Prof. P. V. S. N. Murthy

CONTACT
INFORMATION

P. V. S. N. Murthy
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Department of Mathematics
Indian Institute of Technology Kharagpur
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RESEARCH
INTEREST

Fluid Mechanics

- Bio-fluid mechanics
- Double-diffusion convective instability

EDUCATION

1992-1997
Ph.D. in Fluid mechanics from Department
of Mathematics, Indian Institute of Technology Kanpur.
(Title: Analytical and Numerical Investigation of Convection in Porous Media)

1990-1992
M.Sc. with first class in Applied Mathematics from University of Hyderabad.

1987-1990
B.Sc. (M. C. P.) with first class from Acharya Nagarjuna University.

PROFESSIONAL
EXPERIENCES

2014 ongoing
Professor in the Department of Mathematics, Indian Institute of Technology Kharagpur
from January 2014 onwards.

2007-2014
Associate Professor in the Department of Mathematics, Indian Institute of Technology
Kharagpur from April 2007 to January 2014.

2002-2007
Assistant Professor in the Department of Mathematics, Indian Institute of Technology
Kharagpur from August 2002 to April 2007.

1999-2002
Lecturer in the Department of Mathematics and Humanities, National Institute of
Technology Warangal from March 1999 to August 2002.

1997-1999
C S I R Post-doctoral fellow: From October 1997 to February 1998 in the Department
of Mathematics, Indian Institute of Technology Kanpur and there after till March 1999
in the Department of Mathematics, Indian Institute of Technology Madras.

PUBLICATIONS

Published about 120 papers in the leading journals such as **Journal of Fluid Mechanics, Proceedings of the Royal Society, Physics of Fluids, International Journal of Heat and Mass Transfer, Transactions of ASME-Journal of Heat Transfer, Transport in Porous Media**, etc.
See Google Scholar Citations-Prof. P. V. S. N. Murthy

	S. No.	Agency	Title of the Project	Role	Date & Period	Fund	Status
RESEARCH PROJECTS	1	DST	Numerical investigation of convective transport from wavy surfaces in non-Dracy porous media.	PI	Jan 2003-	Rs. 7.54 lakh	Completed
	2	CSIR	Numerical investigation of stability and convective transport in double-diffusive non-Darcy porous media with focus on second order effects.	PI	July 2007-	Rs. 7.5 lakh	Completed
	3	CSIR	Magnetic drug targeting in micro vessels with multi-functional nano carrier particles - A study of mathematical modeling and rheological aspects	PI	–	Rs. 14,14,560	Completed

CONTINUING EDUCATION PROGRAMS

1. TEQIP sponsored "Analytical and Numerical Techniques in Applied Mathematics and Engineering", Coupled PDE-Analytical and Numerical solutions, July 28-Aug 02, 2014, Malnad College of Engineering, Hassan, Karnataka.

2. QIP-STC on "Computational Methods for Differential Equations", (i) Numerical methods for PDE, (ii) Analytical solutions of PDE, March 08-14, 2004, IIT Guwahati.

3. QIP-STC on "Recent Mathematical Techniques for Industry with a Focus on Nano-technology", Fluid Dynamics, December 05-11, 2005, IIT Kharagpur.

UG & PG TEACHINGS

Subjects taught at UG level

- Transform Calculus
- Mathematics I(Coordinator-2010, 2011)
- Mathematics II
- Matrix Algebra
- Advanced Numerical Analysis
- Numerical Solution of Ordinary and Partial Differential Equation

Subjects taught at PG level

- Advanced Numerical Analysis
- Fluid Mechanics
- Theory of Ordinary and Partial Differential Equation
- Programming Languages
- Numerical Analysis
- Classical Mechanics
- Continuum Mechanics
- Integral Equations and Calculus of Variations

THESIS SUPERVISION

Supervised (i) 10 Ph.D. theses and 3 more are ongoing; and (ii) 25 Master's theses.

