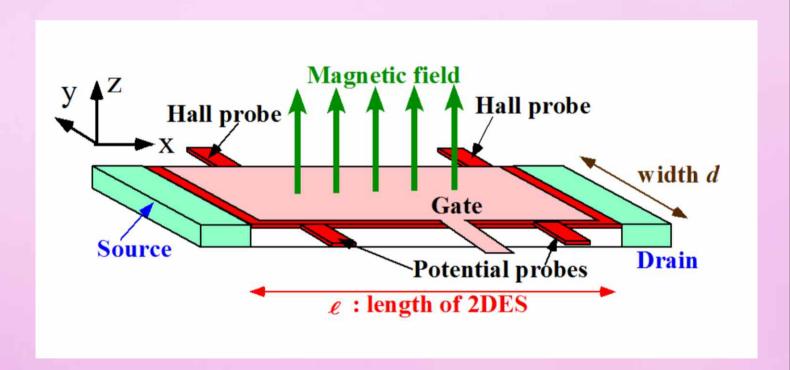


Journal of Modern Physics





Journal Editorial Board

ISSN: 2153-1196 (Print) ISSN: 2153-120X (Online)

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

Editor-in-Chief

Prof. Yang-Hui He City University, UK

Executive Editor-in-Chief

Prof. Marko Markov Research International, Buffalo Office, USA

Managing Executive Editor

Prof. Chang Liu Wuhan University, China

Editorial Board

Prof. Nikolai A. SobolevUniversidade de Aveiro, PortugalProf. Yohannes AbateCalifornia State University, USADr. Mohamed Abu-ShadyMenoufia University, EgyptProf. Sadhan Kumar AdhikariUniversidade Estadual Paulista, BrazilDr. Hamid AlemohammadAdvanced Test and Automation Inc., CanadaDr. Ksenofontov AlexandreMoscow Engineering Physics Institute, Russia

Prof. Sami M. AL-JaberAn-Najah National University, PalestineProf. Kerim R. AllakhverdievAzerbaijan Academy of Sciences, AzerbaijanProf. Roberto Oscar AquilanoUniversidad Nacional de Rosario, ArgentinaDr. Salvatore CapozzielloUniversity of Naples Federico II, ItalyProf. Riccardo CerulliIstituto Nazionale di Fisica Nucleare, Italy

Prof. Changle Chen University of Science and Technology of China, China

Prof. Stephen Robert Cotanch NC State University, USA

Prof. Papadopoulos Demetrios The Aristotle University of Thessaloniki, Greece

Prof. Hua-Shu Dou Zhejiang Sci-Tech University, China

Prof. Constantin Fetecau "Gh. Asachi" Technical University of Iasi, Romania

Prof. Ju Gao
Prof. Sachin Goyal
Dr. Wei Guo
Prof. Alioscia Hamma
The University of Hong Kong, China
University of California, USA
Florida State University, USA
Tsinghua University, China

Prof. Cosmin IlieLos Alamos National Laboratory, USA

Prof. Haikel Jelassi National Center for Nuclear Science and Technology, Tunisia

Prof. Preston B. LandonThe University of California, USAProf. Chunlei LiuCarnegie Mellon University, USA

Prof. Karo Michaelian National Autonomous University of Mexico, Mexico

Prof. Christophe J. Muller
Prof. Zdzislaw E. Musielak
Prof. Ambarish Nag
Prof. Luciano Nunziante
Prof. Valery Obukhov
University of Provence, France
University of Texas at Arlington, USA
National Renewable Energy Laboratory, USA
University of Naples Federico II, Italy
Tomsk State Pedagogical University, Russia

Prof. Tongfei Qi University of Kentucky, USA
Prof. Richard Saurel University of Aix Marseille I, France

Prof. Alejandro Crespo Sosa Universidad Nacional Autónoma de México, Mexico

Prof. Bo Sun
Oregon State University, USA
Prof. Mingzhai Sun
Ohio State University, USA
Dr. Sergei K. Suslov
Arizona State University, USA
Academy of Finland, Finland

Prof. Yuan Wang University of California, Berkeley, USA

Prof. Magnus Willander Linköping University, Sweden

Prof. Fan Yang Fermi National Accelerator Laboratory, USA

Prof. Peter H. YoonUniversity of Maryland, USADr. S. ZerbiniUniversity of Trento, ItalyProf. Meishan ZhaoUniversity of Chicago, USA

Prof. Pavel Zhuravlev University of Maryland at College Park, USA



Table of Contents

Volume 6 Number 6	May 2015
Rapid, Non-Destructive, Textile Classification Using SIMCA on Diffuse Nea	ar-Infrared
C. B. Davis, K. W. Busch, D. H. Rabbe, M. A. Busch, J. R. Lusk	711
Velocity Addition Demonstrated from the Conservation of Linear Momer an Alternative Expression	ta,
O. Serret	719
The Unknown Conservation Laws	
R. A. Hutchin	729
Electron Dynamics in Solids	
S. Fujita, J. McNabb III, A. Suzuki	733
A Natural Combination of Gravity and Electromagnetism	
R. A. Hutchin	749
It's a Matter of Time	
R. A. Barrett Jr	758
An Alternative Approach to Particle-Particle Collisions	
C. Y. Chen	772
About the Conflicts between the Unitary Quantum Theory and the Special and General Relativity Theories	ıl
L. G. Sapogin, V. A. Dzhanibekov, M. A. Мокulsky, Y. A. Ryabov, Y. P. Savin, V. I.	Utchastkin780
Modified Newtonian Dynamics as an Entropic Force	
D. A. Carranza, S. Mendoza	786
Spin Polarization of Fractional Quantum Hall States with ν < 2	
S. Sasaki	794
Physics in Discrete Spaces: On the Standard Model of Particles	
P. Peretto	811
On the Curvature of Rotating Objects	
M. Tamm	828
Presence of Heat on an Infinite Plate with a Curvilinear Hole Having Two	Poles
F. S. Bayones	837

Journal of Modern Physics (JMP)

Journal Information

SUBSCRIPTIONS

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

Subscription rates:

Print: \$89 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 © 2015 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 © 2015 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: jmp@scirp.org



Call for Papers

Journal of Modern Physics

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

Journal of Modern Physics (JMP) is an international journal dedicated to the latest advancement of modern physics. 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 modern physics.

Editor-in-Chief

Prof. Yang-Hui He City University, UK

Executive Editor-in-Chief

Prof. Marko Markov Research International, Buffalo Office, USA

Subject Coverage

Journal of Modern Physics publishes original papers including but not limited to the following fields:

Biophysics and Medical Physics
Complex Systems Physics
Computational Physics
Condensed Matter Physics
Cosmology and Early Universe
Earth and Planetary Sciences
General Relativity
High Energy Astrophysics
High Energy/Accelerator Physics
Instrumentation and Measurement
Interdisciplinary Physics
Materials Sciences and Technology
Mathematical Physics
Mechanical Response of Solids and Structures

New Materials: Micro and Nano-Mechanics and Homogeneization Non-Equilibrium Thermodynamics and Statistical Mechanics Nuclear Science and Engineering Optics
Physics of Nanostructures
Plasma Physics
Quantum Mechanical Developments
Quantum Theory
Relativistic Astrophysics
String Theory
Superconducting Physics
Theoretical High Energy Physics

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.

Thermology

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

http://www.scirp.org/journal/jmp E-mail: jmp@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