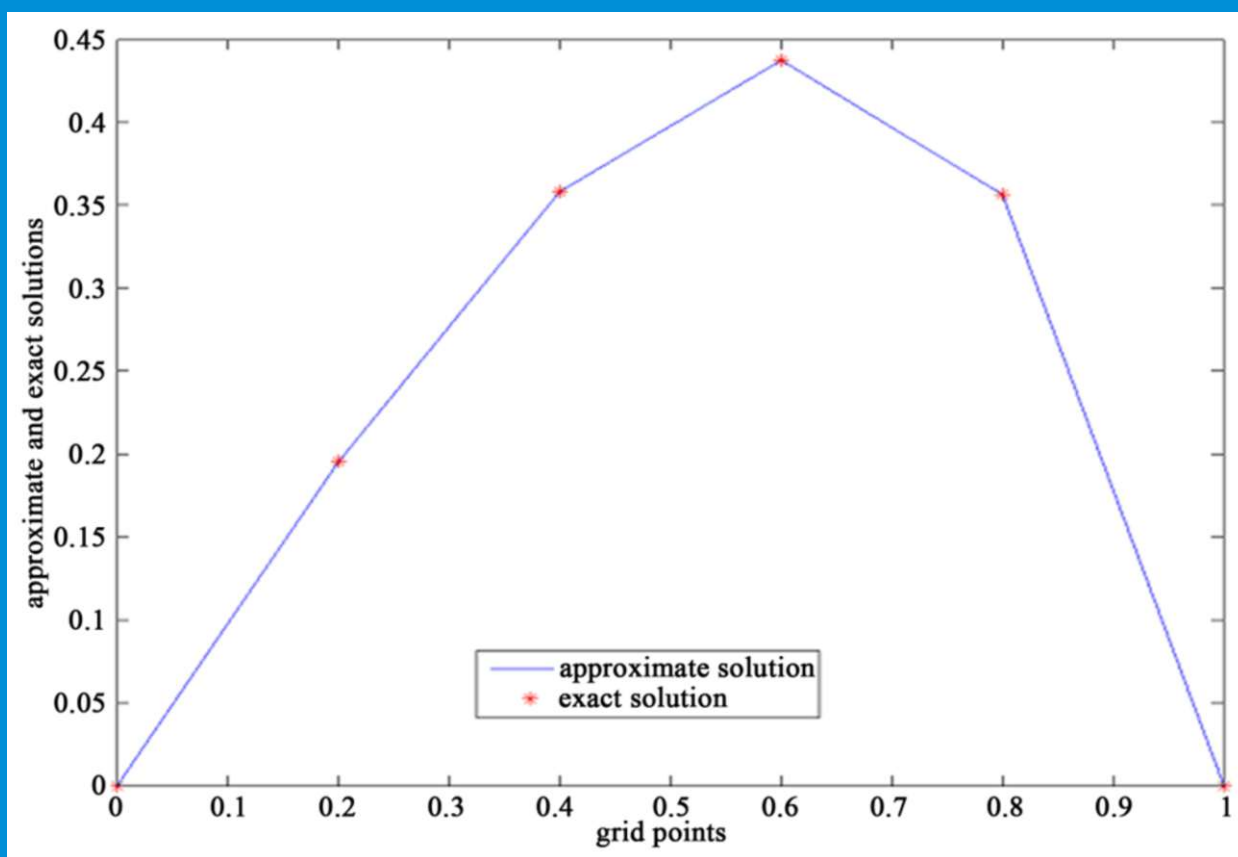


Journal of Applied Mathematics and Physics



ISSN: 2327-4352



JOURNAL EDITORIAL BOARD

ISSN 2327-4352 (Print) ISSN 2327-4379 (Online)

<http://www.scirp.org/journal/jamp>

Editor-in-Chief

Prof. Wen-Xiu Ma

University of South Florida, USA

Editorial Board (According to Alphabet)

