

## **Darya S. Loenko (Bondarenko)**

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

2018          Diploma in Mechanics and Mathematical Modeling

### **APPOINTMENTS**

2018-Present      Specialist in educational and methodical work, Department of  
Theoretical Mechanics, Tomsk State University

2017-Present      Laboratory assistant of the Laboratory on Convective Heat and  
Mass Transfer, Tomsk State University

### **AREAS OF INTEREST**

Natural convection

Heat and mass transfer in non-Newtonian fluid

Numerical analysis

Heat transfer and flow pattern in electronicsystems

Computational fluid dynamics

### **AWARDS**

- Diploma of the II degree for the report at the XV International Scientific and Practical Conference of Students: Youth and modern information technology Postgraduates and Young Scientists, Tomsk, Russia, 2017.
- Diploma of the II degree for the report at the All-Russian Youth Scientific Conference: All sides of mathematics and mechanics, Tomsk, Russia, 2018.
- Diploma of the I degree for the report at the XVI International Scientific and Practical Conference of Students: Youth and modern information technology Postgraduates and Young Scientists, Tomsk, Russia, 2018.

- Advanced academic scholarship 2018/2019 academic year.
- Winning the Potanin Foundation Scholarship Competition, 2019.

### **REVIEWING SERVICES:**

- International Journal of Heat and Mass Transfer,
- Journal of Thermal Analysis and Calorimetry.

### **PUBLICATIONS**

#### *Journal papers*

1. Bondarenko D.S., Sheremet M.A., Oztop H.F., Ali M.E., (2019) Natural convection of Al<sub>2</sub>O<sub>3</sub>/H<sub>2</sub>O nanofluid in a cavity with a heat-generating element. Heatlinevisualization, *Int. J. Heat Mass Transfer*, 130: 564-574.
2. Bondarenko D.S., Sheremet M.A., Oztop H.F., Abu-Hamdeh N., (2019) Mixed convection heat transfer of a nanofluid in a lid-driven enclosure with two adherent porous blocks, *Journal of Thermal Analysis and Calorimetry*, 135(2): 1095-1105.
3. Bondarenko D.S., Sheremet M.A., Oztop H.F., Ali M.E.,(2019) Impacts of moving wall and heat-generating element on heat transfer and entropy generation of Al<sub>2</sub>O<sub>3</sub>/H<sub>2</sub>O nanofluid, *Journal of Thermal Analysis and Calorimetry*, 136(2): 673-686.

#### *Conference Proceedings*

1. Bondarenko D.S, Sheremet M.A. Natural convection of non-Newtonian fluid in a closed cavity, In: Youth and modern information technology: Proceedings of the XV International Scientific and Practical Conference of Students, Postgraduates and Young Scientists (Tomsk, Russia, December 4-7, 2017), Pp. 27-28.
2. Bondarenko D.S, Sheremet M.A. Free convection of a power law fluid in a closed cavity in the presence of a local energy source, In: All-Russian Youth Scientific

Conference “All sides of mathematics and mechanics”: Book of abstracts (Tomsk, Russia, April 24-28, 2018), Pp. 47-48.

3. Bondarenko D.S, Sheremet M.A. Free convection of a power law fluid in a closed cavity in the presence of a local energy source, In: All-Russian Youth Scientific Conference “All sides of mathematics and mechanics”: Proceedings (Tomsk, Russia, April 24-28, 2018), Pp. 47-53.

4. Bondarenko D.S, Sheremet M.A. Natural convection of a power law fluid in a cavity with a heat-generating energy source, In: All-Russian 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: Book of abstracts (Tomsk, Russia, October 2-4, 2018), Pp.120-121.

5. Bondarenko D.S, Sheremet M.A. Mathematical modeling of the thermalgravitational convection of a non-Newtonian liquid in a closed cavity with a heat-dividing energy source, In: Youth and modern information technology: Proceedings of the XVI International Scientific and Practical Conference of Students, Postgraduates and Young Scientists (Tomsk, Russia, December 3-4, 2018), Pp. 34-35.