

## Preface

This issue consists of a collection of research papers dedicated to Professor Panos M. Pardalos on the occasion of his 50th birthday. The papers appear in alphabetical order by the first author of each paper and cover a wide range of recent results and applications in global optimization. All papers in this volume are in one way or another related to the interdisciplinary nature of the work of P.M. Pardalos during the last two decades.

P.M. Pardalos has made significant contributions in all aspects of global optimization. One of his major contributions is his approach to study several discrete problems using global optimization techniques. He developed some of the most efficient algorithms in nonlinear assignment problems, maximum clique problems, and network design problems. The nature of his highly interdisciplinary work can be found in the frontiers of supply chain research, and its applications in several engineering problems such as biomedicine, molecular biology, and telecommunications. Recently he developed new approaches in global optimization over massive datasets using semi-external memory type algorithms. His approach was used to study the dynamics of call graphs, financial networks, and biological networks. His work on brain disorders is ground-breaking, using statistical techniques, dynamical systems analysis, data mining and global optimization, to analyze the epileptic brain (in collaboration with medical doctors). As a result of this research, he developed a warning system for epileptic seizures. He has also extended this research to other areas of biomedicine.

P.M. Pardalos is one of the individuals most responsible for establishing the field of Global Optimization and advancing its state of the art. As the Editor-in-Chief of the Journal of Global Optimization, as the author and editor of more than 80 volumes in the area of Global Optimization, and as the organizer of several major conferences in the area, has made significant contributions to Global Optimization.

As a friend and scientific collaborator of P.M. Pardalos, I wish to join all contributors of this volume in expressing birthday wishes and gratitude to Panos for his leadership, support, and friendship to all of us. We look forward to many additional years of stimulating interactions with Panos who has been a source of inspiration to so many in the field of global optimization.

C.A. Floudas  
Princeton University