

数学与系统科学研究院

计算数学所学术报告

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报告题目: Some Convex Hull
Presentations and Applications

报告时间: 2008年2月26日(周二)
下午 15:30—16:30

报告地点: 科技综合楼三层 311
计算数学所报告厅

Abstract:

In this talk, we first present a nice
mathematical description of the convex hull
of $\{Y=XBX^T: X^TX=XX^T=I_n\}$ for

given symmetric real matrix B . Then the convex hull of the general set $\{Y=XBX^T: X^TX=I_k\}$ ($k \leq n$) is obtained, which extends the convex hull presentation of the set of projection matrices of rank k . We use the convex hull presentation to solve a kind of quadratic programmings arised from quadratic assignment problems and multidimensional total least squares problems. As a result, the well-known result on the sum of the largest k eigenvalues of a symmetric matrix is extended.

欢迎大家参加！