Zafar Hayat Khan

List of Publications by Citations

122 papers	5,143 citations	43 h-index	68 g-index
128 ext. papers	5,911 ext. citations	3.3 avg, IF	6.56 L-index

#	Paper	IF	Citations
122	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	4.9	279
121	MHD three-dimensional Casson fluid flow past a porous linearly stretching sheet. *AEJ - Alexandria Engineering Journal*, **2013**, 52, 577-582	6.1	199
120	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	186
119	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	2.8	158
118	Fluid flow and heat transfer of carbon nanotubes along a flat plate with Navier slip boundary. *Applied Nanoscience (Switzerland)*, **2014**, 4, 633-641	3.3	155
117	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	2.8	151
116	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	3	146
115	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	4.9	140
114	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	4.9	135
113	Numerical solutions of Magnetohydrodynamic boundary layer flow of tangent hyperbolic fluid towards a stretching sheet. *Indian Journal of Physics*, **2013**, 87, 1121-1124	1.4	133
112	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	3.7	127
111	3D free convective MHD flow of nanofluid over permeable linear stretching sheet with thermal radiation. *Powder Technology*, **2017**, 315, 205-215	5.2	112
110	Heat transfer analysis of water-based nanofluid over an exponentially stretching sheet. *AEJ - Alexandria Engineering Journal*, **2014**, 53, 219-224	6.1	105
109	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	6	99
108	Thermophysical effects of carbon nanotubes on MHD flow over a stretching surface. *Physica E: Low-Dimensional Systems and Nanostructures*, **2014**, 63, 215-222	3	85
107	Numerical solution of non-Newtonian nanofluid flow over a stretching sheet. *Applied Nanoscience (Switzerland)*, **2014**, 4, 625-631	3.3	83
106	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	6	79

105	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	2.5	78
104	MHD boundary layer slip flow and heat transfer of ferrofluid along a stretching cylinder with prescribed heat flux. *PLoS ONE*, **2014**, 9, e83930	3.7	77
103	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	2.3	72
102	Numerical study of boundary layer flow and heat transfer of oldroyd-B nanofluid towards a stretching sheet. *PLoS ONE*, **2013**, 8, e69811	3.7	71
101	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	1.5	69
100	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, 103607	4.4	69
99	MHD squeezed flow of water functionalized metallic nanoparticles over a sensor surface. *Physica E: Low-Dimensional Systems and Nanostructures*, **2015**, 73, 45-53	3	67
98	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	5.8	64
97	Numerical simulation of peristaltic flow of a Carreau nanofluid in an asymmetric channel. *AEJ - Alexandria Engineering Journal*, **2014**, 53, 191-197	6.1	61
96	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	6	59
95	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	2.8	59
94	Numerical simulation of water based magnetite nanoparticles between two parallel disks. *Advanced Powder Technology*, **2016**, 27, 1568-1575	4.6	58
93	Water driven flow of carbon nanotubes in a rotating channel. *Journal of Molecular Liquids*, **2016**, 214, 136-144	6	58
92	Buoyancy and Radiation Effect on Stagnation Point Flow of Micropolar Nanofluid Along a Vertically Convective Stretching Surface. *IEEE Nanotechnology Magazine*, **2015**, 14, 42-50	2.6	56
91	Heat and mass transfer in nanofluid thin film over an unsteady stretching sheet using Buongiorno□ model. *European Physical Journal Plus*, **2016**, 131, 1	3.1	52
90	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	50
89	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	2.9	50
88	Flow and heat transfer of ferrofluids over a flat plate with uniform heat flux. *European Physical Journal Plus*, **2015**, 130, 1	3.1	49

87	Dual solutions in MHD stagnation-point flow of Prandtl fluid impinging on shrinking sheet. *Applied Mathematics and Mechanics (English Edition)*, **2014**, 35, 813-820	3.2	48
86	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	3.5	47
85	Metachronal beating of cilia under the influence of Casson fluid and magnetic field. *Journal of Magnetism and Magnetic Materials*, **2015**, 378, 320-326	2.8	47
84	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	6	47
83	MHD 3D free convective flow of nanofluid over an exponentially stretching sheet with chemical reaction. *Advanced Powder Technology*, **2017**, 28, 2159-2166	4.6	46
82	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	2.8	45
81	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	3.1	45
80	Numerical study of Williamson nano fluid flow in an asymmetric channel. *Results in Physics*, **2013**, 3, 161-166	3.7	43
79	Numerical study of unsteady hydromagnetic radiating fluid flow past a slippery stretching sheet embedded in a porous medium. *Physics of Fluids*, **2018**, 30, 083601	4.4	38
78	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	3.7	37
77	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	4.9	36
76	Wavelet analysis of stagnation point flow of non-Newtonian nanofluid. *Applied Mathematics and Mechanics (English Edition)*, **2019**, 40, 1211-1226	3.2	35
75	MHD pressure driven flow of nanofluid in curved channel. *Journal of Magnetism and Magnetic Materials*, **2015**, 393, 490-497	2.8	34
74	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	4.5	34
73	MHD Stagnation Point Ferrofluid Flow and Heat Transfer Toward a Stretching Sheet. *IEEE Nanotechnology Magazine*, **2014**, 13, 35-40	2.6	33
72	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, 093609	4.4	33
71	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	5.8	31
70	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	3.5	29

