



Professor Dmitrii Lozovanu – 60th anniversary

On November 8, 2008 University Professor Dmitrii Lozovanu, Head of the Section of Applied Mathematics of the Institute of Mathematics and Computer Sciences of the Academy of Science of Moldova and State University of Moldova, Laureate of National Prize in the Science and Technologies, owner of multiple World Scientific Awards, is turning 60 years of age. He is a well known scientist in the Operational Research and Mathematical Cybernetics fields in Moldova, CIS countries, Europe, USA, Spain, Germany etc. His contribution to the achievement in the discrete control problems, optimization, game theory, dynamic programming, complexity aspects of such kind of problems was appreciated by local and international awards. Didactic professional activity of the professor D. Lozovanu is reflected in numerous disciples which activate in Moldova, USA, Canada. He advised 6 doctors in Physics and Mathematics.

Professor Dmitrii Lozovanu was born on November 8, 1948 in the village Vărzărești, district Nisporeni, Republic of Moldova. In 1965 he graduated from the secondary school nr. 1 of Nisporeni. The same year he entered the Faculty of Physics and Mathematics of the Moldova State University, the speciality Applied Mathematics. The professional activity of professor D. Lozovanu took place at the I.M.I of the Academy of Sciences of Moldova after graduating from the University in 1970 as engineer-programmer.

In November 1974 he became a PhD student at the Institute of Mathematics and Computer Science of the Academy of Sciences of Moldova. After graduating, has activated at the Institute of Mathematics and Computer Science of the Academy of Sciences of Moldova as junior scientific researcher, senior scientific researcher, principal scientific researcher, head of the Department of Applied Mathematics, the position that he has in present. Since 1980 has worked at the Moldova State University at the Departments of Mathematical Cybernetics and Applied Mathematics. He passed all steps in the didactic activity being assistant professor, associate professor, full professor. In 2001 he became head of the Department of Applied Mathematics. He delivers lectures on graph theory, mathematical programming, game theory.

In 1980 he defended his PhD thesis in Physics and Mathematics Sciences entitled "Algorithms for finding optimal configurations and sources in networks". In 1991 he defended his Habilitation Doctor's thesis in Kiev on the subject "Application of methods of continuous and discrete analysis for studying and solving extremal combinatorial problems". Scientific title of university professor was conferred to him in 1996.

Scientific interests are related to the elaboration of methods and algorithms of discrete and nonlinear optimization, game theory, optimal control theory, computation complexity theory. Because many processes from various technical, social and economic areas such as information technology, transportation systems, multi-agent resource management, power distribution etc. can be modelled as a multilayered decision process, for such kind of problems efficient discrete algorithms as well as their robust implementations have been derived and analyzed. Actual research of D. Lozovanu will exploit a novel combination of optimization methods and basic game-theoretic concepts. Professor Lozovanu have made an essential contribution in studying and solving optimal dynamic flow problem. Polynomial and strongly polynomial algorithms have been elaborated and grounded. New methods for solving such kind of problems were proposed.

Professor D. Lozovanu investigates the discrete control problems with an integer-time cost criterion by a trajectory with fixed starting and final states of dynamical systems. The dynamics of such systems is described by a directed graph in which each vertex corresponds to a dynamic state and edges correspond to transactions of the system from one state to another. This fact allows to formulate the considered control models on dynamic networks and to ground algorithms by using so called time-expanded network method proposed by D. Lozovanu and S. Pickl. The novelty of this treatment consists in employing the game-theoretical approaches to such kind of problems.

Professor Dmitrii Lozovanu has more than 140 papers published, including 5 monographs. Recently Professor D. Lozovanu and Professor S. Pickl have prepared the monograph "Optimization and Multiobjective Control of Time-Discrete Systems" which recently has been published in Springer Verlag. In addition a chapter in the book "Pareto Optimality, Growth Theory and Equilibrium" has been prepared by Professor D. Lozovanu and published by Springer Verlag. Now Professor Lozovanu is a visiting professor at Universitaet der Bundeswehr Muenchen.

Honors and Awards: National Prize of Moldova in Sciences (1998); Best Paper Award at the Symposium "Computing Systems, Discrete Models, Algorithms, Simulation, Information Systems, Networks" for the contribution "Optimization, Monotonicity and the Determination of Nash Equilibria — An Algorithmic Analysis", CASYS'03 Liege, Belgium, August 11–16, 2003; Annual National Award for the best mathematician of the Republic of Moldova (laureate of prize academician Sibirsky) (2004); Moldovan Academy of Sciences Award (2005); Member of Council of Scientists INTAS (2003-2007); Honorary Member of the International Academy of Informatization; Member of Mathematical Society of the Republic of Moldova; Vice-Editor-in-Chief of the journal "Bulletin of Academy of Sciences of Moldova, Mathematics"; Member of editorial board of the journal "Computer Science Journal of Moldova".

We express our kind congratulations to professor Dmitrii Lozovanu on the occasion of his 60th anniversary. We wish him good health, prosperity, new ideas and its fruitful implementation in books, articles, reports on conferences and lectures. We wish to our celebrator a lot of successes in his didactic activity.