Zafar Hayat Khan

List of Publications by Year
in descending order

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127 papers	6,726 citations	47006 47 h-index	74163 75 g-index
128 all docs	128 docs citations	128 times ranked	1911 citing authors

#	Article	IF	Citations
1	Buoyancy effects on MHD stagnation point flow and heat transfer of a nanofluid past a convectively heated stretching/shrinking sheet. International Journal of Heat and Mass Transfer, 2013, 62, 526-533.	4.8	317
2	MHD three-dimensional Casson fluid flow past a porous linearly stretching sheet. AEJ - Alexandria Engineering Journal, 2013, 52, 577-582.	6.4	267
3	Numerical study of MHD boundary layer flow of a Maxwell fluid past a stretching sheet in the presence of nanoparticles. Journal of the Taiwan Institute of Chemical Engineers, 2014, 45, 121-126.	5.3	233
4	Numerical analysis of magnetic field effects on Eyring-Powell fluid flow towards a stretching sheet. Journal of Magnetism and Magnetic Materials, 2015, 382, 355-358.	2.3	210
5	Fluid flow and heat transfer of carbon nanotubes along a flat plate with Navier slip boundary. Applied Nanoscience (Switzerland), 2014, 4, 633-641.	3.1	198
6	Numerical solutions of Magnetohydrodynamic boundary layer flow of tangent hyperbolic fluid towards a stretching sheet. Indian Journal of Physics, 2013, 87, 1121-1124.	1.8	188
7	Thermal radiation and slip effects on MHD stagnation point flow of nanofluid over a stretching sheet. Physica E: Low-Dimensional Systems and Nanostructures, 2015, 65, 17-23.	2.7	180
8	MHD boundary layer flow of a nanofluid containing gyrotactic microorganisms past a vertical plate with Navier slip. International Journal of Heat and Mass Transfer, 2014, 74, 285-291.	4.8	178
9	Convective heat transfer in MHD slip flow over a stretching surface in the presence of carbon nanotubes. Physica B: Condensed Matter, 2015, 457, 40-47.	2.7	171
10	Non-aligned MHD stagnation point flow of variable viscosity nanofluids past a stretching sheet with radiative heat. International Journal of Heat and Mass Transfer, 2016, 96, 525-534.	4.8	160
11	Radiation effects on MHD stagnation point flow of nano fluid towards a stretching surface with convective boundary condition. Chinese Journal of Aeronautics, 2013, 26, 1389-1397.	5.3	149
12	3D free convective MHD flow of nanofluid over permeable linear stretching sheet with thermal radiation. Powder Technology, 2017, 315, 205-215.	4.2	147
13	Heat transfer analysis of water-based nanofluid over an exponentially stretching sheet. AEJ - Alexandria Engineering Journal, 2014, 53, 219-224.	6.4	140
14	The combined effects of slip and convective boundary conditions on stagnation-point flow of CNT suspended nanofluid over a stretching sheet. Journal of Molecular Liquids, 2014, 196, 21-25.	4.9	113
15	Dual solutions and stability analysis of flow and heat transfer of Casson fluid over a stretching sheet. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 2400-2408.	2.1	108
16	Thermophysical effects of carbon nanotubes on MHD flow over a stretching surface. Physica E: Low-Dimensional Systems and Nanostructures, 2014, 63, 215-222.	2.7	104
17	Numerical solution of non-Newtonian nanofluid flow over a stretching sheet. Applied Nanoscience (Switzerland), 2014, 4, 625-631.	3.1	102
18	MHD Boundary Layer Slip Flow and Heat Transfer of Ferrofluid along a Stretching Cylinder with Prescribed Heat Flux. PLoS ONE, 2014, 9, e83930.	2.5	96

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19	Heat transfer and flow analysis of Casson fluid enclosed in a partially heated trapezoidal cavity. International Communications in Heat and Mass Transfer, 2019, 108, 104284.	5.6	93
