Olga Doronina

Ph.D. Student
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Education

May.2020 (Expected) **Ph.D. in Mechanical Engineering**, *University of Colorado, Boulder*.

Jul.2014 **M.S. Applied Mathematics and Physics**, *Moscow Institute of Physics and Technology (MIPT, Phystech)*, GPA 3.9.

Jun.2012 **B.S. Applied Mathematics and Physics**, *Moscow Institute of Physics and Technology (MIPT, Phystech)*, GPA 3.3.

Awards and Honors/Fellowships

Spring 2013 Special Academic Fellowship (MIPT)

Fall 2013 Special Academic Fellowship (MIPT)

2009 Governor of the Moscow Region Fellowship

Professional Experience

Research Experience

2017 – present **Research assistant**, *University of Colorado, Boulder*,
Turbulence and Energy Systems Laboratory (TESLa), tesla.colorado.edu/.

2014 – 2016 **Reseacher**, *Keldysh Institute of Applied Mathematics (KIAM RAS)*,
Computational Aeroacoustics Laboratory, caa.imamod.ru.

2012 – 2014 **Research student practice**, *Keldysh Institute of Applied Mathematics (KIAM RAS)*,
Computational Aeroacoustics Laboratory, caa.imamod.ru.

Teaching Experience

Sep.2016 – Dec.2016 **Teaching Assistant**, *University of Colorado, Boulder*,
Department of Mechanical Engineering.
Leading Matlab labs for an undergraduate Numerical Methods course.
Leading Abaqus labs for an undergraduate/graduate Finite Element Analysis course.

Feb.2015 – May.2016 **Instructor**, *Moscow Institute of Physics and Technology*,
Department of Numerical Mathematics and Informatics.
Teaching Numerical Methods course.

Sep.2012 – May.2016 **Private Tutor**.
Private tutoring in Maths and Physics

Sep.2011 – Aug.2013 **Grader**, *Correspondence school of physics and mathematics*.
Graded tasks, demonstrated solutions to certain homework problems in Maths and Physics.

Publications

[1] Olga Doronina, Colin A. Towery, Jason D. Christopher, Ian Grooms, and Peter E. Hamlington. Turbulence model development using markov chain monte carlo approximate bayesian computation. In *AIAA Scitech 2019 Forum*, page 1883, 2019.

[2] I. V. Abalakin, P. A. Bakhvalov, O. A. Doronina, N. S. Zhdanova, and T. K. Kozubskaya. Simulation of aerodynamics of a moving body prescribed by immersed boundaries on dynamically adaptative unstructured mesh. *Matematicheskoe Modelirovanie*, 30(5):57–75, 2018.

[3] Olga Doronina, Jason Christopher, Colin Towery, Peter Hamlington, and Werner Dahm. Autonomic closure for turbulent flows using approximate bayesian computation. In *2018 AIAA Aerospace Sciences Meeting*, page 0594, 2018.

[4] O. A. Doronina, P. A. Bakhvalov, and T. K. Kozubskaya. Numerical study of acoustic radiation dynamics of a Rankine vortex. *Acoustical Physics*, 62(4):467–477, July 2016.

[5] O. A. Doronina and N. S. Zhdanova. Numerical simulation of acoustic waves scattering by isolated vortex structures. *Matematicheskoe Modelirovanie*, 25(9):85–94, 2013.