

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:

**Towards a Massively Parallel
Algorithm for Large-Scale
Eigenspace Computation**

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计算数学所报告厅

Abstract:

We propose a unconventional model for computing a relatively large number of extreme eigen-pairs of matrices that are large and sparse. Our objective is to construct a massively parallel, efficient algorithm not requiring orthogonalization which has become the bottleneck in solving such large scale problems. The proposed model, based on the classic Courant penalty function, enjoys some nice theoretical properties on extreme eigenvalue problems. We will present preliminary numerical results to demonstrate the potential of the proposed approach. (This is a joint work with Zaiwen Wen, Chao Yang and Xin Liu.)

欢迎大家参加!