Puneet Rana

List of Publications by Year
in descending order

78 papers	2,397 citations	279701 23 h-index	233338 45 g-index
79 all docs	79 docs citations	79 times ranked	1039 citing authors

#	ARTICLE	IF	CITATIONS
1	Flow and heat transfer of a nanofluid over a nonlinearly stretching sheet: A numerical study. Communications in Nonlinear Science and Numerical Simulation, 2012, 17, 212-226.	1.7	393
2	Magnetohydrodynamic free convection of Al2O3–water nanofluid considering Thermophoresis and Brownian motion effects. Computers and Fluids, 2014, 94, 147-160.	1.3	218
3	Lattice Boltzmann simulation of nanofluid heat transfer enhancement and entropy generation. Journal of Molecular Liquids, 2016, 214, 86-95.	2.3	200
4	Numerical study of heat transfer enhancement in mixed convection flow along a vertical plate with heat source/sink utilizing nanofluids. Communications in Nonlinear Science and Numerical Simulation, 2011, 16, 4318-4334.	1.7	119
5	Numerical solution for mixed convection boundary layer flow of a nanofluid along an inclined plate embedded in a porous medium. Computers and Mathematics With Applications, 2012, 64, 2816-2832.	1.4	100
6	MHD mixed convection nanofluid flow and heat transfer over an inclined cylinder due to velocity and thermal slip effects: Buongiorno's model. Powder Technology, 2016, 288, 140-150.	2.1	86
7	Multiple solutions of MHD boundary layer flow and heat transfer behavior of nanofluids induced by a power-law stretching/shrinking permeable sheet with viscous dissipation. Powder Technology, 2015, 273, 62-70.	2.1	83
8	Finite element simulation of magnetohydrodynamic convective nanofluid slip flow in porous media with nonlinear radiation. AEJ - Alexandria Engineering Journal, 2016, 55, 1305-1319.	3.4	53
9	MHD slip flow and heat transfer of Al 2 O 3 -water nanofluid over a horizontal shrinking cylinder using Buongiorno's model: Effect of nanolayer and nanoparticle diameter. Advanced Powder Technology, 2017, 28, 1727-1738.	2.0	49
10	Homotopy analysis method for predicting multiple solutions in the channel flow with stability analysis. Communications in Nonlinear Science and Numerical Simulation, 2019, 66, 183-193.	1.7	43
11	Mixed convection flow along an inclined permeable plate: effect of magnetic field, nanolayer conductivity and nanoparticle diameter. Applied Nanoscience (Switzerland), 2015, 5, 569-581.	1.6	42
12	Finite element modeling of a double-diffusive mixed convection flow of a chemically-reacting magneto-micropolar fluid with convective boundary condition. Journal of the Taiwan Institute of Chemical Engineers, 2015, 47, 18-27.	2.7	41
13	Combined thermophoresis and Brownian motion effects on nanofluid free convection heat transfer in an L-shaped enclosure. Chinese Journal of Physics, 2017, 55, 2356-2370.	2.0	40
14	Lie group analysis for bioconvection MHD slip flow and heat transfer of nanofluid over an inclined sheet: Multiple solutions. Journal of the Taiwan Institute of Chemical Engineers, 2016, 66, 283-291.	2.7	36
15	Analytical prediction of multiple solutions for MHD Jeffery–Hamel flow and heat transfer utilizing KKL nanofluid model. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 176-185.	0.9	36
16	Finite Element Study of Bio-Convective Stefan Blowing Ag-MgO/Water Hybrid Nanofluid Induced by Stretching Cylinder Utilizing Non-Fourier and Non-Fick's Laws. Nanomaterials, 2021, 11, 1735.	1.9	36
17	Rayleigh–Bénard Convection in a Nanofluid Layer Using a Thermal Nonequilibrium Model. Journal of Heat Transfer, 2014, 136, .	1.2	35
18	Finite element simulation of unsteady magneto-hydrodynamic transport phenomena on a stretching sheet in a rotating nanofluid. Proceedings of the Institution of Mechanical Engineers, Part N: Journal of Nanoengineering and Nanosystems, 2013, 227, 77-99.	0.1	33

