第一图书网, tushu007.com

<<熵与信息论>>

图书基本信息

书名：<<熵与信息论>>

13位ISBN编号：9787030344731

10位ISBN编号：7030344731

出版时间：2012-6

出版时间：科学出版社

作者：格雷

页数：409

字数：580000

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

<<熵与信息论>>

内容概要

由格雷编写的这本《熵与信息论(影印版)》保留了第一版清晰、简明的写作风格。
信息论的内容主要包括熵、数据压缩、信道容量、率失真、网络信息论以及假设检验等。
《熵与信息论(影印版)》旨在为读者在理论研究和应用等方面打下坚实的基础。
每章的结尾配有习题集、要点总结以及主要内容论点的回顾。

《熵与信息论(影印版)》是电子工程、统计学以及通信方向高年级本科生和研究生学习信息论基础课程的理想参考书。

第一图书网, tushu007.com

<<熵与信息论>>

书籍目录

Preface
Introduction
1 Information Sources
1.1 Probability Spaces and Random Variables
1.2 Random Processes and Dynamical Systems
1.3 Distributions
1.4 Standard Alphabets
1.5 Expectation
1.6 Asymptotic Mean Stationarity
1.7 Ergodic Properties
2 Pair Processes: Channels, Codes, and Couplings
2.1 Pair Processes
2.2 Channels
2.3 Stationariw Properties of Channels
2.4 Extremes: Noiseless and Completely Random Channels
2.5 Deterministic Channels and Sequence Coders
2.6 Stationary and Sliding-Block Codes
2.7 Block Codes
2.8 Random Punctuation Sequences
2.9 Memoryless Channels
2.10 Finite-Memory Channels
2.11 Output Mixing Channels
2.12 Block independent Channels
2.13 Conditionally Block independent Channels
2.14 Stationarizing Block Independent Channels
2.15 Primitive Channels
2.16 Additive Noise Channels
2.17 Markov Channels
2.18 Finite-State Channels and Codes
2.19 Cascade Channels
2.20 Commuication Systems
2.21 Couplings
2.22 Block to Sliding-Block: The Rohiin-Kakutani Theorem
3 Entropy
3.1 Entropy and Entropy Rate
3.2 Divergence Inequality and Relative Entropy
3.3 Basic Properties of Entropy
3.4 Entropy Rate
3.5 Relative Entropy Rate
3.6 Conditional Entropy and Mutual Information
3.7 Entropy Rate Revisited
3.8 Markov Approximations
3.9 Relative Entropy Densities
4 The Entropy Ergodic Theorem
4.1 History

第一图书网, tushu007.com

4.2 Stationary Ergodic Sources
4.3 Stationary Nonergodic Sources
4.4 AMS Sources
4.5 The Asymptotic Equipartition Property
5 Distortion and Approximation
5.1 Distortion Measures
5.2 Fidelity Criteria
5.3 Average Limiting Distortion
5.4 Communications Systems Performance
5.5 Optima] Performance
5.6 Code Approximation
5.7 Approximating Random Vectors and Processes
5.8 The Monge/Kantorovich/Vasershtein Distance
5.9 Variation and Distribution Distance
5.10 Coupling Discrete Spaces with the Hamming Distance
5.11 Process Distance and Approximation
5.12 Source Approximation and Codes
5.13 d-bar Continuous Channels
6 Distortion and Entropy
6.1 The Fano Inequality
6.2 Code Approximation and Entropy Rate
6.3 Pinsker's and Matron's Inequalities
6.4 Entropy and Isomorphism
6.5 Almost Lossless Source Coding
6.6 Asymptotically Optimal Almost Lossless Codes
6.7 Modeling and Simulation
Relative Entropy
7.1 Divergence
7.2 Conditional Relative Entropy
7.3 Limiting Entropy Densities
7.4 Information for General Alphabets
7.5 Convergence Results
8 Information Rates
8.1 Information Rates for Finite Alphabets
8.2 Information Rates for General Alphabets
8.3 A Mean Ergodic Theorem for Densities
8.4 Information Rates of Stationary Processes
8.5 The Data Processing Theorem
8.6 Memoryless Channels and Sources
9 Distortion and Information
9.1 The Shannon Distortion-Rate Function
9.2 Basic Properties
9.3 Process Definitions of the Distortion-Rate Function
9.4 The Distortion-Rate Function as a Lower Bound
9.5 Evaluating the Rate-Distortion Function
10 Relative Entropy Rates
10.1 Relative Entropy Densities and Rates

第一图书网, tushu007.com

10.2 Markov Dominating Measures
10.3 Stationary Processes
10.4 Mean Ergodic Theorems
11 Ergodic Theorems for Densities
11.1 Stationary Ergodic Sources
11.2 Stationary Nonergodic Sources
11.3 AMS Sources
11.4 Ergodic Theorems for Information Densities
12 Source Coding Theorems
12.1 Source Coding and Channel Coding
12.2 Block Source Codes for AMS Sources
12.3 Block Source Code Mismatch
12.4 Block Coding Stationary Sources
12.5 Block Cod|rig AMS Ergodic Sources
12.6 Subadditive FideliW Criteria
12.7 Asynchronous Block Codes
12.8 Sliding-Block Source Codes
12.9 A Geometric Interpretation
13 Properties of Good Source Codes
13.1 Optimal and Asymptotically Optimal Codes
13.2 Block Codes
13.3 Sliding-Block Codes
14 Coding for Noisy Channels
14.1 Noisy Channels
14.2 Feinstein's Lemma
14.3 Feinstein's Theorem
14.4 Channel Capacity
14.5 Robust Block Codes
14.6 Block Coding Theorems for Noisy Channels
14.7 Joint Source and Channel Block Codes
14.8 Synchronizing Block Channel Codes
14.9 Sliding-block Source and Channel Coding
References
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