

Lecture 4 Optimization

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Thinks of the following questions...

- 遇到了一个非convex问题，如何解决？
- 对于很难的最小化优化问题，如何寻求一个lower bound？
- 对于一个问题，如何寻求另外一种解释？

一道初中题

Starts the journey of Duality

接下来很多内容偷自于Boyd' s Slides

Lagrangian

Lower Bound Property and Its Intuition

Dual of Least Norm Solution

Dual of Standard LP Problem

Primal vs Dual

Strong Duality vs Weak Duality

Slater's Condition

Inequality form LP

Quadratic Programming

Complementary Slackness

KKT conditions

KKT conditions - Necessity

KKT conditions - Sufficiency

Summary

