

# **Springer Proceedings in Mathematics & Statistics**

Volume 208

## **Springer Proceedings in Mathematics & Statistics**

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Vladimir Panov  
Editor

# Modern Problems of Stochastic Analysis and Statistics

Selected Contributions  
in Honor of Valentin Konakov

 Springer



# 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.



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