



复旦大学数学科学学院 数学综合报告会

报告题目: **On minimal rank positive semi-definite solutions to the approximation problem in the spectral norm**

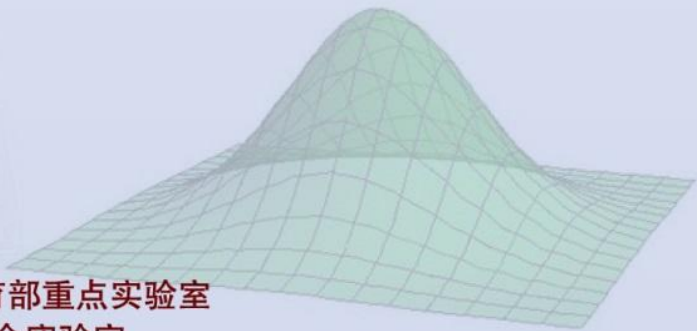
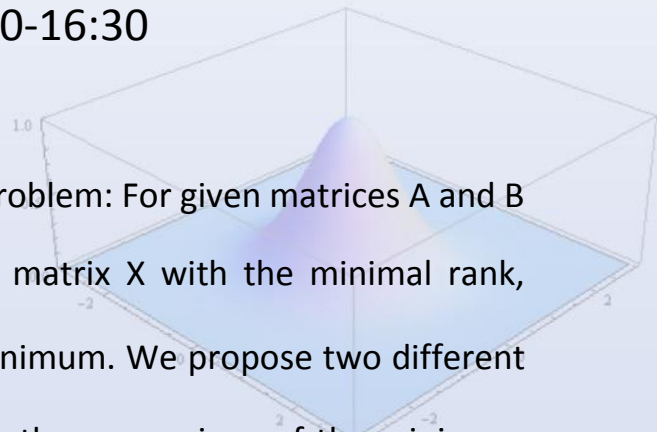
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报告时间: 2018-03-13 星期二 15:30-16:30

报告地点: 光华东主楼 1801

摘要: In this paper, we discuss the following problem: For given matrices A and B with A Hermitian, find a semi-positive definite matrix X with the minimal rank, subject to the spectral norm of $A-BXB$ attains minimum. We propose two different methods to solve this problem. We characterize the expressions of the minimum rank and derive a general form of minimum rank positive semi-definite solutions to the matrix approximation problem in all these three cases. Three numerical examples are provided to illustrate our analysis.



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