

《凸优化算法》

图书基本信息

书名：《凸优化算法》

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内容概要

《凸优化算法》几乎囊括了所有主流的凸优化算法。包括梯度法、次梯度法、多面体逼近法、邻近法和内点法等。

这些方法通常依赖于代价函数和约束条件的凸性（而不一定依赖于其可微性），并与对偶性有着直接或间接的联系。作者针对具体问题的特定结构，给出了大量的例题，来充分展示算法的应用。各章的内容如下：第一章，凸优化模型概述；第2章，优化算法概述；第3章，次梯度算法；第4章，多面体逼近算法；第5章，邻近算法；第6章，其他算法问题。《凸优化算法》的一个特色是在强调问题之间的对偶性的同时，也十分重视建立在共轭概念上的算法之间的对偶性，这常常能为选择合适的算法实现方式提供新的灵感和计算上的便利。

《凸优化算法》均取材于作者过去15年在美国麻省理工学院的凸优化方面课堂教学的内容。《凸优化算法》和《凸优化理论》这两《凸优化算法》合起来可以作为一个学期的凸优化课程的教材；《凸优化算法》也可以用作非线性规划课程的补充材料。

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作者简介

德梅萃·博塞克斯 (Dimitri P. Bertsekas)，教授是优化理论的国际学者、美国国家工程院院士，现任美国麻省理工学院电气工程与计算机科学系教授，曾在斯坦福大学工程经济系和伊利诺伊大学电气工程系任教，在优化理论、控制工程、通信工程、计算机科学等领域有丰富的科研教学经验，成果丰硕。博塞克斯教授是一位多产作者，著有14本专著和教科书。

书籍目录

- 1 . Convex Optimization Models : An Overview
 - 1 . 1 . Lagrange Duality
 - 1 . 1 . 1 . Separable Problems - Decomposition
 - 1 . 1 . 2 . Partitioning
 - 1 . 2 . Fenchel Duality and Conic Programming
 - 1 . 2 . 1 . Linear Conic Problems
 - 1 . 2 . 2 . Second Order Cone Programming
 - 1 . 2 . 3 . Semidefinite Programming
 - 1 . 3 . Additive Cost Problems
 - 1 . 4 . Large Number of Constraints
 - 1 . 5 . Exact Penalty ~ctions
 - 1 . 6 . Notes , Sources , and Exercises
- 2 . Optimization Algorithms : An Overview
 - 2 . 1 . Iterative Descent Algorithms
 - 2 . 1 . 1 . Differentiable Cost Function Descent - Unconstrained Problems
 - 2 . 1 . 2 . Constrained Problems - Feasible Direction Methods
 - 2 . 1 . 3 . Nondifferentiable Problems - Subgradient Methods
 - 2 . 1 . 4 . Alternative Descent Methods
 - 2 . 1 . 5 . Incremental Algorithms
 - 2 . 1 . 6 . Distributed Asynchronous Iterative Algorithms
 - 2 . 2 . Approximation Methods
 - 2 . 2 . 1 . Polyhedral Approximation
 - 2 . 2 . 2 . Penalty , Augmented Lagrangian , and Interior Point Methods
 - 2 . 2 . 3 . Proximal Algorithm , Bundle Methods , and Tikhonov Regularization
 - 2 . 2 . 4 . Alternating Direction Method of Multipliers
 - 2 . 2 . 5 . Smoothing of Nondifferentiable Problems
 - 2 . 3 . Notes , Sources , and Exercises
- 3 . Subgradient Methods
 - 3 . 1 . Subgradients of Convex Real-Valued Functions
 - 3 . 1 . 1 . Characterization of the Subdifferential
 - 3 . 2 . Convergence Analysis of Subgradient Methods
 - 3 . 3 . ϵ -Subgradient Methods
 - 3 . 3 . 1 . Connection with Incremental Subgradient Methods
 - 3 . 4 . Notes , Sources , and Exercises
- 4 . Polyhedral Approximation Methods
 - 4 . 1 . Outer Linearization Cutting Plane Methods
 - 4 . 2 . Inner Linearization - Simplicial Decomposition
 - 4 . 3 . Duality of Outer and Inner Linearization
 - 4 . 4 . Generalized Polyhedral Approximation
 - 4 . 5 . Generalized Simplicial Decomposition
 - 4 . 5 . 1 . Differentiable Cost Case
 - 4 . 5 . 2 . Nondifferentiable Cost and Side Constraints
 - 4 . 6 . Polyhedral Approximation for Conic Programming
 - 4 . 7 . Notes , Sources , and Exercises
- 5 . Proximal Algorithms
 - 5 . 1 . Basic Theory of Proximal Algorithms
 - 5 . 1 . 1 . Convergence

