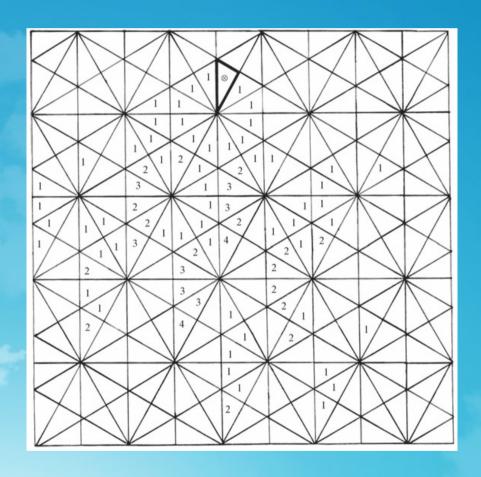


Advances in Linear Algebra & Matrix Theory





www.scirp.org/journal/alamt

Journal Editorial Board

http://www.scirp.org/journal/alamt

.....

Editors-in-Chief

Prof. Mubariz Garayev King Saud University, Saudi Arabia

Prof. Qing-Wen Wang Shanghai University, China

Editorial Board

Prof. Ibraheem Alolyan King Saud University, Saudi Arabia

Dr. Airat M. Bikchentaev Kazan Federal University, Russia

Prof. Liangyun Chen Northeast Normal University, China

Prof. Xiaochun Fang Tongji University, China

Dr. Mehmet Gürdal Süleyman Demirel University, Turkey

Prof. Tingzhu Huang University of Electronic Science and Technology of China, China

Prof. S. Krishnamoorthy Government Arts College, India

Prof. Jia Li
University of Alabama in Huntsville, USA

Prof. Wen Li South China Normal University, China

Dr. Nicola Mastronardi Italian National Research Council, Italy

Prof. Salah Mecheri Taibah University, Saudi Arabia

Prof. Manuela Rodrigues University of Aveiro, Portugal

Prof. Ahmet Sahiner Suleyman Demirel University, Turkey

Prof. Saburou Saitoh University of Aveiro, Portugal

Prof. Morteza Seddighin Indiana University East, USA

Dr. Dan Wang Shenyang University, China

Dr. Cheng-Tang Wu Livermore Software Technology Corporation, USA

Dr. Maria Zeltser Tallinn University, Estonia



Table of Contents

Volume 4	Number 1	March 2014
Parallel Mult	icore CSB Format and Its Sparse Matrix Vector I	Multiplication
B. Yang, S. G	Gu, TX. Gu, C. Zheng, XP. Liu	1
The Better Ad	curacy of Strassen-Winograd Algorithms (Fast	MMW)
P. D'Alberto)	s
The Cartan In	variant Matrix for the Finite Group $ extbf{\emph{G}}_{2} \left(13 ight) $ of	Type $oldsymbol{G}_2$
Y. W. Hu. W	'. Jiang	40

Advances in Linear Algebra & Matrix Theory (ALAMT)

Journal Information

SUBSCRIPTIONS

The *Advances in Linear Algebra & Matrix Theory* (Online at Scientific Research Publishing, www.SciRP.org) is published quarterly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$79 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: sub@scirp.org

SERVICES

Advertisements

Advertisement Sales Department, E-mail: service@scirp.org

Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: sub@scirp.org

COPYRIGHT

COPYRIGHT AND REUSE RIGHTS FOR THE FRONT MATTER OF THE JOURNAL:

Copyright © 2014 by Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY). http://creativecommons.org/licenses/by/4.0/

COPYRIGHT FOR INDIVIDUAL PAPERS OF THE JOURNAL:

Copyright $\ensuremath{\mathbb{O}}$ 2014 by author(s) and Scientific Research Publishing Inc.

REUSE RIGHTS FOR INDIVIDUAL PAPERS:

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

DISCLAIMER OF LIABILITY

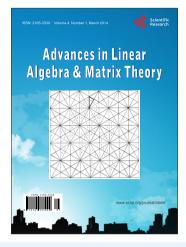
Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

PRODUCTION INFORMATION

For manuscripts that have been accepted for publication, please contact:

E-mail: alamt@scirp.org





Advances in Linear Algebra & Matrix Theory

ISSN 2165-333X (print) ISSN 2165-3348 (online)

www.scirp.org/journal/alamt

Advances in Linear Algebra & Matrix Theory (ALAMT) is an international journal dedicated to the latest advancement of linear algebra. The goal of this journal is to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and developments in different areas of Linear Algebra.

Editors-in-Chief

Prof. Mubariz Garayev Prof. Qing-Wen Wang King Saud University, Saudi Arabia Shanghai University, China

Editorial Board

Prof. Ibraheem Alolyan
Dr. Airat M. Bikchentaev
Prof. Liangyun Chen
Prof. Xiaochun Fang
Dr. Mehmet Gürdal
Prof. Tingzhu Huang
Prof. S. Krishnamoorthy
Prof. Jia Li
Prof. Wen Li
Dr. Nicola Mastronardi
Prof. Salah Mecheri
Prof. Manuela Rodrigues
Prof. Ahmet Sahiner
Prof. Saburou Saitoh
Prof. Morteza Seddighin

Prof. Anmet Saniner
Prof. Saburou Saitoh
Prof. Morteza Seddighin
Dr. Dan Wang
Dr. Cheng-Tang Wu
Dr. Maria Zeltser

King Saud University, Saudi Arabia Kazan Federal University, Russia Northeast Normal University, China Tongji University, China Süleyman Demirel University, Turkey University of Electronic Science and Technology of China, China Government Arts College, India University of Alabama in Huntsville, USA South China Normal University, China Italian National Research Council, Italy Taibah University, Saudi Arabia University of Aveiro, Portugal Suleyman Demirel University, Turkey University of Aveiro, Portugal Indiana University East, USA Shenyang University, China Livermore Software Technology Corporation, USA

Subject Coverage

The journal publishes original papers including but not limited to the following fields:

Tallinn University, Estonia

Linear Algebra and Its Applications

Linear Algebra in Engineering and Computing

Matrix Theory and Its Applications

Numerical Linear Algebra with Applications

- Solutions of Linear Equations
- Special Types of Matrices
- Spectral Theory

E-mail: alamt@scirp.org

We are also interested in: 1) Short Reports—2-5 page papers where an author can either present an idea with theoretical background but has not yet completed the research needed for a complete paper or preliminary data; 2) Book Reviews—Comments and critiques.

Notes for Intending Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. All papers are refereed through a peer review process. For more details about the submission, please access the website.

Website and E-mail

http://www.scirp.org/journal/alamt

What is SCIRP?

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science, by delivering superior scientific publications and scientific information solution provider that enable advancement in scientific research.

What is Open Access?

All original research papers published by SCIRP are made freely and permanently accessible online immediately upon publication. To be able to provide open access journals, SCIRP defrays operation costs from authors and subscription charges only for its printed version. Open access publishing allows an immediate, world-wide, barrier-free, open access to the full text of research papers, which is in the best interests of the scientific community.

- •High visibility for maximum global exposure with open access publishing model
- •Rigorous peer review of research papers
- Prompt faster publication with less cost
- •Guaranteed targeted, multidisciplinary audience





Website: http://www.scirp.org Subscription: sub@scirp.org Advertisement: service@scirp.org