Editor-in-Chief
Prof. Kuo-Chen Chou  
Gordon Life Science Institute, USA

Editorial Advisory Board
Dr. James J. Chou  
Harvard Medical School, USA
Prof. Reba Goodman  
Columbia University Health Sciences, USA
Dr. Robert L. Heinrikson  
Proteos, Inc., USA
Prof. Robert H. Kretsinger  
University of Virginia, USA

Editorial Board
Prof. Tarek AboUl-Fadl  
Assiut University, Egypt
Dr. Fridoon Jawad Ahmad  
King Edward Medical University, Pakistan
Dr. Marcello Alecci  
University of L’Aquila, Italy
Prof. Hakan Arslan  
Mersin University, Turkey
Dr. Jean-Marc L. Beaunour  
University of Milan, Italy
Dr. Giangiocomo Beretta  
University of Bologna, Italy
Dr. Attilio Castellarin, Prof. Khalil El-Hami  
Saha Institute of Nuclear Physics, India
Dr. Mohammadreza B. Eskamimejad  
Kyoto University, Japan
Dr. Maria Frontasyeva  
Roya Institute, Iran
Dr. Neelam Gupta  
Joint Institute for Nuclear Research, Russia
Dr. Tai-Yin Huang  
National Bureau of Animal Genetic Resources, India
Prof. Syed Kamrul Islam  
University of Tennessee, USA
Dr. Yohichi Kumaki  
Utah State University, USA
Dr. Peng Li  
University of California, Irvine, USA
Prof. Giulio Lorenzini  
University of Parma, Italy
Dr. Ping Lu  
Communications Research Centre Canada, Canada
Prof. Mark Lee Morrissey  
University of Oklahoma, USA
Dr. Sunil Nautiyal  
Centre for Ecological Economics and Natural Resources, India
Dr. Edward Lee Nelson  
University of California, Irvine, USA
Prof. Dimitrios P. Nikoletis  
University of Athens, Greece
Dr. Dongfeng Pan  
University of Virginia, USA
Dr. Judith M. Pap  
Catholic University of America, USA
Dr. Qasem Ramadan  
Swiss Federal Institute of Technology, Switzerland
Prof. Caesar Saloma  
University of the Philippines Diliman, Philippines
Dr. Victor B. Semizko  
Russian Academy of Sciences, Russia
Dr. Mohammad Reza Shadnam  
KPMG LLP, Canada
Prof. Chuan-Chou Shen  
National Taiwan University, Chinese Taipei
Prof. Kenji Sorimachi  
Dokkyo Medical University, Japan
Dr. Marco Taddei  
University of Bologna, Italy
Dr. Swee Ngin Tan  
Nanyang Technological University, Singapore
Dr. Vladislav Vasiliev  
Australian National University, Australia
Dr. Rodrick Wallace  
New York State Psychiatric Institute, USA
Dr. Chao-Fu Wang  
National University of Singapore, Singapore
Dr. Chunsheng Wang  
University of Maryland, USA
Dr. Xin Wang  
National Institute of Geology and Palaeontology, China
Prof. Zhengbin Wu  
Chinese Academy of Sciences, China
Dr. Fuqiang Xu  
Chinese Academy of Sciences, China
Dr. Sharif Hussein Sharif Zein  
University Science Malaysia, Malaysia
Dr. Li-Ru Zhao  
LSU Health Sciences Center, USA
Dr. Weizhu Zhong  
Pfizer Global Research and Development, USA

Guest Reviewers (According to Alphabet)

Salvador Alfaro  
Takayuki Ban  
Blanca Bernal  
Jason Blum  
Maria Teresa Esposito  
Marina Frontasyeva  
Yu Gao  
Tomski Grigori  
Baja Rianau Hussain  
Yan Jiang  
Toshiyuki Kimura  
Shuang Li  
Dachi Liu  
Zhiyong Liu  
Rafael Luque  
Piotr Maczech  
Lev A. Maslov  
Ho Soon Min  
Daniela Morelli  
Fan Pech  
Mohd. Yusri bin Abd. Rahman  
Brijesh Rathi  
Toshifumi Satoh  
Ruediger Schweiss  
Sumin Tang  
Jo-Ming Tseng  
Shahida Wahed  
John R. Williams  
Jamsheed Hussain Zaidi  
Yongyuan Zang  
Nenghui Zhang  
Hongchun Zhong  
Junwu Zhu
# TABLE OF CONTENTS