20	Natural convection of water-based carbon nanotubes in a partially heated rectangular fin-shaped cavity with an inner cylindrical obstacle. Physics of Fluids, 2019, 31, .	4.0	92
21	Flow and heat transfer analysis of water and ethylene glycol based Cu nanoparticles between two parallel disks with suction/injection effects. Journal of Molecular Liquids, 2016, 221, 298-304.	4.9	90
22	A numerical study of magnetohydrodynamic transport of nanofluids over a vertical stretching sheet with exponential temperature-dependent viscosity and buoyancy effects. Chemical Physics Letters, 2016, 661, 20-30.	2.6	88
23	Stagnation point flow of MHD chemically reacting nanofluid over a stretching convective surface with slip and radiative heat. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 2017, 231, 695-703.	2.5	87
24	Numerical Study of Boundary Layer Flow and Heat Transfer of Oldroyd-B Nanofluid towards a Stretching Sheet. PLoS ONE, 2013, 8, e69811.	2.5	84
25	MHD squeezed flow of water functionalized metallic nanoparticles over a sensor surface. Physica E: Low-Dimensional Systems and Nanostructures, 2015, 73, 45-53.	2.7	81
26	Numerical simulation of peristaltic flow of a Carreau nanofluid in an asymmetric channel. AEJ - Alexandria Engineering Journal, 2014, 53, 191-197.	6.4	76
27	Heat and mass transfer in nanofluid thin film over an unsteady stretching sheet using Buongiornoâ€™s model. European Physical Journal Plus, 2016, 131, 1.	2.6	75
28	Hydromagnetic flow of ferrofluid in an enclosed partially heated trapezoidal cavity filled with a porous medium. Journal of Magnetism and Magnetic Materials, 2020, 499, 166241.	2.3	74
29	Effect of variable thermal conductivity and thermal radiation with CNTS suspended nanofluid over a stretching sheet with convective slip boundary conditions: Numerical study. Journal of Molecular Liquids, 2016, 222, 279-286.	4.9	71
30	MHD dissipative flow and heat transfer of Casson fluids due to metachronal wave propulsion of beating cilia with thermal and velocity slip effects under an oblique magnetic field. Acta Astronautica, 2016, 128, 1-12.	3.2	68
31	Numerical simulation of water based magnetite nanoparticles between two parallel disks. Advanced Powder Technology, 2016, 27, 1568-1575.	4.1	65
32	Water driven flow of carbon nanotubes in a rotating channel. Journal of Molecular Liquids, 2016, 214, 136-144.	4.9	65
33	Magnetic field analysis in a suspension of gyrotactic microorganisms and nanoparticles over a stretching surface. Journal of Magnetism and Magnetic Materials, 2016, 410, 72-80.	2.3	65
34	Passive control of nanoparticle due to convective heat transfer of Prandtl fluid model at the stretching surface. Chinese Journal of Physics, 2017, 55, 1561-1568.	3.9	64
35	Finite element analysis of hybrid nanofluid flow and heat transfer in a split lid-driven square cavity with Y-shaped obstacle. Physics of Fluids, 2020, 32, .	4.0	64
36	Buoyancy and Radiation Effect on Stagnation Point Flow of Micropolar Nanofluid Along a Vertically Convective Stretching Surface. IEEE Nanotechnology Magazine, 2015, 14, 42-50.	2.0	63

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37	Flow and heat transfer of ferrofluids over a flat plate with uniform heat flux. European Physical Journal Plus, 2015, 130, 1.	2.6	62
38	MHD 3D free convective flow of nanofluid over an exponentially stretching sheet with chemical reaction. Advanced Powder Technology, 2017, 28, 2159-2166.	4.1	62
39	Metachronal beating of cilia under the influence of Casson fluid and magnetic field. Journal of Magnetism and Magnetic Materials, 2015, 378, 320-326.	2.3	61
40	Effects of aligned magnetic field and CNTs in two different base fluids over a moving slip surface. Journal of Molecular Liquids, 2017, 243, 682-688.	4.9	61
