

# Awais Muhammad

## List of Publications by Year in descending order

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93  
papers

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citations

201674

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docs citations

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#	ARTICLE	IF	CITATIONS
1	Investigation on TiO <sub>2</sub> -Cu/H <sub>2</sub> O hybrid nanofluid with slip conditions in MHD peristaltic flow of Jeffrey material. Journal of Thermal Analysis and Calorimetry, 2021, 143, 1985-1996.	3.6	94
2	Neuro-evolutionary computing paradigm for Painlevé equation-II in nonlinear optics. European Physical Journal Plus, 2018, 133, 1.	2.6	65
3	Entropy generation in electrical magnetohydrodynamic flow of Al <sub>2</sub> O <sub>3</sub> -Cu/H <sub>2</sub> O hybrid nanofluid with non-uniform heat flux. Journal of Thermal Analysis and Calorimetry, 2021, 143, 2135-2148.	3.6	63
4	Heat and mass transfer phenomenon for the dynamics of Casson fluid through porous medium over shrinking wall subject to Lorentz force and heat source/sink. AEJ - Alexandria Engineering Journal, 2021, 60, 1355-1363.	6.4	63
5	MHD Effects on Ciliary-Induced Peristaltic Flow Coatings with Rheological Hybrid Nanofluid. Coatings, 2020, 10, 186.	2.6	60
6	Three-dimensional flow of upper convected Maxwell (UCM) fluid. International Journal for Numerical Methods in Fluids, 2011, 66, 875-884.	1.6	59
7	Homogeneous-heterogeneous reactions in Williamson fluid model over a stretching cylinder by using Keller box method. AIP Advances, 2015, 5, .	1.3	55
8	Velocity, thermal and concentration slip effects on a magneto-hydrodynamic nanofluid flow. AEJ - Alexandria Engineering Journal, 2016, 55, 2107-2114.	6.4	55
9	Newtonian heating in stagnation point flow of Burgers fluid. Applied Mathematics and Mechanics (English Edition), 2015, 36, 61-68.	3.6	53
10	A new stochastic computing paradigm for nonlinear Painlevé II systems in applications of random matrix theory. European Physical Journal Plus, 2018, 133, 1.	2.6	52
11	Computational and physical aspects of MHD Prandtl-Eyring fluid flow analysis over a stretching sheet. Neural Computing and Applications, 2019, 31, 425-433.	5.6	51
12	Magnetohydrodynamic axisymmetric flow of Casson fluid with variable thermal conductivity and free stream. AEJ - Alexandria Engineering Journal, 2018, 57, 2043-2050.	6.4	49
13	Effects of Variable Transport Properties on Heat and Mass Transfer in MHD Bioconvective Nanofluid Rheology with Gyrotactic Microorganisms: Numerical Approach. Coatings, 2021, 11, 231.	2.6	49
14	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
15	Heat transfer analysis of Cu-Al <sub>2</sub> O <sub>3</sub> hybrid nanofluid with heat flux and viscous dissipation. Journal of Thermal Analysis and Calorimetry, 2021, 143, 2367-2377.	3.6	47
16	Influence of radially magnetic field properties in a peristaltic flow with internal heat generation: Numerical treatment. Case Studies in Thermal Engineering, 2021, 26, 101019.	5.7	44
17	Effects of viscous dissipation on MHD boundary layer flow of Sisko fluid over a stretching cylinder. AIP Advances, 2016, 6, .	1.3	40
18	Mathematical analysis on MHD Prandtl-Eyring nanofluid new mass flux conditions. Mathematical Methods in the Applied Sciences, 2019, 42, 24-38.	2.3	40

