Dr. Mikhail A. Sheremet

Laboratory on Convective Heat and Mass Transfer
Tomsk State University
36 Lenin Avenue, Tomsk, 634050, Russia

sheremet@math.tsu.ru, Michael-sher@yandex.ru

EDUCATION

2012	Habilitation (Russia, Doctor of Science in Physics and Mathematics) Specialization “Conjugate heat and mass transfer in objects having local heat and mass sources” at Tomsk State University, Russia
2006	Ph.D. (Russia, Candidate of Science in Physics and Mathematics) Specialization “Conjugate convective-conductive heat transfer in an enclosure with local heat sources” at Tomsk State University, Russia
2005	Diploma in Fluid Mechanics, Tomsk State University

APPOINTMENTS

2018–Present	Head of the Department of Theoretical Mechanics, Tomsk State University
2014–Present	Head of the Laboratory on Convective Heat and Mass Transfer, Tomsk State University
2014–2018	Professor, Department of Theoretical Mechanics, Tomsk State University
2011–2014	Associate Professor, Department of Theoretical Mechanics, Tomsk State University
2007–2011	Assistant Professor, Tomsk State University
2006–2007	Post-Doctoral Appointment, Tomsk State University

AREAS OF INTEREST

Conjugate heat and mass transfer
Natural and mixed convection
Fluid flow and heat transfer in nanofluids
Heat and mass transfer in porous media
Turbulence models
Radiation heat transfer
Numerical analysis
Heat transfer and flow pattern in electronic systems
Computational fluid dynamics

AWARDS

- Tomsk Governor's Award for Young Researchers, Tomsk, Russia, 2005, 2008, 2014, 2020.
- Research Excellence Award, Tomsk State University, Tomsk, Russia, 2008, 2012, 2015.
- Award of the Parliament of Tomsk Region for Young Scientists, Tomsk, Russia, 2009, 2012.
- Award of Professor P.P. Kufarev for the best research in Mathematics and Mechanics, Tomsk State University, Tomsk, Russia, 2011.
- Scientific efforts have been supported by the Grants Council (under the President of the Russian Federation), Russia, 2010, 2012, 2015, 2017, 2019, 2021.
- Web of Science Award 2017 in the category of Highly Cited Researcher in Russia
- 2019 Outstanding Reviewer of International Journal of Numerical Methods for Heat & Fluid Flow.
- 2020 Highly Commended Paper published in International Journal of Numerical Methods for Heat & Fluid Flow.
- Highly Cited Researcher 2021 (Clarivate Analytics).
- #60 in the world ranking and #1 in Russia based on the 2022 Edition of the Ranking of Top 1000 Scientists in the area of Mechanical and Aerospace Engineering (Research.com)

ACADEMIC SERVICES:

1. International Center for Heat and Mass Transfer, ***Member of the Scientific Council***
2. Alexandria Engineering Journal, ***Associate Editor***
3. International Journal of Numerical Methods for Heat & Fluid Flow, ***Editorial Member***
4. Journal of Magnetism and Magnetic Materials, ***Editorial Member***
5. Journal of Applied and Computational Mechanics, ***Editorial Member***
6. Nanomaterials, ***Editorial Member***
7. Entropy, ***Editorial Member***
8. Coatings, ***Editorial Member***
9. Energies, ***Topic Board Member***
10. Nanomaterials, ***Guest Editor*** for Special Issues
11. Energies, ***Guest Editor*** for Special Issues
12. Entropy, ***Guest Editor*** for Special Issue
13. International Journal of Heat and Mass Transfer, International Communications in Heat and Mass Transfer, International Journal of Thermal Sciences, Chinese Journal of Physics, Renewable Energy, Physica A, Powder Technology, Advanced Powder Technology, Journal of Molecular Liquids, Journal of Thermal Analysis and Calorimetry, Applied Thermal Engineering, Computational Thermal Sciences, Computers and Fluids, Journal of Porous Media, Journal of Thermophysics and Heat Transfer, Journal of the Taiwan Institute of Chemical Engineers, Numerical Heat Transfer, Transport in Porous Media, International Journal of Numerical Methods for Heat & Fluid Flow, Journal of Magnetism and Magnetic Materials, Journal of Applied and Computational Mechanics, Entropy, Energies, ***Reviewer***
14. International Conference on Computational Heat, Mass and Momentum Transfer 2017, 2018, 2019, 2021 ***Conference Committee Member***
15. 13^{th} and 14^{th} International Conference on Thermal Engineering: Theory and Applications, ***Conference Committee Member***
16. Russian Science Foundation, ***Member of Experts Council***
17. ***h*-index = 60 (Scopus) and 56 (Web of Science) and 74 (Research.com)**