41	Numerical study of unsteady MHD flow of Williamson nanofluid in a permeable channel with heat source/sink and thermal radiation. European Physical Journal Plus, 2018, 133, 1.	2.6	61
42	Triple diffusive free convection along a horizontal plate in porous media saturated by a nanofluid with convective boundary condition. International Journal of Heat and Mass Transfer, 2013, 66, 603-612.	4.8	60
43	Entropy generation analysis for non-Newtonian nanofluid with zero normal flux of nanoparticles at the stretching surface. Journal of the Taiwan Institute of Chemical Engineers, 2016, 63, 226-235.	5.3	59
44	Numerical study of Williamson nano fluid flow in an asymmetric channel. Results in Physics, 2013, 3, 161-166.	4.1	58
45	Dual solutions in MHD stagnation-point flow of Prandtl fluid impinging on shrinking sheet. Applied Mathematics and Mechanics (English Edition), 2014, 35, 813-820.	3.6	58
46	Numerical study of unsteady hydromagnetic radiating fluid flow past a slippery stretching sheet embedded in a porous medium. Physics of Fluids, 2018, 30, .	4.0	58
47	Effects of volume fraction on water-based carbon nanotubes flow in a right-angle trapezoidal cavity: FEM based analysis. International Communications in Heat and Mass Transfer, 2020, 116, 104640.	5.6	56
48	MHD Stagnation Point Ferrofluid Flow and Heat Transfer Toward a Stretching Sheet. IEEE Nanotechnology Magazine, 2014, 13, 35-40.	2.0	47
49	Hydromagnetic mixed convective flow over a wall with variable thickness and Cattaneo-Christov heat flux model: OHAM analysis. Results in Physics, 2018, 8, 621-627.	4.1	47
50	MHD natural convection and thermal control inside a cavity with obstacles under the radiation effects. Physica A: Statistical Mechanics and Its Applications, 2019, 535, 122443.	2.6	47
51	Double-diffusive natural convective boundary-layer flow of a nanofluid over a stretching sheet with magnetic field. International Journal of Numerical Methods for Heat and Fluid Flow, 2016, 26, 108-121.	2.8	45
52	Natural convection effects on heat and mass transfer of slip flow of time-dependent Prandtl fluid. Journal of Computational Design and Engineering, 2019, 6, 584-592.	3.1	45
53	Influence of magnetic field for metachoronical beating of cilia for nanofluid with Newtonian heating. Journal of Magnetism and Magnetic Materials, 2015, 381, 235-242.	2.3	43
54	Closed form dual nature solutions of fluid flow and heat transfer over a stretching/shrinking sheet in a porous medium. Chinese Journal of Physics, 2017, 55, 1284-1293.	3.9	43

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55	MHD pressure driven flow of nanofluid in curved channel. Journal of Magnetism and Magnetic Materials, 2015, 393, 490-497.	2.3	42
56	Wavelet analysis of stagnation point flow of non-Newtonian nanofluid. Applied Mathematics and Mechanics (English Edition), 2019, 40, 1211-1226.	3.6	41
57	Mathematical modelling of pressure-driven micropolar biological flow due to metachronal wave propulsion of beating cilia. Mathematical Biosciences, 2018, 301, 121-128.	1.9	39
58	Entropy generation analysis of triple diffusive flow past a horizontal plate in porous medium. Chemical Engineering Science, 2020, 228, 115980.	3.8	38
59	Non-Newtonian fluid flow around a Y-shaped fin embedded in a square cavity. Journal of Thermal Analysis and Calorimetry, 2021, 143, 573-585.	3.6	38
60	Heat generation/absorption on MHD flow of a micropolar fluid over a heated stretching surface in the presence of the boundary parameter. Heat Transfer, 2021, 50, 6129-6147.	3.0	37
61	Thermal radiation and Joule heating effects on a magnetohydrodynamic Casson nanofluid flow in the presence of chemical reaction through a non-linear inclined porous stretching sheet. Journal of Naval Architecture and Marine Engineering, 2020, 17, 143-164.	1.2	37
