

<<离散群几何>>

图书基本信息

书名：<<离散群几何>>

13位ISBN编号：9787510037559

10位ISBN编号：7510037557

出版时间：2011-7

出版时间：世界图书出版公司

作者：比尔登

页数：337

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>

<<离散群几何>>

内容概要

This text is intended to serve as an introduction to the geometry of the action of discrete groups of Möbius transformations. The subject matter has now been studied with changing points of emphasis for over a hundred years, the most recent developments being connected with the theory of 3-manifolds : see, for example, the papers of Poincaré [77] and Thurston [101]. About 1940, the now well-known (but virtually unobtainable) Fenchel-Nielsen manuscript appeared. Sadly, the manuscript never appeared in print, and this more modest text attempts to display at least some of the beautiful geo-metrical ideas to be found in that manuscript, as well as some more recent material.

<<离散群几何>>

书籍目录

CHAPTER 1 Preliminary Material 1.1. Notation 1.2. Inequalities 1.3. Algebra 1.4. Topology 1.5. Topological Groups 1.6. Analysis

CHAPTER 2 Matrices 2.1. Non-singular Matrices 2.2. The Metric Structure 2.3. Discrete Groups 2.4. Quaternions 2.5. Unitary Matrices

CHAPTER 3 Möbius Transformations on \mathbb{R}^n 3.1. The Möbius Group on \mathbb{R}^n 3.2. Properties of Möbius Transformations 3.3. The Poincaré Extension 3.4. Self-mappings of the Unit Ball 3.5. The General Form of a Möbius Transformation 3.6. Distortion Theorems 3.7. The Topological Group Structure 3.8. Notes

CHAPTER 4 Complex Möbius Transformations 4.1. Representations by Quaternions 4.2. Representation by Matrices 4.3. Fixed Points and Conjugacy Classes 4.4. Cross Ratios 4.5. The Topology on M 4.6. Notes

CHAPTER 5 Discontinuous Groups 5.1. The Elementary Groups 5.2. Groups with an Invariant Disc 5.3. Discontinuous Groups 5.4. Jørgensen's Inequality 5.5. Notes

CHAPTER 6 Riemann Surfaces 6.1. Riemann Surfaces 6.2. Quotient Spaces 6.3. Stable Sets

CHAPTER 7 Hyperbolic Geometry Fundamental Concepts 7.1. The Hyperbolic Plane 7.2. The Hyperbolic Metric 7.3. The Geodesics 7.4. The Isometries 7.5. Convex Sets 7.6. Angles Hyperbolic Trigonometry 7.7. Triangles 7.8. Notation 7.9. The Angle of Parallelism 7.10. Triangles with a Vertex at Infinity 7.11. Right-angled Triangles 7.12. The Sine and Cosine Rules 7.13. The Area of a Triangle 7.14. The Inscribed Circle Polygons 7.15. The Area of a Polygon 7.16. Convex Polygons 7.17. Quadrilaterals 7.18. Pentagons 7.19. Hexagons The Geometry of Geodesics 7.20. The Distance of a Point from a Line 7.21. The Perpendicular Bisector of a Segment 7.22. The Common Orthogonal of Disjoint Geodesics 7.23. The Distance Between Disjoint Geodesics 7.24. The Angle Between Intersecting Geodesics 7.25. The Bisector of Two Geodesics 7.26. Transversals Pencils of Geodesics 7.27. The General Theory of Pencils 7.28. Parabolic Pencils 7.29. Elliptic Pencils 7.30. Hyperbolic Pencils The Geometry of Isometries 7.31. The Classification of Isometries 7.32. Parabolic Isometries 7.33. Elliptic Isometries 7.34. Hyperbolic Isometries 7.35. The Displacement Function 7.36. Isometric Circles 7.37. Canonical Regions 7.38. The Geometry of Products of Isometries 7.39. The Geometry of Commutators 7.40. Notes

CHAPTER 8 Fuchsian Groups 8.1. Fuchsian Groups 8.2. Purely Hyperbolic Groups 8.3. Groups Without Elliptic Elements 8.4. Criteria for Discreteness 8.5. The Nielsen Region 8.6. Notes

CHAPTER 9 Fundamental Domains 9.1. Fundamental Domains 9.2. Locally Finite Fundamental Domains 9.3. Convex Fundamental Polygons 9.4. The Dirichlet Polygon 9.5. Generalized Dirichlet Polygons 9.6. Fundamental Domains for Coset Decompositions 9.7. Side-Pairing Transformations 9.8. Poincaré's Theorem 9.9. Notes

CHAPTER 10 Finitely Generated Groups 10.1. Finite Sided Fundamental Polygons 10.2. Points of Approximation 10.3. Conjugacy Classes 10.4. The Signature of a Fuchsian Group 10.5. The Number of Sides of a Fundamental Polygon 10.6. Triangle Groups 10.7. Notes

CHAPTER 11 Universal Constraints on Fuchsian Groups 11.1. Uniformity of Discreteness 11.2. Universal Inequalities for Cycles of Vertices 11.3. Hecke Groups 11.4. Trace Inequalities 11.5. Three Elliptic Elements of Order Two 11.6. Universal Bounds on the Displacement Function 11.7. Canonical Regions and Quotient Surfaces 11.8. Notes

References Index

<<离散群几何>>

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>