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Titolo	Linear Algebra : Key Ideas and Methods for a First Course // by Haiyan Tian
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ISBN	3-031-84647-8
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (158 pages)
Collana	Synthesis Lectures on Mathematics & Statistics, , 1938-1751
Disciplina	512.5
Soggetti	Algebras, Linear Mathematics Algebra Linear Algebra General Mathematics and Education General Mathematics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Linear Equations -- Matrix Algebra -- Determinants -- Vector Spaces -- Eigenvalues and Eigenvectors -- Orthogonality.
Sommario/riassunto	This book presents linear algebra in a concise and clear way, allowing beginner students to quickly attain the required proficiency. Existing books on the subject often cover too many topics, some of which are too complex and intimidating for a first course in linear algebra. This book presents the essential topics in a more user-friendly manner, benefiting both instructors and their students. The author devises an optimized order of topics that are adapted to the learning patterns of students. In addition, carefully designed examples are presented to enhance reader confidence to master the material and to avoid frequently observed frustration. This textbook is ideal for a one semester course on basic linear algebra for college students majoring in mathematics, engineering, and other sciences. This book: • Presents a method to inspire quick grasps of algebraic key concepts and theorems • Includes relevant practice problems throughout at progressive levels of difficulty • Features intuitive examples throughout that clarify the presented concepts About the Author Haiyan Tian, Ph.

D., is a Professor of Mathematics at The University of Southern Mississippi (USM). Her research interests include nonlinear partial differential equations, applied analysis, computational mathematics, numerical analysis, and mathematical modeling. She has taught multiple mathematics subjects at both undergraduate and graduate levels. Dr. Tian is actively involved in math education. She started in 2007 to host the AMC contests at the USM campus to offer the talented Mississippi students an opportunity to participate in the national contests. She was the USM-AMC contest manager during 2007-2012. As the principal investigator, she received nine consecutive grants (2009-2017) from the U.S. Department of Education, through Mississippi Institutions of Higher Learning, for directing the USM Summer Math Institute for Mathematics Teachers.

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