69	Numerical study of entropy generation in MHD water-based carbon nanotubes along an inclined permeable surface. *European Physical Journal Plus*, **2017**, 132, 1	3.1	29
68	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	3.3	29
67	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	3.5	28
66	Analysis of Entropy Generation in Flow of Methanol-Based Nanofluid in a Sinusoidal Wavy Channel. *Entropy*, **2017**, 19, 490	2.8	28
65	Mathematical modelling of pressure-driven micropolar biological flow due to metachronal wave propulsion of beating cilia. *Mathematical Biosciences*, **2018**, 301, 121-128	3.9	27
64	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	3.3	26
63	Influence of magnetic field for metachoronical beating of cilia for nanofluid with Newtonian heating. *Journal of Magnetism and Magnetic Materials*, **2015**, 381, 235-242	2.8	26
62	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	4.6	25
61	Metachronal beating of cilia under influence of Hartmann layer and heat transfer. *European Physical Journal Plus*, **2014**, 129, 1	3.1	24
60	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	4.1	23
59	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	2.4	23
58	Numerical treatment for hydro-magnetic unsteady channel flow of nanofluid with heat transfer. *Results in Physics*, **2018**, 9, 1543-1554	3.7	23
57	Flow of water based alumina and copper nanoparticles along a moving surface with variable temperature. *Journal of Molecular Liquids*, **2017**, 246, 354-362	6	22
56	Convective heat transfer and MHD effects on Casson nanofluid flow over a shrinking sheet. *Open Physics*, **2014**, 12,	1.3	22
55	Non-Newtonian fluid flow around a Y-shaped fin embedded in a square cavity. *Journal of Thermal Analysis and Calorimetry*, **2021**, 143, 573-585	4.1	19
54	Enhancement of heat and mass transfer rates through various porous cavities for triple convective-diffusive free convection. *Energy*, **2020**, 201, 117702	7.9	18
53	Liquid–vapour fronts in porous media: Multiplicity and stability of front positions. *International Journal of Heat and Mass Transfer*, **2013**, 61, 1-17	4.9	18
52	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	1.4	18

51	Entropy generation analysis of triple diffusive flow past a horizontal plate in porous medium. *Chemical Engineering Science*, **2020**, 228, 115980	4.4	18
50	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	17
49	Variable fluid properties analysis with water based CNT nanofluid over a sensor sheet: Numerical solution. *Journal of Molecular Liquids*, **2017**, 232, 471-477	6	17
48	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	3.1	17
47	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	5.8	16
46	Triple diffusion along a horizontal plate in a porous medium with convective boundary condition. *International Journal of Thermal Sciences*, **2014**, 86, 60-67	4.1	16
45	Brownian motion and thermophoresis effects on unsteady stagnation point flow of Eyring□Powell nanofluid: a Galerkin approach. *Communications in Theoretical Physics*, **2020**, 72, 125005	2.4	16
44	Peristaltic impulsion of MHD biviscosity fluid in a lopsided channel: Closed-form solution. *European Physical Journal Plus*, **2014**, 129, 1	3.1	15
43	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	2.4	14
42	Unsteady MHD Flow in a Porous Channel with Thermal Radiation and Heat Source/Sink. *International Journal of Applied and Computational Mathematics*, **2019**, 5, 1	1.3	14
41	Heat transfer analysis of Prandtl liquid nanofluid in the presence of homogeneous-heterogeneous reactions. *Results in Physics*, **2018**, 10, 379-384	3.7	14
40	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	2.8	13
39	Finite Difference Analysis of Time-Dependent Viscous Nanofluid Flow Between Parallel Plates. *Communications in Theoretical Physics*, **2019**, 71, 1293	2.4	13
38	Unsteady MHD flow of a Brinkman type fluid between two side walls perpendicular to an infinite plate. *Results in Physics*, **2018**, 9, 1602-1608	3.7	13
37	Effect of Variable Thermal Conductivity on Heat Transfer From a Hollow Sphere With Heat Generation Using Homotopy Perturbation Method **2008**,		12
36	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	1.5	12
35	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	1.7	12
34	The Stokes□second problem for nanofluids. *Journal of King Saud University - Science*, **2019**, 31, 61-65	3.6	12

