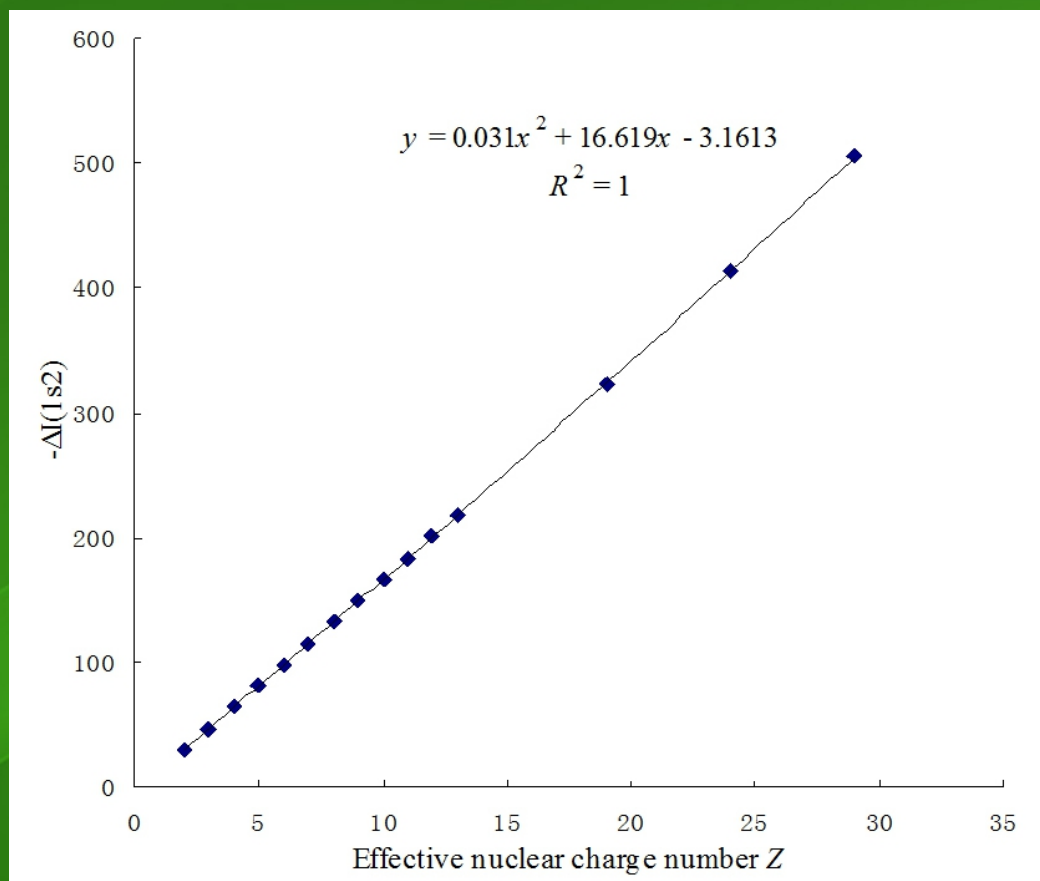
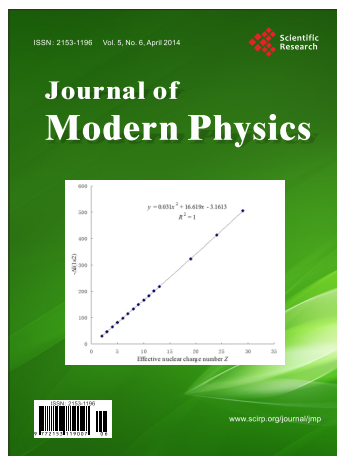


Journal of Modern Physics





Call for Papers

Journal of Modern Physics

ISSN Print: 2153-1196 ISSN Online: 2153-120X
<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.

Editors-in-Chief

Prof. Moshe Gai
Prof. Yang-Hui He

University of Connecticut, USA
 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
 Thermology

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.

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, by delivering superior scientific publications and scientific information solution provider that enable advancement in scientific research.

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, world-wide, 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