PUBLICATIONS

Books and chapters

– G.V. Kuznetsov, M.A. Sheremet, *Finite Difference Method in Heat Conduction Problems* (in Russian). Ed. Tomsk Polytechnic University, Russia, 2007.

– M.A. Sheremet, V.A. Shtan'ko, *Fundamental Theoretical Mechanics. Vol. 1. – Kinematics and Statics* (in Russian). Ed. Tomsk State University, Tomsk, Russia, 2012.

– M.A. Sheremet, V.A. Shtan'ko, *Fundamental Theoretical Mechanics. Vol. 2. – Dynamics* (in Russian). Ed. Tomsk State University, Tomsk, Russia, 2012.

– M.A. Sheremet, V.A. Shtan'ko, *Fundamental Theoretical Mechanics. Vol. 3. – Analytical Mechanics* (in Russian). Ed. Tomsk State University, Tomsk, Russia, 2013.

– A. Shenoy, M. Sheremet, I. Pop, *Convective flow and heat transfer from wavy surfaces: viscous fluids, porous media and nanofluids*. CRC Press, Taylor & Francis Group, Boca Raton, 2016.

– T. Grosan, M.A. Sheremet, I. Pop, *Heat Transfer Enhancement in Cavities Filled with Nanofluids*. Chapter 10 in book "*Advances in New Heat Transfer Fluids: From Numerical to Experimental Techniques*" edited by Minea Alina Adriana, CRC Press, Taylor & Francis Group, Boca Raton, 2017.

– M. Sheremet (ed.) *Numerical Simulation of Convective-Radiative Heat Transfer*. MDPI, Basel, 2020.

– M. Sheremet (ed.) *Applications of Nanofluids*. MDPI, Basel, 2021.

Journal papers

1. Kuznetsov G.V., Sheremet M.A., (2009), Conjugate heat transfer in an enclosure under the condition of internal mass transfer and in the presence of the local heat source, *Int. J. Heat Mass Transfer*, 52 (1-2): 1–8.

2. Kuznetsov G.V., Sheremet M.A., (2009), Conjugate natural convection with radiation in an enclosure, *Int. J. Heat Mass Transfer*, 52 (9-10): 2215–2223.

3. Kuznetsov G.V., Sheremet M.A., (2009), Conjugate natural convection in an enclosure with local heat sources, *Computational Thermal Sciences*, 1 (3): 341–360.

4. Kuznetsov G.V., Sheremet M.A., (2009), Mathematical modeling of complex heat transfer in a rectangular enclosure, *Thermophysics and Aeromechanics*, 16 (1): 119–128.

5. Kuznetsov G.V., Sheremet M.A., (2009), Numerical Modeling of Temperature Fields in the Elements and Units of Electronic Systems, *Russian Microelectronics*, 38 (5): 312–319.

6. Kuznetsov G.V., Sheremet M.A., (2009), Conjugate mixed convection under mass-transfer conditions, *Journal of Engineering Physics and Thermophysics*, 82 (5): 890–899.

7. Kuznetsov G.V., Sheremet M.A., (2010), The Rayleigh-Benard convection in an enclosure with walls of finite thickness, *Mathematical Models and Computer Simulations*, 2 (3): 349–358.