PAPERS REVIEWED FOR JOURNALS	• Journal of Fluid Mechanics • Proceedings of the Royal Society • Physics of Fluids • International Journal of Heat and Mass Transfer • Transactions of American Society of Mechanical Engineers
EXTERNAL THESIS EVALUATION	1. Mr. Manoj Kumar Panda, Indian Institute of Technology Kanpur. 2. Mr. M. Jai Kumar, Indian Institute of Technology Roorkee. 3. Mr Tesfahun Berhane, National Institute of Technology Warangal. 4. Mr. Devulapalli RVSRK Sastry, Andhra University, Vishakhapatnam. 5. Mr. G. Viswanath, JNTU, Anantapur. 6. Mr A. K. Srivastava, Banaras Hindu University, Varanasi. 7. Mr. G. Jayalatha, Visvesaraya Technological University, Belgaum. 8. Mr. D. P. Barua, Guwahati University 9. Mr. P. Bapuji Anna University. 10. Mrs. B. Vaidya, SRM University.
ADMINISTRATIVE ACTIVITIES AT IIT KHARAGPUR	• Serving as the Local Institute Coordinator, SPARC, Indian Institute of Technology Kharagpur • Member, SPARC Team, Indian Institute of Technology Kharagpur • Served as a member of Departmental Administrative Committee and Departmental PG & RS Academic Committee. • Involved in Confidential (paper setter) operations of JEE, GATE, JAM, over years. • Conducted JEE, GATE and JAM exams during the past 11 years at various centers in the Kharagpur zone. • Served as the Warden of Zakir Hussian Hall of Residence & Gokhale Hall of Residence and Assistant Warden of Nehru Hall of Residence.
OTHER LEADING ACTIVITIES	• Served as the secretary of the Indian Society for Theoretical and Applied Mechanics (ISTAM) for two terms (2006-2009; 2012-2015). • Served as the President of the Indian Society for Theoretical and Applied Mechanics (ISTAM) for the session 2018-2019. • Member, Editorial Board of "Journal of Nanofluid", American Scientific Publishers. • Reviewed an application for the Shanti Swarup Bhatnagar prize for Science and Technology, CSIR, HRDG, India. • Evaluated several projects for the international funding agencies such as Indo French IFCPAR/CEFIPRA project, Austrian Science Fund and National Research Foundation, South Africa.

RESEARCH VISITS
ON INVITATION

- The School of Mechanical Engineering, Fluid Dynamics Laboratory, Institute of Nature and Environmental Technology, Kanazawa University, July 2015.
- The School of Naval Architecture, Ocean and Civil Engineering, Shanghai Jiaotong University (SJTU),July 2015.
- Department of Mathematics, Statistics and Computer Science, University of Kwazulu-Natal, Pietermaritzburg, South Africa, December 2012.
- Department of Mathematics, Statistics and Computer Science, University of Kwazulu-Natal, Pietermaritzburg, South Africa, June 2012.
- Department of Mechanical Engineering, Hong Kong University, Hong Kong, June 2007.

INTERNATIONAL
CONFERENCES

1. Mathematical model on magnetic drug targeting in a permeable microvessel, Proceedings of the 14th International Conference on Nuclear Engineering ICONE14, July 17-20, 2013, Miami, Florida, USA.

2. Nano-fluid flow due to a porous stretching sheet in homogeneous-heterogeneous reactions, South African Mathematical Society Annual Conference 2012, Oct 30-Nov 02, 2012, Stellenbosch, South Africa.

3. A mathematical model for predicting magnetic drug targeting in a pearmeable microvessel, South African Mathematical Society Annual Conference 2012, Oct 30- Nov 02, 2012, Stellenbosch, South Africa.

4. Magnetic drug targeting in the permeable micro vessel - The effect of blood rheology, First World Conference on Nanomedicine and Drug Delivery (WCN-2010), April 16-18, 2010, Kottayam, Kerala, India.

5. Similarity solutions for convective transport problems in a doubly stratified porous medium, 4th World Congress of Non-Linear Analysts, International Federation of Non-Linear Analysts (IFNA), June 30-July 07, 2004, Florida, USA.

6. Convection heat transfer in Porous wavy enclosures: Heating from bottom and heating from side: In the Mini-Workshop organized by the Com2MAC center, Pohang University of Science and Technology (POSTECH), February 13-15, 2003, POHANG, South Korea.

