1. Record Nr. UNINA9910734860703321 Autore Davvaz Bijan Titolo Vectors and Functions of Several Variables [[electronic resource] /] / by Bijan Davvaz Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2023 Pubbl/distr/stampa **ISBN** 981-9929-35-0 Edizione [1st ed. 2023.] 1 online resource (VIII, 424 p. 124 illus., 123 illus. in color.) Descrizione fisica 519.6 Disciplina 515.64 Soggetti Mathematical optimization Calculus of variations Mathematical analysis Calculus of Variations and Optimization Integral Transforms and Operational Calculus Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Chapter 1: Vectors and Analytic Geometry -- Chapter 2: Vector Functions and Parametric Equations -- Chapter 3: Functions of Several Variables, Limits and Continuity -- Chapter 4: Partial Derivatives, Directional Derivatives and Gradient Vectors -- Chapter 5: Differentiability and Differential -- Chapter 6: Extreme of Functions --Chapter 7: Vector Fields -- Chapter 8: Line Integrals -- Chapter 9: Multiple Integrals -- Chapter 10: Surface Integrals. . This comprehensive textbook explores the topics of vector functions Sommario/riassunto and functions of several variables. With over 500 exercises and problems, carefully chosen for their challenging, interesting, and educational value, this book is an ideal resource for undergraduate students of mathematics, statistics, computer science, engineering and the basic sciences. The material is organized into 10 chapters, each of which begins with necessary definitions, concepts and theorems to provide a solid foundation for understanding the topic. In addition, the book includes detailed solutions to all exercises and problems to help

students test their understanding and reinforce their learning. Overall,

this book is an excellent choice for anyone seeking a thorough