

Preface

This volume brings together latest results in the area of stochastic analysis and statistics. The individual chapters cover a wide range of topics from limit theorems, Markov processes, nonparametric methods, actuarial science, population dynamics, and many others. The volume is dedicated to Valentin Konakov, professor at the Higher School of Economics and the Lomonosov Moscow State University.

Professor Konakov made significant contributions to several areas of stochastics, including discretization and approximation of the stochastic differential equations, nonparametric functional estimation, local limit theorems, extreme value analysis, theory of Gaussian processes. Some of his research findings have become classics. For instance, the parametrix method for diffusions and Markov chains proposed by Valentin Konakov in joint articles with Enno Mammen (Heidelberg University), is now referred to as a classical approach for the analysis of these models. His results were published in top-tier journals like Bernoulli, Probability Theory and Related Fields, Stochastic Processes and their applications, Annales de l'Institut Henri Poincaré (B): Probability and Statistics, and many others.

Valentin Konakov supervised a lot of international projects, e.g., for 12 years he was a head of Russian-German projects jointly funded by RFBR (Russian Foundation of Basic Research) and DFG (Deutsche Forschungsgemeinschaft). From 1994 to 2010, Valentin Konakov worked as an invited professor in the leading universities of Germany and France.

In February 2014, the Higher School of Economics has founded a new international laboratory of Stochastic Analysis and its Applications under the direction of Prof. Konakov (<https://lsa.hse.ru/>). The team of the laboratory includes scientists from Russia, USA, Germany, France, United Kingdom, which are yet to be linked by close research interests. It is important to note that this team was created on the basis of a long collaboration between Valentin Konakov and his colleagues from foreign universities, namely Stanislav Molchanov (UNC Charlotte, USA), Enno Mammen (Heidelberg University, Germany), and Stéphane Menozzi (University of Evry, France). Nowadays, the Laboratory of Stochastic Analysis and its Applications plays an important role in the scientific community in Moscow.

In view of his professional achievements, Prof. Konakov got the status of tenured (ordinary) professor of the Higher School in Economics. This status is conferred only to outstanding professors, who made a significant contribution to science and development of the university.

On the occasion of Valentin Konakov's 70th birthday, the members of his laboratory organized the international conference "Modern problems of stochastic analysis and statistics" (May 29–June 2, 2016). Many of his coauthors and colleagues came to Moscow to celebrate his anniversary and to present recent results related to his research interests. This volume is mostly prepared by the participants of the conference and is dedicated to Valentin's work and his mathematical heritage. We hope that the book offers a valuable reference for researchers and graduate students interested in modern stochastics.

Moscow, Russia

Vladimir Panov

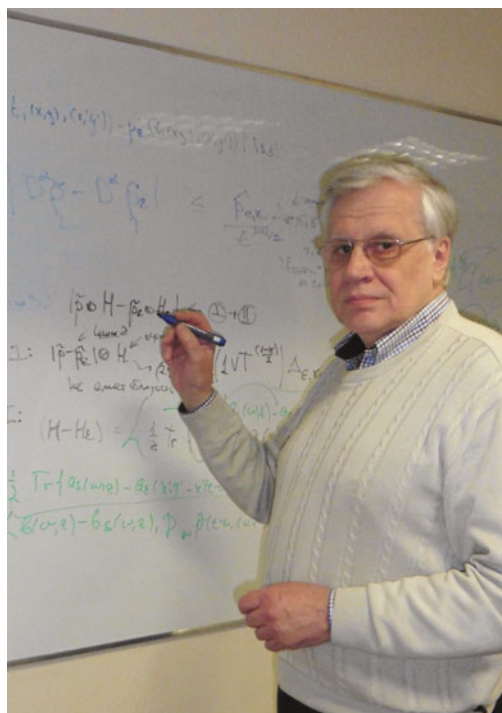


Fig. 1 Valentin Konakov at work. May 2016

Modern Problems of Stochastic Analysis and Statistics

Selected Contributions In Honor of Valentin Konakov

Panov, V. (Ed.)

2017, XII, 511 p. 15 illus., 8 illus. in color., Hardcover

ISBN: 978-3-319-65312-9