

# Non-overlapping domain decomposition methods

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## Abstract

Non-overlapping domain decomposition methods (DDMs) refer to decompositions of the domain into the union of mutually disjoint subdomains. These methods are known to be very well suited to parallel computing, and particularly efficient in many applications, for example when considering heterogeneous problems with jumps in coefficients. Since their emergence and the seminal work of Pierre-Louis Lions, they have received a considerable amount of attention. Their study, whether it is conducted at the continuous level or at the discrete level, remains a challenging issue. In this mini-symposium, we aim at gathering experts on the subject, and discuss non-overlapping DDMs such as methods of Neumann-Neumann type or Dirichlet-Neumann type, optimized Schwarz methods, multi-trace methods, and others. New methods as well as original approaches to well-known methods are to be presented and analyzed, which will lead to open discussions on future research directions.

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