Scalable Algorithms for Parallel Solution of Large Sparse Linear Systems

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ABSTRACT

Solution of sparse linear system of equations is central to many applications including Fluid Structure interaction problems. In this talk, we will present an effective parallel sparse solver that can be either used as an iterative, direct or hybrid (iterative-direct) solver. We will also present the relationship of the solver with graphs. We will show the parallel scalability of the solver in various applications on various parallel computing platforms.