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19	Heat Generation/Absorption Effects in a Boundary Layer Stretched Flow of Maxwell Nanofluid: Analytic and Numeric Solutions. PLoS ONE, 2015, 10, e0129814.	2.5	39
20	Numerical treatment with Lobatto IIIA technique for radiative flow of MHD hybrid nanofluid (Al <sub>2</sub> O <sub>3</sub> -Cu/H <sub>2</sub> O) over a convectively heated stretchable rotating disk with velocity slip effects. AIP Advances, 2020, 10, .	1.3	39
21	Numerical Treatment for Dynamics of Second Law Analysis and Magnetic Induction Effects on Ciliary Induced Peristaltic Transport of Hybrid Nanomaterial. Frontiers in Physics, 2021, 9, .	2.1	39
22	Nanoparticles and nonlinear thermal radiation properties in the rheology of polymeric material. Results in Physics, 2018, 8, 1038-1045.	4.1	37
23	Effects of Gyro-Tactic Organisms in Bio-convective Nano-material with Heat Immersion, Stratification, and Viscous Dissipation. Arabian Journal for Science and Engineering, 2021, 46, 5907-5920.	3.0	35
24	Thermophysical properties of chemotactic microorganisms in bio-convective peristaltic rheology of nano-liquid with slippage, Joule heating and viscous dissipation. Case Studies in Thermal Engineering, 2021, 27, 101285.	5.7	35
25	Numerical investigation on 2D viscoelastic fluid due to exponentially stretching surface with magnetic effects: an application of non-Fourier flux theory. Neural Computing and Applications, 2018, 30, 2749-2758.	5.6	32
26	Thermal radiation effects in squeezing flow of a Jeffery fluid. European Physical Journal Plus, 2013, 128, 1.	2.6	31
27	Effects of transverse magnetic field with variable thermal conductivity on tangent hyperbolic fluid with exponentially varying viscosity. AIP Advances, 2015, 5, .	1.3	31
28	Numerical treatment for hydro-magnetic unsteady channel flow of nanofluid with heat transfer. Results in Physics, 2018, 9, 1543-1554.	4.1	31
29	MASS TRANSFER EFFECTS ON THE UNSTEADY FLOW OF UCM FLUID OVER A STRETCHING SHEET. International Journal of Modern Physics B, 2011, 25, 2863-2878.	2.0	30
30	Convective heat transfer analysis for MHD peristaltic flow in an asymmetric channel. International Journal of Biomathematics, 2014, 07, 1450023.	2.9	30
31	Entropy analysis in a cilia transport of nanofluid under the influence of magnetic field. Nuclear Engineering and Technology, 2017, 49, 1680-1688.	2.3	30
32	Integrated intelligent computing application for effectiveness of Au nanoparticles coated over MWCNTs with velocity slip in curved channel peristaltic flow. Scientific Reports, 2021, 11, 22550.	3.3	29
33	Axisymmetric Powell-Eyring fluid flow with convective boundary condition: optimal analysis. Applied Mathematics and Mechanics (English Edition), 2016, 37, 919-928.	3.6	28
34	Entropy generation on MHD peristaltic flow of Cu-water nanofluid with slip conditions. Heat Transfer - Asian Research, 2019, 48, 4301-4319.	2.8	28
35	Impact of thermal radiation and non-uniform heat flux on MHD hybrid nanofluid along a stretching cylinder. Scientific Reports, 2021, 11, 20262.	3.3	28
36	Generalized magnetic effects in a Sakiadis flow of polymeric nano-liquids: Analytic and numerical solutions. Journal of Molecular Liquids, 2017, 241, 570-576.	4.9	27

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37	Analytical Assessment of (Al <sub>2</sub> O <sub>3</sub> -Ag/H <sub>2</sub> O) Hybrid Nanofluid Influenced by Induced Magnetic Field for Second Law Analysis with Mixed Convection, Viscous Dissipation and Heat Generation. <i>Coatings</i> , 2021, 11, 498.	2.6	27
38	Internal friction between fluid particles of MHD tangent hyperbolic fluid with heat generation: Using coefficients improved by Cash and Karp. <i>European Physical Journal Plus</i> , 2017, 132, 1.	2.6	26
39	An estimation of pressure rise and heat transfer rate for hybrid nanofluid with endoscopic effects and induced magnetic field: computational intelligence application. <i>European Physical Journal Plus</i> , 2020, 135, 1.	2.6	25
40	Impact of activation energy on hyperbolic tangent nanofluid with mixed convection rheology and entropy optimization. <i>AEJ - Alexandria Engineering Journal</i> , 2021, 60, 1123-1135.	6.4	25
41	Analytic Solution for the Magnetohydrodynamic Rotating Flow of Jeffrey Fluid in a Channel. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2011, 133, .	1.5	24
42	Flow of Sisko fluid over a stretching cylinder and heat transfer with viscous dissipation and variable thermal conductivity: A numerical study. <i>AIP Advances</i> , 2016, 6, .	1.3	24
43	Intelligent numerical computing paradigm for heat transfer effects in a Bodewadt flow. <i>Surfaces and Interfaces</i> , 2021, 26, 101321.	3.0	24
44	Simultaneous effects of heat and mass transfer on time-dependent flow over a stretching surface. <i>International Journal for Numerical Methods in Fluids</i> , 2011, 67, 1341-1357.	1.6	23
45	Magnetohydrodynamic flow of Sisko fluid over a stretching cylinder with variable thermal conductivity: A numerical study. <i>AIP Advances</i> , 2016, 6, .	1.3	23
46	Slip and Hall Effects on Peristaltic Rheology of Copper-Water Nanomaterial Through Generalized Complaint Walls With Variable Viscosity. <i>Frontiers in Physics</i> , 2020, 7, .	2.1	23
47	Time-Dependent Second-Order Viscoelastic Fluid Flow on Rotating Cone with Heat Generation and Chemical Reaction. <i>Journal of Aerospace Engineering</i> , 2016, 29, .	1.4	21
48	Convective and peristaltic viscous fluid flow with variable viscosity. <i>Journal of Engineering Thermophysics</i> , 2017, 26, 69-78.	1.4	21
49	Heat Transfer in Nanomaterial Suspension (CuO and Al <sub>2</sub> O <sub>3</sub> ) Using KKL Model. <i>Coatings</i> , 2021, 11, 417.	2.6	21
50	Mixed Convection Three-dimensional Flow with Hall and Ion-slip Effects. <i>International Journal of Nonlinear Sciences and Numerical Simulation</i> , 2013, 14, 167-177.	1.0	20
51	3-D Maxwell fluid flow over an exponentially stretching surface using 3-stage Lobatto IIIA formula. <i>AIP Advances</i> , 2016, 6, .	1.3	20
52	A computational analysis subject to thermophysical aspects of Sisko fluid flow over a cylindrical surface. <i>European Physical Journal Plus</i> , 2017, 132, 1.	2.6	20
53	Stratification phenomenon in an inclined rheology of UCM nanomaterial. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2019, 383, 2201-2206.	2.1	20
54	Peristaltic flow of nanofluid in a deformable channel with double diffusion. <i>SN Applied Sciences</i> , 2020, 2, 1.	2.9	20

