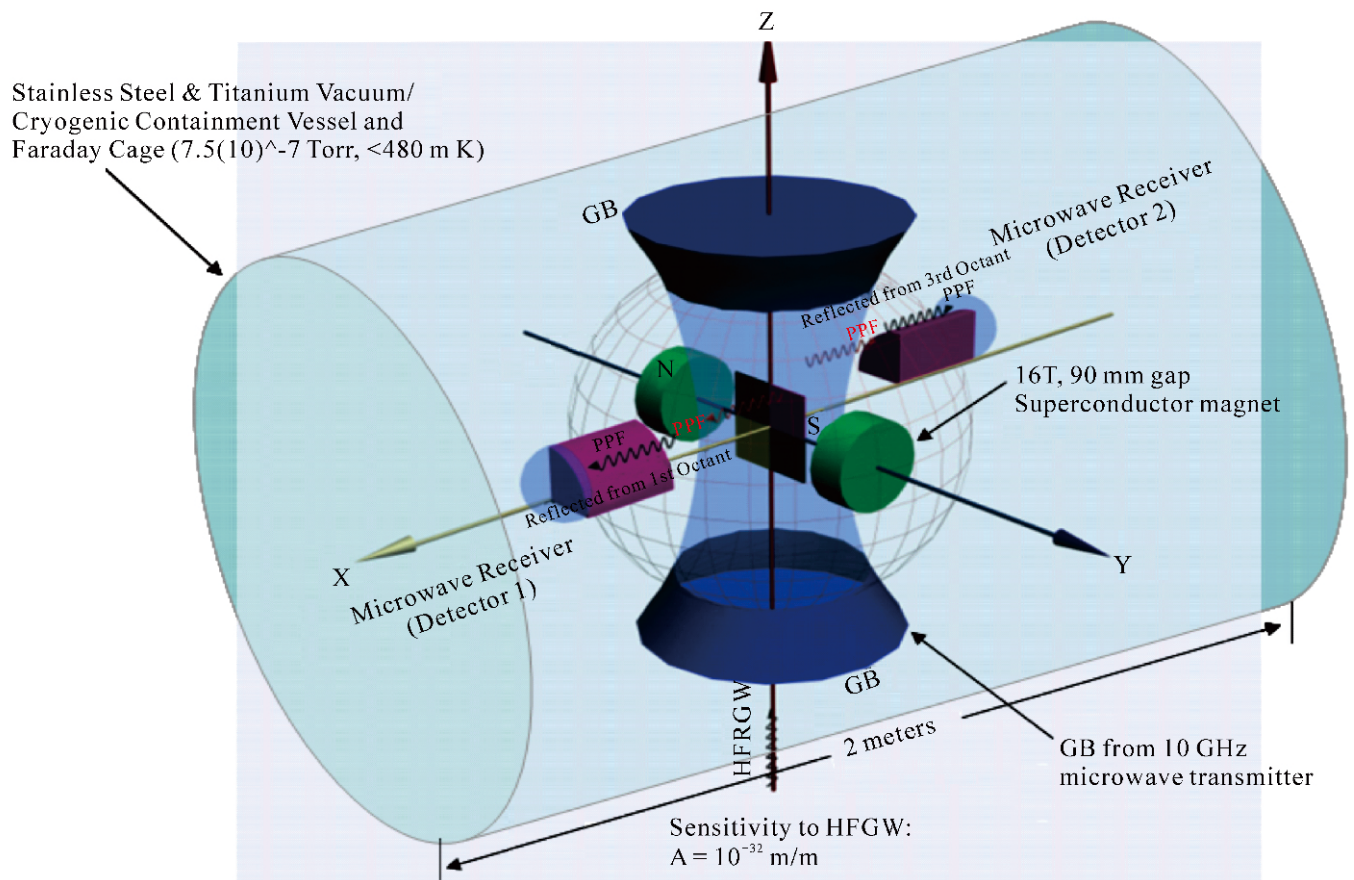




Journal of Modern Physics



ISSN: 2153-1196



9 772153 119007 06

Journal Editorial Board

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

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

Editor-in-Chief

Prof. Victor Yashnikov

Russian Academy of Sciences, Russia

Executive-Editor in-Chief

Dr. Marko Markov

Research International, Buffalo Office, USA

Editorial Board

Prof. Sadhan Kumar Adhikari

Universidade Estadual Paulista, Brazil

Prof. Sami M. AL-Jaber

AN-Najah National University, Palestine

Dr. Ksenofontov Alexandre

Moscow Engineering Physics Institute, Russia

Prof. Roberto Oscar Aquilano

Universidad Nacional de Rosario, Argentina

Prof. Salvatore Capozziello

University of Naples Federico II, Italy

Dr. Riccardo Cerulli

Gran Sasso National Laboratory, INFN, Italy

Prof. Papadopoulos Demetrios

Aristotle University of Thessaloniki, Greece

Dr. Hua-Shu Dou

National University of Singapore, Singapore

Prof. Constantin Fetecau

Government College University, Romania

Prof. Bouzid Mena

Fluorotronics, Inc., USA

Prof. Karo Michaelian

National Autonomous University of Mexico, Mexico

Prof. Zdzislaw E. Musielak

The University of Texas at Arlington, USA

Prof. Luciano Nunziante

University of Naples Federico II, Italy

Prof. Richard Saurel

University Aix Marseille I, France

Prof. Magnus Willander

Linköping University, Sweden

Dr. Raghvendra Singh Yadav

University of Allahabad, India

Dr. S. Zerbini

University of Trento, Italy

Managing Executive Editor

Prof. Chang Liu

Wuhan University, China

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

Editorial Assistant

Shirley Zhou

Scientific Research Publishing, USA

Email: jmp@scirp.org

TABLE OF CONTENTS

Volume 2 Number 6

June 2011

Lorentz's Transformations and Gravitation in the Granular Space Theory	
V. Konushko.....	431
Electrostatic Force of Repulsion Assists <i>p-p</i> Nuclear Fusion	
A. Lakshmanan.....	447
Revisiting the Classics to Recover the Physical Sense in Electrical Noise	
