Aleksandr V. Grigorev

North-Eastern Federal University
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Personal

Born on July 27, 1985

Russian Federation Citizen

English: intermediate

Skills

Programming languages: C/C ++, Python

Libraries: MPI (Parallelization), FEniCS (FEM), PETSc (Algebra), VTK (Visualisation)

Applications: NETGEN (Mesh generation), GMSH (Mesh generation), Paraview (Visualisation)

Operating systems: Windows OS, Ubuntu (Linux)

Education

M.Sc. in applied mathematics, North-Eastern Federal University, 2009.

Ph.D. in applied mathematics, North-Eastern Federal University, 2013. Subject: Numerical modeling filtration in fractured-porous media based on double porosity model.

Employment

Senior Lecturer, North-Eastern Federal University, Yakutsk, 2009–2010

Technical Support Engineer, North-Eastern Federal University, Yakutsk, 2010–2011

Docent-Researcher, North-Eastern Federal University, 2011–2015

Researcher, Institute of Computational Mathematics and Mathematical Geophysics of the Siberian Branch of the RAS, 2015–2018

Docent-Researcher, North-Eastern Federal University, 2018–present

Research interests

Numerical methods

Parallel algorithms for problems of mathematical physics

Multiphysics problems

Multicontinuum models

Applied modeling

Fluid flow in fractured-porous media

Unsaturated filtration in soils

Oil gas production

Medicine problems

Publications

Books

1. M.V. Vasil'eva, A.V. Grigoriev, P.E. Zakharov. Parallel Programming with Libraries. Yakutsk, NEFU, 2011, in Russian.

2. I.S. Eremeev, A.V. Grigoriev, M.I. Alekseeva, V.A. Ptytsin. Parallel Programming usind CUDA technology. Yakutsk, NEFU, 2011, in Russian.

3. N.M. Afanasyeva,V.S. Borisov, A.G. Churbanov, A.V. Grigoriev, A.E. Kolesov, P.A. Popov, I.K. Sirditov, P.N. Vabishchevich, M.V. Vasilieva, P.E. Zakharov. Computational Technologies. A First Course. Berlin, Boston: De Gruyter, 2014.

4. N.M. Afanasyeva, M.Yu. Antonov, V.S. Borisov, A.V. Grigoriev, A.E. Kolesov, P.A. Popov, I.K. Sirditov, P.N. Vabishchevich, M.V. Vasilieva, P.E. Zakharov. Computational Technologies. Advanced Topics. Berlin, Boston: De Gruyter, 2014.

Selected articles

1. Antonov M.Yu., Grigorev A.V. and Kolesov A.E. Numerical Modeling of Fluid Flow in Liver Lobule Using Double Porosity Model. International Conference on Numerical Analysis and Its Applications. Springer, Cham, 2016.

2. Gaspar F., Grigoriev A.V. and Vabishchevich P.N. EXPLICIT-IMPLICIT SPLITTING SCHEMES FOR SOME SYSTEMS OF EVOLUTIONARY EQUATIONS. International Journal of Numerical Analysis & Modeling 11.2, 2014.

3. Vabishchevich P.N. and Grigoriev A.V. Numerical modeling of fluid flow in anisotropic fractured porous media. Numerical Analysis and Applications 9.1: 45-56, 2016.

4. Vabishchevich P.N. and GrigorâĂŹev A.V. Splitting schemes for pseudoparabolic equations. Differential Equations 49.7: 807-814, 2013.

5. Voronin K.V., Grigoriev A.V. and Laevsky Yu.M. On an approach to the modeling of oil wells. Numerical Analysis and Applications 10.2: 120-128, 2017.

6. Laevsky Y.M., Vasilyeva M.V., Grigorev A.V. and Kalinkin A.A Mathematical Models of Fluid Flow in Fractured-Porous Media. 7th EAGE Saint Petersburg International Conference and Exhibition. 2016.

7. Grigorev A.V. Numerical modeling filtration in fractured-porous media. Matzametki SVFU 20.2, 237-245, 2013.