8. Kuznetsov G.V., Sheremet M.A., (2010), Numerical simulation of turbulent natural convection in a rectangular enclosure having finite thickness walls, *Int. J. Heat Mass Transfer*, 53 (9-10): 163–177.

9. Kuznetsov G.V., Sheremet M.A., (2010), Turbulent regime of thermogravitational convection in a closed cavity, *Journal of Engineering Physics and Thermophysics*, 83 (2): 346–357.

10. Kuznetsov G.V., Sheremet M.A., (2010), The Rayleigh-Benard instability in an enclosure having finite thickness walls, *Journal of Physics: Conference Series*, 216: 1–15.

11. Kuznetsov G.V., Sheremet M.A., (2010), Numerical simulation of convective heat transfer modes in a rectangular area with a heat source and conducting walls, *ASME. Journal of Heat Transfer*, 132 (8): 1–9.

12. Aleshkova I.A., Sheremet M.A., (2010), Unsteady conjugate natural convection in a square enclosure filled with a porous medium, *Int. J. Heat Mass Transfer*, 53 (23-24): 5308–5320.

13. Kuznetsov G.V., Sheremet M.A., (2010), Effect of thermodiffusion on convective heat and mass transfer in enclosures with heat-conducting walls, *Journal of Engineering Thermophysics*, 19 (3): 111–118.

14. Sheremet M.A., (2010), The influence of cross effects on the characteristics of heat and mass transfer in the conditions of conjugate natural convection, *Journal of Engineering Thermophysics*, 19 (3): 119–127.

15. Kuznetsov G.V., Sheremet M.A., (2010), On the Possibility of Controlling Thermal Conditions of a Typical Element of Electronic Equipment with a Local Heat Source via Natural Convection, *Russian Microelectronics*, 39 (6): 427–442.

16. Kuznetsov G.V., Sheremet M.A., (2010), Conjugate natural convection in a closed domain containing a heat-releasing element with a constant heat-release intensity, *Journal of Applied Mechanics and Technical Physics*, 51 (5): 699–712.

17. Sheremet M.A., (2011), Three-dimensional conjugate natural convection in a vertical cylinder under heat transfer to the surroundings, *Fluid Dynamics*, 46 (4): 647–657.

18. Kuznetsov G.V., Sheremet M.A., (2011), Conjugate natural convection in an enclosure with a heat source of constant heat transfer rate, *Int. J. Heat Mass Transfer*, 54 (1-3): 260–268.

19. Sheremet M.A., (2011), Numerical analysis of nonsteady-state conjugate natural convection between two concentric spheres, *Journal of Engineering Thermophysics*, 20 (1): 1–12.

20. Sheremet M.A., (2011), Mathematical simulation of conjugate turbulent natural convection in an enclosure with local heat source, *Thermophysics and Aeromechanics*, 18 (1): 107–121.

21. Kuznetsov G.V., Al-Ani M.A., Sheremet M.A., (2011), Numerical simulation of two-phase closed thermosyphon, *Journal of Energy and Power Engineering*, 5 (3): 227–232.

