

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:

**IterILU-SAIT preconditioner for  
linear systems**

邀请人: 张硕 副研究员

报告时间: **2019 年 10 月 12 日(周六)**

**上午 9:00-10:00**

报告地点: **科技综合楼三层**

**311 报告厅**

## Abstract:

The incomplete LU (ILU) factorization is a preconditioning technique for general sparse linear systems. The conventional methods for the generation and application of triangular factors, the two main steps of the ILU preconditioning, are highly serial. We propose an iterative ILU factorization and a sparse approximate inverse for triangular systems, whose computational kernels are both sparse matrix-matrix multiplications. With the two novel methods, the procedure of the ILU preconditioning becomes two matrix-vector multiplications, which are of fine-grained parallelism.

欢迎大家参加！