Doctor, Univ. Dozent Kaniovskyi Yuriy

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NATIONALITY   LANGUAGES

Italy   Russian, Ukrainian, English
                (C1), Italian (C1), German
                (C1)

COURSE OF STUDIES

Economics and Management, Economics and Social Sciences

ACADEMIC CAREER

In 1976 graduated (with Honors) from Kiev (Kyiv) State University; Specialization: Probability Theory and Mathematical Statistics.

In 1979 received the Candidate's Degree in Operations Research from the V. M. Glushkov Institute of Cybernetics, Kiev (Kyiv); Specialization: Mathematical Cybernetics.

In 1987 received the Certificate of Senior Research Fellow (Habilitation) in Mathematical Cybernetics from the Academy of Sciences of the USSR, Moscow.

In 1989 received the Doctor's Degree (State Doctorate) in Operations Research from the V. M. Glushkov Institute of Cybernetics Kiev (Kyiv); Specialization: Operations Research.

In 1998 received the Habilitation in Operations Research from the University of Vienna, Vienna, Austria.

1976 - 2001: Department of Mathematical Methods of Operations Research of the V. M. Glushkov Institute of Cybernetics. Held positions: Engineer (1976-1978), Junior Research Fellow (1978-1983), Senior Research Fellow (1983-1990), and Leading Research Fellow (1990-2001).

1990-1999: the International Institute for Applied Systems Analysis (IIASA), Laxenburg, Austria. Held positions: Research Scholar (Adaptation and Optimization Project, 1990-1993, and Dynamic Systems Project, 1993 and 1999) and Deputy Project Leader (System Analysis of Technological and Economic Dynamics Project, 1994-1998).

2000-present: Faculty of Economics, Free University of Bozen-Bolzano, Professor of Mathematics for Economists (Vice Rector for Research: 2009-2012; Vice Dean: 2002-2005, 2007-2009; Economics and Management, Degree Program's Director: 2003-2004). Management, Degree Program's Director: 2003-2004).

AWARDS

1980 Medal and Prize of the Ukrainian SSR Academy of Sciences for Young Scientists.

PART-TIME POSITIONS

1983 - 1984: Department of Radiophysics, Kiev (Kyiv) State University, Kiev (Kyiv), USSR (Ukraine), teaching load: Calculus   and Differential Equations.

1989 - 1990: School of Mathematical Methods of Systems Analysis, Department of Applied Mathematics, Kiev (Kyiv) Polytechnic Institute (University of Technology) , Kiev (Kyiv), USSR (Ukraine), teaching load: Probability Theory and   Mathematical Statistics.

1988 - 1989: Santa Fe Institute, Theory of Complex Systems Program, Santa Fe, NM, USA

1989: School of Statistics, Department of Theoretical Statistics, University of Minnesota, Minneapolis, MN, USA

1991: Department of Economics, University of Rome 'La Sapienza', Rome, Italy

1996: Department of Economics, University of Trento, Trento, Italy

1996: Maastricht Economic Research Institute on Innovation and Technology (MERIT), University of Limburg, Maastricht, The Netherlands.

1998: Joint Doctoral Program in Economics, University of Rome 'La Sapienza' and University of Rome

II, Tor Vergata, Rome, Italy, teaching load: Stochastic Models of Growth and Adaptation in the Economy.

1998: Institute of Statistics and Computer Sciences, University of Vienna, Vienna, Austria, teaching load: Stochastic Processes.

1999, 2000: Department of Economics, University of Trento, Trento, Italy, teaching load: Stochastic Models of Growth, Adaptation and Learning in the Economy.

2002: Sant' Anna School of Advanced Studies, Pisa, Italy, teaching load: Probability Theory for Economists.

2007: Department of Mathematics, Statistics, Computer Science and Applications, University of Bergamo, Bergamo, Italy.

MAIN PUBLICATIONS IN RUSSIAN

On a Method for Controlling the Precision in the Method of Statistic Gradient, *Kibernetika*, 1978, No. 5 (in Russian; English translation in *Cybernetics*)

On a Stochastic Programming Method in a Hilbert Space, *Kibernetika*, 1978, No. 6 (in Russian; co-authored with P. S. Knopov and Z. V. Nekrylova; English translation in *Cybernetics*)

On the Limit Behavior of the Random Processes Generated by the Robbins - Monro Procedure, *Teoriya Veroyatnostej I Matematicheskaya Statistika*, 1978, No. 19 (in Russian; English translation in *Theory of Probability and Mathematical Statistics*)

The Asymptotic Properties of Certain Stochastic Programming Methods with a Constant Step-Size, *Zhurnal Vychislitel´noj Matematiki i Matematicheskoj Fiziki*, 1979, No. 2 (in Russian; co-authored with Y. M. Ermoliev; English translation in *U.S.S.R Computational Mathematics and Mathematical Physics*)

The Asymptotic Properties of Certain Methods of the Stochastic Approximation Type, *Kibernetika*, 1979, No. 5 (in Russian; co-authored with P. S. Knopov; English translation in *Cybernetics*)

Limit Theorems for Random Processes and Stochastic Markov Recurrent Procedures, *Kibernetika*, 1979, No. 6 (in Russian; English translation in *Cybernetics*)

Limit Theorems for Stochastic Programming Processes, Monograph, Naukova Dumka, Kiev, 1980 (in Russian; co-authored with P. S. Knopov and Z. V. Nekrylova)