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55	Numerical study of heat and mass transfer in MHD flow of nanofluid in a porous medium with Soret and Dufour effects. <i>Heat Transfer</i> , 2021, 50, 4501-4515.	3.0	20
56	Entropy Generation Analysis and Radiated Heat Transfer in MHD (Al <sub>2</sub> O <sub>3</sub> -Cu/Water) Hybrid Nanofluid Flow. <i>Micromachines</i> , 2021, 12, 887.	2.9	20
57	Intelligent Bayesian regularization networks for bio-convective nanofluid flow model involving gyro-tactic organisms with viscous dissipation, stratification and heat immersion. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2021, 15, 1508-1530.	3.1	18
58	Similar solution for three-dimensional flow in an Oldroyd-B fluid over a stretching surface. <i>International Journal for Numerical Methods in Fluids</i> , 2012, 70, 851-859.	1.6	17
59	Dynamical analysis for nanofluid slip rheology with thermal radiation, heat generation/absorption and convective wall properties. <i>AIP Advances</i> , 2018, 8, 075122.	1.3	17
60	3D nanofluid flow over exponentially expanding surface of Oldroyd-B fluid. <i>Ain Shams Engineering Journal</i> , 2021, 12, 3939-3946.	6.1	17
61	Backpropagated Intelligent Networks for the Entropy Generation and Joule Heating in Hydromagnetic Nanomaterial Rheology Over Surface with Variable Thickness. <i>Arabian Journal for Science and Engineering</i> , 2022, 47, 7753-7777.	3.0	17
62	Mixed Convection Boundary Layer Flow of Williamson Fluid with Slip Conditions Over a Stretching Cylinder by Using Keller Box Method. <i>International Journal of Nonlinear Sciences and Numerical Simulation</i> , 2017, 18, 9-17.	1.0	16
63	Numerical investigation of MHD Prandtl melted fluid flow towards a cylindrical surface: comprehensive outcomes. <i>Canadian Journal of Physics</i> , 2020, 98, 223-232.	1.1	16
64	Hall effect on MHD Jeffrey fluid flow with Cattaneo-Christov heat flux model: an application of stochastic neural computing. <i>Complex &amp; Intelligent Systems</i> , 2022, 8, 5177-5201.	6.5	16
65	Axisymmetric magnetohydrodynamic flow of Jeffrey fluid over a rotating disk. <i>International Journal for Numerical Methods in Fluids</i> , 2012, 70, 764-774.	1.6	15
66	Dynamics of Two-Phase Dusty Fluid Flow Along a Wavy Surface. <i>International Journal of Nonlinear Sciences and Numerical Simulation</i> , 2016, 17, 185-193.	1.0	15
67	Hartmann boundary layer in peristaltic flow for viscoelastic fluid: Existence. <i>Ain Shams Engineering Journal</i> , 2022, 13, 101555.	6.1	15
68	Comparative study of silver and copper water magneto nanoparticles with homogeneous-heterogeneous reactions in a tapered channel. <i>International Journal of Heat and Mass Transfer</i> , 2017, 115, 108-114.	4.8	14
69	Entropy Generation Analysis of Peristaltic Flow of Nanomaterial in a Rotating Medium through Generalized Compliance Walls of Micro-Channel with Radiation and Heat Flux Effects. <i>Micromachines</i> , 2022, 13, 375.	2.9	14
70	Backpropagated intelligent computing networks for 3D nanofluid rheology with generalized heat flux. <i>Waves in Random and Complex Media</i> , 0, , 1-31.	2.7	13
71	Similar solutions of stretching flow with mass transfer. <i>International Journal for Numerical Methods in Fluids</i> , 2010, 64, 908-921.	1.6	12
72	Mixed Convection Three-Dimensional Flow of an Upper-Convected Maxwell Fluid Under Magnetic Field, Thermal-Diffusion, and Diffusion-Thermo Effects. <i>Journal of Heat Transfer</i> , 2012, 134, .	2.1	12

