1. Record Nr. UNINA9910349321503321

Autore	Došlý Ondej
Titolo	Symplectic Difference Systems: Oscillation and Spectral Theory [[electronic resource] /] / by Ondej Došlý, Julia Elyseeva, Roman Šimon Hilscher
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Birkhäuser, , 2019
ISBN	3-030-19373-X
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (XV, 593 p. 7 illus. in color.)
Collana	Pathways in Mathematics, , 2367-3451
Disciplina	515.625 515.75
Soggetti	Difference equations Functional equations Operator theory Difference and Functional Equations Operator Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Motivation and Preliminaries -- Basic Theory of Symplectic Systems -- Comparative Index Theory -- Oscillation Theory of Symplectic Systems -- Discrete Symplectic Eigenvalue Problems -- Miscellaneous Topics on Symplectic Systems.
Sommario/riassunto	This monograph is devoted to covering the main results in the qualitative theory of symplectic difference systems, including linear Hamiltonian difference systems and Sturm-Liouville difference equations, with the emphasis on the oscillation and spectral theory. As a pioneer monograph in this field it contains nowadays standard theory of symplectic systems, as well as the most current results in this field, which are based on the recently developed central object - the comparative index. The book contains numerous results and citations, which were till now scattered only in journal papers. The book also provides new applications of the theory of matrices in this field, in particular of the Moore-Penrose pseudoinverse matrices, orthogonal projectors, and symplectic matrix factorizations. Thus it brings this

topic to the attention of researchers and students in pure as well as applied mathematics.