Dr. Izhar Ahmad	King Fahd University of Petroleum and Minerals, Saudi Arabia
Dr. S. Joseph Antony	University of Leeds, UK
Prof. Roberto Oscar Aquilano	Instituto de Física Rosario, Argentina
Prof. Ping-Hei Chen	National Taiwan University, Chinese Taipei
Prof. Wanyang Dai	Nanjing University, China
Dr. Steven B. Damelin	The American Mathematical Society, USA
Prof. Beih El-Sayed El-Desouky	Mansoura University, Egypt
Prof. Chaudry Masood Khalique	North-West University, South Africa
Dr. Ki Young Kim	Samsung Advanced Institute of Technology, South Korea
Prof. Xiang Li	Beijing University of Chemical Technology, China
Prof. Xing Lü	Beijing Jiaotong University, China
Dr. Jafar Fawzi Mansi AlOmari	Al-Balqa' Applied University, Jordan
Prof. Rosa Pardo	Complutense University of Madrid, Spain
Prof. Sanzheng Qiao	McMaster University, Canada
Dr. Daniele Ritelli	University of Bologna, Italy
Dr. Babak Daneshvar Rouyendegh	Atilim University, Turkey
Prof. Morteza Seddighin	Indiana University East, USA
Dr. Marco Spadini	University of Florence, Italy
Dr. Divine Tito Fongha Wanduku	Keiser University, USA
Prof. Ping Wang	Penn State University Schuylkill, USA
Prof. Xiaohui Yuan	Huazhong University of Science and Technology, China

Table of Contents

Volume 4 Number 2

February 2016

Dissipative Quantum Computing with Majorana Fermions

H. Soller.....227

Magneto Convective Flow of a Non-Newtonian Fluid through Non-Homogeneous Porous Medium past a Vertical Porous Plate with Variable Suction

S. H. Reddy, M. C. Raju, E. K. Reddy.....233

Solutions of Seventh Order Boundary Value Problems Using Ninth Degree Spline Functions and Comparison with Eighth Degree Spline Solutions

P. Kalyani, M. N. Lemma.....249

Analytical and Traveling Wave Solutions to the Fifth Order Standard Sawada-Kotera Equation via the Generalized $\exp(-\Phi(\xi))$ -Expansion Method

M. Y. Ali, M. G. Hafez, M. K. H. Chowdury, M. T. Akter.....262

Effect of Temperature and Band Nonparabolicity on Density of States of Two Dimensional Electron Gas

G. Gulyamov, P. J. Baymatov, B. T. Abdulazizov.....272

Riemannian Acceleration in Oblate Spheroidal Coordinate System

N. E. J. Omaghali, S. X. K. Howusu.....279

The Confidence Distribution Method to the Behrens-Fisher Problem

W. Y. Tao, W. Z. Ye.....286

Unsteady Heat Transfer of Viscous Incompressible Boundary Layer Fluid Flow through a Porous Plate with Induced Magnetic Field

A. Islam, M. M. Islam, M. Rahman, L. E. Ali, Md. S. Khan.....294

Effect of Nonlinear Thermal Radiation on Boundary Layer Flow of Viscous Fluid over Nonlinear Stretching Sheet with Injection/Suction

T. V. Laxmi, B. Shankar.....307

Eigenfunctions for a Quantum Wire on a Single Electron at Its Surface and in the Quantum Well with Beaded Fractional Quantized States for the Fractional Charges

S. Iqbal, F. Sarwar, S. M. Raza.....320

Finite Element Simulation of an Unimolecular Thermal Decomposition Inside a Reactor

M. M. Mousa.....328

Convective Effects on MHD Flow and Heat Transfer between Vertical Plates Moving in Opposite Direction and Partially Filled with a Porous Medium

V. G. Gupta, A. Jain, A. K. Jha.....341

A Chessboard Model of Human Brain and an Application on Memory Capacity

C. X. Gu, S. T. Wang, H. Yu.....359

Exponentially-Fitted 2-Step Simpson's Method for Oscillatory/Periodic Problems

A. S. Wusu, B. A. Olufemi, A. M. Adebawale.....368

Numerical Solutions of Volterra Equations Using Galerkin Method with Certain Orthogonal Polynomials

J. E. Mamadu, I. N. Njoseh.....376

Tau-Collocation Approximation Approach for Solving First and Second Order Ordinary Differential Equations

