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| Autore | Riccardi Giorgio |
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| Altri autori (Persone) | CifraBruno Antonio<br>De BernardisEnrico |
| Disciplina | 515.35 |
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| Nota di contenuto | Chapter 1. Basic concepts and parametrisation of curves -- Chapter 2. Differential and geometric properties of curves -- Chapter 3. Curves in space: the Frenet frame -- Chapter 4. Functions of a vector variable -- Chapter 5. Continuity and differentiability of functions of a vector variable -- Chapter 6. Partial derivatives -- Chapter 7. Sequences of functions -- Chapter 8. Series of functions -- Chapter 9. Taylor series for functions of several variables -- Chapter 10. Applications of the Taylor series -- Chapter 11. Integration of functions of two variables -- Chapter 12. Samples of two-dimensional integration and change of |

variables -- Chapter 13. Two-dimensional integration and area of a surface -- Chapter 14. Vector functions of vector variables -- Chapter 15. Line integral and flux of vector functions -- Chapter 16. Triple integrals and coordinate changes -- Chapter 17. Green’s formulae for the integral calculus.-Chapter 18. Application of Green’s formulae -- Chapter 19. Gauss and Stokes theorems -- Chapter 20. Partial differential equations -- Etc...

Sommario/riassunto

This textbook proposes an informal access to the most important issues of multidimensional differential and integral calculus. The traditional style—characterized by listing definitions, theorems, and proofs—is replaced by a conversational approach, primarily oriented to applications. The topics covered, developing along the usual path of a textbook for undergraduate courses, are always introduced by thoroughly carried out examples. This drives the reader in building the capacity of properly use the theoretical tools to model and solve practical problems. To situate the contents within a historical perspective, the book is accompanied by a number of links to the biographies of all scientists mentioned as leading actors in the development of the theory.