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：

Itrative Method for The Least Squares Problem of Matrix Equation AXB = C with Tridiagonal Matrix Constraint

邀请人： 白中治研究员

报告时间：**2011** 年 **8** 月 **16** 日（周二）

下午 **15：00-16：00**

报告地点： 科技综合楼三层 **301**

计算数学所小报告厅

Abstract:

The matrix-form LSQR method is presented for solving the least squares problem of thematrix equation AXB = C with tridiagonal matrix constraint. Based on a matrix-form bidiagonalization procedure, the least squares problem associated with the tridiagonal constrained matrix equation AXB = C reduces to an unconstrained least squares problem of linear system, which can be solved by using the classical LSQR algorithm. Furthermore, the preconditioned matrix-form LSQR method is adopted for solving the corresponding least squares problem. The algorithm with preconditioner becomes superior to the unpreconditioned algorithm particularly for the coefficient matrices with large condition numbers, which have been confirmed through the numerical experiments.

欢迎大家参加！