

JOURNAL OF ADVANCES IN APPLIED MATHEMATICS





TABLE OF CONTENTS

Volume 6 Number 2	April 2021
On the Mandelbrot Set for $i^2 = \pm 1$ and Imaginary Higgs Fields Jonathan Blackledge	
Asymptotical Synchronization of Drive-Response Networks by Event-Triggered Control with Quantization and Cyber-Attacks	Sample-Data-Based
Ge Bai	
Application of the Oscillation Symmetry to the Electromagnetic In	nteractions of Some
Particles, Nuclei, and Atoms Boris Tatischeff	
Memory Event-triggered Output Feedback Synchronization Control for	or Complex Dynamic
Network with Bounded Distributed Delays Bei Gao	
Stability of Contact Discontinuity with General Perturbation for	r the Compressible
Navier-Stokes Equations with Reaction Diffusion	
Yajie Tang	

Journal of Advances in Applied Mathematics (JAAM)

EDITOR-IN-CHIEF

Prof. Wanyang Dai

Nanjing University, China

Honorary Editorial BoardProf. H. M. SrivastavaUniversity of Victoria, CanadaProf. Ravi P. AgarwalTexas A&M University-Kingsville, USA

EDITORIAL BOARD

Dr. S. P. Yung Prof. Themistocles M. Rassias Prof. Tianxiao He Prof. José Luis López-Bonilla Prof. Jun Hu Prof. Jun Hu Prof. H. M. Srivastava Prof. Wen-Xiu Ma Prof. Wen-Xiu Ma Prof. Kumar K. Tamma Prof. Allaberen Ashyralyev Prof. Allaberen Ashyralyev Prof. Tien-Chien Jen Dr. Michael Th. Rassias Dr. Zeyad Al-Zhour Prof. M. A. Abdou Prof. Tingzhu Huang Dr. Safeer Hussain Khan Prof. Quanxin Zhu

Prof. Quanxin Zhu Dr. Abbas Amini Prof. PRAVEEN AGARWAL Dr. Vishnu Narayan Mishra Prof. Lakshmi Narayan Mishra Dr. Deepmala

The University of Hong Kong, Hong Kong (China) National Technical University of Athens, Greece Illinois Wesleyan University, USA National Polytechnic Institute, Mexico Harbin University of Science and Technology, China University of Victoria, Canada University of South Florida, USA University of Minnesota, USA Fatih University, Turkey University of Johannesburg, South Africa Princeton University, USA University of Dammam, Saudi Arabia Alexandria University, Egypt University of Electronic Science and Technology of China, China Qatar University, Qatar Nanjing Normal University, China Western Sydney University, Australia Anand International College of Engineering, India Indira Gandhi National Tribal University, India Vellore Institute of Technology (VIT) University, India PDPM Indian Institute of Information Technology,

Design and Manufacturing, India

SUBSCRIPTIONS

Journal of Advances in Applied Mathematics (JAAM) (Online at www.isaacpub.org) is published quarterly by Isaac Scientific Publishing. For printed journal subscription, please contact: service@isaac-scientific.org

Subscription rates: \$29 per issue (by air mail)

ADVERTISEMENTS & REPRINTS

For advertisements and reprints affairs, please contact: service@isaacpub.org The reprints require a minimum quantity of 50 copies.

PUBLISHER

Isaac Scientific Publishing Co., Limited Unit 04, 7/F Bright Way Tower, No. 33 Mong Kok Rd., KL, Hong Kong(China)