



American Journal of Computational Mathematics



Journal Editorial Board

ISSN: 2161-1203 (Print) 2161-1211 (Online) https://www.scirp.org/journal/ajcm

.....

Editor-in-Chief

Prof. Hari M. Srivastava University of Victoria, Canada

Editorial Board

Prof. Huseyin Bor Erciyes University, Turkey

Prof. Singa Wang ChiuChaoyang University of Technology, Chinese TaipeiProf. Yuan-Shyi Peter ChiuChaoyang University of Technology, Chinese Taipei

Dr. Dragana S. Cvetkovic University of Nis, Serbia

Prof. Yuri Anatolyevich Farkov Russian Presidential Academy of National Economy and Public

Administration (RANEPA), Russia

Prof. Ahmed Fouad Ghaleb Cairo University, Egypt

Prof. Alireza Heidari California South University (CSU), USA

Prof. Stanislaw Migorski Jagiellonian University, Poland

Prof. Mahammad A. Nurmammadov Azerbaijan State Pedagogical University, Azerbaijan

Dr. Fathalla A. Rihan Helwan University, Egypt

Prof. Nickolas S. Sapidis University of Western Macedonia, Greece

Prof. Nicolae Adrian Secelean Lucian Blaga University, Romania

Dr. Gautam Srivastava Brandon University, Canada

Prof. Yifa Tang Chinese Academy of Sciences, China

Prof. Michael Gr. Voskoglou Graduate Technological Educational Institute of Patras, Greece

Dr. Changwon YooFlorida International University, USAProf. Jinyun YuanFederal University of Parana, Brazil



Volume 10

Number 2

ISSN Online: 2161-1211 ISSN Print: 2161-1203

Table of Contents

June 2020 Thermodynamic Consistency of Plate and Shell Mathematical Models in the Context of Classical and Non-Classical Continuum Mechanics and a Thermodynamically Consistent New Thermoelastic Formulation About the Optimized Design of the Parking Space on the Campus of a College Numerical Study on Single and Multi-Dimensional Boundary Value Problems by the Method of Weighted Residual A Sufficient Convexity Condition for Parametric Bézier Surface over Rectangle Influence of Initial Value of Transient Time Step on Numerical Simulation of Blow Molding Balloon The First-Order Comprehensive Sensitivity Analysis Methodology (1st-CASAM) for Scalar-Valued Responses: I. Theory The First-Order Comprehensive Sensitivity Analysis Methodology (1st-CASAM) for Scalar-Valued Responses: II. Illustrative Application to a Heat Transport Benchmark Model Chaos Induced by Snap-Back Repeller in a Two Species Competitive Model

American Journal of Computational Mathematics (AJCM) Journal Information

SUBSCRIPTIONS

The American Journal of Computational Mathematics (Online at Scientific Research Publishing, https://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 © 2020 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 © 2020 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: ajcm@scirp.org





American Journal of Computational Mathematics (AJCM)

ISSN: 2161-1203 (Print) 2161-1211 (Online)

https://www.scirp.org/journal/ajcm

American Journal of Computational Mathematics (AJCM) is a journal dedicated to providing a platform for publication of articles about mathematical research in areas of science where computing plays a central and essential role emphasizing algorithms, numerical methods, and symbolic methods.

Subject Coverage

This journal invites original research and review papers that address the following issues. Topics of interest include, but are not limited to:

- Algebraic Theory of Computer Science
- Combinatorics
- Computational Geometry
- Computational Linguistics
- Computational Science
- Computer Simulation
- Computer-Assisted Research
- Discrete Mathematics in Relation to Computer Science

- Logic in Computer Science
- Mathematics of Scientific Computation
- Numerical Methods
- Stochastic Methods
- Symbolic Computation and Computer Algebra Systems

We are also interested in short papers (letters) that clearly address a specific problem, and short survey or position papers that sketch the results or problems on a specific topic. Authors of selected short papers would be invited to write a regular paper on the same topic for future issues of *American Journal of Computational Mathematics*.

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 submissions, please access the website.

Website and E-Mail

https://www.scirp.org/journal/ajcm E-mail: ajcm@scirp.org

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 with its publication.

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, worldwide, 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: https://www.scirp.org Subscription: sub@scirp.org Advertisement: service@scirp.org