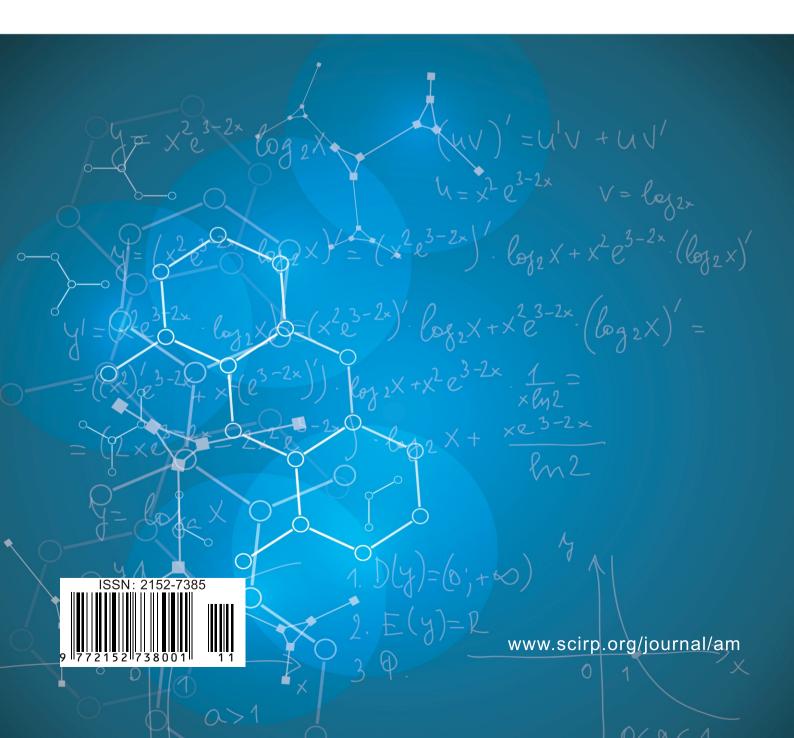


Applied Mathematics



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 Başar University of Illinois at Urbana-Champaign, USA

Prof. Leva A. Beklaryan Russian Academy of Sciences, Russia

Dr. Aziz Belmiloudi Institut National des Sciences Appliquees de Rennes, France

Dr. Anjan Biswas Delaware State University, USA

Prof. Mark Broom City University, UK

Prof. Amares Chattopadhyay

Prof. Badong Chen

Prof. Ljubomir Ciric

Prof. Jose Alberto Cuminato

Prof. Konstantin Dyakonov

Prof. Elena Guardo

Indian School of Mines, India

Xi'an Jiaotong University, China

University of Belgrade, Serbia

University of Sao Paulo, Spain

University of Barcelona, Spain

University of Catania, Italy

Prof. Anwar H. Joarder University of Liberals Arts Bangladesh (ULAB), Bangladesh

Prof. Palle Jorgensen University of Iowa, USA

Dr. Vladimir A. KuznetsovBioinformatics Institute, Singapore

Prof. Kil Hyun Kwon Korea Advanced Institute of Science and Technology, South Korea

Prof. Hong-Jian LaiWest Virginia University, USADr. Goran LesajaGeorgia Southern University, USAProf. Tao LuoGeorgetown University, USA

Prof. Addolorata Marasco University of Naples Federico II, Italy

Prof. María A. Navascués University of Zaragoza, Spain

Prof. Anatolij Prykarpatski AGH University of Science and Technology, Poland

Prof. Alexander S. Rabinowitch Moscow State University, Russia

Prof. Mohammad Mehdi RashidiTongji University, ChinaProf. Yuriy V. RogovchenkoUniversity of Agder, NorwayProf. Ram ShanmugamTexas State University, USA

Dr. Epaminondas Sidiropoulos Aristotle University of Thessaloniki, Greece

Prof. Sergei SilvestrovMälardalen University, SwedenProf. Hari M. SrivastavaUniversity of Victoria, Canada

Prof. Jacob Sturm Rutgers University, USA

Prof. Mikhail SuminNizhnii Novgorod State University, RussiaDr. Wei WeiXi'an University of Technology, China

Dr. Wen Zhang Icahn School of Medicine at Mount Sinai, USA



Volume 8

Number 11

ISSN Online: 2152-7393 ISSN Print: 2152-7385

November 2017

Table of Contents

Lindblad Equation for Harmonic Oscillator: Uncertainty Relation Depending on Temperature Painlevé Analysis for (2 + 1) Dimensional Non-Linear Schrödinger Equation A Mathematical Approach Based on the Homotopy Analysis Method: Application to Solve the Nonlinear Harry-Dym (HD) Equation The Use of Fourier Descriptors for the Classification and Analysis of Peripheral **Blood Smears Image** Assessing Relative Dispersion On the Coalitional Rationality and the Inverse Problem for Shapley Value and the Semivalues Stability Analysis of a Neurocontroller with Kalman Estimator for the Inverted Pendulum Case Subprime Mortgage Crisis and the Exchange Rate Channel: Evidence from Six Countries of the Zone Euro-Med On the Advertising of an Event: A Mathematical Approach Complete Convergence of Weighted Sums for Asymptotically Almost Negatively Associated Sequences Statistical Analysis of a Competing Risks Model with Weibull Sub-Distributions

Applied Mathematics, 2017, 8, 1529-1744





ISSN Online: 2152-7393 ISSN Print: 2152-7385

Analysis of 48 US Industry Portfolios with a New Fama-French 5-Factor Model	
L. L. Li, X. Rao, W. T. Zhou, B. Mizrach	1684
Multiple Solutions to the Problem of Kirchhoff Type Involving the Critical Caffareli-Kohn-Niremberg Exponent, Concave Term and Sign-Changing Weights	
M. E. O. El Mokhtar.	1703
Fractionalization of a Class of Semi-Linear Differential Equations	
I.K.C. Leung, K. Gonalsamy	1715

Applied Mathematics (AM)

Journal Information

SUBSCRIPTIONS

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

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)

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 © 2017 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 © 2017 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





Applied Mathematics (AM)

ISSN Print: 2152-7385 ISSN Online: 2152-7393

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

Applied Mathematics (AM) is an international journal dedicated to the latest advancement of applied mathematics. 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 applied mathematics.

Subject Coverage

All manuscripts must be prepared in English, and are subject to a rigorous and fair peer-review process. Accepted papers will immediately appear online followed by printed hard copy. The journal publishes original papers including but not limited to the following fields:

- Applied Probability
- Applied Statistics
- Approximation Theory
- Chaos Theory
- Combinatorics
- Complexity Theory
- Computability Theory
- Computational Methods in Mechanics and Physics
- Continuum Mechanics
- Control Theory
- Cryptography
- Discrete Geometry
- Dynamical Systems
- Elastodynamics

- Evolutionary Computation
- Financial Mathematics
- Fuzzy Logic
- Game Theory
- Graph Theory
- Information Theory
- Inverse Problems
- Linear Programming
- Mathematical Biology
- Mathematical Chemistry
- Mathematical Economics
- Mathematical Physics
- Mathematical Psychology
- Mathematical Sociology

- Matrix Computations
- Neural Networks
- Nonlinear Processes in Physics
- Numerical Analysis
- Operations Research
- Optimal Control
- Optimization
- Ordinary Differential Equations
- Partial Differential Equations
- Probability Theory
- Statistical Finance
- Stochastic Processes
- Theoretical Statistics

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 submissions, please access the website.

E-mail: am@scirp.org

Website and E-mail

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

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