**Scientific
Research**

Website: <http://www.scirp.org>

Subscription: sub@scirp.org

Advertisement: service@scirp.org

Journal Editorial Board

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

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

Editors-in-Chief

Prof. Moshe Gai
Prof. Yang-Hui He

University of Connecticut, USA
City University, UK

Executive Editor-in-Chief

Prof. Marko Markov

Research International, Buffalo Office, USA

Managing Executive Editor

Prof. Chang Liu

Wuhan University, China Email: cliu@acc-lab.whu.edu.cn

Editorial Board

Prof. Nikolai A. Sobolev
Prof. Yohannes Abate
Dr. Mohamed Abu-Shady
Prof. Sadhan Kumar Adhikari
Dr. Hamid Alemohammad
Dr. Ksenofontov Alexandre
Prof. Sami M. AL-Jaber
Prof. Kerim R. Allakhverdiev
Prof. Roberto Oscar Aquilano
Dr. Salvatore Capozziello
Prof. Riccardo Cerulli
Prof. Changle Chen
Prof. Stephen Robert Cotanch
Prof. Papadopoulos Demetrios
Prof. Huashu Dou
Prof. Constantin Fetecau
Prof. Ju Gao
Prof. Sachin Goyal
Dr. Wei Guo
Dr. Alioscia Hama
Dr. Guangjin Hou
Prof. Cosmin Ilie
Prof. Preston B. Landon
Prof. Chunlei Liu
Dr. Ray Luo
Prof. Karo Michaelian
Prof. Christophe J. Muller
Prof. Zdzislaw E. Musielak
Prof. Ambarish Nag
Prof. Luciano Nunziante
Prof. Valery Obukhov
Dr. Jorge Pereira
Prof. Tongfei Qi
Prof. Richard Saurel
Prof. Alejandro Crespo Sosa
Dr. Bo Sun
Prof. Mingzhai Sun
Dr. Sergei K. Suslov
Dr. Anca Tureanu
Dr. A. L. Roy Vellaisamy
Prof. Yuan Wang
Prof. Magnus Willander
Prof. Fan Yang
Prof. Peter H. Yoon
Dr. S. Zerbini
Prof. Meishan Zhao
Prof. Pavel Zhuravlev

Universidade de Aveiro, Portugal
California State University, USA
Department of Applied Mathematics, Menoufia University, Egypt
Universidade Estadual Paulista, Brazil
Advanced Test and Automation Inc., Canada
Moscow Engineering Physics Institute, Russia
An-Najah National University, Palestine
Institute of Physics, Azerbaijan Academy of Sciences, Azerbaijan
Universidad Nacional de Rosario, Argentina
University of Naples Federico II, Italy
Gran Sasso National Laboratory, INFN, Italy
Celanese Corporation, USA
NC State University, USA
Aristotle University of Thessaloniki, Greece
Zhejiang Sci-Tech University, China
Gheorghe Asachi Technical University of Iasi, Romania
The University of Hong Kong, China
University of Michigan, USA
Florida State University, USA
Tsinghua University, China
University of Delaware, USA
Los Alamos National Laboratory, USA
The University of California, USA
Carnegie Mellon University, USA
University of California, USA
National Autonomous University of Mexico, Mexico
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
The University of Notre Dame, USA
University of Kentucky, USA
University of Aix Marseille I, France
Universidad Nacional Autónoma de México, México
Princeton University, USA
Ohio State University, USA
Arizona State University, USA
Academy of Finland, Finland
City University of Hong Kong, China
University of California, Berkeley, USA
Linköping University, Sweden
Fermi National Accelerator Laboratory, USA
University of Maryland, USA
University of Trento, Italy
James Frank Institute, University of Chicago, USA
University of Maryland at College Park, USA

Table of Contents

Volume 5 Number 6

April 2014

Some Success Applications for Local-Realism Quantum Mechanics: Nature of Covalent-Bond Revealed and Quantitative Analysis of Mechanical Equilibrium for Several Molecules	
R. S. Tu.....	309
Dark Energy Calculations Using the Paraquantum Gamma Factor ($\gamma_{P\psi}$) on the Relativistic Energy Equation	
J. I. Da Silva Filho.....	319
Determination of Material Properties like Permittivity and Density with Microwaves	
C. Sklarczyk.....	335
Analyses of $\pi^+ - {}^{12}\text{C}$ Elastic Scattering and Reaction Cross-Section Data Below, Atop and Above the Δ-Resonance	
Z. F. Shehadeh.....	341
Role of the Reference Frame in Angular Photon Distribution at Electron-Positron Annihilation	
A. N. Volobuev, E. S. Petrov, E. L. Ovchinnikov.....	353
Biology-Physics the Missing Link?	
J.-P. Auffray.....	359
Relativity Current Paradigm with Unresolved Anomalies	
A. L. Guillen Gomez.....	364
Driving the Diffusion of Cesium Atoms of Graphite Monolayers on Metal Surfaces into Rhenium (1010)	
A. K. Orujov.....	375
Self-Contradictions from the Excessive Use of Natural Units	
A. D. Allen.....	383
A New Analyzing Method of Single Event Latch-Up Protection Circuit Based on Current Comparing and Its Performance Verification	
P. W. Li, X. Y. Fu, L. Luo, Q. K. Yu.....	387
Propagation of Dark Solitary Waves in the Korteweg-DeVries-Burgers Equation Describing the Nonlinear RLC Transmission	
S. D. Yamigno.....	394
Pair Production in Non-Perturbative QCD	
S. Hamieh.....	402

Gravitational Fields: Another Fortunate Manifestation of the Higgs Mechanism	
J. Schaff.....	407
Electrodynamics—Two Versions and One Problem	
B. Hüttner.....	449
Two Theoretical Approaches in Solid-State Nuclear Magnetic Resonance Spectroscopy	
E. S. Mananga.....	458
String Theory with Oscillating Space-Time Dimension Number	
D.-Y. Chung.....	464
Oxygen Isotope Effects on T_c Related to Polaronic Superconductivity in Underdoped Cuprates	
B. I. Kochelaev, K. A. Müller, A. Shengelaya.....	473
Mass Creation from Extra Dimensions	
D. V. Duc, N. M. Giao.....	477
The $AdS_5 \times S^5$ Fermionic Model	
E. Abdalla, A. Lima-Santos.....	483
The Structure of Icosahedral Quasicrystals and Seven Blunders in Quasicrystallography	
A. J. Bourdillon.....	488

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, by delivering superior scientific publications and scientific information solution provider that enable advancement in scientific research.

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, world-wide, 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



**Scientific
Research**

Website: <http://www.scirp.org>

Subscription: sub@scirp.org

Advertisement: service@scirp.org