



## **Springer Optimization and Its Applications**

Editor-in-chief: D.-Z. Du  
P.M. Pardalos (Ed.)

Optimization has been expanding in all directions at an astonishing rate during the last few decades. New algorithmic and theoretical techniques have been developed, the diffusion into other disciplines has proceeded at a rapid pace, and our knowledge of all aspects of the field has grown even more profound. At the same time, one of the most striking trends in optimization is the constantly increasing emphasis on the interdisciplinary nature of the field. Optimization has been a basic tool in all areas of applied mathematics, engineering, medicine, economics and other sciences.

The series **Springer Optimization and Its Applications** aims to publish state-of-the-art expository works (monographs, contributed volumes, textbooks) that focus on algorithms for solving optimization problems and also study applications involving such problems. Some of the topics covered include nonlinear optimization (convex and nonconvex), network flow problems, stochastic optimization, optimal control, discrete optimization, multi-objective programming, description of software packages, approximation techniques and heuristic approaches.

*Volumes from this series are indexed by Web of Science, zbMATH, Mathematical Reviews, and SCOPUS.*

### Springer books available as

 Printed book

Available from [springer.com/shop](http://springer.com/shop)

 eBook

Available from your library or

► [springer.com/shop](http://springer.com/shop)

 MyCopy

Printed eBook for just

► € | \$ 24.99

► [springer.com/mycopy](http://springer.com/mycopy)

### **Managing Editor:**

Panos M. Pardalos, *University of Florida*

### **Editor- Combinatorial Optimization:**

Ding-Zhu Du, *University of Texas at Dallas*

### **Advisory Board:**

J. Birge, *University of Chicago*

S. Butenko, *Texas A & M University*

F. Giannessi, *University of Pisa* S. Rebennack, *Karlsruhe Institute of Technology*

T. Terlaky, *Lehigh University*

Y. Ye, *Stanford University*

### **Recently published:**

S.T. Rassia, P.M. Pardalos (Eds.)

#### **Smart City Networks**

Through the Internet of Things, Vol. 125

### **Submission information at the [series homepage](#) and [springer.com/authors](http://springer.com/authors)**

Order online at [springer.com](http://springer.com) ► or for the Americas call (toll free) 1-800-SPRINGER ► or email us at: [customerservice@springer.com](mailto:customerservice@springer.com). ► For outside the Americas call +49 (0) 6221-345-4301 ► or email us at: [customerservice@springer.com](mailto:customerservice@springer.com).