7. Double-diffusive convection in a doubly stratified porous medium: In the Mini-Workshop organized by the Com2MAC center, Pohang University of Science and Technology (POSTECH), February 13-15, 2003, POHANG, South Korea.

INVITED LECTURES

1. Key note address in the UGC sponsored National Conference on Recent Developments in Mathematics and their Applications (NCRDMA-2014), October 17-18, 2014, University College of Science, Tumkur University.

2. Magnetic drug targeting in permeable microvessels, National Conference on Pure and Applied Mathematics (NCPAM-2013) May 09-10, 2013, Department of Mathematics, Royal Institute of Technology, Guwahati.

3. Nano-particle based magnetic drug targeting in a micro vessel (Invited Talk), Indo-UK symposium on Recent Advances in Industrial and Applied Mathematics, November 05-06, 2011, Indian Institute of Technology Bombay.

4. Convective transport in a homogeneous isotropic porous medium, National Meet of Research Scholars in Mathematical Sciences (NMRSMS 2011), October 12-15, 2011, Department of Mathematics, Indian Institute of Technology Kharagpur.

5. Non-invasive nano-particle based magnetic drug targeting in the micro vessel (Invited Lecture), National Conference on Frontiers of Mathematics, September 29-30, 2011, Department of Mathematics, Guwahati University.

6. Free convection heat and mass transfer in a non-Newtonian fluid saturated non-Darcy porous media with double stratification, December 30, 2008, Department of Mathematics, Osmania University, Hyderabad.

7. Second order effects in porous media, National conference on Mathematics, March 08-09, 2007, Department of Mathematics, Sindh Mahavidyalaya and Regional Remote Sensing and Service Center, Nagpur.

8. International Conference on Mathematical Fluid Dynamics, December 02-07, 2004, Department of Mathematics and Statistics, University of Hyderabad.

9. Convective transport in porous media: In the National workshop on Advances in fluid dynamics and applications, March 26-28, 2004, Department of Mathematics, Utkal University, Bhubaneswar.

10. Free convective transport in a doubly stratified porous media, March 11, 2004, Department of Mathematics, Indian Institute of Technology Guwahati.

11. Free convective heat and mass transfer in a doubly stratified porous medium-Similarity solution, February 15, 2003, Department of Mathematics, Banaras Hindu University.

LIST OF RESEARCH PUBLICATIONS

1. The Effect of Magnetic Field on the Stability of Double-Diffusive Convection in a Porous Layer with Horizontal Mass Throughflow, N Deepika, P Murthy, PAL Narayana, Transport in Porous Media, 1-18, 2020.

2. Thermohaline convective instability in an inclined porous layer with permeable boundaries, R Dubey, P Murthy, Physics of Fluids 32 (3), 034106, 2020.

3. Linear stability of horizontal throughflow in a Brinkman porous medium with mixed thermal boundary conditions, R Dubey, P Murthy, International Journal of Thermal Sciences 145, 105923, 2019.

4. The onset of double-diffusive convection in a Brinkman porous layer with convective thermal boundary conditions, R Dubey, P Murthy, AIP Advances 9 (4), 045322, 2019.

5. Linear Stability of Horizontal Throughflow in a Brinkman Porous Medium with Viscous Dissipation and Soret Effect, R Dubey, P Murthy, Transport in Porous Media 126 (2), 275-294, 2019.

6. The onset of convective instability of horizontal throughflow in a porous layer with inclined thermal and solutal gradients, R Dubey, P Murthy, Physics of Fluids 30 (7), 074104, 2018.

7. Convective stability of vertical throughflow of a non-Newtonian fluid in a porous channel with Soret effect, S Kumari, P Murthy, Transport in Porous Media 122 (1), 125-143, 2018.

8. Stability of Vertical Throughflow of a Power Law Fluid in Double Diffusive Convection in a Porous Channel, S Kumari, P Murthy, Journal of Applied Fluid Mechanics 11 (2), 2018.

