

# Kashif Ali Abro

## List of Publications by Year in descending order

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100  
papers

2,780  
citations

147726

31  
h-index

243529

44  
g-index

104  
all docs

104  
docs citations

104  
times ranked

838  
citing authors

#	ARTICLE	IF	CITATIONS
1	Application of Atangana-Baleanu fractional derivative to convection flow of MHD Maxwell fluid in a porous medium over a vertical plate. <i>Mathematical Modelling of Natural Phenomena</i> , 2018, 13, 1.	0.9	120
2	A comparative study of convective fluid motion in rotating cavity via Atangana-Baleanu and Caputo-Fabrizio fractional differentiations. <i>European Physical Journal Plus</i> , 2020, 135, 1.	1.2	96
3	A comparative mathematical analysis of RL and RC electrical circuits via Atangana-Baleanu and Caputo-Fabrizio fractional derivatives. <i>European Physical Journal Plus</i> , 2018, 133, 1.	1.2	87
4	A comparison of heat and mass transfer on a Walter-B fluid via Caputo-Fabrizio versus Atangana-Baleanu fractional derivatives using the Fox-H function. <i>European Physical Journal Plus</i> , 2019, 134, 1.	1.2	81
5	Atangana-Baleanu and Caputo Fabrizio Analysis of Fractional Derivatives for Heat and Mass Transfer of Second Grade Fluids over a Vertical Plate: A Comparative Study. <i>Entropy</i> , 2017, 19, 279.	1.1	72
6	Role of non-integer and integer order differentiations on the relaxation phenomena of viscoelastic fluid. <i>Physica Scripta</i> , 2020, 95, 035228.	1.2	61
7	Analysis of the heat and mass transfer in the MHD flow of a generalized Casson fluid in a porous space via non-integer order derivatives without a singular kernel. <i>Chinese Journal of Physics</i> , 2017, 55, 1583-1595.	2.0	60
8	A fractional and analytic investigation of thermo-diffusion process on free convection flow: an application to surface modification technology. <i>European Physical Journal Plus</i> , 2020, 135, 1.	1.2	60
9	Mathematical analysis of memristor through fractal-fractional differential operators: A numerical study. <i>Mathematical Methods in the Applied Sciences</i> , 2020, 43, 6378-6395.	1.2	59
10	Dual thermal analysis of magnetohydrodynamic flow of nanofluids via modern approaches of Caputo-Fabrizio and Atangana-Baleanu fractional derivatives embedded in porous medium. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 135, 2197-2207.	2.0	55
11	Analytical Solutions of Fractional Walter-B Fluid with Applications. <i>Complexity</i> , 2018, 2018, 1-10.	0.9	53
12	Thermal effects of magnetohydrodynamic micropolar fluid embedded in porous medium with Fourier sine transform technique. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2019, 41, 1.	0.8	53
13	Role of fractal-fractional derivative on ferromagnetic fluid via fractal Laplace transform: A first problem via fractal-fractional differential operator. <i>European Journal of Mechanics, B/Fluids</i> , 2021, 85, 76-81.	1.2	52
14	Chaos in a calcium oscillation model via Atangana-Baleanu operator with strong memory. <i>European Physical Journal Plus</i> , 2019, 134, 1.	1.2	50
15	Thermal stratification of rotational second-grade fluid through fractional differential operators. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 143, 3667-3676.	2.0	50
16	An analytic study of molybdenum disulfide nanofluids using the modern approach of Atangana-Baleanu fractional derivatives. <i>European Physical Journal Plus</i> , 2017, 132, 1.	1.2	49
17	Enhancement of heat transfer rate of solar energy via rotating Jeffrey nanofluids using Caputo-Fabrizio fractional operator: An application to solar energy. <i>Energy Reports</i> , 2019, 5, 41-49.	2.5	49
18	Novel technique of Atangana and Baleanu for heat dissipation in transmission line of electrical circuit. <i>Chaos, Solitons and Fractals</i> , 2019, 129, 40-45.	2.5	45

