1. Record Nr. UNINA9910817966003321

Titolo	Domain decomposition methods in scientific and engineering computing : proceedings of the Seventh International Conference on Domain Decomposition, October 27-30, 1993, the Pennsylvania State University / / David E. Keyes, Jinchao Xu, editors
Pubbl/distr/stampa	Providence, Rhode Island : , : American Mathematical Society, , [1994] ©1994
ISBN	0-8218-7771-2 0-8218-5171-3
Descrizione fisica	1 online resource (578 p.)
Collana	Contemporary mathematics, , 0271-4132 ; ; 180
Disciplina	515/.353
Soggetti	Decomposition method Differential equations, Partial
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	""Contents""; ""Preface""; ""List of participants""; ""Part I. Theory""; ""Interpolation spaces and optimal multilevel preconditioners""; ""Two-level additive Schwarz preconditioners for nonconforming finite elements""; ""Two proofs of convergence for the combination technique for the efficient solution of sparse grid problems""; ""Domain decomposition rnethods for monotone nonlinear elliptic problems""; ""Cascadic conjugate gradient methods for elliptic partial differential equations: Algorithm and numerical results"" ""Multilevel methods for elliptic problems with discontinuous coefficients in three dimensions""""""Multilevel methods for elliptic problems on domains not resolved by the coarse grid""; ""Three-dimensional domain decomposition methods with nonmatching grids and unstructured coarse solvers""; ""Domain decomposition for elliptic problems with large condition numbers""; ""Stable subspace splittings for Sobolev spaces and domain decomposition algorithms""; ""A wire basket based method for spectral elements in three dimensions"" ""An analysis of spectral graph partitioning via quadratic assignment problems""""""Error estimators based on stable splittings""; ""Multilevel methods for PI nonconforming finite elements and discontinuous

coefficients in three dimensions""; ""On generalized Schwarz coupling applied to advection-dominated problems""; ""Exotic coarse spaces for Schwarz methods for lower order and spectral finite elements""; ""Part II. Algorithms""; ""Preconditioning via asymptotically-defined domain decomposition""; ""A spectral Stokes solver in domain decomposition methods""
""Preconditioned iterative methods in a subspace for linear algebraic equations with large jumps in the coefficients""""The hierarchical basis multigrid method and incomplete LU decomposition""; ""Domain decomposition and multigrid algorithms for elliptic problems on unstructured meshes""; ""Two-grid methods for mixed finite element approximations of nonlinear parabolic equations""; ""Domain decomposition algorithms for PDE problems with large scale variations""; ""A one shot domain decomposition/fictitious domain method for the Navier-Stokes equations""
""Domain-oriented multilevel methods""""Multigrid and domain decomposition methods for electrostatics problems""; ""A parallel subspace decomposition method for hyperbolic equations"";
""Numerical treatments for the Helmholtz problem by domain decomposition techniques""; ""Schwarz methods for obstacle problems with convection-diffusion operators""; ""On domain decomposition and shooting methods for two-point boundary value problems""; ""Robust methods for highly nonsymmetric problems""; ""Domain decomposition via the Sinc-Galerkin method for second order differential equations""
""A bisection method to find all solutions of a system of nonlinear equations""