

Efficient implementation of FETI-2LM for antenna arrays

This paper presents a domain decomposition method with two independent Robin conditions at each interface, called FETI-2LM, for solving time-harmonic Maxwell equations for large antenna arrays.

A block ORTHODIR strategy for the interface iterations is implemented for multiple right-hand sides, e.g. multiple incidence incoming waves.

The efficiency of this approach is demonstrated for models up to 2 Billion unknowns on systems with tens of thousands of cores.