22. Kuznetsov G.V., Al-Ani M.A., Sheremet M.A., (2011), Numerical analysis of convective heat transfer in a closed two-phase thermosyphon, *Journal of Engineering Thermophysics*, 20 (2): 201–210.
23. Kuznetsov G.V., Sheremet M.A., (2011), A numerical simulation of double-diffusive conjugate natural convection in an enclosure, *Int. J. Thermal Sciences*, 50: 1878–1886.
24. Kuznetsov G.V., Sheremet M.A., (2011), Efficient control over heat transfer and hydrodynamics in closed regions due to optimal selection of materials for enclosure walls and external heat load, *Russian Microelectronics*, 40 (5): 326–332.
25. Sheremet M.A., (2011), Unsteady conjugate thermogravitational convection in a cylindrical region with local energy source, *Thermophysics and Aeromechanics*, 18 (3): 447–458.
26. Sheremet M.A., (2011), Mathematical simulation of unsteady natural convection inside a sphere, *Computational Thermal Sciences*, 3 (4): 277–287.
27. Sheremet M.A., (2011), Investigation of regimes of thermogravitational convection of a fluid between coaxial semicylinders with a heat-conducting shell in the presence of a local energy source, *Journal of Engineering Physics and Thermophysics*, 84 (6): 1379–1387.
28. Kuznetsov G.V., Sheremet M.A., (2011), Unsteady natural convection of nanofluids in an enclosure having finite thickness walls, *Computational Thermal Sciences*, 3 (5): 427–443.
29. Sheremet M.A., (2011), Numerical simulation of conjugate natural convection in an inclined cylinder, *Heat Transfer Research*, 42 (5): 473–485.
30. Sheremet M.A., (2012), Laminar natural convection in an inclined cylindrical enclosure having finite thickness walls, *Int. J. Heat Mass Transfer*, 55 (13-14): 3582–3600.
31. Martyushev S.G., Sheremet M.A., (2012), Characteristics of Rosseland and P-1 approximations in modeling nonstationary conditions of convection-radiation heat transfer in an enclosure with a local energy source, *Journal of Engineering Thermophysics*, 21 (2): 111–118.

32. Sheremet M.A., Shishkin N.I., (2012), Mathematical simulation of convective-radiative heat transfer in a ventilated rectangular cavity with consideration of internal mass transfer, *Journal of Engineering Physics and Thermophysics*, 85 (4): 828-835.
33. Sheremet M.A., (2012), Interaction of two-dimensional thermal "plumes" from local sources of energy under conditions of conjugate natural convection in a horizontal cylinder, *Journal of Applied Mechanics and Technical Physics*, 53 (4): 566–576.
34. Sheremet M.A., (2013), Combined natural convection heat and mass transfer in an enclosure having finite thickness walls, *Meccanica*, 48 (4): 851–862.
35. Martyushev S.G., Sheremet M.A., (2013), Mathematical modeling of the laminar regime of conjugate convective heat transfer in an enclosure with an energy source under surface-radiation conditions, *Journal of Engineering Physics and Thermophysics*, 86 (1): 110–119.
36. Martyushev S.G., Sheremet M.A., (2013), Numerical analysis of conjugate natural convection and surface radiation in an enclosure with local heat source, *Computational Thermal Sciences*, 5 (1): 11–25.
37. Kuznetsov G.V., Maksimov V.I., Sheremet M.A., (2013), Natural convection in a closed parallelepiped with a local energy source, *Journal of Applied Mechanics and Technical Physics*, 54 (4): 588–595.
38. Sheremet M.A., Trifonova T.A., (2013), Unsteady conjugate natural convection in a vertical cylinder partially filled with a porous medium, *Numerical Heat Transfer, Part A: Applications*, 64 (12): 994–1015.
39. Martyushev S.G., Sheremet M.A., (2013), Surface radiation influence on the regimes of conjugate natural convection in an enclosure with local energy source, *Thermophysics and Aeromechanics*, 20 (4): 417–428.
40. Sheremet M.A., (2013), Mathematical simulation of nonstationary regimes of natural convection in a cubical enclosure with finite-thickness heat-conducting walls, *Journal of Engineering Thermophysics*, 22 (4): 298–308.

