1. Record Nr. UNISALENTO991001186159707536 Autore American Mathematical Society Titolo Number theory / William J. LeVeque and Ernst G. Straus, editors Pubbl/distr/stampa Providence, R. I.: American Mathematical Society, 1969 0821814125 **ISBN** v, 98 p.; 27 cm. Descrizione fisica Collana Proceedings of symposia in pure mathematics, 0082-0717; 12 Classificazione AMS 11-06 **AMS 11-XX** QA241.N85 Altri autori (Persone) LeVeque, William Judson Straus, Ernst Gabor Disciplina 512.7 Soggetti Number theory - Congresses Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Papers presented at a special session on number theory, held during the 73rd annual meeting of the American Mathematical Society, Houston, Tex., Jan. 24-28, 1967. Includes bibliographical references

Record Nr. UNINA9910861095903321 Autore Chicone Carmen Charles Titolo Ordinary Differential Equations with Applications / / by Carmen Chicone Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2024 **ISBN** 3-031-51652-4 Edizione [3rd ed. 2024.] Descrizione fisica 1 online resource (xxii, 729 pages): illustrations Collana Texts in Applied Mathematics, , 2196-9949;; 34 Disciplina 515/.35 Soggetti Mathematical analysis **Dynamics** System theory Mathematical physics **Analysis Dynamical Systems Complex Systems** Theoretical, Mathematical and Computational Physics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Ordinary Differential Equations -- Linear Systems and Stability of Nonlinear Systems -- Applications -- Hyperbolic Theory --Continuation of Periodic Solutions -- Homoclinic Orbits, Melnikov's Method, and Chaos -- Averaging -- Local Bifurcation. This book, developed during 20 years of the author teaching Sommario/riassunto differential equations courses at his home university, is designed to serve as a text for a graduate level course focused on the central theory of the subject with attention paid to applications and connections to other advanced topics in mathematics. Core theory includes local existence and uniqueness, the phase plane, Poincaré-Bendixson theory, Lyapunov and linearized stability, linear systems, Floquet theory, the Grobman-Hartman theorem, persistence of rest points and periodic orbits, the stable and center manifold theorems, and bifurcation theory.

This edition includes expanded treatment of deterministic chaos, perturbation theory for periodic solutions, boundary value problems.

optimization, and a wide range of their applications. In addition, it contains a formulation and new proof of a theorem on instability of rest points in the presence of an eigenvalue with positive real part, and new proofs of differential inequalities and Lyapunov's center theorem. New sections present discussions of global bifurcation, the Crandall-Rabinowitz theorem, and Alekseev's formula. Of particular note is a new chapter on basic control theory, a discussion of optimal control, and a proof of a useful special case of the maximum principle. A key feature of earlier editions, a wide selection of original exercises, is respected in this edition with the inclusion of a wealth of new exercises. Reviews of the first edition: "As an applied mathematics text on linear and nonlinear equations, the book by Chicone is written with stimulating enthusiasm. It will certainly appeal to many students and researchers."-F. Verhulst, SIAM Review "The author writes lucidly and in an engaging conversational style. His book is wide-ranging in its subject matter, thorough in its presentation, and written at a generally high level of generality, detail, and rigor." —D. S. Shafer, Mathematical Reviews.