

70th Anniversary of Sergey V. Alekseenko



On May 30, 2020, the outstanding Russian scientist in the field of thermophysics, energy, and energy saving, Academician of the Russian Academy of Sciences, Scientific Director of the Institute of Thermophysics SB RAS Sergey V. Alekseenko turned 70 years of age.

S.V. Alekseenko was born in Slavgorod of Altai Region, where he graduated from school with the gold medal. Having graduated from the Physics Department of Novosibirsk State University (NSU) in 1972, Sergey Alekseenko began his scientific career at the Institute of Thermophysics as a probationary researcher, became a junior research fellow, and defended his candidate's dissertation in 1979. Since 1981, S.V. Alekseenko worked in Krasnoyarsk State University, where he actively participated in the establishment of the Chair of Thermophysics. Since that time, main research interests of Sergey V. Alekseenko have been connected with the thermophysical base of the development of new generation of thermal power plants operating on coal of Kansk-Achinsk fuel and energy complex.

In 1988, S.V. Alekseenko returned to the Institute of Thermophysics and created a laboratory within the newly formed Department of Heat and Power Engineering. In 1994, he defended his doctoral dissertation, and a year later became Deputy Director of the Institute of Thermophysics SB RAS (IT SB RAS). From 1997 to 2017, Sergey V. Alekseenko worked as Director of the Institute, and from 2019, he has been Scientific Director of IT SB RAS. In 2000, he was elected a Corresponding Member of the Russian Academy of Sciences, and in 2016, an Academician of RAS.

S.V. Alekseenko is well known as a scientist who stands at the origin of modern concepts on the dynamics of wavy film flows and heat and mass transfer processes. He and his colleagues have obtained fundamental results in the study of swirl and jet flows, where large-scale vortices play an important role — these works are now at the forefront of modern hydrodynamics. Sergey V. Alekseenko makes a significant contribution to the development of experimental methods, in particular, the electrodiffusion method of flow diagnostics, the shadow method of liquid film thickness measurement, and the newest field method of velocity measurement — Particle Image Velocimetry.

S.V. Alekseenko supervised and contributed to solving a cycle of applied problems related to the creation of an environmentally friendly thermal power plant (including simulation of furnace processes at gas and coal combustion and the development of a new type of burner), implementation of methods for thermal processing of solid waste with simultaneous energy production, and modeling of air separation processes in cryogenic packed columns. He supervises the ongoing development of a new generation of thermal hydraulic codes for atomic station safety and non-hydrogen fuel cells based on borohydrates and aluminum, including portable ones. A wide range of works has been performed for energy saving and energy efficiency improvement.

Sergey V. Alekseenko was awarded the international prize “Global Energy”, the Russian Federation Government Prize in science and technology, the international prize of academician A.V. Lykov, the prize of academician G.G. Cherny, and other honorary scientific awards.

S.V. Alekseenko is the author and co-author of 11 monographs (including two works published abroad in English), over 600 scientific papers published in leading international and Russian journals, a number of inventor’s certificates and 49 patents. Among his students are academician of the Russian Academy of Sciences, 3 doctors and 6 candidates of sciences. He taught at the Physics and Mathematics School at NSU, at Krasnoyarsk State University, and he is currently heading the Chair of Physics of Non-Equilibrium Processes at NSU. Sergey V. Alekseenko is the author of two textbooks and a number of guidelines. He is a member of the Scientific Councils of NSU and the Physics Department of NSU.

S.V. Alekseenko is engaged in numerous scientific and organizational activities. He is a member of the SB RAS Presidium, Chairman of the United Scientific Council of SB RAS on Power Engineering, Mechanical Engineering, Mechanics and Control Processes, Chairperson of two doctoral dissertation councils at IT SB RAS and Novosibirsk State Technical University, member of Bureau of Department for Power Engineering, Mechanical Engineering, Mechanics and Control Processes of RAS, Deputy Chairman of RAS Scientific Council for Renewable Energy, member of the Russian National Committee on Theoretical and Applied Mechanics, National Committee of RAS for Heat and Mass Transfer, the RAS National Committee on Thermophysical Properties of Substances, the International Committee on Heat Transfer, the Council for Grants of the RF President, the American Physical Society and the American Society of Chemical Engineering, EUROMECH, Scientific and Technical Council of “Gazprom Energoholding”, Advisory Board of the “Global Energy” Association, Chairman of the Section of “Renewable energy sources” of the Council on priority areas of the Strategy of scientific and technological development of the Russian Federation, the Scientific expert council under the Government of the Novosibirsk region, member of Supervisory Board and Board of Trustees of Academpark, member of the editorial boards of dozens of scientific journals, and Editor-in-Chief of the Journal “Thermophysics and Aeromechanics”.

Sergey V. Alekseenko actively participates in international conferences and seminars, acting as Chairperson and member of organizing committees. Under his initiative, in 1999, conferences on “Thermophysics and Power Engineering in Academic Centers” were revived to promote the integration of academic and university science. With active involvement of S.V. Alekseenko, the Institute of Thermophysics has established strong contacts with leading research centers in France, Great Britain, the Netherlands, the USA, Portugal, Belgium, Germany, Japan, Brazil, India, China, etc.

Sergey V. Alekseenko is a man of great erudition, efficient, principled and persistent, intelligent and friendly, loving nature, art, and sports. Many residents and guests of Novosibirsk Akademgorodok are well aware of his passion for artistic photography and have visited his personal exhibitions. S.V. Alekseenko is celebrating his anniversary on the rise of his scientific and creative activity.

Colleagues, progeny, and friends heartily congratulate Sergey V. Alekseenko on his anniversary, wish him good health, creative success, and family well-being.

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