J.-I. Izpura.....	457
Superconductivity Modulated by Binary Doping in $\text{Nd}_{1-x}\text{Ba}_x\text{FeAsO}_{1-2x}\text{F}_{2x}$	
C. Q. Qu, Z. Y. Liu, Y. M. Lu, C. Z. Chen, C. B. Cai, A. H. Fang, F. Q. Huang, M. F. Wang, X. M. Xie.....	463
Study of the Double Nonlinear Quantum Resonances in Diatomic Molecules	
G. López, J. G. T. Zanudo.....	472
Well Behaved Class of Charge Analogue of Adler's Relativistic Exact Solution	
M. J. Pant, B. C. Tewari.....	481
A New Parallel Algorithm for Simulation of Spin-Glass Systems on Scales of Space-Time Periods of an External Field	
A. S. Gevorkyan, H. G. Abajyan, H. S. Sukiasyan.....	488
A New Theoretical Technique for the Measurement of High-Frequency Relic Gravitational Waves	
R. C. Woods, R. M. L. Baker, F. Y. Li, G. V. Stephenson, E. W. Davis, A. W. Beckwith.....	498
Entropy and Irreversibility in Classical and Quantum Mechanics	
V. A. Antonov, B. P. Kondratyev.....	519
Studying Cosmological Time Variability of the Fine-Structure Constant from the Analysis of Quasar Spectra	
L. D. Thong, N. T. T. Huong.....	533
Spectroscopic Investigation of Modified Single Wall Carbon Nanotube (SWCNT)	
S. Hussain, P. Jha, A. Chouksey, R. Raman, S. S. Islam, T. Islam, P. K. Choudhary, Harsh.....	538
EDESr and ODMR of Impurity Centers in Nanostructures Inserted in Silicon Microcavities	
N. T. Bagraev, V. A. Mashkov, E. Yu. Danilovsky, W. Gehlhoff, D. S. Gets, L. E. Klyachkin, A. A. Kudryavtsev, R. V. Kuzmin, A. M. Malyarenko, V. V. Romanov.....	544
Solution of Modified Equations of Emden-Type by Differential Transform Method	
S. Mukherjee, B. Roy, P. K. Chatterjee.....	559
Calculation of Complete Absorption and Intensity of Optical Radiation Spectrum of HeI ($\lambda = 5875 \text{ \AA}$) with Fine Structure	
R. A. El-Koramy, N. A. Ashurbecov.....	564
Problem of Nuclear Decay by Proton Emission in Fully Quantum Consideration: Calculations of Penetrability and Role of Boundary Conditions	
S. P. Maydanyuk, S. V. Belchikov.....	572

