

Discussion of MUMPS parallel performance in multithreaded environments.

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Abstract

MUMPS parallel performance on shared memory architectures has been studied on a large set of matrices. An evaluation with respect to other direct solvers specialized in multithreaded parallelization has been conducted. The results show MUMPS behaves quite well. In addition many algorithmic improvements have been identified to further improve performance. General advices on how to make the best use of MUMPS in a parallel environment are extracted from the results. A discussion comparing MUMPS developers and users experiences will conclude the talk.