9. Thermosolutal convective instability of power-law fluid saturated porous layer with concentration based internal heat source and Soret effect, S Kumari, P Murthy, The European Physical Journal Plus 134 (9), 1-18, 2019.

10. Stability of the Horizontal Throughflow in a Power-Law Fluid Saturated Porous Layer, S Kumari, P Murthy, Transport in Porous Media 129 (3), 653-672, 2019.

11. Stability of the horizontal throughflow of a power-law fluid in a double-diffusive porous layer under convective boundary conditions, S Kumari, P Murthy, International Journal of Thermal Sciences 146, 106098, 2019.

12. Linear Stability of the Double-Diffusive Convection in a Horizontal Porous Layer with Open Top: Soret and Viscous Dissipation Effects, K Roy, P Murthy, Transport in Porous Media 122 (3), 693-712, 2018.

13. Effect of viscous dissipation on the convective instability induced by inclined temperature gradients in a non-Darcy porous medium with horizontal throughflow, K Roy, P Murthy, Physics of Fluids 29 (4), 044104, 2017.

14. Soret effect on the double diffusive convection instability due to viscous dissipation in a horizontal porous channel, K Roy, PVSN Murthy, International Journal of Heat and Mass Transfer, 2015.

15. Effect of Variable Gravity on Darcy Flow with Impressed Horizontal Gradient and Viscous Dissipation, K Roy, P Murthy, Journal of Applied Fluid Mechanics 9 (5), 2621-2628, 2016.

16. Solute dispersion in pulsatile Casson fluid flow in a tube with wall absorption J Rana, P Murthy, Journal of Fluid Mechanics 793, 877-914, 2016.

17. Unsteady solute dispersion in non-Newtonian fluid flow in a tube with wall absorption, J Rana PVSN Murthy, Proceedings of the Royal Society: A, Mathematical, Physical and Engineering Sciences, 472, DOI: 10.1098/rspa.2016.0294, 2016.

18. Oxygen Transport In and Around the Systemic Capillary in Hyperbaric Environment, J Rana, P Murthy, RSR Gorla, Chemical Engineering Communications 204 (1), 111-121, 2017.

19. Unsteady solute dispersion in small blood vessels using a two-phase Casson model, J Rana, P Murthy, Proceedings of the Royal Society: A, Mathematical, Physical and Engineering Sciences, 473, 20170427, doi.org/10.1098/rspa.2017.0427 2017.

20. Unsteady solute dispersion in Herschel-Bulkley fluid in a tube with wall absorption, J Rana, P Murthy, Physics of Fluids 28 (11), 111903, 2016.

21. Evaluation of pre-jamming indication parameter during blind backfilling technique, S Panda, SK Pal, P Murthy, Journal of Sustainable Mining 15 (3), 100-107, 2016.

22. Permeability and stress-jump effects on magnetic drug targeting in a permeable microvessel using Darcy model, S Shaw, A Sutradhar, P Murthy, Journal of Magnetism and Magnetic Materials 429, 227-235, 2017.

23. Influence of the inertia on magnetic drug targeting in microvessel-Casson model A Sutradhar, P Murthy, S Shaw, Journal of Nanofluids 5 (6), 928-934, 2016.

24. Influence of Starling's hypothesis and Joule heating on peristaltic flow of an electrically conducting Casson fluid in a permeable microvessel, A Sutradhar, JK Mondal, P Murthy, RSR Gorla, Journal of Fluids Engineering 138 (11), 2016.

25. Magnetic drug targeting in an impermeable microvessel with the influence of inertia of multifunctional carrier particle, A Sutradhar, P Murthy, S Shaw, Journal of Nanofluids 5 (5), 728-735, 2016.

26. Stagnation Point Flow and Convection in a Nanofluid Saturated Porous Medium with Convective Boundary Condition and Chemical Reaction, PK Kameswaran, A Sutradhar, P Murthy, P Sibanda, Journal of Nanofluids 5 (2), 310-319, 2016.

27. Influence of Viscous Dissipation on Free Non-Linear Convection with Soret Effects in a Porous Medium Saturated by Nanofluid, FG Awad, P Sibanda, P Murthy, A Sutradhar, Journal of Nanofluids 4 (3), 369-374, 2015.

