Sergei Stepanov

Curriculum Vitae

PERSONAL DETAILS

Full name	Sergei Pavlovich Stepanov
Birth	May 6, 1989
Address	Yakutsk, Russia
Citizenchip	Russia
Degrees	PhD(2018)
General areas of expertise	Mathematical Modeling
Language	Russian, pre-intermediate English
Phone	(964) 424-0921
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EDUCATION

PhD. Applied Mathematics 2013-2018

North-Eastern Federal University, Yakutsk, Russia

Thesis: Mathematical modeling of heat and mass transfer problems in condition of north
Supervisor: Professor P.N. Vabishchevich
Advisor: M.V. Vasilyeva

MSc. Applied Mathematics 2011-2013

North-Eastern Federal University, Yakutsk, Russia

Thesis: Numerical solution of the problem of heat transfer with phase transitions using FEniCS.
Supervisor: Professor P.N. Vabishchevich
Advisor: M.V. Vasilyeva

BSc. Applied Mathematics 2007-2011

North-Eastern Federal University, Yakutsk, Russia

PROFESSIONAL BACKGROUND

2011-present

North-Eastern Federal University, Yakutsk, Russia

Mathematical modeling (C++, Hypre, FEniCS): heat and mass transfer, free convection, thermoelasticity problems.

COMPUTER SKILLS

Languages	C/C++, Python
Mathematical libraries	Hypre
Scientific Software	FEniCS, Gmsh,Paraview
Publishing Software	LaTeX

AWARDS

Scholarship Government of Russian Federation (2014-2015)

PUBLICATIONS

1. P. N. Vabishchevich, S. P. Varlamov, V. I. Vasilyev, M. V. Vasilyeva, S. P. Stepanov Mathematical modeling of the thermal regime of the railway line in permafrost. Vestnik SVFU, 2013, Vol. 10, No 5, pp 5-11, in Russian

2. VF Gornov, SP Stepanov, MV Vasilyeva, VI Vasilyev. Mathematical modeling of heat transfer problems in the permafrost. Application ofmathematics in technical and natural sciences: 6th International Conference for Promoting the Application of Mathematics in Technical and Natural Sciences-AMiTaNS'14, AIP Publishing. Vol 1629, 424-431 p, 2014

3. Stepanov S.P., Vasilyeva M.V., Vasil'ev V.I. Numerical simulation convective heat transfer on high-performance computing systems // AIP Conference Proceedings. – AIP Publishing, 2016. – T. 1773. – 1. – C. 110011

4. Stepanov S. P., Sirditov I. K., Vabishchevich P. N., Vasilyeva M. V., Vasilyev V. I., Tceeva A. N. Numerical Simulation of Heat Transfer of the Pile Foundations with Permafrost // International Conference on Numerical Analysis and Its Applications. – Springer, Cham, 2016. – C. 625–632.

5. S.P. Stepanov, P.N. Vabishchevich, S.P. Varlamov, V.I. Vasil'ev, M.V. Vasilyeva. Numerical simulation of the temperature dynamics of railway foundation material in permafrost // Mathematical models and computer simulations – Vol. 9. – 3 – 2017. – P. 292–304

6. Vasilyeva M., Vasil'ev V., Stepanov S. Generalized multiscale discontinuous Galerkin method for solving the heat problem with phase change. Journal of Computational and Applied Mathematics // Journal of Computational and Applied Mathematics, 2018

7. Certificate of state registration of the software "Software for the mathematical modeling of heat transfer problems in ground in permafrost", 2015