

Stepan A. Mikhailenko

Laboratory on Convective Heat and Mass Transfer, Tomsk State University
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EDUCATION

- 2018–Present Ph.D. student
Specialization “Study of unsteady modes of convective heat transfer in closed rotating areas in the presence of heat sources” at Tomsk State University, Russia
- 2018 Master’s degree in Fluid Mechanics, Tomsk State University, Russia
- 2016 Bachelor’s degree in Fluid Mechanics, Tomsk State University, Russia

APPOINTMENTS

- 2018–Present Junior Researcher at the Laboratory on Convective Heat and Mass Transfer, Tomsk State University
- 2017–2018 Laboratory Assistant at the Laboratory on Convective Heat and Mass Transfer, Tomsk State University

AREAS OF INTEREST

numerical analysis

heat and mass transfer

natural, mixed convection

rotating cavities

radiation heat transfer

porous media

nanoliquid

Journal papers

1. 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 (9): 697-707.
2. Mikhailenko S.A., Sheremet M.A., (2018), Simulation of convective-radiative heat transfer in a differentially heated rotating cavity // *Computer Research and Modeling*. 10 (2): 195-207.
3. Mikhailenko S.A., Sheremet M.A., Mohamad A.A., (2018), Convective-radiative heat transfer in a rotating square cavity with a local heat-generating source // *International Journal of Mechanical Sciences*. 142-143: 530-540.
4. Mikhailenko S.A., Sheremet M.A., (2018), Natural convection in a rotating cavity partially filled with a porous medium under the effect of a local heater // *MATEC Web of Conferences*. 142817
5. Mikhailenko S.A., Sheremet M.A., Pop I., (2019), Convective heat transfer in a rotating nanofluid cavity with sinusoidal temperature boundary condition // *Journal of Thermal Analysis and Calorimetry*. DOI: 10.1007/s10973-018-7984-2.
6. Mikhailenko S.A., Sheremet M.A., Mahian O., (2019), Effects of uniform rotation and porous layer on free convection in an enclosure having local heat source // *International Journal of Thermal Sciences*. 138: 276-284.
7. Mikhailenko S.A., Sheremet M.A., Oztop H.F., Abu-Hamdeh N., (2019) Thermal convection in Al₂O₃–water nanoliquid rotating chamber with a local isothermal heater // *International Journal of Mechanical Sciences*. 156: 137-145.

Conference Proceedings

1. Mikhailenko S.A., Sheremet M.A. Unsteady regimes of mixed convection in a closed differentially heated rotating cavity, In: The VIth International Youth Scientific Conference «Currently issues of continuum mechanics and celestial mechanics–2016», 16–18 November, 2016, Tomsk, Russia, P. 32–33.
2. Mikhailenko S.A. Convective-radiation heat transfer in a rotating cavity with a local heat-generating element. In: V International Youth Forum "Intelligent Energy Systems", 2017, Tomsk, Russia, P. 8–12.
3. Mikhailenko S.A. Mixed convection in a rotating porous cavity with a heated source, In: The XV International Conference of students, graduate students and young scientists «Prospects of fundamental sciences development», 24–27 April

2018, Tomsk, Russia, P. 76.

4. Mikhailenko S.A., Sheremet M.A. Modes of natural convection and surface radiation in a rotating square cavity under effect of a heat-generating source, In: Russian Conference of Young Mechanical Scientists YSM-2018, 4–14 September, 2018, P. 120.

5. Mikhailenko S.A., Sheremet M.A. Unsteady modes of convective heat transfer in a rotating cavity with heated source and a porous insert, In: Conference on mathematics and mechanics dedicated to the 140th anniversary of Tomsk State University and the 70th anniversary of the Faculty of Mechanics and Mathematics, 2018, P. 125.

6. Mikhailenko S.A., Sheremet M.A. Investigation of natural convection in a rotating porous cavity using a local thermal non-equilibrium model. In: Youth scientific conference of students, graduate students and young scientists "All the facets of mathematics and mechanics", 2019, Tomsk, Russia, P. 63

7. Mikhailenko S.A., Sheremet M.A. The effect of surface radiation on natural convection in a rotating cavity under effect of an element of variable volumetric heat generation, In: XXII School-Seminar of Young Scientists and Specialists under the guidance of Academician A.I. Leontiev "Problems of gas dynamics, heat and mass transfer in power plants", 20–24 May, 2019, Moscow, Russia.