

数学与系统科学研究院
计算数学所系列学术报告

报告人: **Prof. Alastair Spence**

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报告题目:

Some Problems in Numerical Linear Algebra

邀请人: 白中治研究员

报告时间: **2011 年 9 月 30 日 (周五)**

上午 9: 00-12: 00

报告地点: **科技综合楼三层 311**

计算数学所报告厅

Abstract:

In this series of lectures there are four “Themes” concerning some recent work on several different problems closely related to eigenvalue problems in numerical linear algebra.

Theme 4: Inexact Rayleigh quotient iteration and Jacobi-Davidson

In this last set of lectures we shall discuss the connection between inexact Rayleigh quotient iteration and the one-step Jacobi-Davidson method, introduced by Sleijpien & Van der Vorst in 1996, and one of the most popular methods for large sparse eigenvalue problems.

Relevant papers for this last subject are:

- a) Freitag & Spence, “Rayleigh quotient iteration and simplified Jacobi-Davidson method with preconditioned iterative solves”, LAA 428 (2008) pp. 2049-2060
- b) Xue & Szyld, “Efficient preconditioned inner solves for inexact Rayleigh quotient iteration and their connections to the single-vector Jacobi-Davidson method”, (Temple Tech Report, March 2011)

欢迎大家参加!