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19	Role of Gilson's Pickering equation for the different types of soliton solutions: a nonlinear analysis. <i>European Physical Journal Plus</i> , 2020, 135, 1.	1.2	45
20	Thermodynamical analysis of heat transfer of gravity-driven fluid flow via fractional treatment: an analytical study. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 144, 155-165.	2.0	45
21	Analysis of Stokes' Second Problem for Nanofluids Using Modern Approach of Atangana-Baleanu Fractional Derivative. <i>Journal of Nanofluids</i> , 2018, 7, 738-747.	1.4	44
22	Functionality of circuit via modern fractional differentiations. <i>Analog Integrated Circuits and Signal Processing</i> , 2019, 99, 11-21.	0.9	42
23	Multiple soliton solutions with chiral nonlinear Schrödinger's equation in (2+1)-dimensions. <i>European Journal of Mechanics, B/Fluids</i> , 2021, 85, 68-75.	1.2	42
24	A mathematical analysis of a circular pipe in rate type fluid via Hankel transform. <i>European Physical Journal Plus</i> , 2018, 133, 1.	1.2	41
25	A comparative analysis of electromechanical model of piezoelectric actuator through Caputo's Fabrizio and Atangana's Baleanu fractional derivatives. <i>Mathematical Methods in the Applied Sciences</i> , 2020, 43, 9681-9691.	1.2	38
26	Thermal analysis in Stokes's second problem of nanofluid: Applications in thermal engineering. <i>Case Studies in Thermal Engineering</i> , 2018, 12, 271-275.	2.8	37
27	Numerical Study and Chaotic Analysis of Meminductor and Memcapacitor Through Fractal's Fractional Differential Operator. <i>Arabian Journal for Science and Engineering</i> , 2021, 46, 857-871.	1.7	37
28	Functional application of Fourier sine transform in radiating gas flow with non-singular and non-local kernel. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2019, 41, 1.	0.8	36
29	Thermodynamics of magnetohydrodynamic Brinkman fluid in porous medium. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 136, 2295-2304.	2.0	36
30	Electroosmotic slip flow of Oldroyd-B fluid between two plates with non-singular kernel. <i>Journal of Computational and Applied Mathematics</i> , 2020, 376, 112885.	1.1	36
31	Fractional characterization of fluid and synergistic effects of free convective flow in circular pipe through Hankel transform. <i>Physics of Fluids</i> , 2020, 32, .	1.6	35
32	A mathematical study of natural convection flow through a channel with non-singular kernels: An application to transport phenomena. <i>AEJ - Alexandria Engineering Journal</i> , 2020, 59, 2269-2281.	3.4	34
33	Heat transfer in magnetohydrodynamic free convection flow of generalized ferrofluid with magnetite nanoparticles. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 143, 3633-3642.	2.0	32
34	Role of modern fractional derivatives in an armature-controlled DC servomotor. <i>European Physical Journal Plus</i> , 2019, 134, 1.	1.2	31
35	Helical flows of fractional viscoelastic fluid in a circular pipe. <i>International Journal of Advanced and Applied Sciences</i> , 2017, 4, 97-105.	0.2	31
36	On the thermal analysis of magnetohydrodynamic Jeffery fluid via modern non integer order derivative. <i>Journal of King Saud University - Science</i> , 2019, 31, 973-979.	1.6	30