**Volume 5, Number 8A1, August 2013**

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>How soon could be the next mega-earthquake in Japan?</td>
<td>1</td>
</tr>
<tr>
<td>A. Lyubushin</td>
<td></td>
</tr>
<tr>
<td>Some results of geochemical research in the Western Caucasus during</td>
<td>8</td>
</tr>
<tr>
<td>the regional earthquakes</td>
<td></td>
</tr>
<tr>
<td>T. Tsvetkova, I. Nevinsky, V. Nevinsky</td>
<td></td>
</tr>
<tr>
<td>Stripe of normal mechanisms for crustal earthquakes with M ≤ 3.5</td>
<td>18</td>
</tr>
<tr>
<td>flanking the western side of the thrust front zone in the Andes backarc</td>
<td></td>
</tr>
<tr>
<td>S. Nacif, E. Triep, R. Furlani, S. Spagnotto</td>
<td></td>
</tr>
<tr>
<td>Comparison of base-isolated liquid storage tank models under</td>
<td>27</td>
</tr>
<tr>
<td>bi-directional earthquakes</td>
<td></td>
</tr>
<tr>
<td>S. K. Saha, V. A. Matsagar, A. K. Jain</td>
<td></td>
</tr>
<tr>
<td>Model of the singular current source—The indicator of geodynamic</td>
<td>38</td>
</tr>
<tr>
<td>processes in Japan in 2009-2011</td>
<td></td>
</tr>
<tr>
<td>L. F. Moskovskaya</td>
<td></td>
</tr>
<tr>
<td>Stress rise precursor to earthquakes in the Tibetan Plateau</td>
<td>46</td>
</tr>
<tr>
<td>Z. H. Wu, Q. C. Chen, P. J. Barosh, H. Peng, D. G. Hu</td>
<td></td>
</tr>
<tr>
<td>Influential aspects on seismic performance of confined masonry</td>
<td>56</td>
</tr>
<tr>
<td>construction</td>
<td></td>
</tr>
<tr>
<td>A. Chourasia, S. K. Bhattacharyya, P. K. Bhargava, N. M. Bhandari</td>
<td></td>
</tr>
<tr>
<td>Innovative earthquake resistant timber-glass buildings</td>
<td>63</td>
</tr>
<tr>
<td>B. Ber, M. Premrov, I. Sustersic, B. Dujic</td>
<td></td>
</tr>
<tr>
<td>Spatial variation of coda wave attenuation using aftershocks of the</td>
<td>72</td>
</tr>
<tr>
<td>Al Hoceima earthquake of 24 February, 2004, Morocco</td>
<td></td>
</tr>
<tr>
<td>A. Boulanouar, L. El Moudnib, M. Harnafi, T.-E. Cherkaoui, A. Rahmouni</td>
<td></td>
</tr>
<tr>
<td>Reducing seismic risk by understanding its cultural roots: Inference</td>
<td>78</td>
</tr>
<tr>
<td>from an Italian case history</td>
<td></td>
</tr>
<tr>
<td>F. Stoppa, C Berti</td>
<td></td>
</tr>
</tbody>
</table>

The figure on the front cover is from the article published in Natural Science, 2013, Vol. 5, No. 8A1, pp. 63-71 by Bostjan Ber, et al.

Natural Science (NS)
Journal Information

SUBSCRIPTIONS


Subscription rates:
Print: $79 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)
E-mail: sub@scirp.org

COPYRIGHT

Copyright©2013 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 assumes 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: ns@scirp.org
Call for Papers

Natural Science

A Journal Published by Scientific Research Publishing, USA
www.scirp.org/journal/ns

Editor-in-Chief
Prof. Kuo-Chen Chou
Gordon Life Science Institute, USA

Editorial Advisory Board
Dr. James J. Chou
Prof. Reba Goodman
Dr. Robert L. Heinrikson
Prof. Robert H. Kretsinger

Editorial Board
Prof. Tarek Aboul-Fadl
Dr. Fridoon Jawad Ahmad
Dr. Marcello Alleci
Prof. Hakan Arslan
Dr. Jean-Marc L. Beaujour
Dr. Giangiacomo Beretta
Dr. Attilio Castellarin
Dr. Bikas K. Chakrabarti
Prof. Khalil El-Hami
Dr. Mohamadreza B. Esalmejlad
Dr. Marina Frontasyeva
Dr. Neelam Gupta
Dr. Tai-Yin Huang
Prof. Syed Kamrul Islam
Dr. Yohichi Kumaki
Dr. Peng Li
Prof. Mark Lee Morrissey
Dr. Sunil Nautiyal
Dr. Edward Lee Nelson
Prof. Dimitrios P. Nikolelis
Dr. Dongfeng Pan
Dr. Judit M. Pap
Dr. Qasem Ramadan
Prof. Caesar Saloma
Dr. Victor B. Semikoz
Dr. Mohammad Reza Shadnam
Prof. Chuan-Chou Shen
Prof. Kenji Sorimachi
Dr. Marco Taddia
Dr. Swee Ngin Tan
Dr. Vladislav Vasilyev
Dr. Rodrick Wallace
Dr. Chao-Fu Wang
Dr. Chunsheng Wang
Dr. Xin Wang
Prof. Zhengbin Wu
Prof. Fuqiang Xu
Dr. Sharif Hussein Sharif Zein
Dr. Li-Ru Zhao
Dr. Weizhu Zhong

Natural Science is an international journal dedicated to the latest advancement of natural sciences. 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 natural sciences. 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:

- Astronomy & Space Sciences
  - Astronomy
  - Astrophysics
  - Atmospheric Science
  - Space Physics
- Earth Science
  - Geography
  - Geology
  - Geophysics/Geochemistry
  - Oceanography
- Chemistry
  - Analytical Chemistry
  - Biochemistry
  - Computational Chemistry
  - Inorganic Chemistry
  - Organic Chemistry
  - Physical Chemistry
- Life Science
  - Cell Biology
  - Computational Biology
  - Genetics
  - Immunology
  - Medicine/Diseases
  - Microbiology
  - Molecular Biology
  - Neuroscience
  - Pharmacology/Toxicology
  - Physiology
  - Psychology
  - Virology
- Physics
  - Applied Physics
  - Atomic, Molecular, and Optical Physics
  - Biophysics
  - High Energy/Particle Physics
  - Material Science
  - Plasma Physics
- Others
  - Education
  - History of Science
  - Science and Innovations

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 be previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. For more details, please access the website.

Website and E-Mail
http://www.scirp.org/journal/ns
E-mail: ns@scirp.org