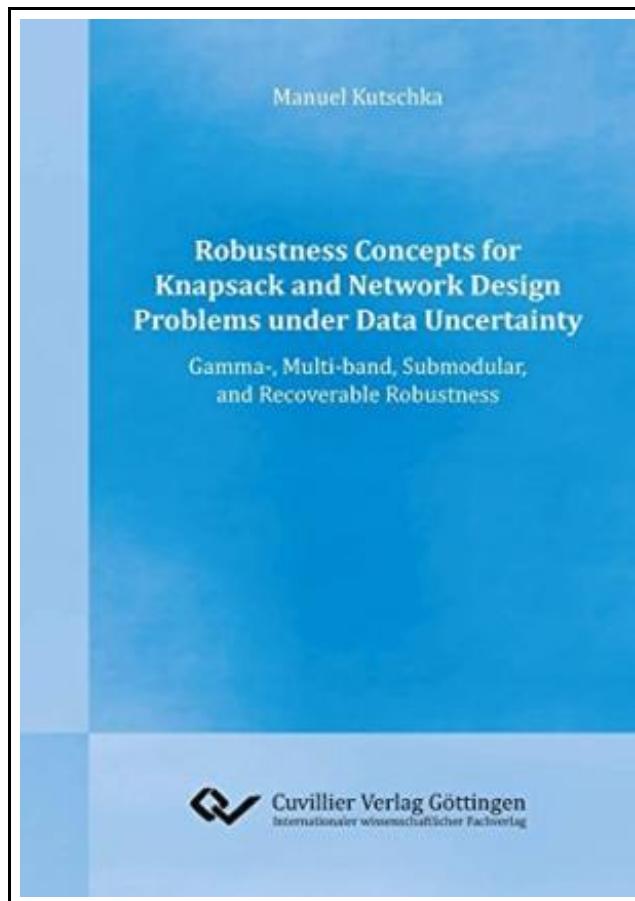


Robustness Concepts for Knapsack and Network Design Problems under Data Uncertainty



Filesize: 8.51 MB

Reviews

The most effective ebook i possibly go through. I am quite late in start reading this one, but better then never. Its been designed in an extremely basic way and it is just after i finished reading this ebook by which basically transformed me, modify the way i believe.

(Giovanny Rowe)

ROBUSTNESS CONCEPTS FOR KNAPSACK AND NETWORK DESIGN PROBLEMS UNDER DATA UNCERTAINTY

[DOWNLOAD](#)

To download Robustness Concepts for Knapsack and Network Design Problems under Data Uncertainty PDF, please refer to the web link below and save the file or have accessibility to other information that are in conjunction with ROBUSTNESS CONCEPTS FOR KNAPSACK AND NETWORK DESIGN PROBLEMS UNDER DATA UNCERTAINTY ebook.

Cuvillier Verlag Dez 2013, 2013. Taschenbuch. Book Condition: Neu. 213x149x17 mm. Neuware - This thesis is concerned with mathematical optimization under data uncertainty using mixed integer linear programming (MILP) techniques. Our investigations follow the deterministic paradigm known as robust optimization. It allows to tackle an uncertain variant of a problem without increasing its complexity in theory or decreasing its computational tractability in practice. We consider four robustness concepts for robust optimization and describe their parametrization, application, and evaluation. The concepts are ϵ -robustness, its generalization multi-band robustness, the more general submodular robustness, and the two-staged adaptive approach called recoverable robustness. For each concept, we investigate the corresponding robust generalization of the knapsack problem (KP), a fundamental combinatorial problem and subproblem of almost every integer linear programming (ILP) problem, and many other optimization problems. We present ILP formulations, detailed polyhedral investigations including new classes of valid inequalities, and algorithms for each robust KP. In particular, our results for the submodular and recoverable robust KP are novel. Additionally, the recoverable robust KP is experimentally evaluated in detail. Further, we consider the ϵ -robust generalization of the capacitated network design problem (NDP). For example, the NDP arises from many application areas such as telecommunications, transportation, or logistics. We present MILP formulations, detailed polyhedral insights with new classes of valid inequalities, and algorithms for the ϵ -robustness NDP. Moreover, we consider the multi-band robust NDP, its MILP formulations, and generalized polyhedral results of the ϵ -robustness NDP. Finally, we present computational results for the ϵ -robustness NDP using real-world measured uncertain data from telecommunication networks. These detailed representative studies are based on our work with the German ROBUKOM project in cooperation with Partner Nokia Siemens Networks GmbH & Co. KG. Die vorliegende Dissertation untersucht mathematische Optimierung unter Unsicherheiten mittels Methoden der gemischt-ganzzahligen linearen Programmierung (MILP). Dabei folgen wir...