62	Convective heat transfer and MHD effects on Casson nanofluid flow over a shrinking sheet. Open Physics, 2014, 12, .	1.7	36
63	Mathematical model for ciliary-induced transport in MHD flow of Cu-H 2 O nanofluids with magnetic induction. Chinese Journal of Physics, 2017, 55, 947-962.	3.9	36
64	Numerical Study of Unsteady MHD Flow and Entropy Generation in a Rotating Permeable Channel with Slip and Hall Effects. Communications in Theoretical Physics, 2018, 70, 641.	2.5	36
65	Analysis of Entropy Generation in Flow of Methanol-Based Nanofluid in a Sinusoidal Wavy Channel. Entropy, 2017, 19, 490.	2.2	34
66	Thermal and velocity slip effects on the MHD peristaltic flow with carbon nanotubes in an asymmetric channel: application of radiation therapy. Applied Nanoscience (Switzerland), 2014, 4, 849-857.	3.1	33
67	Flow of water based alumina and copper nanoparticles along a moving surface with variable temperature. Journal of Molecular Liquids, 2017, 246, 354-362.	4.9	32
68	Numerical study of entropy generation in MHD water-based carbon nanotubes along an inclined permeable surface. European Physical Journal Plus, 2017, 132, 1.	2.6	32
69	Triple convective-diffusion boundary layer along a vertical flat plate in a porous medium saturated by a water-based nanofluid. International Journal of Thermal Sciences, 2015, 90, 53-61.	4.9	31
70	Numerical treatment for hydro-magnetic unsteady channel flow of nanofluid with heat transfer. Results in Physics, 2018, 9, 1543-1554.	4.1	31
71	Enhancement of heat and mass transfer rates through various porous cavities for triple convective-diffusive free convection. Energy, 2020, 201, 117702.	8.8	31
72	Irreversibilities in natural convection inside a right-angled trapezoidal cavity with sinusoidal wall temperature. Physics of Fluids, 2021, 33, .	4.0	30

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73	Metachronal beating of cilia under influence of Hartmann layer and heat transfer. European Physical Journal Plus, 2014, 129, 1.	2.6	28
74	Thermal non-equilibrium natural convection in a trapezoidal porous cavity with heated cylindrical obstacles. International Communications in Heat and Mass Transfer, 2021, 126, 105460.	5.6	27
75	Finite Difference Analysis of Time-Dependent Viscous Nanofluid Flow Between Parallel Plates. Communications in Theoretical Physics, 2019, 71, 1293.	2.5	26
76	Liquidâ€“vapour fronts in porous media: Multiplicity and stability of front positions. International Journal of Heat and Mass Transfer, 2013, 61, 1-17.	4.8	25
77	Triple diffusion along a horizontal plate in a porous medium with convective boundary condition. International Journal of Thermal Sciences, 2014, 86, 60-67.	4.9	24
78	Unsteady MHD flow of a Brinkman type fluid between two side walls perpendicular to an infinite plate. Results in Physics, 2018, 9, 1602-1608.	4.1	23
79	Brownian motion and thermophoresis effects on unsteady stagnation point flow of Eyringâ€“Powell nanofluid: a Galerkin approach. Communications in Theoretical Physics, 2020, 72, 125005.	2.5	22
80	Estimation of boundary-layer flow of a nanofluid past a stretching sheet: A revised model. Journal of Hydrodynamics, 2016, 28, 596-602.	3.2	21
81	The Stokesâ€™ second problem for nanofluids. Journal of King Saud University - Science, 2019, 31, 61-65.	3.5	21
82	Heat transfer study of an individual multiwalled carbon nanotube due to metachronal beating of cilia. International Communications in Heat and Mass Transfer, 2014, 59, 114-119.	5.6	19
83	Magneto-Hemodynamics of Nanofluid with Heat and Mass Transfer in a Slowly Varying Symmetrical Channel. International Journal of Engineering Research in Africa, 2017, 28, 118-141.	0.7	19
84	Variable fluid properties analysis with water based CNT nanofluid over a sensor sheet: Numerical solution. Journal of Molecular Liquids, 2017, 232, 471-477.	4.9	19
