PREFACE: SPECIAL ISSUE IN HONOR OF PROFESSOR JIBIN LI

This special issue of Journal of Applied Analysis and Computation is dedicated to Professor Jibin Li on the occasion of his 80th birthday, and in recognition of his outstanding contributions to Hilbert's 16th problem and bifurcation and chaos of vector fields; generalized Hamiltonian systems and Kaplan-Yorke's conjecture; and dynamical system approaches to singular nonlinear traveling wave equations.

Jibin Li was born in Tengchong of Yunnan Province, China on February 4, 1943. He graduated top of his class in mathematics and mechanics from Yunnan University, then taught at Kunming Institute of Technology. From



1978 to 1980, he attended Anhui University for his graduate studies in mathematics. Following his graduation, Jibin Li returned to Kunning Institute of Technology (Renamed as Kunning University of Science and Technology since 1995) and taught until mid 2004. Between 2004 and 2016, he was Distinguished Professor of Zhejiang Normal University; from 2016 to 2020, he was Distinguished Professor of Huaqiao University; and currently he is the Chair Professor of Chengdu University of Information Technology.

Professor Jibin Li has authored more than 280 papers and published 14 books in the areas of qualitative theory of differential equations, stability theory, bifurcation and chaos of dynamical systems, nonlinear oscillations, mathematical physics, Hamiltonian systems, biomathematics, nonlinear wave equations and functional differential equations. He has served on editorial boards of several internationally recognized journals. He was visiting scholars to renowned universities in more than 20 countries including Australia, Canada, France, Germany, Singapore, Spain, United Kingdom and United States. Since 1983, he organized/co-organized more than 20 international/domestic academic conferences.

Professor Jibin Li was awarded National Outstanding Contribution Experts in 1998. He received the second place of National Excellent Teaching Achievement Award in 2001. He also received the first place of Yunnan Province Science and Technology Progress Award in 2003, and the first place of Zhejiang Province Science and Technology Progress Award in 2011.

Professor Jibin Li's research has been highly influential and original, introducing new ideas and techniques for the studies of differential equations and dynamical systems. More than 10 research proposals were funded by NNSF of China including three key ones. Esteemed examples of his projects are

- Theory and Application on Perturbed Generalized Hamiltonian Systems, with X. Zho and Z. Liu, 1994;
- Hilbert's 16th problem and bifurcations of planar polynomial vector fields, 2003;

- Bifurcation of limit cycles in a Z₈-equivariant planar vector fields of degree 7, with M. Zhang, 2004;
- Singular Nonlinear Travelling Wave Equations: Bifurcations and Exact Solutions, 2013;
- Planar Dynamical Systems: Selected Classical Problems, with Y. Liu and T. Huang, 2014.

In addition, Professor Jibin Li has supervised fifteen Ph.D. dissertations in the mathematics departments at Sichuan University, Kunming University of Science and Technology, and Zhejiang Normal University. Particularly, Dahe Feng won the National Hundred Excellent Doctoral Dissertation Nomination Award in 2010.

Professor Jibin Li has made significant impact on many of our lives, and we are grateful for all he has done for the mathematical community. It is an honor for us to dedicate this issue to him.

Finally, we would like to thank all authors for their contributions to this special issue and the referees for their thorough work. We would also like to thank Professor Maoan Han and Professor Xin Lu for their supports to publish this special issue to honor Professor Jibin Li and celebrate his 80th Birthday.

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