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37	Application of statistical method on thermal resistance and conductance during magnetization of fractionalized free convection flow. <i>International Communications in Heat and Mass Transfer</i> , 2020, 119, 104971.	2.9	28
38	Fractional Modeling of Fin on non-Fourier Heat Conduction via Modern Fractional Differential Operators. <i>Arabian Journal for Science and Engineering</i> , 2021, 46, 2901-2910.	1.7	28
39	Numerical study and chaotic oscillations for aerodynamic model of wind turbine via fractal and fractional differential operators. <i>Numerical Methods for Partial Differential Equations</i> , 2022, 38, 1180-1194.	2.0	27
40	A non-linear study of optical solitons for Kaup-Newell equation without four-wave mixing. <i>Journal of King Saud University - Science</i> , 2022, 34, 102056.	1.6	27
41	Porous effects on the fractional modeling of magnetohydrodynamic pulsatile flow: an analytic study via strong kernels. <i>Journal of Thermal Analysis and Calorimetry</i> , 2020, 146, 689.	2.0	26
42	A mathematical model for thermography on viscous fluid based on damped thermal flux. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , 2021, 76, 285-294.	0.7	26
43	Thermal analysis of oblique stagnation point flow with slippage on second-order fluid. <i>Journal of Thermal Analysis and Calorimetry</i> , 2022, 147, 3839-3851.	2.0	25
44	Functional shape effects of nanoparticles on nanofluid suspended in ethylene glycol through Mittag-Leffler approach. <i>Physica Scripta</i> , 2021, 96, 025005.	1.2	25
45	A computational technique for thermal analysis in coaxial cylinder of one-dimensional flow of fractional Oldroyd-B nanofluid. <i>International Journal of Ambient Energy</i> , 2022, 43, 5357-5365.	1.4	23
46	Thermal investigation for electrified convection flow of Newtonian fluid subjected to damped thermal flux on a permeable medium. <i>Physica Scripta</i> , 2020, 95, 115003.	1.2	23
47	Thermophysical properties of Maxwell Nanofluids via fractional derivatives with regular kernel. <i>Journal of Thermal Analysis and Calorimetry</i> , 2020, , 1.	2.0	22
48	Slippage of Magnetohydrodynamic Fractionalized Oldroyd-B Fluid in Porous Medium. <i>Progress in Fractional Differentiation and Applications</i> , 2017, 3, 69-80.	1.1	22
49	Fractional modeling and synchronization of ferrofluid on free convection flow with magnetolysis. <i>European Physical Journal Plus</i> , 2020, 135, 1.	1.2	21
50	Numerical and mathematical analysis of induction motor by means of fractional differentiation actuated by drilling system. <i>Numerical Methods for Partial Differential Equations</i> , 0, , .	2.0	20
51	Role of Fourier sine transform on the dynamical model of tensioned carbon nanotubes with fractional operator. <i>Mathematical Methods in the Applied Sciences</i> , 2020, , .	1.2	20
52	Extraction of optical solitons in birefringent fibers for Biswas-Arshed equation via extended trial equation method. <i>Nonlinear Engineering</i> , 2021, 10, 146-158.	1.4	20
53	Exact solutions involving special functions for unsteady convective flow of magnetohydrodynamic second grade fluid with ramped conditions. <i>Advances in Difference Equations</i> , 2021, 2021, .	3.5	20
54	A comparative analysis of sulfate concentration via modern fractional derivatives: An industrial application to cooling system of power plant. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020, 541, 123306.	1.2	19

