1. Record Nr.   UNISA996466502303316

   Titolo   Nonlinear semigroups, partial differential equations and attractors : proceedings of a symposium held in Washington, DC, August 5-8 1985 / / edited by T. L. Gill, Woodford W. Zachary

   Pubbl/distr/stampa Berlin ; ; Heidelberg : , : Springer-Verlag, , [1987]
                       ©1987

   ISBN   3-540-47791-8

   Edizione   [1st ed. 1987.]

   Descrizione fisica 1 online resource (XII, 188 p.)

   Collana   Lecture Notes in Mathematics ; ; 1248

   Classificazione   00B25
                     35-06
                     47-06
                     58-06

   Disciplina   512.2

   Soggetti   Group theory
                     Differential equations, Partial

   Lingua di pubblicazione Inglese

   Formato   Materiale a stampa

   Livello bibliografico Monografia

   Note generali   Bibliographic Level Mode of Issuance: Monograph

   Nota di contenuto Convergence properties of strongly-damped semilinear wave equations -- Numerical solution of certain nonlinear parabolic partial differential equations -- The explicit solution of nonlinear ordinary and partial differential equations I. Conceptual ideas -- Uniform boundness and genralized inverses in liapunov-schmidt method for subharmonics -- Existence of radially symmetric solutions of strongly damped wave equations -- Strongly damped semilinear second order equations -- Nonlinear semigroup theory and viscosity solutions of Hamilton-Jacobi PDE -- Evolution equations with nonlinear boundary conditions -- Asymptotically smooth semigroups and applications -- The principle of spatial averaging and inertial manifolds for reaction-diffusion equations -- Applications of semigroup theory to reaction-diffusion systems -- Ultrasingularities in nonlinear waves -- A reaction-hyperbolic system in physiology -- Compact perturbations of linear m-dissipative operators which lack Gihman's property -- Two compactness lemmas -- The riccati equation: When nonlinearity reduces to linearity.

Sommario/riassunto

The original idea of the organizers of the Washington Symposium was to span a fairly narrow range of topics on some recent techniques developed for the investigation of nonlinear partial differential equations and discuss these in a forum of experts. It soon became clear, however, that the dynamical systems approach interfaced significantly with many important branches of applied mathematics. As a consequence, the scope of this resulting proceedings volume is an enlarged one with coverage of a wider range of research topics.