SERGEI IVANOVICH KADCHENKO
(TO THE 65th ANNIVERSARY)

Doctor of physical and mathematical sciences, professor Kadchenko Sergei Ivanovich celebrated his 65th in October 10, 2015.

Sergei Ivanovich was born in Novomoskovsk of Dnepropetrovsk region. His first education he got in secondary school № 17 of Rostov-on-Don. Sergei Ivanovich interested in mathematics and physics at school. His passion for these school subjects has grown into a serious study of two basic sciences. And today Sergei Ivanovich continues to study them with the same living interest.

The development of his scientific career began in 1967. Sergei Ivanovich entered to the physics department of Rostov-on-Don State Pedagogical Institute and successfully finished his graduate education before the appointed time. Sergei Ivanovich started his work in Magnitogorsk State Pedagogical Institute in January 1976 by the direction of the Ministry of Education. Here, from 1976 to 1985, Sergei Ivanovich was a high lecturer at first, and then, he became a head of the mathematical analysis department of the Magnitogorsk State Pedagogical Institute.

During this period, Sergei Ivanovich studied research problems of movement of a viscous conducting liquid in the MHD bearing lubrication. These studies results formed the basis of the thesis for the degree of candidate of physical and mathematical sciences, entitled "Flat unsteady MHD problems – lubrication theory", which Sergei Ivanovich successfully defended 15 January 1985. The defence by specialty "01.02.05 – Mechanics of liquid gas and plasma" was in a special council of the Kazakh State University. Scientific leaders were Doctor of Physical and Mathematical Sciences, professor, academician of the Sciences Academy of the Latvian SSR I.M. Kirk and the candidate of physical and mathematical sciences, associate professor G.M Kogan. Sergei Ivanovich was elected as a head of the theoretical physics department shortly after his thesis defence. Eventually this department was renamed as the Applied Mathematics and Computer Science Department,

and as the Department of Applied Mathematics and Informatics – after the integration of the MaSU and MSTU of G.I. Nosov.

Sergei Ivanovich headed the team entrusted to him, and at that time he was an initiator of creation of a postgraduate education by a specialty "Mathematical modelling, numerical methods and complexes of programs". And the lasting relations with russian leading research centers were established. There are Bashkir State University, Voronezh State University, Sciences Academy Mathematical Institute of V.A. Steklov, Moscow State University of M.V. Lomonosov, Chelyabinsk State University, South Ural State University and others among these research centers. A solidity, a professionalism, an ability to find people, which are as well intersted in their work as he, allow to Sergei Ivanovich to prepare valuable brainpowers. As a result of his hard work there were five candidate thesises, which were brilliantly defended under his leadership.

Sergei Ivanovich is the author of over 150 scientific publications. The main direction of his scientific research is connected with the development of new numerical methods of operators' spectral theory.

Established close cooperation of S.I. Kadchenko, Academician V.A. Sadovnichy and professor V.V. Dubrovsky allowed to create a new method to determine the first eigenvalues of discrete operators, which was called a method of regularized traces. Simple high efficiency formulas were obtained. These formulas allow to compute the eigenvalues of a perturbed discrete semi-bounded from below operator. On the basis of this method the spectral problems of hydrodynamic stability theory of flow between two parallel planes (the Orr – Sommerfeld problem), flow between rotating cylinders (Couette movement), flow on the circular pipe (Poiseuille movement) were resolved by Sergei Ivanovich. June 16, 2004 Sergei Ivanovich successfully defended his thesis for the degree of doctor of physical and mathematical sciences named "New Method for Calculating of Eigenvalues of Perturbed Self-Adjoint Operators" in a special council of the Chelyabinsk State University, and in 2006 the title of professor of applied mathematics and computer science were awarded to Sergei Ivanovich.

Sergei Ivanovich does not stop there. A new non-iterative method for calculating of eigenvalues of perturbed self-adjoint operators was developed as a part of scientific research of his school. There is an active scientific work on the development of new numerical methods to solve the inverse spectral problems. Now Sergei Ivanovich is a member of the Dissertation Council D 212.298.14 at South Ural State University and a member of the editorial board of the journal "Bulletin of the South Ural State University. Series: Mathematical Modelling, Programming and Computer Software".

Sergei Ivanovich was awarded with the breast badge named "Honorary Worker of Higher and Professional Education of the Russian Federation" for his long and fruitful scientific and scientific-pedagogical activity.

We wish to Sergei Ivanovich a good health, new achievements and successful students.

A.V. Keller, G.A. Sviridyuk, S.A. Zagrebina, G.A. Zakirova,
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