Algebraic domain decomposition methods

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Abstract

There have been many research papers on the analysis of domain decomposition methods at the continuous level. The resulting algorithms depend on the geometry and the physics of the corresponding differential equations. Algebraic domain decomposition methods propose algorithms based only on the structure of the matrix obtained from the discretization of the differential equations using finite element, finite difference, volume element, or isogeometric methods. The purpose of this minisymposium is to bring experts in the field to discuss the recent developments in algebraic DDM. We will address recent developments of algebraic domain decomposition techniques including, not limited to, robust algebraic preconditionners, algebraic-Woodbury-Gengeo, FETI methods, and algebraic optimized Schwarz methods.

We are working on the final list of speakers. We will communicate the list to the organizing committee as soon as possible.