Record Nr. UNINA9910659487403321 Autore Ventre Aldo G. S. Titolo Calculus and Linear Algebra: Fundamentals and Applications / / Aldo G. S. Ventre Pubbl/distr/stampa Cham, Switzerland:,: Springer,, 2023 ©2021 **ISBN** 9783031205491 9783031205484 Edizione [1st ed. 2023.] 1 online resource (530 pages) Descrizione fisica Disciplina 512.5 Algebras, Linear Soggetti Calculus Geometric analysis Càlcul Àlgebra lineal Llibres electrònics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Language Sets -- Numbers and propositions -- Relations -- Euclidean geometry -- Functions -- The real line -- Real-valued functions of a real variable. The line. Sommario/riassunto This textbook offers a comprehensive coverage of the fundamentals of calculus, linear algebra and analytic geometry. Intended for bachelor's students in science, engineering, architecture, economics, the presentation is self-contained, and supported by numerous graphs, to facilitate visualization and also to stimulate readers' intuition. The proofs of the theorems are rigorous, yet presented in straightforward and comprehensive way. With a good balance between algebra, geometry and analysis, this book guides readers to apply the theory to solve differential equations. Many problems and solved exercises are included. Students are expected to gain a solid background and a

versatile attitude towards calculus, algebra and geometry, which can be later used to acquire new skills in more advanced scientific disciplines, such as bioinformatics, process engineering, and finance. At the same

time, instructors are provided with extensive information and inspiration for the preparation of their own courses.