Academician   Mitrofan M. Choban

On January 5, 2012, Academician Mitrofan Choban, Professor at Tiraspol State University (located in Chisinau) and President of Mathematical Society of the Republic of Moldova, was honored for his achievements, in connection with the 70th anniversary.

A work-tribute "Academicianul Mitrofan Ciobanu la a 70-a aniversare" was published in 2012 by the Academy of Sciences of Moldova and Tiraspol State University. This book includes articles (in English, Russian, or Romanian) about the scientific and social activity of M. Choban, written by scientists from different countries and by public persons from Moldova, who know Professor M. Choban. Prominent mathematicians in the area A.V. Arhangel'skii ("M. V. Lomonosov" Moscow State University, Russia; Ohio University, USA), Petar S. Kenderov (Academy of Sciences of Bulgaria, Institute of Mathematics), S. I. Nedev (Institute of Mathematics, Bulgaria), V. V. Fedorchuk ("M. V. Lomonosov" Moscow State University, Russia), R. Miron (Iasi, Romania), M. Abel (University of Tartu, Estonia) highly appreciated Mitrofan Choban's contribution in mathematics and education. They noted that Professor M. Choban was one of the first mathematicians who studied the existence of special set-valued selections for set-valued mappings and obtained important results

on the existence of measurable selections of multivalued mappings. A well known problem of Hausdorff on Boolean classes was solved by M. Choban using his theory of multivalued mappings. At present one of the methods of construction of selections is known as "Choban selection procedure". A technique for the characterization of various topological invariants (topological dimension, metacompactness, etc.) was developed by him. Professor M. Choban essentially developed the general descriptive theory of topological spaces; he solved the problem of zero-dimensional representations of universal topological algebras and suggested an approximation method for such algebras. A distinct idea in Choban's research is the application of topology to the study of functional spaces where he obtained deep results on functional equivalence of spaces, on extensions of continuous functions in topological spaces. A. V. Arhangel'skii also noted that M. Choban was continuing the line of A. I. Mal'tsev in topological algebra and that "the modern theory of free universal topological algebra is his creation". The book also contains some M. Choban's memories and surveys of his scientific results.

Academician Mitrofan Choban is a leader of research in Topology and Topological Algebra and he published over 200 papers and 20 books in many branches of mathematics. The following problems were solved by M. Choban: Hausdorff's problem on Borelian classes of sets; Alexandroff's problem about the structure of compact subsets of countable pseudocharacter in topological groups; Arhangel'skii's problem on the zero-dimensional representation of topological universal algebras; two Maltsev's problems on free topological universal algebras; two Michael's problems about G_δ-sections of open mappings of compact spaces and of the k-coverings of open compact mappings of paracompact spaces; Phelps' problem about the structure of the set of points of Gateaux differentiability of convex functionals (with P. Kenderov and J. Revalski); Tichonoff's problem about well-possedness of optimization problems in the Banach spaces of continuous functions (with P. Kenderov and J. Revalski); Confort's problem about Baire isomorphism of compact groups; Pasynkov's problem about Raikov completion of topological groups; Arhangel'skii's problem on metrizability of o-metrizable topological groups (with S. Nedev); Pelczinski's and Semadeni's problems about structure of Banach spaces of continuous functions on special compact subsets of quotient spaces of topological groups.

Detailed information about biography of Professor M. Choban and his scientific activity can be found also in our journal "Buletinul Academiei de Ştiinţe a Republicii Moldova. Matematica", No. 1(38), 2002, 118–123.

Most of the articles included in this issue are based on scientific results delivered at the 20th Conference on Applied and Industrial Mathematics (see pp. 132–134) dedicated to the 70th anniversary of Academician Mitrofan M. Choban.