- [!\[\]\(4e333a6106fc298d0ae6dff272a736ef_img.jpg\) Read Robustness Concepts for Knapsack and Network Design Problems under Data Uncertainty Online](#)
- [!\[\]\(97089f8e07e24e31baa67366e358a709_img.jpg\) Download PDF Robustness Concepts for Knapsack and Network Design Problems under Data Uncertainty](#)
- [!\[\]\(9496824b8cff3a19f59b81b37b57d8b6_img.jpg\) Download ePUB Robustness Concepts for Knapsack and Network Design Problems under Data Uncertainty](#)

Other Kindle Books



[PDF] Psychologisches Testverfahren

Access the link listed below to download and read "Psychologisches Testverfahren" PDF document.

[Read Document »](#)



[PDF] Programming in D

Access the link listed below to download and read "Programming in D" PDF document.

[Read Document »](#)



[PDF] The Java Tutorial (3rd Edition)

Access the link listed below to download and read "The Java Tutorial (3rd Edition)" PDF document.

[Read Document »](#)



[PDF] Music for Children with Hearing Loss: A Resource for Parents and Teachers (Paperback)

Access the link listed below to download and read "Music for Children with Hearing Loss: A Resource for Parents and Teachers (Paperback)" PDF document.

[Read Document »](#)



[PDF] Adobe Indesign CS/Cs2 Breakthroughs

Access the link listed below to download and read "Adobe Indesign CS/Cs2 Breakthroughs" PDF document.

[Read Document »](#)



[PDF] Have You Locked the Castle Gate?

Access the link listed below to download and read "Have You Locked the Castle Gate?" PDF document.

[Read Document »](#)



[PDF] Read Write Inc. Phonics: Grey Set 7 Non-Fiction 2 a Flight to New York (Paperback)

Click the link beneath to read "Read Write Inc. Phonics: Grey Set 7 Non-Fiction 2 a Flight to New York (Paperback)" PDF document.

[Download PDF »](#)



[PDF] Sea Pictures, Op. 37: Vocal Score (Paperback)

Click the link beneath to read "Sea Pictures, Op. 37: Vocal Score (Paperback)" PDF document.

[Download PDF »](#)



[PDF] My Kindle Fire HDX

Click the link beneath to read "My Kindle Fire HDX" PDF document.

[Download PDF »](#)



[PDF] Read Write Inc. Phonics: Purple Set 2 Non-Fiction 4 What is it? (Paperback)

Click the link beneath to read "Read Write Inc. Phonics: Purple Set 2 Non-Fiction 4 What is it? (Paperback)" PDF document.

[Download PDF »](#)



[PDF] Alice in Wonderland (Paperback)

Click the link beneath to read "Alice in Wonderland (Paperback)" PDF document.

[Download PDF »](#)



[PDF] The Preschool Inclusion Toolbox: How to Build and Lead a High-Quality Program (Paperback)

Click the link beneath to read "The Preschool Inclusion Toolbox: How to Build and Lead a High-Quality Program (Paperback)" PDF document.

[Download PDF »](#)