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Modern Probabilistic Methods for Analysis of Telecommunication Networks

Belarusian Winter Workshops
in Queueing Theory, BWWQT 2013
Minsk, Belarus, January 28-31, 2013
Proceedings



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Preface

The Belarusian Workshops on Queueing Theory were started in 1985. Their initiation as a continuation of the series of All-Union conferences in queueing theory in the former Soviet Union was triggered by the famous scientist B.V. Gnedenko and the founder of the Belarusian scientific school in probability theory G.A. Medvedev. These workshops were organized annually until 1999 and biennially since 2001 as scientific conferences on queueing theory and its various applications. The workshops became the main forum of researchers in queueing theory in the former Soviet Union and independent countries previously united in the Soviet Union. Since 1995, the representatives of many other countries (Austria, Algeria, Belgium, Bulgaria, Canada, China, France, Germany, Hungary, India, Italy, Japan, Korea, Mexico, The Netherlands, Portugal, Poland, Spain, Sweden, Turkey, USA) have participated in these workshops.

The Belarusian workshops on queueing theory achieved the status of international conferences, with each conference having its own subtitle. The 22nd Belarusian Workshop on Queueing Theory (BWWQT 2013) was held at the Belarusian State University, Minsk, Belarus, during January 28–31, 2013, as the international conference “Modern Probabilistic Methods for Analysis, Design and Optimization of Information Telecommunication Networks.”

The proceedings of the Belarusian Workshops on Queueing Theory were regularly published by the Belarusian University Publishers as volumes in the series “*Queues: Flows, Systems, Networks.*” This year, a collection of selected papers among those accepted to the program of the workshop are published in Springer’s *Communications in Computer and Information Science* (CCIS) series.

This volume presents new results in the study and optimization of information transmission models in telecommunication networks using different approaches, mainly based on theories of queueing systems and queueing networks.

This volume is aimed at specialists in probabilistic theory, random processes, mathematical modeling, and mathematical statistics as well as engineers engaged in logical and technical design and operational management of telecommunication and computer networks, databases, contact centers, health care, security, custom, border control, etc.

January 2013

Alexander Dudin

Organization

The workshops have been organized by the Department of Probability Theory and Mathematical Statistics and the Research Laboratory of Applied Probabilistic Analysis of the Belarusian State University since 1985. The Belarusian workshops are traditionally conducted as scientific conferences.

In 2013 the workshop was conducted as the International Conference “Modern Probabilistic Methods for Analysis, Design, and Optimization of Information and Telecommunication Networks.”

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