

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:

**Conjugate Gradient Decomposition  
and Frequency Estimate**

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报告时间: 2012 年 10 月 9 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:**

**The conjugate gradient decomposition (CGD) for symmetric and positive definite matrices is generalized to every rectangular matrix. The properties of the conjugate gradient decomposition are studied. From the computational point of view, the conjugate gradient decomposition is much cheaper than the SVD. To illustrate the feasibility of the CGD, some application examples are given. Finally, the application of the conjugate gradient decomposition in frequency estimate is given with comparison of the SVD and FFT. The numerical results are promising.**

**欢迎大家参加!**