



PREFACE

A SPECIAL ISSUE ON NONLINEAR ANALYSIS AND OPTIMIZATION DEDICATED TO THE MEMORY OF PROFESSOR RAM U. VERMA

Ram U. Verma was an American mathematician who made numerous contributions to Nonlinear Analysis and Optimization. He is an author of 3 books and more than 580 research papers. In addition to his intensive research activity, Professor Verma contributed to our scientific community by establishing and handling a number of research journals in the area of Nonlinear Analysis. During the last several years he organized special sessions in the Annual Meetings of the AMS which attracted many researchers.

In this special issue we present papers authored by a selected group of experts in the areas of optimization and nonlinear analysis. Most of the papers collected here have been contributed by colleagues of Ram Verma, who were influenced by his scientific work. The special issue contains ten papers contributed by researchers from China, Greece, India, Israel, Poland, Taiwan, and the USA.

These papers cover a wide spectrum of important problems and topics of current research interest.

Therefore, we feel that this special issue will be highly important for many mathematicians, who are interested in recent developments in Optimization and Nonlinear Analysis, as well as in their numerous applications.

Simeon Reich

Technion–Israel Institute of Technology, Israel

E-mail address: sreich@technion.ac.il

Alexander Zaslavski

Technion–Israel Institute of Technology, Israel

E-mail address: ajzasl@technion.ac.il

Table of Contents

- [1] Shih-sen Chang, Lin Wang, Liangcai Zhao, Jinfang Tang, [Common solutions of a finite family of minimization problems and fixed point problems in Hadamard manifolds](#), Commun. Optim. Theory 2022 (2022) 11.
- [2] Johnny Henderson, [Nontrivial solutions of fourth order ordinary differential equations with nonlocal three-point boundary conditions](#), Commun. Optim. Theory 2022 (2022) 15.
- [3] Alexander Zaslavski, [Turnpike phenomenon for symmetric variational problems](#), Commun. Optim. Theory 2022 (2022) 24.
- [4] Ioannis K. Argyros, Samundra Regmi, Christopher I. Argyros, Debasis Sharma, [Extended efficient high convergence order schemes for equations](#), Commun. Optim. Theory 2023 (2023) 7.
- [5] Elena Constantin, [Higher-order tangent cones and their applications to constrained optimization and flow-invariance](#), Commun. Optim. Theory 2023 (2023) 29.
- [6] George A. Anastassiou, Dimitra Kouloumpou, [Brownian motion approximation by neural networks](#), Commun. Optim. Theory 2023 (2023) 38.
- [7] B.B. Upadhyay, Arnav Ghosh, R.N. Mohapatra, [Mond-Weir and Wolfe type duality for nonsmooth multiobjective fractional programming problems with equilibrium constraints on Hadamard manifolds](#), Commun. Optim. Theory 2024 (2024) 20.
- [8] Tadeusz Antczak, [Parametric optimality and duality results for nondifferentiable L-univex multiobjective fractional programming problems](#), Commun. Optim. Theory 2024 (2024) 21.
- [9] Aden O. Ahmed, [Octonions, game extensions, and the three-player game of firms](#), Commun. Optim. Theory 2024 (2024) 23.
- [10] Yakov I. Alber, [Differential inequalities and dynamical systems for fixed point problems](#), Commun. Optim. Theory 2024 (2024) 24.