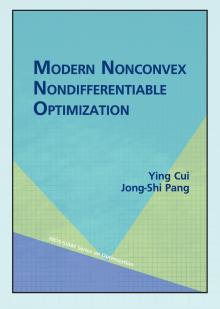
## Modern Nonconvex Nondifferentiable Optimization

YING CUI · JONG-SHI PANG

Starting with the fundamentals of classical smooth optimization and building on established convex programming techniques, this research monograph provides a foundation and methodology for modern nonconvex nondifferentiable optimization by providing readers with theory, methods, and applications of nonconvex and nondifferentiable optimization in statistical estimation, operations research, machine learning, and decision making. A comprehensive and rigorous treatment of this emergent mathematical topic is urgently needed in today's complex world of big data and machine learning. This book takes a thorough approach to the subject and includes examples and exercises to enrich the main themes, making it suitable for classroom instruction.

**Ying Cui** is an assistant professor of industrial and systems engineering at the University of Minnesota. Before that, she spent over two years as a postdoctoral associate at the University of Southern California. Her research focuses on the mathematical foundation of data science, with an emphasis on optimization techniques for operations research, machine learning, and statistical estimations.



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## **Table of Contents**

Preface Acronyms Notation

- 1 Primer of Mathematical Prerequisites
- 2 Optimization Background
- 3 Structured Learning via Statistics and Optimization
- **4 Nonsmooth Analysis**
- **5 Value Functions**
- **6 Stationarity Theory**
- 7 Computational Algorithms by Surrogation
- 8 Theory of Error Bounds
- 9 Theory of Exact Penalization
- **10 Nonconvex Stochastic Programs**
- 11 Nonconvex Game Problems

Bibliography Index Society fo Applied M

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