ANNIVERSARY OF THE SCIENTIST
ЮБИЛЕЙ УЧЕНОГО

On April 8, 2024, Mikhail Vladimirovich Yakobovskiy, the Deputy Editor-in-Chief of our journal and a corresponding member of the Russian Academy of Sciences, turned 60 years old.

In Commemoration of the Anniversary of Corresponding Member of the Russian Academy of Sciences, Doctor of Physical and Mathematical Sciences, Professor Mikhail Vladimirovich Yakobovskiy

Mikhail Vladimirovich Yakobovskiy, Deputy Director for Research at the Keldysh Institute of Applied Mathematics RAS, is a leading expert in the development of parallel algorithms and simulation tools for fundamental and applied problems of continuum mechanics on high-performance computing systems. M.V. Yakobovskiy is the author of more than 90 scientific works, including 8 officially registered software programs. His scientific interests lie in the development of parallel algorithms and software for solving continuum mechanics problems on high-performance multiprocessor and hybrid computing systems, including fault-tolerant numerical simulation algorithms on exascale supercomputers.

M.V. Yakobovskiy proposed a model of a unified computing environment for solving a wide range of current fundamental and applied problems using grids containing billions or more nodes. The software suite developed based on this model integrates applications supporting the main stages of computational experiments and ensures the coordinated use of multiple distributed computing resources and clusters.

Using a unified approach to processing large volumes of grid data and the close integration of computational mathematics and applied programming methods, M.V. Yakobovskiy has created algorithms and tools that enable large-scale computational experiments in the field of continuum mechanics on modern and prospective supercomputers with thousands or more processors.

M.V. Yakobovskiy has developed fault-tolerant algorithms for continuous long-term computations on supercomputers with regularly failing nodes and algorithms for guaranteed tetrahedralization of areas defined by triangulated closed surfaces.

M.V. Yakobovskiy participated in the development of Russia›s first teraflop supercomputer (RCC RAS), the MVS-15000BM and MVS-100K supercomputers (RCC RAS), the Chebyshev and Lomonosov supercomputers (Moscow State University), and the K-100 heterogeneous supercomputer (Keldysh Institute of Applied Mathematics RAS).

M.V. Yakobovskiy is deeply involved in scientific and organizational work. He is a member of the Scientific Council of the Keldysh Institute of Applied Mathematics RAS, Chairman of Dissertation Council 24.1.237.02, Deputy Chairman of Dissertation Council 24.1.237.01 at the same institute, and a member of Dissertation Council MSU.01.09 at Moscow State University. M.V. Yakobovskiy heads the department of “Software for High-Performance Computing Systems and Networks”.

From 2016 to 2019, he was a member of the Presidium of the Higher Attestation Commission under the Ministry of Education and Science of Russia. He is Deputy Editor-in-Chief of the journal “Computational Mathematics and Information Technologies”, and a member of the editorial boards of “Supercomputing Frontiers and Innovations”, “Computational Methods and Programming”, “Advances in Cybernetics”, and “Preprints of the Keldysh Institute of Applied Mathematics”. He is also a member of the program committees of several international conferences, co-chair of the program committee of the International Congress “Supercomputing Days in Russia”, and the All-Russian Conference “Scientific Service on the Internet”.

M.V. Yakobovskiy is a member of the Bureau of the Scientific Council of the Russian Academy of Sciences for coordinating scientific research in the field of “Strategic Information Technologies, including the creation of supercomputers and software development”, a member of the RAS Scientific Council on Materials and Nanomaterials, a member of the Expert Council of the Russian Foundation for Basic Research (RFBR) on Mathematics and Mechanics, and the scientific secretary of the Scientific Council of the RAS Presidium Program on “Fundamental Principles for Creating Algorithms and Software for Advanced Ultra-High-Performance Computing”. He has been an expert for the RAS, RSF, RFBR, and Federal Targeted Programs, and was Chairman of the Expert Council on Directed Basic Research of the RFBR. Under his leadership, several RFBR initiative projects and directed basic research projects have been completed. He has participated

in numerous RSF projects, served as project leader for the RSF, and has been a key executor of several state contracts for Federal Targeted Scientific and Technical Programs and the "Skif-grid" supercomputing program of the Union State, among others.

M.V. Yakobovskiy is heavily involved in educational activities. He is a professor at MIPT and Moscow State University, and the author of four textbooks on parallel algorithms, including the monograph "Introduction to Parallel Methods for Solving Problems". One of his students was awarded the RAS Medal with a prize for young scientists in 2009 for the work "Modelling Problems of Gas Dynamics and Aeroacoustics Using High-Performance Computing Systems". He has supervised six candidates of physical and mathematical sciences and more than 30 specialists, bachelors, and masters. In 2016, M.V. Yakobovskiy was elected as a corresponding member of the RAS in the Department of Mathematical Sciences of the RAS, specializing in "Applied Mathematics and Informatics".

The editorial board of the journal "Computational Mathematics and Information Technologies", and colleagues of M.V. Yakobovskiy warmly congratulate the esteemed jubilarian, wishing him good health, new ideas, and creative achievements!