On an Approach to Evaluating the Precision in the Direct Stochastic Programming Methods, *Kibernetika*, 1980, No. 5 (in Russian; English translation in *Cybernetics*)

An Estimate of the Error in Determining the Confidence Intervals in Certain Stochastic Programming Methods, *Kibernetika*, 1981, No. 1 (in Russian; English translation in *Cybernetics*)

On a Method of Random Search, *Zhurnal Vychislitel´noj Matematiki i Matematicheskoj Fiziki*, 1981, No. 2 (in Russian; English translation in *U.S.S.R. Computational Mathematics and Mathematical Physics*)

A Limit Theorem for the Stochastic Optimization and Estimation Processes with a Constant Step-Size, *Doklady Akademii Nauk SSSR*, 1981, Vol. 261, No. 1 (in Russian; English translation in *Soviet Mathematical Doklady*)

On the Limit Behaviour of a Stochastic Two-Step Method, *Zhurnal Vychislitel´noj Matematiki I Matematicheskoj Fiziki*, 1983, No. 1 (in Russian; English translation in *U.S.S.R. Computational Mathematics and Mathematical Physics*)

The Generalized Urn Problem and Its Applications, *Kibernetika*, 1983, No. 1 (in Russian; co-authored with W. B. Arthur and Y. M. Ermoliev; English translation in *Cybernetics*)

On Fabian`s Algorithm in the Theory of Self - Adjusting Systems, *Avtomatika I Telemekhanika*, 1984, No. 11 (in Russian; English translation in *Automation and Remote Control*)

On the Stochastic Optimization Algorithms with a Slow Decreasing Step Multiplier, *Kibernetika*, 1984, No. 4 (in Russian; English translation in *Cybernetics*)

Adaptive Growth Processes Modeled by Urn Schemes, *Kibernetika*, 1987, No. 6 (in Russian; co-authored with W. B. Arthur and Y. M. Ermoliev; English translation in *Cybernetics*)

The Limit Behaviour of the Proportion of Balls in a Generalized Urn Scheme with Balls of Two Colours, *Teoriya Veroyatnostej I Matematicheskaya Statistika*, 1988, No. 39 (in Russian; English translation in *Theory of Probability and Mathematical Statistics*)

Sufficient Conditions for Convergence of a Successive Approximations Method with Discontinuous Functions, *Zhurnal Vychislitel'noj Matematiki I Matematicheskoj Fiziki*, 1988, No. 3 (in Russian, English translation in *U.S.S.R. Computational Mathematics and Mathematical Physics*)

Limit Theorems for Stochastic Approximation Processes When the Regression Function Has Several Roots, *Kibernetika*, 1988, No.1 (in Russian, English translation in *Cybernetics*)

On the Limit Distribution of Processes of the Stochastic Approximation Type When the Regression

Function Has Several Roots, *Doklady Akademii Nauk SSSR*, 1988, Vol. 301, No. 6 (in Russian, English translation in *Soviet Mathematical Doklady*)

On the Asymptotic Distribution of Successive Approximations of Fabian's Modification of the Robbins-Monro Algorithm in the Case of Several Roots, *Avtomatika I Telemekanika*, 1989, No. 4 (in Russian, English translation in *Automation and Remote Control*)

RECENT PUBLICATIONS

Modeling dependent credit rating transitions -- a comparison of coupling schemes and empirical evidence, *Central European Journal of Operations Research*, 2016, Vol. 24, No. 4 (co-authored with D. V. Boreiko and G. Ch. Pflug)

Traces of business cycles in credit-rating migrations, *PLOS ONE*, Published: April 20, 2017 https://doi.org/10.1371/journal.pone.0175911 (co-authored with D. V. Boreiko, S. Y. Kaniovski and G. Ch. Pflug)

Modeling of dependent credit rating transitions governed by industry-specific Markovian matrices, in Operations Research Proceedings 2015: Selected Papers of the International Conference of the German, Austrian and Swiss Operations Research Societies (GOR, ÖGOR, SVOR/ASRO), University of Vienna, Austria, September 1-4, 2015, Eds K. Doerner, I. Ljubic, G. Pflug and G. Tragler, 2017, Springer, Switzerland, (co-authored with D. V. Boreiko and G. Ch. Pflug)

Numerical modeling of dependent credit rating transitions with asynchronously moving industries, *Computational Economics*, 2017, Vol. 49 (co-authored with D. V. Boreiko and G. Ch. Pflug)

Business Cycles and Conditional Credit-Rating Migration Matrices, *Quarterly Journal of Finance*, 2018, Vol. 8, No. 4 (co-authored with D. Boreiko, S. Kaniovski and G. Ch. Pflug)

Identification of hidden Markov chains governing dependent credit-rating migrations*, Communications in Statistics - Theory and Methods*, 2019, Vol. 48, No. 1 (co-authored with D. Boreiko, S. Kaniovski, and G. Pflug)

Exploring the dynamics of business survey data using Markov models, *Computational Management Science*, 2019, Vol. 16, No. 4 (co-authored with W. Hoelzl and S. Kaniovski)

Analysis of credit-rating migrations with genetic algorithms, *International Journal of Bio-Inspired Computation*, 2020, Vol. 16, No. 4, DOI: 10.1504/IJBIC.2020.112348 (co-authored with Y. Kaniovskyi and G. Pflug)

Numerical estimates of risk factors contingent on credit ratings, *Computational Management Science*, accepted for publication (co-authored with T. Gaertner and S. Kaniovski)