

<<遍历性理论引论>>

图书基本信息

书名：<<遍历性理论引论>>

13位ISBN编号：9787506260091

10位ISBN编号：7506260093

出版时间：2003-6

出版时间：世界图书出版公司(此信息作废)

作者：P.Walters

页数：250

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>

<<遍历性理论引论>>

内容概要

In 1970 I gave a graduate course in ergodic theory at the University of Maryland in College Park, and these lectures were the basis of the Springer Lecture Notes in Mathematics Volume 458 called "Ergodic Theory--Introductory Lectures" which was published in 1975. This volume is now out of print, so I decided to revise and add to the contents of these notes. I have updated the earlier chapters and have added some new chapters on the ergodic theory of continuous transformations of compact metric spaces. In particular, I have included some material on topological pressure and equilibrium states. In recent years there have been some fascinating interactions of ergodic theory with differentiable dynamics, differential geometry, number theory, von Neumann algebras, probability theory, statistical mechanics, and other topics. In Chapter 10 I have briefly described some of these and given references to some of the others. I hope that this book will give the reader enough foundation to tackle the research papers on ergodic theory and its applications.

<<遍历性理论引论>>

书籍目录

Chapter 0 Preliminaries 0.1 Introduction 0.2 Measure Spaces 0.3 Integration 0.4 Absolutely Continuous Measures and Conditional Expectations 0.5 Function Spaces 0.6 Haar Measure 0.7 Character Theory 0.8 Endomorphisms of Tori 0.9 Perron-Frobenius Theory 0.10 Topology Chapter 1 Measure-Preserving Transformations 1.1 Definition and Examples 1.2 Problems in Ergodic Theory 1.3 Associated Isometries 1.4 Recurrence 1.5 Ergodicity 1.6 The Ergodic Theorem 1.7 Mixing Chapter 2 Isomorphism, Conjugacy, and Spectral Isomorphism 2.1 Point Maps and Set Maps 2.2 Isomorphism of Measure-Preserving Transformations 2.3 Conjugacy of Measure-preserving Transformations 2.4 The Isomorphism Problem 2.5 Spectral Isomorphism 2.6 Spectral Invariants Chapter 3 Measure-Preserving Transformations with Discrete Spectrum 3.1 Eigenvalues and Eigenfunctions 3.2 Discrete Spectrum 3.3 Group Rotations Chapter 4 Entropy 4.1 Partitions and Subalgebras 4.2 Entropy of a Partition 4.3 Conditional Entropy 4.4 Entropy of a Measure-Preserving Transformation 4.5 Properties of T, A and h_T 4.6 Some Methods for Calculating h_T 4.7 Examples 4.8 How Good an Invariant is Entropy 4.9 Bernoulli Automorphisms and Kolmogorov Automorphisms 4.10 The Pinsker σ -Algebra of a Measure-Preserving Transformation 4.11 Sequence Entropy 4.12 Non-invertible Transformations 4.13 Comments Chapter 5 Topological Dynamics 5.1 Examples 5.2 Minimality 5.3 The Non-wandering Set 5.4 Topological Transitivity 5.5 Topological Conjugacy and Discrete Spectrum 5.6 Expansive Homeomorphisms Chapter 6 Invariant Measures for Continuous Transformations 6.1 Measures on Metric Spaces 6.2 Invariant Measures for Continuous Transformations 6.3 Interpretation of Ergodicity and Mixing 6.4 Relation of Invariant Measures to Non-wandering Sets, Periodic Points and Topological Transitivity 6.5 Unique Ergodicity 6.6 Examples Chapter 7 Topological Entropy 7.1 Definition Using Open Covers 7.2 Bowen's Definition 7.3 Calculation of Topological Entropy Chapter 8 Relationship Between Topological Entropy and Measure-Theoretic Entropy 8.1 The Entropy Map 8.2 The Variational Principle 8.3 Measures with Maximal Entropy 8.4 Entropy of Affine Transformations 8.5 The Distribution of Periodic Points 8.6 Definition of Measure-Theoretic Entropy Using the Metrics d_n Chapter 9 Topological Pressure and Its Relationship with Invariant Measures 9.1 Topological Pressure 9.2 Properties of Pressure 9.3 The Variational Principle 9.4 Pressure Determines $M(X, T)$ 9.5 Equilibrium States Chapter 10 Applications and Other Topics 10.1 The Qualitative Behaviour of Diffeomorphisms 10.2 The Subadditive Ergodic Theorem and the Multiplicative Ergodic Theorem 10.3 Quasi-invariant Measures 10.4 Other Types of Isomorphism 10.5 Transformations of Intervals 10.6 Further Reading References Index

<<遍历性理论引论>>

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>