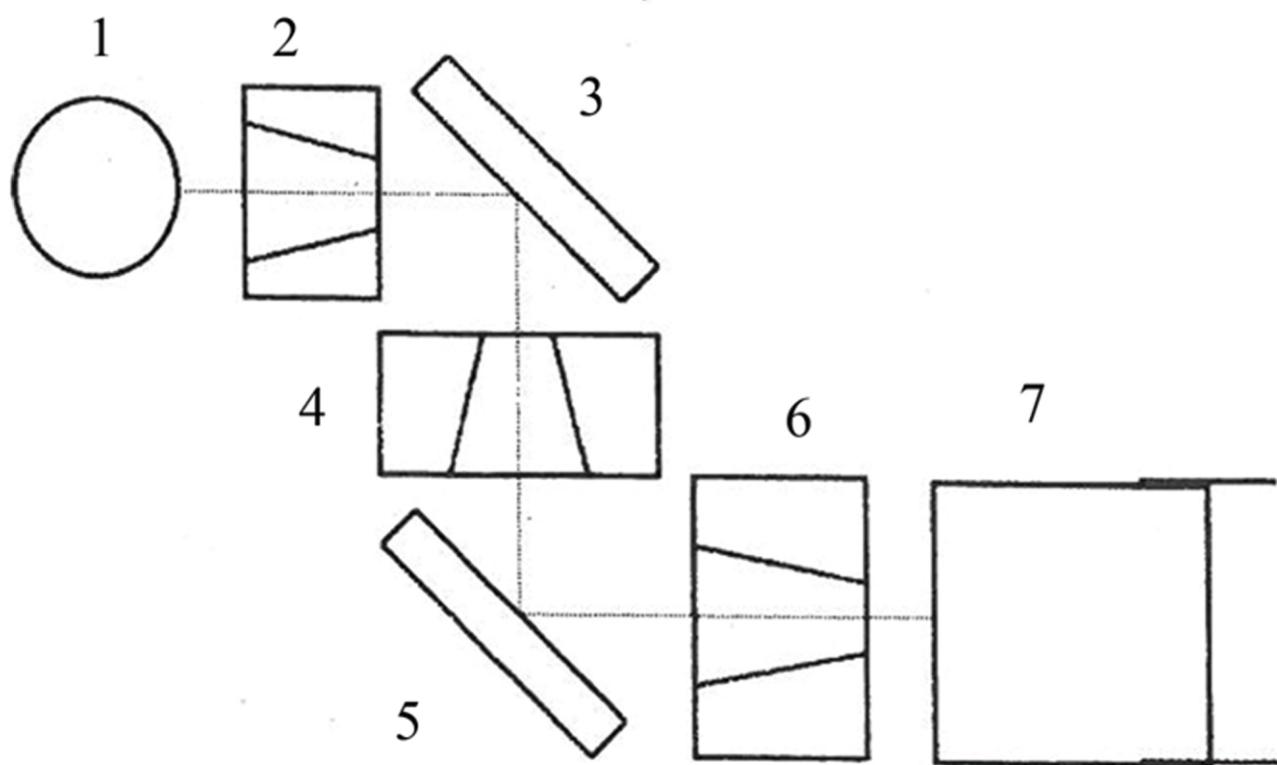
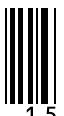


Journal of Modern Physics



ISSN: 2153-1196



www.scirp.org/journal/jmp

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 Email: cliu@acc-lab.whu.edu.cn

