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A method of finite element tearing and interconnecting and its parallel solution algorithm.
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A domain decomposition method for the parallel finite element solution of equilibrium equations is presented. The advantage of this method is that it requires less interprocessor communication than the classical method of substructuring on local memory multiprocessor systems.

Reviewer: [M.Jung \(Chemnitz\)](#)

MSC:

- [65N55](#) Multigrid methods; domain decomposition for boundary value problems involving PDEs
- [74S05](#) Finite element methods applied to problems in solid mechanics
- [65Y05](#) Parallel numerical computation
- [65N30](#) Finite element, Rayleigh-Ritz and Galerkin methods for boundary value problems involving PDEs
- [74B05](#) Classical linear elasticity

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Keywords:

[finite element method](#); [solid mechanics](#); [parallel computation](#); [domain decomposition](#); [local memory multiprocessor systems](#)

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