

数学与系统科学研究院

计算数学所学术报告

报告人: **Prof. Yukai Zhou**

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报告题目:

**Spectrum-partition methods for
accelerating large eigenvalue
calculations**

邀请人: 周爱辉 研究员

报告时间: **2016 年 6 月 21 日 (周二)**

上午 10:00-11:00

报告地点: 数学院南楼六层

602 会议室

Abstract:

We present two recently developed spectrum-partition methods for solving very large eigenvalue problems. Many eigen-algorithms have been proposed for large eigenvalue problems, the more efficient ones of them have the $O(nk^2)$ complexity, where n is the matrix size and k is the number of eigenvalues to be computed. Therefore these algorithms inevitably become inefficient when k is very large. Spectrum-partition can be utilized to overcome the difficulty associated with large k . However, spectrum-partition methods have their own difficulties when not designed properly. We address several of the intrinsic difficulties associated with spectrum-partition methods, and present theoretical as well as numerical results to show that our methods are practical.

欢迎大家参加！