28. Magnetohydrodynamics and soret effects on bioconvection in a porous medium saturated with a nanofluid containing gyrotactic microorganisms, S Shaw, P Sibanda, A Sutradhar, P Murthy, Journal of heat transfer 136 (5), 2014.

29. Viscous dissipation and Newtonian Heating effects on free non-linear convection in a Nanofluid saturated porous media, P S R Nandkeolyar, A Sutradhar, PVSN Murthy, Open Journal of Heat, Mass and Momentum Transfer 2 (3), 87-97, 2014.

30. Double-diffusive free convection flow past an inclined plate embedded in a non-Darcy porous medium saturated with a nanofluid, P Murthy, A Sutradhar, C RamReddy, Transport in porous media 98 (3), 553-564, 2013.

31. Effect of double dispersion on mixed convection heat and mass transfer in a non-Newtonian fluid-saturated non-Darcy porous medium, RR Kairi, P Murthy, Journal of Porous Media 13 (8), 2013.

32. Soret effect on free convection from a melting vertical surface in a non-Darcy porous medium, RR Kairi, P Murthy, Journal of Porous Media 16 (2), 2013.

33. Effect of melting on mixed convection heat and mass transfer in a non-Newtonian fluid saturated non-Darcy porous medium, RR Kairi, P Murthy, Journal of heat transfer 134 (4), 2012.

34. Effect of viscous dissipation on natural convection heat and mass transfer from vertical cone in a non-Newtonian fluid saturated non-Darcy porous medium, RR Kairi, P Murthy, Applied Mathematics and Computation 217 (20), 8100-8114, 2011.

35. Effect of viscous dissipation on natural convection in a non-Darcy porous medium saturated with non-Newtonian fluid of variable viscosity, RR Kairi, P Murthy, CO Ng, The Open Conservation Biology Journal 3 (1), 2011.

36. Effect of melting and thermo-diffusion on natural convection heat mass transfer in a non-Newtonian fluid saturated non-Darcy porous medium, RR Kairi, P Murthy, The Open Conservation Biology Journal 1 (1), 2009.

37. The effect of double dispersion on natural convection heat and mass transfer in a non-Newtonian fluid saturated non-Darcy porous medium, RR Kairi, PAL Narayana, P Murthy, Transport in porous media 76 (3), 377-390, 2009.

38. Free convection in a thermally stratified non-Darcy porous medium saturated with a non-Newtonian fluid, RR Kairi, P Murthy, International Journal of Fluid Mechanics Research 36 (5), 2009.

39. Magnetic targeting in the impermeable microvessel with two-phase fluid model-Non-Newtonian characteristics of blood, S Shaw, P Murthy, Microvascular research 80 (2), 209-220, 2010.

40. The effect of shape factor on the magnetic targeting in the permeable microvessel with two-phase Casson fluid model, S Shaw, P Murthy, Journal of Nanotechnology in Engineering and Medicine 2 (4), 2011.

41. Magnetic drug targeting in the permeable blood vessel-the effect of blood rheology, S Shaw, P Murthy, Journal of Nanotechnology in Engineering and Medicine 1 (2), 2010.

42. The effect of body acceleration on two dimensional flow of Casson fluid through an artery with asymmetric stenosis, S Shaw, PVS Murthy, SC Pradhan, The Open Conservation Biology Journal 2 (1), 2010.

43. Effect of non-Newtonian characteristics of blood on magnetic targeting in the impermeable micro-vessel, S Shaw, P Murthy, SC Pradhan, Journal of magnetism and magnetic materials 322 (8), 1037-1043, 2010.

44. Pulsatile Casson fluid flow through a stenosed bifurcated artery, S Shaw, RSR Gorla, P Murthy, CO Ng, International Journal of Fluid Mechanics Research 36 (1), 2009.

45. Soret and Dufour effects on free convection heat and mass transfer from a horizontal flat plate in a Darcy porous medium, L Narayana, P Murthy, Journal of heat transfer 130 (10), 2008.