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19	Homotopy study of magnetohydrodynamic mixed convection nanofluid multiple slip flow and heat transfer from a vertical cylinder with entropy generation. Propulsion and Power Research, 2019, 8, 147-162.	2.0	32
20	Heat transfer of TiO2–EG nanoliquid with active and passive control of nanoparticles subject to nonlinear Boussinesq approximation. International Communications in Heat and Mass Transfer, 2021, 126, 105443.	2.9	32
21	Finite element modeling of conjugate mixed convection flow of Al_2O_3–water nanofluid from an inclined slender hollow cylinder. Physica Scripta, 2013, 87, 055005.	1.2	30
22	Critical values in slip flow and heat transfer analysis of non-Newtonian nanofluid utilizing heat source/sink and variable magnetic field: Multiple solutions. Journal of the Taiwan Institute of Chemical Engineers, 2016, 58, 155-164.	2.7	30
23	FEM solution to quadratic convective and radiative flow of Ag-MgO/H2O hybrid nanofluid over a rotating cone with Hall current: Optimization using Response Surface Methodology. Mathematics and Computers in Simulation, 2022, 201, 121-140.	2.4	29
24	Impact of different arrangements of heated elliptical body, fins and differential heater in MHD convective transport phenomena of inclined cavity utilizing hybrid nanoliquid: Artificial neutral network prediction. International Communications in Heat and Mass Transfer, 2022, 132, 105900.	2.9	26
25	Lie Group Analysis of Nanofluid Slip Flow with Stefan Blowing Effect via Modified Buongiorno's Model: Entropy Generation Analysis. Differential Equations and Dynamical Systems, 2021, 29, 193-210.	0.5	25
26	Unsteady nonlinear thermal convection flow of MWCNT-MgO/EG hybrid nanofluid in the stagnation-point region of a rotating sphere with quadratic thermal radiation: RSM for optimization. International Communications in Heat and Mass Transfer, 2022, 134, 106025.	2.9	24
27	Radiative nanofluid flow and heat transfer over a non-linear permeable sheet with slip conditions and variable magnetic field: Dual solutions. Ain Shams Engineering Journal, 2017, 8, 341-352.	3.5	22
28	Nanofluid flow past a vertical plate with nanoparticle aggregation kinematics, thermal slip and significant buoyancy force effects using modified Buongiorno model. Waves in Random and Complex Media, 0, , 1-25.	1.6	22
29	Multiple solutions in MHD flow and heat transfer of Sisko fluid containing nanoparticles migration with a convective boundary condition: Critical points. European Physical Journal Plus, 2016, 131, 1.	1.2	21
30	MHD natural convection in inclined wavy annulus utilizing hybrid nanofluid with discrete wavy coolers. Journal of Thermal Analysis and Calorimetry, 2021, 143, 1303-1318.	2.0	21
31	Finite element study of radiative double-diffusive mixed convection magneto-micropolar flow in a porous medium with chemical reaction and convective condition. AEJ - Alexandria Engineering Journal, 2018, 57, 107-120.	3.4	20
32	Numerical and sensitivity computations of three-dimensional flow and heat transfer of nanoliquid over a wedge using modified Buongiorno model. Computers and Mathematics With Applications, 2021, 101, 51-62.	1.4	20
33	Unsteady MHD Non-Newtonian Heat Transfer Nanofluids with Entropy Generation Analysis. Nonlinear Engineering, 2019, 8, 630-644.	1.4	19
34	Computational study of three-dimensional flow and heat transfer of 25 nm Cu–H2O nanoliquid with convective thermal condition and radiative heat flux using modified Buongiorno model. Case Studies in Thermal Engineering, 2021, 27, 101340.	2.8	19
35	Convection in a Binary Nanofluid Saturated Rotating Porous Layer. Journal of Nanofluids, 2015, 4, 59-65.	1.4	19
36	Numerical study based on CVFEM for nanofluid radiation and magnetized natural convected heat transportation. Journal of Molecular Liquids, 2021, 334, 116102.	2.3	18