41. Bondareva N.S., Volokitin O.G., Morozova O.O., Sheremet M.A., (2013), Unsteady regimes of hydrodynamics and heat transfer at production of high-temperature silicate melts, *Thermophysics and Aeromechanics*, 20 (5): 621–629.
42. Martyushev S.G., Sheremet M.A., (2014), Conjugate natural convection combined with surface thermal radiation in an air filled cavity with internal heat source, *International Journal of Thermal Sciences*, 76: 51–67.
43. Martyushev S.G., Miroshnichenko I.V., Sheremet M.A., (2014), Numerical analysis of spatial unsteady regimes of conjugate convective-radiative heat transfer in a closed volume with an energy source, *Journal of Engineering Physics and Thermophysics*, 87: 124–134.
44. Sheremet M.A., Trifonova T.A., (2014), Unsteady conjugate natural convection in a vertical cylinder containing a horizontal porous layer: Darcy model and Brinkman-extended Darcy model, *Transport in Porous Media*, 101: 437–463.
45. Martyushev S.G., Sheremet M.A., (2014), Conjugate natural convection combined with surface thermal radiation in a three-dimensional enclosure with a heat source, *International Journal of Heat and Mass Transfer*, 73: 340–353.
46. Sheremet M.A., Pop I., (2014), Thermo-Bioconvection in a square porous cavity filled by oxytactic microorganisms, *Transport in Porous Media*, 103: 191–205.
47. Sheremet M.A., Grosan T., Pop I., (2014), Free convection in shallow and slender porous cavities filled by a nanofluid using Buongiorno's model, *ASME Journal of Heat Transfer*, 136: 082501.
48. Sheremet M.A., Pop I., (2014), Conjugate natural convection in a square porous cavity filled by a nanofluid using Buongiorno's mathematical model, *International Journal of Heat and Mass Transfer*, 79: 137–145.
49. Sheremet M.A., Pop I., (2014), Natural convection in a square porous cavity with sinusoidal temperature distributions on both side walls filled with a nanofluid: Buongiorno's mathematical model, *Transport in Porous Media*, 105: 411–429.

50. Sheremet M.A., Pop I., Rahman M.M., (2015), Three-dimensional natural convection in a porous enclosure filled with a nanofluid using Buongiorno’s mathematical model, *International Journal of Heat and Mass Transfer*, 82: 396–405.
51. Sheremet M.A., Grosan T., Pop I., (2015), Free convection in a square cavity filled with a porous medium saturated by nanofluid using Tiwari and Das’ nanofluid model, *Transport in Porous Media*, 106: 595–610.
52. Miroshnichenko I., Sheremet M., (2015), Comparative study of standard *k*–ε and *k*–ω turbulence models by giving an analysis of turbulent natural convection in an enclosure, *EPJ Web of Conferences*, 82: 01057.
53. Martyushev S.G., Sheremet M.A., (2015), Numerical analysis of 3D regimes of natural convection and surface radiation in a differentially heated enclosure, *Journal of Engineering Thermophysics*, 24: 22–32.
54. Sheremet M.A., Dinarvand S., Pop I., (2015), Effect of thermal stratification on free convection in a square porous cavity filled with a nanofluid using Tiwari and Das' nanofluid model, *Physica E*, 69: 332–341.
55. Sheremet M.A., Pop I., (2015), Natural convection in a wavy porous cavity with sinusoidal temperature distributions on both side walls filled with a nanofluid: Buongiorno's mathematical model, *ASME Journal of Heat Transfer*, 137: 072601.
56. Sheremet M.A., (2015), Unsteady conjugate natural convection in a three-dimensional porous enclosure, *Numerical Heat Transfer, Part A: Applications*, 68: 243–267.
57. Bondareva N.S., Sheremet M.A., (2015), Influence of uniform magnetic field on laminar regimes of natural convection in an enclosure, *Thermophysics and Aeromechanics*, 22: 203–216.
58. Ghalambaz M., Sheremet M.A., Pop I., (2015), Free convection in a parallelogrammic porous cavity filled with a nanofluid using Tiwari and Das’ nanofluid model, *PLoS ONE*, 10: e0126486 (17 pages).

59. Sheremet M.A., Pop I., Ishak A., (2015), Double-diffusive mixed convection in a porous open cavity filled with a nanofluid using Buongiorno's model, *Transport in Porous Media*, 109: 131–145.

60. Sheremet M.A., Pop I., (2015), Free convection in a triangular cavity filled with a porous medium saturated by a nanofluid: Buongiorno's mathematical model, *International Journal of Numerical Methods for Heat & Fluid Flow*, 25: 1138–1161.