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55	Thermal transmittance and thermo-magnetization of unsteady free convection viscous fluid through non-singular differentiations. <i>Physica Scripta</i> , 2021, 96, 015215.	1.2	19
56	Symbolic computation of Caudreyâ€“Doddâ€“Gibbon equation subject to periodic trigonometric and hyperbolic symmetries. <i>European Physical Journal Plus</i> , 2021, 136, 1.	1.2	18
57	A scientific report of non-singular techniques on microring resonators: An application to optical technology. <i>Optik</i> , 2020, 224, 165696.	1.4	17
58	Role of single slip assumption on the viscoelastic liquid subject to nonâ€“integer differentiable operators. <i>Mathematical Methods in the Applied Sciences</i> , 2021, 44, 6005-6020.	1.2	17
59	An analytic study of bioheat transfer Pennes model via modern non-integers differential techniques. <i>European Physical Journal Plus</i> , 2021, 136, 1.	1.2	17
60	Ferromagnetic Chaos in thermal convection of fluid through fractalâ€“fractional differentiations. <i>Journal of Thermal Analysis and Calorimetry</i> , 2022, 147, 8461-8473.	2.0	17
61	Influence in a Darcy's medium with heat production and radiation on MHD convection flow via modern fractional approach. <i>Journal of Materials Research and Technology</i> , 2020, 9, 10016-10030.	2.6	16
62	Dual fractional modeling of rate type fluid through $\langle \text{scp} \rangle$ nonâ€“local $\langle / \text{scp} \rangle$ differentiation. <i>Numerical Methods for Partial Differential Equations</i> , 0, , .	2.0	16
63	Role of bi-order Atanganaâ€“Aguilar fractional differentiation on Drude model: an analytic study for distinct sources. <i>Optical and Quantum Electronics</i> , 2021, 53, 1.	1.5	16
64	Strange Attractors and Optimal Analysis of Chaotic Systems based on Fractal versus Fractional Differential Operators. <i>International Journal of Modelling and Simulation</i> , 2022, 42, 716-724.	2.3	16
65	Effects of solid particles on fluid-particulate phase flow of non-Newtonian fluid through eccentric annuli having thin peristaltic walls. <i>Journal of Thermal Analysis and Calorimetry</i> , 2022, 147, 1645-1656.	2.0	16
66	Fractional Treatment of Vibration Equation Through Modern Analogy of Fractional Differentiations Using Integral Transforms. <i>Iranian Journal of Science and Technology, Transaction A: Science</i> , 2019, 43, 2307-2314.	0.7	15
67	Analysis of De-Levieâ€™s model via modern fractional differentiations: An application to supercapacitor. <i>AEJ - Alexandria Engineering Journal</i> , 2019, 58, 1375-1384.	3.4	15
68	A mathematical and parametric study of epidemiological smoking model: a deterministic stability and optimality for solutions. <i>European Physical Journal Plus</i> , 2021, 136, 1.	1.2	15
69	Application of modern approach of Caputo-Fabrizio fractional derivative to MHD second grade fluid through oscillating porous plate with heat and mass transfer. <i>International Journal of Advanced and Applied Sciences</i> , 2018, 5, 97-105.	0.2	14
70	Chaotic characteristics of thermal convection at smaller verse larger Prandtl number through fractal and fractional differential operators from nanofluid. <i>International Journal of Modelling and Simulation</i> , 2023, 43, 11-22.	2.3	14
71	The role of relaxation and retardation phenomenon of Oldroyd-B fluid flow through Stehfestâ€™s and Tzouâ€™s algorithms. <i>Nonlinear Engineering</i> , 2022, 11, 35-46.	1.4	14
72	Application of Fourier Sine Transform to Carbon Nanotubes Suspended in Ethylene Glycol for the Enhancement of Heat Transfer. <i>Energies</i> , 2022, 15, 1200.	1.6	13

