第一图书网, tushu007.com

<<现代几何学方法和应用>>

图书基本信息

书名：<<现代几何学方法和应用>>

13位ISBN编号：9787506201230

10位ISBN编号：7506201232

出版时间：1999-11

出版时间：世界图书出版公司

作者：B.A.Dubrovin 编,A.T.Fomenko 编,S.P.Novikov 编

页数：468

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：http://www.tushu007.com

第一图书网, tushu007.com

<<现代几何学方法和应用>>

内容概要

Up until recently, Riemannian geometry and basic topology were not included, even by departments or faculties of mathematics, as compulsory subjects in a university-level mathematical education. The standard courses in the classical differential geometry of curves and surfaces which were given instead (and still are given in some places) gradually came to be viewed as anachronisms. However, there has been hitherto no unanimous agreement as to exactly how such courses should be brought up to date, that is to say,which parts of modern geometry should be regarded as absolutely essential to a modern mathematical education, and what might be the appropriate level of abstractness of their exposition The task of designing a modernized course in geometry was begun in 1971 in the mechanics division of the Faculty of Mechanics and Mathematics of Moscow State University. The subject-matter and level of abstractness of its exposition were dictated by the view that, in addition to the geometry,of curves and surfaces, the following topics are certainly useful in the various areas of application of mathematics (especially in elasticity and relativity,to name but two), and are therefore essential: the theory of tensors (including eovariant differentiation of them); Riemannian curvature;

第一图书网, tushu007.com

<<现代几何学方法和应用>>

书籍目录

Preface to the First Edition CHAPTER 1 Geometry in Regions of a Space. Basic Concepts 1. Co-ordinate systems 1.1. Cartesian co-ordinates in a space 1.2. Co-ordinate changes 2. Euclidean space 2.1. Curves in Euclidean space 2.2. Quadratic forms and vectors 3. Riemannian and pseudo-Riemannian spaces 3.1. Riemannian metrics 3.2. The Minkowski metric 4. The simplest groups of transformations of Euclidean space 4.1. Groups of transformations of a region 4.2. Transformations of the plane 4.3. The isometries of 3-dimensional Euclidean space 4.4. Further examples of transformation groups 4.5. Exercises 5. The Serret-Frenet formulae 5.1.Curvature of curves in the Euclidean plane 5.2.Cuuves in Euclidean 3-space.Curvature and torsion 5.3.Orthogonal transformations depending on a parameter 5.4.Exercises 6.Pseudo-Euclidean spaces 6.1.The simplest concepts of the special theory of relativity 6.2.Lorentz transformations 6.3.ExcercisesCHAPTER 2 The Theory of Surfaces……CHAPTER 3 Tensors:The Algebrai TheoryCHAPTER 4 The Differential Calculus of TensorsCHAPTER 5 The Elements of the Calclus of VariationsCHAPTER 6 The Calculus of Variations in Several Dimensions.BibliographyIndex

第一图书网, tushu007.com

<<现代几何学方法和应用>>

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:http://www.tushu007.com