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Ferenc Hartung • Mihály Pituk
Editors

Recent Advances in Delay Differential and Difference Equations

Springer

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Preface

We would like to recommend the readers the 12 research papers on differential and difference equations in this volume. Differential and difference equations are to be understood in the broad sense. They include discrete and continuous dynamical systems, stochastic differential and difference equations, and numerical simulations of the solutions and applications.

The papers are related to the research presented by the corresponding authors at the "International Conference on Delay Differential and Difference Equations and Applications, July 15–19, 2013, Balatonfüred, Hungary" organized by the Department of Mathematics, Faculty of Information Technology of the University of Pannonia, Veszprém, Hungary. This conference was dedicated to the 70th birthday of our colleague, Professor István Győri. He has been working at the University of Pannonia, Hungary, as a full-professor of mathematics since 1993. He was the head of the Department of Mathematics between 1993 and 2009, and in the period 1995–1998 he served as the president of the university.

István Győri has published more than 160 scientific papers on differential and difference equations including his monograph on oscillation theory written jointly with Professor Gerry Ladas (Oscillation Theory for Delay Differential Equations with Applications, Oxford University Press, Oxford, 1991). In addition, he has more than 50 papers in medical and informatics applications. His open problems and papers have motivated further research, and more than 2,800 citations to his papers can be counted in the literature. He published papers together with more than 80 coauthors, and he has been a supervisor of several Ph.D. dissertations.

István Győri acts as a member of the editorial boards of more than ten international scientific journals, and he has been an invited lecturer and a member of the scientific and organizing committees of numerous international conferences. Since 2004 he has been a member of the boards of directors of the International Society of Difference Equations.

Finally, we remark that each paper in this volume has been carefully reviewed. We express our sincere thanks to the referees for their service to help our editorial task.

Veszprém, Hungary
March 2014

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Acronyms

BVP	Boundary value problem
CRN	Chemical reaction network
FDE	Functional differential equation
LMI	Linear matrix inequality
LODE	Linear ordinary differential equation
LV	Lotka-Volterra
MAL-CRN	Chemical reaction network with mass action law
NFDE	Neutral functional differential equation
ODE	Ordinary differential equation
PD	Proportional derivative
PDE	Partial differential equation
QM	Quasi-monomial
QP	Quasi-polynomial
SDE	Stochastic differential equation