The figure on the front cover is from the article published in *Journal of Modern Physics*, 2011, Vol. 2, No. 6, pp. 498-518, by R. Clive Woods, *et al.*

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: \$59 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©2010 Scientific Research Publishing, Inc.

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as described below, without the permission in writing of the Publisher.

Copying of articles is not permitted except for personal and internal use, to the extent permitted by national copyright law, or under the terms of a license issued by the national Reproduction Rights Organization.

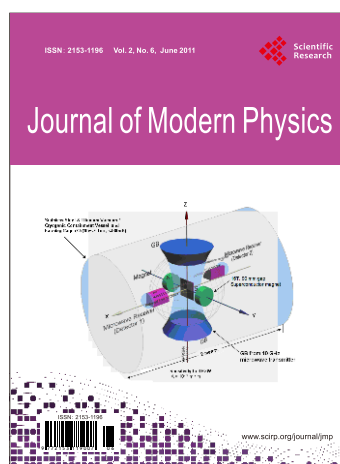
Requests for permission for other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale, and other enquiries should be addressed to the Publisher.

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



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. Victor Yashnikov

Russian Academy of Sciences, Russia

Executive-Editor-in-Chief

Dr. Marko Markov

Research International, Buffalo Office, USA

Editorial Board

Prof. Sadhan Kumar Adhikari
Prof. Sami M. AL-Jaber
Dr. Ksenofontov Alexandre
Prof. Roberto Oscar Aquilano
Prof. Salvatore Capozziello
Dr. Riccardo Cerulli
Prof. Papadopoulos Demetrios
Dr. Hua-Shu Dou
Prof. Constantin Fetecau
Prof. Bouzid Menaa
Prof. Karo Michaelian
Prof. Zdzislaw E. Musielak
Prof. Luciano Nunziant
Prof. Jingli Ren
Prof. Richard Saurel
Prof. Magnus Willander
Dr. Raghvendra Singh Yadav
Dr. S. Zerbini

Universidade Estadual Paulista, Brazil
AN-Najah National University, Palestine
Moscow Engineering Physics Institute, Russia
Universidad Nacional de Rosario, Argentina
University of Naples "Federico II", Italy
Gran Sasso National Laboratory, INFN, Italy
Aristotle University of Thessaloniki, Greece
National University of Singapore, Singapore
Government College University, Romania
Fluorotronics, Inc., USA
National Autonomous University of Mexico, Mexico
The University of Texas at Arlington, USA
University of Naples Federico II, Italy
Zhengzhou University, China
University Aix Marseille I, France
Linköping University, Sweden
University of Allahabad, India
University of Trento, Italy

Managing Executive Editor

Prof. Chang Liu

Wuhan University, China

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

Subject Coverage

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

Theoretical High Energy Physics
Biophysics and Medical Physics
Earth and Planetary Sciences
Instrumentation and Measurement
Plasma Physics

Materials Sciences and Technology
Nuclear Science and Engineering
Computational Physics
Interdisciplinary Physics
Other Topics in 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.

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