

1. Record Nr.	UNINA9910706897003321
Autore	Ward Lauck W.
Titolo	Chesapecten, a new genus of Pectinidae (Mollusca, Bivalvia) from the Miocene and Pliocene of eastern North America / / by Lauck W. Ward and Blake W. Blackwelder
Pubbl/distr/stampa	Washington : , : United States Department of the Interior, Geological Survey, , 1975
Descrizione fisica	1 online resource (iii, 24 pages, 7 unnumbered pages of plates) : illustrations, map
Collana	Geological Survey professional paper ; ; 861
Soggetti	Bivalves, Fossil - North America Paleontology - North America Paleontology - Tertiary Bivalves, Fossil Paleontology Tertiary Geologic Period North America
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from title screen (viewed October 2, 2014).
Nota di bibliografia	Includes bibliographical references (pages 20-21) and index.
Sommario/riassunto	"A study of a stratigraphically important group of Pectinidae with recognition of the earliest described and figured American fossil."

2. Record Nr.	UNINA9910829822303321
Autore	Nayfeh Ali Hasan <1933->
Titolo	The method of normal forms [[electronic resource] /] / Ali Hasan Nayfeh
Pubbl/distr/stampa	Weinheim, Germany, : Wiley-VCH, c2011
ISBN	3-527-63577-7 1-283-92749-7 3-527-63578-5 3-527-63580-7
Edizione	[2nd, updated and enl. ed.]
Descrizione fisica	1 online resource (343 p.)
Disciplina	512.9/44 512.944
Soggetti	Normal forms (Mathematics) Differential equations - 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	The Method of Normal Forms; Contents; Preface; Introduction; 1 SDOF Autonomous Systems; 1.1 Introduction; 1.2 Duffing Equation; 1.3 Rayleigh Equation; 1.4 Duffing-Rayleigh-van der Pol Equation; 1.5 An Oscillator with Quadratic and Cubic Nonlinearities; 1.5.1 Successive Transformations; 1.5.2 The Method of Multiple Scales; 1.5.3 A Single Transformation; 1.6 A General System with Quadratic and Cubic Nonlinearities; 1.7 The van der Pol Oscillator; 1.7.1 The Method of Normal Forms; 1.7.2 The Method of Multiple Scales; 1.8 Exercises; 2 Systems of First-Order Equations; 2.1 Introduction 2.2 A Two-Dimensional System with Diagonal Linear Part 2.3 A Two-Dimensional System with a Nonsemisimple Linear Form; 2.4 An n-Dimensional System with Diagonal Linear Part; 2.5 A Two-Dimensional System with Purely Imaginary Eigenvalues; 2.5.1 The Method of Normal Forms; 2.5.2 The Method of Multiple Scales; 2.6 A Two-Dimensional System with Zero Eigenvalues; 2.7 A Three-Dimensional System with Zero and Two Purely Imaginary Eigenvalues; 2.8 The Mathieu Equation; 2.9 Exercises; 3 Maps; 3.1 Linear Maps; 3.1.1 Case of Distinct Eigenvalues; 3.1.2 Case of Repeated Eigenvalues; 3.2 Nonlinear Maps

3.3 Center-Manifold Reduction 3.4 Local Bifurcations; 3.4.1 Fold or Tangent or Saddle-Node Bifurcation; 3.4.2 Transcritical Bifurcation; 3.4.3 Pitchfork Bifurcation; 3.4.4 Flip or Period-Doubling Bifurcation; 3.4.5 Hopf or Neimark-Sacker Bifurcation; 3.5 Exercises; 4 Bifurcations of Continuous Systems; 4.1 Linear Systems; 4.1.1 Case of Distinct Eigenvalues; 4.1.2 Case of Repeated Eigenvalues; 4.2 Fixed Points of Nonlinear Systems; 4.2.1 Stability of Fixed Points; 4.2.2 Classification of Fixed Points; 4.2.3 Hartman-Grobman and Shoshitaishvili Theorems; 4.3 Center-Manifold Reduction 4.4 Local Bifurcations of Fixed Points 4.4.1 Saddle-Node Bifurcation; 4.4.2 Nonbifurcation Point; 4.4.3 Transcritical Bifurcation; 4.4.4 Pitchfork Bifurcation; 4.4.5 Hopf Bifurcations; 4.5 Normal Forms of Static Bifurcations; 4.5.1 The Method of Multiple Scales; 4.5.2 Center-Manifold Reduction; 4.5.3 A Projection Method; 4.6 Normal Form of Hopf Bifurcation; 4.6.1 The Method of Multiple Scales; 4.6.2 Center-Manifold Reduction; 4.6.3 Projection Method; 4.7 Exercises; 5 Forced Oscillations of the Duffing Oscillator; 5.1 Primary Resonance; 5.2 Subharmonic Resonance of Order One-Third 5.3 Superharmonic Resonance of Order Three 5.4 An Alternate Approach; 5.4.1 Subharmonic Case; 5.4.2 Superharmonic Case; 5.5 Exercises; 6 Forced Oscillations of SDOF Systems; 6.1 Introduction; 6.2 Primary Resonance; 6.3 Subharmonic Resonance of Order One-Half; 6.4 Superharmonic Resonance of Order Two; 6.5 Subharmonic Resonance of Order One-Third; 7 Parametrically Excited Systems; 7.1 The Mathieu Equation; 7.1.1 Fundamental Parametric Resonance; 7.1.2 Principal Parametric Resonance; 7.2 Multiple-Degree-of-Freedom Systems; 7.2.1 The Case of Near  $2+1$ ; 7.2.2 The Case of Near  $2-1$  7.2.3 The Case of Near  $2+1$  and  $3-2$

## Sommario/riassunto

Based on a successful text, this second edition presents different concepts from dynamical systems theory and nonlinear dynamics. The introductory text systematically introduces models and techniques and states the relevant ranges of validity and applicability. New to this edition: 3 new chapters dedicated to Maps, Bifurcations of Continuous Systems, and Retarded Systems Key features: Retarded Systems has become a topic of major importance in several applications, in mechanics and other areas Provides a clear operational framework for conscious use of co