85	Dual Solutions of MHD Boundary Layer Flow of a Micropolar Fluid with Weak Concentration over a Stretching/Shrinking Sheet. Communications in Theoretical Physics, 2017, 67, 449.	2.5	19
86	Heat transfer analysis of Prandtl liquid nanofluid in the presence of homogeneous-heterogeneous reactions. Results in Physics, 2018, 10, 379-384.	4.1	19
87	Unsteady MHD Flow in a Porous Channel with Thermal Radiation and Heat Source/Sink. International Journal of Applied and Computational Mathematics, 2019, 5, 1.	1.6	19
88	Unsteady flow and heat transfer of tangentâ€hyperbolic fluid: Legendre waveletâ€based analysis. Heat Transfer, 2021, 50, 3079-3093.	3.0	19
89	Peristaltic transport of bi-viscosity fluids through a curved tube: A mathematical model for intestinal flow. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2016, 230, 817-828.	1.8	17
90	Hybrid nanofluid flow around a triangular-shaped obstacle inside a split lid-driven trapezoidal cavity. European Physical Journal: Special Topics, 0, , .	2.6	17

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91	Effect of Variable Thermal Conductivity on Heat Transfer From a Hollow Sphere With Heat Generation Using Homotopy Perturbation Method. , 2008, , .		16
92	Finite element analysis of water-based Ferrofluid flow in a partially heated triangular cavity. International Journal of Numerical Methods for Heat and Fluid Flow, 2021, 31, 3132-3147.	2.8	16
93	Numerical investigation of Cattanneo-Christov heat flux in CNT suspended nanofluid flow over a stretching porous surface with suction and injection. Discrete and Continuous Dynamical Systems - Series S, 2018, 11, 583-594.	1.1	16
94	Peristaltic impulsion of MHD biviscosity fluid in a lopsided channel: Closed-form solution. European Physical Journal Plus, 2014, 129, 1.	2.6	15
95	Heat transfer analysis of the peristaltic instinct of biviscosity fluid with the impact of thermal and velocity slips. International Communications in Heat and Mass Transfer, 2014, 58, 193-199.	5.6	14
96	Influence of Magnetic Field and Slip on Jeffrey Fluid in a Ciliated Symmetric Channel with Metachronal Wave Pattern. Journal of Applied Fluid Mechanics, 2016, 9, 565-572.	0.2	14
97	Anomaly of spontaneous transition to instability of liquidâ€“vapour front in a porous medium. International Journal of Heat and Mass Transfer, 2015, 84, 448-455.	4.8	13
98	Magneto-nanofluid flow with heat transfer past a stretching surface for the new heat flux model using numerical approach. International Journal of Numerical Methods for Heat and Fluid Flow, 2017, 27, 1215-1230.	2.8	13
99	Doubleâ€diffusive flow in a porous rightâ€angle trapezoidal enclosure with constant heat flux. Mathematical Methods in the Applied Sciences, 2022, 45, 3305-3317.	2.3	13
100	Numerical solution of micropolar fluid flow with heat transfer by finite difference method. International Journal of Modern Physics B, 2022, 36, .	2.0	13
101	Transition to instability of liquidâ€“vapour front in a porous medium cooled from above. International Journal of Heat and Mass Transfer, 2014, 70, 610-620.	4.8	12
102	Heat transfer analysis of bi-viscous ciliary motion fluid. International Journal of Biomathematics, 2015, 08, 1550026.	2.9	12
103	Thermal treatment inside a partially heated triangular cavity filled with casson fluid with an inner cylindrical obstacle via FEM approach. European Physical Journal: Special Topics, 2022, 231, 2683-2694.	2.6	12
104	Numerical study of streamwise and cross flow in the presence of heat and mass transfer. European Physical Journal Plus, 2017, 132, 1.	2.6	11
105	Viscous Dissipation Effects in Water Driven Carbon Nanotubes along a Stream Wise and Cross Flow Direction. International Journal of Chemical Reactor Engineering, 2017, 15, .	1.1	9