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73	A scientific report of singular kernel on the rate-type fluid subject to the mixed convection flow. <i>Soft Computing</i> , 2022, 26, 4575-4585.	2.1	13
74	Synchronization Via Fractalâ€“Fractional Differential Operators on Two-Mass Torsional Vibration System Consisting of Motor and Roller. <i>Journal of Computational and Nonlinear Dynamics</i> , 2021, 16, .	0.7	12
75	Mathematical and numerical optimality of non-singular fractional approaches on free and forced linear oscillator. <i>Nonlinear Engineering</i> , 2020, 9, 449-456.	1.4	12
76	A comparative analysis of plasma dilution based on fractional integro-differential equation: an application to biological science. <i>International Journal of Modelling and Simulation</i> , 2023, 43, 1-10.	2.3	12
77	Heat Transfer Characteristics of Fractionalized Hydromagnetic Fluid with Chemical Reaction in Permeable Media. <i>Energies</i> , 2022, 15, 2196.	1.6	12
78	Thermography of ferromagnetic Walter's-B fluid through varying thermal stratification. <i>South African Journal of Chemical Engineering</i> , 2021, 36, 118-126.	1.2	10
79	A Mathematical and Statistical Estimation of Potential Transmission and Severity of COVID-19: A Combined Study of Romania and Pakistan. <i>BioMed Research International</i> , 2020, 2020, 1-14.	0.9	10
80	MHD flow of fractional Newtonian fluid embedded in a porous medium via Atangana-Baleanu fractional derivatives. <i>Discrete and Continuous Dynamical Systems - Series S</i> , 2020, 13, 377-387.	0.6	10
81	Thermal characteristics of longitudinal fin with Fourier and non-Fourier heat transfer by Fourier sine transforms. <i>Scientific Reports</i> , 2021, 11, 20993.	1.6	10
82	Comparative Analysis of Statistical and Fractional Approaches for Thermal Conductance Through Suspension of Ethylene Glycol Nanofluid. <i>Brazilian Journal of Physics</i> , 2022, 52, .	0.7	10
83	Thermal deformity and thermolysis of magnetized and fractional Newtonian fluid with rheological investigation. <i>Physics of Fluids</i> , 2022, 34, .	1.6	10
84	On the numerical study of fractional and non-fractional model of nonlinear Duffing oscillator: a comparison of integer and non-integer order approaches. <i>International Journal of Modelling and Simulation</i> , 2023, 43, 362-375.	2.3	10
85	Role of copper and alumina for heat transfer in hybrid nanofluid by using Fourier sine transform. <i>Scientific Reports</i> , 2022, 12, .	1.6	10
86	USE OF ATANGANAâ€“BALEANU FRACTIONAL DERIVATIVE IN HELICAL FLOW OF A CIRCULAR PIPE. <i>Fractals</i> , 2020, 28, 2040049.	1.8	9
87	THE ROLE OF FOX-H FUNCTION IN ANALYTIC AND FRACTIONAL MODELING OF HELICITY OF CYLINDER: FRACTIONAL GENERALIZED BURGER FLUID. <i>Fractals</i> , 2020, 28, 2040050.	1.8	9
88	Super-criticism of electrochemical double layer capacitor for diffusion phenomenon: A fractional application of ultracapacitor. <i>AEJ - Alexandria Engineering Journal</i> , 2021, 60, 3361-3368.	3.4	9
89	Computational and traveling wave analysis of Tzitzica and Dodd-Bullough-Mikhailov equations: An exact and analytical study. <i>Nonlinear Engineering</i> , 2021, 10, 272-281.	1.4	9
90	Chaos control and characterization of brushless DC motor via integral and differential fractal-fractional techniques. <i>International Journal of Modelling and Simulation</i> , 2023, 43, 416-425.	2.3	9

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91	Helices of fractionalized Maxwell fluid. <i>Nonlinear Engineering</i> , 2015, 4, .	1.4	8
92	Dual Fractional Analysis of Blood Alcohol Model Via Non-integer Order Derivatives. <i>Studies in Systems, Decision and Control</i> , 2019, , 69-79.	0.8	8
93	Dynamical aspects of smoking model with cravings to smoke. <i>Nonlinear Engineering</i> , 2021, 10, 91-108.	1.4	8
94	Role of viscoelasticity on thermoelectromechanical system subjected to annular regions of cylinders in the existence of a uniform inclined magnetic field. <i>European Physical Journal Plus</i> , 2022, 137, .	1.2	8
95	Dynamical behavior of fractionalized simply supported beam: An application of fractional operators to Bernoulli-Euler theory. <i>Nonlinear Engineering</i> , 2021, 10, 231-239.	1.4	7
96	Heat Transfer on Fractionalized Micropolar Nanofluid over Oscillating Plate via Caputo-Fabrizio Fractional Operator. <i>Scientia Iranica</i> , 2019, .	0.3	6
97	Thermo-dynamical investigation of constitutive equation for rate type fluid: a semi-analytical approach. <i>International Journal of Modelling and Simulation</i> , 2023, 43, 123-134.	2.3	6
98	Role of shallow water waves generated by modified Camassa-Holm equation: A comparative analysis for traveling wave solutions. <i>Nonlinear Engineering</i> , 2021, 10, 385-394.	1.4	4
99	Role of pine wilt disease based on optimal control strategy at multiple scales: A case study of Korea. <i>Journal of Biosciences</i> , 2021, 46, 1.	0.5	3
100	A non-linear analysis and fractionalized dynamics of Langmuir waves and ion sound as an application to acoustic waves. <i>International Journal of Modelling and Simulation</i> , 2023, 43, 235-241.	2.3	2