

Volume 7 Number 2
April 2025

ISSN 2562-2854(print)
ISSN 2562-2862(online)

Journal of Nonlinear Modeling and Analysis

Editors-in-Chief

Maoan Han & Junling Ma

 Global Science Press



Zhejiang Normal University

Journal of Nonlinear Modeling and Analysis

Volume 7, Number 2

April 2025

Contents

- 383** **Shallow-Water Models with the Weak Coriolis and Underlying Shear Flow Effects**
Yu Liu, Xingxing Liu and Min Li
- 399** **Existence and Uniqueness of Solutions of Nonlinear Integral Equations through Results in Fuzzy Bipolar Metric Spaces**
Sonam and Ramakant Bhardwaj
- 414** **Dynamics of an n -Patch Predator-Prey Model with Allee Effect**
Zhaolei Zhu, Zhichun Yang and Weisong Zhou
- 429** **Spreading Analysis of an SEIR Epidemic Model with Distributed Delay on Scale-Free Network**
Hanwu Liu, Zhuoyue Liu and Fengqin Zhang
- 439** **On a Class of Discrete Problems with the $p(k)$ -Laplacian-like Operators**
Mohammed Barghouthe, Mahmoud El Ahmadi, Abdesslem Ayoujil and Mohammed Berrajaa
- 453** **Global Stability of a Parabolic System Involving a Nonlinear Diffusion Operator with an Example in Epidemiology**
Achraf Zinihi and Moulay Rchid Sidi Ammi
- 463** **A Stochastic Immunotherapy Model for Breast Cancer with Pulsed Chemotherapy**
Weipeng Zhang, Shiyu Zhang and Hang Wang
- 493** **Impact of Plankton Body Size on a Stochastic Plankton System with Lévy Jumps**
Shulin Sun, Yaping Jin and Cuihua Guo
- 514** **The Influence of Environmental Variability and Media Coverage on the Dynamics of an Epidemic Model**
Yanhui Jiang, Miaomiao Gao, Daqing Jiang and Jieyu Ding
- 552** **Modeling the Influence of Treatment Accessibility and Treatment Compliance on the Dynamics of HIV/AIDS**
Abayomi Ayotunde Ayoade, Srinivasarao Thota and Zahir Shah

Journal of Nonlinear Modeling and Analysis

Volume 7, Number 2

April 2025

Contents

- 583 Nonlinear SEIS Epidemic Dynamics with Fractional-Order Time: Analytical and Numerical Results**
Jamal El Amrani, Hamza El Mahjour, Ibtissam Serroukh and Aadil Lahrouz
- 602 Error Bounds for Corrected Euler-Maclaurin Formula in Tempered Fractional Integrals**
Fatih Hezenci and Hüseyin Budak
- 622 Some Local Fractional Hermite-Hadamard-Type and Ostrowski-Type Inequalities for Exponentially s -Preconvex Functions with Generalized Mittag-Leffler Kernel**
Huijie Shao and Run Xu
- 641 Common Fixed Point of the Commutative F-Contraction Self-mappings with Uniquely Bounded Sequence**
Djamel Deghoul, Zoheir Chebel, Abdellatif Boureghda and Salah Benyoucef
- 649 Characterization of Distributions through Stochastic Models under Fuzzy Random Variables**
D.Vijayabalan, M L Suresh, G.Kuppuswami, T.Vivekanandan, K.Kavitha and S. Geethamalini
- 666 Improved Contact Tracing SIR Model for Randomly Mixed Populations**
Meili Li, Boxiang Yu, Junling Ma and Manting Wang
- 680 Dynamics of a Diffusive Model with Spatial Memory and Nonlinear Boundary Condition**
Xiangsheng Deng and Shangjiang Guo
- 704 Quasi Statistical Convergence of Double Sequences in Neutrosophic Normed Spaces**
Chiranjib Choudhury and Carlos Granados
- 720 Vector Fixed Point Theorem with Application to Systems of Nonlinear Elastic Beams Equations**
H. El Bazi and A. Sadrati
- 739 Analysis of a Contact Problem Modeled by Hemivariational Inequalities in Thermo-Piezoelectricity**
Mohammed Alaoui, El-Hassan Essoufi, Abdelhafid Ouaanabi and Boualala Mustapha