33	Estimation of boundary-layer flow of a nanofluid past a stretching sheet: A revised model. *Journal of Hydrodynamics*, **2016**, 28, 596-602	3.3	11
32	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	4.5	10
31	Transition to instability of liquid□apour front in a porous medium cooled from above. *International Journal of Heat and Mass Transfer*, **2014**, 70, 610-620	4.9	10
30	Thermal non-equilibrium natural convection in a trapezoidal porous cavity with heated cylindrical obstacles. *International Communications in Heat and Mass Transfer*, **2021**, 126, 105460	5.8	10
29	Numerical study of streamwise and cross flow in the presence of heat and mass transfer. *European Physical Journal Plus*, **2017**, 132, 1	3.1	9
28	Viscous Dissipation Effects in Water Driven Carbon Nanotubes along a Stream Wise and Cross Flow Direction. *International Journal of Chemical Reactor Engineering*, **2017**, 15,	1.2	9
27	Unsteady flow and heat transfer of tangent-hyperbolic fluid: Legendre wavelet-based analysis. *Heat Transfer*, **2021**, 50, 3079-3093	3.1	9
26	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	5.8	8
25	Heat transfer analysis of bi-viscous ciliary motion fluid. *International Journal of Biomathematics*, **2015**, 08, 1550026	1.8	8
24	Nanoparticles Fraction on the Peristaltic Flow of Third Order Fluid. *Journal of Computational and Theoretical Nanoscience*, **2014**, 11, 47-52	0.3	7
23	Rheological Analysis of CNT Suspended Nanofluid with Variable Viscosity: Numerical Solution. *Communications in Theoretical Physics*, **2017**, 67, 681	2.4	7
22	Anomaly of spontaneous transition to instability of liquid□apour front in a porous medium. *International Journal of Heat and Mass Transfer*, **2015**, 84, 448-455	4.9	7
21	Heat Transfer From Solids With Variable Thermal Conductivity and Uniform Internal Heat Generation Using Homotopy Perturbation Method **2008**,		7
20	Finite element analysis of water-based Ferrofluid flow in a partially heated triangular cavity. *International Journal of Numerical Methods for Heat and Fluid Flow*, **2020**, ahead-of-print,	4.5	7
19	Analysis of MHD Nanofluid Flow Over a Convectively Heated Permeable Vertical Plate Embedded in a Porous Medium. *Journal of Nanofluids*, **2016**, 5, 574-580	2.2	6
18	Irreversibilities in natural convection inside a right-angled trapezoidal cavity with sinusoidal wall temperature. *Physics of Fluids*, **2021**, 33, 083612	4.4	6
17	Natural Propulsion with Lorentz Force and Nanoparticles in a Bioinspired Lopsided Ciliated Channel. *Journal of Bionic Engineering*, **2017**, 14, 172-181	2.7	5
16	Numerical Simulation of Natural Convection of Water Based Nanofluids in Horizontal Eccentric Cylindrical Annuli. *Journal of Nanofluids*, **2016**, 5, 253-263	2.2	5

15	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	0.3	5
14	Cattanneo-Christov Heat Flux Model Study for Water-Based CNT Suspended Nanofluid Past a Stretching Surface **2017**,		4
13	Natural Convective Flow Analysis For Nanofluids With Reynold,s Model of Viscosity. *International Journal of Chemical Reactor Engineering*, **2016**, 14, 1101-1111	1.2	4
12	Double Diffusion Effects on Magnetohydrodynamic Non-Newtonian Fluid Nanoparticles. *Journal of Computational and Theoretical Nanoscience*, **2017**, 14, 694-703	0.3	3
11	MHD Fluid Flow and Heat Transfer of Micropolar Ferrofluids Over a Stretching Sheet. *Journal of Nanofluids*, **2016**, 5, 567-573	2.2	3
10	Numerical Simulation of Nanoparticle Fraction for the Peristaltic Flow of a Six Constant Jeffreys Fluid Model. *Current Nanoscience*, **2013**, 9, 798-803	1.4	3
9	Neuronal dynamics and electrophysiology fractional model: A modified wavelet approach. *Physica A: Statistical Mechanics and Its Applications*, **2021**, 570, 125805	3.3	3
8	Effect of instantaneous change of surface temperature and density on an unsteady liquid vapour front in a porous medium. *Experimental and Computational Multiphase Flow*, **2020**, 2, 115-121	4.2	3
7	Numerical Simulation of Nanoparticles with Variable Viscosity over a Stretching Sheet **2018**,		3
6	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	0.4	2
5	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*, **2021**, 095440892110411	1.5	1
4	Irreversibilities in a triple diffusive flow in various porous cavities. *Chinese Journal of Physics*, **2021**, 73, 239-255	3.5	1
3	Natural convection in triangular fin-shaped cavity with partially heated base using nanofluid. *ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik*,e202000306	1	0
2	Analysis of unsteady liquid-vapor front in a porous medium with variable heat generation. *Experimental and Computational Multiphase Flow*,1	4.2	0
1	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	0.7	