46. Soret-driven thermosolutal convection induced by inclined thermal and solutal gradients in a shallow horizontal layer of a porous medium, PAL Narayana, P Murthy, RSR Gorla, Journal of Fluid Mechanics 612, 1-19, 2008.

47. Soret and dufour effects on free convection heat and mass transfer in a doubly stratified darcy porous medium, PAL Narayana P Murthy, Journal of Porous Media 10 (6), 2007.

48. Soret and Dufour effects on free convection heat and mass transfer along a horizontal plate in non-Darcy porous medium, P Murthy, PAL Narayana, International Journal of Fluid Mechanics Research 37 (1), 2010.

49. Free convective heat and mass transfer in a doubly stratified porous medium saturated with a power-law fluid, PAL Narayana, P Murthy, P Krishna, A Postelnicu, International journal of Fluid mechanics Research 36 (6), 2009.

50. Soret and Dufour effects on free convection of non-Newtonian power law fluids with yield stress from a vertical flat plate in saturated porous media, PAL Narayana, P Murthy, A Postelnicu, Journal of Porous Media 12 (10), 2009.

51. Thermophoretic and nonlinear convection in non-Darcy porous medium, PK Kameswaran, P Sibanda, MK Partha, P Murthy, Journal of Heat Transfer 136 (4), 2014.

52. Soret and Dufour Effects in a Non-Darcy Porous Medium , M. K. Partha, P. V. S. N. Murthy, G. P. Raja Sekhar, J. Heat Transfer. Jun 2006, 128(6): 605-610 , 2006.

53. Viscous flow past a spherical void in porous media: effect of stress jump boundary condition, GPR Sekhar, MK Partha, P Murthy, Journal of Porous Media 9 (8), 2006.

54. Viscous flow past a porous spherical shell–effect of stress jump boundary condition, MK Partha, PV Murthy, GP Raja Sekhar, Journal of engineering mechanics 131 (12), 1291-1301, 2005.

55. Effect of viscous dissipation on the mixed convection heat transfer from an exponentially stretching surface, MK Partha, P Murthy, GP Rajasekhar, Heat and Mass transfer 41 (4), 360-366, 2005.

56. Mixed convection heat and mass transfer in a doubly stratified non-Darcy porous medium, P Murthy, S Mukherjee, P Krishna, D Srinivasacharya, International Journal of Applied Mechanics and Engineering 12 (1), 109-123, 2007.

57. Effect of double stratification on free convection in a Darcian porous medium, P Murthy, D Srinivasacharya and, P Krishna, J. Heat Transfer 126 (2), 297-300, 2004.

58. Combined radiation and mixed convection from a vertical wall with suction/injection in a non-Darcy porous medium, P Murthy, S Mukherjee, D Srinivasacharya, P Krishna, Acta Mechanica 168 (3-4), 145-156, 2004.

59. Free convective heat and mass transfer in a doubly stratified porous medium saturated with a power-law fluid, PAL Narayana, P Murthy, P Krishna, A Postelnicu, International journal of Fluid mechanics Research 36 (6), 2009.

60. Effect of viscous dissipation on mixed convection in a non-Darcy porous medium, P Murthy, Journal of Porous Media 4 (1), 2001.

61. Thermal dispersion effects on non-Darcy convection over a cone, P Murthy, P Singh, Computers and Mathematics with applications 40 (12), 1433-1444, 2000.

62. Effect of double dispersion on mixed convection heat and mass transfer in non-Darcy porous medium, P Murthy, J. Heat Transfer 122 (3), 476-484, 2000.

63. Heat and mass transfer by natural convection in a non-Darcy porous medium, P Murthy, P Singh, Acta Mechanica 138 (3-4), 243-254, 1999.

64. Free convection heat transfer from an isothermal wavy surface in a porous enclosure, BVR Kumar, P Murthy, P Singh, International journal for numerical methods in fluids 28 (4), 633-661, 1998.

65. Thermal dispersion and viscous dissipation effects on non-Darcy mixed convection in a fluid saturated porous medium, P Murthy, Heat and mass transfer 33 (4), 295-300, 1998.