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73	Soret and Dufour effects between two rectangular plane walls with heat source/sink. Heat Transfer - Asian Research, 2020, 49, 614-625.	2.8	12
74	Slippage phenomenon in hydromagnetic peristaltic rheology with hall current and viscous dissipation. International Journal of Nonlinear Sciences and Numerical Simulation, 2022, 23, 635-659.	1.0	12
75	Hydromagnetic Flow of Prandtl Nanofluid Past Cylindrical Surface with Chemical Reaction and Convective Heat Transfer Aspects. Mathematical Problems in Engineering, 2021, 2021, 1-16.	1.1	11
76	3-D flow of Jeffery fluid in a channel with stretched wall. European Physical Journal Plus, 2012, 127, 1.	2.6	10
77	Unsteady Flow of Third Grade Fluid With Soret and Dufour Effects. Journal of Heat Transfer, 2012, 134, .	2.1	9
78	Thermophoresis and concentration effects in a fourth grade peristaltic flow with convective walls. Journal of Central South University, 2017, 24, 1654-1662.	3.0	9
79	Time-dependent flow of UCM fluid with chemical reaction, thermal-diffusion and diffusion-thermo effects. International Journal of Numerical Methods for Heat and Fluid Flow, 2014, 24, 483-497.	2.8	8
80	Dual Solutions for Nonlinear Flow Using Lie Group Analysis. PLoS ONE, 2015, 10, e0142732.	2.5	8
81	Numerical computing paradigms for the dynamics of squeezing rheology of third grade fluid. Thermal Science, 2020, 24, 4173-4182.	1.1	8
82	Unsteady Three-Dimensional Flow in a Second-Grade Fluid Over a Stretching Surface. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2011, 66, 635-642.	1.5	7
83	Hydromagnetic Falkner-Skan fluid rheology with heat transfer properties. Thermal Science, 2020, 24, 339-346.	1.1	7
84	Analysis of heat transfer on MHD Jeffrey nanofluid flow over nonlinear elongating surface of variable thickness. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2022, 102, e202100250.	1.6	7
85	Numerical and analytical approach for Sakiadis rheology of generalized polymeric material with magnetic field and heat source/sink. Thermal Science, 2020, 24, 1183-1194.	1.1	6
86	An efficient three-step iterative method with sixth-order convergence for solving nonlinear equations. International Journal of Computer Mathematics, 2007, 84, 369-375.	1.8	5
87	On Computations for Thermal Radiation in MHD Channel Flow with Heat and Mass Transfer. PLoS ONE, 2014, 9, e86695.	2.5	5
88	Chemical Reaction Effects in Maxwell Fluid Flow Over Permeable Surface: Dual Solutions. International Journal of Nonlinear Sciences and Numerical Simulation, 2015, 16, 123-128.	1.0	3
89	Analysis on flow features of unsteady Williamson fluid inaugurated by melted wedge in the presence of heat generation/absorption: an extensive computational study. Canadian Journal of Physics, 2019, 97, 1277-1287.	1.1	3
90	Investigation from sensitivity to optimality for the transmission and detection of pine wilt disease. European Physical Journal Plus, 2022, 137, 1.	2.6	3

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91	Numerical analysis of MHD axisymmetric rotating Bodewadt rheology under viscous dissipation and ohmic heating effects. Scientific Reports, 2022, 12, .	3.3	3
92	Thermal-diffusion and Diffusion-thermo Effects in a Flow of Jeffery Fluid with Convective Boundary Conditions. International Journal of Nonlinear Sciences and Numerical Simulation, 2014, 15, 231-239.	1.0	1
93	Unsteady Rheology of MHD Newtonian Material with Soret and Dufours Effects. International Journal of Applied and Computational Mathematics, 2017, 3, 1299-1311.	1.6	0