Editorial Board

Prof. Nikolai A. Sobolev	Universidade de Aveiro, Portugal
Prof. Yohannes Abate	California State University, USA
Dr. Mohamed Abu-Shady	Department of Applied Mathematics, Menoufia University, Egypt
Prof. Sadhan Kumar Adhikari	Universidade Estadual Paulista, Brazil
Dr. Hamid Alemohammad	Advanced Test and Automation Inc., Canada
Dr. Ksenofontov Alexandre	Moscow Engineering Physics Institute, Russia
Prof. Sami M. AL-Jaber	An-Najah National University, Palestine
Prof. Kerim R. Allakhverdiev	Institute of Physics, Azerbaijan Academy of Sciences, Azerbaijan
Prof. Roberto Oscar Aquilano	Universidad Nacional de Rosario, Argentina
Dr. Salvatore Capozziello	University of Naples Federico II, Italy
Prof. Riccardo Cerulli	Gran Sasso National Laboratory, INFN, Italy
Prof. Changle Chen	Celanese Corporation, USA
Prof. Stephen Robert Cotanch	NC State University, USA
Prof. Papadopoulos Demetrios	Aristotle University of Thessaloniki, Greece
Prof. Huashu Dou	Zhejiang Sci-Tech University, China
Prof. Constantin Fetecau	Gheorghe Asachi Technical University of Iasi, Romania
Prof. Ju Gao	The University of Hong Kong, China
Prof. Sachin Goyal	University of Michigan, USA
Dr. Wei Guo	Florida State University, USA
Dr. Alioscia Hamma	Tsinghua University, China
Dr. Guangjin Hou	University of Delaware, USA
Prof. Cosmin Ilie	Los Alamos National Laboratory, USA
Prof. Preston B. Landon	The University of California, USA
Prof. Chunlei Liu	Carnegie Mellon University, USA
Dr. Ray Luo	University of California, USA
Prof. Karo Michaelian	National Autonomous University of Mexico, Mexico
Prof. Christophe J. Muller	University of Provence, France
Prof. Zdzislaw E. Musielak	University of Texas at Arlington, USA
Prof. Ambarish Nag	National Renewable Energy Laboratory, USA
Prof. Luciano Nunziante	University of Naples Federico II, Italy
Prof. Valery Obukhov	Tomsk State Pedagogical University, Russia
Dr. Jorge Pereira	The University of Notre Dame, USA
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
Dr. Bo Sun	Princeton University, USA
Prof. Mingzhai Sun	Ohio State University, USA
Dr. Sergei K. Suslov	Arizona State University, USA
Dr. Anca Tureanu	Academy of Finland, Finland
Dr. A. L. Roy Vellaisamy	City University of Hong Kong, China
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. Yoon	University of Maryland, USA
Dr. S. Zerbini	University of Trento, Italy
Prof. Meishan Zhao	James Frank Institute, University of Chicago, USA
Prof. Pavel Zhuravlev	University of Maryland at College Park, USA

Table of Contents

Volume 5 Number 15

September 2014

Is Gravitational Radiation a Radiation of the Same Level as Electromagnetic Radiation?

- S. I. Fisenko, I. S. Fisenko.....1397

Axisymmetric Empty Space: Light Propagation, Orbits and Dark Matter

- S. Giardino.....1402

Measurement of Photon-Induced L X-Ray Fluorescence Cross Sections

for Ho and Yb in the 16.04 - 24.68 keV Energy Range

- H. Al-Taani, N. Saleh, K. Al-Saleh.....1412

Emergent Gravity, Violated Relativity and Dark Matter

- Y. F. Pirogov.....1418

E-Infinity Dualities, Discontinuous Spacetimes, Xonic Quantum Physics and the Decisive Experiment

- J.-P. Auffray.....1427

Influence of Infinitesimal Neglected Effects by Current Theory of Gravitation and

Experiments on the Stability of the Universe

- P. A. Luo.....1437

Experimental Study of Electric and Spectroscopic Characteristics of Electric Discharge in LPG

- A. Abd Elradi, N. N. Morgan, S. Ghalab, M. Elsabagh, S. Hassaballa, A. Samir, F. F. Elakshar, A. A. Garamoon.....1450

Phosphorus Based Ceramics for Positive Electrode Synthesis and Characterization

- D. Kobor, A. K. Diallo, M. Tine.....1459

The Knees-Ankles-Toe in Cosmic Rays and the Periodic Table of Elementary Particles

- D.-Y. Chung.....1467

Non-Classical Formulation of Photon Energy for the Degenerate Parametric Oscillator

- S. G. Belete.....1473

Skyrmion-Like Solitons, Topological Quasi-Positronium, and Soliton-Catalytic Effects

in Graphite-Potassium Intercalation Compounds and Metal Surfaces

- I. Kanazawa, M. Saito, T. Sasaki, E. Imai.....1483

Describing Chaos of Continuous Time System Using Bounded Space Curve

- B. H. Huang, Y. F. Wei, Y. Huang, Y. Q. Liang.....1489

Circular Scale of Time and Energy of a Quantum State Calculated from the Schrödinger Perturbation Theory

S. Olszewski.....1502

Gravitationally-Neutral Universe

A. V. Klimenko, V. A. Klimenko.....1524

Worlds and Antiworlds

A. V. Klimenko, V. A. Klimenko.....1537

The Bowing Parameters of $\text{Ca}_x\text{Mg}_{1-x}\text{O}$ Ternary Alloys

S. E. Gulebaglan, E. K. Dogan, M. Aycibin, M. N. Secuk, B. Erdinc, H. Akkus.....1546

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.

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 Homogenization
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 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