**Springer Optimization and Its Applications** 

Ioannis C. Demetriou · Panos M. Pardalos Editors

## **Approximation and Optimization**

Algorithms, Complexity, and Applications

This book focuses on the development of approximation-related algorithms and their relevant applications. Individual contributions are written by leading experts and reflect emerging directions and connections in data approximation and optimization. Chapters discuss state of the art topics with highly relevant applications throughout science, engineering, technology and social sciences. Academics, researchers, data science practitioners, business analysts, social sciences investigators and graduate students will find the number of illustrations, applications, and examples provided useful.

This volume is based on the conference *Approximation and Optimization: Algorithms, Complexity, and Applications*, which was held in the National and Kapodistrian University of Athens, Greece, June 29–30, 2017. The mix of research and survey content includes topics in approximations to discrete noisy data; data-dependent approximation; data smoothing; evolutionary optimization; machine learning; no free lunch theorem; non-linearly constrained optimization; optimal design of smart composites; optimization of multiband filters; portfolio selection; spectroscopy; tax evasion as optimal control .



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