61. Sheremet M.A., Pop I., (2015), Natural convection in a horizontal cylindrical annulus filled with a porous medium saturated by a nanofluid using Tiwari and Das' nanofluid model, *European Physical Journal Plus*, 130: Article number 107 (12 pages).

62. Sheremet M.A., Grosan T., Pop I., (2015), Steady-state free convection in right-angle porous trapezoidal cavity filled by a nanofluid: Buongiorno's mathematical model, *European Journal of Mechanics - B/Fluids*, 53: 241–250.

62. Sheremet M.A., Pop I., (2015), Mixed convection in a lid-driven square cavity filled by a nanofluid: Buongiorno's mathematical model, *Applied Mathematics and Computation*, 266: 792–808.

63. Sheremet M.A., Pop I., (2015), Free convection in a porous horizontal cylindrical annulus with a nanofluid using Buongiorno's model, *Computers and Fluids*, 118: 182–190.

64. Sheremet M.A., Grosan T., Pop I., (2015), Natural convection in a cubical porous cavity saturated with nanofluid using Tiwari and Das' nanofluid model, *Journal of Porous Media*, 18: 585–596.

65. Sheremet M.A., Pop I., Nazar R., (2015), Natural convection in a square cavity filled with a porous medium saturated with a nanofluid using the thermal nonequilibrium model with a Tiwari and Das nanofluid model, *International Journal of Mechanical Sciences*, 100: 312–321.

66. Sheremet M.A., Pop I., Shenoy A., (2015), Unsteady free convection in a porous open wavy cavity filled with a nanofluid using Buongiorno's mathematical model, *International Communications in Heat and Mass Transfer*, 67: 66–72.

67. Astanina M.S., Sheremet M.A., Umavathi J.C., (2015), Unsteady natural convection with temperature-dependent viscosity in a square cavity filled with a porous medium, *Transport in Porous Media*, 110: 113–126.
68. Miroshnichenko I.V., Sheremet M.A., (2015), Numerical simulation of turbulent natural convection combined with surface thermal radiation in a square cavity, *International Journal of Numerical Methods for Heat & Fluid Flow*, 25: 1600–1618.
69. Bondareva N.S., Sheremet M.A., Pop I., (2015), Magnetic field effect on the unsteady natural convection in a right-angle trapezoidal cavity filled with a nanofluid, *International Journal of Numerical Methods for Heat & Fluid Flow*, 25: 1924–1946.
70. Martyushev S.G., Miroshnichenko I.V., Sheremet M.A., (2015), Influence of the geometric parameter on the regimes of natural convection and thermal surface radiation in a closed parallelepiped, *Journal of Engineering Physics and Thermophysics*, 88: 1522–1529.
71. Ghalambaz M., Moattar F., Sheremet M.A., Pop I., (2016), Triple-diffusive natural convection in a square porous cavity, *Transport in Porous Media*, 111: 59–79.
72. Umavathi J.C., Sheremet M.A., (2016), Influence of temperature dependent conductivity of a nanofluid in a vertical rectangular duct, *International Journal of Non-Linear Mechanics*, 78: 17–28.
73. Umavathi J.C., Sheremet M.A., (2016), Mixed convection flow of an electrically conducting fluid in a vertical channel using Robin boundary conditions with heat source/sink, *European Journal of Mechanics B/Fluids*, 55: 132–145.
74. Sheremet M.A., Miroshnichenko I.V., (2016), Effect of surface radiation on transient natural convection in a wavy-walled cavity, *Numerical Heat Transfer, Part A: Applications*, 69: 369–382.
75. Sheremet M.A., Pop I., Bachok N., (2016), Effect of thermal dispersion on transient natural convection in a wavy-walled porous cavity filled with a nanofluid: Tiwari and Das' nanofluid model, *International Journal of Heat and Mass Transfer*, 92: 1053–1060.

