Record Nr. UNISA996466631203316 Autore Rasmussen Martin <1975-> Titolo Attractivity and bifurcation for nonautonomous dynamical systems. // Martin Rasmussen Pubbl/distr/stampa Berlin, Germany:,: Springer,, [2007] ©2007 **ISBN** 1-280-90224-8 9786610902248 3-540-71225-9 [1st ed. 2007.] Edizione Descrizione fisica 1 online resource (221 p.) Collana Lecture notes in mathematics; ; 1907 Disciplina 515/.39 Soggetti Differential equations, Linear Differentiable dynamical systems Bifurcation theory Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Notions of Attractivity and Bifurcation -- Nonautonomous Morse Decompositions -- LinearSystems -- Nonlinear Systems -- Bifurcations in Dimension One -- Bifurcations of Asymptotically Autonomous Systems. Sommario/riassunto Although, bifurcation theory of equations with autonomous and periodic time dependence is a major object of research in the study of dynamical systems since decades, the notion of a nonautonomous bifurcation is not yet established. In this book, two different approaches are developed which are based on special definitions of local attractivity and repulsivity. It is shown that these notions lead to nonautonomous Morse decompositions, which are useful to describe

the global asymptotic behavior of systems on compact phase spaces.

nonlinear systems are derived, and nonautonomous counterparts of the

Furthermore, methods from the qualitative theory for linear and

classical one-dimensional autonomous bifurcation patterns are

developed.