1. Record Nr. UNINA9910783922903321 Autore Ma Tian <1956-> Titolo Bifurcation theory and applications [[electronic resource] /] / Tian Ma, Shouhong Wang Singapore;; London,: World Scientific, c2005 Pubbl/distr/stampa **ISBN** 1-281-89691-8 9786611896911 981-270-115-X Descrizione fisica 1 online resource (391 p.) Collana World Scientific series on nonlinear science. Series A:: v. 53 Altri autori (Persone) WangShouhong <1962-> Disciplina 515.392 Soggetti Bifurcation theory Differential equations, Nonlinear - Numerical solutions 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 and index. Nota di contenuto Preface; Contents; Chapter 1 Introduction to Steady State Bifurcation Theory; Chapter 2 Introduction to Dynamic Bifurcation; Chapter 3 Reduction Procedures and Stability; Chapter 4 Steady State Bifurcations; Chapter 5 Dynamic Bifurcation Theory: Finite Dimensional Case; Chapter 6 Dynamic Bifurcation Theory: Infinite Dimensional Case; Chapter 7 Bifurcations for Nonlinear Elliptic Equations; Chapter 8 Reaction-Diffusion Equations; Chapter 9 Pattern Formation and Wave Equations; Chapter 10 Fluid Dynamics; Bibliography; Index This book covers comprehensive bifurcation theory and its applications Sommario/riassunto to dynamical systems and partial differential equations (PDEs) from science and engineering, including in particular PDEs from physics, chemistry, biology, and hydrodynamics. The book first introduces bifurcation theories recently developed by the authors, on steady state bifurcation for a class of nonlinear problems with even order nondegenerate nonlinearities, regardless of the multiplicity of the eigenvalues, and on attractor bifurcations for nonlinear evolution

equations, a new notion of bifurcation. With this new notio