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Collana	Springer Optimization and Its Applications, , 1931-6836 ; ; 774
Disciplina	519.6 515.64
Soggetti	Mathematical optimization Calculus of variations Probabilities Computer science - Mathematics Neural networks (Computer science) Algorithms Dynamical systems Calculus of Variations and Optimization Probability Theory Mathematical Applications in Computer Science Mathematical Models of Cognitive Processes and Neural Networks Dynamical Systems
Lingua di pubblicazione	Inglese
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Nota di contenuto	1. Introduction -- 2 Stochastic Programming Models -- 3 Modeling and Illustrative Numerical Examples -- 4 Example Applications of Stochastic Programming -- 5 Deterministic Large-Scale Decomposition Methods -- 6 Risk-Neutral Stochastic Linear Programming Methods -- 7 Mean-Risk Stochastic Linear Programming Methods -- 8 Sampling-Based Stochastic Linear Programming Methods -- 9 Stochastic Mixed-Integer Programming Methods -- 10 Computational Experimentation. .
Sommario/riassunto	This book provides a foundation in stochastic, linear, and mixed-integer programming algorithms with a focus on practical computer

algorithm implementation. The purpose of this book is to provide a foundational and thorough treatment of the subject with a focus on models and algorithms and their computer implementation. The book's most important features include a focus on both risk-neutral and risk-averse models, a variety of real-life example applications of stochastic programming, decomposition algorithms, detailed illustrative numerical examples of the models and algorithms, and an emphasis on computational experimentation. With a focus on both theory and implementation of the models and algorithms for solving practical optimization problems, this monograph is suitable for readers with fundamental knowledge of linear programming, elementary analysis, probability and statistics, and some computer programming background. Several examples of stochastic programming applications are included, providing numerical examples to illustrate the models and algorithms for both stochastic linear and mixed-integer programming, and showing the reader how to implement the models and algorithms using computer software.

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