66. Thermal dispersion effects on non-Darcy natural convection over horizontal plate with surface mass flux, P Murthy, P Singh, Archive of Applied Mechanics 67 (7), 487-495, 1997.

67. Thermal dispersion effects on non-Darcy natural convection with lateral mass flux, P Murthy, P Singh, Heat and Mass Transfer 33 (1-2), 1-5, 1997.

68. Effect of viscous dissipation on a non-Darcy natural convection regime, P Murthy, P Singh, International journal of heat and mass transfer 40 (6), 1251-1260, 1997.

69. Effect of surface undulations on natural convection in a porous square cavity, BV Rathish Kumar, P Singh, P Murthy, 1997.

70. Integral solution for Forchheimer free convection over a horizontal flat surface P Singh, P Murthy, Heat and mass transfer 32 (3), 207-211, 1997.

71. Natural convection heat transfer from a horizontal wavy surface in a porous enclosure, P Murthy, BVR Kumar, P Singh, Numerical Heat Transfer, Part A Applications 31 (2), 207-221, 1997.

72. Influence of viscous dissipation on free convection in a non-Darcy porous medium saturated with nanofluid in the presence of magnetic field, C RamReddy, P Murthy, AJ Chamkha, AM Rashad, The Open Transport Phenomena Journal 5 (1), 2013.

73. Soret effect on mixed convection flow in a nanofluid under convective boundary condition, C RamReddy, P Murthy, AJ Chamkha, AM Rashad, International Journal of Heat and Mass Transfer 64, 384-392, 2013.

74. Magnetic effect on thermally stratified nanofluid saturated non-Darcy porous medium under convective boundary condition, P Murthy, C RamReddy, AJ Chamkha, AM Rashad, International Communications in Heat and Mass Transfer 47, 41-48, 2013.

75. Dual solutions of stagnation-point flow of a nanofluid over a stretching surface, PK Kameswaran, P Sibanda, C RamReddy, PVSN Murthy, Boundary Value Problems 2013 (1), 188, 2013.

76. Viscous dissipation and magnetic field effects in a non-Darcy porous medium saturated with a nanofluid under convective boundary condition, AJ Chamkha, AM Rashad, C RamReddy, P Murthy, Special Topics and Reviews in Porous Media: An International Journal 5 (1), 2014.

77. Numerical study of thermally stratified nanofluid flow in a saturated non-Darcy porous medium, C RamReddy, P Murthy, AM Rashad, AJ Chamkha, The European Physical Journal Plus 129 (2), 25, 2014.

78. Influence of Viscous Dissipation on Mixed Convection in a Non-Darcy Porous Medium Saturated with a Nanofluid, AM Rashad, AJ Chamkha, C RamReddy, P Murthy, Heat Transfer-Asian Research 43 (5), 397-411, 2014.

79. Significance of Viscous Dissipation and Chemical Reaction on Convective Transport in a Boundary Layer Stagnation Point Flow Past a Stretching/Shrinking Sheet in a Nanofluid, AMR PVSN Murthy, C RamReddy, AJ Chamkha, Journal of Nanofluids 4, 214-222, 2015.

80. Effect of viscous dissipation on mixed convection in a nanofluid saturated non-Darcy porous medium under convective boundary condition, AM Rashad, AJ Chamkha, C RamReddy, P Murthy, Journal of Nanofluids 4 (4), 548-559, 2015.

81. Soret effect on stagnation-point flow past a stretching/shrinking sheet in a nanofluid-saturated non-Darcy porous medium, C RamReddy, P Murthy, AM Rashad, AJ Chamkha, Special Topics and Reviews in Porous Media: An International Journal 7 (3), 2016.

82. Dual Solutions for homogeneous-heterogeneous reactions on stagnation point flow over a stretching/shrinking sheet in a non-Darcy porous medium saturated with a nanofluid, S Shaw, C RamReddy, P Murthy, P Sibanda, Journal of Nanofluids 5 (3), 408-415, 2016.

83. Soret Effect on Double-Diffusive Convection Flow of a Nanofluid Past an Inclined Plate in a Porous Medium with Convective Boundary Condition: A Darcy-Forchheimer Model, C RamReddy, T Pradeepa, P Murthy, Journal of Nanofluids 5 (4), 627-633, 2016.