76. Sheremet M.A., Pop I., Rosca N.C., (2016), Magnetic field effect on the unsteady natural convection in a wavy-walled cavity filled with a nanofluid: Buongiorno's mathematical model, *Journal of the Taiwan Institute of Chemical Engineers*, 61: 211–222.
77. Sheremet M.A., Oztop H.F., Pop I., Abu-Hamdeh N., (2016), Analysis of entropy generation in natural convection of nanofluid inside a square cavity having hot solid block: Tiwari and Das' model, *Entropy*, 18, doi:10.3390/e18010009.
78. Sheremet M.A., Pop I., Shenoy A., (2016), Natural convection in a wavy open porous cavity filled with a nanofluid: Tiwari and Das' nanofluid model, *European Physical Journal Plus*, 131: Article number 62 (12 pages).
79. Pop I., Ghalambaz M., Sheremet M.A., (2016), Free convection in a square porous cavity filled with a nanofluid using thermal non equilibrium and Buongiorno models, *International Journal of Numerical Methods for Heat & Fluid Flow*, 26: 671–693.
80. Umavathi J.C., Sheremet M.A., Mohiuddin S., (2016), Combined effect of variable viscosity and thermal conductivity on mixed convection flow of a viscous fluid in a vertical channel in the presence of first order chemical reaction, *European Journal of Mechanics B/Fluids*, 58: 98–108.
81. Sheremet M.A., Oztop H.F., Pop I., (2016), MHD natural convection in an inclined wavy cavity with corner heater filled with a nanofluid, *Journal of Magnetism and Magnetic Materials*, 416: 37–47.
82. Gibanov N.S., Sheremet M.A., Pop I., (2016), Free convection in a trapezoidal cavity filled with a micropolar fluid, *International Journal of Heat and Mass Transfer*, 99: 831–838.
83. Bondareva N.S., Sheremet M.A., Oztop H.F., Abu-Hamdeh N., (2016), Heatline visualization of MHD natural convection in an inclined wavy open porous cavity filled with a nanofluid with a local heater, *International Journal of Heat and Mass Transfer*, 99: 872–881.

84. Miroshnichenko I.V., Sheremet M.A., Mohamad A.A., (2016), Numerical simulation of a conjugate turbulent natural convection combined with surface thermal radiation in an enclosure with a heat source, *International Journal of Thermal Sciences*, 109: 172–181.
85. Gibanov N.S., Sheremet M.A., Pop I., (2016), Natural convection of micropolar fluid in a wavy differentially heated cavity, *Journal of Molecular Liquids*, 221: 518–525.
86. Bondareva N.S., Sheremet M.A., (2016), Effect of inclined magnetic field on natural convection melting in a square cavity with a local heat source, *Journal of Magnetism and Magnetic Materials*, 419: 476–484.
87. Sheremet M.A., Oztop H.F., Pop I., Al-Salem K., (2016), MHD free convection in a wavy open porous tall cavity filled with nanofluids under an effect of corner heater, *International Journal of Heat and Mass Transfer*, 103: 955–964.
88. Sivaraj C., Sheremet M.A., (2016), Natural convection coupled with thermal radiation in a square porous cavity having a heated plate inside, *Transport in Porous Media*, 114: 843–857.
89. Sheremet M.A., Pop I., Oztop H.F., Abu-Hamdeh N., (2016), Natural convective heat transfer and nanofluid flow in a cavity with top wavy wall and corner heater, *Journal of Hydrodynamics*, 28: 873–885.
90. Mahabaleshwar U.S., Vinay Kumar P.N., Sheremet M., (2016), Magnetohydrodynamics flow of a nanofluid driven by a stretching/shrinking sheet with suction, *SpringerPlus*, 5: 1901.
91. Miroshnichenko I.V., Sheremet M.A., Oztop H.F., Al-Salem K., (2016), MHD natural convection in a partially open trapezoidal cavity filled with a nanofluid, *International Journal of Mechanical Sciences*, 119: 294–302.
92. Umavathi J.C., Kumar J.P., Sheremet M.A., (2017), Heat and mass transfer in a vertical double passage channel filled with electrically conducting fluid, *Physica A*, 465: 195–216.
93. Sheremet M.A., Pop I., Ishak A., (2017), Time-dependent natural convection of micropolar fluid in a wavy triangular cavity, *International Journal of Heat and Mass Transfer*, 105: 610–622.

