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Nota di contenuto	The symplectic methods for the computation of hamiltonian equations -- The boundary finite element methods for signorini problems -- A hamiltonian approximation for nonlinear wave equations on N-dimensional spheres S_n -- Parallel algorithms and domain decomposition -- A difference method for degenerate hyperbolic equations of second order -- Error expansions for finite element approximations and their applications -- The fourier pseudospectral method with a restrain operator for the M.K.D.V. equation -- A numerical method for a class of nonlinear fourth order equations -- Convergence conditions of the explicit and weak implicit finite difference schemes for parabolic systems -- Finite element approximations for a variational inequality with a nonlinear monotone operator -- Contour dynamics methods for discontinuous vortical flows -- Optimum domain problems governed by a class of PDE -- Folds of degree 4 and swallowtail catastrophe -- Convergence study for viscous splitting in bounded domains -- An explicit scheme for an inverse scattering problem and its stability analysis -- On stability and convergence of difference schemes for quasilinear hyperbolic initial-boundary-value problems.
Sommario/riassunto	These Proceedings of the first Chinese Conference on Numerical

Methods for Partial Differential Equations covers topics such as difference methods, finite element methods, spectral methods, splitting methods, parallel algorithm etc., their theoretical foundation and applications to engineering. Numerical methods both for boundary value problems of elliptic equations and for initial-boundary value problems of evolution equations, such as hyperbolic systems and parabolic equations, are involved. The 16 papers of this volume present recent or new unpublished results and provide a good overview of current research being done in this field in China.
