

Hindawi Publishing Corporation
Abstract and Applied Analysis
Volume 2015, Article ID 430238, 1 page
<http://dx.doi.org/10.1155/2015/430238>



Editorial

Asymptotic Behavior of Nonlinear Evolution Equations

Hui-Sheng Ding,¹ Carlos Lizama,² Gaston M. N'Guérékata,³ and Claudio Cuevas⁴

¹College of Mathematics and Information Science, Jiangxi Normal University, Nanchang, Jiangxi 330022, China

²Departamento de Matemática y Ciencia de la Computación, Universidad de Santiago de Chile, Casilla 307, Correo 2, Santiago, Chile

³Department of Mathematics, Morgan State University, 1700 E. Cold Spring Lane, Baltimore, MD 21251, USA

⁴Departamento de Matemática, Universidade Federal de Pernambuco, 50540-740 Recife, PE, Brazil

Correspondence should be addressed to Hui-Sheng Ding; dinghs@mail.ustc.edu.cn

Received 25 December 2014; Accepted 25 December 2014

Copyright © 2015 Hui-Sheng Ding et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

The objective of this special issue is to report the latest achievements in asymptotic behavior of evolution equations, which include many ordinary differential equations, functional differential equations, partial differential equations, integral equations, integrodifferential equations, abstract differential equations, fractional differential equations, difference equations, stochastic evolution equations, and so on. In fact, the field of evolution equations arises in many scientific areas as in physics, chemistry, biology, mechanics, engineering, economy, control theory, information theory, and so on.

There are many leading experts and researchers actively working in the field of asymptotic behavior of evolution equations. So we aim to provide a platform for the latest achievements in this area. This special issue includes periodicity and antiperiodicity, almost periodicity and almost automorphy, asymptotically almost periodicity and asymptotically almost automorphy, pseudo-almost periodicity and pseudo-almost automorphy, stability, and other asymptotic behaviors.

In the following we introduce briefly the papers published in our special issue. The global exponential stability of learning-based fuzzy networks on time scales was reported. Besides, the global stability of an epidemic model of computer virus was investigated. The existence of positive solutions for third-order p -Laplacian functional dynamic equations on time scales was also presented. Interestingly, new results for generalized Gronwall inequalities and their applications were reported. In addition, the existence of antiperiodic solutions for a class of nonautonomous parabolic evolution equation was studied. The asymptotic behavior of

a time-oscillating Hartree type Schrodinger equation was also investigated. Finally, an alternative variational framework for image denoising was proposed and applied to evolution equations.

Hui-Sheng Ding
Carlos Lizama
Gaston M. N'Guérékata
Claudio Cuevas



Hindawi

Submit your manuscripts at
<http://www.hindawi.com>