94. Sheremet M.A., Cimpean D.S., Pop I., (2017), Free convection in a partially heated wavy porous cavity filled with a nanofluid under the effects of Brownian diffusion and thermophoresis, *Applied Thermal Engineering*, 113: 413–418.
95. Bondareva N.S., Sheremet M.A., Oztop H.F., Abu-Hamdeh N., (2017), Entropy generation due to natural convection of a nanofluid in a partially open triangular cavity, *Advanced Powder Technology*, 28: 244–255.
96. Sivaraj C., Sheremet M.A., (2017), MHD natural convection in an inclined square porous cavity with a heat conducting solid block, *Journal of Magnetism and Magnetic Materials*, 426: 351–360.
97. Miroshnichenko I.V., Sheremet M.A., Pop I., (2017), Natural convection in a trapezoidal cavity filled with a micropolar fluid under the effect of a local heat source, *International Journal of Mechanical Sciences*, 120: 182–189.
98. Ghalambaz M., Moattar F., Karbassi A., Sheremet M.A., Pop I., (2017), Triple-diffusive mixed convection in a porous open cavity, *Transport in Porous Media*, 116: 473–491.
99. Sheremet M.A., Revnic C., Pop I., (2017), Free convection in a porous wavy cavity filled with a nanofluid using Buongiorno's mathematical model with thermal dispersion effect, *Applied Mathematics and Computation*, 299: 1–15.
100. Bondareva N.S., Sheremet M.A., (2017), Natural convection heat transfer combined with melting process in a cubical cavity under the effects of uniform inclined magnetic field and local heat source, *International Journal of Heat and Mass Transfer*, 108: 1057–1067.
101. Bondareva N.S., Sheremet M.A., (2017), 3D natural convection melting in a cubical cavity with a heat source, *International Journal of Thermal Sciences*, 115: 43–53.
102. Sheremet M.A., Grosan T., Pop I., (2017), Natural convection in a triangular cavity filled with a micropolar fluid, *International Journal of Numerical Methods for Heat & Fluid Flow*, 27: 504–515.
103. Mikhailenko S.A., Sheremet M.A., (2017), Convective heat transfer combined with surface radiation in a rotating square cavity with a local heater, *Numerical Heat Transfer, Part A: Applications*, 72: 697–707.

104. Miroshnichenko I.V., Sheremet M.A., (2018), Turbulent natural convection heat transfer in rectangular enclosures using experimental and numerical approaches: A review, *Renewable and Sustainable Energy Reviews*, 82: 40–59.

105. Astanina M.S., Riahi M.K., Abu-Nada E., Sheremet M.A., (2018), Magnetohydrodynamic in partially heated square cavity with variable properties: Discrepancy in experimental and theoretical conductivity correlations, *International Journal of Heat and Mass Transfer*, 116: 532–548.

106. Sheremet M.A., Pop I., Mahian O., (2018), Natural convection in an inclined cavity with time-periodic temperature boundary conditions using nanofluids: Application in solar collectors, *International Journal of Heat and Mass Transfer*, 116: 751–761.

107. Miroshnichenko I.V., Sheremet M.A., (2018), Turbulent natural convection combined with thermal surface radiation inside an inclined cavity having local heater, *International Journal of Thermal Sciences*, 124: 122–130.

108. Bondareva N.S., Sheremet M.A., Oztop H.F., Abu-Hamdeh N., (2018), Free convection in an open triangular cavity filled with a nanofluid under the effects of Brownian diffusion, thermophoresis and local heater, *ASME Journal of Heat Transfer*, 140: 042502.

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