

Work Title

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Abstract

The general objective of this work was to perform a theoretical study about ...

Introduction

Briefly introduce the broad field of your research. E.g: Several fields of science make use of Optimization to aid in decision making. In particular, this is observed in ... Cite like this [3, 4]. Example equation:

$$\begin{aligned} \min_x f(x) \quad & \text{with } x \in \mathbb{R}^n \\ \text{s.t. } g(x) & \leq 0, \end{aligned} \tag{1}$$

where the functions $f : \mathbb{R}^n \rightarrow \mathbb{R}$ and $g : \mathbb{R}^n \rightarrow \mathbb{R}$ are continuously differentiable.

[1, 2].

Definition 1 *Definition Example*

Subsection 2

Numerical Results

Methodology

Figure Example:

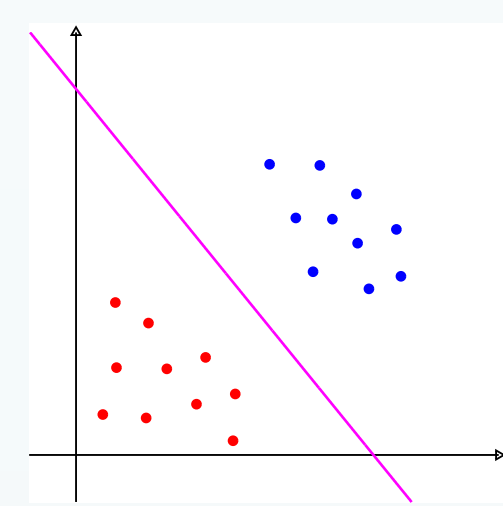


Figure 1 Linear.

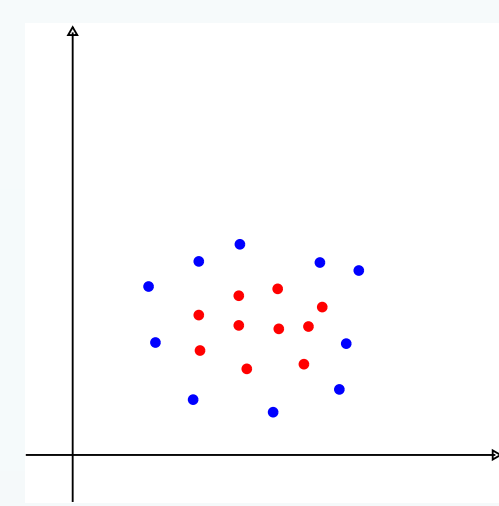


Figure 3 Non linear.

Subsection 1

Theorem 1 Consider the quadratic problem

$$\begin{aligned} \min_x f(x) &= x^T H x + c^T x \\ \text{s.t. } A x + b &\leq 0, \end{aligned} \tag{2}$$

where $H \in \mathbb{R}^{n \times n}$ is symmetric, $c \in \mathbb{R}^n$, $A \in \mathbb{R}^{m \times n}$ and $b \in \mathbb{R}^m$. Suppose that its feasible set is non-empty and that the objective function is bounded below in this set. So the problem has a global minimizer.

Subsubsection (if necessary)

For this problem, we can guarantee the existence of a solution for the specific case. We deal with obtaining because we can not guarantee ... has a unique solution and we show Example 1 for which the dual has infinite solutions.

Example 1 Consider the following set, ...

In the light of this example, we present two definitions present in the literature

Conclusions

The main contributions of this work are:

- Conclusion 1
- Conclusion 2.
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References

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