

DISCRETE MATHEMATICS AND APPLICATIONS

EDITOR-IN-CHIEF

Andrei M. Zubkov, Moscow

EDITORIAL BOARD

Valery B. Alekseev, Moscow

Vladimir N. Chubarikov, Moscow

Yuri L. Ershov, Novosibirsk

Mikhail M. Glukhov, Moscow

Alexander A. Grusho, Moscow

Grigory I. Ivchenko, Moscow

Oktai M. Kasim-Zade, Moscow

Valery B. Kudryavtsev, Moscow

Yuri I. Medvedev, Moscow

Vladimir G. Mikhailov, Moscow

Boris A. Pogorelov, Moscow

Eduard A. Primenko, Moscow

Vladimir N. Sachkov, Moscow

Vladimir A. Vatutin, Moscow

Yuri I. Zhuravlev, Moscow

ADVISORY BOARD

Vladimir A. Emelichev, Minsk

Igor N. Kovalenko, Kiev

Yuri I. Matiyasevich, St. Petersburg

Yuri V. Prokhorov, Moscow

Lev Ya. Savelyev, Novosibirsk

Sergei A. Stepanov, Moscow

Yuri I. Yanov, Moscow

DE GRUYTER

DISCRETE MATHEMATICS AND APPLICATIONS provides the latest information on the development of discrete mathematics in Russia to a world-wide readership. The journal contains papers from the Russian-language journal *Diskretnaya Matematika*, the only journal of the Russian Academy of Sciences devoted to this field of mathematics. *Discrete Mathematics and Applications* covers various subjects in the fields such as combinatorial analysis, graph theory, functional systems theory, cryptology, coding, probabilistic problems of discrete mathematics, algorithms and their complexity, combinatorial and computational problems of number theory and of algebra. The journal is published bimonthly, simultaneously with the Russian edition as a cover-to-cover translation. Issues contain, in addition to original articles and reviews in the above-mentioned subject areas, reviews of books published in and outside Russia and information notes.

All information regarding subscriptions, Open access, back volumes and orders is available online at www.degruyter.com/dma.

ABSTRACTED/INDEXED IN Baidu Scholar · CNKI Scholar (China National Knowledge Infrastructure) · CNPIEC: cnpLINKer · Dimensions · EBSCO (relevant databases) · EBSCO Discovery Service · Ei Compendex · Engineering Village · Gale/Cengage · Genamics JournalSeek · Google Scholar · Japan Science and Technology Agency (JST) · J-Gate · JournalGuide · JournalTOCs · KESLI-NDSL (Korean National Discovery for Science Leaders) · Mathematical Reviews (MathSciNet) · MathNET · Microsoft Academic · MyScienceWork · Naver Academic · Naviga (Softweco) · Primo Central (ExLibris) · ProQuest (relevant databases) · Publons · QOAM (Quality Open Access Market) · ReadCube · SCImago (SJR) · SCOPUS · Semantic Scholar · Sherpa/RoMEO · Summon (ProQuest) · TDNet · Ulrich's Periodicals Directory/ulrichsweb · WanFang Data · Web of Science: Emerging Sources Citation Index · WorldCat (OCLC) · Zentralblatt Math (zbMATH) ISSN 0924-9265 · e-ISSN 1569-3929 · CODEN DMAPEW

RESPONSIBLE EDITOR Alexander A. Serov, Steklov Mathematical Institute, Russian Academy of Sciences, Gubkina str. 8, 119991, Moscow, Russia, e-mail: serov@mi.ras.ru

PUBLISHER Walter de Gruyter GmbH, Berlin/Boston, Genthiner Straße 13, 10785 Berlin, Germany

JOURNAL MANAGER Laura Düsterhöft, De Gruyter, Genthiner Straße 13, 10785 Berlin, Germany.
Tel.: +49 (0)30 260 05-317, Fax: +49 (0)30 260 05-250, e-mail: laura.duesterhoeft@degruyter.com

RESPONSIBLE FOR ADVERTISEMENTS Laura Düsterhöft, De Gruyter, Genthiner Straße 13, 10785 Berlin, Germany.
Tel.: +49 (0)30 260 05-170, e-mail: anzeigen@degruyter.com

© 2021 Walter de Gruyter GmbH, Berlin/Boston, Germany

PRINTING Franz X. Stücker Druck und Verlag e.K., Ettenheim



Contents

Valeriy I. Afanasyev

Two-sided problem for the random walk with bounded maximal increment — 79

Igor V. Cherednik

On the use of binary operations for the construction of a multiply transitive class of block — 91

Sergey A. Korneev

On the complexity of implementation of a system of two monomials by composition circuits — 113

Vladimir G. Ryabov

On the degree of restrictions of q -valued logic vector functions to linear manifolds — 127

Dmitriy S. Taletskii and Dmitriy S. Malyshev

Trees with a given number of leaves and the maximal number of maximum independent sets — 135

Arsen L. Yakymiv

Size distribution of the largest component of a random A -mapping — 145