

<<向量微积分>>

图书基本信息

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内容概要

Vector calculus is the fundamental language of mathematical physics. It provides a way to describe physical quantities in three-dimensional space and the way in which these quantities vary. Many topics in the physical sciences can be analysed mathematically using the techniques of vector calculus. These topics include fluid dynamics, solid mechanics and electromagnetism, all of which involve a description of vector and scalar quantities in three dimensions. This book assumes no previous knowledge of vectors. However, it is assumed that the reader has a knowledge of basic calculus, including differentiation, integration and partial differentiation. Some knowledge of linear algebra is also required, particularly the concepts of matrices and determinants.

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书籍目录

1. Vector Algebra1.1 Vectors and scalars1.1.1 Definition of a vector and a scalar1.1.2 Addition of vectors1.1.3 Components of a vector1.2 Dot product1.2.1 Applications of the dot product1.3 Cross product1.3.1 Applications of the cross product1.4 Scalar triple product1.5 Vector triple product1.6 Scalar fields and vector fields2. Line , Surface and Volume Integrals2.1 Applications and methods of integration2.1.1 Examples of the use of integration2.1.2 Integration by substitution2.1.3 Integration by parts2.2 Line integrals2.2.1 Introductory example : work done against a force2.2.2 Evaluation of line integrals2.2.3 Conservative vector fields2.2.4 Other forms of line integrals2.3 Surface integrals2.3.1 Introductory example : flow through a pipe2.3.2 Evaluation of surface integrals2.3.3 Other forms of surface integrals2.4 volume integrals2.4.1 Introductory example : mass of an object with variable density2.4.2 Evaluation of volume integrals3. Gradient, Divergence and Curl3.1 Partial differentiation and Taylor series3.1.1 Partial differentiation3.1.2 Taylor series in more than one variable3.2 Gradient of a scalar field3.2.1 Gradientsconservative fields and potentials3.2.2 Physical applications of the gradient3.3 Divergence of a vector field3.3.1 Physical interpretation of divergence3.3.2 Laplacian of a scalar field3.4 Curl of a vector field3.4.1 Physical interpretation of curl3.4.2 Relation between curl and rotation3.4.3 Curl and conservative vector fields4. Suffix Notation and its Applications4.1 Introduction to suffix notation4.2 The Kronecker delta4.3 The alternating tensor4.4 Relation between ijk and ij 4.5 Grad, div and curl in suffix notation4.6 Combinations of grad, div and curl4.7 Grad, div and curl applied to products of functions5. Integral Theorems5.1 Divergence theorem5.1.1 Conservation of mass for a fluid5.1.2 Applications of the divergence theorem5.1.3 Related theorems linking surface and volume integrals5.2 Stokes' theorem5.2.1 Applications of Stokes' theorem5.2.2 Related theorems linking line and surface integrals6. Curvilinear Coordinates6.1 Orthogonal curvilinear coordinates6.2 Grad, div and curl in orthogonal curvilinear coordinate systems6.2.1 Gradient6.2.2 Divergence...7. Cartesian Tensors8. Applications of Vector CalculusSolutionsIndex

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