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Titolo	Sequence spaces and measures of noncompactness with applications to differential and integral equations [[electronic resource] /] / by Józef Bana, Mohammad Mursaleen
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ISBN	81-322-1886-8
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (323 p.)
Disciplina	515.73
Soggetti	Functional analysis Operator theory Integral equations Partial differential equations Differential equations Sequences (Mathematics) Functional Analysis Operator Theory Integral Equations Partial Differential Equations Ordinary Differential Equations Sequences, Series, Summability
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 at the end of each chapters and index.
Nota di contenuto	Chapter 1. Introduction to FK spaces -- Chapter 2. Matrix Transformations -- Chapter 3. Some new sequence spaces of non-absolute type -- Chapter 4. Some non-classical sequence spaces -- Chapter 5. Measures of noncompactness -- Chapter 6. Application to compact matrix operators -- Chapter 7. Applications to infinite systems of differential equations -- Chapter 8. Applications to integral equations.
Sommario/riassunto	This book deals with the study of sequence spaces, matrix transformations, measures of noncompactness and their various

applications. The notion of measure of noncompactness is one of the most useful ones available and has many applications.

The book discusses some of the existence results for various types of differential and integral equations with the help of measures of noncompactness; in particular, the Hausdorff measure of noncompactness has been applied to obtain necessary and sufficient conditions for matrix operators between BK spaces to be compact operators. The book consists of eight self-contained chapters. Chapter 1 discusses the theory of FK spaces and Chapter 2 various duals of sequence spaces, which are used to characterize the matrix classes between these sequence spaces (FK and BK spaces) in Chapters 3 and 4. Chapter 5 studies the notion of a measure of noncompactness and its properties. The techniques associated with measures of noncompactness are applied to characterize the compact matrix operators in Chapters 6. In Chapters 7 and 8, some of the existence results are discussed for various types of differential and integral equations, which are obtained with the help of argumentations based on compactness conditions.