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37	Entropy generation analysis of tangent hyperbolic fluid in quadratic Boussinesq approximation using spectral quasi-linearization method. Applied Mathematics and Mechanics (English Edition), 2021, 42, 1525-1542.	1.9	18
38	Three-dimensional heat transfer of 29Ânm CuO-H2O nanoliquid with Joule heating and slip effects over a wedge surface. International Communications in Heat and Mass Transfer, 2022, 134, 106001.	2.9	18
39	A study on nanoliquid flow with irregular heat source and realistic boundary conditions: A modified Buongiorno model for biomedical applications. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2022, 102, e202100167.	0.9	17
40	Entropy generation analysis for non-similar analytical study of nanofluid flow and heat transfer under the influence of aligned magnetic field. AEJ - Alexandria Engineering Journal, 2018, 57, 3299-3310.	3.4	16
41	Second law thermodynamic analysis of thermo-magnetic Jefferyâ€"Hamel dissipative radiative hybrid nanofluid slip flow: existence of multiple solutions. European Physical Journal Plus, 2020, 135, 1.	1.2	15
42	Boundary layer flow of magneto-nanomicropolar liquid over an exponentially elongated porous plate with Joule heating and viscous heating: a numerical study. Arabian Journal for Science and Engineering, 2021, 46, 12405-12415.	1.7	15
43	Heat transfer optimization of Marangoni convective flow of nanofluid over an infinite disk with Stefan blowing and slip effects using Taguchi method. International Communications in Heat and Mass Transfer, 2022, 130, 105822.	2.9	15
44	Cattaneo-Christov Theory to model heat flux effect on nanoliquid slip flow over a spinning disk with nanoparticle aggregation and Hall current. Waves in Random and Complex Media, 0, , 1-23.	1.6	15
45	Nonlinear convective analysis of a rotating Oldroyd-B nanofluid layer under thermal non-equilibrium utilizing Al2O3-EG colloidal suspension. European Physical Journal Plus, 2016, 131, 1.	1.2	13
46	Unsteady electromagnetic radiative nanofluid stagnation-point flow from a stretching sheet with chemically reactive nanoparticles, Stefan blowing effect and entropy generation. Proceedings of the Institution of Mechanical Engineers, Part N: Journal of Nanomaterials, Nanoengineering and Nanosystems, 2018, 232, 69-82.	0.5	13
47	Slip effects on MHD Hiemenz stagnation point nanofluid flow and heat transfer along a nonlinearly shrinking sheet with induced magnetic field: multiple solutions. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2017, 39, 3363-3374.	0.8	12
48	NUMERICAL STUDY OF MHD NATURAL CONVECTION LIQUID METAL FLOW AND HEAT TRANSFER IN A WAVY ENCLOSURE USING CVFEM. Heat Transfer Research, 2017, 48, 121-138.	0.9	12
49	Thermal stability analysis of rotating porous layer with thermal non-equilibrium approach utilizing Al2O3â€"EG Oldroyd-B nanofluid. Microfluidics and Nanofluidics, 2015, 19, 117-131.	1.0	11
50	Analysis of periodic and aperiodic convective stability of double diffusive nanofluid convection in rotating porous layer. Applied Mathematics and Mechanics (English Edition), 2016, 37, 215-226.	1.9	11
51	Effect of chemical reaction and viscous dissipation on MHD nanofluid flow over a horizontal cylinder: Analytical solution. AIP Conference Proceedings, 2017, , .	0.3	11
52	Critical values in transport phenomena for curved power-law sheet utilizing<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si28.svg"><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="italic">Al</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub><mml:msub><mml:mrow><mml:mo linebreak="badbreak">-</mml:mo><mml:mi mathvariant="italic">Cu</mml:mi></mml:mrow></mml:math>/water hybrid nanoliquid: Model.	2.0	11
53	Radiative heat transfer of nanomaterial on a convectively heated circular tube with activation energy and nanoparticle aggregation kinematic effects. International Communications in Heat and Mass Transfer, 2021, 127, 105568.	2.9	10
54	Significance of aggregation of nanoparticles, activation energy, and Hall current to enhance the heat transfer phenomena in a nanofluid: a sensitivity analysis. Waves in Random and Complex Media, 0, , 1-23.	1.6	9

