Journal Editorial Board

ISSN Print: 2152-7385  ISSN Online: 2152-7393
http://www.scirp.org/journal/am

Editor-in-Chief
Prof. Chris Cannings  University of Sheffield, UK

Editorial Board
Prof. Tamer Basar  University of Illinois at Urbana-Champaign, USA
Prof. Leva A. Beklaryan  Russian Academy of Sciences, Russia
Dr. Aziz Belmiloudi  Institut National des Sciences Appliquées de Rennes, France
Dr. Anjan Biswas  Delaware State University, USA
Prof. Mark Broom  City University, UK
Prof. Amares Chattopadhyay  Indian School of Mines, India
Prof. Badong Chen  Xi’an Jiaotong University, China
Prof. Ljubomir Ciric  University of Belgrade, Serbia
Prof. Jose Alberto Cuminato  University of Sao Paulo, Spain
Prof. Konstantin Dyakonov  University of Barcelona, Spain
Prof. Anwar H. Joarder  University of Liberals Arts Bangladesh (ULAB), Bangladesh
Prof. Palle Jorgensen  University of Iowa, USA
Dr. Vladimir A. Kuznetsov  Bioinformatics Institute, Singapore
Prof. Kil Hyun Kwon  Korea Advanced Institute of Science and Technology, South Korea
Prof. Hong-Jian Lai  West Virginia University, USA
Dr. Goran Lesaja  Georgia Southern University, USA
Prof. Tao Luo  Georgetown University, USA
Prof. Addolorata Marasco  University of Naples Federico II, Italy
Prof. Maria A. Navascués  University of Zaragoza, Spain
Dr. Donatus C. D. Oguamanam  Ryerson University, Canada
Prof. Anatolij Prykarpatski  AGH University of Science and Technology, Poland
Prof. Alexander S. Rabinowitch  Moscow State University, Russia
Prof. Mohammad Mehdi Rashidi  Tongji University, China
Prof. Yuriy V. Rogovchenko  University of Agder, Norway
Prof. Ram Shanmugam  Texas State University, USA
Dr. Epaminondas Sidiropoulos  Aristotle University of Thessaloniki, Greece
Prof. Sergei Silvestrov  Mälardalen University, Sweden
Prof. Hari M. Srivastava  University of Victoria, Canada
Prof. Jacob Sturm  Rutgers University, USA
Prof. Mikhail Sumin  Nizhni Novgorod State University, Russia
# Table of Contents

**Volume 7   Number 9  May 2016**

The Relationship of Sodium and Potassium Conductances with Dynamic States of a Mathematical Model of Electrosensory Pyramidal Neurons  
T. Shirahata.................................................................................................................................819

The Mean Difference for Lognormal Distribution  
G. Girone, F. Manca...........................................................................................................................824

Petri Nets—A Versatile Modeling Structure  
M. Barad........................................................................................................................................829

A New Approach for Solving Boundary Value Problem in Partial Differential Equation Arising in Financial Market  
F. S. Emmanuel, E. H. Oluyemisi......................................................................................................840

The Game-Theoretical Model of Using Insecticide-Treated Bed-Nets to Fight Malaria  
M. Broom, J. Rychtář, T. Spears-Gill..............................................................................................852

Dynamics of a Pituitary Cell Model: Dependence on Long-Lasting External Stimulation and Potassium Conductance Kinetics  
T. Shirahata........................................................................................................................................861

Regular Elements of $B_X(D)$ Defined by the Class $\Sigma_1(X,10) - I$  
Y. Diasamidze, N. Tsinaridze, N. Aydn, A. Erdoğan........................................................................867

Regular Elements of $B_X(D)$ Defined by the Class $\Sigma_1(X,10) - II$  
Y. Diasamidze, N. Tsinaridze, N. Aydn, A. Erdoğan........................................................................894

Study of the Influence of Nanoparticles on the Molecular Model of an Ideal Fluid  
M. A. Ramazanov, M. S. Aslanov....................................................................................................908

The Limitations of Polygenic Hypothesis and Theorizing about Dual Multiple Factors and Three Normal Distributions  
T. Z. Zhang, X. M. Jia, Z. Xu............................................................................................................912

The Matching Equivalence Graphs with the Maximum Matching Root Less than or Equal to 2  
H. C. Ma, Y. K. Li..........................................................................................................................920

The Lanczos-Chebyshev Pseudospectral Method for Solution of Differential Equations  
P. Y. P. Chen....................................................................................................................................927
Generalization of Uniqueness of Meromorphic Functions Sharing Fixed Point
H. P. Waghamore, S. Anand ................................................................. 939

Idempotent Elements of the Semigroups $B_{X\{D\}}$ Defined by Semilattices of the Class $\Sigma_3(X,8)$ When $\mathbb{Z}_7 = \emptyset$
G. Tavdgiridze, Ya. Diasamidze, O. Givradze ......................................................... 953

Proximal Methods for Elliptic Optimal Control Problems with Sparsity Cost Functional
A. Schindele, A. Borzi .......................................................................................... 967

Homotopy Analysis Solution to Radial Diffusivity Equation of Slightly Compressible Fluid
O. A. Falode, V. S. Chukwunagolu .......................................................... 993

1-Way Multihead Quantum Finite State Automata
D. Ganguly, K. Chatterjee, K. S. Ray ................................................................. 1005
Applied Mathematics (AM)

Journal Information

SUBSCRIPTIONS


Subscription rates:
Print: $89 per copy.
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)
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: am@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