106	Irreversibilities in a triple diffusive flow in various porous cavities. Chinese Journal of Physics, 2021, 73, 239-255.	3.9	9
107	Heat Transfer From Solids With Variable Thermal Conductivity and Uniform Internal Heat Generation Using Homotopy Perturbation Method. , 2008, , .		8
108	Nanoparticles Fraction on the Peristaltic Flow of Third Order Fluid. Journal of Computational and Theoretical Nanoscience, 2014, 11, 47-52.	0.4	8

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109	Rheological Analysis of CNT Suspended Nanofluid with Variable Viscosity: Numerical Solution. Communications in Theoretical Physics, 2017, 67, 681.	2.5	8
110	Analysis of unsteady liquid-vapor front in a porous medium with variable heat generation. Experimental and Computational Multiphase Flow, 2022, 4, 304-309.	3.9	7
111	Numerical Simulation of Natural Convection of Water Based Nanofluids in Horizontal Eccentric Cylindrical Annuli. Journal of Nanofluids, 2016, 5, 253-263.	2.7	7
112	Natural Propulsion with Lorentz Force and Nanoparticles in a Bioinspired Lopsided Ciliated Channel. Journal of Bionic Engineering, 2017, 14, 172-181.	5.0	6
113	Analysis of MHD Nanofluid Flow Over a Convectively Heated Permeable Vertical Plate Embedded in a Porous Medium. Journal of Nanofluids, 2016, 5, 574-580.	2.7	6
114	Stagnation Point Flow Study with Water Based Nanoparticles Aggregation Over a Stretching Sheet: Numerical Solution. Journal of Computational and Theoretical Nanoscience, 2016, 13, 8615-8619.	0.4	5
115	Effect of instantaneous change of surface temperature and density on an unsteady liquidâ€“vapour front in a porous medium. Experimental and Computational Multiphase Flow, 2020, 2, 115-121.	3.9	5
116	Thermal and Entropy generation analysis of magnetohydrodynamic tangent hyperbolic slip flow towards a stretching sheet. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 0, , 095440892110411.	2.5	5
117	Natural Convective Flow Analysis For Nanofluids With Reynold[,]s Model of Viscosity. International Journal of Chemical Reactor Engineering, 2016, 14, 1101-1111.	1.1	4
118	Cattanneo-Christov Heat Flux Model Study for Water-Based CNT Suspended Nanofluid Past a Stretching Surface. , 2017, , .		4
119	Neuronal dynamics and electrophysiology fractional model: A modified wavelet approach. Physica A: Statistical Mechanics and Its Applications, 2021, 570, 125805.	2.6	4
120	Natural convection in triangular finâ€shaped cavity with partially heated base using nanofluid. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 0, , e202000306.	1.6	4
121	Double Diffusion Effects on Magnetohydrodynamic Non-Newtonian Fluid Nanoparticles. Journal of Computational and Theoretical Nanoscience, 2017, 14, 694-703.	0.4	4
122	MHD Fluid Flow and Heat Transfer of Micropolar Ferrofluids Over a Stretching Sheet. Journal of Nanofluids, 2016, 5, 567-573.	2.7	4
123	Numerical Simulation of Nanoparticles with Variable Viscosity over a Stretching Sheet. , 2018, , .		3
124	Mixed convection of single-walled carbon nanotubes in a triangular cavity containing a pentagonal impediment. IOP Conference Series: Materials Science and Engineering, 2020, 839, 012021.	0.6	3
125	Numerical Simulation of Nanoparticle Fraction for the Peristaltic Flow of a Six Constant Jeffreyâ€™s Fluid Model. Current Nanoscience, 2013, 9, 798-803.	1.2	3
126	Mechanical Integrity and Failure Analysis of Photovoltaic Modules under Simulated Snow Loads Using Pneumatic Airbag Setup. Journal of Power and Energy Engineering, 2022, 10, 1-13.	0.6	1

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127	Numerical simulation of nanoparticle volume fraction flow in pump with heat transfer. Heat Transfer Research, 2018, , .	1.6	0