1. Record Nr. UNINA9910311939803321 Autore Radin Michael A Titolo Periodic Character and Patterns of Recursive Sequences / / by Michael A. Radin Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2018 **ISBN** 3-030-01780-X Edizione [1st ed. 2018.] 1 online resource (XI, 219 p. 67 illus., 56 illus. in color.) Descrizione fisica 512.72 Disciplina Difference equations Soggetti Functional equations Sequences (Mathematics) Difference and Functional Equations Sequences, Series, Summability Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Chapter 1- Introduction -- Chapter 2- First Order Linear Difference Equations and Patterns of Periodic Solutions -- Chapter 3- Periodic Character of Solutions of First Order Nonlinear Difference Equations --Chapter 4- Second Order Linear Difference Equations and Periodic Traits -- Chapter 5- Periodic Traits of Second Order Nonlinear Difference Equations -- Chapter 6- Advanced Periodic Characteristics and New Research Questions -- Appendices -- References. Sommario/riassunto This textbook on periodic character and patterns of recursive sequences focuses on discrete periodic patterns of first order, second order and higher order difference equations. Aimed toward advanced undergraduate students and graduate students who have taken a basic course in Calculus I and Discrete Mathematics, this book serves as a core text for a course in Difference Equations and Discrete Dynamical Systems. The text contains over 200 exercises to provide readers with a hands-on experience working with the material; the exercises include computations of specific examples and proofs of general results.

Readers will receive a first-hand introduction to patterns of periodic cycles and patterns of transient terms with exercises for most sections

of the text, preparing them for significant research work in the area.