodynamic channel flow through complex network analysis. Chaos, 2021, 31, 043123.	2.5	7
78	Large eddy simulation of dispersion of hazardous materials released from a fire accident around a cubical building. Environmental Science and Pollution Research, 2021, 28, 50363-50377.	5.3	7
79	Molecular Dynamics Simulations of Ion Drift in Nanochannel Water Flow. Nanomaterials, 2020, 10, 2373.	4.1	6
80	Transient Laminar MHD Natural Convection Cooling in a Vertical Cylinder. Numerical Heat Transfer; Part A: Applications, 2012, 62, 531-546.	2.1	5
81	Magnetohydrodynamic Natural Convection of Liquid Metal Between Coaxial Isothermal Cylinders Due to Internal Heating. Numerical Heat Transfer; Part A: Applications, 2014, 65, 401-418.	2.1	5
82	A viscous sintering model for pore shrinkage in packings of cylinders. Rheologica Acta, 2021, 60, 397-408.	2.4	5
83	Microrotation viscosity effect on turbulent micropolar fluid channel flow. Physics of Fluids, 2021, 33, .	4.0	5
84	Air Flow Study around Isolated Cubical Building in the City of Athens under Various Climate Conditions. Applied Sciences (Switzerland), 2022, 12, 3410.	2.5	5
85	Transport and deposition of neutral particles in magnetohydrodynamic turbulent channel flows at low magnetic Reynolds numbers. International Journal of Heat and Fluid Flow, 2011, 32, 365-377.	2.4	4
86	Water Purification in Micromagnetofluidic Devices: Mixing in MHD Micromixers. Procedia Engineering, 2016, 162, 593-600.	1.2	4
87	Micromixing Nanoparticles and Contaminated Water Under Different Velocities for Optimum Heavy Metal Ions Adsorption. Environmental Sciences Proceedings, 2020, 2, 65.	0.3	4
88	MHD Carreau nanoliquid flow over a nonlinear stretching surface. Heat Transfer, 2022, 51, 5262-5287.	3.0	4
89	Mass Transfer Effects on the Mucus Fluid with Pulsatile Flow Influence of the Electromagnetic Field. Inventions, 2022, 7, 50.	2.5	4
90	Magnetic field effect on the cooling of a low-Pr fluid in a vertical cylinder. Physics of Fluids, 2010, 22, 017101.	4.0	3

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91	Computational Assessment of the Hazardous Release Dispersion from a Diesel Pool Fire in a Complex Building's Area. <i>Computation</i> , 2018, 6, 65.	2.0	3
92	Viscous coalescence of unequally sized spherical and cylindrical doublets. <i>Soft Matter</i> , 2022, 18, 4017-4029.	2.7	3
93	Mixing of Fe ₃ O ₄ nanoparticles under electromagnetic and shear conditions for wastewater treatment applications. <i>Journal of Water Supply: Research and Technology - AQUA</i> , 2022, 71, 671-681.	1.4	3
94	Blood flow and diameter effect in the navigation process of magnetic nanocarriers inside the carotid artery. <i>Computer Methods and Programs in Biomedicine</i> , 2022, 221, 106916.	4.7	3
95	Computational study of the optimum gradient magnetic field for the navigation of spherical particles into targeted areas. <i>Journal of Physics: Conference Series</i> , 2015, 637, 012038.	0.4	2
96	Spatiotemporal Time Series Analysis Methods for the Study of Turbulent Magnetohydrodynamic Channel Flows. <i>Environmental Processes</i> , 2015, 2, 141-158.	3.5	2
97	Investigation of various nozzles configurations with respect to IFMIF and liquid walls concepts. <i>Fusion Engineering and Design</i> , 2015, 98-99, 1337-1340.	1.9	2
98	Turbulence Intensity Modulation by Micropolar Fluids. <i>Fluids</i> , 2021, 6, 195.	1.7	2
99	Rheological Properties and Its Effect on the Lubrication Mechanism of PVP K30 and PVP 40-50 G as Artificial Synovial Fluids. <i>Inventions</i> , 2021, 6, 61.	2.5	2
100	DNS simulation of liquid metal flow in annuli under the effect of a magnetic field and volumetric heating. , 2009, , .		2
101	Computational Study of the Optimum Gradient Magnetic Field for the Navigation of the Spherical Particles in the Process of Cleaning the Water from Heavy Metals. <i>Procedia Engineering</i> , 2016, 162, 77-82.	1.2	1
102	Two Dimensional Drug Diffusion Between Nanoparticles and Fractal Tumors. <i>Journal of Physics: Conference Series</i> , 2017, 931, 012034.	0.4	1
103	Improving the Electrical Efficiency of the PV Panel via Geothermal Heat Exchanger: Mathematical Model, Validation and Parametric Analysis. <i>Energies</i> , 2021, 14, 6415.	3.1	1
104	Effect of micromagnetorotation on the heat transfer of micropolar Hartmann flow. <i>Thermal Science and Engineering Progress</i> , 2021, , 101129.	2.7	1
105	Numerical Analysis of Temperature Distribution in Ellipsoidal Tumors in Magnetic Fluid Hyperthermia. , 2020, , .		1
106	Electroosmotic Peristaltic Pumping of Jeffrey Liquid with Variable Characteristics: An Application to Hemodynamic. <i>International Journal of Applied and Computational Mathematics</i> , 2022, 8, .	1.6	1
107	Direct numerical simulation of dynamo transition for nonhelical MHD. <i>Journal of Physics: Conference Series</i> , 2010, 208, 012039.	0.4	0
108	Computational study of the effect of gradient magnetic field in navigation of spherical particles. <i>Journal of Physics: Conference Series</i> , 2017, 931, 012014.	0.4	0

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109	Diesel Pool Fire Incident Inside an Urban Street Canyon. Lecture Notes in Mechanical Engineering, 2019, , 339-350.	0.4	0
110	Effect of radius of toroidal square duct on the transition of electromagnetically driven liquid metal flow. International Journal of Heat and Fluid Flow, 2021, 91, 108858.	2.4	0