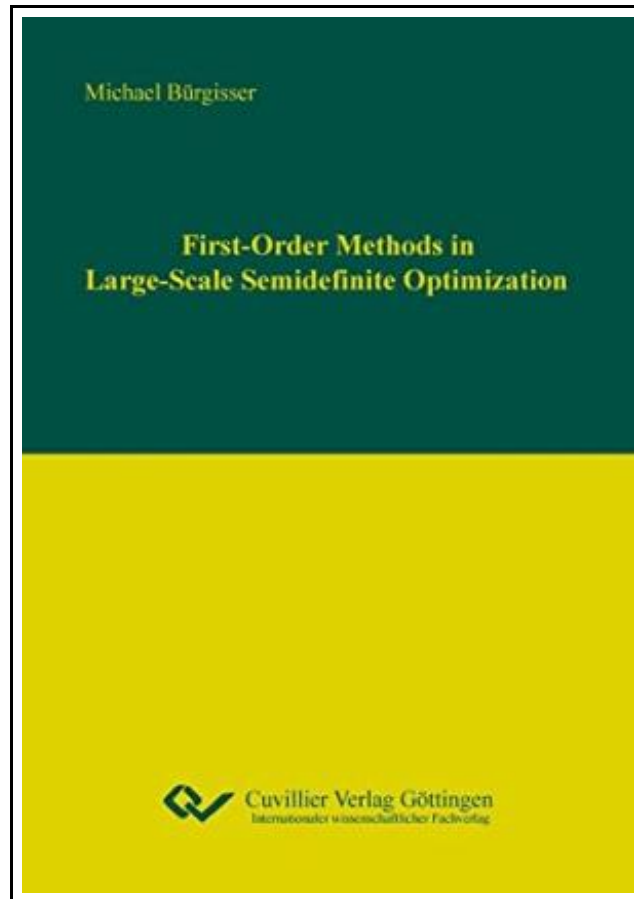


First-Order Methods in Large-Scale Semidefinite Optimization



Filesize: 6.79 MB

Reviews

It is one of the best publications. It really is really intriguing through reading through period of time. You will not feel monotony at anytime of your own time (that's what catalogs are for relating to in the event you request me).

(Dr. Pat Hegmann)

FIRST-ORDER METHODS IN LARGE-SCALE SEMIDEFINITE OPTIMIZATION

[DOWNLOAD](#)

To get **First-Order Methods in Large-Scale Semidefinite Optimization** PDF, please refer to the hyperlink under and save the document or have access to other information which are relevant to FIRST-ORDER METHODS IN LARGE-SCALE SEMIDEFINITE OPTIMIZATION book.

Cuvillier Verlag Jun 2012, 2012. Taschenbuch. Book Condition: Neu. 211x149x5 mm. Neuware - Semidefinite Optimization has attracted the attention of many researchers over the last twenty years. It has nowadays a huge variety of applications in such different fields as Control, Structural Design, Statistics, or in the relaxation of hard combinatorial problems. In this thesis, we focus on the practical tractability of large-scale semidefinite optimization problems. From a theoretical point of view, these problems can be solved by polynomial-time Interior-Point methods approximately. The complexity estimate of Interior-Point methods grows logarithmically in the inverse of the solution accuracy, but with the order 3.5 in both the matrix size and the number of constraints. The later property prohibits the resolution of large-scale problems in practice. In this thesis, we present new approaches based on advanced First-Order methods such as Smoothing Techniques and Mirror-Prox algorithms for solving structured large-scale semidefinite optimization problems up to a moderate accuracy. These methods require a very specific problem format. However, generic semidefinite optimization problems do not comply with these requirements. In a preliminary step, we recast slightly structured semidefinite optimization problems in an alternative form to which these methods are applicable, namely as matrix saddle-point problems. The final methods have a complexity result that depends linearly in both the number of constraints and the inverse of the target accuracy. Smoothing Techniques constitute a two-stage procedure: we derive a smooth approximation of the objective function at first and apply an optimal First-Order method to the adapted problem afterwards. We present a refined version of this optimal First-Order method in this thesis. The worst-case complexity result for this modified scheme is of the same order as for the original method. However, numerical results show that this alternative scheme needs much less iterations than its original counterpart to find an...

[Read First-Order Methods in Large-Scale Semidefinite Optimization Online](#)[Download PDF First-Order Methods in Large-Scale Semidefinite Optimization](#)

Other Kindle Books

**[PDF] Psychologisches Testverfahren**

Click the hyperlink under to read "Psychologisches Testverfahren" PDF file.

[Save ePub »](#)

**[PDF] Programming in D**

Click the hyperlink under to read "Programming in D" PDF file.

[Save ePub »](#)

**[PDF] TJ new concept of the Preschool Quality Education Engineering: new happy learning young children (3-5 years old) daily learning book Intermediate (2)(Chinese Edition)**

Click the hyperlink under to read "TJ new concept of the Preschool Quality Education Engineering: new happy learning young children (3-5 years old) daily learning book Intermediate (2)(Chinese Edition)" PDF file.

[Save ePub »](#)

**[PDF] TJ new concept of the Preschool Quality Education Engineering the daily learning book of: new happy learning young children (3-5 years) Intermediate (3)(Chinese Edition)**

Click the hyperlink under to read "TJ new concept of the Preschool Quality Education Engineering the daily learning book of: new happy learning young children (3-5 years) Intermediate (3)(Chinese Edition)" PDF file.

[Save ePub »](#)

**[PDF] Computer Q & A 98 wit - the challenge wit king(Chinese Edition)**

Click the hyperlink under to read "Computer Q & A 98 wit - the challenge wit king(Chinese Edition)" PDF file.

[Save ePub »](#)

**[PDF] Southern Educational Review Volume 3 (Paperback)**

Click the hyperlink under to read "Southern Educational Review Volume 3 (Paperback)" PDF file.

[Save ePub »](#)