- 5 . 1 . 2 . Rate of Convergence
- 5 . 1 . 3 . Gradient Interpretation
- 5 . 1 . 4 . Fixed Point Interpretation , Overrelaxation and Generalization
- 5 . 2 . Dual Proximal Algorithms
 - 5 . 2 . 1 . Augmented Lagrangian Methods
- 5 . 3 . Proximal Algorithms with Linearization
 - 5 . 3 . 1 . Proximal Cutting Plane Methods
 - 5 . 3 . 2 . Bundle Methods
 - 5 . 3 . 3 . Proximal Inner Linearization Methods
- 5 . 4 . Alternating Direction Methods of Multipliers
 - 5 . 4 . 1 . Applications in Machine Learning
 - 5 . 4 . 2 . ADMM Applied to Separable Problems
- 5 . 5 . Notes , Sources , and Exercises
- 6 . Additional Algorithmic Topics
 - 6 . 1 . Gradient Projection Methods
 - 6 . 2 . Gradient Projection with Extrapolation
 - 6 . 2 . 1 . An Algorithm with Optimal Iteration Complexity
 - 6 . 2 . 2 . Nondifferentiable Cost Smoothing
 - 6 . 3 . Proximal Gradient Methods
 - 6 . 4 . Incremental Subgradient Proximal Methods
 - 6 . 4 . 1 . Convergence for Methods with Cyclic Order
 - 6 . 4 . 2 . Convergence for Methods with Randomized Order
 - 6 . 4 . 3 . Application in Specially Structured Problems
 - 6 . 4 . 4 . Incremental Constraint Projection Methods
 - 6 . 5 . Coordinate Descent Methods
 - 6 . 5 . 1 . Variants of Coordinate Descent
 - 6 . 5 . 2 . Distributed Asynchronous Coordinate Descent
 - 6 . 6 . Generalized Proximal Methods
 - 6 . 7 . e-Descent and Extended Monotropic Programming
 - 6 . 7 . 1 . e-Subgradients
 - 6 . 7 . 2 . e-Descent Method
 - 6 . 7 . 3 . Extended Monotropic Programming Duality
 - 6 . 7 . 4 . Special Cases of Strong Duality
 - 6 . 8 . Interior Point Methods
 - 6 . 8 . 1 . Primal-Dual Methods for Linear Programming
 - 6 . 8 . 2 . Interior Point Methods for Conic Programming
 - 6 . 8 . 3 . Central Cutting Plane Methods
 - 6 . 9 . Notes , Sources , and Exercises
- Appendix A" Mathematical Background
 - A . 1 . Linear Algebra
 - A . 2 . Topological Properties
 - A . 3 . Derivatives
 - A . 4 . Convergence Theorems
- Appendix B : Convex Optimization Theory : A Summary
 - B . 1 . Basic Concepts of Convex Analysis
 - B . 2 . Basic Concepts of Polyhedral Convexity
 - B . 3 . Basic Concepts of Convex Optimization
 - B . 4 . Geometric Duality Framework
 - B . 5 . Duality and Optimization

《凸优化算法》

References
Index

《凸优化算法》

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