

1. Record Nr.	UNINA9910300119703321
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Titolo	Linear Algebra // by M. Thamban Nair, Arindama Singh
Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2018
ISBN	981-13-0926-4 978-981-13-0926-7
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (XI, 341 p. 2 illus.)
Disciplina	551.48
Soggetti	Algebras, Linear Matrix theory Algebra Mathematics—Study and teaching Linear Algebra Linear and Multilinear Algebras, Matrix Theory Mathematics Education
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter 1. Vector Spaces -- Chapter 2. Linear Transformations -- Chapter 3. Elementary Operations -- Chapter 4. Inner Product Spaces -- Chapter 5. Eigenvalues and Eigenvectors -- Chapter 6. Block Diagonal Representation -- Chapter 7. Spectral Decomposition.
Sommario/riassunto	This book introduces the fundamental concepts, techniques and results of linear algebra that form the basis of analysis, applied mathematics and algebra. Intended as a text for undergraduate students of mathematics, science and engineering with a knowledge of set theory, it discusses the concepts that are constantly used by scientists and engineers. It also lays the foundation for the language and framework for modern analysis and its applications. Divided into seven chapters, it discusses vector spaces, linear transformations, best approximation in inner product spaces, eigenvalues and eigenvectors, block diagonalisation, triangularisation, Jordan form, singular value decomposition, polar decomposition, and many more topics that are relevant to applications. The topics chosen have become well-

established over the years and are still very much in use. The approach is both geometric and algebraic. It avoids distraction from the main theme by deferring the exercises to the end of each section. These exercises aim at reinforcing the learned concepts rather than as exposing readers to the tricks involved in the computation. Problems included at the end of each chapter are relatively advanced and require a deep understanding and assimilation of the topics.