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55	LTNE magneto-thermal stability analysis on rough surfaces utilizing hybrid nanoparticles and heat source with artificial neural network prediction. Applied Nanoscience (Switzerland), 2023, 13, 819-838.	1.6	8
56	Influence of the combined effect of magnetic field and rotation on the onset of a non-Newtonian viscoelastic nanofluid layer: Linear and nonlinear analyses. European Physical Journal Plus, 2016, 131, 1.	1.2	7
57	Convective Transport in a Binary Nanofluid Saturated Porous Layer: A Nonlinear Approach. Journal of Computational and Theoretical Nanoscience, 2015, 12, 3130-3147.	0.4	6
58	Two Phase Boundary Layer Nanofluid Flow and Heat Transfer Analysis Over a Stretching Sheet: A Realistic Approach. Journal of Computational and Theoretical Nanoscience, 2015, 12, 3090-3095.	0.4	6
59	Two-component modeling for non-Newtonian nanofluid slip flow and heat transfer over sheet: Lie group approach. Applied Mathematics and Mechanics (English Edition), 2016, 37, 1325-1340.	1.9	6
60	Unsteady MHD nanofluid flow past a stretching sheet with Stefan blowing effect: HAM solution. AIP Conference Proceedings, 2017, , .	0.3	6
61	LTNE thermoconvective instability in Newtonian rotating layer under magnetic field utilizing nanoparticles. Journal of Thermal Analysis and Calorimetry, 2020, , 1.	2.0	6
62	Mixing performance of transverse hydrogen/air multi-jet through coaxial injector arrays in supersonic crossflow. International Journal of Hydrogen Energy, 2021, 46, 19645-19656.	3.8	6
63	Convective heat transport by longitudinal rolls in dilute nanoliquid layer of finite depth. International Journal of Thermal Sciences, 2016, 108, 235-243.	2.6	5
64	Creep transition in the rotating spherical shell under the effect of density variable by Seth's transition theory. AIP Conference Proceedings, 2017, , .	0.3	5
65	Image enhancement by linear regression algorithm and sub-histogram equalization. Multimedia Tools and Applications, 2022, 81, 29919-29938.	2.6	5
66	Triple diffusive convection study of a binary nanofluid saturated rotating porous layer under the influence of magnetic field. International Journal for Computational Methods in Engineering Science and Mechanics, 2019, 20, 395-403.	1.4	4
67	Elastic-plastic analysis of transversely isotropic spherical shell under internal pressure. AIP Conference Proceedings, 2019, , .	0.3	3
68	External field impact on expedition of discharging including nanoparticles. Journal of Molecular Liquids, 2021, 335, 116134.	2.3	3
69	Dual Solutions in MHD Boundary Layer Nanofluid Flow and Heat Transfer with Heat Source/Sink considering Viscous Dissipation. Research Journal of Engineering and Technology, 2015, 6, 142.	0.1	3
70	Finite element solution of mixed convection flow of a nanofluid over a vertical stretching sheet with power law containing metal oxide nanoparticles. International Journal of Applied Nonlinear Science, 2014, 1, 207.	0.2	1
71	Creep stresses in a spherical shell under steady state temperature. AIP Conference Proceedings, 2017, , .	0.3	1
72	Linear stability analysis on the onset of MHD non-Newtonian viscoelastic rotating nanofluid layer with heat generation. AIP Conference Proceedings, 2017, , .	0.3	1

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73	MHD convective heat transfer in the annulus between concentric cylinders utilizing nanoparticles and non-uniform heating. AIP Conference Proceedings, 2020, , .	0.3	1
74	Mixed Convective Heat Transfer Flow of Nanofluid past a Permeable Vertical Flat Plate with Magnetic Effects: A Finite Element Study. Applied Mechanics and Materials, 0, 110-116, 3679-3687.	0.2	0
75	Effect of Uncertainties in Physical Properties on Mixed Convection Along a Rotating Vertical Slender Cylinder With Nanofluids. , 2014, , .		0
76	Horton-Rogers-Lapwood Convection in a Binary Nanofluid Saturated Rotating Porous Layer. , 2014, , .		0
77	Influence of g–jitter on the Rayleigh-Bénard convection in nanofluids with internal heat source. AIP Conference Proceedings, 2017, , .	0.3	0
78	Unsteady EMHD stagnation flow of a second grade nanofluid over a stretching sheet: HAM solutions. AIP Conference Proceedings, 2019, , .	0.3	0