



ISSN: 1749-3889 (print)
1749-3897 (online)

Bimonthly

Vol.30 (2020) No.2/3
December

England, UK
www.NonlinearScience.org.uk
www.InterNonlinearScience.org

International Journal of **Nonlinear Science**

CONTENTS

- 87 Global Subsonic Flow Through a 2-D Infinitely Long Curved Nozzle**
Qin Xu
- 97 Critical Traveling Waves for a Four-component Diffusive Influenza Epidemic Model with Vaccination**
Jinghuan Li
- 110 Research on the Dynamic Effect of Factor Marketization Reform Based on Structural Evolution and Economic Growth**
Lei Shi, Juan Wang
- 116 Bifurcation and Abundant Traveling Wave Solutions of the Osmosis $K(2,2)$ Equation**
Chuanhai Xu, Yuhai Wu, Lixin Tian, Lijuan Qian
- 129 Analysis of Evolution Law of PM2.5 Concentration Fluctuation Based on Complex Network**
Jiang Xiao
- 136 Research on Performance Evaluation of Intellectual Property Operations in “Double-First-Class” Universities: Based on Dynamic Two-stage DEA Model**
Yuesheng Song
- 144 Modeling and Analysis of the Coupling Network of Interactions between Organisms**
Lihong Guo, Jing Hua, Yimin Li
- 153 Numerical Solution of the Modified Kawahara Equation Using Sinc Collocation Method**
Linjun Wang , Honglei Li
- 163 Scaling of Average Shortest Path on Weighted Crystal Network**
Xiaoyan Li , Jun Li, Huixian Yang, Xiaobei Liu
- 168 SE2IR Model Considering the Influence of the Exposed Person on Investment Sentiment in a Heterogeneous Network**
Wente Liu, Hongxing Yao
- 177 Discount Rate with Unstable Economic and Environmental Changes**
Chuan Liu, Zaili Zhen

International Journal of Nonlinear Science (IJNS)

Bibliographic

ISSN: 1749-3889 (print), 1749-3897 (online), *Bimonthly*

Edited by International Editorial Committee of Nonlinear Science, WAU

Published by World Academic Union (World Academic Press)

Publisher Contact: Academic House, 113 Mill Lane

Wavertree Technology Park, Liverpool L13 4AH, England, UK

Email: publishing@wau.org.uk, publishing@WorldAcademicUnion.com

URL: **www. World Academic Union .com**

Contribution enquiries and submitting

Paper(s) should be submitted through the online system. To submit papers, please visit

www.NonlinearScience.org.uk

www.InterNonlinearScience.org

Editorial Board

Editor in Chief: *Boling Guo*, Institute of Applied Physics and Computational Mathematics, Beijing, 100088, China;

IJNS@ujs.edu.cn

Co-Editor in Chief: *Lixin Tian*, Nonlinear Scientific Research Center, Jiangsu University, Zhenjiang, Jiangsu, 212013;

China; tianlx@ujs.edu.cn, IJNS@ujs.edu.cn

Standing Members of Editorial Board:

Ghasem Alizahdeh Afrouzi, Department of Mathematics, Faculty of Basic Sciences, Mazandaran University, Babolsar, Iran; afrouzi@umz.ac.ir

Stephen Anco, Department of Mathematics, Brock University, 500 Glenridge Avenue St. Catharines, ON L2S 3A1, Canada; sanco@brocku.ca

Adrian Constantin, Department of Mathematics, Lund University, 22100 Lund, adrian@maths.lth.se Sweden; adrian.constantin@math.lu.se

Ying Fan, Department of Management Science, Institute of Policy and Management, Chinese Academy of Sciences, Beijing 100080, China, yfan@casipm.ac.cn.

Juergen Garloff, University of Applied Sciences/ HTWG Konstanz, Faculty of Computer Science, Postfach 100543, D-78405 Konstanz, Germany; garloff@htwg-konstanz.de

Tasawar Hayat, Department of mathematics, Quaid-I-Azam University, Pakistan, pensy_t@yahoo.com

Yong Jiang, William Lee Innovation Center, University of Manchester, Manchester, M60 1QD UK; jianguk@hotmail.com

Zhujun Jing, Institute of Mathematics, Academy of Mathematics and Systems Sciences, Chinese Academy of Science, Beijing, 100080, China; jingzj@math03.math.ac.cn

Yue Liu, Department of Mathematics, University of Texas, Arlington, TX 76019, USA; yliu@uta.edu

Zengrong Liu, Department of Mathematics, Shanghai University, Shanghai, 201800, China; Zrongliu@online.sh.cn

Norio Okada, Disaster Prevention Research Institute, Kyoto University, n_okada@drs.dpri.kyoto-u.ac.jp

Jacques Peyriere, Université Paris-Sud, Mathématiques, b   t. 42591405 ORSAY Cedex , France;

Jacques.Peyriere@free.fr,

Jacques.Peyriere@math.u-psud.fr

Weiyi Su, Department of Mathematics, Nanjing University, Nanjing, Jiangsu, 210093, China; suqiu@nju.edu.cn

Konstantina Trivisa, Department of Mathematics, University of Maryland College Park, MD20472-4015, USA; trivisa@math.umd.edu

Yaguang Wang, Department of Mathematics, Shanghai Jiao Tong University, Shanghai, 200240, China; ygwang@sjtu.edu.cn

Yiming Wei, Institute of Policy and management, Chinese Academy of Science, Beijing, 100080, China; ymwei@mail.casipm.ac.cn

Zhiying Wen, Department of Mathematics, Tsinghua University, Beijing, 100084, China; wenzy@mail.tsinghua.edu.cn

Lifeng Xi, Institute of Mathematics, Zhejiang Wanli University, Ningbo 315100, China; xilf@zww.edu.cn

Zhenyuan Xu, Faculty of Science, Southern Yangtze University, Wuxi, Jiangsu 214063 , China; Xu_zhenyuan@yahoo.com

Huicheng Yin, Department of Mathematics, Nanjing University, Nanjing, Jiangsu, 210093, China; huicheng@nju.edu.cn

Pingwen Zhang, School of Mathematic Sciences, Peking University, Beijing, 100871, China; pzhang@pku.edu.cn

Secretary: Jingdong Wei, Dun Han

Editorial office:

Academic House, 113 Mill Lane
Wavertree Technology Park
Liverpool L13 4AH, England, UK

Email:

china@nonlinearscience.org.uk

IJNS@ujs.edu.cn

editor@nonlinearscience.org.uk