第一图书网, tushu007.com

<<计算共形几何>>

图书基本信息

书名：<<计算共形几何>>

13位ISBN编号：9787040231892

10位ISBN编号：7040231891

出版时间：2008-1

出版时间：高等教育出版社

作者：顾险峰,丘成桐

页数：276

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

<<计算共形几何>>

内容概要

The launch of this Advanced Lectures in Mathematics series is aimed at keepingmathematicians informed of the latest developments in mathematics, as well asto aid in the learning of new mathematical topics by students all over the world.Each volume consists of either an expository monograph or a collection of signifi-cant introductions to important topics. This series emphasizes the history andsources of motivation for the topics under discussion, and also gives an overviewof the current status of research in each particular field. These volumes are thefirst source to which people will turn in order to learn new subjects and to dis-cover the latest results of many cutting-edge fields in mathematics.

第一图书网, tushu007.com

<<计算共形几何>>

书籍目录

Introduction 1.1 Overview of Theories 1.1.1 RiemannMapping 1.1.2 Riemann Uniformization 1.1.3 Shape Space 1.1.4 General Geometric Structure 1.2 Algorithms for Computing Conformal Mappings 1.3 Applications 1.3.1 Computer Graphics 1.3.2 Computer Vision 1.3.3 Geometric Modeling 1.3.4 Medical Imaging Further Readings Part I Theories 2 Homotopy Group 2.1 Algebraic Topological Methodology 2.2 Surface Topological Classification 2.3 Homotopy of Continuous Mappings 2.4 Homotopy Group 2.5 Homotopy Invariant 2.6 Covering Spaces 2.7 Group Representation 2.8 Seifert-van Kampen Theorem Problems 3 Homology and Cohomology 3.1 Simplicial Homology 3.1.1 Simplicial Complex 3.1.2 Geometric Approximation Accuracy 3.1.3 Chain Complex 3.1.4 Chain Map and Induced Homomorphism 3.1.5 Simplicial Map 3.1.6 Chain Homotopy 3.1.7 Homotopy Equivalence 3.1.8 Relation Between Homology Group and Homotopy Grou 3.1.9 Lefschetz Fixed Point 3.1.10 Mayer-Vietoris Homology Sequence 3.1.11 Tunnel Loop and Handle Loop 3.2 Cohomology 3.2.1 Cohomology Group 3.2.2 Cochain Map 3.2.3 Cochain Homotopy Problems 4 Exterio Differential Calculus 4.1 Smooth Manifold 4.2 Differential Forms 4.3 Integration 4.4 Exterior Derivative and Stokes Theorem 4.5 De Rham Cohomology Group 4.6 Harmonic Forms 4.7 Hodge Theorem Problems 5 Differential Geometry of Surfaces 5.1 Curve Theory 5.2 Local Theory of Surfaces 5.2.1 Regular Surface 5.2.2 First Fundamental Form 5.2.3 Second Fundamental Form 5.2.4 Weingarten Transformation 5.3 Orthonormal Movable Frame 5.3.1 Structure Equation 5.4 Covariant Differentiation 5.4.1 Geodesic Curvature 5.5 Gauss-Bonnet Theorem 5.6 Index Theorem of Tangent Vector Field 5.7 Minimal Surface 5.7.1 Weierstrass Representation 5.7.2 Costa Minimal Surface Problems 6 Riemann Surface 6.1 Riemann Surface 6.2 Riemann Mapping Theorem 6.2.1 Conformal Module 6.2.2 Quasi-Conformal Mapping 6.2.3 Holomorphic Mappings 6.3 Holomorphic One-Forms 6.4 Period Matrix 6.5 Riemann-Roch Theorem 6.6 Abel Theorem 6.7 Uniformization 6.8 Hyperbolic Riemann Surface 6.9 Teichmiiller Space 6.9.1 Quasi-Conformal Map 6.9.2 Extremal Quasi-Conformal Map 6.10 Teichm011er Space and Modular Space 6.10.1 Fricke Space Model 6.10.2 Geodesic Spectrum Problems ……Part II Algorithms A Major Algorithms B Acknowledgement Reference Index

第一图书网, tushu007.com

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