

ISSN 0204-9805

PLISKA

STUDIA MATHEMATICA  
BULGARICA

ПЛИСКА

БЪЛГАРСКИ  
МАТЕМАТИЧЕСКИ  
СТУДИИ

Volume 19, 2009

Proceedings of the XIII International Summer  
Conference on Probability and Statistics  
and  
Seminar on Statistical Data Analysis, SDA 2008

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Published by the Institute of Mathematics and Informatics  
Bulgarian Academy of Sciences

## PREFACE

The XIIIth International Summer Conference on Probability and Statistics (ISCPS 2008) and the Seminar of Statistical Data Analysis (SDA 2008) took place in Sozopol (at the Red Cross Residence) between June 21–28, 2008. The Conference and the Seminar were organized by the

- Institute of Mathematics and Informatics – BAS
- Faculty of Mathematics and Informatics, Sofia University “St. Kl. Ohridski”
- Bulgarian Statistical Society

The participants from 18 countries presented more than 60 talks distributed in the following 6 sections:

- Branching Processes and Biological Applications;
- Statistical Inference;
- Stochastic Processes: Extremes and Applications;
- Combinatorics and Distributions;
- Stochastic Models: Inference and Applications;
- Stochastic Equations.

A poster session was also organized. The section on Branching Processes and Biological Applications was devoted to the memories of Chris Heyde and Andrej Yakovlev. Most of the talks are published in the present volume. Each paper was accepted for publication after an international refereeing process. This volume starts with a note dedicated to the jubilee of Prof. Nikolay Yanev, the Chair of the Organizing Committee of the Conference. It is followed by a survey paper by K. Mitov and N. Yanev devoted to the contributions of the Bulgarian mathematicians to the theory of branching processes and their applications. All other papers are arranged in an alphabetical order by the surname of the first author.

The Organizing Committee would like to thank to all referees. Many thanks also to all members of the Organizing Committee and especially to Dr. E. Stojmenova (Secretary), Dr. D. Atanasov (Site Administrator) and Mrs. N. Naceva

(Financial Administrator). Special thanks also to Mrs. T. Parhomenko for the huge work to make this publication possible.

The next Conference will take place in June 19–26, 2010. Further details about the conference will appear on the web site of the Conference:

<http://stochastics.fmi.uni-sofia.bg>

For information of the future participants, Sozopol is a charming fisherman village on the Black Sea coast and an attractive tourist place with its beaches, golden sands, piers, taverns, old wooden houses, churches and modern discotheques. The participants will again be accommodated in the Red Cross Residence just on the beach of the gulf.

Ljuben Mutafchiev  
Editor

## Dedicated to N. Yanev's Jubilee



Nikolay M. Yanev (known also as Captain Nick) was born on November 30, 1943, in the town of Burgas, Bulgaria. In fact, he spent his childhood in the town of Pomorie (only 20 km Northern from Burgas on the Black Sea coast) where he graduated in a high school in 1961 (with the first diploma of the graduating class and "some dolphins as friends"). After that he had to join the Navy for three years (at that time the military service was obligatory). During this period he received diploma for a helmsman and then also for a captain. As a coxswain of the flagship he navigated more than 60,000 miles and was also a first trumpeter of the marine jazz band.

In the period 1964–1969 Nikolay Yanev was a student in the Faculty of Mathematics of the Sofia University. He graduated with MS diploma and joined the Department of Probability and Statistics of the Institute of Mathematics and Informatics at the Bulgarian Academy of Sciences, where he spent his research

career until now. In 1971 he was provided 6 month specialization in Steklov Mathematical Institute (Moscow) under the supervision of Professor B. A. Sevastyanov. In the period 1972–1975 Nikolay Yanev was a PhD student in Moscow State University. In 1975 he defended his PhD thesis on Branching Processes (Supervisor B. A. Sevastyanov, President of the jury A. N. Kolmogorov). Ten years later, in 1985, Nikolay Yanev defended a second dissertation (for “Doctor of Mathematical Sciences” degree) entitled “Branching Stochastic Processes – Regulation, Statistics, Applications” (292 pages). In 1991 he was elected as a Full Professor. In the period 1993–2000 he was Director of the Institute of Mathematics and Informatics of the Bulgarian Academy of Sciences. Currently Nikolay Yanev is Head of the Department of Probability and Statistics at the Institute.

From 1976 Nikolay Yanev taught several courses in the Faculty of Mathematics and Informatics at Sofia University (Probability and Statistics 1 and 2, Branching Processes, Random Walk, Renewal Theory, Stochastic Processes). He supervised 15 Master Theses and 9 PhD students. Nikolay Yanev had also invited visiting positions in Montreal (Canada, 1990), Versailles (France, 1999–2001), Badajoz (Spain, 2003) and Rochester (USA, 2005–2008).

Nikolay Yanev has currently more than 120 publications (among them several books). He has papers in almost all prestigious stochastic journals. The great part of them are in the field of Branching Processes (see the survey by K. Mitov and N. Yanev published in this issue). N. Yanev was Chairman of the Organizing Committee of the First World Congress on Branching Processes (Varna, 1993). He also chaired several Conferences on Probability and Statistics in Bulgaria. He was an invited lecturer of many international conferences.

Finally it is worth to point out that Nikolay Yanev won the 4th place in the World Championship on Windsurfing in the class “Grand Master-Veterans”. Therefore, he is also known as “the best mathematician among the windsurfers and the best windsurfer among the mathematicians”.

The Editor