84. Entropy generation analysis in nonlinear convection flow of thermally stratified fluid in saturated porous medium with convective boundary condition, B Vasu, C RamReddy, P Murthy, RSR Gorla, Journal of Heat Transfer 139 (9), 2017.

85. Entropy generation analysis in nonlinear convection flow of thermally stratified fluid in saturated porous medium with convective boundary condition, B Vasu, C RamReddy, P Murthy, RSR Gorla, Journal of Heat Transfer 139 (9), 2017.

86. Mixed convection from a wavy surface embedded in a thermally stratified nanofluid saturated porous medium with non-linear Boussinesq approximation, PK Kameswaran, B Vasu, P Murthy, RSR Gorla, International Communications in Heat and Mass Transfer 77, 78-86, 2016.

87. Homotopy semi-numerical modeling of non-Newtonian nanofluid transport external to multiple geometries using a revised Buongiorno Model, AK Ray, B Vasu, OA Beg, RSR Gorla, P Murthy, Inventions 4 (4), 54, 2019.

88. Progress in nano-drug delivery systems and computational nano-pharmacodynamics, J Tripathi, B Vasu, RSR Gorla, P Murthy, A Dubey, OA Beg, P Saikrishnan, ICEMCI 2019-International Conference on Engineering, Mathematical and..., 2019.

89. A review on recent advancements in the hemodynamics of nano-drug delivery systems, J Tripathi, B Vasu, A Dubey, RSR Gorla, P Murthy, OA Beg, P Saikrishnan, Nanoscience and Technology: An International Journal 11 (1), 2020.

90. Non-similar solution of Eyring-Powell fluid flow and heat transfer with convective boundary condition: Homotopy Analysis Method, AK Ray, B Vasu, P Murthy, RSR Gorla, International Journal of Applied and Computational Mathematics 6 (1), 16, 2020.

91. MHD free convection-radiation interaction in a porous medium-part I: numerical investigation, B Vasu, RSR Gorla, P Murthy, VR Prasad, OA Beg, S Siddiqa, International Journal of Applied Mechanics and Engineering 25 (1), 198-218, 2020.

92. MHD free convection-radiation interaction in a porous medium-part II: Soret/Dufour effects, B Vasu, RSR Gorla, P Murthy, VR Prasad, OA Beg, S Siddiqa, International Journal of Applied Mechanics and Engineering 25 (2), 157-175, 2020.

93. Unsteady flow of a nanofluid over a sphere with nonlinear Boussinesq approximation, B Vasu, RSR Gorla, OA Beg, P Murthy, VR Prasad, A Kadir, Journal of Thermophysics and Heat Transfer 33 (2), 343-355, 2019.

94. Entropy Analysis of a Convective Film Flow of a Power-Law Fluid with Nanoparticles Along an Inclined Plate, B Vasu, RSR Gorla, P Murthy, OA Beg, Journal of Applied Mechanics and Technical Physics 60 (5), 827-841, 2019.

95. Magneto-bioconvection flow of a Casson thin film with nanoparticles over an unsteady stretching sheet, AK Ray, B Vasu, OA Beg, RSR Gorla, P Murthy, International Journal of Numerical Methods for Heat and Fluid Flow, 2019.

96. Thermophoresis on boundary layer heat and mass transfer flow of Walters-B fluid past a radiate plate with heat sink/source, B Vasu, RSR Gorla, P Murthy, Heat and Mass Transfer 53 (5), 1553-1570, 2017.

97. Natural convection from a vertical plate immersed in a power-law fluid saturated non-Darcy porous medium with viscous dissipation and Soret effects, AA Khidir, M Narayana, P Sibanda, P Murthy, Afrika Matematika 26 (7-8), 1495-1518, 2015.

98. Soret effect on the natural convection from a vertical plate in a thermally stratified porous medium saturated with non-Newtonian liquid, M Narayana, AA Khidir, P Sibanda, P Murthy, Journal of heat transfer 135 (3), 2013.

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