1.	Record Nr.	UNINA9910299983003321
	Autore	Treiman Jay S
	Titolo	Calculus with Vectors [[electronic resource] /] / by Jay S. Treiman
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2014
	ISBN	3-319-09438-6
	Edizione	[1st ed. 2014.]
	Descrizione fisica	1 online resource (IX, 399 p. 282 illus., 250 illus. in color.)
	Collana	Springer Undergraduate Texts in Mathematics and Technology, , 1867-5506
	Disciplina	515.72
	Soggetti	Integral transforms Operational calculus Sequences (Mathematics) Physics Integral Transforms, Operational Calculus Sequences, Series, Summability Mathematical Methods in Physics
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Bibliographic Level Mode of Issuance: Monograph
	Nota di contenuto	Preface -- 1. Points and Vectors -- 2. Limits and Derivatives -- 3. More on Limits -- 4. Rules for Finding Derivatives -- 5. Applications of Limits and Derivatives -- 6. Integration -- 7. The Cross Product -- 8. More Techniques of Integration -- 9. Applications of Integration -- 10. Series -- Index.
	Sommario/riassunto	Calculus with Vectors grew out of a strong need for a beginning calculus textbook for undergraduates who intend to pursue careers in STEM. fields. The approach introduces vector-valued functions from the start, emphasizing the connections between one-variable and multi-variable calculus. The text includes early vectors and early transcendentals and includes a rigorous but informal approach to vectors. Examples and focused applications are well presented along with an abundance of motivating exercises. All three-dimensional graphs have rotatable versions included as extra source materials and may be freely downloaded and manipulated with Maple Player; a free Maple Player App is available for the iPad on iTunes. The approaches

taken to topics such as the derivation of the derivatives of sine and cosine, the approach to limits, and the use of "tables" of integration have been modified from the standards seen in other textbooks in order to maximize the ease with which students may comprehend the material. Additionally, the material presented is intentionally non-specific to any software or hardware platform in order to accommodate the wide variety and rapid evolution of tools used. Technology is referenced in the text and is required for a good number of problems.