J. E. Mamadu, I. N. Njoseh.....383

Correlation between the Low-Temperature Photoluminescence Spectra and Photovoltaic Properties of Thin Polycrystalline CdTe Films

B. J. Akhmadaliev, O. M. Mamatov, B. Z. Polvonov, N. K. Yuldashev.....391

Numerical Simulation of Interaction of a Current with a Circular Cylinder near a Rigid Bed

M. Y. A. Jamalabadi, M. Oveisi.....398

A New Formulation of Classical Mechanics—Part 1

F. Petrovich.....412

The Exact Solutions of Such Coupled Linear Matrix Fractional Differential Equations of Diagonal Unknown Matrices by Using Hadamard Product

Z. Alzuheiri, Z. Al-Zhour, K. Jaber.....432

Transient Combined Convective Heat Transfer over a Stretching Surface in a Non-Newtonian Nanofluid Using Buongiorno's Model

R. S. R. Gorla, B. Vasu, S. Siddiqua.....443

A Method for Polarizing More Number of Impurity-Vacancy Dipoles

J. Prakash, D. Prasad.....461

Journal of Applied Mathematics and Physics (JAMP)

Journal Information

SUBSCRIPTIONS

The *Journal of Applied Mathematics and Physics* (Online at Scientific Research Publishing, www.SciRP.org) is published monthly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$39 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 © 2016 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 © 2016 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.

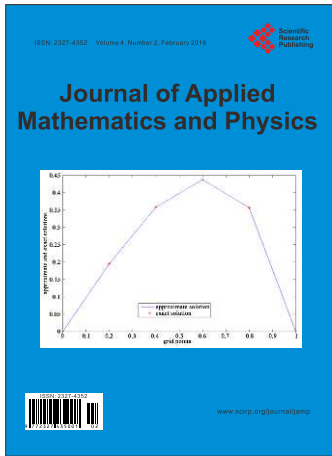
DISCLAIMER OF LIABILITY

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: jamp@scirp.org



Journal of Applied Mathematics and Physics

ISSN Print: 2327-4352 ISSN Online: 2327-4379
<http://www.scirp.org/journal/jamp>

Journal of Applied Mathematics and Physics is an international journal dedicated to the latest advancement of applied mathematics and physics. The goal of this journal is to provide a platform for researchers and scientists all over the world to promote, share, and discuss various new issues and developments in different areas of applied mathematics and physics. We aim to publish high quality research articles in terms of originality, depth and relevance of content, and particularly welcome contributions of interdisciplinary research on applied mathematics, physics and engineering.

Subject Coverage

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

- Applications of Systems
- Applied Mathematics
- Applied Non-Linear Physics
- Applied Optics
- Applied Solid State Physics
- Biophysics
- Computational Physics
- Condensed Matter Physics
- Control Theory
- Cryptography
- Differentiable Dynamical Systems
- Engineering and Industrial Physics
- Experimental Mathematics
- Fluid Mechanics
- Fuzzy Optimization
- Geophysics
- Integrable Systems
- Laser Physics
- Methodological Advances
- Multi-Objective Optimization
- Nanoscale Physics
- Nonlinear Partial Differential Equations
- Non-Linear Physics
- Nuclear Physics
- Numerical Computation
- Optical Physics
- Portfolio Selection
- Riemannian Manifolds
- Scientific Computing
- Set-Valued Analysis
- Soliton Theory
- Space Physics
- Symbolic Computation
- Topological Dynamic Systems
- Variational Inequality
- Vector Optimization

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

The journal publishes the highest quality original full articles, communications, notes, reviews, special issues and books, covering both the experimental and theoretical aspects including but not limited to the above materials, techniques and studies. Papers are acceptable provided they report important findings, novel insights or useful techniques within the scope of the journal. All manuscript must be prepared in English, and are subjected to a rigorous and fair peer-review process. Accepted papers will immediately appear online followed by prints in hard copy.

Website and E-Mail

<http://www.scirp.org/journal/jamp> E-mail: jamp@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: <http://www.scirp.org>

Subscription: sub@scirp.org

Advertisement: service@scirp.org